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**URBAN REMUNICIPALISATION OF WATER
SERVICES. COMPARATIVE STUDY OF THE
NEAPOLITAN AND PARISIAN CASES**

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To my mom

Wherever you are

Always with me

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TABLE OF ACRONYMS

AAEGSI	Regulatory Authority for Energy, Networks and the Environment
ABC Napoli	Acqua Bene Comune Napoli
AFC	Advocacy Coalition Framework
AS	Azienda Speciale
BoD	Board of Directors
CA	Communauté d'Agglomération
CAF Local	Tax Assistance Centres
CC	Communauté de Communes
CCSPL	Commission Consultative des Services Publics Locaux
CDC	Caisse des Dépôts et Consignations
CDP	Cassa Depositi e Prestiti
CEP	Compagnie des Eaux de Paris
CGE	Compagnie Générale des Eaux
CGIL	Confederazione Generale Italiana del Lavoro
CICMA	Italian Committee on the World Water Contract
CIRIEC	International Centre of Research and Information on the Public, Social and Cooperative Economy
CISL	Confederazione Italiana Sindacati Lavoratori
COVIRI	Supervisory Committee for the use of Water Resources
CRECEP	Paris Research and Control Centre for Water
CU	Communauté Urbaine
DPE	Department of Cleaning and the Environment
EdP	Eau de Paris
EFPE	Société Eau et Force Société Eau et Force Parisienne des Eaux
EGATO	Optimal Territorial Area Government Body
EPIC	Établissements Publics de Coopération Intercommunale
EPSU	European Public Service Union
EPT	Établissement public de coopération intercommunale
EU	European Union
FSL	Departmental Solidarity Fund for housing
IAD	Institutional Analysis and Development
IMF	International Monetary Fund
INPDAP	Istituto Nazionale di Previdenza e Assistenza per i Dipendenti dell'Amministrazione Pubblica
INPS	Istituto Nazionale Previdenza Sociale
IT	Information Technology
IWS	Integrated Water Service
JSC	Joint Stock Company
LG	Local Government/s
LPS	Local Public Services
MLG	Multi-Level Governance
MOE	Municipally Owned Enterprises
MSF	Multiple Streams Framework
NPG	New Public Governance
NPM	New Public Management
NWS	Neo-Weberian State
OECD	Organization for Economic Co-operation and Development
OECD	Organization for Economic Co-operation and Development
ONEMA	Office National de l'Eau et des Milieux Aquatiques

OPE	Observatoire Parisienne de l'Eau
PCF	Parti Communiste Français
PPF	Policy Process Framework
PPP	Public-Private Partnership
PRGA	General Plan of the Aqueducts
PS	Parti Socialiste
RPMAF	Régie à Personnalité Morale et à Autonomie Financière
RQSII	Integrated Text for the Regulation of the Contractual Quality of the IWS
SDRIF	Schéma de Directeur de la Région d'Île-de-France
SEDIF	Syndicat des Eaux d'Ile-de France
SGEI	Local Services of General Economic Interest
SIAAP	Syndicat Interdépartemental pour l'Assainissement de l'Agglomération
Parisienne	
SISPEA	Information des Services Publics System of Eau et d'Assainissement
SIVU	Syndicat Intercommunal à Vocation Unique
STEA	Technical Water and Sanitation Service
TEU	Treaty on European Union
TFEU	Treaty on Functioning of European Union
TNI	Transnational Institute
TVB	Trames Vertes et Bleues
UIL	Unione Italiana del Lavoro
UN	United Nations
UNESCO	United Nations Educational, Scientific and Cultural Organization
ZAC	Zone d'Aménagement Concerté

Water

*Everything on the earth bristled, the bramble
pricked and the green thread
nibbled away, the petal fell, falling
until the only flower was the falling itself.*

*Water is another matter,
has no direction but its own bright grace,
runs through all imaginable colors,
takes limpid lessons
from stone,
and in those functionings plays out
the unrealized ambitions of the foam.*

(Pablo Neruda 1988)

INTRODUCTION

Water management: technical or social problem?

In the last decades of the twentieth century, the explosive urban growth of developing countries, together with the growing awareness of environmental issues, have brought the problem of the management of drinking water distribution services and sanitation services to the attention of international actors. In addition to existing access, constraints in several cities of developing countries, rapid urbanization and demographic and environmental changes have posed radical new challenges to policy-makers. The global urban population will grow by around 1.4 billion people over the next 20 years (UNESCO/UN-WATER 2018). These new urban residents will need access to drinking water and sanitation and will need efficient polluted water and wastewater treatment services. The importance of the effectiveness of these services for the future of the entire human population can never be stressed enough. The poor performance of these services leads to more or less serious problems, depending on the territory of reference. Researches about water management in developing countries show the catastrophic impact of a bad water model in places characterized by fast and uncontrolled urbanization (Poupeau et al. 2018; Bellaubi and Bustamante 2018; Lorrain and Poupeau 2016). At the same time, demand for water in developed countries – from agriculture and industry, as well as domestic use – is rapidly rising and water pollution and ecosystem degradation have been aggravated by increasing amounts of untreated wastewater. Moreover, all of this is happening against a backdrop of climate change, which is playing havoc with the future availability of a resource necessary for the life of both human beings and the entire ecosystem. However, in developed countries, these services take a back seat when they are in good condition; they simply become something that is taken for granted and blend into the rest of the environment (Lorrain 1997). Water is therefore a sector driven by two extremes: forgotten in industrialized countries, but inadequate for millions, thus creating serious problems in developing countries.

In 2007 the United Nations assembly began to discuss the inclusion of the right to water in the Universal Declaration of Human Rights, as the right to water is an extension of the right to life. It reflects the indispensability of this resource in relation to human life. As declared in September 2007 by the Office of the United Nations High Commissioner for Human Rights¹: "It is now time to consider access to drinking water and health services in the category of human rights, defined as the equal right for all, without discrimination, to access to a sufficient

¹ <https://www.unwater.org/water-facts/human-rights/>

quantity of drinking water for personal and domestic use – for drinking, washing, washing clothes, cooking and cleaning oneself and the house – for the purpose of improving the quality of life and health. Nation states should prioritize personal and domestic use of water over all other use and steps should be taken to ensure that this sufficient amount of water is of good quality, affordable for all, and that everyone can collect it at a reasonable distance from their home." The UN resolution of July 28, 2010 declared the right to water for the first time in history as "a universal and fundamental human right". Furthermore, water in general, and its sustainable management, have attracted standalone Sustainable Development Goal 6 ("Ensure availability and sustainable management of water and sanitation for all"), and relevant targets, adopted by the UN General Assembly in September 2015, alongside sixteen other SDGs and relevant targets (William 2017).

The debate on the best form of urban water service management began in the early 1990s in economic circles. A proliferation of documents and reports has emerged from supranational economic agencies (World Bank 1992, 1994; Klein and Roger 1994; Serageldin 1994), which have spread a conception of water services as technical systems, based on the idea that water infrastructures are essential factors for development and that cities are strategic places in the fulfilment of a transformation of developing economies. To accelerate the initiatives in urban water infrastructures, international institutions have supported the idea to invite private firms in local contexts. That period was also characterized by the spread of macro-economic policies inspired by the political principles of neo-liberalism. The American neo-liberal economist Milton Friedman, attacking the state coercion in its economic choices, argued that the only goal of the state must be the maximum expansion of the market and the dismantling of institutional mechanisms that limit its action. Neo-liberalism applies the basic principles of economy and classic microeconomics – *homo economicus*, utility maximization, self-interests, and rational actor – to the concept of society: in this way, the social well-being can only result from the maximization of the economic and selfish interests of the individuals (Friedman 1962). The neo-liberal paradigm demanded the passage from a political rationality to an economic rationality of public management. This vision was then summarized in the so-called "Washington Consensus" (Dezalay and Garth 1998; Stiglitz 2002), a set of 10 economic policy directives specific enough to be addressed to countries in economic crisis. Such rules were globally promoted by the three international organizations based in Washington D.C. (the International Monetary Fund, the World Bank, and the United States Department of the Treasury), especially in developing countries.

The consequence was a wave of commercialization or financialization (Salento 2013) of public services historically managed locally (management services of water supply, sewerage, urban waste, public lighting, public transport, energy distribution, municipal pharmacies and telematic networks) primarily in developing countries. In general, commercialization means the management of any good or service according to the economic principles of the free market, pursuing the goal of maximizing profit. This phenomenon can occur in various forms, including privatization.

The response to the negative outcomes caused by the commercialization of urban water services in some cities provoked the explosion of several local mobilization in every part of the world – particularly in Latin America and India, but also in the United States (Hall et al. 2005; Barraqué 2011). These alarms have brought to light the eminently social nature of the impact of water systems on urban development.

Local mobilizations on water crossed the international alter-globalist movement (Raffini and Viviani 2011; Vitale 2007) and the World Social Forum, a venue where every form of local mobilization in opposition to neo-liberal policies have had the opportunity to meet for years. Here the movements decreed the opposition to any form of commercialization of water services and developed the theory of public water management as a common good, taking Elinor Ostrom's (1990) studies on direct management by local communities of water resources as a reference point. Within the World Social Forum originated the experience of the Alternative Water World Social Forums, which became a place for the theoretical elaboration and political practice of alternative forms of management of services based on "participatory experimentalism, whose objective is to support and integrate representative institutions with unprecedented spaces open to citizens' participation and deliberation, in order to make up for the weakening of the traditional ones with new tools" (Raffini and Viviani 2011: 36). In the mid-2000s, the political conflict over water management reached its climax with the so-called Cochabamba Water War, which caused several victims during the street riots against local police forces (Bakker 2007; Bellaubi and Bustamante 2018; Priscoli & Wolf 2009). In 2006 the multinational that was managing the Bolivian water supply services withdrew under the pressure of the international movements for the defence of water as a common good. Later, Bolivia and Ecuador governments included the category of common goods in their legislations and the duty of public water management.

The issue of public or private management of water resources has therefore become the subject of a conflictualization process – understood as the recognition of opposing readings of

a specific issue (Seguin 2015; Tidon and Barbier 2018) – and a politicization process – understood as recognition by the actors of a system of the existence of different political positions on issues of collective interest (Seguin 2015).

The result was a radical dichotomy of the political discourse on water issue (Bakker 2007).

On the one hand, there is the interpretation shaped by the academic and institutional “water community” (Meublât 2001), born in the circles of supranational economic agencies, which has for some decades influenced the choices of political decision-makers. Such a community substantially claims that a water regime is a technical system, whose performances must be evaluated based on technical criteria; moreover, it identifies “the model” that enabled industrial countries to develop water distribution network in the late nineteenth century as the best model for reaching the maximum degree of efficiency in every country of the world. It is a single, monopolistic network serving the entire population, a management “model” would be better administrated by a private actor rather than by a public subject.

On the other side, the Social Water Forums promote the paradigm of the commons against the neo-liberal one, opposing to it a constituent praxis by which knowledge immediately becomes practices of human action and organization. To the idea of the naturalness of private property, the paradigm of the commons opposes the refusal to the economic rationality as the process of commercialization of all life dimensions. The constituent praxis of a common good transforms such good from the object of a right to property into the object of a duty of safekeeping and of a right to use for anyone, overcoming the concept of property as a “natural” category to interpret reality (Barbera et al. 2016). Consequently, the water services are to be managed through public organizations and logics, not for profit; local communities would have the right to directly establish the forms of management of their water resources, on the basis of present social needs and of future generations, guaranteeing the environmental protection of water sources. They therefore call for the direct state management of water resources and local remunicipalisation of all water services that have been privatized.

The public/private management dichotomy has entered the political debate of many EU countries, determining the fate of the entire national water sector. Due to the public relevance of the dichotomous debate on the legal form of the water services managers, this issue has acquired significant scientific relevance in the last decades over the course of the 2000s. Numerous studies have focused on this dichotomy, wondering whether “the pendulum” is now swinging in Europe towards the return to public management of local services

(Wollmann 2018; Wollmann et al. 2016) or analysing the new phenomenon of remunicipalisation of water services on an urban scale (Bauby and Similie 2013; Lorrain 2016; Bauby et al. 2018; Röber 2009).

However, with the decline of the public salience of the theme of water management, the attention of scholars to this phenomenon has also decreased, leaving open a series of questions on the concrete results of urban experiences of water remunicipalisation. The purpose of this work is therefore to (re-) open the discussion on the concrete results of the return to direct municipal management of urban water services in Europe, on the actual conditions that allowed its implementation, and on the configuration it can assume in practice. The time passed allows us to look at the phenomenon of remunicipalisation of urban water services from a different perspective than that of the first works on this issue. We now have the opportunity to analyse the remunicipalisation processes started in the first decade of the 2000s from a historical perspective, with the detachment necessary to reconstruct what happened and to evaluate its outcomes, strengths and weaknesses. This work not only has a high scientific value, capable of enriching the still scarce knowledge of this phenomenon, but also has a political value, since it provides European policy-makers with the conceptual tools and empirical data to implement policy changes appropriate to the achievement of intended purposes.

Working hypotheses

The social value of the water resource cannot be denied: water is a resource indispensable for life. Nevertheless, for centuries, humans have not drunk directly from sources, but have built distribution networks that have played a vital role in the development of cities (Scarborough et al. 2003). Consequently, our starting assumption is that a water service has a dual nature, which is both technical and social. Therefore, a water service is a socio-technical system that has become indispensable not only for human survival, but for the social, economic and ecological development of the inhabitants of cities and metropolises.

Below the definition of socio-technical system by Dominique Lorrain and Franck Poupeau (2016) is reported, which emphasizes the hyper-localized and historical nature of water regimes: "This water technical system is embedded in the materiality of social life as well as locality; this system possesses a morphology and specific service properties (availability of resources, rainfall, relief, ecosystems) from which both economic (fixed assets) and legal data (contracts) may be derived. It is characterized as well by an institutional framework that makes it possible to manage the water system in a given territory marked by a particular

history and occupied by social groups with their specific interests and conflicts of interest.” (Lorrain and Poupeau 2016: 3). The three working hypotheses that guided the development of this study derive from this assumption.

As a socio-technical system, each local water service is the result of institutions and practices that embody the lived history of water heritage of a given community (Hein et al. 2019; Couling et al. 2019). It is the result of various attempts and strategies to respond to local water needs through the available knowledge and technology. Consequently, the first hypothesis is that there is no single model of development of urban water networks or a single management model that produces efficient results in every local community. The same water infrastructure can respond perfectly to the social needs of a community and completely upset the social balance in another community, characterized by different cultures and institutions. Similarly, managing the water service through a private-law company can produce excellent results in one urban context, and devastate the ecosystem in another.

The second working hypothesis follows from the first. In order to evaluate or predict the outcomes of an urban water service, it is necessary to go beyond the dichotomy regarding the legal form of the operator providing the service – public management/private management. The legal status of the company that supplies the service does not determine the outcomes of the water service itself or the industrial policies used to manage it. The outcomes of a socio-technical system are the result of a combination of the social, technical, economic, cultural and institutional elements, combined with the behaviours of the actors of the system.

Our third working hypothesis is the direct consequence of the first two. If the same model of public management of a service does not produce the same results in every place, and if the legal form of the operator providing the service does not determine its outcomes, one can assume that a valid analytical grid for the analysis of hyper-localized realities, such as the local water services, cannot be found. However, our third working hypothesis challenges this assumption. We hypothesize that the outcomes produced by interactions between different people embedded in different institutional, historical, social, geographical, political and technological contexts can be explained by means of the analysis of interconnections among the same typology of variables. To achieve this goal, we need to identify which analytical dimensions should be analysed to explain the causal processes that produce a socio-technical system and to evaluate its outcomes. We hypothesize that to analyse a water regime – assuming that the concept of water regime means that set of legal, technological, managerial, political, and relational elements that produce a specific form of a water service model (Chang

and Chen 2016) – the simultaneous analysis of three macro-groups of variables is necessary. The first is composed of the exogenous variables of the system: exogenous elements that all together define the characteristics of the context in which the socio-technical system is implemented and with which its managers have to work with. These variables are made up of the attributes of the bio-physical world, the features of the community within which the arena takes place – the local culture – and the laws and norms participants use to rule their relationships – the informal institutions (Lorrain and Poupeau 2016). The second macro-group is composed of the institutional variables, in particular we refer to formal institutions, which are the "the rules of the game" of Douglass C. North (1990) and second-rank institutions, which are norms of law, technical standards and accounting principles on which basis infrastructures and services are managed; they are placed at the intermediate level between formal and informal institutions (Lorrain 2008). The interaction between the first two groups of variables shapes the space of action in which the actors are immersed, determining the opportunities and limits of their agency, thus affecting the types of actions individuals can take in a given system (E. Ostrom 2005). Consequently, the third macro-group of variables to be taken into consideration is the behaviour of the actors of the system, in particular of policy-makers, of all those who have played a key role in remunicipalisation process and of the users of the water service. In fact, we assume that the consumption styles of citizens impact on the choices of the service manager and the urban government that regulates its working principles. Therefore, the outcomes of a local service would not be the result of the choices made only by those who have the power to determine the water policies of an urban context at each decision node of the causal process, but would be the result of any type of social connection developed around the use of the infrastructures that provide that service. In addition, the nature of such social interactions would be addressed by the opportunities and limits that exogenous variables place on human action.

To test these three hypotheses at the same time, it is necessary to identify the appropriate case studies to be analysed and the methodological and conceptual tools suitable for doing so. These tools must be appropriate for investigating not only the economic profitability of the service, or its social and ecological impact on the society it serves, but also the causal mechanisms that link the variables of a system to its outcomes (Bogen 2005). More concretely, these tools must give us the ability to answer questions such as: what are the cultural, technical, economic and environmental characteristics of the society it serves? What kinds of infrastructures were built to carry out the service? What management model is

applied to these infrastructures? Who is responsible for its implementation? Who are the protagonists of the decision-making process? What is the institutional context that guides the choices of the actors? What is the role of the actors in the policy change process? What choices have been made to guarantee the economic, social and environmental sustainability of the service? What outcomes did their choices produce? And so on.

The aim of the present work is therefore to provide a retrospective explanation of the causes involved in the production of the outcomes of the water regimes analysed. To identify the causes of every event of a policy change process, an in-depth study of a limited number of cases is necessary. In this way, not only is it possible to produce an exhaustive explanation of the causal mechanisms that have produced certain outcomes, but it is possible to elaborate girdling predictions about the future development of the cases analysed (Tilly 1995).

The case studies

To verify our working hypotheses through the analysis of the causal processes that produced the outcomes of the remunicipalisation reform of local water services, the in-depth study of two case studies was chosen, in order to compare the results of the two policy changes and, so doing, make our results more generalizable. The choice of the case studies was not easy. Most of the existing literature focuses on the European cases of remunicipalisation of water services that have received greater media attention, such as Grenoble (Brochet 2017), or which have a strong symbolic value as they occurred in large metropolises, such as Paris (Bauby and Similie 2013; Lorrain 2016) and Berlin (Blanchet 2016; Bauer 2012). To test the first two hypotheses we too could have compared two large European metropolises, with similar economic or cultural characteristics. In this way we could have shown that the implementation of the same public management model in two different local contexts does not produce the same results and that the outcomes do not depend on the legal nature of the manager. However, to test our third hypothesis, which is particularly articulated and complex, we have purposely chosen two cities that can hardly be compared for their history, economic, social and political characteristics. By this way, the evaluation of the impact of local exogenous variables on the remunicipalisation cycle and its outcomes can be enhanced. Since the values of exogenous variables are different, if not completely contrasting, the recognition of their ability to direct policy processes increases when the results are compared. In this way, the experience of one city represents the counterfactual proof of the experience of the other city. Conversely, if two case studies with similar exogenous variables had been chosen, the power of the exogenous variables to influence the policy processes would have inevitably been less

evident. Moreover, the two cities share the same European institutional framework, as regards to the rules of production and exchange of Local Services of General Economic Interest; however, the same European norms have been implemented in the two countries with dissimilar institutional paths, producing very different regulatory frameworks (Ongaro et al. 2018). Once again, the diversity between the two case studies allows us to clearly evaluate the impact that institutional variables have on a local policy change thanks to the comparison method.

Although at a first glance, the only point these two cases seem to have in common is the implementation of a remunicipalisation reform of urban water services, as a matter of fact, the two processes of formulation of the remunicipalisation reform share many common points that make their comparison feasible: they took place in the same historical context, just after the economic crisis of 2007 and during the period of maximum expansion of the European movement for public water management; they were subject to a strong politicization process during the municipal elections; both electoral campaigns of centre-left candidates proposed the management of city water services as common goods, promising to improve the performance of the service from an economic, social, environmental and political point of view. The major difference between the two reform processes is that, in the case of Paris, the local government started a policy change in response to pressure from actors within to the same government, whereas, in the case of Naples, the decision to remunicipalise was the result of pressures from outsiders to the local government, in particular people from civil society lined up with public water managers. Also in this case, therefore, a difference between the two urban experiences allows us to test our third working hypothesis, since the different nature of the supporters of the reform enables us to evaluate the impact of the behaviour of the actors on the policy change process through a counterfactual mechanism.

A further reason why the remunicipalisation processes of Paris and Naples have been chosen for comparison, is that they are matched in two contemporary academic works: *Il Capitale Quotidiano* (Barbera et al. 2016) and *Del Comune, o della Rivoluzione nel XXI secolo* (Dardot and Laval 2015). The reference to water management as a common good, which characterized the two remunicipalisation processes, represents the reason why the authors of these works pulled the two experiences together. In such texts, the models of water service management implemented in Paris in 2009 and in Naples in 2011 are presented as opportunity for a theoretic and practical overcoming of the neoliberal paradigm, based on the public-private dichotomy; for taking a commodity away from the capitalist logic of profit and income

maximization and moving it towards the satisfaction of social needs and fundamental rights of local populations; and for addressing the crisis of political representation through the experimentation of forms of active/direct democracy (Barbera et al. 2018). The pages of these works describe local public services as part of those local activities that are fundamental for human well-being. Such economic activities are generally characterized by being used by all citizens, regardless of income, and by being eminently territorial, as they are necessarily linked to local contexts (Barbera et al. 2016). They are essential for human reproduction and community life, and for this reason access to them is inevitably linked to the safeguarding of the universal rights of all citizens (Dardot and Laval 2015). Consequently, they should be managed not according to the principles of economic rationality, which pursues the objective of short-term financial accumulation, but according to the principle of social redistribution of the value produced by their use. Thus, a management based on the common goods theory should avoid the problems produced by an approach based only on private rationality (i.e. indiscriminate increase in prices, loss of public control over management activities, poor transparency, etc.) or political rationality (patronage, poor maintenance of infrastructures, low investments, etc.). The remunicipalisation of the local water services of Naples and Paris therefore represents an opportunity to test the practical feasibility of the concepts that underpin the theory of common goods (Petrella 2001; Mattei 2011; Lucarelli 2011). According to this theory, the management and evaluation of services managed by means of commoning practices should be inspired not only by financial precepts, but also by the five fundamental constitutional values: "human dignity, solidarity, sustainability, social equity and democracy." (Barbera et al. 2016: 177). The main difference between the way the two case studies are presented in the publications cited above is that the French authors Pierre Dardot and Christian Laval (2015) argue that only Naples's case can be considered as an actual implementation of the political paradigm of the Common, whereas Paris's represents a "classic" case of public and centralized local governance – without denying the political relevance of this process.

The relevance assumed by the reflections on common goods in the contemporary theoretical and political debate (see Barbera et al. 2018; Barbeir et al. 2019), together with the different interpretations of the processes of water remunicipalisation of Naples and Paris exposed in the academic works that have been cited, have strengthened the curiosity and determination of the author of this work in wanting to find out "how the game ended": has the local water policy increased its social utility after remunicipalisation? Has the reform freed the local

water market from the capitalist logic of value extraction? Has remunicipalisation ensured the collective well-being and conditions of full social citizenship for the citizens of the two cities? Has the reform actually initiated the experimentation of a new form of democratic participation? The criteria through which the two remunicipalisation processes have been evaluated originate from these curiosities and the desire to deeply understand European experiences of local democracy inspired by a revolutionary theory (Dardot and Laval 2015) such as that of common goods.

To answer the amount of questions behind our working hypotheses, the research method was chosen with rigor within the most innovative and promising research methods of our contemporaneity.

Methodology

The methodological choice fell on the comparison between urban case studies. The case-comparison approach allows us to analyse a “contemporary phenomenon in its real-life context, especially when the boundaries between phenomenon and context are not clearly evident” (Yin 1981: 59), as it happens for water distribution systems. Moreover, this strategy gives to the analyst the possibility to observe the case longitudinally and to define the starting and ending point of the observation based on her/his analytical needs (Gerring 2006). Longitudinal observation of events permits us to test our research hypotheses through the analysis of the causal mechanisms that produced the outcomes of the systems analysed. Our goal, therefore, is to trace the theoretical linkages between causes and effects, in order to gain a deeper explanatory knowledge of events (Salmon 1998). The term explanation refers to the retrospective reconstruction of combinations of events that transform reality (Tilly 2001); the result of the analysis of causal processes is therefore not a pure description of the facts, but a parsimonious narrative aimed at providing an explanation of all important aspects of an outcome. To achieve this result, it is necessary to subdivide the analysed process into a sequence of causally connected events (Tilly 1995) and to examine each link of the causal chain. The methodology chosen to accomplish this task is the Process Tracing Methodology, which in social science is commonly defined as a strategy to trace causal mechanisms (Bennett 2007, 2008; Checkel 2006). It “involves attempts to identify the intervening causal process – the causal chain and causal mechanism – between an independent variable (or variables) and the outcome of the dependent variable” (George and Bennett 2005: 206-7). Here the third variant of this methodology, called Explaining-Outcome Process-Tracing, has been applied, which allows the scholar to craft a minimally sufficient explanation of a puzzling

outcome in a specific historical case – where the expression minimally sufficient refers to the need to explain all important aspects of an outcome, without which that outcome would not have been produced. Explaining-Outcome Process-Tracing uses the theoretical systems as heuristic instruments that have analytical utility in providing the best possible explanation of a given phenomenon (Peirce 1955). Such a methodology seems particularly suitable for the study of our cases since it allows us to analyse simultaneously both actors' choices and the contingency of historical events and to focus on the local analytical scale, taking into account the influence of national and supranational scales, realising to multi-level analysis.

Furthermore, Process Tracing Methodology is not linked to a particular type of evidence or method for data collection, allowing the use of both qualitative and quantitative data. Since socio-technical systems stand out for being the product of the intersection of variables of various nature – historical, social, geographical, technical, cultural, political, economic, infrastructural, normative, etc. – grasping the totality of similar systems through the analysis of a single type of data would be difficult. For this reason, the present work arises from the analysis of quantitative and qualitative data from the most disparate sources: local newspapers, official documents, service contracts, transcripts of the sessions of the City Council, academic works, and in-depth interviews with protagonists of the policy change and local experts. An interview-based research, in fact, allows us to identify the elements of conflict and dispute between the actors, which represent the main decisional nodes for the implementation process of a water service. However, such an approach risks building the analysis only on the perceptions of the participants. Conversely, the use of solely official quantitative data does not allow grasping the point of view of the actors, the path problems or the decision-making mechanisms that produced the outcomes. The choice of using the comparative method in combination with the Process Tracing Methodology allows conducting a comparison on two levels. The first contemplates the comparison between the management model through private-law and public-law operators in the same urban context, allowing to test the first two working hypotheses – there is no a single management model that produces efficient results in every local community and that is not the legal nature of the operator to determine the outcomes of a water service. The second level is that of the comparison between the results of the two remunicipalised systems, which poses our third working hypothesis – the outcomes of a socio-technical system are determined by the combination of three macro groups of variables, the exogenous variables, the institutional variables and the behaviour of the system actors. Finally, the use of the research methodology presented allows

us to formulate predictions about the near future of the socio-technical systems studied.

The choice of the theoretical “toolbox”

The analytical “toolbox” applied to our case studies is composed of concepts and models from two theoretical frameworks that have been harmonized in order to remove any redundant part; such a “toolbox” has been used to organize the investigation in order to generate relevant questions, identify the variables that should be used to analyse causal mechanistic arrangements and formulate plausible explanations of their outcomes.

A sociological approach was initially chosen to be able to "explore the practices, interests and conflicts of the various protagonists by applying an analytical frame covering the constraints, rules and norms governing the implementation of those systems." (Lorrain and Poupeau 2016: 6). However, from the analysis of the academic literature about local public services, it clearly emerges that this type of study is typically conducted using the neo-institutionalist approach (Ongaro and Van Thiel 2018; Wollmann and Maréou 2010; Kuhlmann and Wollmann 2014; Wollmann et al. 2016).

For this reason, an approach from the neo-institutional field, inaugurated in the early 1990s by Douglas North and Elinor Ostrom, has been chosen. This is the Institutional Analysis and Development Framework, developed by Elinor Ostrom and her team at the University of Indiana (E. Ostrom 2005). Such a framework provides us with the conceptual tools for both causal structural mechanisms, which derive from exogenous constraints and opportunities for action created by material surroundings, and causal institutional mechanisms, which channel actors' behaviour in a certain direction by setting limits and incentives for human action (Parsons 2007). Thus, the Institutional Analysis and Development tools permit us to define the options available to the actors in the salient nexus of the decision-making process with a historical and causal perspective. However, after analysing the literature available, we understood that a neo-institutional approach was not sufficient to grasp the interpersonal and decision-making dynamics of the policy local system's actors. Therefore, an approach from the political field that is able to grasp the ideational causal mechanisms, which depend on how actors interpret their world through certain ideational elements, was combined with a sociological approach. The category of ideational mechanisms is one of the four identified by Craig Parsons (2007) to describe the mechanisms that structure social reality: structural and institutional mechanisms focus on the exogenous limits and opportunities for action created by the context in which actors are embedded, they differ because the former have a natural origin, while the latter are man-made; ideational mechanisms assume that outcomes are the

product of actors' interpretation of their reality; finally, psychological mechanisms deal with mental rules of each human brain. With the present work we intend to study the interaction between the first three mechanisms in determining the production of the outcomes of the chosen water regimes, as we will explain in depth in chapter 3. The framework chosen for this purpose is the Policy Process Framework, developed by Nihit Goyal and Michael Howlett (2019) starting from the work of John W. Kingdon (1984). It provides us with the conceptual tools to explain an entire policy process, from the formulation of a problem to the evaluation of the outcomes, through the analysis of the behaviour of the actors of the process – whether they are individual or collective actors – and of the favourable conditions to fulfil a change policy. Such a goal is pursued through the use of two metaphors, namely the policy stream and the policy cycle, divided into stages (agenda setting, policy formulation, legitimation, implementation, evaluation and Policy maintenance, succession or termination).

The two frameworks have been harmoniously blended starting from their many points in common: the model of incremental rationality, the longitudinal and diachronic study of events summarized in the metaphor of the political cycle, the possibility of simultaneously considering the institutional variables of macro-meso and micro scale, the concepts of path dependency and policy feedback, the attention to resources and information possessed by the actors. In particular, the metaphor of the policy cycle represents the fusion point of the frameworks, thanks to which they can be perfectly superimposed and made complementary, one filling in the conceptual gaps of the other.

Organization of the study

The study was built on the traditional organization of academic research. The research path starts with a strict critical analysis of the academic works on the management of urban water services on a European scale, excluding the other continents. The European water services, in fact, share a cultural and institutional history that originated in the last decades of the nineteenth century, when urban and industrial expansion determined the need to build large urban city networks to guarantee water supply to all citizens. Two different groups of literature works are identified: the first, of a neo-institutional nature, evaluates urban water services in relation to the development of the national institutions that regulate the sector of Local Public Services; the second, however, originated from the dichotomous debate on public or private management of water services, analysing them in a logic of prefiguring the outcomes produced by the two models.

The second chapter faces the analyses of expected and unexpected results of the reforms of

urban water services in the light of the regulatory, economic, administrative and cultural changes in the EU and in the member countries in the last thirty years or so. This type of reconstruction allows us to insert the remunicipalisation of local water services in the category of post-NPM local reforms implemented as a reaction to the unexpected effects of the NPM ones.

The third chapter deals with issues of methodology. Starting from the limitations and strengths of the analytical approaches presented in the two previous chapters, in this section the research method considered appropriate for the study of water regimes is exposed and explained. The comparison of case studies is combined with the research methodology called Process Tracing Research Methodology aimed at tracing causal mechanisms, which can be defined as "a complex system, which produces an outcome by the interaction of a number of parts" (Glennan 1996: 52 cit in Beach and Pedersen, 2016: 1). In particular, the Process Tracing Research Methodology is applied in its variant called "explaining-outcome process tracing", which attempts to craft a minimally sufficient explanation of a puzzling outcome in a specific historical and localized case.

The fourth chapter introduces the reader to the "theoretical toolbox" with which an explanation of each part of the causal mechanisms that produced the socio-technical systems analysed is provided. The analytical concepts and models in our "toolbox" come from two theoretical frameworks chosen to analyse the case studies. The first is the Institutional Analysis and Development Framework developed by Elinor Ostrom (2005) and her study group from the University of Indiana, which aims to build an innovative way for reflecting about public choice. It permits us to outline the institutional, material and historical context within which the actors of policy processes act and make decisions, as well as to analyse the development of such processes over time and their outcomes. The second is the Policy Process Framework, developed by Nihit Goyal and Michael Howlett (2019) starting from the work of John W. Kingdon (1984). It was born with the aim of examining the micro-foundations of agency of every stage of policy-making process, from the problematisation of an issue, to the analysis of its outcomes. The two frameworks are then subjected to a process of harmonization and integration in order to produce a single "toolbox" containing all the conceptual tools necessary to rediscover the causal processes that have produced the outcomes of our case studies.

The fifth and sixth chapters aim to reconstruct the causal processes that have produced the current water regimes of Naples and Paris, both originating from two remunicipalisation

reforms. The first case study analysed is the Parisian one. Such an analysis could be based on several academic studies, given that the Parisian remunicipalisation process has taken on a great symbolic value in EU environments. Indeed, such process occurred in a particularly country, which has always been, among the EU countries, the most inclined towards a private management of water supply services. In 1984, in Paris, the mayor Jacques Chirac privatized the water supply services; this was entrusted to two large multinationals – Veolia for the *rive de droit* and Suez for the *rive gauche* – while the city kept the 70% of the production company. In 2003 the city hall began evaluating the possibility of re-advertising the service, after having collected several data relating to the negative performance of private operators. The campaign for the 2008 municipal elections revolved around the dichotomy of public/private management of the water service, promising that the service would be run as a common good if the centre-left coalition were to be elected. Even though the Parisians reacted with indifference to the urban water remunicipalisation project, it was the key element that permitted the centre-left coalition to be born and to win the elections. Thus, in 2009 the city's administration implemented the remunicipalisation reform. It was entrusted to a completely public managing body for the water supply services, *Eau de Paris*, which included city councillors, staff representatives, technical staff and spokesmen of a consumers' association, of an environmental organization and of the *Observatoire Parisien de L'Eau*. This institution was created *ad hoc* with the aim to inform and consult the civil society about the policies promoted by *Eau de Paris*.

Chapter six analyses the remunicipalisation process that has taken place in Naples since 2011. This case study is more based on the use of qualitative sources and official data, since no studies have been conducted on the results of this process. The water remunicipalisation that took place in Naples was the result of a huge popular mobilization, coordinated by the Italian Forum of Water Movements that promoted a referendum to repeal the law that compulsorily privatized local services. The popular mobilization promoting the revocation referendum achieved incredible results both during the signature-gathering phase and during the voting phase. According to Barbera, Dagnes, Salento and Spina (2016) and Dardot and Laval (2015), the only Italian municipality that actually implemented the political result of the referendum is the city of Naples: it transformed the joint stock company Arin into a public-law body, *Acqua Bene Comune Napoli*. This company was set up as to maintain business autonomy without having the goal of financial gain, but rather focusing on the promotion of the individuals' and the environment's fundamental rights. The company Statute provided for

citizens to participate in the Board of Director and a surveillance committee with control functions taken up by citizens. It was created to develop alternative ways to assess a company's behaviour, aimed to judge the performance not only in financial terms, but also by measuring the ability to safeguard 5 constitutional values: human dignity, solidarity, sustainability, justice and democracy. The goal of this control system was to make a public-law body able to offer high-quality services, respecting the rights of the service's workers, of the ecosystem's regeneration and the human rights of the users of the resource.

The two processes of remunicipalisation have been divided diachronically into six different theoretical stages: agenda setting, policy formulation, legitimation, implementation, evaluation and policy maintenance, succession or termination. Each element of the policy cycle was analysed through the same analytical grid, the one set out in chapters 3 and 4. The two public managements produced mostly different results, which were analysed through a set of common criteria: environmental sustainability, transparency, efficiency, citizen participation and social equity.

Finally, in the conclusions, the comparison between the explanation of the causal processes that produced the different outcomes is completed. In this way, our three starting hypotheses are confirmed. Despite the profound differences between the two case studies, we discovered that in both cases the outcomes of each system are the result of the interactions between the actors of the system and the exogenous context in which they are embedded, which define the limits, the opportunities and the possible outcomes of their agency.

In addition to having a profound descriptive value, our research path has led us to some innovative outcomes, which are little explored in the literature about local public services. The first innovative outcome is that users can carry out multiple behaviours that impact on policy-makers' choices and, without understanding these behaviours, understanding the choices of policy-makers remains impossible. We know, in fact, that the actions of some system actors have the greatest impact on the course of a policy: they are those who play a key role in defining the problem, in formulating its policy solutions and in their implementation. However, the decisions of these key actors are determined by a multiplicity of variables, including the behaviour of all those who come into contact with local water infrastructures. Consequently, one must analyse the behaviour of the users of a water service if he/she wants to grasp the functioning mechanisms of that given service in their entirety.

The second innovative idea of the present work lies in demonstrating that the long-term analysis of historical-political variables is the starting point for any attempt to anticipate

changes in public management models. The study of the long-term historical development of the geographical, social, economic, infrastructural, institutional, political and cultural variables of a given territory allows a scholar to make precise predictions about the public management models resulting from a policy change, without making the mistake of prefiguring its outcomes.

Finally, the present work shows a high epistemological value, since it has identified an analysis grid that can be used by all those who have the objective of evaluating, designing or criticizing a water regime. The analytical tools used here have the power to provide such a rigorous explanation of the policy cycles that shape local services, that they can be used indifferently by technicians, academics, policy-makers or citizens interested in understanding local water regimes.

1. EXPLAINING THE WATER SERVICES MANAGEMENT IN THE EUROPEAN CITIES

Even if about 70% of global water withdrawal is for agriculture and about 20% is for industrial activities (Energy & Strategy Group 2018, 2019), the industrial chain that provides civil water services is normally studied separately from the other ones because of its impact on the social and political life. Important positive externalities, indeed, are associated with the use of potable water, as a consumer good. In particular, they relate to the prevention of infectious diseases, weakened by the spread of personal hygiene practices and by the control of the sources of collection and discharge. Another important aspect of access to sanitation services is linked to the increase in social inclusion, caused by the possibility for every social category to wash every day, in order to eliminate the visible markings of the economic disparities. These positive externalities raise with increasing population density, making the access to water a phenomenon of fundamental importance for well-being in urban contexts. According to a study conducted by Sheila Olmstead (2010) for the 2010 meeting of the Organization for Economic Co-operation and Development (OECD) on water economics and financing, and related to the construction of water infrastructures in the early 1900s in 13 major American cities, the large reduction in mortality produced by the access to the clean water corresponded to a social rate of return of 23%, with a state savings per person-year of about \$ 500 current dollars. For all these reasons, the access to water resources is considered as a part of those citizenship rights studied by Thomas Humphrey Marshall and Tom Bottomore (1992), or as necessary capabilities for each individual to carry out their own functions, as described by the economist Amartya Sen (1985). Moreover, the citizenship right to access to a constant and accessible supply of water is historically connected to the constitutional rights to life and health of European countries. In 2010 the United Nations (UN) General Assembly acknowledged that clean drinking water and sanitation are essential to the realization of all human rights. This right has officially entered the Universal Declaration of Human Rights and has become the sixth of the sixteen goals pointed by UN 2030 Agenda for Sustainable Development.

Water, as a consumer good, derives directly from a natural resource, represented by the so-called Water Cycle – composed by springs, rivers, lakes, clouds, sea, etc. – that is the natural mechanism that continuously makes the drinking water available to all creatures that populate the global ecosystem. At the end of this cycle, the water services are positioned. Their existence is historically motivated by the need of authorities governing the territories to organize the access of the inhabitants to them, both for technological reasons and for

preventing the possible conflicts that would occur if everyone individually provides their own water supply. The fact that water distribution networks have existed since ancient times (Annales 2002) and that such networks have played a central role in the development of the urban contexts is not just a coincidence. Although water distribution and sanitation services have become indispensable to the social and economic inhabitants of the cities, they are even more likely to be taken for granted (Tarr 1989).

In the European Union (EU) framework, the civil water distribution services belong to the general category called Local Public Services (LPS) or Municipal Public Services, which groups those services historically managed by the Local Authorities; these are the supply services of light, gas, water, electricity, telecommunications, postal services, pharmacies, transports and production of milk. The water services are generally categorized as Public Services within the Italian, French, Portuguese, Spanish, Greek, Belgian and Turkish normative framework, while they are defined as Public Utilities in the UK and German contexts. The EU institutions have developed the notion of Services of General Interest as a comprehensive category in which the above concepts fall, which appears very similar to the public service one (Marçou 2016a). This category is in turn divided into three sub-categories: Non-Economic Services; Social Services of General Interest; and LPS, defined as Local Services of General Economic Interest (SGEI) (Bauby 2012), which are “economic activities that public authorities identify as being of particular importance to citizens and that would not be supplied if there were no public intervention”². Local, because almost everywhere local authorities are the ‘organizing authorities’ of water service. Service of General Interest, because everywhere in Europe water services are linked to the three pillars on which their legitimacy is based (Bauby 2011): “ - the guarantee of the right of each individual to access essential goods or services for the satisfaction of his or her needs, the guarantee of exercise of basic personal rights, the conditions of the social tie (right to education, health, accommodation, water and waste management, energy, communications, transport, etc.); - the promotion of solidarity, of economic, social and territorial cohesion (equality of access, supply, service and quality, pursuit of the lowest cost, geographical equalization of scheduled charges, adaptability); - the response to market failures, in particular to prepare long-term economic and social development (sustainable development, interests of future generations, etc.).” (Bauby 2012: 564). All these SGEI require a commitment to manage building, maintaining operating plants and networks, and in collecting charges from the users. The water provided to the urban

² Green Paper on Services of General Interest <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52003DC0270>

citizens pass generally through several treatment stages: collection from the source, purification, adduction, distribution to users, discharge into the sewer, purification and discharge into nature. This means that the essential part of 'consumed' water does not disappear but returns in nature – transformed – as resource, with a strong social and environmental impact. The management of the urban water service, of its infrastructures and of the staff working in this sector are the study objects of the experts on water regimes, or service models. The concepts of water regime (Koprić et al. 2018; Lorrain and Poupeau 2016) or service model (Wollman et al. 2016; Galanti and Moro 2014; Payen 2013; Lorrain 1992, 2005) have been defined by Yuan-Chieh Chang and Min-Nan Chen (2016) as the several organizational, legal, technological, managerial, political, and relational elements that compose a water supply system; these could be interconnected, structured, and coordinated in multiple ways, resulting in various service models.

The aim of this chapter is to explore the scientific knowledge about this topic, with a focus on EU cities. Two different groups of literature have been identified, which analyse the water service models and their outcomes. The first consists of studies from public management, or public administration, or public policy fields, which use a neo-institutional perspective of analysis to define the organizational and ideological features of local services models; the second one comprises an extended group of studies rooted in the political debate about the dichotomy public/private service management. Indeed, the topic of private or public managing of water resources has been subject to a conflictualization process (Seguin 2015; Tidon and Barbier 2018) and to a politicization process (Seguin 2015) since the beginning of 90s, on a global scale. In that period the LPS were globally subject to a process of financialization, which has triggered the worldwide discussion about public or private nature of the local management of water services. The studies coming from this second group of literature are published by experts of LPS who apply a logic of expertise in a prefiguring activity. They come from the most diverse fields of study, from juridical, engineering, economic, biological, journalistic to political, sociological and anthropological ones.

1.1. The three neo-institutionalisms and the study of policy changes in the European local public services field

Whereas in the XIX century the water services were the object of engineering and medical studies, during the XX and XXI centuries they generated more and more the interest of the public administration's specialists (Caporale 2017). Internationally, the scholarship on the concrete materialisation of state action policies has always been dominated by American

ideas belonging to the political science and the sociology fields. While up to the 50s scientists have studied administration, public policies and the state as a unique object, in order to develop a reflection about the governments activity, the models of state, and the democracy's functioning, in the 60s and 70s those objects were analysed separately. Thus, the Political Analysis, the Public Administration and the Compared Sociology of the State emerged as sub-disciplines. From the 1980s a vast current of American research was born, generically qualified as "neo-institutionalism", in part in response to epistemological problems and reductionist prejudices of previous developments, capable of reuniting under a single analytical perspective the study of the state, of the public policies and the administration (Bezes and Pierru 2012).

In that same period, starting from the 1970s, European researchers established their own identity, thanks to a broad recognition of the distinctive traits of European administrative system (Ongaro and Van Thiel 2018). These are: birthplace of "modern" national state and "modern" conception of administrative bureaucracy; historical separation between state and religious powers; spread of parliamentary system; development of universal welfare state; area of cultural and linguistic plurality; administrative diversity; place of the experiment in transcending the national state: the European Union, which has built up a new supranational administration and a unique multi-level governance system.

Following the recognition of the different administrative traditions that characterize the continental countries, various academic studies have focused on the study of the specificities of these traditions from an historical perspective: the result was the division of the European countries into five groups sharing the same administrative characteristics (Painter and Peters 2010). In the literature on the European management of LPS this administrative division is often observed, producing studies that compare different management models among countries of the same "administrative family" (see Ongaro et al. 2018).

The European urban water services have been generally studied together with the other services managed locally (LPS and social services) or as a single urban case study. The researchers that choose local services as unit of analysis usually adopt a neo-institutional perspective to investigate the changing of the state over time through the study of its institutions. In particular, neo-institutionalist scholars aim to identify and explain those profound transformations underwent by the state models, which are difficult to measure, interpret or evaluate, and grouped under the term "state reconfiguration" (King and Le Galès 2017). These studies usually start from the conceptual distinction between polity, politics and

policy (see Schmidt 2009) and then they only focus on one of them. In this way, the distinction among the three sub-disciplines of political science that assumes the state as research's object is achieved: Political Sociology analyses the politics, Public Politics Analysis focuses on the policies, and Political Theory studies the polities (Leca 2012). The neo-institutional debate (Cairney 2012; Christensen 2012; Hall and Taylor 1996; Peters 2011; Schmidt 2006) provides the conceptual framework for this research typology: the concept of historical institutionalism is based on the assumption that the institutional, political and cultural traditions impact on the preferences and the choices of the actors, conditioning the institution building and the institutional choice, as shown by the path dependency theory (see Pierson 2000). The actor-centred (or rational choice) institutionalism emphasizes the influence of wills and skills of the relevant actors on decisions of policy-makers; the theorists of this school tend to consider political life as a series of dilemmas of collective action (E. Ostrom and V. Ostrom 2004). The sociological (or discursive) institutionalism highlights the ideas that set the context in which political choices are legitimized and it aims to understand the way these discourses shape international, national and local arenas. Such discourses or *doxa* (Payen 2013) are typically the result of a community (Meublat 2001) often linked to supranational organizations. To this field belong studies on policy transfer (see Benson and Jordan 2012; Dolowitz and Marsh 2012; Stone 2012) and normative isomorphism (see Di Maggio and Powell 2000). Moreover, neo-institutionalist researches on European LPS have a comparative approach at different levels: cross-country comparison, policy-specific country comparison and longitudinal comparison.

1.1.1. The four historical phases of the European managerial model of the local services

Consistently with the literature on institutional and policy change, the European scholars broadly agree with the partition of the LPS organizational development into four distinct historical phases (see Ongaro et al. 2018). Each phase is characterised by the implementation of a prevalent form of service provision “shaped by the current dominant political beliefs and discourse” (Wollmann 2018: 413). Consequently, the common questions raised by the public policy researchers are about the nature of the pattern (convergent, divergent, variance) across countries and/or time. Analytical tendencies and empirical evidence of each historical phase are shown below, with a focus on water regimes:

XIX century

Under the dominant doctrine of Manchester liberalism, national governments substantially

refrained from intervening in economic issues and the provision of public utilities was left to the local authorities. The extension of public intervention in the economy was therefore limited and mainly concerned the collection of taxes, the conservation and economic management of the collective assets and the exercise of the regulation powers of the society. The essential function of the state was to introduce into society a system of rights and duties, whereas the local governments (LG) had the task to produce and make available the so-called collective goods on a technical-economic level. In the water and sanitation field, the municipalities guaranteed the minimal hygiene to the whole population through basic urban water services (public wash houses, fountains and sewers); instead, the infrastructures that brought water directly to the houses were built by private companies, and their use was granted only to those families who could pay for it.

With urbanization and industrialization, at the end of XVIII century, the hygienist debate developed in Europe and it strengthened in the first half of the following century thanks to the studies of Johann Peter Franck (1788) and Louis René Villermé (1828). This debate taken root in the theories developed by medical and social sciences, strongly anchored to the positivist nineteenth-century culture. In the second half of the nineteenth century the hygienist movement spread throughout Europe and the United States, developing on national thinking lines; in general, we can say that it rested on four cultural basis: firstly, the reflections on social progress, often influenced by Ernst Haeckel's and Charles Darwin's works and by Herbert Spencer's sociology (see Duncan 2013). Secondly, statistical sciences, widely used by government bureaucracies to capture social phenomena related to public health and demography (spread of epidemics, mortality and birth rates, etc.). Thirdly, cultural influence of microbiological discoveries of Louis Pasteur (1922) and Heinrich Hermann Robert Koch (see Lakhtakia 2014), with the consequent affirmation of researches conducted by the laboratories of Paris, Berlin and Munich. Finally, the last base of hygienism is the political philosophy and urban sociology developed thanks authors like George Simmel, who explored the role of public institutions in protecting the right to life and public health. In this historical juncture, LG were identified as primarily responsible for providing essential services for social reproduction (Crespi and Reghizzi 2014). The hygienist movement asked the state not only to recognize the role of the medical profession in political and urban planning, but also to be an active actor in guaranteeing a minimum of well-being to the whole population. The theme of city management and the development of infrastructure for social purposes exploded at the end of the 19th century in the context of urban sociology, urban planning,

medical sciences and political philosophy. This movement also had the merit of having changed the general sensitivity towards the use of water in the domestic and sanitary field, spreading the idea about the need to make drinking water available in all homes and workplaces.

At the same time, the technological progress allowed the use of water infrastructures for producing the essential electricity for the industrial work and the urban illumination (Goubert 1986; Caporale 2017). Thus, municipal governments started to demand to the private operators an increase in networks and quality controls (Marquand 2004). In most European countries they failed to face these new challenges and the municipalities bought or expropriated both the water infrastructure and the companies, for managing them directly.

Before New Public Management (NPM)

Starting from 1945 the urban water services together with the other LPS were nationalized and managed through top-down models, in accordance with the assumptions of the Keynesian doctrine: their functions and responsibilities were centralized; they were regulated by national legislation; they were implemented by a hierarchical and professionalized Weberian bureaucracy and directly managed by local authorities *in house* or through state-owned enterprises; they were financed through public expenditure or by the users (however the rates were defined through a “fiscal” and “non-commercial” logic³); and everywhere new investments were provided thanks to the public expenditure and often the budget deficit mechanism⁴. This model is commonly called welfare capitalism, or advanced welfare state, or local welfare state or municipal capitalism (Galanti 2016), and it was characterized by an active intervention of the state in the economic sector and a strong development and diversification of the functions and activities of the public administration. Public bodies were largely involved in the direct production of services, and the public companies reached the same technical-organizational level of the private ones. In particular, the LPS were delivered *in house* or through state-owned enterprises, public legal entities created by state or LG in order to undertake commercial activities. Moreover, scholars generally acknowledge that the public management of the services in this period took place through a political rationality, which is geared more towards the “common good” and “general interest” (Mühlenkamp 2013: 3), than the economic rationality, oriented to achieve pure economic goals. As a matter of

³ Rates were calculated on different criteria from effective usage: nowadays in the UK they depend on the house surface.

⁴ In Germany, for example, local credit was used, while in Italy the national Deposits and Loans Fund was created with this purpose.

facts, the European policy-makers of the welfare capitalism period assumed that the market would fail in guaranteeing universal access to citizenship services. According to the legal expert Alain Supiot (2010), this ideological construction came from Keynesian theories and was spread by international treaties⁵ on human rights. In this context, the public management of enterprises was seen as an instrument to reach political goals, like the collection of political power and votes – with the relative risk of a patronage or corruptive use of public enterprises – or the will to counterbalance the social inequalities caused by market economy; from this point of view, public enterprises could be considered as macroeconomic instruments able to correct income distribution, employment rates, quality of life differences, and so on.

In this period, the water infrastructures were projected and managed as public goods, in a universalistic perspective, to support the rapid growth of the urban population and of the industry sector. The European water service model provided for the building of a single, monopolistic network serving the entire population, excluding the co-existence of several managers in the same territory (Lorrain and Poupeau 2016). In all European countries the model of direct public management at municipal scale was imposed, excluding France, where the delegated management model became the rule since the end of the 20th century (Colon et al. 2018; Richard et al. 2010).

NPM

The oil crisis (1973) was an opportunity for the global economic *doxa* to deeply criticize the advanced welfare state model. English-speaking countries started to promote neo-liberalism ideas, based on the superiority of the economic rationality over the political one in the management of the whole society (see Friedman 1962), and launched ground breaking programmes of macro-economic policies – that focused on aggregate outputs and the diffusion of standardized programmes for the economic growth, summed up into the “Washington Consensus” (Stiglitz 2002) – and plans of administrative reforms inspired by market-like instruments and managerial techniques – rehired in NPM program, a suitable “recipe” for all governments (see Hood 1991; Pollitt and Bouckaert 2017). The adjectives placed alongside the concept of state by European sociologists and political scientists are manifold – for example postcolonial, post-conflict, defaulting, regulator, collapsed, market making, post-modern, post-fordist – depending on the research perspective used. From the neo-institutional perspective, the most fitting concept seems to be that of the regulatory state.

⁵ Declaration of Philadelphia (ILO, 1944); UN Founding Charter (UN, 1945); Universal Declaration of Human Rights right (1948, UN).

Consistently with the neo-liberal doctrine, the shift from the welfare to the regulatory model of state was fulfilled in the Eurozone; the notion of regulatory state suggests that the role of the state in both the economy and society has shifted from a direct intervention in economy to arm's-length regulation and arbitration of market exchanges, letting the rules of free market and competition achieve the social redistribution of wealth. Regarding water systems, the *doxa*⁶ of the 90s considered water regimes as technical-systems (Lorrain and Poupeau 2016; Guerrero 2020) and it principally stressed the need of a technological and economic innovation. A transition from an "extensive" to an "intensive" management model was required: new infrastructures should not be built any more, but the old ones had to be managed better. Moreover, water systems had to be financed no longer with public money, but a new pricing system had to be inaugurated in order to make the consumers pay for their actual consumptions. Finally, private managing of water services had to be fostered because only private firms were endowed with the appropriate technical specialization, professionalism and money that were necessary for innovating the systems. Since water sector structurally produces low profit margins, the participation of private enterprises had to be supported through economic incentives; for instance, the Italian law 152/2006 imposed a fixed remuneration of the invested capital through a percentage of the bills paid by the users, a measure that became a trigger cause of the referendum of 2011 for abrogate the Law Decree for compulsory privatize water services.

The Europeanization of LPS, defined by Henri Oberdorff (2008) as a "way of describing the increasingly decisive influence of the EU on the public policies of the Member States" (Oberdorff 2008 in Bauby 2011:22), occurred under this climate. On the side of the organizational model of political-administrative arrangement, there is a general recognition that the Europeanization has fostered the shift between the model of "command and control" to the "governance" one (Profeti 2011; Rhodes et al. 1995; Wollmann and Marćou 2010).

The concept of governance is nowadays the starting point of different lines of analysis of the political-institutional phenomena. In the field of Europeanization studies, the concept of Multi-Level Governance (MLG) states a new policy-making model characterised by the sharing/subdivision of competences among the different governmental scales (supranational,

⁶ For example: 1993, Valuing the environment: proceedings of the First Annual Inter-national Conference on Environmentally Sustainable Development, The World Bank, Washington D.C; 1993, Water Resource Management. The World Bank, Washington D.C.; 1994, World Development Report, The World Bank, Washington D.C.; Klein and Roger, 1994, Back to the Future. The potential in infrastructure privatization, The World Bank, Washington D.C; 2000, Ministerial Declaration of The Hague on Water Security in the 21st Century; Guash, 2004, Granting and Renegotiating Infrastructure Concessions: Doing it Right, The World Bank Washington D.C.

national, regional and local). This line of studies starts from the contrast between the ideal-type of the “Westminster Model” spread before the Europeanization and the current MLG. While the WM refers to a centralized, unitary state in which there are clear lines of accountability and hierarchical control, MLG concerns a disaggregated, quasi-federal state in which control is replaced by influence within a political system characterized by multiple lines of accountability and uncertainty about where the decisional centre is. This assumption has caused a transformation in the object and focus of study: from national governing institutions to supra-national and sub-national governing institutions. In this way, studies about the worldwide governance of international organizations and the growing interdependence among states (Kjaer 2004; Zolo 2006) have developed.

In the Public Politics Analysis, governance refers to a new policy-making way based on the collaboration and the stable interaction between public and private organizations and institutions, at different governmental levels. This acceptation of the concept of governance is directly connected with the definition of vertical (decentralization of the regulation power) and horizontal (increasing role of non-governmental actors in managing LPS) subsidiarity, which is described in the Maastricht Treaty (1993) as the organizational division principle of competences among the EU administrative institutions. Vertical subsidiarity concerns the decentralization of the regulation power from central towards EU and LG, while the horizontal one concerns the increasing role of non-government actors throughout the phases of the social policy process. Consequently, the focus of this line of studies has shifted from central government to the different levels of government and non-governmental organizations. Thus, researches on the implications of the dispersion of political power from national central government to other levels of government and non-governmental actors have taken place like, for example, those about the diffusion of quasi-non-governmental organizations (quangos) (Greve et al. 1999); the new policy networks, where the official policymakers negotiate and share decision power with other public and private sector actors to investigate the limited capacity of governments to control them; the constitution of new arenas of local power next to the official ones (Citroni 2007; Profeti 2011; Citroni et al. 2012; Citroni and Di Giulio 2016; Galanti 2016).

An important line of studies originated by the concept of governance, which belongs to field of the Sociology of the Conflict, wonders about the capacity of governments to provide universalistic services, essential for counterbalancing economic inequalities, in a context of contraction of economic resources and regulatory powers; governments – both national and

local ones – have often the authority but not the capacity to provide the same services, with the same quality, of the past. This condition invariably reflects on the state of representative democracy, less and less capable of governing individualization processes and responding to widespread cognitive and value uncertainty (Bauman 2000, 2007); an uncertainty originated from the crisis of the political ideologies of the past, the crisis of the ideology of continuous progress, and from the exasperation of the public discourse on the individual as the sole engine of change (Vitale 2009). The consequent decline in the political legitimacy of the ruling classes reveals a growing mistrust of citizens towards political institutions and parties, a decline in conventional political participation (voting) and an increase in often innovative, sometimes even radical, forms of political protest (Dalton 2013; Norris 2002; Pharr and Putnam 2018). Such protests often take place in local contexts, showing the features of “local mobilizations” that indicates a precise class of collective actions, organized by local “entrepreneurs”, in which the actors involved raise local problems and make them public, interacting with public authorities and policies and pursuing one or more shared objectives. This typology of mobilization is often the expression of coalitions and movements that promote conflict over objects that would also require regulation on a supranational scale, but which do not find arenas in which to fight on a global scale (Vitale 2007). In Europe, this type of mobilization has as protagonists citizens from the upper-middle classes, with high educational and professional profiles, engaged in activities to improve their city or neighbourhood (Andreotti et al. 2019). Following this line of studies, many authors consider the local dimension as the context in which the major contradictions of the contemporary world concentrate (Sassen 2018), as well as the dimension of experimentation of new political and organizational practices (Harvey 2012; Barbera et al. 2016; Dardot and Laval 2015, 2017).

Moreover, the governance has been connected to the concept of private/public partnership, into the EU politics on economic and social cohesion and on the Open Method of Coordination (Profeti 2011); in fact, in the Science of Administration field, the expression “governance mechanisms” refers to the specific complex of operational tools finalizing to introduce private managing logics and competitive mechanisms into the public administration, in order to improve the transparency and the performance. These logics and tools have come directly from the New Public Management “recipe” and from the contractualization of public administration logics, which can be traced back to the agency theory (Pratt and Zeckhauser 1985; Breton and Wintrobe 1982); such theory states that the supplying of services by public

or private operator is founded on an ideal contract between a principal and an agent. Precepts as the distinction between the political and the managerial role, the rationalization of human and financial resources, the adoption of explicit and measurable result standards, the evaluation and monitoring of interventions, and the contracting-out or contracting-in of public services and functions to private firms, are some of these. Consistently with EU recommendations, the member states have implemented reforms for decentralizing managerial and financial responsibilities, and for allowing the local authorities to stipulate contracts with private operators. Europeanization has, therefore, caused an increase in the responsibilities of LG in the field of service provision and a profound change in the regulatory framework in which LG must perform these functions: they must provide social and local services in a context characterized by a constant contraction of economic resources, in which LG have limited regulatory power and, above all, limited decision-making power about the objectives to be achieved, the qualitative standards to be respected and the tools to use to do it. The theoretical water governance that descends from this institutional relationship model establishes that: the supply of water services is generally a competence of LG, which are the closest institutions to the citizens and their needs; the LG would have the role of regulator, with the task to organize the service and control its quality in line with EU and national directives; one or more operators would be in charge of managing one or more phases of the service, covering entirely the investment and managing costs thanks to the tariffs paid by the users; the rapports between the LG – the principal – and the operator – the agent – would be determined through a contract (Citroni et al. 2008).

Consistently with the showed lines of analysis, the idea that the Europeanization produced a shift from political to economic rationality in the public action criteria placed on the basis of EU member states is generally shared among LPS researchers (Salento 2013; Wollmann and Marçou 2010); in the founding treaties of the European Union, in fact, the goal of economic sustainability is equalized with the objective of protecting human and citizenship rights of peoples. This is because neoliberal doctrine theorizes that the free market is a more effective mechanism than the production of universalistic and public services to achieve the goal of equitable distribution of wealth. Consistently with this, the concepts of efficiency and financial sustainability have been introduced into the Single European Act (1986), the Maastricht Treaty (1993) or the Treaty on European Union (TEU, 1992), establishing a framework for reducing public debt and stabilizing budgetary policy (Lippi and Tsekos 2019a), reinforcing the fiscal constraints within which the states and the local authorities are forced to outline the

regulation of policies. The Stability Pact and the consequent fiscal restrictions have limited states' action in economic activities (Keune et al. 2008) and the fiscal performance has been assumed as criteria for political legitimation (Lippi and Tsekos 2019b). In this way, the EU has forced governments to invest less and less public resources in the direct provision of services. Hence, the Europeanization of LPS was based on the premises that the common interest would be best served by a single European market for services, the price inefficiency and quality distortion would be eliminated by market rules and the Weberian bureaucracy would be replaced by a plurality of providers from private market that operate in a free market (Marćou 2016b). The European Commission has started to modify the normative framework since 1990s, in order to implement a doctrine based both on the principles of free competition between services providers and of solidarity functions of the local services. Communication published in the second half of 90s were grouped in the White Paper of 2004⁷ and in the communication on social services of general interest in 2007⁸; this doctrine is reflected in articles and protocols of the Treaty on Functioning of European Union (TFEU)⁹, which resulted from the Lisbon Treaty (2009)¹⁰, and in the European Charter of Fundamental Rights¹¹. Article 14 of the TFEU declares that SGEI are covered by the “common values” of the EU in the social field, while the article 106 (TFEU) requires member states to remove all exclusive and special rights, but it simultaneously maintains that SGEI may deviate from competition rules if it is necessary to fulfil their general economic interest mission; this means that the market is considered the best mechanism for ensuring that needs are met, but that the general economic interest mission can override competition principles if necessary, for remedy market failures. Only two exceptions to the pure competitive mechanisms are currently accepted in EU law: the *in house* delivery of public services is the first: this option can materialize through an organization within the municipal administration, totally owned by municipality and usually with financial autonomy (such as French *régies*, or English “direct labour organizations”, or German *Eigenbetriebe*), or through a public law corporation, or a mixed-economy company (a public-private partnership-PPP). These organizational models are considered exceptions because responsibility for providing the service is assigned to the operator without a tender, as it is provided directly by the local authority. Second exception is

⁷ <https://www.eumonitor.eu/9353000/1/j9vvik7m1c3gyxp/vi7jgsywd4zw>

⁸ <https://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2007:0725:FIN:EN:PDF>

⁹ <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:12012E/TXT>

¹⁰ <https://www.europarl.europa.eu/factsheets/en/sheet/5/the-treaty-of-lisbon>

¹¹ https://ec.europa.eu/info/aid-development-cooperation-fundamental-rights/your-rights-eu/eu-charter-fundamental-rights_en

the *outsourcing*, which is a very broad term covering all the ways of delegating services through tender procedure, aimed at identifying an operator that provides a service on behalf of the public authority in exchange for public money. The relationship between the local authority and the operator is regulated by a concession contract, which defines the objectives of the operator and the amount of money it receives in exchange for his performance. This option appears as an exception to the rules of the free market because the money paid from the LG is considered state-aid to a private corporation, while the competition rules provide that the operator must recover his investments only by the tariffs of users of service.

The EU regulations about water supply services are substantially the ordinary ones for the SGEI: the framework for the commitment of services, the regulations of the TFUE or Treaty of Lisbon (art. 14, 106, 107) and the European Chart of Fundamental Human Rights (art. 36). Nevertheless, the European Community has recognised since the 70s the specificity of water supply services, inasmuch as water is a vital product, essential for life of people and biodiversity. A difference can be made among three phases of European directives:

- a first normative wave, during the period 1973 to 1988, concerns the protection of the quality of water used for human activities (a directive amended in 1998 relating to the quality of water for human consumption);
- a second wave of directives, from 1988 to 1995, focusing on the prevention of pollution (in particular, a directive of 1991 concerning the construction of wastewater treatment plants in all urban areas);
- the third generation of directives from 1995 led in particular to the Framework Water Directive of 2000¹², which laid down the general principles of production and management of water. This directive adds to the rules that regulate the SGEI market, producing a much more stringent and punctual regulatory framework than other SGEI. It sets very high standards in terms of quality and environmental protection, and also recognizes the social and communicative value of local water networks by indicating how the population has to be involved in defining consumption styles and managing resources.

In particular, the Water Framework Directive 2000/60/EC introduced a new geographical and not administrative basic organizational dimension, the hydrographic basin. This administrative model originated in France, and was then exported to EU legislation (Colon et al. 2018). The EU currently has more than 100,000 surface water bodies: 80% is made up of rivers, 15% of lakes and 5% of coastal and transition waters: the river basins and their coastal

¹² <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32000L0060>

areas have been divided into 110 hydrographic basins, 40 of which are international and cross borders, covering around 60% of the European territory. Each basin has to be managed through a holistic and collaborative approach, which must simultaneously involve the governments of all countries on the reservoir rises, for protecting the entire body of water, from the source to the tributaries, to the mouth. To achieve this goal, the Directive has defined several rules the governments have to prove to respect: firstly, for the environmental and human well-being protection, by developing an evaluation system focused on outputs standard for drinking water, water purification, and public-interest orientation, rather than on the inputs (Citroni 2010). The river basins must be in a good ecological state. The classification scheme relating to the ecological status of surface waters includes five categories: high, good, sufficient, poor and bad. To define the ecological status, states have to evaluate the abundance of aquatic flora and fish fauna, the availability of nutrients and aspects such as salinity, temperature and pollution due to chemical agents. To define a good chemical status, environmental quality standards have been set for 53 chemical pollutants, eight of which are considered very dangerous. Groundwater must not present any level of pollution: any form of contamination must be detected and blocked. Secondly, member states are required to organize extensive consultations with citizens and stakeholders to identify problems, solutions and related costs to be included in river basin management plans. This process requires a wide-ranging consultation on the river basin management plans, lasting at least six months, starting from 2015 and then every six years. The participation and support of public opinion are considered by the EU to be essential elements for the protection of water, since the practices of consumption of the resource are considered essential elements for its protection in the medium-long term. Finally, the implementation of the directive envisaged the gradual achievement of particular preliminary objectives by the member states, such as the geographical definition of their river basin districts, the identification of the authorities responsible for water management (2003), the realization of a joint analysis economic and environmental (2004), the launch of the national water monitoring networks (2006), the elaboration of the river basin management plans and the implementation programs of the directive (2009) and the adoption of the pricing policies of the services water (2010).

With the Water Framework Directive, the problem of economic, environmental and social sustainability of the management of water services has entered the agendas of the member states. With the introduction of the principle of water cost recovery through the user's

invoice, contained in the Water Framework Directive, the EU has explicitly affirmed the link between prices and economic sustainability in national regulations. Before this rule, instead, the problem did not exist since the economic sustainability of the service was guaranteed by the public funding of the water service (Brochet 2017). The problem of environmental sustainability has been formulated in terms of achieving European environmental and health standards (Pezon 2006). Responding to the challenges of environmental sustainability requires large financial investments by suppliers of services, and these goals conflict with those of economic sustainability. As a matter of fact, the challenge of reducing water withdrawals and consumption leads to an increase in the overall cost of the service, since in the name of the full cost price, revenue must come exclusively from water sales without the possibility of state transfers of money (Florentin 2015a, 2015b).

To respond to the problem of the environmental and economic sustainability of local public services, national governments have implemented several waves of rationalization reforms (Bolgherini et al. 2019; Colon et al. 2017) inspired by the principles of the NPM. Rationalization policies generally indicate interventions involving at least three interconnected dimensions: "economic (directly related to budget savings and expenditure cuts), organisational (having to do with the simplification of administrative procedures and structures), and managerial (implying strengthening the efficiency and effectiveness of public-policy intervention)" (Bolgherini and Dallara 2016: 113). In Europe they have been outlined in a more or less harmonious way: they range from states that have introduced soft and incremental changes, to states that have adopted the shopping-basket approach (Pollitt and Bouckaert 2017), copying policies from other contexts and distorting the national regulatory framework.

Furthermore, pursuing the objective of economic and environmental sustainability of local water services, the problem of the social sustainability of water services has come to light. This is the result of the principle of covering investments through the user's bill. The issue of the ability of the poorest to pay arose after the implementation of the Water Framework Directive (Barraqué et al. 2015). An indicator was quickly imposed on this topic by the Organization for Economic Co-operation and Development (OECD) in 2003, which states that the social sustainability of a water service is achieved if the weight of the bill of each registered family serving does not exceed 3% of its income. If not, corrective solutions need to be found. Thus, forms of facilitation for the payment of water bills addressed to families in economic difficulty have been implemented everywhere (payment of specific aids, water

vouchers, progressive pricing, etc.).

In 2019 the Commission published the fifth report on the implementation of the directive, which shows that while the majority of underground basins have achieved good ecological status, only 40% of European surface waters have good ecological status (while in 2012 they were 43%). The Living Rivers Italia Coalition, made up of 24 environmental associations that support the European Protect Water Campaign, makes it clear how member states are seriously failing to fulfil their commitments in implementation of European legislation, thus putting at risk the availability of water resources for nature and for people¹³.

As the data show, therefore, the commitment of the EU institutions to implement the Water Directive in national policies is bland. Furthermore, experts like Federico Caporale (2017) stress that the social elements of the water supply are among the least regulated within the network services sector; the social outcomes of water services are substantially presented as indirect effects of the norms for the environmental protection. Indeed, the EU framework doesn't discipline in any way the citizens right to access to water and sanitation services by setting limits on the price of the water service or by imposing social tariffs for the poorest families: EU Commission limits itself to declaring the extension of this human right to all European population, delegating the states to identify the method of guaranteeing this right. However, the Directive strictly regulates the economic elements of water management. While the preamble of the Directive states that "drinking water is not a commodity just like any other", it has introduced economic concepts into environmental legislation, demanding member states to produce, since 2004, economic analyses of water consumption, and to observe specific transparency rules for water services. Moreover, the article 9 of the Directive deals with pricing policies and requires member states to introduce in their national legislation the principle of full recovery of costs – including environmental and resource costs – and of the polluter pays principle.

It is not a coincidence that the first European Citizens' Initiative presented by the EU civil society to the European Commission (Right2Water¹⁴) focused on reclaiming a Community regulation of social standards of water services performances. The Commission has confirmed its approach to the issue, encouraging the member states to work harder so that all citizens can have access to clean drinking water and sanitation at affordable prices. As a further demonstration of the marginality of the urban water service into the European policies, an Community legal framework for regulating the water supply through public operators subject

¹³ <https://www.wwf.it/?45801/Paesi-UE-inadempienti-sulla-Direttiva-Quadro-Acque>

¹⁴ <https://europa.eu/citizens-initiative/select-language?destination=/initiatives/details/2012/000003>

to public law, or a public regulator network of water regimes doesn't exist yet (as happens, for example, for telecommunications and energy), despite its need is strongly felt by local institutions (McDonald 2019). In April 2015, in fact, some public authorities spontaneously formed an association that brings together regulators of urban water services also from non-European states: the Wareg-European Water Regulators¹⁵.

It should also be pointed out that, in 2001, the Council of the EU declared that "all persons have the right to a sufficient quantity of water to meet their essential needs." Therefore, there is not a compulsory European liberalization policy of the water sector. However, there is a normative framework that encourages a slow but steady development of delegated management to private enterprises; it means that the EU framework fosters the commercialization of water supply services, a process defined as a profit-drive delivery managerial model (Bauby 2012)

The commercialization of a service can occur through two different paths. The first is the agencification phenomenon, which refers to the creation of semi-autonomous public organizations from governments. The most diffused agencies during the NPM phase were the municipally owned enterprises (MOE), which are private-law based companies with managerial independence, in which the LG owns the majority or all ownership shares. In this case, the public body manages its MOE according to the organizational, operational and financial principles of the private sector (Wollman 2018), and for this reason, the agencification can be associated to the process of formal/organizational privatization. Their diffusion is commonly defined corporatization (see Verhoest 2018). The second path for achieving the commercialization process of a service is the privatization: this is material when public (municipal or state) assets are sold to private sector investors (OECD 2009); it is partial in the mixed companies or organizational public-private partnership (PPP); it is

¹⁵ on 1st December 2019 the authorities that are part of this network are: Authority for Utility Regulation - NIAUR (Northern Ireland); Commission for Regulation of Utilities - CRU (Ireland); Council for Water Services - VVU (Croatia); Energy and Water Regulatory Commission - EWRC (Bulgaria); Energy Regulatory Agency - REGAGEN (Montenegro); Energy Regulatory Commission of the Republic of Macedonia - ERC (North Macedonia); Estonian Competition Authority - ECA (Estonian); Flemish Environment Agency - VMM (Belgium/Flanders); General Secretariat for Natural Environment & Water - SSW (Greece); Georgian National Energy and Water Supply Regulatory Commission - GNERC (Georgia); Hungarian Energy and Public Utility Regulatory Authority - HEA (Hungary); Ministry for Ecological and Solidary Transition - MEDDE (France); National Agency for Energy Regulation - ANRE (Moldova); National Energy Regulatory Council - NCC (Lithuania); National Romanian Regulator for Public Services - ANRSC (Romania); Public Services Regulatory Commission - PSRC (Armenia); Public Utilities Commission - PUC (Latvia); Regulator for Energy and Water Services - REWS (Malta); Regulatory Authority for Energy, Networks and Environment - ARERA (Italy); The Brussels Energy Regulatory Commission - BRUGEL (Belgium); Water and Waste Services Regulation Authority - ERSAR (Portugal); Water and Waste Services Regulation Authority - ERSARA (Portugal/Azores Islands); Water Industry Commission for Scotland - WICS (Scotland); Water Regulatory Authority - ERRU (Albania); Water Services Regulatory Authority - WSRA (Kosovo).

functional (Kuhlmann and Wollmann 2014) in the outsourcing cases. It is possible to note how many of these marketing paths belong to the two categories indicated in the municipal regulatory framework as exceptions to the management of the SGEI through the rules of pure competition.

Moreover, EU framework encourages public authorities to establish inter-municipal/inter-organisational companies (sometimes legally independent) with the aim of realize collaborative service provision and economies of scale for reducing the provision costs.

1.1.1.1. The remunicipalisation policies as a response to the unexpected effects of the LPS commercialization

The present phase, from a neo-institutional perspective, is called Post-NPM. In fact, several comparative studies have shown that the global financial crisis of the 2000s has favoured the shift of criticisms towards NPM reforms from the academic circles to the political agendas of the governments of most Eurozone countries (Drechsler and Randma-Liiv 2016). Thus, a wave of post-NPM reforms has occurred and it is still ongoing, where the category of post-NPM reforms commonly refers to several European administrative measures adopted by governments as a reaction to fiscal pressures, balanced-budget requirements imposed by the EU, and paradoxes and perverse effects of the NPM reforms (Bolgherini et al. 2019). Many of these reforms are inspired by the principles of administrative, economic and organizational rationalization of the LPS.

Nowadays, the public management literature has made a new model of state out, called post-regulatory or performing state (Schick 2003). The latter expression refers to the idea that the purpose of the national institutions is the supply of services and functions, and the reached level of performance of the state in their production influences the economic and social well-being of its citizens.

The perverse and unexpected outcomes of NPM reforms, to which the post-NPM policies react, have took place mostly in the social and political fields, which are added to the expected economic results. These outcomes (as we will see in-depth in the next chapter) deal with a general increase in prices of LPS, a massive decrease of the quality and quantity of work in the local service sector, the information gap and the incapacity to control private operators that supply services on behalf of public institutions, the growing risk of corruption and clientelism linked with the mechanism of public tenders for services out-sourcing, and a deep loss in political legitimacy by the governments that have privatized services expressed through several forms of mobilization. According to some authors (Brochet 2017; Bauby 2011) these

unexpected results originated in the clash between the implementation of a regulatory framework that was the same for all and local regulatory specificities.

An increasing number of studies from the field of Political Sociology underline how a new demand for public, universalistic and accessible services is emerging globally as a reaction to the inability of political elites to cope with the widespread increase in poverty, the gap between lower and higher incomes, lack of work (Betz 2002; Di Tella and Rotemberg 2018) and the consequent perception of growing economic and social insecurity (Bauman 2007). Such demand is subject to a politicization process that results in an array of forms of political mobilization – from self-organized protest to populist voting in the ballot box (Ananyev and Guriev 2019). Contrary to the past, the global response of governments to this insecurity is not to offer universalistic and accessible local services capable of guaranteeing social reproduction and citizenship rights, but seems to be the implementation of policies that favour the expropriation of local wealth by the large international private corporations (Piketty and Goldhammer 2014; Salento and Pesare 2015). Moreover, several studies have revealed that economic insecurity grew significantly more in Euro Zone countries, rather than Extra-communitarian ones, for two reasons: first, the greater difficulty of member states' policy-makers in responding to economic crisis, due to greater fiscal and monetary constraints put by EU institutions; second, the incentive for Western firms to relocate production into Eastern European and Extra-communitarian countries, due to the lower labour cost (Guiso et al. 2019; Colantone and Stanig 2017). Consequently, a strengthening of the rich-poor axis has been occurring at the local level (Barbera et al. 2016), as well as a strengthening of the centre-periphery axis occurs on a macro scale (Rodríguez-Pose 2018), since financial wealth is concentrated in large urban contexts (Sassen 2007). Recent studies (Algan et al. 2017; Dustmann et al. 2017) showed a strong connection between unemployment and poverty during the crisis and decline of trust in institutions and establishment politics, particularly in EU; mainstream parties are considered unable in addressing the problems of poverty and social exclusion, instilling a sense of impotence in citizens. Such discontent can assume the form of social protests and political experimentations for demanding a public management of fundamental economic sectors for the social well-being: examples are the numerous European referendums for the return to public production of LPS (Kuhlmann and Wollmann 2014; Louvin 2016; Röber 2009) or the various experiments of self-production of local services (Barbera et al. 2016). Alternatively, such discontent can take the form of vote to political populist actors (Kriesi and Pappas 2015).

Populist offer, as a matter of fact, intercepts the social request of protection from the risk of relocation of industrial production and competition from foreign products through three strategies: anti-elite rhetoric, immediate offer of nationalistic protection and hiding the future costs of the protection policies proposed (Guiso et al. 2017, 2019). Thus, populist parties obtain electoral consensus above all in the areas and in the social categories characterized by greatest economic decline (Stavrakakis and Katsambekis 2014; Becker et al. 2017; Rodríguez-Pose 2018). Such populist vote is therefore interpreted as a reproach to the mainstream political actors for reducing the offer of public services and of job possibilities in an era of growing social distress.

Since the mid-2000s, the European LG have reacted to the new demand of local services managed and to popular distrust in political elites through other policy changes, along trajectories that diverge between countries and sectors. Pollitt and Bouckaert (2017) have grouped in a threefold classification these policies: NPM reforms; Neo-Weberian state reforms (NWS), for a return to hierarchical mechanisms of coordination; New Public Governance reforms (NPG) for a greater horizontal integration. Such a classification is summarized in the table 1:

	Core claim	Coordination mechanism and tools
NPM	Efficiency	Market-type mechanisms
NWS	Professionalization, efficiency, accountability towards citizens	Vertical integration: hierarchical monitoring and control; centralised regulation; centrally defined standards and procedures; compulsory clauses; transparency clauses
NPG	Effectiveness, political legitimacy	Horizontal integration: networks and partnerships between stakeholders; public-public and public-private partnerships; inter-organisational cooperation; participatory clauses; transparency clauses.

Table 1: Post-NPM reforms (handled by the author on the original of Pollitt and Bouckaert (2017: 22)

The remunicipalisation reforms belong to post-NPM policies; Becker et al. (2017), following Bauer (2012), have identified four types of remunicipalisation paths: the remunicipalisation of property is the reacquisition of municipal property; the organizational remunicipalisation is the increase of municipal shares in public-private partnerships or the transformation of private legal forms into public legal forms; the remunicipalisation of responsibilities means returning operational services to municipalities or giving concessions to municipal companies; the hybrid remunicipalisation is a combination of partial remunicipalisation or the establishment of public-private partnerships in formerly completely privatized sectors.

Furthermore, remunicipalisation reforms can show a top-down approach, wanted by the city government, or a bottom-linked approach, the result of citizens' initiatives.

Whichever form the remunicipalisation assumes, every case is the result of a specific interplay between political, economic and normative conditions which could be categorised as an attempt to implement service regimes as similar as possible to the past ones (NWS reforms) or to experiment new models of participatory democracy regimes (NPG reforms) where citizens collaborate with LG (Polizzi 2016). Both the models of remunicipalisation could be interpreted as attempts to respond to an array of matters like the popular request of a greater public commitment in the field of local service provision, to allow to LG to re-gain lost political legitimacy, to increase the economic revenues of the municipalities, to grow jobs in the local area and so on. What is certain is that the processes of remunicipalisation allow the local elected councils to retake the direct control of the decision-making processes about socially and economically relevant issues, such as service prices, service suspensions or local markets of services. Furthermore, in those cases in which an experimentation of civic participation in the management of LPS is implemented, it could allow citizens to express their social malaise, diminishing their sense of insecurity and re-building their collective identities (Jedlowski 2003; Vitale 2009).

Although the cases of LPS remunicipalisation are more and more numerous in the Eurozone, nowadays a specific study branch with this particular object does not exist.

1.1.1.2. What the neo-institutional perspective cannot explain

As mentioned previously, the neo-institutionalism has had the merit to reunify under a sole perspective of analysis the study of the state, the bureaucracy and the administration after a period of hyper-professionalisation and fragmentation of the scholarship about the state action. This perspective has broken up with the individualistic approaches of behavioural social sciences and has accentuated the role of interest groups; it has overcome the a-historical and a-state turning point of the comparative sociology and the post-war political sciences; it has requalified the "harsh" Marxist theses, accused of economic reductionism for the emphasis placed on superstructures and class struggle. The neo-institutionalism criticized Political Analysis, Public Administration and Compared Sociology of the State for having eliminated the role of the state and bureaucracies in analysing interest groups, socioeconomic variables and macroeconomic phenomena. Therefore, it has brought the state and its connections with economic and social phenomena again at the centre of the analysis, restoring the honour of the neo-Marxist and the neo-Weberian theories; it has recovered the

historical perspective from the compared sociology of the state; and it has gone beyond the individualistic perspective of the rational choice theories developing the studies on the collective identities, which are not considered as permanent over time, but historically built by the interactions of the actors of the system. Thus, neo-institutional perspective allows understanding the public interventions by means of the study of their connections with, on the one hand, the inner bureaucratic structures of the political system and, on the other hand, with multiple social groups. The three objects of research – bureaucracy, political system and groups of interests – are conceived in an interaction dynamic. The neo-institutional framework appears, for this reason, eminently heuristic (Bezes and Pierru 2012).

The appreciable effects caused by the spread of the neo-institutional approaches are several. The use a long-term historical perspective has contributed to revitalizing the compared study of the fiscal and economic politics (see Bezes and Siné 2011). The reflections on the temporalities of the public actions and the frequent – if not excessive – application of the concept of path dependency has allowed to start new considerations about the incrementalism of the political changing, or about the closing and inertia of the institutions in front of the change (see Pierson 2011), or the timing of the causal processes. Moreover, differently from the traditional historical Sociology, the neo-institutional scholars have expanded the number of the states and the periods analysed. In addition, this perspective of analysis has permitted to go beyond the Weberian conception of a coherent, homogeneous, hierarchical, vertical and bureaucratic state, so as to conceive the state as it is a whole, made by competing or interacting administrative organizations, each with own history and action's autonomy, own principles, logics, aims, resources and temporalities. The state results, in so doing, fragmented in several power centres and scales, without being dissolved or weakened; Hellmut Wollmann (2018) describes this phenomena as a process “satellitization” through which the urban administration is sub-divided into a multitude of administrative units. Finally, the neo-institutional researches have offered not only integrated and innovative perspectives to understand the changes in the bureaucracies and in their administrative capacities, or in the political systems, or in the local and social policies and the interest groups, but they focused also on the study of the “feedback effects” that those changes produce in terms of socialization, political legitimation, power, economic redistribution, and urban governance. Political Sociology of Public Action has focused, for example, on the study of the forms of political action that develop in relation to the structure of power: in an age, such as the contemporary one, in which European cities have all been affected – albeit in

different ways in different European countries – by reforms such as the decentralization of the management functions of local and social services, by the reduction of public commitment in the direct provision and financing of services, and by a strong crisis of legitimacy of the mass political parties (Castel et al. 2019), This line of research wonders what political and social feedbacks these institutional changes have produced. Such studies have highlighted the complexity of local power (Miller 1958), the interactions among the various political cultures present in local contexts (Tosi and Vitale 2009), the connections of local power with regional, national and supra-national powers (Le Galès 2002), and the capacity of local mobilizations to modify the processes of urban governance and accountability (Vitale 2009; Barbera et al. 2016; Andreotti et al. 2019). Studies from the field of Public Policies Analysis, furthermore, are offering important results on the complexity of the decision-making processes that are under policy-making and implementation processes of policies (Profeti 2011); studies on “wicked problems” affecting decision-making and implementation processes (Kirschke et al. 2019) of local water policies have been emerging from this field of study, where wicked problems are conceived as “complex problems with ill-defined boundaries and solutions, subject to multiple competing views across actors and scales, conflicting values, and only partial comprehension of a problem across different actors.” (Artioli et al. 2017: 218). Applying innovative study methodologies to both theoretical – i.e. conceptualization – and practical aspects of this type of problems – i.e. the techniques to clean urban waters from pollutants, the nexus approach to public policies – these studies measure and analyse the effects of wicked problems on the urban governance dimension of water services, showing different options for solving them.

The neo-institutional approach demonstrates to be appropriate for answering to questions like how the model of state has and its institutions have changed over time? The changing of several political systems is divergent or convergent? How the state’s change is connected with the dominant economic model? Which are the feedback effects of the institutional changes on the society? Therefore, its theoretical perspective fosters the internationalization of the political analysis and the comparison among national political systems with a strong tendency towards generalization, making possible the evaluation of the level of openness or closing of the institutions in dealing with the crisis of the system, of fragmentation or concentration of the political power, and of the increase or decrease in social legitimacy of the national solutions put in place by a government to face problems. Following this way, the neo-institutional studies of the 90s-2000s have had the merit to shed light on the profound

processes of transformation taking place in national systems around the world (the decentralization, the privatization, the power fragmentation, the growing legitimacy of new forms of public management, the performance-based government, the out-sourcing, the remunicipalisation, the recentralization, etc.). Regarding the EU context, the neo-institutional researches have permitted to underline that the contemporary cycle of the European state is generally characterised, on one side, by the slackening of the restrictions of the state on individuals, organizations and territories, and on the other side, by the adaptation, or the resistance or the supporting of the dynamics of increasingly globalized capitalism. These results show a world more inter-dependent than the past, where the states have effectively transferred part of their autonomy to supranational entities, both through commercial agreements and through binding legal and political integration into supranational organizations. These findings inevitably call into question the classical approach to the study of the state and classical concepts like: the models of connection between the central governments and the local ones, the correspondence between concept of state and nation, the composition of the actors of the political system, the political autonomy of the governments, and so on.

In summary, the societies are now organized in the interaction between various, intricate, sometimes contradictory scales (King and Le Galès 2011) and the neo-institutional perspective has demonstrated to be useful to grasp the transitions at national and continental scale – or at best at meso scale – but not at the micro level, and their micro-effects. It is possible, in this specific historical moment, to understand the “state reconfiguration” without taking in consideration the micro level of analysis?

Thanks to the neo-institutional perspective, we are able to answer to questions about how the institutions change, but not to those about why the institutions change: why the actors of a system have chosen a solution rather than another? Why the same policy produces different outcomes in different places and moments?

The neo-institutional theoretical framework doesn't provide the tools to study and explain the process of exchanging of ideas that takes place between the actors of a political system, and which produces a change in the preferences/interests order of the actors and, consequently, the decision to modify – or not to modify – the institutional structure of that same system (Béland 2005, 2009). The Weberian distinction between “political professionals” who “offer” and “strangers” who “ask for” solutions are to be overcome in favour of the conception of an administration that is not only a passive executor of a political proposal: the Weberian

“bureaucratic machine” has to be considered as an “aggregator” or even a “builder” (Huyard 2011) of the demand and an “articulator” of demand and offer (Leca 2012); the bureaucracies and the political élites are to be evaluated as organizations with own interests and aims, they are not neutral actors of a system. Consequently, the “institutional symbolism” that makes the institution a builder of identity (Heclo 2008) appears equally important as the “institutional engineering” and the institutional design, in which institutions are the result of decisions of managers governed by the logic of consequences and by the logic of competence (adequacy), as shown by March and Olsen (1989) – concept however of uncertain applicability. By means of a theory that explains the changing in ideas, beliefs and aims of the actors of a system, the explanation of relatively sudden institutional changes would be better assembled; instead, in the absence of further theoretical tools alongside the concept of “crisis”, the neo-institutional framework conceives only the incremental and progressive changing, occurring through bifurcations and transitions. The concept of “path dependence” has, indeed, undeniable advantages in identifying the processes of reproduction and institutional continuity, but it also has important limitations: it is so unable to think about change that it can quickly lead to interpret the institutions as forms of automatic “mechanism” that works without a human direction (Dobry 2000), and it can restrict the capacity to seize the singularity and the specificity of the present, by focusing on the mechanisms of resistance of the “old” political system to its deconstruction. The new is conceived as a different combination of old elements, already present in the system, without the possibility of introducing innovations – such as new ideas, preferences, objectives and strategies. Instead, to explain institutional change, it is necessary to take in account other mechanisms of gradual change – in addition to the mechanism of automatic incremental change and of resistance to change – that are caused by the will of the actors of the system or by environmental factors (Mahoney and Thelen 2009). Without a doubt, therefore, multiple, divergent and often contradictory processes of changing have been affecting the current state for decades. Already in 1985, the sociologist Pierre Birnbaum highlighted how contemporary states were subject to profound differentiation processes from their past and other states, in an attempt to tackle unprecedented phenomena such as: the development of democracy as a public space contrary to the state, the flowering of the global market, which reduces the state to a minimal role, the corporatism, which introduces private interests in a structure that should be functioning in a universalist manner, the appearance of social mobilization movements, which challenge the institutionalization of the state, the outbreak of wars, which could in turn provoke a de-differentiation of the state.

Thus, processes as empowerment, centralization, decentralization, delegation of state functions to civil society, differentiation of the élite, privatization and remunicipalisation services, fragmentation of state structures – just to name a few – that have been pertaining to the EU member states have inevitably provoked the multiplication of forms of state (King and Le Galès 2011). All these phenomena make inadequate the classical research question of neo-institutionalism perspective about the divergent or the convergent direction of the state reconfiguration. In front of such changes, even the traditional division of the EU states into groups that share the same administrative tradition – Germanic, English-speaking, Southern, Nordic and CEE countries (see Ongaro et al. 2018) – struggles to hold up, above all following the 2007-8 economic crisis that forced only some specific governments to implement austerity policies imposed by the so-called Troika (Lippi and Tsekos 2019b).

Without denying the analytical utility of a knowledge of institutional macro processes at all, in this paper it is stressed the impossibility to ignore the growing entropy of the state: the latter is multiplying its actions in increasingly different fields, nesting new management models of public affairs. It therefore seems that the genesis of a form of state may no longer be the main explanatory variable of the current transformations of the state. To grasp the lines of decomposition and reconfiguration of the contemporary state, it would seem appropriate to combine the study of the genesis of the state with the analysis of public action, by means of an analytical perspective capable of considering the political process in its entirety, thus overcoming the classic distinction between macro-meso-micro scales. As a matter of fact, numerous works (see for example Weiss 1998, Baumgartner and Leech, 1998) demonstrate that the dimension of government and public policies of the state (Policy State) is undoubtedly the one that is changing the most. The authors who study public policies (see for example Kirschke et al. 2019) see in the transformations of public action and government a central dimension of the reconfiguration of the state, since it is precisely through them that the state employs its infrastructural power to transform society in-depth.

But, in the precise moment in which one postulates the public policies as source of the transformations of societies, it is necessary that these are included in the category of government tool outlined by Lascoumes and Le Galès (2011) and recovered by Halpern et al. (2014): a public action tool constitutes both a technical and social device that organizes specific social relations between the public power and its recipients according to the representations and meanings of which it is the bearer. Consistent with this interpretation, the analysis of a public policy has to pass through the understanding of the ideas, the beliefs,

the mental maps, the specific representations of the problems addressed, the strategies and the objectives of the political actors who created that policy. While neo-institutionalist researches have shown how the dynamics of transformation of the state and public policies occurred relatively independently of the “élite” variable, in this historical period the development of theoretical frameworks appropriate for analysing public policies in relation to the dynamics of action of the political groups, and its feedback on institutions, appear to be diriment for supporting policy-making process (Kirschke et al. 2019).

A second implication of the idea that public policies are part of the governmental instruments through which the state modifies society is that the infrastructures managed through these policies are not only agglomerations of objects, but also tools of connection between places and people capable of transmitting information. A water infrastructure is not only a set of objects – pumps, pipes, taps, detectors, tanks, filters etc. – but it is also a real vehicle of ideas, concepts, communication styles, logical schemes: it is sufficient that one reflects on the historical social construction process of the concept of “quality”, to understand the cultural value of all the standards, norms, procedures, logistic parameters on the basis of which infrastructures are managed. Such issue is the centre of a new tradition of studies in which considerations on architecture are intertwined with those on the economy, military strategy, technological evolution and political narratives (Easterling 2007, 2016; Scott 2016; Barber et al. 2018; Weizman 2008, 2013). Protocols, rules of use, technical standards defining the mode of operation of the infrastructures are conceived as institutions that transmit specific visions of the world, define the space of action of the system's actors and, as such, they represent a field of common experience that has an eminently communicative and relational value. Following this logic, one inevitably comes to the results of Dominique Lorrain (2008), who inserts the rules embedded in the functioning of technical infrastructures and machines in the category of “second-rank institutions”.

Dominique Lorrain (2008) described them as institutions placed at the intermediate level between the formal and the informal institutions – represented by beliefs, local technical cultures and political values of the actors of a political system – studied by Douglass C. North (1990). The second-rank institutions are, therefore, devices, which we also call instruments, used by the actors to solve the complexity of the problems; they are divided into three typologies for analytical purposes: the norms of law (decrees and regulations of second level), the technical standards (the standards and the rules embedded in the functioning of technical infrastructures and machines, as the technical standards), the accounting principles (the

norms of recording transactions). Without the recognition of the social, communicative and relational value of the infrastructural systems necessary to provide LPS, the development of theories such as the self-organized management of water services (E. Ostrom 1990), the management of water as a common good (Dardot and Laval 2015, Barbera et al. 2016), water services as socio-technical systems (Lorrain and Poupeau 2016) of institutions and practices that embody the lived history of water heritage (Hein et al. 2018; Couling et al. 2019), would not be possible.

Connecting the general reflections set out above to the empirical study of local public services, one cannot deny the valuable contribution of the neo-institutionalist analysis in this field. Indeed, it allows clearly grasping the macro challenges taken on by national governments in this sector and the paths they have undertaken to face them. However, this perspective shows its limitations in the analysis of only one sector or of a local service regime. These services, in fact, are regulated at Community level by specific legislation, which differentiates them from other SGEI, making the institutional framework in which they are managed quite dissimilar to that of other local services. Again, the cultural, symbolic and emotional impact associated with the urban management of water, as a source of life, makes them unique in their kind – as demonstrated by the numerous local, national and continental civic initiatives on this issue. Moreover, the environmental specificity of each water basin requires the development of an extraction, purification, transport and disposal infrastructure of the water resource designed ad hoc for that specific territory, and this infrastructure needs a fitting managerial policy that is difficult to reproduce elsewhere. Finally, the historically autonomy of LG in managing the water supply services has become extreme since 2009 (Lisbon Treaty) – obviously within the limits of national legislation – with the resulting multiplication of local water management models across the European community.

The theoretical tools and research questions typical of neo-institutionalism are, in the opinion of the writer, particularly inadequate in the study of the specific phenomenon of the remunicipalisation of urban water services. As socio-technical systems, the features and the outcomes of a local water regime can be caught only through the political, historical and social analysis of the territory in which it works (Hein et al. 2018). Questions about the convergence or the divergence of the changing of the managerial models over time, or about “the pendulum” that is swinging back in Europe (Wollmann 2018) do not solve the problem about understanding the managerial model implemented locally. Following Dominique Lorrain and Franck Poupeau (2016), the definition of water distribution services as socio-technical

systems is assumed here, since they have become indispensable to the inhabitants of cities and metropolises. The access to drinking water and hygiene services is inextricably connected to the physical and social well-being of human populations, which is why it belongs to the categories of Marshall's "citizenship rights" and Sen's "capabilities".

Given the specificity of local politics, which often diverges or even contrasts with national politics, understanding the "feedbacks" of remunicipalisation reforms in the dimension of legitimacy and redistribution of social welfare is impossible without a deep understanding of the actions of political actors who took part in the reform process.

Moreover, conversely to the privatization process of LPS, the remunicipalisation reforms are not led by international institutions, with a top-down movement, through their recommendations or financial support (McDonald 2019). As a consequence, there is not a single model of widespread remunicipalisation policy at continental level that the authorities can borrow from. This circumstance exponentially increases the fragmentation of the remunicipalised management models, because every LG is free to implement an original reform process, making more and more difficult the understanding of these case studies through the exclusive use of the neo-institutionalist tools. For this reason, in Europe, independent associations of researchers, trade unions or municipalities are developing independent research programs and organizations, with the aim of gathering information about services' remunicipalisation experiences and promoting voluntary policy transfer at the local level; as examples are Aqua Publica Europea, the European Public Service Union (EPSU), the International Centre of Research and Information on the Public, Social and Cooperative Economy (CIRIEC) and the Transnational Institute (TNI)¹⁶.

To conclude this paragraph, the idea that a local reform process should be studied through both the variable of the state model genesis and the variable of the actions of the actors of the political system as a whole is stressed. Without one of these two points of view, the analysis would remain incomplete. This is the theoretical consequence of the decision to assume that the state does not have a monopoly on the exercise of political authority but, within constellations of various actors at different levels, it administers political authority and maintains a central role legitimizing public action. Therefore, to understand the transformations of the state, the analysis of the institutions is not enough, but there is also the need to get the action of the actors who exercise their political authority through public policies.

¹⁶ <https://www.aquapublica.eu/>; <https://www.epsu.org/>; <http://www.ciriec.uliege.be/en/>; <https://www.tni.org/en>

1.2. The remunicipalisation of urban water services explained through a prefiguring logic

The European groups of experts that apply their own expertise to the study of the remunicipalisation with a prefiguring logic – interpreted as a predisposition to outline the impact, generally positive, of a return to a public managerial model of local services – are those which have been analysing that phenomenon more closely, in its unicity. As a matter of facts, these studies focus generally on a specific case study at local scale, or on the remunicipalisation of a specific sector, like the water or the energetic ones – which are in EU the most interested by this kind of policy reforms – or also on a specific element of the process of remunicipalisation – like the changing in the juridical shape of the companies that supply the service. People involved in the production and diffusion of these bodies of literature can be considered experts, following the definition given by Markus Rhomberg and Mico Stehr (2013); experts in contemporary societies are not necessarily academics – they could be trade unionists (Andolfatto and Labbé, 2006), journalists, independent researchers, spokesman of social movement and associations, politicians (Le Strat 2008, 2010), technicians working for private organizations, etc. – and they have the aim to reconstruct knowledge claims from various sources (often including, but not limited to scientific knowledge) for determining a specific problem. So doing, experts define the situation and set the priorities. They shape people’s mental map to judge their lives, their identities and their world, and they set the standards for assessment. Consequently, experts exercise a judgment of the analysed issue, which is supposed to be objective. After that, the experts set up possible alternatives to be submitted to the politicians, who have the regulative power to implement determined policies. Furthermore, it is convenient for politicians to link their decisions to the opinion of an expert, since this could increase the legitimacy of their choices (Mozzana and Polizzi 2013). The category “expert”, therefore, reveals a profound resemblance to that of the epistemic community given by John Kingdon (1984) in outlining the Multiple Streams Framework (MSF). The expert knowledge about a single matter is often not unified, but rather divided or disputed. Several groups of experts may be competing to get their programmatic proposals on the government agenda. This occurs because in a condition of uncertainty, parallel and autonomous paths of production of knowledge on the same issue can be produced (Chailleux 2016). The ability of the experts to insert their political proposals on the government agenda depends, in the MSF, on the resources possessed and on the position occupied by each actor in the political-institutional environment. The importance of the experts that conduce similar

mediation work between the theoretical knowledge and the policy-making processes has been growing since we live in a knowledge society, where more and more people have access to higher education and the Internet, in which the industrial production is increasingly linked to the progress of scientific research, and governments' decisions are based on experts' advice.

To better understand the point of view of the experts that belong to the two groups analysed below – the experts who promote a management of water as a common good and the experts who support a social municipalism service – there is the need to carry out a generic exploration of the concepts and the lines of reasoning of those that state the opposite theoretical position: the experts that support the privatization processes of LPS. This is particularly important because the body of the studies that face the remunicipalisation phenomenon with a prefiguring logic was born as response to that vast field of applied research in which public institutions, research and development departments of private corporations and consulting firms¹⁷ are all involved in elaborating a global *doxa* – with the explicit aim to promote new ideas and practices – on the water managerial issues, which has contributed over several decades to build a consensus both among professionals and the public opinion that influenced the policy-making processes (Lorrain and Poupeau 2016).

The first studies about the structural problems of the public water regimes and about the requirement of globally spreading a new managerial model that treats water as an economic good come from the World Bank's economic specialists. In its publications, the World Bank conceives water systems as technical systems, whose social value lies in the possibility of generating economic profits among its stakeholders or in the possibility of solving public health problems. The communicative, social and political value of infrastructures (Easterling 2007; 2016; Guerrero 2020) as socio-technical systems (Lorrain and Poupeau 2016) is not recognized by this supranational agency and, for this reason, it assumes that the same management model can be implemented uncritically in any local context. World Bank was the most active in the promotion of commercialization and privatization processes of water services during the 90s. A reading of publications like the "World Development Report 1992: Development and the Environment" (1992) or the "Water resources management" (1993) is sufficient to grab the theoretical innovation of these positions in the panorama of the glorious thirty years of the welfare state, when every service was conceived as universal public good.

¹⁷ Example of all is the Veolia Institute, a research institute of international research, owned by the French multinational Veolia Environment, one of the oldest and most widely spread global leaders in the treatment of water services <https://www.veolia.com/en/veolia-group/profile/veolia-institute>

Over the years, this type of studies has multiplied thanks to the growing interest of academics and supranational institutions – such as the International Monetary Fund (IMF), the United States Department of the Treasury and the European Commission itself – towards the neo-liberalist theoretical framework, from which comes the idea that managing any service according to the rules of demand and offer would naturally lead to a redistribution of wealth among the population. Other examples of this typology of bibliographic production, especially blooming from the beginning of 90s and 2000s, are: “Valuing the environment: proceedings of the First Annual Inter-national Conference on Environmentally Sustainable Development” (1993), of The World Bank; “World Development Report” (1994) of The World Bank; “Back to the Future. The potential in infrastructure privatization” (1994) (Klein and Roger 1994); “Ministerial Declaration of The Hague on Water Security in the 21st Century” (2000) of the World Water Forum; “Granting and Renegotiating Infrastructure Concessions: Doing it Right” (2004) of The World Bank.

The global water supply sector is described, in these works, as a sector strongly under pressure, for several reasons like increasing scarcity of the resource caused by the rapid population growth and urbanization in developing countries (Ioris, 2015; Poupeau et al. 2018); the competition between the use of water for civic and industrial use, and agriculture irrigations; the raising of engineering and environmental costs, which make water services more and more expensive. These sector’s changes seemed requiring a more careful economic and environmental management than the past, and the public institutions did not seem well equipped to handle this situation (Barraqué et al. 2015).

While the public model has been always said “extensive” – if I need more water, I go to take it further – the increasing scarcity of resources requires a new “intensive” model, based on technology solutions to better use the close springs and the already available plants. This makes the water sector even more expensive, in a context characterized since the dawn of time by an high intensity of fixed costs, borne by the state and not by users, and very low marginal costs (Barraqué 2011); the economic theory claims that one can take two different roads for dealing with a prices’ rising: the first is the economies of scale phenomenon and the second is going into debt. Each of the two solutions would have been impassable – or almost – for the water regimes of the 90s as, in the first case, the public management bodies would have had to expand their state-owned companies so much as to encourage collaboration with near local authorities, or transfer their competences to supra-local agencies; or, alternatively, to out-source most of their functions and enter the market economy. In the second case, the

state should have increased its public debt in a situation of high budget deficit; the introduction of the budget constraint in supranational and national legal frameworks in the 1990s made this option practically unobtainable. Furthermore, if the economic resources had been available, the rigid instrument of centralized financial planning, which had always been used by public finance in the service field, would have been inappropriate to address the specific needs of each local context.

According to the economists of the time, a total change of the public management model would also have been possible if there had been a strong investment in the professionalization, technologization and ecologicalization of institutions and policies; but this seemed impossible to achieve in a sector characterized by a level of politicization such as to have produced systemic inefficiencies, under environmental and social perspectives – groundwater pollution, excessive consumption of water resources, and supply of water harmful to health to the detriment of the weaker social categories. Public corporations that supplied water were hierarchically dependent on the political interests of the national and LG and this could cause a variety of phenomena like: excessive debt of companies to avoid an increase in tariffs, in order to avoid a decrease in political legitimacy and therefore in the electoral support of citizens; use of corporate profits to be allocated to investments to cover other advertising activities; fragmented public investment programming (Masarutto 2011a); sector management unfit to take account of the interdependencies among agencies, jurisdictions, and users; use of companies in a clientele or even corrupted manner, with consequent problems such as excess staff, absenteeism of the workforce, inefficiency in data collection or in billing or in providing the service, etc.

To deal with all of these problems, linked to the global changings and the inappropriateness of the public managerial model, the water *doxa* recommended the fulfilment of the same schedule for every national context, regardless of their different social, technical, environmental and economic features; in line with the NPM recipe, this plan started from the postulate that water services can better face the challenges of contemporaneity through the logics and tools typical of private companies management, and the involvement of all stakeholders in the policy-making and service management processes. First of all, the water supply technical system that enabled industrial countries to develop a water distribution network in the late nineteenth century – a single, monopolistic network serving the entire population – is considered the best model for reaching the maximum degree of efficiency. In order to efficiently and effectively develop and manage distribution systems with these

characteristics, water has to be managed as a private good, by means of the private market logics; in turn, for doing this, the implementation of a new global regulatory framework is indispensable for fostering the realization of a private services market, and, consequently, the change into every national legal framework is not only recommended but encouraged through the offer of training and consultancy programs addressed to the institutions in charge of the management of water services. The aim of this normative changing would be the introduction into national legislations of governance tools such as pricing regulations, incentive programs, investment plans, new contractual forms, and environmental standards, which are coherent to each other, and to the global legal framework.

Moreover, applying the principle that nothing should be done at a higher level of government that can be done satisfactorily at a lower one, each central government should reform for decentralizing the economic and managerial responsibility, and for transferring service delivery functions to private operators, or financially autonomous public companies, or community organizations (such as water user associations). Finally, the fourth principle on which the water regime proposed by the supporters of the marketing processes of the water services is based is the participation of all stakeholders (private companies, institutions, non-governmental organizations and users) in the policy-making processes, alternative projects, investment choices and local water management decisions. This is motivated by the idea that only through the direct representation of the economic, environmental and social interests of communities and service providers, each category of stakeholder can see their needs achieved.

The reasons why private managers would be able to better manage water services than public ones would lie in the greater experience in selecting and mastering complex technologies, in the possibility of carrying out economies of scale, in the greater economic efficiency guaranteed by the organizational and management tools of the private sector, by the greater ability to find the economic resources needed to manage an increasingly expensive sector. However, the management of water supply by private operators can occur only on specific conditions, linked to the particular features of this sector. As a matter of fact, unlike the other SGEI, the water sector is characterized by a natural monopoly, due to the unreasonableness of the separation of the infrastructure network from the provision of the service (National Research Council 2002); this makes the mechanisms of the short-term competition between operators inapplicable, in order to keep the service costs low. Furthermore, this sector has always been characterized by a very low profit generation capacity and a high construction

and maintenance cost of the plants. These two elements make the stipulation of long-term concession contracts with private operators necessary, so that they have the opportunity to gain long-term profit; concession contracts should be flexible, so that their content can be subject to continuous renegotiation to adapt to changing exogenous conditions, although this can increase the so-called translation costs that local authorities have to bear. Moreover, these contracts should be based on the full-costs recovery principle (Massarutto 2007), which establishes the total recovery of investment costs through the automatic increase in the water tariffs paid by users, in order to make the private investments in the water sector sufficiently profitable. The application of this principle, combined with the idea that consumers have to pay for their actual consumptions, inevitably leads to an increase in water tariffs; in order to protect the right of the poorest families to access drinking water and sanitation services, a social pricing mechanism must be provided, addressed exclusively to the most disadvantaged social categories. The reports published in particular by the World Bank warn about the risk of excessively augmenting the number of citizens who can benefit from social tariffs: the raising of the tariffs is considered, in fact, an excellent deterrent to waste of water and therefore an incentive (negative) to environmental protection.

The treatment of water as a private good, and therefore no longer as a public good, is perfectly consistent with international law, in particular with the Dublin Declaration (1992) of the International Conference on Water and the Environment, as well as with the Agenda 21 of the United Nations Conference on the Environment and Development of 1992.

In summary, the experts who support the privatization of SGEI have been the main promoters of the dichotomization of the global debate on the issue of public/private management of water services. Their publications present a strong functionalist or technical approach, which conceives the instruments of public action (in this case, the operators that provide water services) as neutral, efficient and free from political problems on the base of their private legal status. The heavy focus on the tools of government can help in building an excellent smoke screen to hide less admirable objectives, depoliticizing fundamentally political issues, and creating consensus on an apparently neutrality of the instruments (Mozzana and Polizzi 2013; Halpern et al. 2019).

1.2.1. Groups that apply a prefigurative logic to the study of remunicipalisation reforms

The studies that belong to the two groups of literature shown below, and that are characterized by the application of a prefiguring logic to the study of remunicipalisation reforms of LPS, are well-established in the same theoretical interpretation of the

contemporary reality. Such interpretation comes from the post-Marxist and post-colonial fields, which propose an analysis of contemporary phenomena as products of the economic structure of the society. These studies recover the Marxian idea of a capitalism subject to cyclical crises, capable of regenerating itself through the continuous redefinition of the relations of exploitation and illicit appropriation of social surplus value. Consequently, the classic Marxian theory of the original accumulation of capital – the mechanism of depredation (or expropriation) of the *res communis* (in this way Roman law called the environmental resources such as trails, grazing lands, forests and water resources that belonged to no one, as goods available to the entire community and managed according to the rules of use defined by the community itself) occurred in the sixteenth century through a wave of enclosures, and carried out by the first capitalistic entrepreneurs in order to use this land for the pasture of wool sheep to provide the raw material for the emerging textile industry – is re-elaborated by the post-Marxist and post-colonialist academics as David Harvey (2011, 2012), Immanuel Wallerstein (2004), or Kalyan Sanyal (2007) in the concept of permanent (or unlimited) original accumulation. This kind of accumulation, until the XIX century, took the form of the acquisition of the fruits of salaried labour in advanced economies, while it assumed the form of the depredation of natal resources in the so-called developing economies. Put in crisis by the great socialist protest of the twentieth century and by the colonialism's end, the regime of private property has reorganized itself on a global scale and has been putting in place a second wave of enclosures for plundering all the elements necessary for social reproduction in every part of the world. This would happen by means of the imposition of a generalized competition mechanism for the access to material and immaterial resources necessary for human life and well-being – such as social services, water, knowledge, work, land, fuel etc. – by means of processes such as the war for resources, the privatization of the rights to exploit natural resources, the de-collectivisation and individualization of working relationships, the privatization of the right of access to knowledge etc. This type of resources are defined common goods, on the base of the common classification of economic goods according to the concepts of rivalry and excludability. Beside the purely private goods – rivalrous and excludable – and the purely public goods – non-rivalrous and non-excludable – there are the club goods – excludable and non-rivalrous – and the common goods – non-excludable and rivalrous. Filippo Barbera, Nicola Negri and Angelo Salento (2018) also underline the belonging of this type of goods to the local scale and the practices of collective use that develop around them: “We define commons as «things common to all, that is those things

which are used and enjoyed by everyone... but can never be exclusively acquired as a whole» (Araral 2014, 12). The adjective «local» refers to the role – actual and/or potential – played in their defence and management by the citizens of a given local area in the course of their daily life activities.” (Barbera et al. 2018: 371). Moreover, such goods can risk diminishing or even depletion if the individual use aims towards the maximization of personal utility; for this reason, they have been historically managed through the commons, considered as a set of norms defined collectively and cooperatively by the community of users. The contemporary expropriation of common goods by global capitalist oligarchies would be taking place thanks to the active participation of supranational economic agencies (WB, IMF, OECD, etc.) and of the state, which has managed these goods as public goods in a universalistic way until the 1980s, in order to protect the right of access to them for all citizens; in the last 3 decades, however, the state has ceded the right to manage these cooperative goods (in the sense that they originate from human cooperation) to private oligarchies by means of the processes of commercialization and privatization. This implies that the economic and social resources resulting from the use of the common goods present in a territory are expropriated by the large national and multinational private corporations (Barbera et al. 2016; Salento and Pesare 2015), instead of remaining in the territory to be reinvested in economic and social growth, hampering social empowerment. In the opinion of David Harvey (2004, 2012) and Saskia Sassen (2007), the expropriation processes by globalized capitalism take principally place in the urban contexts, where the financial power of the capitalistic oligarchies is concentrated and where the production of social capital is maximum. As a consequence, human and citizenship rights are no longer guaranteed by state institutions, as they have delegated the task of organizing access to the resources necessary for social reproduction to private corporations (Salento and Pesare 2015).

The theme of the re-appropriation of common goods by civil society emerged in the 90s, thanks to the focus of the neo-institutional literature on the organizational dimensions of managing local services. The works of Douglas North (1991) and, above all, of the Nobel Prize in economy (2009) Elinor Ostrom (1990), taking issue with the notion of the “tragedy of the commons” (Hardin 1968) demonstrated that water shortages are not ineluctable events linked to the disproportionate growth of populations faced with limited natural resources, but are instead, often the effect of institutional flaws. Elinor Ostrom, who calls these goods common-pool resources, demonstrates that their use does not necessarily imply a choice between private or public property, but rather these goods can be efficiently and sustainably

managed by a self-organized community that can make them available for everyone to use and ensure their long-term preservation. Thus, Ostrom has shown that a community may be able to manage its common goods, outside the private market and the state, efficiently from a social and environmental point of view, through a cooperative social system for defining use and consumption norms. This type of collaborative communities establish their institutions thanks to a continuous constituent process, able of producing institutions that are flexible and adaptable to the social and environmental changes, guaranteeing the long-term reproducibility of the CPR and consequently ensuring the right of future generations to access those resources. Consistently with this, another characteristic of common goods – whether they are tangible or intangible – is their communicative, relational and political value (Guerrero 2020), which makes them able of producing social capital where they are managed through the cooperation of their users; in this way, the whole literature based on the idea that LPS are to be managed as common goods, in order to avoid the expropriation of their social capital, rests on the recognition of the communicative and relational value of the service infrastructures (Easterling 2007, 2016) and of the conception of local services as socio-technical services (Lorrain and Poupeau 2016) resulting from an historical process of building of common knowledge and practices (Hein et al. 2018; Couling et al. 2019).

In the current post-Marxist and post-colonial literature, the concept of Commons is indiscriminately used to describe both the common goods, and the institutions self-defined by a social group by means of the application of the Commoning practices, characterized by the participation of users in the management of the good (creating not a little confusion). Moreover, the concept of Urban Commons means the collective self-management of resources, spaces, services, and institutions located in urban settings that are deemed essential for the social reproduction; these phenomena are increasingly studied as alternatives to neoliberal urban policies across Europe.

1.2.1.1. The remunicipalisation as a legal step for water management as a common good

Starting from the beginning of 2000s, social struggles to get the end of private management of water services, occurred in every part of the world: the most famous one is the so-called Cochabamba Water War, which caused several victims during the street riots against local police forces (Bellaubi and Bustamante 2018; Priscoli and Wolf 2009). After such violent matters, Bolivia and Ecuador governments included the category of common goods in their legislations and the duty of public water management. These local mobilizations found in

World Water Forum¹⁸ a connection network and a development ground for their theoretical construct: it supports the idea that the aim of guaranteeing the human right of access to water and the citizens' right to participate in its management a legal recognition of water as a common good is necessary. The World Water forum, in turn, originated from the experience of World Social Forum¹⁹, which groups the local Water Forums spread in every part of the world, and of the so-called "movement of the movements" against the neo-liberal globalization. Thus, local mobilizations against water commercialization spread a strong stance against neo-liberal economic doctrine, which is adapted from time to time to local contexts.

The first group of literature originated in Italy, in the context of local mobilizations for the public water of the early 2000s; their participants actively contributed to the construction of the World Water Forum and they have embraced the set of theories and political claims of the Forum, adapting it to the Italian political context. These mobilizations were characterized by an incredibly heterogeneous participation – churchmen, academics, politicians, unions, and ordinary people – who gave them a strong media visibility and a heavy lobby power (Carrozza and Fantini 2016). The concept of local mobilization indicates a precise class of collective actions, organized by local "entrepreneurs", in which the involved actors pay specific attention to a local problem and make it public, interacting with public authorities and pursuing one or more shared objectives. In European cities, such political entrepreneurs usually come from the upper-middle class and are characterized by high rates of education and professionalization (Andreotti et al. 2019). This typology of mobilization is often the expression of coalitions that promote conflict about objects that would also require regulation on a supranational scale, but which do not find global arenas in which to bring political conflict (Vitale 2007). Despite the specific claims of each local mobilization, what distinguishes the urban social movements for a public water management is their intention of voicing the negative effects of neo-liberal urbanization processes along with the experimentation of alternative models of water services management: all their political claims and practices are based on the idea that the commercialization of water resources and services is conflicting with the citizenship right to water and sanitation.

The theoretical positions here analysed have been developed by a group of experts, who took actively part in the constitution of the Italian and French mobilizations for the public water; in this context, they devised a body of literature focused on the need to introduce the concept of

¹⁸ <http://www.worldwatercouncil.org/en/world-water-forum>

¹⁹ <https://fsm2016.org/>

common good in the national juridical framework, and the importance of the legal form of the operator that supplies the service, in order to guarantee the management of water as a common good. The main European exponents of this school of thought are Alex Zanotelli (Ingrao and Zanotelli 2002; Zanotelli 2019) Riccardo Petrella (Petrella e Soares 1998; Petrella 2001), Stefano Rodotà (2016), Ugo Mattei (Mattei et al. 2010; Mattei 2011), Alberto Lucarelli (2011, 2015), followed by the French Pierre Dardot and Christian Laval (2015, 2017) and Anne Le Strat (Le Strat 2008, 2010). There are three theoretical elements on which their theoretical system is based: the impossibility of commercializing water – since "water is life" and it is immoral to make profits through the sale of life – from which derives the exclusion by law of the resort to the management of water services by companies subject to private law (even if they are totally public property); the effective – and not only formal – recognition of the right of access to water for all, by means of the building of a free universal water service – financed by the general taxation and not by the tariffs paid by users; the direct participation of citizens in the management of local water services – that can take place in different forms, like the constitution of committees of citizens with the power to approve or reject the water managerial policies of the LG, or the direct participation of the spokesmen for the social movements and associations in the boards of directors of the public bodies that manage the water services (Carrozza and Fantini 2013). In this way, citizens would have the possibility of personally defining the rules of consumption of water resources present in their territory, in order to directly decide how to safeguard the environmental biodiversity and to preserve the right to access to water of the future generations. In this scenario, the remunicipalisation of the managing operator of the water services – conceived as the transformation of a company subject to the private law into a public body subject to public law – appears as a compulsory step towards the fulfilment of the management of water resources as common goods.

These topics are clearly connected to the culture of Fundamental Human Rights and to the idea of the crisis of traditional political representation (see Raffini e Viviani 2011; Barbera et al. 2018), which originates from the critics towards the management model of water services as public goods – through the Weberian bureaucracy – which is no longer able to guarantee the right of citizenship to access to water and sanitation, and the good ecological status of water basins in the long term. Consequently, in response to the crisis of traditional political representation, they propose a participatory experimentalism, whose aim is to support and integrate representative institutions with spaces open to the participation and deliberation of citizens.

The management of urban water services, therefore, is seen as a dimension in which citizens could experiment a reorganization of society on the bases of practices of cooperation, solidarity, equality, social justice and redistribution of political power; a space in which build a model of society fully opposed to the nowadays capitalist one, based on practices of competition, clash between legitimate interests, concentration of power and social inequality²⁰.

1.2.1.2. *The remunicipalisation as a political step for fulfilling a social municipalism*

The second group of literature originated from a set of autonomous research institutes²¹ that share the mission to be a nexus between social movements, engaged scholars, trade unions, journalists and policy-makers, who share the objective to develop an alternative model of society than the one implemented globally by means of the neo-liberalist politics, as the previous group. These different institutes originate from academic projects focused on remunicipalisation case studies, or from the political activism of LG, unions and individuals involved in the diffusion of the theory of social municipalism.

The studies they publish have a strong dichotomous slant, where the model of society based on the globalized extractive economy – which generates profit for the private investors through the extraction of surplus value from all the activities necessary for social reproduction – contrasts clearly with a model of society based on the municipal social economy – where the profits obtained from the use of the material and social resources of the territory are reinvested in activities aimed at increasing the local social well-being.

Therefore, this group of literature does not contain a total rejection of the entire capitalistic model of society – based on the management of local services through typical tools of private companies, or through the mechanism of exploitation of a territory to derive profits, or the logic of the political representation of interests – as instead happens in the literature body analysed previously. This literature promotes a hard critique towards the commercial models of managing the local services through every forms of privatization (including the agencification, the PPP, out-sourcing, etc.) due to their inadequacy in tackling the extreme

²⁰ Interview with an activist at national scale for public management of water services.

²¹ Some of them are: Transnational Institute (TNI, Netherlands) Multinational Observatory, Canadian Union of Public Employees (CUPE, Canada), Public Services International (PSI, France), Austrian Federal Chamber of Labours (AK, Austria), Ingeniería Sin Fronteras CATALUÑA (ISF, Spain), Public Services International Research Unit (PSIRU, UK), We Own It (UK), University of Glasgow (Scotland), Norwegian Union of Municipal and General Employees (Fagforbundet, Norway), Democracy Collaborative (USA), Movement of defence of water, land and environment (MODATIMA, Chile), Aqua Publica Europea (Belgium), Danish Union of Public Employees (FOA, Denmark), Municipal Services Project (MSP, Canada), European Federation of Public Service Unions (EPSU, Belgium), Rockefeller Foundation (USA), the Netherlands Trade Union Confederation (FNV, Netherlands), and many others.

social inequality and ecological crisis that affect the worldwide urban contexts. These models are criticized not per se, but because they are based on the idea that the gains from the utilisation of the territory's resources have to enrich the private investors and not to improve the social condition of the citizens. As a matter of facts, publications like "Resilient Cities, Resilient Lives. Learning from the 100RC" (Rockefeller Foudation, 2019), "Public Finance for the Future We Want" (Steinfort and Kirshimoto, 2019), "Re-municipalising municipal services in Europe" (Hall 2012), or "Public ownership of the UK energy system – benefits, costs and processes" (Hall 2016), or "Reclaiming Public Water. Achievements, Struggles and Visions from Around the World" (Balanyá et al. 2010) are all built on two specific postulates: 1) a deep critique of every commercialization policy starting from the collection of data about the negative effects of LPS private management – loss in democratic control of the managing mechanisms, uncontrolled growth of the services' prices, corruption, interruptions in suppling of services caused by the private bankruptcy, unwillingness of private operators to supply services in poor areas, restrictions in the citizens' rights to access to the LPS, impoverishment of public administration, decrease in quantity and quality of local work, increase in social inequalities and environmental disruption, etc.; 2) a glorification of the direct management of LPS by local authorities, able to activate processes of social empowerment of the fragile categories, economic and well-being redistribution, democratization of policy-making, resiliency to the environmental and economic challenges, accountability, transparency, improvement in the conditions of public workers, guarantee of human and social rights, increase in economic resources of LG to re-invest in activities of social promotion, reduction or also elimination of services tariffs, certainty that the LPS are supplied continuatively and in every kind of territory, etc.

The central idea of this vast literature body, composed by works from every part of the globe, is the passage between an extractive economy to a regenerative local economy, which can be fulfilled only through the remunicipalisation of the operators that manage the LPS, and their transformation in no-profit public operators, territorially based. Moreover, to avoid the typical problems linked with the direct public management of the local services – hyper-bureaucratization, inefficiency, corruption, authoritarian governance, etc. – the top-down governance has to be supported by new forms of deliberative and cooperative democracy (Raffini 2015; Polizzi 2016), where residents can directly and indirectly participate in democratic decision making.

To support the policy feasibility of the municipalist program, the experts of this group are

particularly active in aggregating the results published in the analysis of cases study on local experiences of remunicipalisation and well management. Based on the data collected, they stress the idea that the remunicipalisation is a global phenomenon. As a matter of facts, the number of cases of remunicipalisation has grown from 2 in the year 2000 to 267 in 2017, with 37 countries and more than 100 million people implicated (Kishimoto et al. 2015, 2017). While the remunicipalisation phenomenon occurred initially in the water sector, it has been extending to all the others local services: in 2019 the total number of remunicipalisation cases of social or public services would be 1408 (Kishimoto et al. 2019).

From a European point of view, these groups strongly criticize the EU institutions because they have implemented a regulatory framework for fostering the privatization and marketization of the SGEI, for cutting resources for local authorities, and for limiting their spending possibilities, but without suppling them with the legal tools to deal with the consequences of these decisions. They ask to EU more regulatory and economic powers in order to make the local authorities more autonomous in managing their territory economy and to allow them to directly supply local services. In addition, the scholars that compose this group, ask the European local politicians to mobilize their citizens in order to promote a global social movement supporting the municipalism proposal, able to press EU institutions for changing normative framework and for contrasting the rising of the far right and racism culture connected to the spread of populist parties (Mudde 2007).

1.2.2. What the prefigurative logic cannot explain

The publications that applies a prefigurative logic to the study of remunicipalisation of water services (i.e. Petrella 2001; Ingraio and Zanotelli 2002; Dardot and Laval 2015, 2017; Hall 2012; Kishimoto et al. 2015, 2017) have had, indubitably, the merit to have re-politicized the global debate about the management of LPS. In contrast to the functionalist approach of privatization experts, the social movements and experts who support the remunicipalisation of the LPS have fulfilled the important goal of demonstrating that the instruments of public action are not politically neutral, nor adaptable to any social context. On the contrary, they are bearers of values, nourished by a precise interpretation of society and specific solutions to its issues. The instrumentation of public action is therefore a mean to guide the relations between the political elites (through the administrative manager) and the civil society (through its administrated subjects) thanks to the implementation of mechanisms that combine technical (measurement, calculation, state of law, procedure) and social (representation, symbol) components (Halpern et al. 2014). Thus, the experts of

remunicipalisation have the merit to have treated the tools of government like institutions (Hood 1991); as institutions, in fact, the government instruments produce specific effects regardless of their declared objectives and structure public action according to its own logic. Public action tools are institutions in the sociological sense of the term: they are a – more or less – coordinated set of rules, standards and procedures, which regulate the interactions of actors and organizations. These institutions, therefore, offer a stable framework that reduces uncertainty and structures collective action: they partly determine how the actors will behave; they create uncertainty in the balance of power; they indirectly favour certain actors and exclude others; they spread a specific representation of the problems (Lascoumes and Le Galès 2004).

Consequently, treating the government tools as institutions, the literature in favour of the remunicipalisation shed in light the importance of the social consequences of the management of LPS in the urban dimension. Focusing on specific matters of the policy process of remunicipalisation or on a singular case study taken place in a precise urban context, this typology of literature have notably enriched the European knowledge about the remunicipalisation experiments occurred around the world and their political and ethical implications; they have, moreover, the value to have systematized that amount of knowledge that is, too often, lost with the disappearance of a movement, produced by the mechanisms of learning and specialization that occur into the social movements (Seguin 2015). This literature, in fact, has been an element of legitimation of the claims of the local mobilizations against a specific experience of private management of water services, as occurred in Bolivia and Ecuador during the so-called Cochabamba Water War, which caused several victims during the street riots against local police forces (Bellaubi and Bustamante 2018). In 2006 the movements for the remunicipalisation of the water supply caused the interruption of private management and the inclusion of the category of common goods and the duty of public water management in the Bolivia's and Ecuador's legislation.

From a scientific point of view, however, these two groups of literature show strong limitations, making their policy proposals not very useful for urban policy-making purposes. Despite their contribution to the knowledge of numerous case studies never analysed, in both cases most experts who published these works focus their analytical efforts only on the phase of delineation of the problem – the privatization – and on the phase of policies design – the remunicipalisation – without ever analysing critically the outcomes produced in the implementation phase of the remunicipalisation policy. The scientific analysis of a policy, in

fact, has to take into consideration a long period of time, in order to analyse the entire political cycle, from the identification of the problem phase to the implementation phase, which is that in which the outcomes are produced (Sabatier and Weible 2007)

In addition, the comparison between case studies and the aggregation of their outcomes is carried out without referring to a specific scientific methodology: the comparisons conducted without guaranteeing an equivalence between the techniques of data collection and analysis, between the contexts analysed, and among the evaluation criteria of the case studies are particularly questionable (Baumgartner et al. 2006). Charles Tilly, instead, underlined the importance of the use of formalisms in scientific researches, particularly in the stage between the initial archival data collection and the final production of a narrative (Tilly 2004). This because the use of formalisms discipline the encounter of argument and evidence, strengthening the explanations of the authors and improving the ability of other researchers to formulate testable competing explanations. These studies, therefore, often appear unusable in the scientific field, profoundly weakening the possibility of developing a branch of studies on important issues like the social consequence of privatization and remunicipalisation of the LPS in the urban dimension.

Furthermore, this type of analysis have a strong structuralist perspective, because of which every policy reform is shown as a consequence of the economic supra-structure. Consequently, this approach is not useful to provide the explanation of the specific reasons that encouraged a specific LG to privatize or remunicipalise their local services. Moreover, the analysis of the local policy reforms takes place without considering the social, political, historical, economic and technological context in which the decision to privatize, and after to remunicipalise, has been reached. This reveals a conception of society made up of elementary units self-sufficient and self-directed, which has not connection with the social and political processes that take place at different scales; this epistemological approach seems designed not to contradict the reference theoretical model, for which the globalized neo-liberal extractive economy materializes through the phenomenon of privatizations. But, in this way, the same criticism that Tilly (1995) advanced towards the Big Case Comparison studies could be directed at the literature considered here: the efforts to construct invariant models that are continuously altered when new evidence does not fit have failed to provide cumulative knowledge of how local policy-making processes work and how EU LG interact whit the contexts in which they are embedded.

As socio-technical systems, indispensable for guaranteeing the right to life of the inhabitants

of cities and metropolises – as recognized by the experts of remunicipalisation – water regimes can be studied adequately only in relation to their historical, social, economic, political and environmental context. Without taking into account all these contextual factors, the analysis of privatization policies and the consequent proposal to remunicipalise and manage water services directly has no scientific or political value. Any local policy must be contextualized and built ad hoc to solve the specific problems of a given territory. Both groups of literature prove to be useless in supporting the European policy making process, which aims to tackle the problem of urban management of water services in a context characterized by urban water services more and more expensive – for an increase in environmental regulations and indicators that require new investments in infrastructures and expertise, and decreasing water consumption that cause a decrease in revenues collected through bills – and by a local governance with less and less economic and political resources – for scarcity of the economic resources of cities, limited policy-making power, and decreasing political legitimacy. These specific tendencies of the European context have been clearly highlighted by the neo-institutionalist analysis, but often ignored by the literature taken into consideration here (Tindon 2018).

Applying the same approach of the experts who support the privatization (Lorrain and Poupeau 2016), the literature in favour of the remunicipalisation reforms focuses on the public or private status of the operator. The extreme dichotomous approach of this literature does not allow applying a strict research method to the case studies, due to the premise that a good management of water services originates from the public legal status of the operator, not from the implementation of the most suitable policy for a specific situation. This literature replies to the generalization of a universal service model with the proposal of another water regime considered the best for every local reality, excluding a priori the hypothesis that there is not only one “model” of best practice to be implemented at all costs, but that each territorial community should have a model for the management of local utilities able to face up contextual problems. This road inevitably leads to the exclusion from the analytical overview of case studies where privatization has given good results or where remunicipalisation has worsened the conditions of access to the service. So doing, there never will be the possibility to answer questions necessary for policy-makers such as: what really changes with the privatization? Under what conditions does the private management of a service produce positive results in a social or environmental context? Under what conditions does a direct public service management policy aggravate the social and environmental problems of a

territory? What are the conditions and institutional tools necessary to support a remunicipalisation process? What incentives are necessary in order for the service manager to achieve the goals given by politicians? Etc.

In conclusion, it is clear that without a careful contextualized analysis of the case studies, and a strict method of comparing the results, the statements of these groups of experts have neither scientific nor political value. The literature analysed here can, in the best case, be useful to the spokesmen of urban social movements in search of a broader theoretical reference for their specific claims, and, in the worst case, to opportunistic politicians in search of charming slogans and keywords during the election campaign; but, unfortunately, it has lost the opportunity to be the basis for a broader scientific research program or a policy-making instrument, with the risk of fostering remunicipalisation reforms of LPS which badly fit to the local context, and which in the future will produce a worsening in the quality of the service and in the environmental protection.

2. THE PRIVATIZATION OF EUROPEAN LOCAL SERVICES: EXPECTED AND UNEXPECTED OUTCOMES

Given the macro perspective of the neo-institutional analysis, the most important studies about the effects of the Europeanization on the provision of LPS are from this field. Neo-institutional contributions appear particularly decisive in understanding the change of administrative framework in which the LG have to act, caused by the EU integration process; this allows the contextualization of every decision taken by national and sub-national governments in the last three decades. The results highlighted by the studies published by the experts who apply a prefiguring logic to the remunicipalisation will also be reported here, but only those that show an adequate level of scientificity and reliability. These, in particular, have been selected on the basis of the author's/authors' belonging to the European academic circles or to university research bodies, or because the contributes are published on accredited scientific journals. Data belonging to this body of literature that will be reported here refer above all to the outcomes of the privatization processes and of the implementation phase of remunicipalisation reforms; the results of the numerous case studies on the local experiences of remunicipalisation will be excluded from this work due to their lower level of scientific reliability. As affirmed in chapter one, these studies lack the analysis of problems and negative outcomes, proving to be more harmful than useful for the purposes of academic knowledge of the phenomenon of remunicipalisation of LPS.

The exposition of the findings will focus on the period following the Europeanization process, taking in consideration only the reforms of NPM and post-NPM periods.

2.1. The effects of Europeanization on the management of urban services

The Europeanization process has made profound changes to the administrative functions historically performed by LG in providing LPS. Despite the relative autonomy of EU local authorities in organizing services, the idea that they are entirely free to decide how to manage SGEI would be a mistake. In fact, the possibilities of action of LG have different law boundaries. Competition and environmental rules of EU are pervasive in the public services sector, and they are the same regardless of which level of government is responsible for a given function. "This means that the boundaries between different levels of policymaking are blurred and different patterns of interaction and power game are played. It also means that member states lose part of their sovereignty and in this process lose some (or even much) of their capacity to set the policy agenda – they are no longer able to monopolize the domestic agenda on issues in the relevant policy domain." (Baumgartner et al. 2009: 340). Thus, the

material EU norms to which the governments of every scale are subject – in particular the competition ones – limit deeply public service tasks in the economic sphere. The principle of institutional autonomy of member states leaves to national government the discretion to define the ways of assimilation of EU norms into the national legal frameworks. Such a principle was affirmed to recognize the institutional diversity of the UE member states and to safeguard the authority of LG in organizing services based on local specificities and needs, but it cannot be absolutely used to justify non-compliance with EU rules. Summarising, the norms relating to the management of local services result firstly in regulatory powers of the EU institutions, then in the national ones, and last in regional/departmental ones: the direct consequence is an extremely limited space of manoeuvre for the local policymakers. Consequently, the rule-making and the contracting powers of local authorities should not be confused with the regulatory functions. LG have, indeed, the freedom to choose the managers of their SGEI, but their objectives and the ways for achieving them are basically defined by the national institutional framework: local authorities can, at the limit, add tasks related to the specific territorial context (i.e. obligation of greater investment in the protection of the local water basin, provision of a social tariff for the less well-off citizens, participation in citizenship education programs, etc.). Regulatory powers remain, in fact, a prerogative of national governments, which can also decide to administer them directly or indirectly, through independent regulatory agencies. Consistently with this, the EU LG are to be conceived as regulated bodies rather than regulators (Marćou 2016b).

It is important to emphasize that when scholars mention the rules relating to the management of local services, they refer to all the types of rules that regulate the SGEI sector in the EU. As a matter of fact, the Europeanization has produced a deep change not just at formal institutions level – where the definition of formal institutions as “the rules of the game” of Douglass C. North (1990) is assumed – but also at the second-rank institutions level. As mentioned in the first chapter, the second-rank institutions are the norms of law (decrees and regulations of second level), the technical standards (the standards and the rules embedded in the functioning of technical infrastructures and machines, as the technical standards), the accounting principles (the norms of recording transactions) placed at the intermediate level between the formal and the informal institutions (Lorrain 2008).

The multilevel governance system produced by Europeanization implies a greater involvement of LG in the policy field, which results in an increase of duties and responsibilities, in a decrease of money transfer from central to peripheral governments and

in imposing budgetary constraints, obliging them to find strategies to provide the same services with less resources compared to the past. In addition, since the 1980s, EU local authorities had to implement intra-administrative reforms, in line with the international NPM debate, in order to launch a process of "rationalization" of the mechanisms for the provision of public services (Bolgherini et al. 2019) and overcome the flaws attributed to the traditional, Weberian model of administration (Salento 2013). Indeed, new ideas associated with the NPM "recipe" requested a radical modernisation of public administrations through the introduction of market-like instruments and managerial techniques (Hood 1991) which would involve: privatisation; downsizing structures and personnel; outsourcing; separation between political and managerial functions; disaggregation of administrative units; decentralisation of decision-making processes, and performance-based evaluation and controls. Such reforms have been implemented in most member states, almost irrespective of the political colouring of the majorities in office (Gualmini 2008).

All of these institutional changes have affected the perceived role of national and local institutions in providing and regulating the local services. Thus, financial downsizing to which the LG are subject has directly or indirectly resulted in a decrease of invested resources in service provision (i.e. cuts in services provision, capital spending interruption, limits to services frequency, downsizing of the user base, increase in prices, etc.), as well as in changes in the institutional and organizational background (i.e. rescaling or upscaling of functions, central budget supervision, postponed investments, transfer of costs and functions to private actors, etc.). The decrease in the spending power of national and local authorities has been a crucial factor towards the governmental decision of privatizing local services (Broughton and Manzoni 2017; Keune et al. 2008), because the neo-liberal theories claimed that economic investments would depend on the involvement of private firms in providing LPS.

At continental scale, the neo-institutional academics have observed two different mega trends subsequent to the Europeanization. On one hand, the model of services provision of the advanced welfare state period has been so much affected by the attacks of neoliberal ideas, NPM tools, and UE policy, that a convergent trend has been registered from a public-sector-based service provision to a commercialized and privatized service provision. On the other hand, there has been a significant divergence between countries about the specific services regimes implemented at local scale, with different results in line with their institutional traditions and their economic possibilities, and with significantly different roles of LG from sector to sector and country to country (Wollmann and Marçou 2010; Wollmann 2018).

2.1.1. The impact of the Europeanization on the administrative traditions

As mentioned in first chapter, the European countries can be subdivided into five different groups based on their administrative diversity (Painter and Peters 2010). Also during the so-called NPM period, this theoretical subdivision has proven to be solid, since the macro institutional changing paths have shown a continuity with the previous models of service supply; this has allowed the neo-institutional scholars to positively apply the path dependency theory to these changes.

Germanic Countries

Germany, Austria, The Netherlands, and Switzerland have been historically characterized by a consociational, consensual, multi-party, and corporatist tradition; they have always reflected the Max Weber's bureaucracy model (Rosser 2018). The Netherlands was probably the first to adopt NPM ideas in the early 1980s, with the delegation of tasks and competences to semi-autonomous public bodies and, consequently, the provision of LPS has always remained in the public hands. In Austria the market-like tools and managerial techniques made their entry through the ambitious Administration Innovation Programme of 1989, introducing NPM key concepts such as "target agreement" and "global budgeting" at national and federal levels; despite this, the organizational model of LPS changed only at the local level, leaving it practically unchanged at national and federal level. German launched NPM reforms only at the end of the 90s, under the budgetary pressure caused by the high costs of German Reunification, thanks to its cost-cutting potential. The "New Steering Model", which is intrinsically a managerial concept, was initially adopted by the municipalities and counties and subsequently by the Landers. This caused a general wave of corporatization of the public operators owned by local authorities, without significant formal privatizations. In sum, the Germanic countries preferred a strategy of "soft" commercialization by means of out-sourcing, agencification and partnerships.

Anglophone Countries

The UK and the Republic of Ireland have developed separate systems of Public Administration since the independence of the latter, in 1922; despite this, many similarities remain, as the establishment of a common civil service in the XIX Century, a centuries old county-based LG, and the use of common law. UK has probably been the EU country to most strongly experience the NMP consequences during the governments of Margaret Thatcher, in 1980s and 90s. In that period, a massive program of material privatization of the entire public assets was

implemented, often causing the closure of heavy industries and monopolistic operators in the services field, with strong social consequences (Massey and Pyper 2005). Unlike the UK experience, the NPM arrived in Ireland in the middle of the 1990s, with a sustained program of civil service privatization and modernization, which continued through a period of rapid economic growth until 2006. This growth remained bull until the 2008 financial crisis, which severely affected the national economy.

Southern Europe

Five European countries can be categorized under the label of Napoleonic countries, since their administrative traditions were influenced by the Napoleonic civil code (1804), historically characterized by a strong central state and an extensive body of administrative law to regulate the interactions between citizens; they are France, Italy, Portugal, Spain, and Greece. Apart from sharing the French administrative model, these countries appear really different from one another under an administrative point of view, so that the decision to place all these countries under a common theoretical umbrella is debatable (Ognaro et al. 2018). A common thread connecting the Southern countries has been a general resistance to NPM reforms, conceived as a form of foreign (Anglo-Saxon) colonization. Thus, they adopted a “shopping basket” approach to the implementation of NPM policies from the 90s to 2000s, which consists in choosing and mixing different policies in order to make them better acceptable for the domestic context (Pollitt and Bouckaert 2017). Consequently, a convergent trend towards a specific shape of commercialization cannot be identified in this group of countries, due to the selective manner of introducing institutional changes. The national economies of these countries have been the most damaged by the global crisis of 2008, and all of them have been involved in economic aid programs of supranational agencies.

Nordic Countries

Public administration in Sweden, Finland, Norway, and Denmark is historically aligned with the Continental European systems, with a centralized management of the services provision through strong Weberian bureaucracy. While in Finland and Sweden a financial crisis in the early 1990s provided the impetus for implementing NPM reforms and starting a privatizing process of service provision, in Denmark and Norway a permanent critical attitude towards the commercialization of services has been still persisting; so, the latter two countries activated only a soft agencification process. The neo-institutional scholars have thus theorized that, in these countries, some external shocks are required to divert from the path

dependency of public administration (Ongaro and Van Thiel 2018).

CEE Countries

On the one hand, Central and Eastern European Countries share a communist legacy, but on the other hand they get very different administrative systems, and divergent histories, cultures and state models (Nemec and de Vries 2018). In general, after the sunset of the Soviet-Union, these new independent states went through a number of changes as the implementation of a parliamentary democracy, often combined with a multi-party system, and the transition to a market capitalistic economy. From the 1990s on, each country followed its own path of transition, but all influenced by the desire to join the European Union. The EU *acquis communautaire* imposed several NPM reforms, such as liberalization, marketization, privatization of several public services, and the establishment of new regulatory systems and authorities to regulate new market. The fast and massive implementation of large-scale privatization programs caused, often, a number of problems linked, for example, to the cut of state subsidies for the unemployed people and the consequent increase in poverty (Broughton and Manzoni 2017) or to the lack of administrative capacity to adequately deal with organizational innovations or to regulate the new market (Drechsler and Randma-Liiv 2016). It seems that the capitalistic and NPM reforms have taken place mainly at structural level, rather than at the cultural one, and this ungluing between the political elites and the society has in some cases led to increased level of corruption and patronage following the privatization (Ongaro et al. 2018).

The financial crisis of 2008

Liberalizations and privatizations of public utilities have formed part of general austerity measures implemented by EU countries that needed economic support from UE-IMF during the economic crisis of 2008. Austerity may be defined as “a form of voluntary deflation in which the economy adjusts through the reduction of wages, prices, and public spending to restore competitiveness” (Blyth 2013 in Lippi e Tsekos 2019b: 5). Austerity policies were adopted through agreements with supranational institutions, causing a sort of coercive isomorphism (as occurred in Greece, Portugal, Spain and Cyprus), or through seemingly softer measures, making possible a sort of incremental introduction of reforms through the “shopping basket” strategy (as happened in Italy, Croatia, Albania, and Ireland). Differently from the commercialization wave of the 1990s-2000s, these privatization programs are based on a need to cut public sector costs and to raise the public revenue, in order to decrease public

debt. As a consequence, a financial downsizing of the public spending was required, with a direct or indirect reduction of resources for the services provision as well as for the institutional and organizational public bodies. Therefore, the local authorities of these countries have experienced an additional wave of cuts in their economic resources and a further reduction in the freedom of action and intervention in the field of local service provision, as compared to those caused by Europeanization. Also France, Denmark, Germany, Hungary, Nederland and UK experimented, in this period, a soft wave of austerity made by wage and employment cuts and freeze, and qualitative or structural measures such as decentralizing public services to municipalities (Broughton and Manzoni 2017).

2.1.2. The results of the NPM and austerity reforms

Everywhere there was a clear trend towards the commercialization of LPS, supported by the continuing UE pressure to liberalize and open up services to competition, and by the long-term national fiscal pressure on LG (Grossi and Reichard 2016). However, evidence shows that there have been sectorial differences in term of speed, forms and timing of commercialization. Furthermore, the commercialization policies of LPS have produced both expected and unexpected, or perverse, results. With this conceptual differentiation we want to suggest that the implementation of a public policy does not always produce the outcomes announced by policy-makers during its formulation. In such cases an implementation gap has occurred (DeLeon 1999; Hill and Hupe 2009). This happens because policy-makers do not always act to address and resolve public problems in a manner that best serves the public interest of all governed citizens; quite the opposite, they can act as free-riders (E. Ostrom 2005) using public policies to pursue selfish interests (Howlett 2020). For example, the public authority can be used to promote the interests of specific social groups or particular sets of "clients" (Goetz 2007), to penalize or punish others (Howlett et al. 2017) or to benefit the policy-makers and administrators themselves, as it happens in the case of political clientelism (Stokes 2011). In all circumstances where public policies are not used to pursue the common interest, but to satisfy particular interests, they can produce unexpected results. It is important to underline that the responsibility for such perverse results is not to be assigned solely to policy-makers, since every governance process is always an incomplete and discontinuous work in progress that arises from the bi-univocal interaction between the agency of political decision-makers and policy-takers (Le Galès and Vitale 2013). Therefore, for every policy-maker driven by malicious or venal motivations, rather than socially beneficial or disinterested ones, there is a policy-taker with proclivities and tendencies

towards activities such as free-ridership and rent-seeking that undermine even the best intentions of government (Howlett 2020).

Having made this important conceptual premise, the expected and perverse results of the European LPS marketization policies are set out below.

Mostly telecommunications, energy, transport, and postal services become subject to different forms of privatization during the 1990s (Keune et al 2008); moreover, the OECD (2009) confirms this trend showing that between 2000 and 2007 31% of privatizations originated from telecommunication sector, 19% from the transport and logistic sectors, and 17% from the energy sector.

The water sector is, instead, the less privatized and that which has made the most frequent use of the exceptions, foreseen by the European regulation, to the management of LPS through the rules of pure competition. Anglophone and CEE countries aside, in most European territories the privatization of water services took place later, and it was partial or functional or formal/organizational, since the most spread privatization forms have been the PPP, the *in house* through corporatized agencies and the out-sourcing. Unlike the other SGEI, the urban water provision remained mostly in municipal ownership and operators: according with a survey conducted by David Hall and Emanuele Lobina (2007), only 14% of public water operators in European cities with a population over 1 million were private in October 2006; however private foreign companies often became shareholders in local water companies, as a result of the general commercialization process. European Union was also marked by an increase of the intermunicipal cooperation to deliver urban water (Wollmann 2018), in order to access to economies of scale and reduce managerial costs.

The path dependency theory appears suitable to clarify the reasons why the privatization of the water sector is weak and the political and administrative control appears here stronger than in other sectors. The historical features of water services (the natural monopoly of this sector makes the competition impossible), and the symbolic relevance of the right to access water in European tradition, have made the privatization of water services politically problematic (Duret 2015). Again, the specific features of the water infrastructures (heavy costs but slow depreciation) foster public investments rather than private, because the public authorities can generally obtain bank loans with lower interest rates (Barraqué 2012). Finally, there are no EU directives on compulsory liberalization of the water sector as there are for the others SGEI, thus the two exceptions to the liberalization provided by the European Commission result more feasible in this sector than in others. According to Giulio Citroni

(2010) the privatization of water services have been implemented mainly to reach three goals: the search for effectiveness and efficiency, the need of private investments to renovate infrastructures and plants in order to respect the new environmental norms, and the attempt to “put the blame” for the inevitable increase in tariffs on someone else instead of the elected politicians. Many scholars agree on the reasons behind the progressively increasing prices of the European urban water services: a general decrease in civil consumption that led to a reduction of earnings collected through the user bills, linked to the diffusion of a new popular consciousness on the water scarcity, and the need to renovate the water infrastructure to respect EU environmental standards (Florentin 2015a, 2015b).

The generalized results of the commercialization and privatization wave of the 1990s and early 2000s have been various and they have pertained to all LPS. On the positive side, through the marketization of services, the scope of providers has become broader, going beyond the political objectives of governors and including efficiency and quality goals. Moreover, the competition has given to the consumers the possibility to choose between different providers (Wollmann and Marcou 2016). Additionally, private investments on LPS have increased (Masarutto 2011a). On the negative side, there is an empirical evidence that consumer prices have been rising despite competition, causing negative consequences on the social equity. In addition, the transaction costs that local authorities had to bear for tendering and monitoring the performance of the private operators, and for the constant renegotiation of the contract, were excessive for LG, constantly subject to resources cutting, such as those of the Euro zone (Grossi and Reichard 2016). Also, evidence underlines the negative repercussions of commercialization and privatization processes on employment in all EU countries and in all the sectors, both from a quantitative and qualitative perspective, with an impressive loss of permanent work in the immediate years following the commercialization, and a small increase in precarious and temporary employment contracts in the years after the commercialization (Bach and Bordogna 2011; Broughton and Manzoni 2017). Furthermore, the commercialization, in its various stages and types, has tended to de-politicize the LPS managerial activities in the local arenas. This is true both for formally privatized and corporatized municipal companies, which operate as single-purpose organizations that intend to optimize their specific economic interest, rather than the common interest postulated and defended by electoral councils. In fact, the actor-centred institutionalists observe that the transition from government to governance has weakened the role of local authorities as defenders of the public interests against a variety of providers with their own economic goals

(Wollmann et al. 2016). By becoming an actor among others actors, the influence and the control capacity of the LG on providers of LPS have decreased, with a consequent increase in information gap; local authorities has also difficulties to monitoring the modality of services provision, due to a lack of staff and time. Furthermore, since the service providers act largely outside the influence of elected LG, they have caused some “centrifugal dynamics” (Wollmann and Marçou 2010), which challenge the political legitimacy of the local authorities in guaranteeing the “general interest”. Moreover, the actor-centred institutionalists state that the corporatized and PPP regimes could produce the following unexpected results: conflict of interests between owner-municipalities and regulator-municipalities, concentration of decision power in the hands of mayors and private owners of companies’ assets, lack of transparency, and tendency to appoint political personnel as members of Management Board of the MOEs or PPP. As a matter of facts, in the corporatisation and PPP cases, the privatization process can became a chance for local politicians to build unusual coalitions of interests, beyond the democratically elected municipal councils (Citroni and Di Giulio 2016), increasing the risk of patronage and clientelism. Thus, the boards of directors of private or mixed corporations that manage LPS can been considered arenas of local power, in which many of the political functions traditionally carried out by elected delegates are performed (Citroni 2007; Citroni et al. 2012, 2016; Galanti 2016; Lorrain 2016). One of the results highlighted by studies on the arenas of local power is that the indication provided by supranational agencies about the need to organize local services through the cooperation of all local stakeholders (horizontal governance) often translates into the presence of representatives of multinationals and private companies on the boards of directors of MOEs and PPPs; the participation of spokesmen of consumers or citizens' associations in firms' board of directors is very rarely fulfilled in the EU, and generally it takes one of the various forms of deliberative or cooperatuive democracy (see Raffini 2018; Polizzi 2016). Finally, through the process of corporatization of municipal agencies, the urban administrative core has been sub-divided into a multitude of administrative units, phenomenon labelled as “satellitization” (Wollmann 2018: 418).

As mentioned in the chapter 1, some authors (Brochet 2017; Bauby 2009, 2011) interpret such negative and unexpected results as the consequence of the implementation of institutions od first and second-rank that are the same for all, resulting inadequate in certain local contexts characterized by specific rules of use of resources, regulatory traditions, cultures, infrastructures and geographical features.

Privatization and commercialization waves occurred during the years of the austerity policies differently affected the countries of Northern and Southern Europe. The discursive institutionalists (Lippi and Tsekos 2019; Pollitt and Bouckaert 2017) highlight the capacity of Northern, Continental and Anglophone LG to react positively to top-down policy transfers of Austerity policies, through survival strategies and innovation; they appeared more resilient to these changes, because of consolidated methods of public finances control, governmental autonomy and flexible and innovative response to external pressures. On the contrary, the CEE and Napoleonic patterns – with the exception of France – revealed considerable vulnerability, in addition to a strong degree of resistance to innovation, and considerable levels of patronage, clientelism and bureaucracy. Due to the Europeanization, the NPM reforms and the austerity policies, the centre-periphery axis has strengthened, rather than the right-left one (Wollmann et al. 2016; Wollmann and Marçou 2010). Because of some dramatic social consequences of these policies – rising unemployment, falling free services, rising poverty – for the citizens of the Southern countries, the so-called Troika²² has been criticized for forcing recipient countries to implement policy reforms without taking in consideration national differences in term of economic status, business environment, and culture. For example, in the Republic of Ireland the cutbacks imposed by the Troika caused a reduction in public services population of 10% (Ongaro et al. 2018); massive privatizations in Greece caused a loss of employment in water sector of 7,5% and in electricity, gas steam and air conditioning of 8,5%, strengthening the dramatic economic depression already ongoing. Based on the strict analysis of Andrea Lippi and Theodore Tsekos (2019) of the impact of austerity policies on EU public services, the most evident effect of these measures is a process of recentralization of responsibilities; the second commonality is directly related to the first, and concerns a decrease of economic and political autonomy and an increase in supervision for the LG that led to a reduction in LPS providing capacity. The loss of autonomy is not seen as a pursued effect, but is an indirect consequence of the blame avoidance approach (see Sulitzeanu-Kenan and Hood 2005; Weaver 1986; Hood 2010) by the central governments, which tried to dump on the local authorities the negative effects of the agreements made with the Troika. The third concern is the attempt of LG to react to the difficulties in guaranteeing the same number and quality of services through innovation and survival strategies. Fourthly, everywhere there has been a decrease in legitimacy and accountability of the LG;

²² European troika is a term used, especially in the media, to refer to the decision group formed by the European Commission (EC), the European Central Bank (ECB) and the International Monetary Fund (IMF), which jointly managed the economic aid plans addressed to the European countries most affected by the financial crisis of 2007-2008.

consequently, the widespread protests of civil society and of local political elites proved to be the last outcome of the austerity policies. From the sociological institutionalism perspective, all of these negative outcomes along with the markets bankruptcy of 2008, have spread mistrust of the neoliberal belief in the superiority of private sector both among political and civic groups and have caused a drop of legitimacy towards those governments that implemented privatization processes. Such loss of legitimacy of the mainstream political parties, protagonists of the Europeanization process and of the post-2008 austerity measures and main supporters in the need to marketizing LPS, has been expressed by European populations in an array of forms. The most common is the increase in the vote to populist parties in the peripheral zones of the European economic system (Guiso et al. 2017, 2019; Rodríguez-Pose 2018): in Southern Europe, for example, the Italian Five-Stars Movement and the Greek and Spanish populist movements support the need of a citizenship income for the more fragile social categories; the French movement of the “yellow vests” has been protesting since 2018 against the increase in fuel prices and the high cost of living, and it claims that EU fiscal restrictions are weighing mainly on the working and middle classes, especially in the rural and suburban areas; in continental Europe and in the UK, populist movements require protection from immigrants and from import penetration from China. Anti-EU rhetoric is the guiding thread of all European populist movements, since Europeanization is seen as the principal reason of the general impoverishment of the population, together with nationalism and closure to immigration, perceived as a potential cause of reduction of jobs and resources for local services. In parallel with the spread of populist themes, there is an increase of social opposition to the LPS commercialization in the form of popular referendums at local and national level, along with a popular request of a greater participation to the policy-making processes and the remunicipalisation of services (Lorrain and Poupeau 2016). In summary, the main effect of the loss of legitimacy of the political forces that supported the privatization and marketization of LPS is a process of re-politicization of these issues. A politico-cultural “value change” in EU area has been evidenced by several studies (Kuhlmann and Wollmann 2014; Wollmann 2018; Guerrero 2020).

2.1.3. The post-NPM as reaction to unexpected results of commercialization and privatization

As mentioned in the first chapter, the current historical phase is characterized by a wave of post-NPM reforms for tackling the unexpected effects of the NPM ones, supported by the shift of criticisms towards NPM reforms from the academic circles to the political agendas. Just as

the UK was the first nation to implement NPM reforms, British scholars were the first to express criticisms towards the NPM reforms and their outcomes, developing several post-NPM approaches: from the studies in the governance traditions (Bevir et al. 2003) to the calls for overcoming the NPM through the New Public Governance approach (Osborne 2010), to studies focused on inter-organization collaboration rather than competition (Huxham and Vangen 2005) and co-production (Bovaird and Loeffler 2018) or new models of public governance based on the digital revolution (Dunleavy et al. 2006). In the water sector, studies claiming the need to apply political rationality to water management and to introduce new tools and new perspectives for analysing urban water services are increasingly numerous; such studies start from the challenges posed to world governments by the strong urbanization of the last three decades and by the need to implement new models of sustainable urban development capable of guaranteeing the availability of water, food and energy over time (Bostworth 1993; Bulkeley et al. 2014; Zhang 2016). A strengthening of urban political power is considered indispensable to face these challenges (Jones 1996), together with the introduction of new management tools, and new analytical perspectives (Artioli et al. 2017; Kirschke et al. 2019).

In general, it is possible to say that post-NPM reforms have the aim of making LG regain control over the LPS production and delivery processes, and of increasing the legitimacy and accountability of local politicians among their citizens.

The diffusion of post-NPM over EU countries have become possible thanks to an array of factors: firstly, in 2009 the Lisbon treaty reinforced the principle of autonomy of member states to organize the LPS sector; as a matter of facts, a December 2009 protocol modified the Treaty of Lisbon giving local authority “wide discretion” “in providing, commissioning and organising services of general interest as closely as possible to the needs of users”: hence, the binding force of EU directives appears noticeably softened (Bauby and Similie 2014). Secondly, recent comparative studies have suggested that public enterprises are on a par, or even superior, to private-sector providers (see Mühlenkamp 2013; Pérard 2009). Thirdly, governments have understood that they can financially benefit from the direct providing of LPS. Finally, governments have exploited the occasion represented by natural expiry of concession contracts for experimenting new forms of services providing.

Given the greater discretion of LG in defining the management regimes of their local services, it is becoming more and more difficult to identify unidirectional national trends, and consequently the lines of change into the five European "administrative families" appear

increasingly divergent. Currently, the local utility sector is noticeably fragmented in most of EU countries (Grossi and Reichard 2016; Citroni et al. 2016). Thus, it is possible to affirm that the recent phase, since the mid-2000s, has shown different and divergent trends. On the one hand, outsourcing and privatization of service provision have continued under the persistent impulse of EU-led market liberalization. On the other, the municipal sector has regained ground in the provision of public services through remunicipalisation reforms and, even where there are no cases of remunicipalisation and *in house* provision, cases of out-sourcing of services to territory-based organizations and actors (cooperatives, social enterprises, self-help initiatives, etc.) have (re-) emerged (Wollmann 2018). The comeback of the public/municipal sector has happened along three tracks. Public municipal companies have been established from scratch or have expanded, also by forming intermunicipal companies. Otherwise, municipalities have proceeded to remunicipalise facilities and services by re-purchasing shares previously sold to private companies (remunicipalisation of property) or by re-insourcing previously out-sourced services (remunicipalisation of responsibilities) after the expiration of the respective concession contracts (Hall 2012). The consequence of this is an increase in European LPS field of *in house* management cases, or of the number of MOEs, or of out-sourcing towards local supplier actors with a social mission.

Generally, the trend towards corporatization in the form of MOEs has spread wherever; in countries with fragmented networks of small municipalities, also the formation of inter-municipal companies has progressed; simultaneously, the number of PPP companies have multiplied (Wollmann et al. 2016). The choice to corporatize (remunicipalisation of responsibility) rather than to create a public operator (remunicipalisation of property) is driven by a desire to re-gain the control on the organization and the earnings of the local services, to reduce transaction costs, to supply flexible and efficient services, and to “depoliticize” certain service areas (Mozzana and Polizzi 2013) or to “escape the regulation binding local governments’ handling of human resources and financial matters” (Grossi and Reichard 2016: 307); whereas, the decision to undertake a PPP is generally linked to the need of private investments for renovating infrastructures, even if nowadays private investments in local facilities have been progressively diminishing due to the financial crisis.

Also in the countries involved in the Troika’s bailouts after 2008, despite the commitments taken with the supranational agencies, the privatization processes have been proceeding very slowly, where they have been not suspended (Brauninger 2013).

Studies have shown that MOEs can result in efficiency and flexibility gains (Torres and Pina

2002), and that they can survive in tackling the competition with private firms – at least in an adequately regulated country. However, the capacity of MOEs to increase the public control, the political legitimacy and the accountability of the local authorities is debatable: due to the hybrid perspective of these operators – they can be equally guided by a profit-seeking economic rationality or by a political rationality that takes into account social and ecological goals – they could appear to be inappropriate in facing the socio-political unexpected results of NPM reforms.

Some countries and some sectors, more than others, have been affected by a wave of remunicipalisation of property reforms, with a consequent increase in *in house* provisions through operators subject to public law. Germany is an example in energy sector, where the state has been supporting, from the 2011 Fukushima accident, a vast program of conversion of the national nuclear power plants into power plants that produce energy from renewable sources; here, the proliferation of public suppliers of energy is incredibly high, with over 300 cases in 2019; also in UK and Spain similar cases are almost 20 (Kishimoto et al. 2019). Similarly, remunicipalisation has progressed in the water sector in countries where, during the 1980s, private water companies – in particular international big players such as the French Veolia and Suez – expanded in local water markets. In the last years, many municipalities have proceeded to re-purchase or to re-insource water provision (see Kuhlmann and Wollmann 2014; Hall 2012). The most emblematic case is France, where the cities that supply water services directly are more than 100, or Spain, where these cases are over 30, or Germany with 17 cases in 2019 (Kishimoto et al. 2019). However, cases of remunicipalisation of property in the waste sector– especially in Norway, UK, Denmark and Germany – and in transport – the France and the UK (Hall 2012; Kuhlmann and Wollmann 2014; Kirshimoto et al. 2019) – do not lack.

However, in order to realistically and cautiously approach the study of cases of remunicipalisation of property and assess the potential of these reforms, some obstacles should be called to mind. Firstly, when considering whether or not to remunicipalise a service once the concession to a private operator has expired, LG typically face difficult negotiations (about compensations, fines, etc.) with the outgoing private provider; the famous cases of water remunicipalisation in Paris (Bauby et al. 2018; Lorrain 2016; Bauby and Similie 2013; Pigeon 2012; Barraqué 2012; Le Strat 2008, 2010; Valdovinos 2012; Chiu 2013; Boyogueno 2013) and Berlin (Bauby et al. 2018; Blanchet 2016; Bauer 2012; Röber 2009) are emblematic in this sense: in both cases, the contract has been renegotiated several times before the

remunicipalisation of property, during which renegotiations the local administrations had to bear high transaction costs, and face the problem of the information gap related to several technical aspects of the services' organization. Local authorities, in fact, often lack skilled personnel to take the operation back in their own hands. For this reason, for instance, only a small percentage of German municipalities have chosen to remunicipalise the water service provision once concessions expired, while in most cases they have decided to renew expiring contracts (Grossi and Reichard 2016; Wollmann 2018). Moreover, the possibility to remunicipalise the property of a privatized operator and manage directly the services is directly connected to the specific regulatory and administrative tools available for every local authority (Bauer 2012; Röber 2009), and the incentives system in which they are embedded (Vitale 2010a; E. Ostrom and V. Ostrom 2004). As affirmed by David McDonald, differently from the liberalization process, the remunicipalisation reforms are not supported by an EU legal framework able to provide to the local administrations administrative tools, formal and second-rank institutions, incentives and recommendations that are coherent and balanced among them. The existence of such administrative and regulatory instruments depends exclusively on the political program of the national governments. Consequently, the political will of a municipal council to directly manage a local service is not sufficient to implement a remunicipalisation reform: administrative tools, economic resources and specific skills are necessary. The debate that has developed into the Italian juridical environments about the law legitimacy and feasibility of the reform of remunicipalisation of property of Naples' water operator (see Saltelli 2018; Lucarelli 2015; Pierobon 2014) sheds light on the difficulties that governments could meet in implementing remunicipalisation reforms when the national legal framework lacks adequate normative instruments. Thus, while the city of Paris has remunicipalised its water services in a few months thanks to the clear indications in the national legal framework about the path that local authorities must follow to transform a private company into a public one, the city of Naples has spent three years to make the same legal change through criticism and interruptions; only the final opinion of the Council of State (constitutional-level legal body) ended the debate on the legal legitimacy of such a reform. This happened because the Italian legislation provides a number of different options for the transformation of a public company into a private company, but it does not indicate how to do the reverse. Additionally, the improvement of the employees' conditions of work through the transformation of a private operator in a public operator cannot be taken for granted, as the experts that study the remunicipalisation with a prefiguring logic do (Kishimoto and Petitjean

2017). In fact, a similar change is not always advantageous for the workers: this depends only on the way in which public workers are classified in national labour law; both in Paris and in Naples, the employees of water operators and their union representatives have encountered multiple problems relating to the return of workers to the position of public employees: this situation has been resolved in Paris thanks to a long bargaining between the municipality and unions, which ended with the maintenance of the same private employment contract applied by the private operator; whereas in Naples the unions have publicly and explicitly opposed the remunicipalisation, due to LG has forced workers to switch from the employment contract of private sector to that of the public sector considered less beneficial. Similarly, a reduction in service's prices after the remunicipalisation of the property is not so predictable as the experts of remunicipalisation affirm in their publications (Kishimoto et al. 2019): not all EU LG benefit from the regulative autonomy to determine the prices of their LPS; in CEE countries (Ongaro et al. 2018), for example, but also in Italy and in others places, the legal framework provides for the existence of a national and autonomous national body in charge of fixing the water services prices. Also, a reduction in episodes of corruption, clientelism, and lack of transparency doesn't derive from the public legal status of the service's provider, but it depend on the system of controls and incentives in which the operator – private or public – is embedded, which has to be able to oblige the operators to act in a transparent and legal manner (Lorrain and Poupeau 2016).

In those numerous cases in which a local administration is not in the position to remunicipalise the ownership of the operator, but it feels the need to take off the concession to a private operator and to re-start managing local services through the political rationality, in order to ensure the achievement of objectives in social, economic, environmental or political field, it can opt for the assignment of the service to a local cooperative with a social mission (Duret 2015). In the provision of public utilities, energy cooperatives recently have made remarkable progresses. Founded typically by local citizens, they arose from the cooperative movement of the nineteenth century. This movement, spread all over Europe, is composed by a multitude of organizations that primarily focus on agricultural, housing, banking, and consumer matters (see Cooperatives Europe 2016). In Germany, since the late 1990s, the growth of energy cooperatives that produce “green” energy has been incentivized by the Federal Renewable Energy Act of 2000 that guarantees fixed tariffs for anyone generating renewable power for a 20-year period (Boddenberg and Klemisch 2018). Similarly, in France more than 10 energy cooperatives have been established since 2005, as

well as in the UK (Wollmann 2018). So, in 2011, an EU Network of Energy Cooperatives was founded with 20 members from 12 EU countries.

For concluding this paragraph, there is the necessity to report the thoughts shared by the neo-institutionalist scholars who have analysed the post-NPM reforms in EU. After having concluded that there are not convergent trends of institutional change among the member states, they tackle the so-called issue of the “pendulum”. The pendulum image refers to the famous Polanyi’s hypothesis on the long-term swings from state regulation to the market and reverse (see Polanyi and Maclvert 1994; Stewart 2010). This because the massive transition from a private management to a direct management of water services by the LG has already occurred in Europe at the end of 19th century, as exposed in the first chapter. Adopted by Millward (2005), the pendulum image has subsequently been used in the international comparative studies on service provision (see Hall et al. 2005; Lippi and Tsekos 2019; McDonald 2012; Kuhlmann and Wollmann 2014; Wollmann et al. 2016; Röber 2009). Well, from an historical perspective, they agree that “the pendulum has swung back” (Wollmann 2018: 427). But Helmut Wollmann alerts the readers about the limits and traps of this theoretical concept: “For one, the contextual conditions and specificities must be carefully noted and taken into account that exist between the stage and situation in question and the respective historical starting conditions and points of reference. Second, the image should not lead one to straightforwardly assume a kind of determinism or cyclism in the movement of a pendulum swinging back and forth” (Wollmann 2018: 427). Furthermore, the “swung back of the pendulum” must not be understood as a return to the managerial models of the welfare state phase, as the regulatory changes of the NPM are irreversible.

2.2. *What the existing academic data cannot explain*

Given the increasing fragmentation of the management models of water services in most EU countries, and the consequent impossibility of identifying trends of change that converge in only one direction, it is clear that the current models of water supplying cannot be grasped through a macro perspective analysis, as that developed by neo-institutional scholars, or through the analysis of a unique shape of post-NPM reform, as done by the experts of remunicipalisation. The growth of comparable case studies is the most coherent way towards the production of reliable and generalizable scientific results. Recognizing the efforts of many scholars in developing the analysis of water regimes, separately from the others SGEI, through case studies is necessary; without those contributions this work would have been unthinkable. However, this field of study is only at its beginning and it is important that it

continues to expand, in order to make available to every interested person new and better strategies for dealing with urban water-linked matters. Some of the most pressing challenges at global level refer to climate change, rapid urbanization, environmental degradation and migration. The fact that several of the UN Sustainable Development Goals²³ are directly (6, 14) and indirectly (3, 13, 15) linked to water availability is not a coincidence. In EU, in particular, policy-makers, professionals, academics and citizens are dealing with questions like the environmental and economic sustainability of old water infrastructures, a decrease in water consumptions, the popular opposition to some models of water regimes, an increasing urban poverty, and so on. Thus, the development of a new knowledge on the current urban water problems and their possible solutions is more and more compelling.

In addition to the need to carry out comparative case studies on present water regimes, there is the unquestionable necessity to go beyond the public/private management dichotomy. If scholars would focus on the social reasons for which the development of urban water systems are historically built and adjusted over time – in the second half of the XIX century this was the solution to the social problem of epidemics of typhoid and cholera and the answer to the civil requests of “progress” for all (Goubert and Ladurie 1985) – they would pay less attention to the legal status of the operator and how it is selected and, instead, they would wonder if and how a process of modernization has been triggered. “In other words, interpretation depends on perspective. If the water sector is considered to be autonomous, it is possible to assert that that old practices could be subject to criticism because they were neither transparent nor balanced enough to meet current standards. But if the past is taken into account, considering the logics of practices in the society of a given era, systems respond to the categories of time.” (Lorrain and Poupeau 2016: 8).

In addition, water supplying models have to be studied not just as technical systems, totally disconnected from their own socio-cultural context: water regimes are socio-technical systems, perfectly embedded in the materiality of social, environmental and administrative life of their localities. “Over centuries, living with water has involved the creation of a system of institutions and practices, as well as buildings, cities and landscapes that embody the lived history of water heritage and adaptations to local geographies, histories and conventions. Contemporary institutions and practices are embedded in physical structures and traditions.” (Hein et al. 2019)

²³ <https://sustainabledevelopment.un.org/?menu=1300>

The hypothesis that emerges from similar insights is that the quality and the outcomes of a service supplier cannot be defined *a priori*, only based on the fact that it is subject to the public law or to the corporate law. Such hypothesis leads inevitably towards an analysis devoid of preconceived judgments, where the scholar is guided by questions about what the operator does, which industrial policies it carries out, and which results it produces; in one question: which water regime has been implemented in that specific place and in that particular period? Our third working hypothesis arose from this line of reasoning: in order to fully grasp the characteristics of a water regime, we have to ask ourselves what is the impact of the interactions among exogenous variables of the system (political culture, geography of the territory, state of water infrastructures, consumption of the local population, economic-social situation, history of the water service, etc.), of the institutional variables that define the space of action of the actors of the water regime (formal institutions and secondary institutions) and of the behaviour of each relevant actor of local water policy on the outcomes of the analysed regime?

Existing studies conducted with the approach already described focus mainly on some specific aspects of urban water policies, such as the urban conflicts about water (Bellaubi and Bustamante 2018; Jong 2019), the cultural and symbolic aspect of water use (Duret 2015; Bach et al. 2019), the experimentation of participatory democracy experiences in water regimes (Bedu 2013; Seguin 2015; Coulmain 2018; Tindon and Barbier 2018; Couling et al. 2019; Salek 2019), the regulatory elements of the policies implementation (Bauer 2012; Röber 2009; Saltelli 2018; Pierobon 2014), the response of operators to local reforms (McDonald 2019), the diffusion of a specific water reform (Hall 2016; Kishimoto et al. 2019, 2015; Kishimoto and Petitjean 2017), the consequences of the horizontal governance on the redistribution of political power (Citroni et al. 2012, 2016; Galanti 2016), or the strategies to face current challenges as urbanization, decrease of consumption, environmental sustainability (Artioli et al. 2017; Kirschke et al. 2019) etc.

Today, however, few case studies offer a satisfying examination of the whole social and policy process on which depends a specific water regime, from the problematisation of the previous water regime to the production of outcomes of the new one (Bauby and Simile 2013; Lorrain 2016; Blanchet 2016; Inha and Hukka 2019); and even more rare are the strict comparative studies able to highlight the most problematic elements and steps of the remunicipalisation reforms, and the possible options to solve them (Lorrain and Poupeau 2016; Bauby and Similie 2018; Connelly et al. 2019). Studies of this type, structured to take into consideration

all the aspects of a socio-technical system, are the only ones capable of providing useful information about the multiplicity of elements that can determine the outcomes' of policy system and predict solutions for specific problems; these are the most useful results for policymakers, sector operators, academics, and protagonists of local mobilizations who daily work for dealing with water-related challenges in their territories (E. Ostrom 1990; V. Ostrom et al. 1984).

Reading the just now mentioned works reveals that the same institutional choices have worked in a urban context but not in another; some experiences have been terminated independently of their positive outcomes in the economic field; other experiences have shown contradictory results, which could be interpreted in different ways. This proves that the outcomes of a water regime depend on the articulation of different factors, all of which are historically and territorially contextualized.

For understanding a service regime through a sociological approach, a multi-level perspective of analysis is required in order to take in account all factors involved in the definition of a socio-technical system. A meticulous examination must encompass the set of problems tackled by the socio-technical system, and the same system – that is to be considered the study object – since it is both the subject of the performance contract and the basis of the service that produces outcomes.

So, from a practical point of view, there is firstly the need to study the interactions between the technic infrastructure and the socio-cultural context in which it operates, taking into account factors such as the environmental features of the territory, the history of the technical system, its placement in the metropolitan context, the socio-spatial inequalities affecting household incomes, the access to the service by citizens, the nature of the supply contract that defines the relationship between the local administration and the operator, and the national law framework. Only by proceeding in this way is it possible to recognize the communicative, relational and political value of urban water infrastructures (Easterling 2007, 2016; Guerrero 2020). The comprehension of similar issues allows defining the social, political, administrative, economic, cultural and environmental elements that compose the context in which the water regime produces its outcomes. This will permit the scholar to have the necessary elements to interpret the system outcomes in relation to the specific characteristics of the context in which it operates. Additionally, data on the impact of the service regime on the local society from several sources are to be collected, consistently with the analytical dimensions chosen (i.e. social, environmental, political, economic, juridical, quality outcomes,

etc.). In addition, to interpret these outcomes and grab their causes, the comprehension of causal mechanisms that have produced them is necessary: only in this way we can understand which mixture of contextual factors have caused a certain outcome and how that particular factors' combination could be reproduced/avoided in other contexts. To do this, one has to ask themselves who gets what, when and how, as recommended by the political scientist Harold Lasswell (1936). To fulfil these goals, a sociologist should explore the practices, interests, beliefs, and conflicts of the several actors of the system by applying an analytical frame covering the constraints, norms and rules governing their actions at every scale, going beyond the distinction among the micro, macro and mega analytical dimensions. Finally, the results of the analysis have to be grouped based on a set of variables common to all case studies to be compared; these variables should necessarily include the initial "problem" to be solved through the implementation of service regime (i.e. political legitimacy of public institutions, excessive price of the service that limits citizens' right of access to water resources, increase in local unemployment, lack of transparency on the part of the previous operator, need to increase the sources of income of local authorities, etc.), the choice of the new operator and its partners (including their histories and interests), state intervention and the national policies developed in the sector analysed, the typologies of managerial tools employed by the protagonists of the system, and the values and beliefs on which the operator base its legitimacy.

Finally, a descriptive and monographic approach appears the better one to explain the causal mechanisms that produce the outcomes of a socio-technical system, in order to fluently and consequentially expose the factual reconstruction.

For realise an exhaustive examination of a service regime, based on the assumptions exposed previously, an arc of time sufficiently long to grab every phase of the policy that implemented that specific regime has to be considered. Moreover, another essential methodological rule to follow is that a number of different sources of information (i.e. contractual documents, statistics, interviews to privileged observers and actors, academic and non-academic articles, etc.) must be considered to collect enough data to encompass a socio-technical system.

In conclusion, the questions of method described previously for feeding the scientific knowledge on the EU phenomenon of post-NPM reforms of urban water services came from the limited number of academic case studies currently available. Such methodological indications have been the starting point for the fulfilment of the present work and they will be the object of the next chapter.

3. RESEARCH METHOD PROPOSAL: THE REMUNICIPALISATION AS A CAUSAL PROCESS

Resuming the issues exposed in the previous chapter, the starting hypotheses from which this work had originated are: there is no single model of development of urban water networks or a single management model that produces efficient results in every local community; outcomes of a socio-technical system cannot be defined *a priori* on the basis of the legal status of the operator that manages that system; outcomes of a socio-technical system depend on historical, social, environmental, cultural and technological exogenous variables, on the institutional variables of the context in which it works and on the actions of the multiplicity of actors who have had an active role in that system. Thus, the questions that have led this research work are: why has the process of reform taken place in that particular place and moment? Which outcomes has the reform process produced? Why has the analysed process produced these outcomes, and not others? Who had a fundamental role in defining the process path and in generating its outcomes? Why have such actors acted in that particular way and in that particular moment, and not in others? How can the reform be assessed? What plausible predictions can be made about the future progress of the process?

Given these premises, it is clear that the research's object is the policy change process – the remunicipalisation – that has originated a new water regime. The sociologist Charles Tilly (2001) has defined process as a combination or sequence of mechanisms occurring frequently; mechanisms belong to a particular class of events that change relations among specified sets of elements in identical or closely similar ways over a variety of situations; episodes, instead, are single events of social life that sometimes acquire social significance because participants or observers define their names, boundaries, and stories — i.e. this referendum, this earthquake, that epidemic, and so on. Parsons (2007) identifies four types of mechanisms within the social sciences: *structural mechanisms* focus on the exogenous constraints and opportunities for action created by the material surroundings of actors; *institutional mechanisms* differ from structural ones in that institutions are man-made and thereby can be manipulated in order to channel actors' behaviour in a certain direction; *ideational mechanisms* assume that outcomes are (at least partially) the product of how the actors interpret their world through certain ideational elements; finally, *psychological mechanisms* deal with mental rules of each human brain, resulting in behavioural regularities. Methodology of interaction among mechanisms cannot be defined *a priori*; for example one cannot say that the ideational changes always precede the institutional ones, therefore the analysis of each mechanism is decisive for its understanding. Further, Machamber, Daden and

Craver defines mechanisms as “entities and activities organized such that they are productive of regular changes from start or setup to finish or termination conditions” (2000: 3), where the activities are conceived as the producers of change, whereas entities are the things used in activities, and the term regular means that there is a causal continuity among the various parts of the mechanism. This definition stresses that, first of all, a mechanism is composed of multiple "parts" (Glennan 1996), or "entities and activities" (Brady 2011) and that these parts are linked by a causality relationship in such a way as to produce specific changes. Therefore, causality relationship implies a cause-effect linkage between parts.

The concept of causality just illustrated reflects one of the two ontologies of causality present in social sciences. The first originates from the works of David Hume (see 1902), where causality is defined as a constant and regular empirical association between cause and effect – where constant and regular refer to the fact that this connection is always traceable, in all circumstances. This perspective, in addition, postulates the impossibility of discovering secret connections that binds causes and effects. The second ontological position is a mechanistic view of causation (Gerring 2008), which is the one on which this work has been built. Such position focuses precisely on the research of what Hume considered unknowable, which is a theoretical process whereby X produces Y and, in particular, the causal forces that produce the passage between X to Y. Moreover, a mechanistic understanding of causality does not necessarily imply regular and constant associations between variants. As a matter of fact, a mechanism can be infrequent. What is necessary is that X has produced Y through a causal mechanism (Bogen 2005). By studying theoretical linkages between causes and effects, scholars gain what Salmon (1998) terms deeper explanatory knowledge.

Another ontological difference in the world of studies on causality is between probabilistic and deterministic understanding of causal relationships. Probabilistic theories assume that there are both systematic and non-systematic (i.e. random) features of reality. The methodological implication of such ontological position is to investigate only probabilistic causal relationships with cross-case methods, focusing only on the systematic characteristics of reality and excluding from the investigation those considered non-systematic. Qualitative social scientists, on the other hand, seek a deterministic understanding of causality, as they assume that "things just happen" (Mahoney 2008: 420) and there is no randomness, so deterministic causes of every event may be sought through the in-depth study of a limited number of cases. In such a theoretical context, the term deterministic is used primarily for referring to necessary and sufficient causes to produce outcomes in individual cases.

Consequently, what one is examining is not whether a given X tends to covary with Y in a population, but whether X is a necessary and/or sufficient cause of Y in a single case (Beach and Pedersen 2016; Mahoney 2008). Thus, assuming the ontological features of the mechanistic and deterministic understanding of causality, Bunge defines a causal mechanism as “a process in a concrete system, such that it is capable of bringing about or preventing some change in the system as a whole or in some of its subsystems” (1997: 414).

Therefore, causal mechanism- and process-based studies explain salient features of episodes, or significant differences among them, by identifying within them mechanisms of relatively general extent (Elster 2015; Coleman 1994; Stinchcombe 1991; Bunge 1997; Hedström and Swedberg 1998). The term explanation refers to the retrospective reconstruction of crucial mechanisms and their combination into transforming processes of reality through the identification of partial causal analogies within apparently different historical sequences (Tilly 2001). Consequently, although a mechanistic explanation involves the production of mechanistic law statements, not purely descriptive ones (Bunge 1997), we use the adjective partial because firstly, practitioners of mechanistic explanation generally deny that recurrences of large-scale processes occur. Secondly, although by definition mechanisms have uniform immediate effects, their aggregate and longer-term effects vary considerably depending on starting conditions and on combinations with other mechanisms. Therefore, the results of such studies can certainly be generalized, but only in specific contextual conditions, unlike the physical laws that are always true.

When one affirms that a deterministic understanding of causal relationships has to provide a sufficient explanation of the causes of event X, it means that there is the necessity to build an explanation based on a minimum set of antecedents that actually occurred, which is generally sufficient to produce events of type X, and without which X would not have occurred in this particular configuration. Consistently with this, analysts must divide a process into a sequence of causally connected events (Tilly 1995) or parts (Glennan 1996) or entities and activities (Machamer et al. Craver 2000) and examine each link of the causal chain to produce an explanatory narrative of that process (Stinchcombe 2013), where a narrative is an attempt to “render various series of events into an intelligible whole” (Kay 2006: 23). Most of the work therefore concerns not the identification of similarities over whole structures and processes, but the explanation of variability among related structures and processes, in order to explain why and how different sorts of social settings produce different varieties of outcomes. Such analyses immediately yield counterfactual narratives, specifying what else

could have happened if the causal configuration had occurred differently; thus, within limits, deterministic studies of causal mechanisms allow to produce contingent predictions (Tilly 1995). Moreover, many social mechanisms and processes operate at multiple scales, so their study allows easily going beyond the subdivision among micro-meso-mega scale of analysis, making this methodological approach appropriate for the purposes of this work – as stated in chapter 1. As Aristoteles demonstrates (Luraghi 1998), the analysis of mechanisms and processes perfectly allows to explain which causes produce the passage between one regime to another – his case regarded democratic regimes, whereas our case concerns urban water regimes.

3.1. *Issues of method*

As affirmed in chapter 2, due to the current impossibility of identifying convergent or divergent trends in post-NPM reforms of LPS, the case study approach represents the best choice for understanding the current phase of European local services.

For the purposes of this work, the case-comparison approach proves to be the best for producing as much as possible generalizable results. This is because the case study strategy allows analysing a “contemporary phenomenon in its real-life context, especially when the boundaries between phenomenon and context are not clearly evident” (Yin 1981: 59), as it happens for socio-technical systems. Moreover, this strategy gives to the analyst the possibility to observe the case longitudinally and to define the starting and ending point of the observation based on her/his analytical needs (Gerring 2006). Moreover, finally, case study strategy is not linked to a particular type of evidence or method for data collection, allowing the use of both qualitative and quantitative data. The aim of case-comparison is to build necessary and/or sufficient explanation of the outcomes of each case study, in order to compare subsequently the lessons learned from them, reaching a common explanation of the two cases, which can be used to identify problems and solutions in further cases. The typical case-study report is a lengthy narrative, hard to write and to read: “this pitfall may be avoided if a study is built on a clear conceptual framework” (Yin 1981: 64), as it has been done in this work. By this way the goal of producing a parsimonious narrative can be fulfilled, where parsimonious means to include only necessary elements for explaining the process. In addition, the two case studies have been carefully chosen: they are Paris and Naples. In fact, to test the first two hypotheses we could have compared two or more large European metropolises that share exogenous variables such as post-materialist culture or the tertiarization of local economy (Savitch et al. 2002), making our comparison easier. A similar

choice would have allowed us to demonstrate that the implementation of the same public management model in two different cities does not produce the same results, despite sharing some context variables, and that these results do not depend on the legal nature of the manager. However, to test our third hypothesis, we need to clearly isolate and recognize the impact of the exogenous variables of each city on the outcomes of the policy change: this task appears more feasible as the non-conformity of the exogenous variables of the compared cities increases. For this reason, we have purposely chosen two cities that can hardly be compared for their history, economic, social and political characteristics. Since these fixed variables are different, if not completely contrasting, it made it easier to recognize the existence or lack of an impact of these variables on the outcomes produced by the two remunicipalisation processes. Furthermore, the profound differences between Naples and Paris allowed us to better highlight the impact of institutional variables and the behaviour of the actors on the production of outcomes, enabling us to evaluate the accuracy of our third hypothesis in its entirety. The two cities, in fact, share many characteristics of the remunicipalisation process: they took place in the same historical context, just after the economic crisis of 2007 and during the period of maximum expansion of the European movement for public water management; they were subject to a strong politicization process before the municipal elections; both electoral campaigns of centre-left candidates were based on the rhetoric of common goods and the direct participation of citizens in business management, with the promise to improve the performance of the service from an economic, social, environmental and political point of view. However, the major difference between the two reform paths is that in Paris the water remunicipalisation was the result of pressure from actors inside the LG, whereas in Naples the reform was the response to influence from actors outside the LG that belonged to a great social movement on national scale. Such a distinction has been relevant for the purposes of the present work because it enabled us to shed light on the role of both policy-makers and all those who have no regulatory power in determining the impact of a local policy.

In addition, the comparison between Naples and Paris has a great scientific value, since the case of water remunicipalisation in Naples has not yet been studied in-depth.

While Paris remunicipalisation has already been previously analysed by other scholars (Bauby et al. 2018; Lorrain 2016; Bauby and Similie 2013; Pigeon 2012; Barraqué 2012) the case of Naples can be considered, from the point of view of process analysis and study of outcomes, an unknown case; indeed, only studies on the legal profile (Lucarelli 2011) and on

the participatory model experimented through the remunicipalisation reform (Mone 2016; Barbera et al. 2016) have been published about this case.

Finally, another reason why these cases have been chosen is that, due to the reference to the management of water as a common good during the communication campaign preceding the reform, they are considered similar in one of the studies that applies a prefiguring logic to the analysis of remunicipalisation (Dardot and Laval 2015) and in a recent publication from the Economic Sociology field (Barbera et al. 2016); however, nobody has ever analysed the outcomes generated by the reform process that took place in Naples starting in 2011.

In order to analyse a socio-technical system, complex by definition, and to test articulated hypotheses such as those at the basis of this study, data of both quantitative and qualitative nature have been taken into consideration. The data analysed by means of the research method described below have the most diverse origin: local newspapers, official documents, service contracts, transcripts of the sessions of the City Council, academic works, and in-depth interviews with protagonists of the policy change and local experts. In particular, the interviews with the protagonists of the two remunicipalisation processes were very useful, since they allowed us to grasp aspects of the policy change that would have remained incomprehensible by studying only public documents. The personal interpretation of the conflicting nodes of the decision-making process provided by the protagonists of the reforms have been fundamental for producing a minimally sufficient explanation of the events that shaped the two water regimes analysed. However, since some of the in-depth interviews collected deal with sensitive issues, such as interpersonal conflicts, corporate confrontations, local political disputes and the personal interest of the people involved, the author decided to present them anonymously during the narrative. At the beginning of the chapters relating to the case studies (chapters 5 and 6), the interviewees are presented and assigned a general type of membership. These general typologies are, for example, former employees of water companies, local and national political activists, academic experts, and representatives of local associations. During the exposition of the facts, the interviews have been linked to the general categories of interviewees, omitting the name of the person who formulated each statement, in order to protect both this work and the interviewees from any external attacks.

The choice to compare these cases has allowed the author to develop an analysis based on a combination of inductive and deductive methods, where inductive perspective was used to deeply analyse the chain of evidence that has produced certain outcomes, whereas the deductive perspective was useful to build a double level of comparison (Bennett and Checkel

2015): the first based on prior academic knowledge, and the second based on the most adequate theoretical framework. This strategy has been advantageous in identifying additional observable implications not detected in the first phase of the analysis (the inductive one), in order to test each part of the explanation produced and to avoid confirmation bias²⁴.

By applying this methodology to a series of events starting from the problematisation phase of water management up to today's production of the outcomes of the reform, we have the opportunity to compare the outcomes of a water system before and after the remunicipalisation process: in this way we can test the first and second working hypotheses. Furthermore, we have the chance to compare the two explanations originating from the analysis of two case studies, testing our third working hypothesis. Additionally, case comparison has been combined with the application of Process Tracing Methodology, an innovative strategy especially developed for historically contextualised qualitative analysis (Collier 2011).

3.1.1. Process Tracing Methodology

The term process-tracing originated in the late 1960s in USA in the field of cognitive psychology, refers to the techniques for examining mental processes through which humans take decisions. In 1979 the political scientist Alexander L. George re-elaborated the expression to describe the use of evidences for building causal explanations of specific case studies (George 1979).

Process-tracing in social science is commonly defined as a strategy to trace causal mechanisms (Bennett 2007, 2008; Checkel 2006). It involves “attempts to identify the intervening causal process – the causal chain and causal mechanism – between an independent variable (or variables) and the outcome of the dependent variable” (George and Bennett 2005: 206-7), that is to say the searching for the causal forces that produced the passage from X to Y. General assumptions on which this methodology is based is that entities engage in activities, while activities are the producers of change, or what transmits causal forces through a mechanism. Entities can be individual persons, groups, states, classes, or structural phenomena involved in a change; they are usually described through nouns, whereas activities through verbs. In social science terms, social entities have causal power that can be defined “capacity to produce a certain kind of outcome in the presence of

²⁴ The Confirmation bias was already described by Francesco Bacone (1561–1626) and is a typical attitude of human nature in which we are more inclined to confirm a hypothesis through evidence in its favor than to consider evidence contrary to it.

appropriate antecedent conditions" (Little 1995: 37). When conceptualizing the mechanism, each part should be seen as an individually insufficient but necessary part of the whole. Parts are not to be considered as independent elements, but they are important only since they are integral parts of a mechanism that produces the analysed outcome.

This methodology can enable the analyst to craft strong causal inferences based on in-depth single-case studies that are difficultly feasible with other social science methods. In applying this strategy the production of inferences can depend in part on judgments of when "absence of evidence" constitutes "evidence of absence" (Bennett and Checkel 2015: 19).

Three variants of process-tracing methodology are recognised within social science. Through the first variant, the theory-testing process-tracing, a scholar verifies the reliability of a theory from the existing literature by testing whether evidence shows that each part of a hypothesized causal mechanism is present in a given case. The second variant is theory-building process-tracing, which seeks to build a highly generalizable theoretical explanation from empirical evidence of a particular case.

Finally, the third variant is the one used to conduct the present work. Explaining-outcome process-tracing allows to craft a minimally sufficient explanation of a puzzling outcome in a specific historical case. Such variant does not aim to build or test more general theories, but it is applied when the primary ambition is to explain particular contextual outcomes, although its findings can also be extended to other potential cases of the phenomenon. Some examples of this method's application are Allison and Zelikow's (1971) classic study of the Cuban Missile Crisis, Wood's (2003) work on the Civil War in El Salvador, or the Schimmelfennig's (2001) study of why countries that were sceptics about EU enlargement decided to support it. The bifurcation into case- and theory- centric variants of process-tracing captures a core ontological and epistemological divide within qualitative social sciences.

Both theory-centric variants of process-tracing show neo-positivist and critical realist positions, based on the assumption that the social world can be split into manageable parts that can be studied empirically (Jackson 2016) and on the ambition to build generalizable theories. Case-centric process-tracing methods operate with a different ontological understanding of the world, where the social world is seen as very complex, multi-factored, and extremely context-specific; this complexity makes the ambition of producing generalized knowledge across many cases difficult, but not impossible. However, the primary goal of analysts who apply case-centric variant is not to produce generalizable insights, but to explain particularly puzzling outcomes. In this case, theories are used in a much more pragmatic

manner: theoretical systems are seen as heuristic instruments that have analytical utility in providing the best possible explanation of a given phenomenon (Peirce 1955). Theoretical frameworks are here considered the best tools to identify causal linkages between parts of causal mechanisms, because they are the compass of the scholar during her/his research path. This methodology reflects the lines of thinking of many qualitative scholars, like those who support eclectic theorization (where the case is front and centre) (Schlager 2007; Sil and Katzenstein 2010) and pragmatism as a research strategy (Friedrichs and Kratochwill 2009).

3.1.2. Applying Explaining-outcome process-tracing

"Explaining-outcome process-tracing is an iterative research process where theories are tested to see whether they can provide a minimally sufficient explanation of the outcome" (Beach and Pedersen 2016: 63), the term sufficiency expresses the necessity to explain all important aspects of an outcome, with no redundant parts (Mackie 1965). The authors use the term iterative to describe the explaining-outcome process-tracing methodology that prescribes to repeatedly analyse causal mechanisms, re-conceptualize and test them through inductive and deductive strategies until one finds the best possible explanation of a particular outcome (Day and Kincaid 1994).

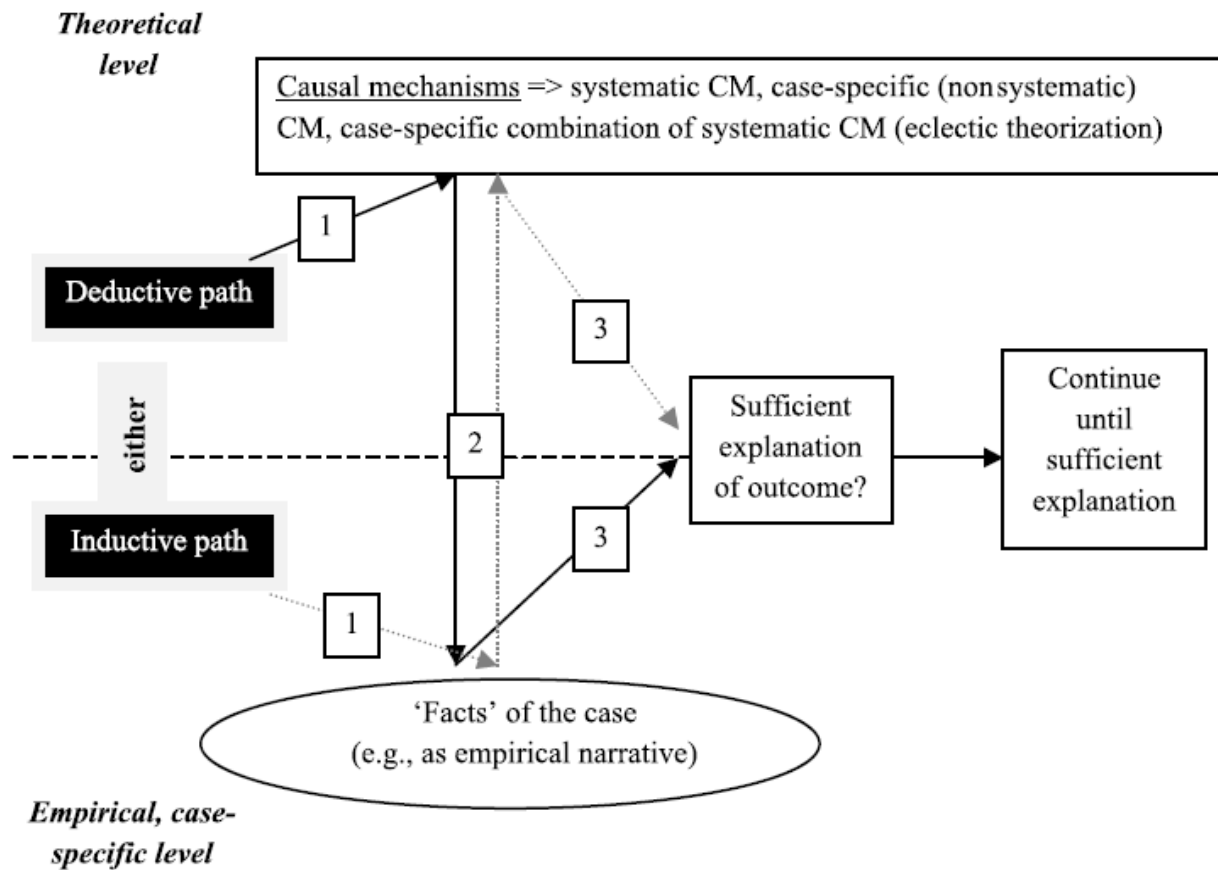


Fig. 1: Explaining-outcome process tracing (Beach and Pedersen 2016: 20)

Following the methodological recommendations present in literature (Beach and Pedersen 2016; Bennett and Checkel 2015; Bennett 2008; Collier 2011; Hedström and Ylikoski 2010) the first stage of this work consisted in examining existing scholarship that explains particular outcomes of the analysed cases. As it happens in most studies on explanatory results, the existing theorizing did not provide a sufficient explanation of outcomes, and therefore the second phase of this methodology has been implemented. Generally, it consists in applying one, two or all of the three following strategies: combining existing mechanisms (eclectic theorization), developing new theories (or parts thereof), and incorporating non-systematic parts into an explanation to account for the outcome. Here a combination of eclectic theorization and the incorporation of non-systematic parts has been used. Eclectic theorization “offers complex causal stories that incorporate different types of mechanisms as defined and used in diverse research traditions [and] seeks to trace the problem-specific interactions among a wide range of mechanisms operating within or across different domains and levels of social reality” (Sil and Katzenstein 2010: 419). Therefore, eclectic theorization does not aim to create general theories; rather, it is a more pragmatic strategy aimed at capturing the multiplicity of mechanisms that produce historically and geographically

contextualised outcomes. According to Kohli et al. “Cases are always too complicated to vindicate a single theory, so scholars who work in this tradition are likely to draw on a mélange of theoretical traditions in hopes of gaining greater purchase on the cases they care about” (1995: 4). Consistently with this, it is important to make sure that key concepts and theoretical assumptions from different frameworks are compatible with one another to explain a concrete outcome. For example, one cannot only add assumptions about operating principals of an ideational mechanism, which is based on the assumption that subjective beliefs drive actor’s behaviour, to the assumptions about operating principals of an institutionalist mechanism, which prescribes that behaviours are driven only by the rational maximization of material interests. In a similar case, one would have to re-conceptualize the two mechanisms by, for example, developing a sort of connecting-theory that explains linkages between the two mechanisms, which highlights the common theoretical elements, which is capable of making complementary the two frameworks to each other, and which also describes the scope conditions for the occurring of the one or the other mechanism. Additionally to the eclectic theorization, there is often the need to include non-systematic mechanisms in the explanation, relating to factors that are based on temporally and geographically specificities of the context. And this is exactly the path followed to accomplish this work.

3.1.3. Strengths and weaknesses of the Process Tracing Methodology

The first criticism to the Process Tracing Methodology is that this produces simple empirical narratives of events such as: “Actor A did X to actor B, who then changed his position on issue Y, and so forth.” This type of scholarship provides valuable historical knowledge regarding what happened, but it tells us little about the underlying how and why an outcome occurred. In this case, attention has been focused on events rather than theory-guided analysis to determine whether the evidence suggests the existence of an assumed causal mechanism. Instead, in process-tracing, the analyst focuses on those causal mechanisms through which X contributes to producing an outcome Y. This is most evident in the image elaborated by Beach and Pedersen (2016) for graphically representing the mechanisms that produce outcome in explaining-outcome process-tracing variant.

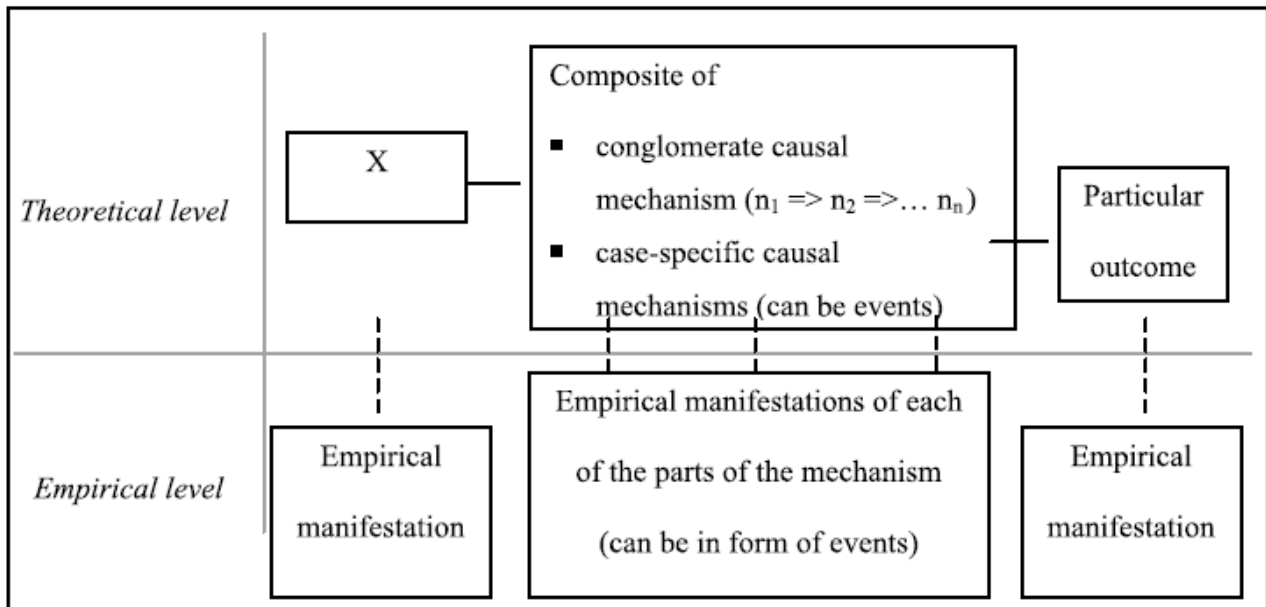


Fig. 2: Mechanisms in explaining-outcome process-tracing (Beach and Pedersen 2016: 37)

For each part of the hypothesized causal mechanism, a process-tracer investigates if the empirical manifestations of the mechanism predicted by the theoretical framework/s are present or absent. Theory is the leader of process-tracing analysis. Process-tracing methodology applied in this third variant often needs the use of multiple theories to explain outcomes of a single case study, as suggested by Derek Beach and Rasmus Brun Pedersen in the following citation: “In the theory-centric variant [...] we are studying singular mechanisms instead of complex conglomerates. In contrast, when the purpose of analysis is to craft a sufficient explanation of a particular outcome, we almost always need to combine mechanisms into an eclectic conglomerate mechanism to account for a particular outcome.” (2016: 34) Eclecticism is the unintended result of research that seeks to explain particular events as well as possible (Sil and Katzenstein 2010).

Moreover, given that the ambition is to define a minimally sufficient explanation of a particular outcome, it is usually necessary to include non-systematic parts in the causal mechanism, apparently coming from processes other than the analysed ones. This practice could make explaining-outcome process-tracing sometimes more analogous to the historical interpretation of events (Roberts 1996). However, it has an important advantage in that it enables us to capture simultaneously both actors’ choices and the contingency of historical events, immunizing our research from immunizing our research from critics coming from historical scholars (Gaddis 1992; Rueschemeyer 2003; Schroeder 1994), who accuse social scientists of studying events disconnected from their historical context. What differentiates explaining-outcome process-tracing from historical research is both the causal-explanatory

focus – through a theory-guided analysis – and the ambition to go beyond the single case (Gerring 2006; Hall 2003).

Another common misunderstanding about causal mechanisms is made by those who conceptualize them as a series of intervening variables through which an explanatory variable produces a causal effect on an outcome variable (see Falleti and Lynch 2009; George and Bennett 2005; Gerring 2008; King et al. 1994). This means that the values of variables can vary and that they are independent of each other, since each variable is an autonomous analytical unit. Following this logic, variance implies that a probabilistic understanding of causality would be utilized in a research of a single case study, something that makes little sense. Second, the use of intervening variables usually has the practical consequence that the actual transmission of causal forces from X to Y is not explicitly studied (Bunge 1997). Mechanisms are therefore more than just sets of intervening variables. Waldner goes as far as to say that “mechanisms explain the relationship between variables because they are not variables” (2012: 18). This understanding of mechanisms as causal forces has important methodological benefits, since it fosters a more explicit focus on the causal linkages between X and Y, enabling stronger within-case inferences to be made. Either all of the parts of a mechanism are present, or the mechanism itself is not present (Glennan 2005).

Another question debated in the field of philosophy of social science is about the necessity to always reduce mechanisms to the micro-level (Hedström and Swedberg 1998) or whether macro-level mechanisms cannot be reduced to the micro-level (Bunge 2004; Mayntz 2004; McAdam et al. 2001). In Beach and Pedersen (2016) view, these assumptions unnecessarily restrict the uses of process-tracing methods to purely micro-level examination. Given that this debate represents in essence the classic debate between agent and structure, the authors advocate for an agnostic and pragmatic middle-ground position, where the choice of analysis' level is the one that allows the best study of the mechanism. The same mechanism may operate at different levels of analysis, and we should not see one level as more fundamental than another (Falleti and Lynch 2009; George and Bennett 2005; Mahoney and Rueschemeyer 2003; McAdam et al. 2001: 25); as shown by figure 4, process-tracing methodology adapts perfectly to the multi-level analysis.

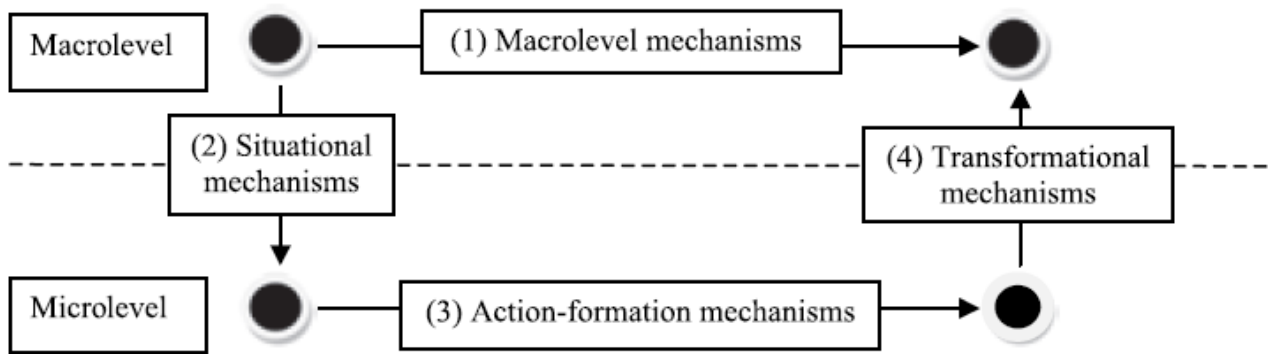


Fig 3: Levels of causal mechanisms (Hedström and Swedberg 1998: 22)

Therefore, the process-tracing methodology allows the overcoming of the distinction between micro-meso-mega analyses. The choice of the level at which a causal mechanism has to be analysed depends on the level at which the empirical manifestations of that mechanism are best grabbed.

Consistently with this, pragmatic position assumed in this work states that mechanisms can hypothetically exist at the macro- or micro-levels, or can span over the two levels (situational and transformative mechanisms).

Therefore, for building a minimal end sufficient explanation of a case there is not the necessity to choose in advance the level of analysis: what is fundamental in applying the third variant of process-tracing methodology is only to carefully define theoretical concepts and hypothetical causal mechanisms to test during the case's study. Key to any research design is the definition of the central concepts that will be the basis of all theoretical propositions. For this reason, the rest of the chapter will expose theoretical basis on which this study has been realized.

3.2. *An eclectic theorization for the study of urban water regimes*

Given the need for multiple theories for evaluating the veracity of causal inferences, and hence multiple disciplinary languages, and given the multiple levels of analysis involved in studying relationships among mechanisms, the study of an institutional change depends on theoretical work undertaken at three levels: the theoretical framework, the theories and the models.

The development and use of a general framework helps to identify the elements of a process and the relationships among these. A process of change, in turn, can be the result of several causal mechanisms that intertwine with each other. Frameworks, indeed, are useful to organize the investigation through generating questions, and to identify the most general list of variables that should be used to analyse all types of mechanistic arrangements. They also

provide a meta-theoretical language that can be used to compare theories. In summary, framework allows to identify the universal elements that any theory regarding the same kind of phenomena would need to include (E. Ostrom 2007). Within the chosen framework, several theories compatible with its assumptions can be used to specify which elements are particularly relevant to answer to certain kinds of questions and to make general working assumptions. Thus, a theory is definable as "a set of analytical principles or statements designed to structure our observation and explanation of the world" (Cairney 2012: 30). One needs a common framework and a family of theories to address questions about a causal mechanism. The development and use of models allow us to analyse the causal mechanism even more deeply, equipping us with precise assumptions about a limited set of parameters and variables, which are compatible with most theories.

Theoretical tools selected to analyse our two remunicipalisation processes in a comparative way will be shown below. The starting point for choosing our set of theoretical instruments was the idea that the process of changing a water regime is surely the result of the interaction among all the four typologies of causal mechanisms described by Craig Parsons (2007), which acted simultaneously in the production of the same event, in our case the remunicipalisation reform. However, for the purposes of our investigation, the analysis of psychological mechanisms seems irrelevant, leading us to focus only on the other three. This because, first of all, the results of such a reform inevitably are directly connected to causal structural mechanisms, which derive from exogenous constraints and opportunities for action created by material surroundings such as the availability of drinking water in the area, the difficulty/ease in extracting and transporting it, the conditions of technology of water infrastructures etc.. Secondly, the direction followed by the reform of a public service is obliged by pre-existing institutional mechanisms, which channel actors' behaviour in a certain direction by setting limits and incentives for human action. Finally, beyond the exogenous variables of the system that make certain courses of action more or less feasible, the ideational mechanisms, which are produced by the interpretation of the actors of their world through certain ideational elements, lead the production of the outcomes. As a matter of fact, the main venues of decision-making processes on public services are eminently political, and in our cases, they are traceable in three of the dimensions that structure the urban reality: the municipal public administration, the operator of service and the civil society. Although the management of water services is entrusted to a company acting through the economic rationality, the issue of water management for civil purposes has assumed a strong political

connotation in our case studies, becoming a key topic of the urban political debate in the years preceding the remunicipalisation. Consistently with this, an analysis of ideational mechanisms through the micro-economic model of rational choice (see among others Simon 1955) would not have been sufficient, but there was the need to identify theoretical systems capable of grasping also behaviours led by political rationality. Hence the following theoretical approaches. The selection process carried out by the author of the theoretical tools suitable for the study of the three causal mechanisms will be explained below.

3.2.1. The choice of theoretical tools to be harmoniously blended

The application of Process Tracing Methodology in its third variant appears extremely demanding from a theoretical point of view. It requires not only an exercise of choosing of theoretical research templates that are suitable for the explanation of the outcomes of the case studies, but it also expects a work of integration and conceptual harmonization between the theoretical frameworks selected by scholars. The theoretical blending activity aims to outline a "toolbox" that is neither redundant, with too many concepts capable of explaining the same phenomenon, nor incomplete, therefore incapable of grasping all the sufficient and necessary elements of the two processes comparatively analysed. Consistently with this, the author of this work had to proceed with the searching for theoretical frameworks to be applied and harmonized between them only after the analysis of literature and the data collection phases. This is because there was a need to have a first idea on the salient and necessary causal linkages of the reform processes that are object of analysis. Subsequently, an embryonic comparison was made between the case studies, in order to identify any common or dissimilar causal nexus – those nexus that determined a convergence or a divergence between the directions taken by the two causal processes. Finally, through a circular movement back to the starting point, appropriate theoretical tools to provide a minimally sufficient explanation of our causal mechanisms have been sought in the academic literature, in a continuous movement from the inductive to the deductive perspective.

The conceptual map resulting from this exercise was inspired, first of all, by recent case studies on remunicipalisation processes of the most symbolic water services within European context, such as those of Pierre Bauby and Mihaela M. Similie (2013), Dominique Lorrain (2016), Bernard Barraqué (2012) and Joyce Valdovinos (2012) on Paris, or those by Pierre Bauby, Christa Hecht and Stephanie Warm (2018) on the comparison between the processes that took place in Paris and Berlin, or even the works of Thomas Blanchet (2016) Hartmut Bauer (2012) and Manfred Röber (2009) on Berlin, or the excellent work on the Grenoble

case by Antoine Brochet (2017). Such works are exemplary in showing the importance of the neo-institutional perspective in the analysis of local case studies, which allows the scholar to set "the rules of the game" that define the space of action of the processes' actors. Neo-institutional tools permit to define the options available to the actors in the salient nexus of the decision-making process with an historical and causal perspective. Moreover, since the application of the concept of socio-technical system to urban water regimes (Loarrain and Poupeau 2016) represents the starting theoretical assumption of the entire work, other sources of inspiration have been the corporate governance studies on multi-service utility operators, such as those of Maria Tullia Galanti (2016), of Giulio Citroni (2007), and Giulio Citroni, Andrea Lippi and Stefania Profeti (2012). These works show how important is the capacity to go beyond the purely political analysis in the study of the governance of today's utility companies and also use the conceptual tools and data from economic and managerial fields; this appears necessary since nowadays the SGEI are governed following a rationality that is both political and economic, as a result of the changed European regulatory framework governing the sector in which they operate. Finally, works on the relationship between infrastructures and populations, such as those of Daniel Florentin (2015a, 2015b) or Keller Easterling (2016, 2019), and works about social conflicts and experimentations on the management of water services, as those by Bernard Barraqué (2011), Pierre Dardot and Christian Laval (2015), Alberto Lucarelli (2015), and Filippo Barbera et al. (2016) have allowed us to grasp the close link between the socio-cultural characteristics of the users of a service and the management choices of supplying infrastructures. In fact, the innovative perspective through which such authors have examined the great world of urban infrastructures has made us understand the close bond that unites the vision of the world shared by a population and the water regimes through which fundamental needs and human rights of these people are guaranteed. Culture, meanings, languages and behaviours derive from the common experience made by people in using the infrastructures present in their life contexts, just as the choices on how to manage them derive from consumption styles, social lifestyles, interpretations of reality own by the populations served by those services – which characteristics determine the demand for services, on which supply modalities are built – in an infinite process of mutual incremental influence.

Starting from these assumptions, our theoretical "toolbox" must possess the necessary elements for capturing not only the institutional change produced by the remunicipalisation reform and the institutional context in which this change took place, but also the vision of the

world, the systems values and objectives that pushed the citizens to act cooperatively to produce a policy change. This type of knowledge is essential to provide an explanation of all the causal processes that have produced remunicipalisation reforms and, above all, to explain the decision-making processes activated by the actors when they had to choose between different action strategies.

To explain these elements, the theoretical tools put into our "toolbox" have been selected in the field of Public Policy studies, focusing on the "policymaking process. The term process connotes temporality, an unfolding of actions, events, and decisions that may culminate in an authoritative decision, which, at least temporarily, binds all within the jurisdiction of the governing body." (Schlager 2007: 293). Such tools come from the Institutional Analysis and Development (IAD) Framework (E. Ostrom 2005) and the Policy Process Framework (PPF) (Goyal and Howlett 2019), following a selection logic that will be explained below. Salient conceptual elements of the two theoretical frameworks will instead be the object of chapter 4.

The neo-institutionalist choice

In our "toolbox" a theoretical framework from the neo-institutional world cannot be missing. First of all, because the most influential academic contributions on the study of water regimes come from this field (see among others Wollmann and Maréou 2010; Wollmann et al. 2016; Ongaro et al. 2018). Secondly, because neo-institutionalism is the most appropriate framework in comprehending the historicity of processes and in connecting past and present institutional elements, thanks to the concepts of path dependency and incremental change (Pierson 2011). Furthermore, this perspective appears particularly suitable for comparison (Bezes and Siné 2011). Finally, through the concept of feedback (Pierson 1993, 1994), neo-institutionalism has incorporated the idea that human action, which takes place in an institutional context, in turn produces changes in social, economic and political institutions.

In choosing the most appropriate neo-institutional framework, however, it is important not to forget the limits that this approach has shown in explaining the current urban water supply regimes, which have been listed abundantly in chapter 1. The IAD was chosen because it allows to overcome the limit of a state-only analysis, which collides with an empirical reality in which the SGEI are organized on a municipal basis. Since in this historical phase it is no longer possible to exclude the micro scale from the analysis of state institutions (King and Le Galès 2011), there is a need for a framework capable of focusing on the genesis of public action rather than on the genesis of forms of state. Applying IAD Framework, in fact, permits the scholar to go beyond the distinction between the micro-meso-macro analysis scales and

capture the institutional context in its entirety, regardless of the scale of exogenous variables. Furthermore, the IAD is suitable to include into the analysis a multiplicity of context variables. As a matter of fact, the institutional context in which a public service is defined is not only represented by the legal framework of reference, but is the result of formal and informal rules, also defined by the cultural and environmental characteristics of the society that they must serve (E. Ostrom 2005). Finally, the IAD is a framework based on a rational action model that exceeds the concept of personal utility, enabling the analyst to define the conditions that support cooperative behaviours on the part of citizens.

Being a framework born from the union of two different study programs, one on the management of common pool resources (or common goods) through self-governance practices of local communities, and one on the management of public services through state institutions, it represents a perfect analysis tool for our case studies. Indeed, we want to analyse a remunicipalisation reform that originated from the intent to manage a public service – the supply of drinking water – through the direct participation of citizens. A management model that, idealistically, could be placed halfway between the direct management of common-pool resources (E. Ostrom 1990) and the state management of public services (V. Ostrom et al. 1984). Institutional contexts that are so different require a model of individual action of reference more realistic than an *homo economicus* equipped with all the information necessary to maximize her/his usefulness, as stated by neoclassical economic and game theory. Olson noted that “unless the number of individuals in a group is quite small, or unless there is coercion or some other special device to make individuals act in their common interest, rational, self-interested individuals will not act to achieve their common or group interests” (1965: 2). Therefore, to conceive that individuals cooperate with each other, the authors of the IAD constructed a particular variant of the institutional rational choice model, which in turn belongs to the theory of bounded rationality (Simon 2013). This model is based on two premises: each decision-making situation provides particular incentives and limits for individuals to act; and institutions, as formal and informal rules, can be used to change those incentives and limits. However, the decision to create institutions depends, in turn, on the context, which must have the characteristics suitable for developing cooperative dynamics. By applying the results of the studies conducted on collective action dilemmas and game theory, the team of scholars who outlined the IAD built the fallible learner model. This type of individual, through interaction with others, can learn to face the dilemmas of collective action through the possibility of making mistakes and learning from them. The

concepts of error and incremental learning are the basis of this model. Thus, IAD presumes that the various institutional arrangements that individuals use in governing and managing problematic situations, such as public goods or common-pool resources, offer them different incentives and opportunities to learn. In some settings, the incentives lead them to repeat the mistakes of the past, while in others, the rate of effective learning about how to improve performance over time is rapid. (E. Ostrom 2011). Consequently, IAD Framework allows us the tools to define the conditions of cooperation between individuals. Therefore, the model of fallible learner is an explanation of individual action that challenges those found in three different but dominant models: the tragedy of the commons, the prisoner's dilemma, and the logic of collective action (E. Ostrom 1990). These three models have been built on the assumption that individuals are unable to cooperate to fulfil goals superior to those achievable by an individual acting alone. However, fallible learner model does not presume that individuals always will act in concert, but it focuses on the characteristics of the physical world, the community, and the rules-in-use to describe institutional contexts that could support collaboration and inhibit opportunistic behaviour.

The element around which the whole IAD Framework turns is the action situation, which is "an analytic concept that enables an analyst to isolate the immediate structure affecting a process of interest to the analyst for the purpose of explaining regularities in human actions and results, and potentially to reform them." (E. Ostrom 2011: 11). An action situation is a social space where individuals interact in any way. IAD Framework tells us that the first step to explain human interactions and predict them is to identify the major types of structural variables that are present to some extent in all institutional arrangements, which are bio-physical conditions, community attributes and formal and informal rules that individuals respect in deciding how to act. The definition of these exogenous variables allows us to describe dependent variables, as well as participants to the action, the positions they hold, the actions they take, the information they possess, the outcomes that are achieved, and the distribution of the costs and benefits of those outcomes. A second step explores how an action situation changes over time in light of how the outcomes produced at an earlier time can affect perceptions and strategies over time (Cox and E. Ostrom 2010). If participants consider these outcomes negatively (negative feedback), they can decide to cooperate to modify the exogenous variables of the action situation, producing an institutional change. Furthermore, the strength of this model of action lies in the fact that the analyst is free to decide her/his level of analysis. Although the scholar can choose to keep the analysis focused on a single

level, the other two levels are always implicitly included. Similarly, when individuals attempt to achieve better outcomes, they can change level of action (moving through different levels of action) to modify the rules that plague their action situation.

Thus, IAD framework comes up with a multi-tier conceptual map, which is applied to all the stages of the policymaking process, from the supply of policy or institutional arrangements to the implementation and evaluation of policy. In addition, it can be used for the study of multiple institutional contexts, as it refrains from identifying any general process variables. In this way, it avoids the risk of becoming a big structural/functionalist theory.

Consistent with what just explained, the IAD Framework enables us to understand the structural and institutional causal mechanisms that produce a policy change, but does not offer us suitable tools to grasp the ideational mechanisms originated by the vision of the world of the participants of an action situation.

In fact, the IAD pays the same explanatory limit identified in the neo-institutionalist academic literature examined in chapter 1: institutional change is conceived only as an incremental phenomenon originating from changes in the exogenous variables of a social system, without considering that it can instead be connected to the change in endogenous variables, such as the perception of certain issues, the visions of the world, and the ideas of the participants (Béland 2005, 2009). As stated by Mahoney and Thelen (2009) also the will of the actors of the system can cause gradual institutional change. Above all, an understanding of the actors' belief system, of the type of perception they have of a problem and its solutions, is fundamental to explain the direction taken by institutional change. If, in fact, public policies are conceived as public action tools (Lascoumes and Le Galès 2011; Halpern et al. 2014) aimed at organizing human relationships on the basis of a specific model of ideal society, the analysis of a public policy must necessarily pass through a comprehension of the ideas, beliefs, mental maps, specific representations of the problems faced, strategies and objectives of the political actors who created such policy. Formal institutions, as well as second-rank institutions (Lorrain 2008), are not only tools for mechanical management of large infrastructures, but they are real institutions – where the term institutions refers to “many different types of entities, including both organizations and the rules used to structure patterns of interaction within and across organizations ” (E. Ostrom 2007: 22) – that transmit specific visions of the world, define the space of action of the actors of the system and, as such, represent a common field of experience with an eminently communicative and relational value.

Furthermore, IAD Framework makes us understand what are the systemic conditions that support the cooperation between the participants, but it does not provide us with a model of collective action that can explain how a certain ideal political project may be translated – or not translated – into a concrete policy change. As a matter of fact, the model of action assumed by IAD Framework conceives the individual as central actor of action situations and analyses a set of general variables to explain the individual behaviour. What is missing in this theoretical framework is a collective action model. IAD does not explain to us neither schemes according to which the collective actors act to cause a policy change, nor what are the ideational mechanisms that keep them united during the course of the action. Through the IAD Framework we can reconstruct how a policy change occurred, but we cannot advance a necessary and sufficient explanation of why it occurred in that particular way and not in another way, equally verifiable in that given institutional context. Finally, the IAD Framework does not provide the analyst an explanatory model of the policy change process. As a matter of fact, innumerable policy changes can hypothetically occur within an institutional context. The IAD Framework does not enable us to explain why certain reform projects have been implemented, causing a policy change, while others will never see the light of day. Which conditions must be met by a policy project for becoming a policy? Which actions must be done by supporters of a policy project to ensure its implementation? Which factors influence the policy-making process and determine its outcomes?

To answer these questions kept in suspense and complete our conceptual "toolbox", the Policy Process Framework (see among others Howlett et al. 2015; Goyal and Howlett 2019; Goyal et al. 2020); has been taken as an explanatory tool for the ideational mechanisms of our cases of study.

The Policy Process Framework choice

The PPF is a reinterpretation of the streams model proposed by John W. Kingdon in 1984 to explain changes in the US government's agenda through the mechanism of coupling political problems and solutions by collective and/or individual actors. This model was created to explain only one of the stages of the policy process (the agenda setting), while the Goyal and Howlett Framework (2019) is fitting to explain the entire policy process, from the formulation of a problem to the evaluation of the outcomes produced by the policy implemented to solve it (for a more detailed explanation of the whole framework see chapter 4). It permits to achieve this goal through two metaphors, such as the policy stream, from the Kingdon's model, and the policy cycle divided into stages (agenda setting, policy formulation, legitimation,

implementation, evaluation and Policy maintenance, succession or termination) from the field of studies of policy analysis. In summary, the PPF shows us how the policy cycle is the result of the flow of three streams. The problem stream is composed of multiple policy problems, each bearing a certain interpretation of reality, which incessantly flows waiting for an event (such as an ecology crisis, or the publication of an indicator of a problem) that makes the policy-makers perceive the need to solve them. The policy solution stream is given by the simultaneous flow of many potential policy solutions, which float waiting for an actor in the system who couples them to any political problem. Finally, the political process stream is the result of the convergence of all political factors and the activities that take place in the society or in the venues of institutional politic, which make citizens and their political class assume a certain definition of a problem, a certain definition of its solutions and the implementation program of these solutions (i.e. the electoral victory of a certain political faction, the emergence of a certain social movement, the definition of quality standards for a certain activity, or specific procedures to achieve public goals, etc.). Such streams flow incessantly and in parallel until a window of opportunity opens – a short period of time – during which supporters of a policy solution that invest sufficient resources may be able to make policy-makers assume their interpretation of the problems and solutions to solve them. During these windows, the three streams can be coupled thanks to the action of collective or individual actors, producing a policy change. They flow over the whole policy cycle, just as the windows of opportunity can open at every stage.

The Kingdon's model pays the least attention to collective action, conceiving it as a process of individuals coming together to achieve a shared goal, while it focuses on the critical role played by certain individuals (policy entrepreneurs and brokers) in pushing their partisan policy solutions, and the conditions that support broad-based collective actions that lead to major policy change. The PPF fills this gap by introducing, alongside the garbage can model (Cohen et al. 1972) used by Kingdon to explain the mechanism of coupling problems and solutions by policy-makers, the collective action model of the Advocacy Coalition Framework (ACF) (see among others Sabatier and Weible 2007), which is applied to the actors who act to push their own policy solution. Instead of focusing on the structure of the situation to explain individual decision-making as in the IAD, the theory of ACF empirically identifies common belief systems, set of basic values, causal assumptions and problem perceptions shared by collective actors to explain the ideational mechanisms that hold them together and that make them act in concert to achieve a common goal (the implementation of a data policy solution).

An advocacy coalition, the central collective actor of the ACF, acts according to the bounded and incremental rationality model, in an environment characterized by limited information processing abilities, which affect how individuals acquire, use, and incorporate information to push their policy solutions. The collective actors of the PPF (epistemic communities, policy targets, instrument constituencies, bureaucrats or technocrats, advocacy coalitions and social movements) have specific roles in each stream and generally act according to the collective action model defined by the ACF. Within these groups, some individuals with particular resources and skills (problem brokers, policy entrepreneurs and political entrepreneurs) play a fundamental role in the coupling of streams, as in Kingdon's model. However, when the windows of opportunity are opened and the policy-makers must choose which policy solution to associate with a problem to be solved, they do not act according to the model of incremental rationality (which would require the acquisition of information on a problem and the incremental formulation of the best solutions), but according to the garbage can model, which hypothesizes that the policy-makers rummage inside a "garbage" in which there are ideas and approaches with which they are already familiar, in search of the best solution. Finally, in outlining the possible interactions of the three streams along the policy cycle, the PPF assumes the concept of feedback effect from neo-institutional historicism (Pierson 1993, 1994) and Punctuated Equilibrium Theory (Baumgartner and Jones 2002, 2009), which allows to explain what role the three streams play in each phase of the policy cycle.

As can be seen, while the IAD is applicable to different types of causal processes, the PPF can only be applied to the policy-making process. Going into details of this type of process, the PPF shows to be very useful in helping bring some order to the complexity of policy processes (Weimer 2008). In doing so, it allows the explanatory shortcomings of the IAD Framework without producing a redundant result.

The two frameworks have many points in common, which make them harmoniously blended. Both apply action models belonging to the bounded rationality field, thus sharing important theoretical assumptions such as the idea that individuals and organizations cannot maximize their utility, instead, they "satisfice", or seek "a course of action that is satisfactory" or "good enough"; or the awareness that they have neither the ability nor the inclination to consider all information about an issue, instead they use simple rules of thumb to focus on the factors considered to be most relevant and important and increase their knowledge incrementally (Simon 1976). Both approaches share the hypothesis that the institutional change process proceeds by incremental adjustments, without punctual and sudden changes (Kingdon 1984).

In addition, they allow the analyst to simultaneously grasp mechanisms from all three scales of action and to analyse the entire policy-making process from start to finish. The policy cycle metaphor therefore represents the main conjunction point between the two frameworks, allowing us to apply both frameworks to each phase of the policy cycle as if they were a single one. Other shared features are represented by the concept of feedback and political process stream inserted by Goyal and Howlett (2019) in their framework. In fact, the concept of feedback effect overlaps to the Ostrom's idea that outcomes of an action situation can modify in turn its exogenous variables. While, the concept of political process stream, composed in turn by the concept of political stream from Kingdon's model and process stream hypothesized by Howlett et al. (2015), permits to define the institutional context in which the actors act through the analysis of the different institutional venues that generate the stream. Clarifying the institutional structure within which streams are coupled and through which major policy changes occur, permit consistent and controlled comparisons across a range of policies (Schlager 2007), exactly as the IAD Framework does (Vitale 2010a). Finally, both analytical approaches pay close attention to the understanding of the resources and information possessed by the actors, which define their ability to produce the desired policy change.

All these common elements make the IAD Framework and the PPF not only compatible, but also complementary, enabling the analyst to explain a Policy Change by understanding the structural, institutional and ideational causative mechanisms that produced it.

4. THEORETICAL PROPOSAL: A COMPARATIVE ANALYSIS OF REMUNICIPALISATION PROCESSES OF URBAN WATER SERVICES.

Based on the theoretical choices explained in the chapter 3, a theoretical framework from the neo-institutional field has been chosen to lead our research, since it provides the concepts necessary to fully grasp both the structural and the institutional causal mechanisms. This is the Institutional Analysis and Development Framework developed at the University of Indiana and elaborated by the Workshop in Political Theory and Policy Analysis of 1977 under the direction of Elinor and Vincent Ostrom (see Aligica and Boettke 2009) with the aim to build an innovative way for reflecting about public choice²⁵ (see E. Ostrom and V. Ostrom 2004) (for an exhaustive history of the development of the Framework over time see E. Ostrom 2011). It allows us to outline the institutional, material and historical context within which the actors of policy processes act and make decisions, as well as to analyse the development of such processes over time and their outcomes.

As stated in chapters 1 and 3, neo-institutional approaches can enable us to understand which courses of action are permitted or prohibited within a specific physical and institutional context, but they do not allow us to understand the ideational mechanisms that push the actors towards one choice or another during a decision-making process and they do not provide us with a collective action model useful for explaining the behaviour of collective actors over policy cycles. As a matter of fact, if we consider a policy not only as a neutral instrument of problem-solving, but as an institution that spread a specific representation of the problems and solutions (Lascoumes and Le Galès 2004), then we realise that a policy change is a complex process that involves multiple actors in different activities and that the contents and results of every policy vary according to the variation of the actors and their ideas. Consistently with this, a policy reform project often does not have the necessary characteristics to become a policy; in the same way, a policy that has been already implemented may be subject to changes over time because of the typology of resources assigned to it by the actors or a change in the network of policy-makers, and thus it may produce different outcomes from those for which it was designed. The study of the factors that determine – or prevent – the implementation of a given policy, the form it takes over time and the results it produces has always been the goal of the second framework used in this work comes from. It is the Policy Process Framework, developed by Nihit Goyal and Michael

²⁵ The theory of public choice is the economic study of political decisions, according to which each actor evaluates in a rational way, given his preferences and the rules existing in the decision-making system, which choice to make to maximize the former, respecting the latter.

Howlett (2019) for examining the micro-foundations of agency of every policy-making process, as the ideational causal mechanisms that lead actor's choices (as we will see later). Both of two frameworks come from the field of Public Policy Analysis and they result complementary in producing a theoretical "toolbox" to be applied to all causal mechanisms of our interest.

The three causal processes that produced the remunicipalisation policy process has been studied as if they have been superimposed, making their parts and their causal links coincide chronologically; later, the entire political process has been analysed through the use of an abstract metaphor, which is the *policy cycle* (Lasswell 1956), a conceptual tool that allows the analyst to divide the process into causally linked stages: at this point each stage of the policy cycle has coincided with a part of the three overlapping causal processes; finally, each stage/part of the policy cycle has been analysed by applying the conceptual tools from the two theoretical frameworks chosen. The concepts, theories and theoretical models on which such frameworks are based will be set out below.

4.1. Institutional Analysis and Development Framework

Institutional Analysis and Development (IAD) Framework allows comparing different action situations, to favour explanations both of the empirical variety of institutions and of the outcomes that each located structure of action produces (Vitale 2010b). In the opinion of Elinor Ostrom the "greatest challenge for the social sciences is to explain change – or more specifically, social, political, economic, and organizational change." (E. Ostrom, 2005: 66) and, consistently with this, the IAD results perfectly suitable for the study of institutional changes through inductive strategies.

The IAD Framework has arisen from insights from two different research programs: the first was about the direct managing by local groups of common pool resources – i.e. groundwater, irrigation systems, forests, fish resources (McGinnis 1999b); while the second one was on the public economies and the public services (McGinnis 1999a). With the aim to develop a coherent approach for studying diverse types of institutional arrangements (including markets, hierarchies, firms, families, voluntary associations, national governments, and international regimes), scholars engaged in crafting the IAD Framework have needed multiple inputs from diverse disciplines. Given this particularity, the development of the IAD has diverted from the public choice tradition, inaugurating an analytical perspective that confides in inductive empirical research rather than in creating formal models per se (Mitchell 1988). The IAD allows the analyst to take in consideration relational, organizational and process

interdependence, without identifying any general process variables. Otherwise, the framework would be a big structural/functionalist theory. Consequently, a researcher can analyse each local situation using the process variables and evaluation criteria selected from the theories that she/he considers more appropriate. IAD was conceived to be an analytical framework, not an explanatory one, able to provide direction on how to observe institutional changes and their outputs. It permits to undertake an analysis of how combinations of rules, goods, infrastructures, cultures and social behaviours interact to produce particular outcomes, providing a set of concepts and analytical strategies that can be applied to an array of empirical contexts.

The starting point to apply the IAD Framework to a case study is gaining an innovative conception of society, person and human situations.

The society

The conception of society on which the IAD is based has originated by Alexis de Tocqueville's idea of democracy (see de Tocqueville 2015; Zetterbaum 1967). Democratic societies are thought as big experiments, where every form of government of human questions is possible, as well as the auto-government of citizens. The IAD leans on the idea of a polycentric society, with multiple and scattered centres of power. In an open and democratic governance system, there are many sources of rules that individuals use in everyday life to solve problematic situations. It is not considered illegal or improper for individuals to organize themselves and craft their own rules, if the activities they engage in are legal. In addition to the legislation and regulations of a formal central government, there are laws passed by regional, local, and special governments; also within private firms, voluntary associations and in each family, individuals are authorized to define their own norms for managing goods and relationships. Consequently, IAD Framework assumes a broad definition of *institution*: it is a set of prescriptions that humans use to organise all forms of repetitive interactions, at all scales of action. Institutions are therefore defined as structures of rules crafted to allow individuals to face choices regarding actions and strategies in particular circumstances in order to fulfil sets of goals. The concept of *rules* refers to shared regulations, instructions, precepts and principles (expressed with the verbal forms must, must not, or may), which are mutually understood and predictably enforced by agents responsible for monitoring human behaviour and for imposing sanctions. *Norms* are conceived as cultural shared prescriptions that tend to be enforced by the participants themselves through internally and externally imposed costs and inducements. Finally, the plans of action that individuals make within a structure of

incentives produced by rules, norms, and expectations about the likely behaviour of others in a situation affected by relevant physical and material conditions are called *strategies*. All prescriptions are the result of implicit or explicit efforts to achieve order and predictability among human behaviours by incentivizing the respect of required, permitted or forbidden classes of actions connected to required, permitted, or forbidden outcomes.

IAD Framework is not aimed to develop a normative theory of an ideal society, but it was born to provide to the analysts a theoretical tool able to deeply analyse every typology of institutions, also the informal ones, in order to understand the prescriptions used by individuals in facing social dilemmas and thus to explain the diversity of human patterns of behaviour.

The person

An institutional analyst must assume an implicit or explicit theory or model of the kind of information possessed by actors, their preference structures, and the mental processes they use for choosing among actions in diverse types of situations. The actor is the one who actively participates in a situation and this can be a single individual or a group functioning as a collective actor, which is called *participant* into the IAD Framework. The term *action* refers to those human behaviours to which the actor attaches a subjective and instrumental meaning. In an open and competitive market situation, the most useful model is the *Homo Oeconomicus* (see Kirchgässner 2010), from neoclassic economic theory and game theory, which assumes that actors are rational egoists that have complete and well-ordered preferences and complete information, and that they maximize the net value of expected returns to themselves (utility). However, competitive markets or others full-information situations are not the only ones that are of interest to institutional analysts. Empirical researches have shown systematic anomalies of this model. Information search is costly, and the information-processing capabilities of human beings are limited. Individuals, therefore, often must make choices based on incomplete knowledge of all possible alternatives and their likely outcomes. With incomplete information and imperfect information-processing capabilities, all individuals may make mistakes in choosing strategies designed to realize a set of goals (E. Ostrom 2007). Moreover, individuals do not act only for maximizing personal utility, but they also act on the basis of norms and values that originate in personal culture and history (Koford 2003). In analysing these situations, theorists frequently assume the bounded rationality model, which conceive participants as goal oriented actors that try to be rational but face cognitive limits (see Simon 2013; Williamson 2000; V. Ostrom 1997; Jones

2001).

Creators of the IAD Framework have joined the results of the researches of Arthur T. Denzau and Douglass C. North to the bounded rationality model, to develop specific variant of the institutional rational choice model: the so-called model of *fallible learner*, which is the one applied here. Denzau and North (2000) stress the importance of communication as a tool to enable individuals to develop shared mental model and normative systems. If the same participants repeatedly interact in free and open communication, and if they previously share same cultural views of the world, mental models are likely to converge. The positive impact of communication, in particular the face-to-face one, in solving social dilemmas has been tested frequently in laboratory experiments (E. Ostrom 2005). Through communication, actors can acquire a greater understanding of their situation and adopt strategies that result in higher returns.

Therefore, fallible learners are subjects who not only aim at maximising their own personal utility, but also act on the basis of other people's perceived benefits and costs: personal commitment to keeping promises and behaviours of reciprocity are important for them (E. Ostrom 1998, 2005). Fallible learners can, and often do, make mistakes. Situations differ not in the capacity of people to acquire capabilities to solve social dilemmas, but in whether the institutions encourage people (by means of *incentives* and *sanctions*) to learn from these mistakes and modify their strategies, or to repeat over and over again the same errors. Therefore, individual action is conceptualized as a behaviour to which people attribute a subjective and instrumental meaning; this meaning does not depend only on personal motivations, but also on the institutional context in which they operate, which provides them the essential information to calculate the payoffs produced by their actions. Individuals know that actions have different consequences in different contexts and this affects the way in which they organize and pursue their preferences. *Fallibility* and the *capacity to learn* can thus be viewed as assumptions of a more general theory of the individual. Therefore, people use and process the information available to them not only to achieve personal purposes, but also to learn and modify the context and the institutions in which they find themselves acting.

Reciprocity, opportunism or cooperation may develop within institutions that incentivize those behaviours. Opportunism – deceitful behaviour intended to improve one's own welfare at the expense of others – may take many forms and further compounds the problem of uncertainty in a given situation. The level of opportunistic behaviour that may occur in any setting is affected by the norms and institutions used to govern relationships in that setting, as well as

by attributes of the decision environment itself. Similarly, the reason why we can characterize participants as rational egoists in an open, competitive market is that the institution, not all the actors, is *selfish*.

This assumption allows giving a solution to some problems identified by traditional rational choice theory²⁶ (Cairney 2012). The idea that institutions represent a set of rules that influence choices and often produce regular patterns of behaviour solves a collective action problem: the problem to explain cooperative behaviours when there is an absence of trust or of particular incentives of the cooperation. In addition, the institutions may reduce “transaction costs” potentially produced by the necessity to share information among the actors of a system, and consequently they allow maintaining high the level of trust required to reach agreements. Finally, institutions may solve the problem by aggregating individual preferences into social preferences, because they channel preferences, slow the cycling process, and foster stability. Indeed, the conception of people as fallible learners paves the way to explain why and how groups of actors cooperate for producing institutional changes. The logical consequence of this theoretical construction is that there is no fix correlation between an institution and a collective performance, because each institution acquires a particular meaning, depending on the interpretation and collective re-elaboration of people who move in the action space defined by that institution. There are only local configurations: the configurations of rules and norms perceived by individuals.

The situation

Taking in consideration the situation in which human action takes place is a tradition in the field of social sciences (Vitale 2010b). Indeed, social spaces in which individuals interact, exchange goods and services, solve problems and confront themselves, are as much important as human actions and interactions when a sociologist attempts to analyse human behaviours. The most relevant element of the IAD Framework is the focus on the so called *action arena*, illustrated below (Figure 3).

²⁶ Developed in the micro-economic field, the rational choice theory is based on two models: methodological individualism assumes that outcomes are the products of an aggregate of actions made by rational individuals; instrumental rationality is an mental criteria used by individuals for deciding how acting in order to fulfil their personal goals according to their preferences and beliefs.

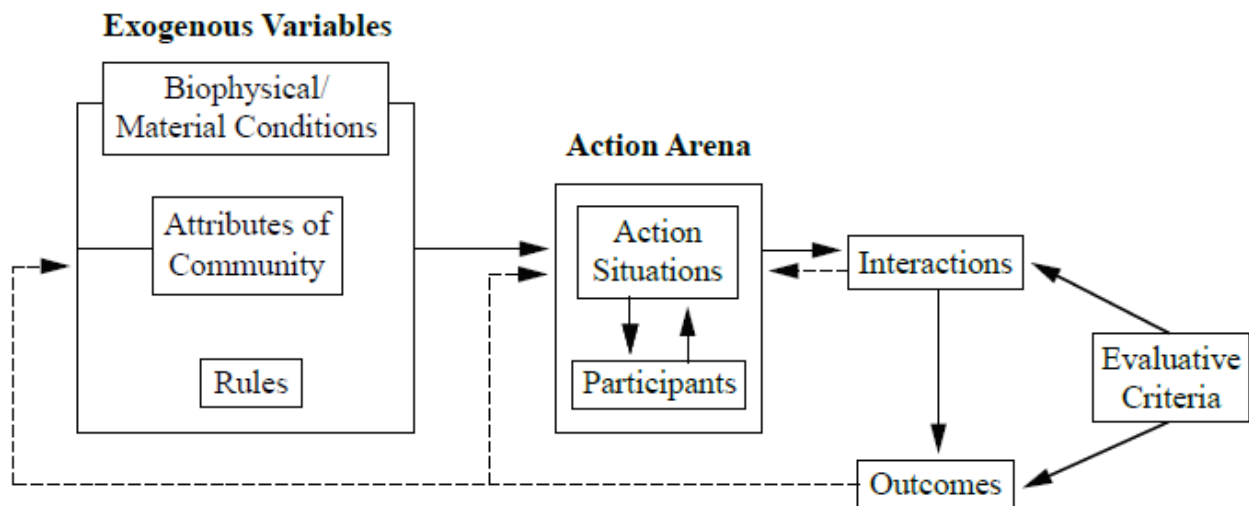


Fig. 4: A framework for institutional analysis (E. Ostrom 2005: 15)

An action arena can be seen as a whole in which two sub-wholes – *participants* and an *action arena* – interact as they are affected by exogenous variables, and produce outcomes that in turn affect the participants and the action situation. The factors affecting the structure of an action arena are represented by three clusters of variables: the *rules* used by participants to manage their relationships, the attributes of the *bio-physical world* that produce effects on this specific arena, and the structure of the more general *community* within which the arena is placed (Kiser and E. Ostrom 1982). *Evaluative criteria* are used to judge the performance of the system by examining the mechanisms of interactions and outcomes. Although the thinkers of IAD suggest a general set of evaluative criteria for assessing the outcomes and the interactions of an action situation, they let the analysts free to define the criteria to apply to their case studies, admitting the contextual specificity of each case. Finally, the sub-wholes of an action situation are defined using seven clusters of variables: 1) participants, 2) positions, 3) potential outcomes, 4) action-outcomes linkages, 5) control exercised by participants, 6) types of information generated, 7) costs and benefits assigned to actions and outcomes. Over time, outcomes may slowly affect any exogenous variables, however in undertaking the analysis these variables are to be considered fixed; all the others, instead, are to be treated as dependent variables.

When the interactions causing outcomes are productive for those involved, the participants may increase their commitment to maintaining the structure of the situation as it is, so as to continue to receive positive outcomes. When participants view interactions as unfair or inappropriate, they can decide to change their strategies even when they are receiving positive outcomes from the situation (Fehr and Gächter 2000). When outcomes are perceived

by those involved (or others) unsatisfactory, some will raise questions about trying to change the structure of the situations by moving to a different level and changing the exogenous variables themselves, such as the rules and the procedures that regulate the interactions (Frey et al. 2004).

4.1.1. *Zooming in the Framework*

After understanding the general structure of an action arena, the institutional analyst needs to take three more steps to grasp the model of interactions that produce certain outcomes: the first step is the understanding of the exogenous factors that influence the structure of the action arena (what does influence the arena?); the second step is to understand how these factors influence the arena of action (how does it affect the arena?); the third step is to understand what outcomes the arena has produced and how to evaluate these outcomes (what outcomes did it produce and how they are assessed?).

4.1.1.1. *Action situations as focal units of analysis*

“The term “action situation” is used to refer to an analytic concept that enables an analyst to isolate the immediate structure affecting a process of interest for the purpose of explaining regularities in human actions and results, and potentially to reform them.” (E. Ostrom 2007: 29)

In analysing human behaviours and their outcomes within a particular action situation, one needs to assume that the structure of the situation is fixed for the short run. Indeed, within a particular action situation, participants can choose their actions only in light of their perceptions about the opportunities and constraints of that specific situation at that specific instant. Thus, in analysing a process, the analyst has to choose different action situations, connected among them diachronically by causal linkages, so that each situation represents an instant photograph of an important moment of the whole causal process, called here *node of decision process*. The sum of the analyses of these "photographs" will produce the analysis of the whole causal process. In our research work, each action situation coincides with a stage of the whole policy cycle, as we will see below.

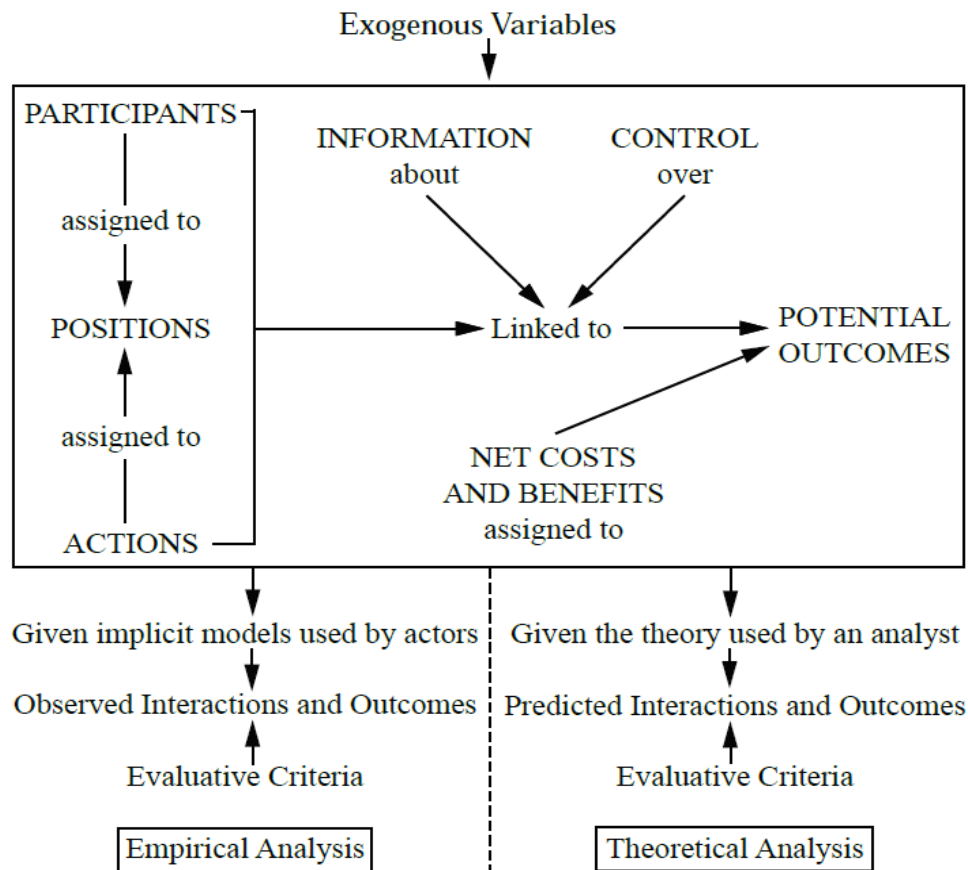


Fig. 5: The internal structure of an action situation (E. Ostrom 2005: 33)

As showed by Figure 4, the structure of an action situation can be described and analysed by using a common set of seven variables.

Participants in an action situation are decision-making actors with specific positions that select actions from a set of alternatives made available at every node of a decision process. They are defined through their number, their individual or team status, and those personal attributes that can affect their decisions (such as ethic background, gender, education, etc.). When a participant is a collective actor, he/she is to be treated as a single individual linked to a series of additional situations within their own organization. The analysts can decide to ignore or to take in consideration these additional situations. Moreover, the institutional analyst has to suppose that private preferences of members of collective actors are neutralized in favour of the collective goals (Scharpf 1997); this assumption must be assumed until proven otherwise. Finally, it is necessary to assume that each participant intends to participate in a collective action, until she/he gets out of the situation.

The *position* assigned to participants in an action situation defines her/him “standing” in that situation. The standing of a position represents the set of authorized actions and limits on actions that the actor who holds that position can take in the situation. Examples of positions

include players, voters, judges, buyers, sellers, legislators, and so forth. Depending on the structure of the situation, a participant may simultaneously occupies more than one position (for example, an actor can be both a voter of the municipality in which she/he lives and an employee of the firm in which she/he works). In some situations, every participant in different positions could take every allowable action in that situation. However, in most action situations, the capability to take particular actions is assigned to a specific position and not to all positions. Moreover, situations vary a lot in the degree to which participants control their own entry into or exit from a position. In addition, some situations present high levels of competition for conquering positions of power.

Potential outcomes of actions taken by participants are the results of three components of the action situation: the physical results of the chain of actions undertaken, the material rewards or costs assigned to actions which depend on the rules that structure the situation (fixed variable), and the valuation done by the participants on the combination of the first and second components. The concept of *status quo* defines a situation where the values of the initial-state variables are equal to the values of the end-state variables, which are the result of the actions of the participants in an action situation. This option is always possible and it is important that the analyst is aware of this. If one action situation maintains the status quo until after particular outcomes are achieved in other action situations, the first situation can be defined *contingent action situation* (Coleman 2005).

An *action* can be thought as one of the possible reactions that a participant can have in a particular node of the decision-making process. Participants assigned to a position in an action situation must choose from a set of actions at any particular node in a decision process. The specific action selected by a participant from the set of authorized actions is called a *choice*. A sequence of planned choices is called strategy, as mentioned previously.

Action-Outcome Linkages represent the connections between actions and their possible outcomes. In institutional analysis there are three types of linkages between actions and outcomes: certainty, risky, and uncertainty. When the linkage is certain, every available action is linked directly with one and only one outcome. Instead, the concepts of risky and uncertainty involve one-to-many relationships between actions and outcomes. In a situation characterized by risk, the objective probabilities' relationships between each action and set of outcomes are known (Cashdan 1990). An uncertain situation is characterized by an essential indeterminacy of social interactions (Knight 1921) and participants do not know the possible outcomes of their actions. Thus, if institutional arrangements leave open wide avenues for

choice, and each action's outcome is dependent upon the actions taken by others, the action situation is uncertain. Most situations existing in the political field are characterized by uncertainty, because the potential decision of an actor depends on decisions making by the "other(s)." It is very important that an analyst does not confuse the concept of uncertainty with that of lack of information: the first refers to a feature of the structure of the situation, while the second is an attribute of one or more participants.

Control is the capacity of an actor to exert a certain control over the linkage between the actions and their outcomes: it can vary from absolute to almost none. When it is total, the participant is defined *omnipotent*; when it is absent, the participant is considered *impotent*; in most situations the participants have a *partial control*. The *power* of an individual in a situation is the result of her/his *opportunities* (the outcomes of her/his set of possible actions) times the extent of her/his control. Thus, an individual can have a small degree of power, even though the individual has absolute control if the amount of opportunity in a situation is small. The amount of power may also be small when the opportunity is large, but the individual has only a small degree of control. Rates of opportunity, control, and power are situation-dependent, because depend on the specificities of every action situation.

Participants in an action situation may have access to complete or incomplete *information*. As explained previously, the model of individual assumed here is a variant of the bounded rationality, which presumes that a complete information is not a realistic condition in an empirical situation. The model of fallible learner, applied here, obliges the analyst to assume that participants have access to incomplete information about the full set of actions available to them, the full set of possible outcomes, and how actions are linked to outcomes. With incomplete information, how much any one individual contributes to a joint undertaking or how much that individual behaves opportunistically is often difficult for others to judge. This condition may lead to face the so-called Principal-Agent problem (Fudenberg et al. 1990; Laffont and Martimort 2002), which could appear during negotiating situations, when the agent's actions cannot be fully known by the principal.

Benefits (like material or immaterial rewards, and financial returns) and *costs* (like sanctions, taxes or fines) may be distributed to participants in taking actions along a path to an outcome. Costs and benefits are cumulative. It is important to do a distinction between the objective value of a physical outcome, an external reward or sanction, and the internal valuation that a participant assigns to the physical transformation and external rewards and/or sanctions. Participants in the same situation may assign different internal valuation to the same

objective outcome (see Schiemann 2002), because they depend on the intrinsic values that individuals associate with objective entities. Joy, shame, regret, and guilt are all forms of intrinsic values. Therefore, while a person can evaluate an action as being shameful, assigning to it a negative intrinsic value, another person could be proud of the same action, assigning it a positive intrinsic value.

Linked action arenas

In analysing an action situation, the analyst has to take in consideration another important feature of this kind of unit of analysis. Most social reality is composed not only of a single arena of action, but it is composed of multiple arenas linked sequentially or simultaneously (see Shubik 1986). These arenas may be linked into two different ways.

The first typology of linkage is the *organizational* one, which means that action situations are linked sequentially among them. This is what happens in our policy cycle, since we consider each phase of it as an action situation causally and chronologically linked to the next one. Arenas organizationally connected share the same fixed variables of state, therefore the chain of situations develops over an horizontal plan through a mechanism that allows the outcomes of any situation to become the input into the next situation, and so on (for example when participants of a situation have to solve a problem originated in another situation). As a matter of fact, an organization is usually composed of more action situations linked together by rules, norms and strategies specifying how outcomes from one situation become inputs into others. A general set of rules structures the situation at each node of the decision-making process and specifies the paths that may be chosen from one situation to the next. An analyst can freely decide to focus only on one situation, but it is important that she/he is always aware from where the inputs of actions taken by participants of the analysed situation arrives and that the outcomes produced by their actions could be the inputs into other situations.

The second typology of linkage between situations is defined *operational*, which refers to a vertical form of simultaneous connection that links a situation at one level of the analysis (where rules are assumed to be fixed and unchanging) to another situation at a deeper level (of which outcomes represent the rules of the first situation), producing a chain of situations that develops vertically. All action situations where individuals engage in the provision, production, distribution, appropriation, assignment, or consumption of goods and services, as the situations analysed in this work, are classified as operational situations.

Larry Kiser and Elinor Ostrom (1982) have distinguished three levels of rules that cumulatively affect the actions taken and outcomes obtained in operational situation.

Operational rules directly affect day-to-day decisions made by the participants in any action situation, and the feature of these rules is that they can change rapidly, also from day to day. *Collective-choice rules* affect operational activities and their outcomes, determining who is eligible to be a participant in an arena and the specific rules to be used in changing operational rules; this typology of rules changes more slowly. *Constitutional-choice rules* affect both collective-choice activities, by determining who is eligible to be a participant, and the rules to be used in crafting the set of collective-choice rules (Brennan and Buchanan 2008). Constitutional-choice rules change at the slowest pace. The levels of analysis can be countless, but the designers of the IAD Framework decided, for practical reasons, to stop the digging at a *metaconstitutional level*, which can be seen as the base of all the other levels, but is not frequently analysed. The comprehension of the metaconstitutional level of an operational situation becomes necessary only when participants examine the consequences of a constitutional process. Usually, for practical applications, three levels are enough. At each level of the analysis, there may be one or more arenas in which the types of decisions made at that level will occur, as can be noticed in Figure 5. In the collective-choice, constitutional and metaconstitutional situations, activities involve prescribing, invoking, monitoring, applying, and enforcing rules (Lasswell et al. 1977), so these situations can include such formal settings as legislatures and courts.

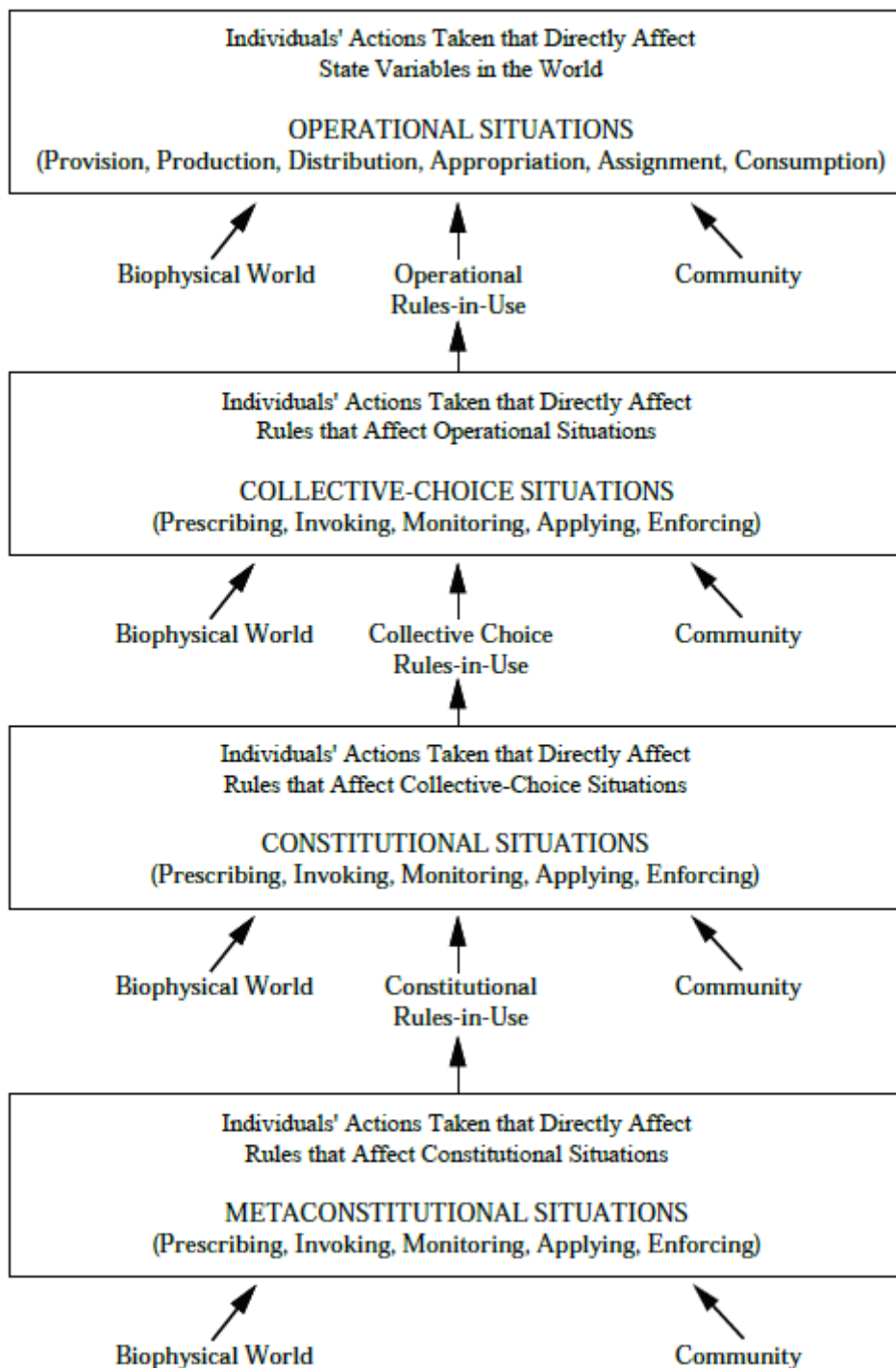


Fig 6: Levels of analysis and outcomes (E. Ostrom 1999: 60)

In sum, participants that interact at an operational tier make choices in light of the internal and external incentives for generating outcomes directly in the world; if, for any reason, outcomes generated at operational level did not satisfy the participants, they can decide to modify the rules that affect the operational situation through actions at the collective-choice level, and so on. The reaction of the participants to a given outcome corresponds to the concept of "feedback effect" by Paul Pierson (1993, 1994), who theorized that human actions

carried out in a certain institutional context can produce changes in social, economic and political institutions. An actor engages in a *level-shifting strategy* when she/he begins to contemplate to change any of the constraints on an operational situation, by acting at a different level. When a participant estimates that substantial benefits are likely to occur acting through a level-shifting strategy, this actor may then be willing to invest resources to try to convince others that they should agree on a collective strategy for changing rules that structure their action arena. Thus, participants of an operational situation may be the same of the linked collective-choice and constitutional situations, even if they do not recognize that they are making constitutional rules.

The costs of shifting levels of decision-making may dramatically vary from one setting to another. The fulfilment of onerous formal procedures – like petitions, court hearings, legislation, and/or referenda – may be required to shift levels of action in many situations. When the same individuals are involved in every level of the analysis, level-shifting strategies may be accomplished at low costs. However, transaction costs of shifting levels and transforming an ongoing situation may be very high. In such cases, participants at one level may continue to rely for long periods on rules that produce suboptimal outcomes at that level because the expected costs of changing rules are higher than the benefits they could derive from a better set of rules. Alternatively, they may devise their own rules-in-use through auto-organized solutions, without the formal recognition of the legal authorities.

When a scholar chooses to analyse a situation at any particular level, she/he must assume that the institutional rules at that level are temporarily fixed for the purpose of the analysis. These rules form a part of the fixed structure of the situation rather than the solution to the game created by that structure. However, in field settings, it is hard to tell where one situation starts and another stops. What is important for an analyst is to be aware that the fixed set of rules that influences the structure of the analysed action situation is the result of the actions performed by a multiplicity of actors on multiple levels, and that these rules will remain fixed until one or more participants decide to change them.

4.1.1.2. Exogenous variables

Exogenous elements that all together affect the types of actions that individuals can take, the benefits and costs of these actions and their potential outcomes are grouped in three typologies of variables, which are to be considered fixed. They are the attributes of the bio-physical world, the features of the community within which the arena takes place and the rules and the norms participants use to order their relationships. Thus, action arenas are to be

analysed as dependent variables of these fixed variables. Analysts using the IAD Framework are not obliged to take simultaneously in consideration each group of fixed variables, thus they can decide to focus only on a particular arena whose structure is already given, or they can also be interested only in one of the factors affecting the structure of the arena. For the purpose of this work, all groups of fixed variables have been taken in consideration, so they will be described below.

Bio-physical and material conditions

Attributes of the physical and material world describe which actions are physically possible, which outcomes can be produced, how actions are linked to outcomes, and what is contained in the actors' information sets. The same set of rules may yield entirely different types of action situations if they are applied within different material and physical contexts. Thus, the analyst needs to ask him/herself a series of questions about how the physical features of every action situation affect the outcomes, action sets, action-outcome linkages, and information sets.

Considerable academic literature has underlined the effects of attributes of goods and services that are more effectively provided by diverse institutional arrangements (see E. Ostrom and V. Ostrom 1977). As mentioned in the chapter 1, goods and services can be classified according to the concepts of rivalry and excludability. Rivalry refers to the extent to which the individual's use subtracts from others' the availability of consumption of good or services; exclusion relates to the difficulty of restricting those who benefit from the provision of a service or a good. Beside the purely private goods – rivalrous and excludable – and the purely public goods – non-rivalrous and non-excludable – there are the club goods – excludable and non-rivalrous – and the common goods – non-excludable and rivalrous. Even though water resources fall in the category of common goods, the policy processes here analysed have as outcomes two urban water services, which belong to the category of public services that are characterised by the minimum level of both rivalry and excludability.

When the benefits of a service are available to a group, whether or not members of the group contribute to its provision, that service is characterized by problems of excludability. Where exclusion is costly, those wishing to provide a service face a potential free-rider or collective-action problem (Olson 1965).

Free-rider problem occurs when an individual benefits from resources, goods, services, information, without contributing to the payment of the same, which the rest of the community takes charge of. *Collective action problems*, instead, refer to problems in managing

services and the resources for providing them. When it is costly to exclude individuals from enjoying benefits from an investment, private, profit-seeking entrepreneurs that aim to recoup their investments, have few incentives to provide such services on their own initiative. Excludability problems can thus lead to the problem of free-riding, which in turn leads to underinvestment of private capital, poor maintenance of the infrastructures and progressive decrease in the quality of the service.

Public sector provision of infrastructure raises additional problems in determining preferences and organizing finances. Producers learn about preferences of users through the consumers' willingness to pay for various goods offered for sale. Where exclusion is difficult, designing mechanisms that honestly reflect users' preferences and their willingness to pay is challenging, regardless of whether the providing unit is organized in the public or the private sphere. In very small groups, consumers are usually able to discuss face-to-face their preferences and constraints and to reach a rough consensus about performances and prices (E. Ostrom 1990). In larger groups, however, decisions about infrastructure are apt to be made through mechanisms such as voting or the delegation of authority to public officials. The extensive literature on voting systems demonstrates how difficult it is to translate individual preferences into collective choices that adequately reflect individual views (Arrow 1951; Shepsle 1979; Buchanan and Tullock 1999).

Attributes of the community

The attributes of a community that are important in the structure of an action arena include the norms of behaviour generally accepted in the community, the level of common understanding that potential participants share about the structure of particular types of action arenas, the extent of homogeneity in the preferences of those living in a community, the size and the composition of the relevant community and the extent of inequality of basic assets among people who live in that community. Summarizing, the concept of attributes of a community can be referred to every variables that define the *culture* of a specific group of individuals, which in turn is frequently applied to the values shared within a community (E. Ostrom 2007). Culture affects the mental models of the participants in an action arena. Culture evolves over time and affects, in turn, the mental models through which actors interpret the world. Culture is the result of the collective history of experience with governance institutions at multiple levels and it affects the way in which local participants understand, implement, modify, or ignore rules written by public officials (Medard and Geheb 2001). Whether individuals use a written language to express their values, develop common

understanding, share learning, and explain the foundation of their social order is also a crucial variable of relevance for institutional analysis (V. Ostrom 1997). Without written culture, individuals face considerable difficulties in accumulating their own learning in a usable form to transmit information from one generation to the next.

Rules

As mentioned above, in a democratic governance system, many sources of rules exist and these rules can be written or verbal. Indeed, individuals craft much of rules into problem-solving interactions, trying to figure out how to do a better job in the future than they have done in the past. Therefore, we define *working rules* the norms and the rules that individuals use in making decisions. Working rules are, consequently, the set of rules to which participants refer for explaining and justifying their actions, if anyone asks it to them.

As well as people can consciously decide to adopt or not a rule, over time behaviours in conformance or inconsistent with a rule may become habitual. The capacity of humans to control their own behaviour at a relatively subconscious level makes it difficult for analysts to ascertain what working rules may actually have been used in a particular arena. In spite of these difficulties, to reach a good understanding of which rules participants have followed in an action situation is the first goal of an institutional analyst. The second goal is to understand where those rules come from. In an open society governed by a "rule of law", the rules-in-form are for the most part consistent with the rules-in-use (Sproule-Jones 1993). However, in certain situations the rules-in-form and the rules-in-use do not coincide; this occurs when there is a problem in the formulation phase, or in the interpretation phase, or in the application of the rules.

All rules are formulated in human language and, like all languages, rules share problems of lack of clarity, misunderstanding, and change of meaning that typify any language-based phenomenon (V. Ostrom 1980, 1997). If a rule has been formulated using words or languages too generic or unclear, confusion will exist about which actions are required, permitted, or forbidden and, in this way, multiple interpretations of the same rule will occur in an action situation. In such a similar circumstance, regularities in actions cannot take place and the understanding of rules-in-use will be more and more difficult for the analyst. This type of situation occurs not only when a rule is written in an unclear way, but also when a rule has been written in the past, referring to a context that has changed over time. Even if shared meaning exists at the time of the acceptance of a rule, transformations in technology, in physical spaces, in shared norms, in social context and in others circumstances involved in

defining action situations can multiply the interpretations of a rule. "Applying language to changing configurations of development increases the ambiguities and threatens the shared criteria of choice with an erosion of their appropriate meaning" (V. Ostrom 1980: 342).

The stability of rule-ordered relationships is also dependent upon the enforcement by the agents responsible for monitoring human behaviour and for imposing sanctions. Breaking rules is an always-available option for participants in an action situation, but a certain risk of being monitored and sanctioned is associated with this option. The lower the risk of being monitored and sanctioned, the higher the instability of rule-ordered relationships, therefore reducing the predictability and stability of a situation. Moreover, if one person can cheat without fear of being caught, others can also cheat with impunity, yielding an effect-multiplication of the behaviour prohibited by the rules. If the risk of exposure and sanctioning is high, participants can expect that the others will have behaviours that are permitted and required by rules system. The acceptance of rules represents a type of Faustian bargain (E. Ostrom 1996), where a person exchanges something of importance – personal freedom to use coercion – for some worldly or material benefit – a social order and the predictability of others' behaviour.

In settings where a heavy investment is not made in monitoring and sanctioning the actions of participants, however, considerable difference between predicted and factual behaviour can occur due to the lack of incentives for producing permitted behaviour. This is not to imply that the only reason individuals follow rules is because they fear to be sanctioned. There are endless reasons that can incentivize an individual to respect or break the rules. There are people who deliberately decide to violate a set of rules, because they consider it unfair from a moral, ethical or political point of view (Arendt 1972). This happens because many types of incentives, from the financial, to non-financial, to the social ones (Vitale 2010a) could encourage a participant to follow or to break the rules – when a politician agrees to be corrupt with money, for example, the economic incentive has overcome the fear of being monitored and sanctioned.

If individuals voluntarily participate in a situation, there is the need to share a consensus that the set of rules governing situations and relationships is the most appropriate to fulfil the collective goals. Otherwise, the cost of monitoring and sanctioning activities may become high enough that it is difficult, if not impossible, to maintain predictability in an ongoing voluntary activity. Moreover, one can expect that it is always difficult to maintain predictability in an ongoing activity where participants do not have the freedom to enter and leave the situation.

If a participant is forced to act in an action situation, without being able to get out of it, her/his level of acceptance of the set of rules that govern that situation will be very low.

4.1.1.3. Outcomes and evaluation criteria

As mentioned in the beginning of the chapter, this work aims to provide an assessment of the outcomes produced by the remunicipalisation reform of the Naples and Paris water services, through the building of a minimally sufficient explanation of the reform process, in order to discuss which predictions could be done about their future. Since the analysed situations are not one-shot action situations under conditions of complete information, the inferences about results and the predictions about the future development of the two case studies are weak (E. Ostrom 2005), because in similar situations an analyst has to assume that some self-interests, information and actions will rest for ever unknown. In any case, this exercise is scientifically useful as it allows increasing knowledge about current urban water regimes and the problems related to the management of this type of services, about the political-social processes that produce them. This type of knowledge allows not only to advance scientific awareness regarding public water services, but also to provide information and support to the activity of European policy-makers.

The concept of *implementation gap* (DeLeon 1999: 314-15; Hill and Hupe 2009: 11), which represents the difference between the expectations of policymakers and the actual policy outcomes, has been chosen as general evaluative criteria of the two policy processes analysed. This concept is, in turn, linked to the idea that a policy can produce both expected and unexpected and perverse results; the latter are generally caused by free-riders behaviour of policy-makers and policy-takers, which do not allow facing public problems in a manner that best serves the public interest (Howlett 2020).

Consistently with such premises, the results produced by the two reforms of the remunicipalisation of urban water services have been assessed in the light of the reasons announced by the policy-makers who proposed and then implemented these reforms. In particular, the politicians of Naples and Paris have announced their will to implement this kind of reforms to produce similar outcomes, and this has allowed us to identify five evaluation criteria to be applied to both case studies: 1) ensure the *long-term ecological sustainability* (E. Ostrom 2009) of model of consumption of local water resources for assuring the right of access to water for future generations; this means that the consumption model of water resources must simultaneously guarantee the ecosystem the time necessary to replace with new resources the water consumed for civil consumption and the protection from

pollution caused by human activities. It can be asserted that the model of water recycle and reuse represents the ideal-type of the most sustainable water service model that local governors can implement, and the case study of Cape Town can be taken as the best example (Ziervogel et al. 2010, Ziervogel 2018). 2) increase the *transparency* of the management operations of local water resources. The concept of transparency refers to the possibility of each citizen to access information relating to the decision-making process that determined a data policy. This type of transparency allows you to create what Powell Jr and Whitten (1993) called clarity of responsibility, because it makes easier the task of attributing outcomes to the acts of particular politicians. In particular, promoters of remunicipalisation reforms spoken about fiscal transparency, in order to ensure that all profits of the water company are re-invested in the service. Consequently, fiscal transparency allows any actor of a political system to observe causes and consequences of a government's fiscal policy (Alt and Lassen 2006) 3) increase the *efficiency* of water services, in order to empower the quality performance of the operator. Efficiency is linked with a better use of economic resources in a long-time perspective, given by the amount of net benefits associated with an allocation or reallocation of resources (E. Ostrom 2005). 4) experimenting the *co-production of water services with citizens*, as water should – in opinion of the promoters of remunicipalisation reforms – be managed as a common good. The co-production of local water services can take 3 forms (Duret 2015): *deliberative governance* represents the most incisive form and involves the presence of civil society representatives on the boards of directors of the companies providing the water service, with the right to vote on the management choices; the most widespread form (USA, India, Austria, Denmark, Canada, Argentina, Bolivia, the Netherlands, Germany, Spain, France) is the management of the water service through the traditional *non-profit cooperative model*, which enhances self-government skills territories; finally, there is *participatory governance*, which allows citizens to express non-binding opinions to citizens on the management choices of water services. The policy-makers of the reform processes analysed had promised, in both cities, the implementation of a model of deliberative and democracy in the management of the water service. 5) *Equity in the access to drinking water and sanitation services* for all citizens. “Assessing equity is undertaken in two ways: (1) on the basis of the equality between individuals' contributions to an effort and the benefits they derive and (2) on the basis of differential abilities to pay.” (E. Ostrom 2005: 66). In this work, the second meaning of the concept of equity has been taken, which refers to economic ability of citizens to pay water bills. In fact, both in Paris and in Naples, the policy-makers who

supported the reform of the water services have announced that water is a fundamental resource for human life, connected to the universal human right to life (as stated in the UN resolution of July 28, 2010²⁷), and access to it cannot be limited by the economic possibilities of individuals.

4.2. Policy Process Framework

So far we have seen how IAD allows us to explain the characteristics of the space in which the participants act, identifying incentives and limits to individual human action, and, in doing so, it permits us to define which set of possible choices an actor has in a given node of the decision-making process. At the beginning of our analysis, however, we already knew that the actors of our policy cycles cooperated and acted as if they were collective actors, in order to implement the reform of the remunicipalisation of the water services in their cities. Although IAD Framework is able to explain us in which institutional context the cooperative action developed, it does not enable us to grasp ideational mechanisms that guided the choices of collective actors over decision-making processes, nor what were the conditions that allowed their policy project became a reality. Applying this line of reasoning to our cases study, the questions that remain unanswered are: under which conditions can a political idea – the remunicipalisation of water supply services – become a policy reform? Why did the actors of a system support this particular policy proposal and not another? How did they support it? How have supporters of reform and their modes of support changed over time? Why did they cooperate to produce a policy change at that particular time and not before or after it?

If we consider a public policy as the result of “a complex process involving multiple actors engaged in many different policy-related activities, such as defining policy problems, generating policy solutions, articulating policy objectives, matching objectives to tools, implementing policies, and monitoring and evaluating process” (Goyal and Howlett 2019: 3), the Policy Process Framework (PPF) has been thought exactly for answering our questions. To provide the necessary and sufficient explanations of our cases study, the PPF was chosen to be combined with the IAD Framework, as it offers both an explanatory model of the behaviour of collective actors and an explanatory model of the diachronic development of a policy cycle.

The PPF has originated from the union of two metaphors, historically used in the field of Public Policy Analysis to help simplify the complexities and dynamics of policy processes (Pump 2011). The first metaphor is the aquatic one of *policy streams*, which has gained

²⁷ https://www.un.org/waterforlifedecade/pdf/human_right_to_water_and_sanitation_media_brief.pdf

substantial momentum since the mid-1980s thanks to the work of John W. Kingdon (1984) and, in particular, its capacity to grasp the mechanism of coupling political problems and solutions and to capture the phenomenon of an “idea whose time has come”. The original version of the Streams’ model described three separated streams: the *problem stream* refers to policy problems that are potentially worthy of attention of policy-makers; the *policy stream* pertains to the many potential policy solutions produced by various actors involved in policy-making activity; finally, the *politics stream* is the result of the convergence of that factors that define the “political mood” of a country, such as changes in governments, legislative turnover or fluctuations in public opinion. In Kingdon’s view, these streams flow independently of each other until particular circumstances lead to a joining of all of them. These circumstances make the solution of a certain problem urgent, thus causing the opening of *windows of opportunities*, into which a *political entrepreneur* engages in the activity of coupling problems and policy solutions, producing a policy change.

The second metaphor is the *policy cycle*, from the work of Harold Dwight Lasswell (1956, 1971), nowadays embedded in the language and studies of policy analysis. Since “policymaking is a never-ending process rather than a single event” (Cairney 2012: 23), the model of policy cycle has been originated to simplify and make sense of this complexity, organising ideally the study of policymaking. This model serves as heuristic device, as a tool used to guide investigation, in order to apply the frameworks and the theories chosen to our objects in a systematic way. Dividing the policy process into a series of stages, from a notional starting point at which policymakers begin to focus on a problem, to a notional end point in which the implementation of a policy produces its outcomes, this model shows both a prescriptive function – it defines how policymakers should operate to be sure that their decisions are made in a systematic way – and a descriptive function: it is useful to describe how policymakers do operate, thanks to its capacity to simplify the study of how they make decisions (Hogwood and Gunn 1984). There are different variants of policy cycle model in literature. Here has been used the one equally applicable to the US, European and Australian policy systems (Hogwood and Gunn 1984; Howard 2005; Cairney 2012). It is divided in six stages as shown in Figure 7:

- *Agenda setting*: identifying the problem, deciding the issues to focus on and defining the nature of the problem.
- *Policy formulation*: setting objectives and choosing solutions and policy instruments.
- *Legitimation*: ensuring that the chosen policy has support.
- *Implementation*: establishing an organization, finding necessary resources, and carrying out the planned decisions.
- *Evaluation*: assessing the extent to which the policy was successful or if the policy decisions were correct in relation to the desired effects.
- *Policy maintenance, succession or termination*: considering if the policy should be continued, modified or discontinued.

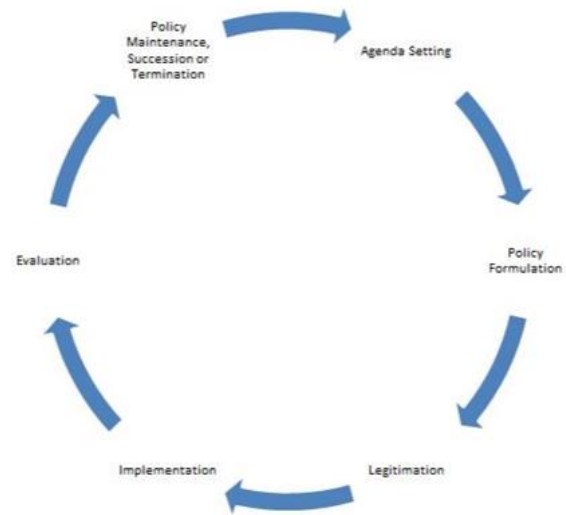


Fig 7: Policy cycle (Cairney 2012: 34)

However, the PPF does not arise from the simple sum of the two metaphors described above; the pure concepts of the streams' model were not born to be applied to all phases of the policy cycle (Zahariadis and Allen 1995). To create an organic theoretical framework based on these metaphors, the authors engaged in such a challenge have focused mainly on overcoming two theoretical limits of the original streams' model. The first is that the Kingdon's model has been principally crafted to focus only on the problem construction during the agenda-setting activity, despite the fact that problems may be reformulated or even abandoned in the long term, during the subsequent phases of the policy process (Colebatch 2006; Mukherjee and Howlett 2015); the other one arises from the fact that the scholar has emphasized the role of actors in catalysing the merging of streams, but he was not clear who are the actors that give rise to each stream or which are their relational dynamics (Goyal et al. 2020; Herweg et al. 2015; Knaggård 2015). Thus, to reach the goal to apply the concepts of the Kingdon's model to the policy cycle, Goyal and Howlett (2019) have enriched the streams' model with concepts from other sources, as well as the Advocacy Coalition Framework (see Weible et al. 2009), the historical institutionalism (Pierson 1993, 1994), the Punctuated Equilibrium Theory (Baumgartner and Jones 2002, 2009; Jones and Baumgartner 2005), and with entirely new concepts in order to conceptualise the agency of actors within each stream (Howlett et al. 2015). The result of their efforts is a framework perfectly coherent and applicable to any stage of the policy process, as we will show afterwards.

Besides explicative advantages of the PPF, we can find in the policy cycle metaphor an operative linking-point between the IAD Framework and the PPF, which allows us to produce

a minimally sufficient explanation of the outcomes of the analysed reforms, without redundant parts. Indeed, by superimposing the concept of organizationally linked action situations of the IAD with the phases of the policy cycle of the PPF, we realize that both concepts refer to sequentially connected stages of a causal mechanism. Thus, every stage of the two policy cycles explained here has been analysed also as if it was an action situation, in order to apply to the same unit of analysis the concepts from both frameworks. In this way, we can produce a minimally sufficient explanation of the behaviour of the determined actors in each segment of the political cycle, taking into account the institutional, cultural and environmental context in which they act.

The subdivision in stages of the reform processes considered here has taken place at complete discretion of the analyst, on the basis of the data collected: in both cases the policy cycles starting points have been identified in the beginning of 2000s, when the problem of legal status of water operator made its appearance on the political scene of both urban contexts considered, and the ending points have been defined by the publication of the most recent data about the outcomes of the reforms by the two remunicipalised water operators, in 2019. In this way, the policy cycles analysed exceed the decade in length, satisfying the theoretical assumption that a political cycle must last at least ten years to be considered such (Cairney 2012).

The starting point to apply the PPF to any stage of the policy process is gaining the innovative insight of Kingdon on the manner in which participants make choices in particular nodes of decision-making process.

The garbage can model

Incrementalism, in any form (fallible learner, for example) is considered by Kingdon as good a strategy under some circumstances, such as in understanding the development of alternatives and proposals over time, for example in the stages of implementation, evaluation or modification of a policy. However, an incremental model does not describe the activity of generating alternatives during the agenda change stage or, more generally, when a solution to an urgent problem must be found.

When policy-makers consider the alternatives from which they can choose to solve a problem, they rummage through ideas and approaches with which they are already familiar.

Cohen, March, and Olsen (1972) have called *organized anarchies* this kind of collective organization. This decision-making model has three general properties: problematic preferences, unclear technology, and fluid participation.

Firstly, people characteristically do not define their preferences very precisely, and thus they often act in the absence of clearly defined goals. As a matter of fact, when participants define their preferences with precision, they often conflict, so action can be facilitated by fuzzing over what one is trying to accomplish. Thus, as Cohen et al. state, the organization of preferences is "a loose collection of ideas (rather than) a coherent structure; it discovers preferences through action more than it acts on the basis of preferences" (1972: 1). Second, as to unclear technology, an organized anarchy's member has not a clear idea about all organization's processes. Even if an organization as a whole may work well, its members have only a fragmentary and rudimentary understanding of why they are doing what they are doing and how their job is connected with the other members' job. Third, participants go in and out continuously of decision-making, so the boundaries of such an organization are rather fluid. The time and effort members of the organization dedicate to numerous issues vary over time, based on their possibilities of the moment.

Within organized anarchies, streams of problems, solutions, participants and choice, chances run incessantly. When circumstances bring to the surface a particular problem, participants with personal interest in solving it, look for a solution into the solutions stream, which is already present in the organization.

As Cohen, March, and Olsen say, this kind of organization "is a collection of choices looking for problems, issues and feelings looking for decision situations in which they might be aired, solutions looking for issues to which they might be the answer, and decision makers looking for work." (1972: 2). Consistently with this, every organized anarchy owns its *garbage can* into which various kinds of problems and solutions are discharged by participants when they are generated, waiting for the appearance of a window of opportunity in which pairing them. The various streams are coupled in these choice contexts. When a given solution is proposed, it may be regarded by participants as contrary to their goals and is thus discarded. Or even more likely, participants may have fixed on a course of action and they will wait up to the most fit problem to appear, discarding problems that do not seem to fit. Another option is that important problems are ignored altogether because there is no available solution for them.

In sum, garbage can model has been applied together with the fallible learner model in analysing our case studies. It was assumed that the actors of our action situations acted following one or the other decision model depending on the action arena in which they acted.

4.2.1. Zooming in the framework

After having understood the decision-making model applied in the analysis of participants'

behaviour of a policy system, which alternates moments of incremental rationality in its version of the fallible learner, with moments of garbage can, there is the need to know closely all the conceptual elements of the Framework, summarised in the table 2, where the original Kingdon's model is compared to PPF.

Conceptual element	Kingdon's model	Policy Process Framework
Stream	<ul style="list-style-type: none"> · Problem stream · Policy stream · Politics stream 	<ul style="list-style-type: none"> · Same as the original Kingdon's model · Policy solution stream; this stream combines the policy stream in the MSF with the program stream in the five-stream variant of the MSF to incorporate dynamics of policy design and implementation · Political process stream; this stream re-specifies the politics stream in the MSF and combines it with the process stream in the five-stream variant of the MSF to account for institutional characteristics of different venues both across policy settings and during the policy process
Entrepreneur	<ul style="list-style-type: none"> · Problem broker (problem stream) · Policy entrepreneur (policy stream) · Political entrepreneur (politics stream) 	<ul style="list-style-type: none"> · Same as the original Kingdon's model · Policy entrepreneur and program champion; the program champion engages in entrepreneurial activities during policy implementation · Political entrepreneur and process broker; the process broker engages in entrepreneurial activities during policy formulation
Policy window	<ul style="list-style-type: none"> · Can open in the problem stream or the politics stream · An opportunity for advocates to draw attention to their problem framing, policy alternative, or a combination of the two 	<ul style="list-style-type: none"> · Can open in any stream · A time period in the policy process during which there is a shift in information processing from parallel mode to serial mode and/or in the distribution of resources
Actors	<ul style="list-style-type: none"> · None in the problem stream · Policy communities (policy stream) · Political and administrative officials (politics stream) 	<ul style="list-style-type: none"> · Epistemic communities and policy targets · Instrument constituencies and bureaucrats or technocrats · Advocacy coalitions and social movements
Stream dynamics	Streams relatively independent expect for 'feedback' from policy stream to problem stream	<ul style="list-style-type: none"> · Stream independence is a possibility but not a requirement · Streams can interact at structural, institutional or agency level, producing

		outcomes that influence the subsequent policy-making process. These outcomes are classified through the concepts of self-undermining and self-reinforcing feedbacks
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Table 2: Comparison between the Kingdon model and the PPF (handled by the author)

4.2.1.1. *The streams*

PPF is based, as the original Kingdon's model, on three different streams – the problem stream, the policy solution stream, and the political process stream – but it incorporates a program sub-stream within the policy solution stream and a process sub-stream within the political process stream, in order to assign specific streams of agency to each stream of activities involved in policy-making and to make the framework applied to any stage of policy process.

Problem stream

Problem stream of PPF is practically the same as the Kingdon's one, except for the addition of a more articulated feedback concept, which we will analyse carefully later. The concept of problem is not a simple matter of fact, but it involves perception and interpretation by policy-maker. An issue can become problematic because a more or less systematic indicator simply shows that there is a problem to solve. Indicators are tools used for evaluating an implemented policy at any time of its path, proving that the problem stream runs over every stage of the policy process. Another factor that calls the policy-makers' attention on a problem is a focusing event, like a crisis or disaster, or the emergence and diffusion of a powerful symbol. In general, such crises or symbols act as reinforcement for an awareness already present in the mind of a policy-maker, rather than as a source of new ideas. These elements have a focusing power, not a crafting power. Finally, policy-makers learn about urgent problem to be solved through feedbacks about the operation of existing programs, either formal (i.e. routine monitoring of costs of a policy) or informal (i.e. streams of complaints from private citizens). Feedbacks from policy implementation can also draw attention and alter perception of an issue, causing a new path of such a policy.

Not each indicator, event, symbol or feedback becomes a problem. These elements are perceived as problems only if they violate important moral and ethical values, if they are treated as problems in other countries, or if they are already classified as problem in some state category (i.e. in the National Penal Code). The problem must not only be recognized by the policy-makers, but it must also be contextualized and interpreted by them. Based on the

policy-makers' interpretation of a certain problem (i.e. the loss of water from the pipes can be interpreted as an infrastructure problem, a social problem, or an environmental problem) certain solutions and resources can be coupled to it. For this reason, the problem stream is travelled by particular actors who aim to make policy-makers assume their personal interpretation of the problem, as we will see later; their main relational tool is persuasion, used to convince others of their reading of the problem.

Policy solution stream

Policy solution stream combines the policy stream of the original stream's model and the program stream proposed by Howlett et al. (2015). Policy stream concept is described by Kingdon as a selection process, analogous to biological natural selection. In what the author has called the *policy primeval soup* "many ideas float around, bumping into one another, encountering new ideas, and forming combinations and recombinations" (Kingdon 2014: 200). Selection process of solutions of problems occurs through the use of criteria by which some ideas are selected out for survival while others are discarded, waiting for their time. These criteria include technical feasibility, congruence with the values of community members, and the anticipation of future constraints, like budget constraints, acceptability by electors, and politicians' support or opposition. Kingdon underlines how budgetary considerations sometimes force the choice of policy solutions: in times of severe budget constraints, inexpensive programs are probably implemented; conversely, in times of financial availability, innovative programs become possible. Moreover, the selection period and the degree of innovation reached by ideas are influenced by the institutional structure of the system and the beliefs and moral values, as well as of languages and symbols shared among actors involved in this stream (Durant and Diehl 1989; Zahariadis 2003). By the recognition of these relational mechanisms in the selection phase of policy solutions, which have not been considered in the original Kingdon's model, we can assume that gradualist and non-incremental decision-making models can coexist and alternate easily. Also in this stream there are actors engaged in making their partisan policy proposals advantageous for policy-makers, as we will explain next. According to Kingdon, the best actors in having their policy alternatives chosen by policy-makers are those capable of recombining old ideas, not those who invent new ones, and in persuading the others of the correctness of their policy proposals.

Howlett et al. (2015) have hypothesized the existence of a *program stream* that influences the calibration of policy alternatives during policy design and implementation stages; it can be

conceived as independent of the policy stream, but its incorporation within the policy stream leads to a more concise formulation for general application throughout the policy process (Howlett and Cashore 2009). It is activated upon policy adoption to ponder and integrate new program tools within the existing policy mix. The evolution of the program over time is influenced by the prevailing institutional environment and policy mix in which new policies have to be integrated (Liu et al. 2010) – allowing to include the concept of *path dependency* from the historical institutionalism in the analysis (Spohr 2016) – as well as by political logics that affect their implementation (Sager and Thomann 2017).

Political Process Stream

Political process stream combines the politics stream of the Kingdon's model with the *process stream* illustrated by Howlett et al. (2015). Kingdon has defined the concept of politics stream making reference to the more narrow meaning of the term "political" within the Washington's language: political factors in such parlance are electoral, partisan, or pressure group factors, excluding all wider significances such as "any activity related to the authoritative allocation of values or to the distribution of benefits and costs" (Kingdon 2014: 145). Consistently with this, the politics stream refers to political events such as national mood, elections and actions of interest groups aimed to push their demands on government.

With the expression *national mood*, Kingdon has referred to the notion that a rather large number of people of a country are thinking along certain common lines, certain mental maps; national mood can change from one time to another and these changes may have important impacts on policy goals of the actors of a system. While a national mood that is perceived to be profoundly conservative dampens attention to costly new initiatives, a more progressive national mood would allow for greater investments on innovative programs and policies. Social movements, for example, are powerful sources of changes in political mood; they can impact public opinion and politicians, who may have an interest in including the claims and keywords of social movements in their electoral program, hoping for electoral payoff. Changes of governments have an impact on political streams, since each new administration implements new policies as it highlights its conceptions of problems and its proposals, and makes attention to subjects ignored by precedent governments.

The actors that populate this flow relate to each other no longer through persuasion, as in previous flows, but by building consensus on certain proposals through bargaining (i.e. by trading provisions or public hires in exchange for political support, by changing the content of the policies to make them more acceptable to other political forces, etc.).

Since Kingdon had no intention of applying his model to political contexts other than the American Congress, he did not conceptualize in the political stream the ideal characteristics of the actors of the system or of the institutional context he analysed. Howlett et al. (2015), however, in order to apply the PPF to any type of political system – such as parliamentary versus presidential systems, democratic versus authoritarian systems, and unitary versus federal systems – and to each stage of the policy process, they have hypothesized the existence of the process stream next to the political stream: such a stream incorporates all the activities conducted in institutional forums with their own procedures and norms aimed to refine the definition of problems, the assessment of policy options and the choice of deliberative practices, thus planning the future timetable for deliberations and establishing the general course through which the policy stream will flow.

Therefore, the political process stream links institutional dynamics not with the policy process' stages, but with institutional venues involved in decision-making activities during each stage; as a result, also in this stream the decision-making model of the garbage can is moderated by the incremental one, making them interchangeable according to the characteristics of the institutional and political context.

4.2.1.2. *Windows of opportunities*

Within the original Kingdon's model, the three separate streams flow independently until the right time comes for them to join. For instance, at a certain moment a problem becomes pressing, or an event in the political stream makes rise a problem that requires a solution. At that point, a window of opportunity opens to allow advocates of a particular policy proposal to push attention to their interpretation of the problem and, consequently, to their solutions. Windows of opportunities may open both in the problem stream and in the political stream, but anyway they are short and scarce intervals of time that appear in a more or less predictable way. As a result, during these periods of time, the system comes to be loaded down with problems and proposals. If the supporters of a policy solution invest sufficient resources, their proposals will be assumed by policy-makers and inserted into their program. Other problems and proposals, instead, will flow away because insufficient resources are mobilized.

The PPF propose a broader interpretation of a window of opportunity; it is still a predictable or unpredictable time period during which advocates could push their pet proposals, but during which there is also a shift in information processing from parallel mode to serial mode – this means that the governing system passes from a mechanism that processes numerous

and diverse information simultaneously to a mechanism that processes information one-at-a-time mode (Jones and Baumgartner 2005) – and/or a shift in the distribution of resources – this refers to the government decision of shifting resources from a policy sector or an administrative scale to another (Sabatier 1988, 1998).

Further, in the PPF the opening of a window of opportunity in the policy stream is considered possible, since the policy stream flows over the whole political process. If, for example, within the implementation stage of a policy a negative feedback comes, an opportunity window may open if policy-makers decide to modify the policy contents.

4.2.2. *The agency in each streams*

The invaluable work of reworking the Kingdon's model made by scholars such as Nihit Goyal, Michael Howlett, Ishani Mukherjee, and many others, is captured in their attempt to disaggregate agency within each stream of the framework and identify the most decisive actor in the advancement of each flow. Like Kingdon, they recognize that agency can be exercised at various levels – individual, group, organization, or network – and they have decided to catalogue the typologies of networks, since this is the largest unit of analysis that includes actors, groups and organizations. Such networks are animated by members who invest more or less resources, more or less energy, more or less commitment in pursuing their objectives; those who play a decisive role in influencing the trend of the three flows and in coupling them are called entrepreneurs or brokers. Furthermore, these networks and actors may have a prominent role in a certain flow, and no role in another flow. Let us see them below:

4.2.2.1. *Entrepreneurs*

The term *policy entrepreneurship* refers to all coupling activities that have as objective people, resources, knowledge, information or positions, which have an impact on the policy-making during the policy process (Zohlnhöfer et al. 2016). The main goal of the entrepreneurship activity is the coupling of the three streams, and each entrepreneur puts in place strategies compatible with the context defined by the stream in which she/he acts to fulfil this goal.

Problem broker

Who acts as entrepreneur inside the problem stream is called problem broker – who might be a member of an epistemic community or an advocacy coalition – that is a master in coupling problems with ideas, emotions, and values; this activity allows the broker to spread a given definition of the problem, waiting for the right window of opportunity for coupling her/his partisan policy proposal to it.

Policy entrepreneur and program champion

In the policy solution stream, the PPF identifies two distinct positions of entrepreneur: the first is the policy entrepreneurs, from the Kingdon's original model, who invests resources and time to push her/his pet proposal during policy-making in the hope of a future return. This actor could have several motivations: a real concern about certain problems, personal benefits (material or immaterial), a will of promoting particular political values, or a simple pleasure in participating. Most likely a policy entrepreneur is well informed (Crow 2010; Oborn et al. 2011) and well connected (Cairney and Jones 2016), regardless of whether she/he belongs to the political class, bureaucracy, academic world or the general public. In the policy stream we find, in addition, the program champion (Goyal et al. 2020), who acts to facilitate policy implementation, for example, by coupling citizens' needs to policy tools (Frisch-Aviram et al. 2018), by bargaining political exchanges in return for support for a policy proposal, or by protecting the program from competing priorities (Petchey et al. 2008). A program champion can be a mid- or low-level bureaucrat, a technocrat within or outside the system, or an elected politician.

Political entrepreneur and process broker

Within the political process stream, a political entrepreneur – who can be a high-ranking government official, a political leader, and/or a key member of an advocacy coalition – may adopt strategies and invest resources to push for policy adoption within the government. Finally, the flow of the political process stream might also be determined by a process broker (Goyal et al. 2020), who connects stakeholders and creates trust to de-escalate conflict and prevent coalitions from blocking policy decisions (Ingold and Varone, 2011), in order to steer policy formulation and implementation. A process broker is likely to be a senior bureaucrat or a partisan adviser (Craft 2015), who has the intellectual, political, and social capital to foster policy learning, create institutional alignment, and connect public administration to society (De la Porte and Natali 2018).

4.2.2.2. Collective Actors

It is noteworthy that agency of many actors is theorized as to be present in each of the three flows, but crafters of the PPF have argued that some of them have a predominant role inside a stream and a marginal role in another. The action model used to explain choices and behaviours of collective actors described below comes from the Advocacy Coalition Framework. The underlying theory to this framework is that actors decide to cooperate and

therefore act as collective actors based on ideational causal mechanisms. Thus, there is the need to empirically identify common belief systems, shared mental maps and causal assumptions, prevalent problem and solution perceptions among collective actors for explaining their choices along decision-making processes. When they perform the role of supporters of a policy solution, collective actors of PPF act prevalently according to the bounded and incremental rationality model; however, when they play the role of policy decision-maker within institutional venues, they could act according to the garbage can model.

Epistemic community and policy targets

The essential collective actor for the development of the problem stream is the epistemic community, a concept developed in the field of international relations studies to describe groups of scientists involved in defining problems and delimiting their conceptual boundaries (Haas 1992; Gough and Shackley 2001). Albeit their agency may be required during each stage of the policy process - they may be consulted, for example, in the definition phase of the policy solutions or in the evaluation one - they are more involved than others in deliberating about the nature of problems and developing and formulating hypothesis about the causal structure of events and conditions that has led to such problems (Mukherjee and Howlett 2015). Such epistemic communities have “influenced policy innovation not only through their ability to frame issues and define state interests but also through their influence on the setting of standards and the development of regulations” (Adler and Haas 2009: 378). They are crucial in informing the activities of other actors of the system and defining the main direction of the policy process followed thereafter, consequently the effects of epistemic involvement are not easily reversed. Deep knowledge on a policy problem is the main cohesion element that unites actors within an epistemic community.

Other actors that we find in the problem stream are the policy targets, who play an important role in the evolution of the problem stream from the moment of implementation of the policy onwards. If we start from the assumption that policy-makers link behavioural expectations of particular categories of people to the use of policy tools, the concept of policy targets concerns individuals and groups whose behaviour is expected to be affected by policy activity. This group of individuals shares nothing other than the belonging to that slice of the population to which a certain policy is addressed; their reaction to the implementation of such a policy may therefore represent the point of origin of a new problem stream.

Instrument constituencies, technocrats and bureaucrats

Whereas inside the Kingdon's model the main protagonists of the policy stream are the so called policy communities, referring to heterogeneous wholes of civil servants, interest groups, academics, researchers and consultants (the so-called hidden participants), who engage in elaborating policy alternatives to solve problems of a specific policy field, the PPF crafters have preferred to develop a more punctual concept. That is the one of instrument constituencies, a term from the comparative public policy field to describe the set of actors involved in solutions defining. Such constituencies advocate for particular policy tools or combinations of tools to face problems that can be coupled to them. Their activity intensifies whenever a problem that can be coupled with the policy tool promoted by them must be addressed; this condition could occur during each stage of the policy process, but it is evident that the agency of the instrument constituencies is predominant within policy solution streams. Actors involved in such collective groups come generally from a multitude of backgrounds and organizations, but they are united by their adherence to the design and promotion of specific policy instruments, usually theorized in the abstract, which are then applied to real-world conditions. As a matter of fact, members of instruments constituencies are not necessarily inspired by the same definition of a policy problem or by similar political visions, and for this reason their existence could often be limited to a short period of the whole policy process. Instrument constituencies are thus networks of heterogeneous actors from professional circles, academia, public administration, political parties or unions, and civil society engaged in the promotion of a specific policy tool; to reach this objective they develop a theoretical argument about how their policy solution will resolve problems, and how the instrument should be developed, promoted and expanded over time (Voß and Simons 2014). In addition to these collective actors, technocrats from within or outside the government and low- or mid-level bureaucrats play an important role in the policy solution stream, above all during policy formulation and implementation (Frisch-Aviram et al. 2018) stages because of their knowledge of public institutions and the conditions of feasibility of a policy.

Advocacy coalitions and social movements

Advocacy coalitions is the key concept of the Advocacy Coalition Framework (see among others Sabatier 1988, 1998; Sabatier and Weible 2007; Weible et al. 2009, 2011). It refers to groups of actors who coordinate their actions in order to create coalitions based on shared particular belief systems – made by basic values, causal assumptions, problem perceptions, policy solutions and so on. They share the primary interest in forwarding their beliefs and

their political vision, and they are held together by their preference for specific couplings of policy problems and their solution; so these coalitions compete with opponent coalitions to transform their beliefs into policies and tend to amplify the negativity opposing beliefs. The relevance of advocacy coalitions in the battles for spreading their beliefs about problems and solutions makes these actors the protagonists of political process streams.

Both their beliefs and their sense of belonging to the advocacy coalition stay consistent over time. The success of a coalition in spreading its political vision and policy solutions depends on several external factors as well as the environmental context, if the nature of policy problems remains relatively constant over time, public opinion and technology developments; internal factors are, instead, coalition's own financial resources, level of expertise and number of supporters. Knowledge and expertise are the resources more employed in contrasting opponents and in mobilizing supporters.

Finally, *social movements* represent other collective actors with the power to influence the evolution of the political process stream. Social movements are defined by David J. Hess (2018) as mobilizations by challengers who have the general objective of generating systemic changes in a social field, meeting so with resistance from the current actors who occupy the dominant positions in that social field. They can give support and strength to an advocacy coalition, sharing with it the general objective of spreading a particular system of beliefs and political visions. Unlike advocacy coalitions, which are mainly composed by experts from a certain sector (from industry, politics or academia), social movements are civil society organizations, composed by individuals that are not characterized neither by the belonging to state nor to the private sector. Contemporary social movements for the remunicipalisation of urban water services fall into the category of *industrial transition movements*, which aim to fulfil two typologies of goals: the first is bringing about substantial changes in an industry sector promoting 1) alternative industry typology and 2) opposition to the current industrial regime. The second type of goal refers to the growth of procedural and distributive justice, requiring 1) inner governance reorganization through changes in the ownership of the industry and/or in the decision-making processes of government and industry and 2) increase in social equity through access to the industrial good or service for the low-income social categories and a minimal quality of employment and working conditions.

The innovative scope of such objectives meets the resistance of the incumbents of the sector, but it can also play a central role in the long-term processes of industrial transitions. Results of the social movements' agency, in social movement theory, depend on general conditions of

the sector and meso-level conditions, such as the political opportunity structure and the industry opportunity structure (Soule 2009).

For *opportunity structure* we mean: the long-term structures of a state or industry that change relatively slowly (i.e. the constitutional division of powers in the state or the degree of concentration of an industry); the more short-live configuration of parties in power or of dominant firms in an industry; and the state of public opinion. Moreover, outcomes of social movements' mobilizations can depend on the reactions to their strategies and repertoires of action (Della Porta and Diani 2015). Members of movements may select repertoires of action that remain within existing institutional structures or that go beyond existing institutions, and this latter choice can provoke divisions in a movement and different responses from incumbents in government and industry.

As is the case with all the other collective actors analysed so far, social movements can also play an active role in the configuration of the other flows; in fact, they can be promoters of a particular interpretation of a problem or of a particular policy proposal, along each phase of the policy process. Nevertheless, their agency has the power to impact above all on the political process stream, by supporting a specific political vision. Also Kingdon underlined the capacity of such movements to support a political option with such a force to cause a shift in national mood and influence the entire policy process.

4.2.3. Interactions among streams

While the original Kingdon's model assumed the organized anarchies as decision-making modality and the independence of the streams and the possibility of their coupling only during windows of opportunity, PPF goes beyond these hypotheses to make the framework more adherent to the factual evidences and thus more applying to policy processes. In the same way, the three flows can remain independent in some situations, or there can be a flow that dominates all the others along the whole policy process or, again, some flows can be completely overlapped in some phases of the policy process, causing changes one to the other. Howlett et al. (2015) have explored the possibility that a stream dominates the others during the whole policy process: this means, for example, that if the political stream is dominant, the other streams will all flow towards a specific political solution (i.e. during peace deals, the process, problems, policies and politics streams would be nested within the political stream). In the same way, there are circumstances in which the policy stream is dominant, where the whole policy process is driven by a preferred solution of policy; when process stream dominates, the very process of addressing an issue and achieving some form of outcome is the

key objective, and the other streams are confined by this process; a situation with a dominant problem stream is represented by the most ideal process of problem-solving, characterised by an ultra-rational search of a solution to a problem, totally independent from factors such as economic pressures or political ideology. Finally, where the programme stream is dominant, a precise programme instrument leads the other streams towards a specific solution (i.e. to raise income tax by x cents in the dollar).

Moreover, streams can interact among them in several ways. Such interactions might be structuralist, or institutional, or they also can involve the role of agency. For example, the streams might be coupled structurally, with actors in two or more streams in an observable, hierarchical relationship (Goyal et al. 2020), or with an overlapping of the actors of different streams (Herweg et al. 2015; Kendall 2000), rendering thus the analytical separation between streams questionable. Otherwise, the agency of different actors could influence the course of the streams, producing a coupling between the problem and the policy solution when epistemic communities and instrument constituencies cooperate, or producing premature termination of the policy process when conflicts between actors became insurmountable. Various types of interactions are possible between the streams, especially after agenda-setting. In PPF, these interactions have been interpreted through the concepts of positive (self-reinforcing) and negative (self-undermining) *feedbacks*, a concept already present in the model defined by Kingdon, but more developed through the contributions of contemporary literature.

4.2.3.1. Feedback effects

The policy feedback literature draws attention to the continuous interactions between public policy, the outcomes in society, and how these outcomes affect policy actors in ways that influences politics and subsequent policy-making (Weible 2017). Main contributions on the study feedback effects come from historical neo-institutionalism (Pierson 1993, 1994), which emphasized the incremental and long-term effects, and from the Punctuated Equilibrium Theory (Baumgartner and Jones 2002, 2009; Jones and Baumgartner 2005), which emphasized the punctual effects on the distribution of decision-making power in political sub-systems. A work by Jonathan Oberlander and R. Kent Weaver (2015) has attempted to integrate and extend these literatures, fulfilling "the most fully realised conceptualisation of feedback mechanisms to date" (Edmondson et al. 2019: 4); for this reason, the Oberlander and Weaver's categorization has been assumed here. It is based on eight broad assumptions: 1) policy feedback effects can be self-undermining, mixed, and self-reinforcing and they can

arise simultaneously; 2) policy feedback effects vary both in terms of type and intensity; 3) few policy feedback effects are “purely” endogenous; 4) feedback effects can change over time in their direction and intensity; 5) policy feedback effects are often mixed in direction rather than unidirectional; 6) policy feedback effects may be either fast or slow-moving; 7) self-undermining feedback effects are rarely a sufficient cause of policy change; 8) when seeking to enact policy reforms, politicians and group leaders may seek to manipulate policy feedback mechanisms and effects to achieve policy and political objectives. Moreover, feedback mechanisms have been conceptualised into three categories. *Socio-political policy feedback effects* refer to the possibility that a policy regime may be reinforced or undermined over time by support/opposition of mass public and elites. These mechanisms and effects include feedbacks at the level of political mood (i.e. a policy could be perceived to be successful or disastrous in achieving its objectives and so this could lead to the mobilization of supporters or opponents); these effects, in turn, have been distinguished in *cognitive* (impact on the political openness of the public), *constituency* (change the election results) and *agenda effects* (involve a change of the political program). *Administrative feedback effects* encompass design and operational elements that allow the actors in charge of implementing a policy to maintain the power to manage the program in a manner that is perceived as successful by internal and external supporters. *Fiscal effects* concern matters that create budgetary strains that are likely to raise concerns among powerful actors of national economy, such as Finance Ministries or some trade categories, weakening the political legitimation of the actions taken by groups dominating a policy subsystem. This in turn will negatively or positively impact on agency morale, external reputation, and external political support.

Self-undermining feedback effects of all three types is likely to involve developments in the program that disrupt relationships between policy “insiders” and “outsiders” that have interests in the implementation of such a policy. All possible feedback effects have been summarized in the table 3 (Oberlander and Weaver 2015: 41-42), which turns out to be an extremely useful analysis tool.

Socio-Political effects	Self-Reinforcing Policy Feedback Mechanisms and Effects	Self-Undermining Policy Feedback Mechanisms and Effects	Conditions Exacerbating Self-Undermining Effects
Cognitive effects	Perception of widespread benefits increases	Perception of concentrated losses increases	· High -profile opinion leaders have

	perceptions of satisfaction in mass public	perceptions of grievance in mass public	electoral incentives to frame program as loss-imposing or flawed or constituency as undeserving
Constituency Effects	Flow of concentrated benefits to constituency reinforces sense of entitlement and strengthens organizations capable of defending benefit stream if threatened	Perception of concentrated losses leads to development or strengthening of constituencies seeking policy change, and/or to fragmentation of existing support coalitions	<ul style="list-style-type: none"> · Concentrated and organized constituencies were strongly united in support of benefits under status quo ante and have a strong ethical sense of entitlement · Concentrated policy costs emerge quickly after enactment of policy reform · Beneficiaries of current policy are unorganized and receive diffuse benefits
Agenda Effects	Constituency and elite satisfaction with program narrows agenda to incremental program fixes	Constituency and elite dissatisfaction with program leads to search for non-incremental program fixes	<ul style="list-style-type: none"> · Key provisions of policy are vulnerable to legal challenge · Multiple sources of policy expertise exist · Incremental policy “patches” have been implemented but fail to address perceived policy problems

	Self-Reinforcing Policy Feedback Mechanisms and Effects	Self-Undermining Policy Feedback Mechanisms and Effects	Conditions Exacerbating Self-Undermining Effects
Fiscal effects	Earmarked revenue stream provides adequate funding for foreseeable future, leading to limited concern and oversight by budget guardians	Large and rapidly growing program demand on general budget and/or ongoing funding crisis when dedicated funding stream becomes inadequate raise strong concerns among budget guardians	<ul style="list-style-type: none"> · Difficult overall fiscal climate · Demographic or cost trends that undermine adequacy of dedicated financing mechanism
Administrative effects	Administrative agency has clear, achievable mandate that allows it to avoid highly visible	High-profile programmatic failures blamed on agency performance	<ul style="list-style-type: none"> · Complex and intrinsically difficult organizational mandates · Administrative responsibilities are divided

	failures and develop strong sense of organizational mission and morale, as well as a strong reputation for competence	damage administering agency's external reputation and political support and/or internal morale, sense of organizational mission and ability to recruit qualified staff	among multiple entities with conflicting organizational mandates and priorities · Administrative failures recur frequently and grow in visibility or appear to get worse
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Table 3: Typologies of feedback effects (Oberlander and Weaver 2015: 41-42)

Since feedback effects can be negative and positive simultaneously and the balance of these feedback effects may shift over time, what politically matters is the balance of these effects. Politicians could manage feedback effects through different strategies: for example, they will tend to minimize negative feedbacks at the time of a program's enactment in order to avoid its change – thus deciding not to decide (Bachrach and Baratz 1962) for maintaining high the levels of political legitimation; or there will be blame-avoiding and blame-generating politicians (Sulitzeanu-Kenan and Hood 2005; Hood et al. 2016; van Berkel et al. 2019; Hood 2010; Weaver 1986) to avoid decline in political support. As a matter of fact, feedback effects, especially the socio-political ones, are in part social constructs, mediated by external factors like the level of partisan polarization or the interpretation of facts made by politicians and mass media, which impacts on the public opinion. In sum, the final outcome of any feedback effect depends heavily on the political bargaining leverage of key actors and the institutional rules that regulate that specific policy sector.

5. THE REMUNICIPALISATION OF PARISIAN WATER SUPPLY SERVICES: A TOP-DOWN POLICY PROCESS

As exposed in chapters 3 and 4, a minimally sufficient explanation of reform process of urban water supply requires the understanding of the bio-physical, material and cultural conditions in which the socio-technical water system works, the institutional context in which actors have implemented the remunicipalisation reform, and the decision paths followed by them. Feasible decision-making processes, adopted by participants of action situations, are defined by the combination of the three groups of fixed variables just listed, which set out their action possibilities, potential outcomes of their actions and action-outcome linkages. Thus, the starting point of our analysis is the definition of the exogenous variables that structure action situations in which Parisian actors of remunicipalisation have taken decisions, in order to collect elements for explaining their choices. Furthermore, a panning shot of national context will be shown below, after which we will get into the thick of Parisian urban context and the parsimonious narration of remunicipalisation events will be exposed, in order to provide an explanation of all important aspects of the outcomes of the policy change analysed.

Since authoritative academic studies have been published on the Parisian remunicipalisation process (Bauby et al. 2018; Lorrain 2016; Bauby and Similie 2013; Pigeon 2012; Barraqué 2012; Sinaï 2013; Valdovinos 2012; Chiu 2013; Boyogueno 2013), the collection of in-depth interviews for the realization of this work aimed at clarifying the decisional nodes of the policy-making process that remained unexplained. In particular, conflicts between the protagonists of the Parisian remunicipalisation cycle were investigated, in order to fully understand roles, power and positions of the system actors during the crucial phases of the decision-making flow that are not yet publicly known. To fulfil such a goal, interviews with participants in the remunicipalisation process, privileged observers and academic experts have been collected. The list of interviewees is exposed in the table below. The list of interviewees also includes those who initially accepted the interview request and then refused after having known the questions, as this behavior was also considered a data to be analyzed. The place and time of the interviews and the personal profile of each interviewee are described here; moreover, each of them has been included in a general typology to which reference is made during the narration, in order to keep their identity anonymous. The in-depth interviews collected are 9; some of them are the sum of several meetings, telephone and emails exchanges between the interviewees and the analyst at various times. For this reason, table 4 shows the generic period during which these exchanges took place and not a

specific date. This figure testifies to the enormous collaborative spirit and availability shown by the interviewees towards the author of this work, to whom our gratitude is directed.

Interviewed	Personal profile	Time	Place	General Typology
Bauby Pierre	President of RAP (Reconstruire l'Action Publique), Director of the Observatory of public action of the Jean-Jaurès Foundation and member of the International Centre of Research and Information on the Public, Social and Cooperative Economy (CIREC)	November 2019	Paris	Academic expert on French and European public action and public services
Bedreddine Belaïde	President of SIAAP since 2015 and elected in 2011 as PCF general councillor of the canton of Montreuil-Ouest, deputy mayor of Montreuil from 2014 to 2020	November 2019	Montreuil	Expert on water services of Île-de-France
Coin Henri	Representative for the <i>UFC-Que Choisir</i> association in the <i>Eau de Paris</i> board of directors since 2010 and president of OPE of <i>Eau de Paris</i> between 2013 and 2017	November 2019	Paris	Member of the board of directors of <i>Eau de Paris</i>
Laimé Marc	Freelance journalist expert on French water management	October-December 2019	Paris	Expert on water services of Île-de-France
Lorrain Dominique	Associate researcher of the <i>Laboratoire Techniques Territoires et Sociétés</i> , former professor and researcher at the <i>École des Hautes Études en Sciences Sociales</i> , the <i>École des Ponts ParisTech</i> and the SciencesPo University of Paris	November 2019	Paris	Academic expert on French and European public action and public services
Petrella Riccardo	Founder of the International Committee for the World Water Contract and writer of the Water Manifesto (2001), honorary director of the Catedra Libre del Agua of the National University of Rosario in Argentina, founder and president of the University of the Common Good	October-December 2019	Paris	Activist at national scale for public management of water services

Riottot Michel	Honorary President of France <i>Nature Environnement of Île de France</i> and member of the OPE of <i>Eau de Paris</i>	November 2019	Paris	Expert on water services of Île-de-France
Similie Mihaela M.	Researcher in administrative sciences and lecturer in administrative law and community law at the University of Paris 8. Author, with Pierre Bauby, of numerous studies on French and European public services	November 2019	Paris	Academic expert on French and European public action and public services
Zamorano Abelardo	Representative for France <i>Nature Environnement</i> association in the <i>Eau de Paris</i> board of directors	October-November 2019	Paris	Member of the board of directors of <i>Eau de Paris</i>

Table 4: Interviews about the Parisian case study (handled by the author)

5.1. Exogenous variables

With its 675,417 km² of surface – of which 543,965 km² of metropolitan territory - and its 68,303,234 inhabitants in 2019²⁸, the French Republic is one of the largest and most populous states of the European Union, as well as one of the most incisive member from the political point of view. Given the extension of this country and the multiplicity of landscapes that compose it, the French water distribution network reaches 856,000 km in length, making it one of the most imposing water infrastructures within EU. In general, the French water service shows good levels of efficiency when compared to those of other member countries. In fact, the water loss rates – calculated from the ratio between the quantity of water introduced into the networks and the one that reaches the users – in Europe vary from 7% in Germany to over 37% in Italy, and those of the French water network were estimated at 25% in 2016, which has remained relatively unchanged for about a decade (in 2007 it was 26%)²⁹; such data of performances vary between prefecture and prefecture, ranging for example from 54% of Digne-les-Bains (Alpes-de-Haute-Provence), or 48% of Bar-le-Duc (Meuse), up to 4% of Le Mans (Sarthe) et Rennes (Ille-et-Vilaine) and 5% of Blois (Loir-et-Cher). Among the great virtuous cities, Paris centre stands out with only 8.3% of losses from water networks and Toulouse with 11%³⁰. Investments in the supply of water and sanitation have been estimated

²⁸ Contrymeters <https://countrymeters.info/fr/France>

²⁹ Ministère de la transition écologique et inclusive <https://ecologie.gouv.fr/>

³⁰ Data of 2014, France Libertés Foundation <https://www.france-libertes.org/fr/>

at 5.6 billion euros in 2007³¹. In 2003 the Association of the French departments has estimated that the renewal of the water supply distribution infrastructure would require investments of 53 billion euros from 2004 to 2015 to replace 535,000 km of pipes (about 65% of the entire network) and make the network perfectly efficient. This corresponds to an average of 4.4 billion euros per year. Water resources in France are plentiful, and the risk of drought is very limited, although it has increased slightly in recent years due to the phenomenon of global warming. Since approximately 62% of the drinking water supply comes from groundwater and 38% from surface water, more than half of the drinking water must be extracted from the underground aquifers, creating the need for extraction and transport systems based on electric pumps, more expensive than drop systems that take advantage of natural force of gravity. This condition, combined with the vastness of the French territory, entails that France has a greater water infrastructural heritage than the rest of the members of the Euro area (Bolognesi 2013), and therefore also a more expensive water network to renovate and maintain. According to the latest report published in 2019 by ONEMA- *Observatoire des services publics d'eau et d'assainissement* (referred to data collected between 2008 and 2016) (ONEMA 2016, 2019, 2020) national supply networks reach almost the entire population (27.6 million subscribers in drinking water), failing in supplying only 360.000 people from rural areas (0.5% of the whole population), with an unplanned water service outage rate of less than 3% every year. The quality of the water distributed through the domestic taps is very good, registering a microbiological compliance with European quality standards of 98.3%. In France, the methods of calculating the price of water are regulated by the state and the price is set by the municipalities or organizing authorities, for this reason significant price differences result from this institutional organization. However, the average price of water services is perfectly in line with the European one (which was 4.01 €/m³ in 2017, resulting from prices ranging from 6.61 €/m³ in Denmark to 1.43 €/m³ in Italy)³², that is 4.08 €/m³ of which 2.05 €/m³ (share of drinking water) and 2.03 €/m³ (share of collective sanitation). Water bills present the cumulative price of drinking water, sanitation and sanitation and a fixed part of taxes: in the last two decades, the percentage of cost of drinking water has considerably decreased throughout France, while it has increased the parts dedicated to sanitation and taxes collected by water agencies for the conservation of water resources and the maintenance of good conditions in aquatic environments, in line with the

³¹ Fédération Professionnelle des Entreprises de l'Eau <https://www.fp2e.org/#>

³² 11ème édition du baromètre NUS Consulting sur les prix des services d'eau et d'assainissement en Europe <https://www.fp2e.org/11eme-edition-du-barometre-nus-consulting-sur-les-prix-des-services-deau-et-dassainissement-en-europe/>

EU regulations (Bauby and Similie 2013). French water tariffs are generally paid on a condominium basis, therefore citizens do not have the immediate perception of any increase in the price of the service; furthermore, according to a 2003 study by the French Supreme Audit Agency, the complexity of water tariffs makes them difficult for users to understand, despite efforts to improve the presentation of water bills. The price of the domestic water bill is the result of actual consumption in a given period and a fixed price for the distribution of drinking water or wastewater collection. However, since there is no national agency that monitors the correctness of these prices, they are the result of the contractual agreements between the local authority in charge of regulating the service and the operator who manages it, as we will see below. Within the European context, France appears to be a virtuous country in terms of per capita consumption, since the average consumption of a person is 77.6 m³/year for domestic purpose, compared to a European average of 120 m³/year in 2017³³. This is the result of a progressive trend of decline in water consumption that began in the 1990s, particularly in French large cities³⁴. Daniel Florentin (2015a, 2015b) links this phenomenon, common to many global cities, to various reasons ranging from technical improvements to household appliances to deindustrialisation, including changes in user behaviour or the development of policies aimed at sobriety and moderate use of natural resources. The thesis of an increase in consciousness of the scarcity of water reserves of the French citizens, and the consequent need to preserve them from excess human consumption, is supported by the results of a survey conducted in 2008 by *Le Centre d'Information sur l'Eau*³⁵, which shows how the consumption of bottled water is gradually decreasing, with 67% of the population consuming tap water. In addition, French awareness of environmental protection issues is evidenced by the progressive growth in electoral support to ecological parties, especially at municipal level. Just in the days of writing this work, the election results of 29 June 2020 recorded the overwhelming victory of the environmentalist party *Europe Ecologie – Les Verts*, which conquered the government of important cities in every corner of the country, starting from Marseille, Lyon, Bordeaux and Strasbourg³⁶.

5.1.1. French rule system about water services

France has a long history of centralization of power. However, after the French Revolution a process of decentralization has begun. The original legislation, introduced in 1790, subdivided

³³ Eurostat 2017 https://ec.europa.eu/eurostat/statistics-explained/index.php/Water_statistics

³⁴ European Environment Agency-AEA https://europa.eu/european-union/about-eu/agencies/eea_en

³⁵ <https://www.cieau.com/observatoire-de-leau/c-i-eau-infographies/>

³⁶ https://www.lemonde.fr/politique/article/2020/06/29/municipales-un-bon-cru-pour-les-socialistes-eclipse-par-la-percee-ecologiste_6044566_823448.html

administrative powers on two distinct scales: state and local authorities. Decentralization process has evolved in a more incremental than punctual path (Colon et al. 2018) by a number of laws and regulations passed throughout the 19th and 20th centuries, up to the decentralization laws of 1982 that have confirmed the legitimacy of the policy decision. Nowadays, there are three types of local authorities: municipalities, *départements* and regions (regions governed by locally elected representatives have been only created in 1982). The country has about 36,000 communes (35.357 on January 1st 2018), 95 *départements*, and 22 regions, as well as numerous structures designed to facilitate co-operation between its various administrative entities. Communes vary considerably in size: over 10,000 of them have less than 200 inhabitants, and of 30,000 communes have less than 2,000 (accounting for 25.3% of the country's total population). At the other end of the scale, 102 communes have between 50,000 and 200,000 inhabitants (14.4% of France's population) and 10 have over 200,000 (8.9%). The state used to take part in decisions taken by municipalities, but the decentralization process has gradually restricted its role, turning it into the main regulating and controlling authority about legal and finance of local public actions. State ministries and public bodies are represented at local level through several administrative figures, who work in close contact with local elected representatives. Financially, local authorities levy local taxes and receive grants from the central state. However, as we will see, national contributions have been progressively reduced.

This administrative variety, which is to be added to the bio-physical diversity of French landscapes, has always had important consequences on water governance models and outcomes, as we will see later. Constant characteristics of France's water regime have been the management of water services at local level and the public-private partnership model of local water and sanitation services, which has produced an oligopolistic situation since the 1960s (Bauby 2009). Consequently, French water governance shows a polycentric nature, with management responsibilities concentrated at local scale and a state that maintains a key role in regulation, coordination and control, but which, at the same time, results one of several stakeholders making policies (among local authorities, private operators and no-profit organizations) (Richard et al. 2010).

The regulatory steps considered fundamental in the production of the current French institutional context are summarized in table 5 and retraced below.

Before New Public Management

Laws of 1790: delegation to the municipalities of the management powers for water

<p>services.</p> <p>Imperial Decree 1853: first act of delegation of a private operator to build and manage the services.</p> <p>Water Act of 1964: introduction of the administrative unit of the river basin and integrated management of water services. Municipalities are responsible for regulating the financial, technical and environmental profile of water services at an inter-municipal level.</p> <p>Decentralization laws of 1982-3: creation of regions and definition of electoral system of LG.</p>
<p>New Public Management</p> <p>Loi ATR 1992: decentralization reform, with creation of Communautés de Villes (CV) and the Communautés de Communes (CC) for water management.</p> <p>Loi Sapin 1993: introduction of norms against corruption and to foster transparency in economic activities and government procedures.</p> <p>Loi Barnier and loi Mazeaud 1995: Obligation to publish annual reports on the price and the quality of service.</p> <p>June 1998 law: dotation of financial autonomy to public <i>régie</i>.</p> <p>Loi Chevènement 1999: decentralization reform, with the creation of the <i>Établissements Publics de Coopération Intercommunale</i> (EPCI).</p> <p>Law May 2010: concession to municipalities to manage local services through <i>Sociétés Publiques Locales</i>.</p> <p>December 2006 law: recognition of local authorities' freedom in choosing the best water regime.</p> <p>1992, 2001, loi LEMA 2006, 2007 laws: transcription of EU environmental norms and standards.</p> <p>2006 law: creation of <i>Office national de l'eau et des milieux aquatiques</i> (ONEMA) with data collection and publishing prerogatives.</p>
<p>Post-New Public Management</p> <p>December 2010 law: reform of the local authorities that strengthens department powers in water sector.</p> <p>February 2011 Law: introduction of solidarity mechanisms in the water supply and sanitation sectors.</p> <p>Loi Brottes 2013: experimentation of solidarity mechanism in paying water bills.</p> <p>Loi MAPTAM 2014: obligation of metropolises to exercise jurisdiction over drinking water.</p> <p>Loi NOTRe 2015: obligation of RPMAFs to exercise jurisdiction over drinking water.</p>

Table 5: Key points of the French legal framework on water (handled by the author)

Before NPM

As exposed in chapter 1, in France as well as in other European industrialized countries, drinking water and sanitation network infrastructures have been developed in the second half of the 19th century. Thanks to the scientific pioneering discoveries in the medical field (Louis Pasteur, Florence Nightingale, Robert Koch etc.) and the spread of hygienist doctrine (Graber 2007), the awareness about the importance of water infrastructures to public health came soon after the plague epidemics that afflicted Europe (Paris in 1833 and 1849). Christelle Pezon (2000) illustrates how municipalities had already been in charge of providing water

and sanitation services since the French Revolution, but they had the economic force only to provide free access to public water fountains. For fostering infrastructure building, the state carried out a large urbanization renovation program in order to encourage private entrepreneurs to invest in water and sanitation networks (Crespi and Reghizzi, 2014). Precisely in this era the two current giants of water distribution were founded: *Compagnie Générale des Eaux* in 1843 (later becoming Veolia eau) and *Société Lyonnaise des Eaux et de l'Éclairage* in 1867 (subsequently becoming Suez), which publicly undertook to provide largely the distribution of water in the cities and countryside irrigation. With the imperial decree of December 14, 1853, *Compagnie Générale des Eaux* was authorized to build the infrastructure and manage the public drinking water service throughout the country (Pezon 2000). Thus, many of the earliest French water distribution networks were initially built and managed by private concerns, whereas French local government bodies have long been precluded from “economic” activities, maintaining the only task of monitoring water companies. In this way in France the general rule “water pays for water” has been affirmed, because users have always been obliged to contribute to water and sanitation services, funding them by paying the water consumed, following a "commercial" logic.

At the beginning of the 20th century, the *French Conseil d'Etat*, the highest court in the land, allowed the municipalities the right to undertake certain economic activities under the condition that no private firms were willing to carry out them. Legal framework, at that point, gave local authorities the possibility to choose between several management approaches, of which the most popular are: *régie directe* (the service is managed directly by the local government through organizations without financial and administrative autonomy) and *gestion déléguée*, through contracts that have the character of public law. The latter approach could occur through a concession contract (the concessionaire is responsible for both building and managing the infrastructures, including operation, maintenance, and management, as well as capital investments for rehabilitation and expansion works. It is remunerated by payment of users' bills; at the end of the contract the infrastructures become state-owned) or a leasing contract (the lessee rents the facilities to the local authority, and is responsible for operation, maintenance and management of the service, including the collection of bills. The municipality remains the owner of the system and is responsible for capital expenditures for new projects, debt service and tariffs and cost recovery policies. The invested money for maintenance operations is recovered by the private operator through the payment of bills by users). Moreover, if they wish, municipalities can team up within inter-municipal cooperation

structures. Gradually, in the first half of the century, a relative equilibrium between public and private managements developed. Among *gestions déléguée*, the form of the concession was prevailing. According to Gérard Maréou (2016a), nowadays only a minority of contracts are really concession, in the strict sense, due to physical assets of the service remain public: even when they are provided or constructed by the concession holder, they are subject to the legal regime of the public domain from the beginning.

In post-Second World War period, the situation changed. With the growth of cities and the rise of consumer society, water increasingly became an industrial sector of value: demand was soaring, and rising pollution led to strict legislation about environmental protection, making it obligatory to re-treat used water. Within such climate of economic growth, the central government passed the 1964 Water Act, which set up the foundations of the current water-governance system. It decentralized water governance (Richard et al. 2010) by introducing the concept of river basin. At that time, policy-makers were looking for an "optimal economic space" (Olson 1969), namely they were trying to make the space of problems and territory coincide on the same perimeter as public policies. A paradigm of integrated management of fragmented sectorial policies (irrigation, hydroelectricity, sanitation etc.) was affirmed through the creation of six hydrographic basins to be managed by six agencies that went beyond administrative boundaries. They were in charge of financing and planning water policy within the area they served, and of collecting fees from water users. They had also the responsibility to reallocate funds through subsidies and loans to support studies and infrastructural projects in order to improve water quality and availability. From the 1970s onwards, many local water authorities emerged as a result of bottom-up processes, as well as inter-municipal syndicates, municipal or town communities, so much so that nowadays 75% of inter-municipal organizing authorities are single-purpose inter-municipal unions (SIVU) originated in that period (Dequesne et al. 2019). Similar inter-municipal organizations are public organizations that directly manage local services, in a consortium mode; they mostly define the planning of the infrastructural interventions, the quality standards to be reached and the level of autonomy of the municipalities in the management of their local water services. In 1982-3, moreover, the delocalization process was strengthened with the promulgation of a series of decentralization laws among which the first decentralization statute, the Decentralization Act, which established the electoral system of regional representatives. Thus, the problem stream derived from the industrial need of expansion of water infrastructure moved from national to local scale. These problems had a

varied nature: local authorities had to draft infrastructure expansion projects from a technical point of view, in a generalized situation of lack of internal competence, since the infrastructures had been built by private operators; they also had to find funding to finance the expansion of these infrastructures, made even more expensive by environmental protection legislation that obliged the use of high-tech technologies; finally, the municipalities had the problem of implementing norms that introduced new administrative practices (the integrated management of river basins), and new administrative entities (basin agencies) that obliged them to cooperate with neighbour administrations: this inevitably required the inauguration of new decision-making practices, new common languages, new alliances and new ways of resolving conflicts. As Paul Pierson (2011) explains us, path dependency implies that certain political and administrative courses, once initiated, are hard to reverse. In combining Kingdon's multiple streams framework and historical institutionalism, Florian Spohr (2016) shows that a deviation from an institutional path occurs effectively only if these conditions occur: an institutional change must be supported by a modification of the policy stream; policy communities must be willing to change; a window of opportunity is necessary for the coupling of streams; policy entrepreneurs must act to lead the whole political community towards change. The evidence shows that these conditions occurred in France in the 70s. In fact, the implementation of the French Water Act succeeded not only without great difficulty, but it represented the inspiration model of the EU Water Framework of 2000 (Colon et al. 2018). The success of administrative transition depended on the strong action of conduction by the central state. This, since the 1960s, has played a crucial role in organizing the water sector with its public engineering services, which were composed of engineers organized at the scale of *départements* – under direct responsibility of either the Ministry of Agriculture or the Ministry of Public Works – with the task of administering funds for infrastructure development, assisting responsible authorities by designing and managing infrastructure development projects and supporting them in contracting with the private sector to manage new infrastructures.

Meantime, *Lyonnaise des Eaux* entirely restructured its activities, becoming a multi-service utility that supplies water and sanitation, waste collection, gas and electricity, and other minor services. In addition, the other two French private water companies, *Générale des Eaux-Véolia* and the more modest *Bouygues-SAUR* have increased in technology and know-how, in order to be able to answer to technological and management needs of local authorities, making them competent in managing every stage of the process of production and

distribution of water and water treatment. This process has laid the foundation for their international expansion strategies and they have since become world leaders in the water sector, as well as in other sectors of utility supplying.

In that era, the *gestions déléguée*, in the form of leases, has exceeded the *gestions en régie directe*. Explanations for such growth are different. First of all, delegated management allows municipalities, in case of constrained budgetary situations, to call on private investments to respond to requests for expansion of water infrastructures from industrial sectors, and at the same time, to comply with environmental standards, without being forced to sell the infrastructure to private firms (as opposed to the reform introduced in the United Kingdom where there has been complete privatization of regional firms). Secondly, delegation contracts allow elected leaders to activate a mechanism of blame-avoiding (Hood et al. 2016; Weaver 1986) of the rise in the price of water (an inevitable increase since users' bills economically support infrastructure renewal) and, more generally, in the cost of the management of the service (Citroni 2010). For this reason, the prices of the delegated service registered in the 90s, higher than those managed directly by the municipalities (IFEN 2001, 2004, 2007), do not always mean more profits for private companies: the latter often manage services in complex situations where more investments are required, entailing higher operation and depreciation costs (Barraqué 2012). Thirdly, the process of decentralization applied to France's politico-administrative system, which began in the 1960s and culminated with the law of 1982, accelerated the growth of delegated management. As a matter of fact, in 1980 delegated management reached the 47% of the French water market, while in 1989 the figure had risen to 73%. Finally, until the 1990s, delegated management has been an important source of financing of political activities and election campaigns in the absence of public funding, which encouraged, in some cases, the development of corrupt practices (Bauby 2009).

Delegation model at local scale spread in France while direct and centralized state management dominated the rest of Europe (Wollmann and Marcou 2010; Wollmann et al. 2016). This particular urban service model emerged over time, silently, without influential debates in Parliament. Contracting management solution was chosen by LG as effective solution to many problems, without a national or local critical mass. Such a model, unlike that developed in the glorious thirty years in the rest of Europe, was not built by formal institutions (Lorrain 2008), but has adapted over time to the needs of local authorities through the proliferation of second-rank institutions: decrees and circulars that complete

national laws, technical standards and certifications, calculation formulas, accounting principles, ethical and managerial papers, contracts, selection rules (Lorrain 2016). This occurred because second-rank institutions are faster and easier to innovate, they are oriented toward problem-solving and they can be agreed with the stakeholders. Consequently, unlike other European countries, the dominant management model in the pre-NPM established itself without a theoretical construction that justified the option of delegating the service, which could have explain citizens its potential advantages. "There is no theory of public service contracting in France. That is the paradox of the French urban service model. It has developed without updating its principles and constitutive values." (Lorrain 2016: 76).

Technical, economic and social results of the diffusion of the delegated management regime have been manifold. The oligopoly created by these operators has always guaranteed high technological performances and high quality of drinking water for all (Masarutto 2011a), producing positive social externalities to public health through the control of infectious and water-borne diseases. In the field of wastewater treatments these giants are less present (at the beginning of the 2000s they provided 53% of services) (Deliverable 4 2004) and, in this field, French technical performance is lower, so much so that in 2004 France was sentenced by the Court of European justice for the lack of waste water treatment in some cities and the discharge of waste water in ecologically sensitive areas.

The problems related to delegated management derive from what Stiglitz (1989) called asymmetry of information, in outlining the characteristics of the principal-agent theory (see chapter 1: pp. 22). In the case of a delegated contract, the principal and the agent are in an asymmetrical position related to information, because of the acquired experience by the agent over time in that field. In this way, one of the two parties involved in the transaction can take advantage of the information gap of the other part to get greater share of the profits without the other noticing it. In the water suppling field, French local authorities have gradually lost any expertise and experience they may have had (where they have had them) to understand, monitor and evaluate the content of contracts. This process is called "lock-in", and this, in turn, reduces their ability to re-negotiate contracts. Eventually, the situation becomes increasingly asymmetrical up to getting irreversible, since the cost of acquiring the information and expertise needed to effectively oversee the activities of the private companies and re-negotiate delegated management contracts increases with the improving of the technical, legal and financial expertise necessary to manage large water infrastructures.

In France case, with few operators that manage water services since their building, operators'

experience is not limited to the resolution of technical matters, but it results in the development of specialized departments in negotiating contracts, armed with all the necessary legal and economic skills (Guerin-Schneider 2001). “This factor plays a particularly important role in the renewal of contracts and partially explains why in 90% of cases (95% in 1997) contract holding companies win the call for tenders.” (Bauby 2009: 17)

Asymmetry of information, as well as being a natural consequence of the principal-agent relationship, is exacerbated in France by what Antoine Brochet (2017) clearly calls lack of regulation of the water sector. Such a regulatory gap depends on the historical absence of a centralized regulatory agency and a central water legal framework, which is the result of actions by several authorities. As a matter of fact, while the history of France's legal framework has been characterized by the gradual adaptation to technological, economic and environmental international standards, the regulation power of water services is still the domain of commune and inter-communal administrative bodies, resulting in an high level of fragmentation and diversity (Canneva 2012) in the competences and capacities of the various administrations in managing the negotiation phase of the delegation contracts. Moreover, the regulatory fragmentation is reflected in an organizational fragmentation of services, which are often managed at municipal level. Small-scale water management often takes place in a condition of lack of administrative and technical skills, with the consequence need of external consultants. Such a fragmentation has always been reflected in a strong territorial differentiation in qualitative field (especially in the wastewater treatment sector), in economic dimension (with incredibly different bill prices from territory to territory), and in technical capacity, due to the difficulty of small authorities in facing the challenge of environmental and economic sustainability dictated by European legislation (Colon et al. 2018).

Asymmetry of information gives rise to incomplete contracts, vague about objectives, evaluation standards, boundaries of operators' actions and transparency requirements. On the basis of a report of the French *Cour des comptes* (1997) these factors have produced the largely spread phenomenon of renegotiation of the contracts before their expiry date; often, operators themselves request a renegotiation with the government to secure better terms, which is an approach that distorts the competitive process. Furthermore, the contracts can be won based on investment and development programs, which are then not carried out by the operators, without penalty clauses. The contracts may also contain agreements for outsourcing a large number of projects in favour of enterprises or consortiums owned by

Lyonnaise des Eaux and *Générale des Eaux-Véolia* themselves, as occurred in Paris in 1984 (as we will see below). The lack of competition translates into an effective impossibility for local authorities to assess whether the offer they receive is the best in terms of quality and economy of the service (Pezon 2000).

All these critical elements of French water regimes have produced two distinct problem streams that have flowed during the 90s: an endogenous one, linked to the loss of legitimacy of this model due to corruption scandals, unjustified increase in water tariffs and lack of transparency of private management; the other exogenous, caused by the entry of neo-liberal issues into the political mood of the EU institutions.

The numerous problems of the delegation mechanism for drinking water services in France affected the national mood, and consequently the political process stream of 1990s, when a series of focusing events channelled public attention on them, also shedding light on the problem of the total lack of information about the management of drinking water resources by municipalities and users. These events are represented by numerous glaring cases of corruption by water operators who have bribed local governors to win delegation competitions. The case with the strongest symbolic significance was the Grenoble one (Brochet 2017; Bauby 2009; Barraqué 2012; Hall and Lobina 2001), where the mayor Alain Carignon (prominent figure of Jacques Chirac's party), elected in 1989, was convicted of corruption in 1995 for illegally accepting funds for his party by *Lyonnaise des Eaux*. "Local mobilizations against delegated management have been powerful and they led to remunicipalisation reform."³⁷ From 1991 to 1995, the price of water grew of about 50% without plausible reasons. This provoked strong local mobilizations and the establishment in 1994 of the users' association *Eau Secours*, which defines itself as an environmentalist militant organization and has become famous for having contested the rise in prices and delegation of the water service to private companies with numerous and incisive forms of political action: from the legal denunciation, to freezing consumer payments, up to the electoral support of a socialist mayor, etc. Thanks to their action over time, return to a municipal *régie* took place in 2000, characterized by the experimentation of a model of participative democracy to corporate governance, which has become a symbol for all French struggles for remunicipalisation of water supply. In the meantime, Alain Carignon has become famous because he was obliged to abandon the position of junior minister in charge of environmental issues in the second government of Chirac for his legal problems, and for being the French

³⁷ Interview with an academic expert on French and European public action and public services.

politician who spent the longest period in prison (29 months). Other striking cases of corruption such as that of Grenoble occurred in the 1990s, as well as the Saint-Denis-de-la-Réunion and Saint-Etienne ones. Similar focusing events, together with the unjustified increase in the price of water services in many cities and the growing concern for environmental protection, have contributed to the endogenous loss of legitimacy of the delegated management model in France (Lorrain 2016; Colon et al. 2018). “This was the moment when French public opinion most addressed the issue of water resource protection, social pricing and energy insecurity”³⁸. Due to the media attention pointed towards corruption episodes in the delegated water management sector, the dichotomous debate about the public/private management of water services has entered the French political stream. Therefore, this type of dichotomy had an endogenous origin in France, unlike other European countries (such as Italy), where the issue of the legal form of the operator had exogenous origins. “The case of Grenoble has been extremely developed by opponents of private companies in the water sector; on the reverse you must consider there is no evidence demonstrating municipal companies offer a better service – price and quality. What we have seen is a standard phenomenon: competition or pressure on the dominant actors. As a matter of fact, at the end of the 1990s the market share of private water companies had increased in France to reach 75%; in the same time they were expanding worldwide.” In the 1990s, the most critical actors towards the delegated management of water services were trade unions and local governments. The unions have assumed a permanent critical stance on “the privatization” even in the case of small management contracts lasting five years. For example, Psiru – an academic program that was supported by unions – has been very active. Local governments, which became more autonomous after the decentralization process of 1982-83, wanted to expand their area of control to water, waste water and solid waste, distribution of electricity, cable network, etc. [...]. Especially the local civil servants took a strong stance against the outsourcing of water services to private operators, as the mayors did not want conflicts. Consequently, since the 2000s there has been an expansion of experiences of direct management of municipal services. This choice was publicly justified and debated with the general argument “public goods should be managed by public organizations” without an in-depth analysis of the performance of the choice.³⁹”

The French problems just exposed – lack of coherent regulation at national level, excessive territorial fragmentation of water regimes, inexistent competition in the mechanism of the

³⁸ Interview with an academic expert on French and European public action and public services.

³⁹ Interview with an academic expert on French and European public action and public services.

allocation of services, renegotiations of contracts, scarce transparency and controls on the work of water service operators, low consumer protection – are the basis of the exogenous problem stream, coming from the European institutions since the signing of the Treaty of Maastricht (1993). Rationalization policies in economic, organizational and managerial dimensions required by EU in 90s (Bolgherini and Dallara 2016; Brochet 2017; Bolgherini et al. 2019) called into question the French organizational system of water services implemented until then. The lack of national regulation that guarantees the functioning of competition rules and transparency of information for all stakeholders clashed clearly with the neo-liberal objective of creating a European SGEI market. The excessive territorial fragmentation of the water organization did not allow the implementation of the mechanism of economies of scale, making the management of French water services too expensive to carry out those infrastructural interventions necessary to respect quality standards defined by the European legal framework. The low level of sustainability of this model was also increased by the fiscal constraints defined by the Stability Pact, within which the member states and the local authorities are forced to outline the regulation of policies. The Stability Pact wanted by the European institutions introduced, in fact, into the laws of the member states the obligation, for both central and local authorities, of budget balance and the prohibition of money transfers from the general budget to the public services. The effect of this reform in water sector was the shift of the costs for building, renovating and maintaining the water network from State to consumers. Historically, in fact, in France (as already mentioned) users have always paid for the water consumption, whereas all the interventions on infrastructures were paid by them indirectly through general taxation, diluting the increase in the cost of the service over time. In the crisis of local government finances, aggravated by the Stability Pact, state authorities no longer finance the creation and renewal of water networks. Therefore, by implementing the European principle of full-cost pricing, currently all the costs of managing public services – both for ordinary and extraordinary interventions – are covered through users' bills.

In addition to the problems of economic sustainability of the French management model, the EU has started a flow of problems related to the environmental sustainability of the "extensive" model (as illustrated in chapter 1) of water infrastructure management followed by all Western developed economies up to that moment. As underlined by scholars such as Daniel Florentin (2015a, 2015b) and Bernard Barraqué (2011, 2012, 2015), the development of water infrastructures was driven, in the industrial era, by a progressive increase in

demand, which was answered with an increase of water plants. The more the demand increased, the more the pipes increased, so as to allow the extraction of water resources from remote and unused sources. With the start of de-industrialization process of European cities, the slowdown in population growth and the increase in citizens' and policy-makers' awareness regarding the need to change consumption styles to preserve a scarce resource, the demand for drinking water began to decline in all European urban areas – with important differences between countries – since the late 90s, as shown by data collected by the European Environment Agency⁴⁰. In response to such economic-productive and cultural change, the Community authorities have imposed on the member states the transition to an "intensive" model of water extraction, aimed at better exploiting the existing infrastructures and reducing waste and pollution of aquifers through technological innovation. This objective was pursued with the promulgation of a series of directives that culminated in the adoption of the Water Framework Directive 2000/60/EC. Thus, growing difficulties in public finance and more stringent environmental legislation have challenge the French urban service model emerged in this era (Barraqué 1995).

NPM

Two different policy streams flowed through French political circles during the New Public Management phase. Both streams sought to formulate policy solutions to be coupled to problems previously exposed and both of them impacted on the central government's political agenda, but with different strength. The first one, the less impacting one, was proposing the remunicipalisation policy solution, prefiguring that a participative governance of public water services would have solved the problems of economic transparency, uncontrolled rising in price, ecological impact of human water consumption, and guaranteeing human right to access to water resources. The second policy stream, much more impacting on the French political agenda, is represented by neo-liberal political solutions (Brouchet 2017) aimed at responding to requests for rationalization from the European Union.

Remunicipalisation policy stream has poured initially from local dimension, where actors belonging to ecological associations and consumers of municipalities shocked by cases of bad management of drinking water services begun to auto-organise to increase their political incisiveness within the local political scene. In a second time the policy claims of such local instrument constituencies were assumed by LG and associations on a national basis such as the Association for the Taxation of Financial Transactions and for Citizen Action-ATTAC

⁴⁰ <https://www.eea.europa.eu/data-and-maps/indicators/use-of-freshwater-resources-3/assessment-4>

France. This association in particular, has been one of the main organizers and promoters, on a planetary scale, of the meetings of the World Social Forum since the late 90s. Bernard Cassen, director of *Le Monde Diplomatique* and president of ATTAC, was one of the most visible problems broker and policy entrepreneur of the French movement against neo-liberal globalization. In 1999 he actively engaged in organizing the first World Social Forum, held in Porto Alegre in 2001, where the Third World "appeared as a subject and not as an object"⁴¹. World Social Forum became the principal venue where French policy solution streams of remunicipalisation of water services crossed the experiences of struggle against the privatization of water, and where it was refined and argued in a timely manner. Within this international venue, ATTAC France association was able to perfect both its perception of the problem of urban water management – the private management – and the policy solution to be coupled to it – the remunicipalisation reforms – becoming the first epistemic community/instrument constituency on a national basis, as explained to us by an expert on water services of Île-de-France during our interview in November 2019. Finally, French instrument constituency for the promotion of water remunicipalisation saw the entrance of the parties of the French left (*Parti Socialiste-PS, Parti communiste français-PCF, Les Verts* merged in 2010 in *Europe Écologie - Les Verts* together with the federation of ecological parties *Europe Écologie*), which spokesmen took part in the meetings of the World Social Forum, as guests and not as organizers. The direct and public management of urban water services became part of the local and nation political agenda of the parties of the French left. This is reflected in the fact that the generality of direct *régie* has been promoted by left-wing LG, as shown by the *Atlas de la gestion des services publics locaux dans les grandes villes de France*, drawn up in 2013 by the *Institut de Gestion Déléguée, Association des Maires des grandes villes de France*⁴².

Although the instrument constituencies supporting the policy solution stream of management through *régie* have shown less political force than those that support the neo-liberal policy solution stream, they have produced institutional results that have allowed the public water regime to align with the EU legal framework, so that the choice of remunicipalising water services became a viable road for French local administrations. The Law of 6th February 1992 relating to the territorial administration of the Republic (*loi ATR*) recognizes water as a nation's common heritage, which must be safeguarded in order to be passed down to future

⁴¹ Enciclopedia treccani <http://www.treccani.it/enciclopedia/forum-sociale-mondiale/>

⁴² <https://www.adcf.org/articles-atlas-de-la-gestion-publique-locale-la-diversite-des-modes-de-gestion-privilegies-par-les-villes-et-intercommunalites-4631>

generations; in this way France Republic has stated that the principle of solidarity must be at the basis of the management of national water resources (Fraysse 2011). It also contains elements of decentralization of responsibilities and involvement of local stakeholders in the governance of water at basin scale. This law created the *Communautés de Villes* (CV) and the *Communautés de Communes* (CC), which are inter-municipal authorities equipped with a separate budget from the municipalities that compose them and an autonomous financing power of projects. Such authorities would have substituted inter-municipal syndicates, municipal or town communities created during the 70s. Moreover, the law introduced new preparing planning tools such as master plans (*Schéma Directeur d'Aménagement et de Gestion des Eaux-SDAGE*, at the scale of the river basin) or plans for water management (*Schéma d'Aménagement et de Gestion de l'Eau-SAGE*, at the scale of a smaller catchment area), which are open to the participation of representatives of water users and civil society, through basin committees and local water commissions (catchment areas). With the economic-financial law of 2 June 1998, the central government orders the transformation of direct *régie* into financial and legal autonomous *régie*, providing it with an organization perfectly competitive with private companies. As a matter of fact, this law established that the management of services by a public company with a specialized vocation endowed with legal personality gives it the benefit of a heritage distinct from that of the territorial administration that owns its corporate shares. In May 2010, a new law allowed French municipalities to manage local services through *Sociétés Publiques Locales*, private companies that they can own. In this way, the French state has tried to implement the phenomenon of corporatization, but this water regime has never managed to replace the management through direct *regié* or delegation. Since that moment, public companies are subject to the same type of controls and standards as the large industrial and commercial corporations that generated the large French public services (Barraqué 2012). The precepts of the latter law, combined with those of the 1992 *loi ATR*, make up the regulatory framework that allows the municipal and inter-municipal experimentation of deliberative and participatory water governance through public *regiés* or inter-municipal entities, as well as the water syndicates. Article 1 of the law of 30 December 2006 on water and aquatic environments expressly recognizes the right of LG to choose the form of water regime that best suits their needs. The same principle has been subsequently affirmed by various administrative rules and pronouncements of the Constitutional Court, guaranteeing to municipalities the concrete possibility of implementing remunicipalisation reforms. For example, in 2006, an article was inserted in the General Code of Local Authorities

that forbids granting special subsidies to municipalities based on the form of management of water services; on 8 July 2011, the Constitutional Court affirmed the legitimacy of this article, on the basis of the principle of free administration of the departments to choose the most suitable water regime to guarantee their citizens' access to water. However, the same law of 2006 affirms an economic and consumerist approach to the right of access to water, since it has been connected to the right to housing and to the management costs incurred by the municipality (excluding homeless people from accessing water and sanitation services) (Drobenko 2007). The contrast between the principle of solidarity and the cost-effectiveness of the water services contained in the French legislation have led to conflicting pronouncements of the local administrative courts: some of them have recognized as legitimate the municipal measures that cancel the bills of the poorest families, while others considered them as illegitimate (Chiu 2011).

Policy stream of neo-liberal solutions focused mainly on the objective of filling the regulatory gap by introducing central rules aimed at ensuring the balance of the national and local budget, the creation of a competitive market of local utilities, the transparency of the business management, the fulfilment of economies of scale and the construction of an incentive system based on the achievement of European standards. The advocacy constituency that supported this stream consisted of major government forces and academic economics experts, in line with international and European *doxa*. In 1993, the Sapin law "on the prevention of corruption and on transparency in economic activities and government procedures" recognized the absence of a framework governing calls for tender and competition, underlining the "serious concerns" caused by phenomena such as improper use of public money to the detriment of users, hidden bargaining, and unfair advantages accorded to operators. This Law set out a common legal framework covering the agreement procedure for all shapes of delegated contracts (Marçou 2016a). First of all, this law opened to municipalities the possibility of managing, in the form of an agency with financial autonomy all the local services. It established an advertising and competition procedure to be followed for the assignment of delegated services based on the clear definition of objectives of operators, costs and investments on the service; moreover tacit renewals were prohibited. Finally, this law reduced the duration of concession contracts. Delegation contracts have been progressively decreased: at the beginning of the XX century a concession would typically last for more than 50 years, whereas in 2012 they lasted on average between 20 and 12 years (Barraqué 2012). A survey taken 11 years after the law showed an increase in competition,

which had a direct impact on the prices of water services at national level: - 9% in 1998, - 10% in 1999, - 12% in 2000, - 8% in 2001, - 21% in 2002 and - 10.5% in 2003) (GEA-ENGREF 2004). However, it is not possible to attribute completely this decrease to profit reduction by private companies, or to the governments' decision to postpone investments on infrastructures for electoral reasons (TNS SOFRES 2008). Indeed, in light of the progressive decline in French water consumption, some economists are more likely to consider the second option more plausible than the first (Masarutto 2011a); such consumption decreases impacted the revenues of water services, be they private or public-managed, which had to compensate money losses with increase in water bills to cover fix costs (Barraqué 2012), in compliance with the principle of full cost recovery (already present in French legislation for decades). This mechanism, for example, has provoked serious social problems among low-income customers of the new Eastern lander of Germany after re-unification (Naumann and Wissen 2011). The same survey about law Sapin has showed that, in most cases, authorities did not resume public management, but instead continued to contract out and the winners were usually the previous managing companies (GEA-ENTEC 2004). As a matter of fact, "the three major companies have retained their dominant positions in terms of market share, accounting for 91% of industry turnover in 2003, 81% in 2002, 88% in 2001, 89% in 2000, and 78% in 1999". (Bauby 2009: 26). In 2013 61% of the French population was supplied with drinking water by a private enterprise under contract with a local authority. Within this 61%, Veolia, Suez and Saur share 99% of the market shares of concession contracts. Only 1% of shares is left to smaller independent companies (ONEMA 2016). Therefore, it can be said that, in 2013, the ancient oligopoly of *Lyonnaise des Eaux* and *Générale des Eaux*, which became Veolia and Suez respectively, was not affected by the new regulatory context.

On the side of transparency, in 1995, the Barnier law required municipalities to draw up and publish annual reports on the price and the quality of service (*Rapport Annuel sur le Prix et la Qualité des services publics*-RPQS). In the same year, the Mazeaud law obliged operators to submit annually to the delegating authority a report including accounts of all economic operations and analysis on the quality of service (*Rapport Annuel du Déléguataire*-RAD). In addition, the regional chamber of auditors can check the accounts of the operators. In 1996 an observatory on the quality of water and forest was created (*École Nationale du Génie Rural des Eaux et Forêts*-ENGEF), which has published its reports since 1999. In 2001 the decision of the Council of State applied consumer law to users of local utilities, effectively transforming the user of the water service into a consumer. The *loi ATR* of 1992, in addition to the

decentralization of decision-making responsibilities, strengthened the regulatory power of the state by introducing the obligation of a central acceptance of all the action plans established in the assemblies of the water basins (the SDAGE and SAGE). On the basis of the investigations carried out to realise this work, one can affirm that an increase in transparency has been progressively occurring: in fact, data on the technical performance of water operators, on the organizational forms of the service and prices at a territorial level, and on the quality of the water have become more and more available over time; however, these data are not always easy to understand and compare, as they are built on the basis of different indicators and with opaque languages (Lorrain 2016; Bauby et al. 2018).

Following the path of rationalization traced by the *loi* ATR, the Chevènement law of 12 July 1999 perfected the constitutive elements of the inter-municipal scale of management of local water services. Such a law implemented the creation of the *Établissements Publics de Coopération Intercommunale* (EPCI), which are groupings of municipalities whose goal is to develop joint economic development projects, subject to common rules, homogeneous and comparable to those of local authorities. They can take for different juridical forms, all equipped with an autonomous system of taxation: *Communauté de Communes* (CC), *Communauté d'Agglomération* (CA) *Communauté Urbaine* (CU) and inter-municipal syndicates. EPCIs are however encouraged by the government to manage drinking water in place of municipalities and inter-municipal syndicates. France government considered inter-municipal scale as the best to fulfil economies of scale, a concept that is linked to that of territorial economic optimization, which should make it possible to limit management costs by allocating skills and resources to a territorial level, which calls for production of supply and exercise of demand that make prices as low as possible. However, large cities, such as Paris, can form EPICs without joining other municipalities for the management of local services. From now on, in addition to *regié* direct, municipalities have two other possible categories of public water services regimes: the *régies à personnalité morale et autonomie financière* and the *régies dotées de la seule autonomie financière*. These new management models represent the French variant of the corporatization phenomenon that spread in Europe in the NPM period (Citroni 2010). In opinion of Gérard Marcou (2016a) this law, followed by others laws in different sectors as the one about housing of May 28, 2010 or that about public-private-partnership of July 1, 2014, demonstrate a government willing to facilitate direct provision of services by local authorities. This political choice is interpreted as a response to the perceived need for a stronger rationale for water sector policy, in order to balance the excessive

dominance of economic arguments that don't like to the whole electoral public (Lieberherr et al. 2016). During the 2000s, EPCIs experienced a real boom in a European context of competition between territories. However, the managerial responsibilities remained mostly in the hands of municipalities and inter-municipal unions, which did not want to delegate their regulative prerogatives to the EPCIs. Only at urban level there has been a more consistent shift of responsibility towards the CU. Indeed, more than 10 years after this law, the level of fragmentation of French water services has not significantly decreased. In 2013 56% of the 13,530 French water services served fewer than 1000 people; the 56% of water utilities served 4% of the population, while 10% of water utilities served more than 50,000 inhabitants each. Most small water authorities are rural, low staffed, which make them unattractive to private operators, with low investment capacities. The renewable rate of water infrastructures is of 0.58%, which is very low. Small services rely on external consultancies due to an evident lack of internal know-how, which has become an obstacle to building the consistent long-term development strategy required for long-term projects of infrastructures renewal. In addition, the level of disparity of water tariffs up and down the country has remained high. Furthermore, the syndicate-form remains largely dominant, even for inter-municipal authorities that have acquired jurisdiction over drinking water (ONEMA 2016). Possible explanations for the partial failure of the EPIC-project are connected to the concept of path-dependency: on the one hand, local representatives would not want to renounce a politically strategic and symbolic competence; on the other, the need to share the economic and administrative management of the service with other administrations would be an important blocking factor, as local elected officials do not wish to share what they consider "their waters" (Brochet 2017). Finally, direct management of local services represents an important source of economic revenue for administrations; despite the patrimonial autonomy of public companies, their profits are counted at the end of the year in the municipal budget (Lorrain 2016). Finally, it is noteworthy that, unlike the delocalization of 1964, in this case the state did not directly manage the transfer of competences from the municipal level to the EPIC one, leaving complete autonomy to local authorities on how to fulfil – or not fulfil – the objectives of the new rules.

As a response to the flow of problems from the EU on the environmental sustainability of the water management model, the French authorities have modified national standards through a series of laws that appear to be the transcription of Community texts (Brochet 2017), such as the directive 98/38/EC, Framework Directive on water 2000/60/EC, European Water Charter

of 2001, directive 2006/11/EC and directive 2006/118/EC. In particular, these French laws are no. 92-3 of 3 January 1992, decree no. 2001-1220 of 20 December 2001, the *Loi sur l'Eau et les Milieux Aquatiques* (LEMA) of 2006 and decree no. 2007-49 of 11 January 2007. Roughly speaking, these rules are intended to oblige authorities and operators to comply with standards relating to water quality, the reduction of the source-service distance, and preventive rather than curative management of the pollution (Barraqué and Isnard 2013). Moreover, this group of norms have introduced a shift towards result-oriented management, with water quality targets to be met by 2015, 2021 or, ultimately, 2027. This environmental framework has increases actors accountability for the environmental results achieved (Colon et al. 2018). In an attempt to ensure compliance with regulatory quality standards by delegated water service management operators, the National Assembly Finance Commission report of 2002 encourages the binder to introduce the concepts of "risks and perils of the concessionaire" into future laws and broadly speaks about "responsibility" in reaching these standards (Tavernier 2002). It introduces the possibility of including in the delegation contracts clauses that link the remuneration by the concessionaire to the achievement of the quality objectives. If the legislator had followed these guidelines, by inserting these concepts into the legislation on contracts, local authorities and consumers could have demanded greater guarantees that any increase in bills would be linked to improvements in performance and not to higher earnings of private operators. However, this option was denied by the report produced by the *Cour des Comptes* in 2003, which reported that, in response to the economic risk associated with the drop in demand for drinking water, some operators were attempting to negotiate clauses which could, in effect, afford them economic protection. Especially in large cities, they began to clarify the inclusion of clauses stipulating automatic price rises in the event of a continued decline in the volume of water sold in contracts. This attitude is contrary to the theory that underlies the concept of delegation, according to which the delegate's main obligation is to take on business risk (Pezon 2000).

Lastly, it is noteworthy the failure of the project to build a national regulatory authority for water and urban services, responsible for defining technical standards, investment financing, price index rules, monitoring contracts and collecting data, as recommended by the 2000 report of the French Competition Council⁴³. This project would have partially solved the problem of fragmentation in the regulation of the French water sector and of the water regimes and prices, and would have increased the controls on how to sign local delegation

⁴³ Order No. 00A12 of 31st May 2000 pertaining to a request from the Commission of Finance, the Economy and the National Assembly Plan on water prices in France.

contracts, increasing the guarantees of protection of consumers and the environment. However, the bill project that included the setting-up of such a regulation authority (called *Haut Conseil du Service Public de l'Eau et de l'Assainissement*) presented to National Assembly in 2001 was never approved. The negotiations between the parliamentary right and left have been very hard, and after the 2002 general elections, the project was shelved. This shortcoming was only partially offset by the creation, in 2006, of a national water authority *Office national de l'eau et des milieux aquatiques* (ONEMA) to strengthen the transparency of the activities of the water operators, but its prerogatives are still limited to the collection of information and their publication only, without control and sanction powers as it happens in other European countries (i.e. Great Britain). Since 2009, the *Information des Services Publics System of Eau et d'Assainissement* (SISPEA) has been established, an observatory piloted by ONEMA also with the aim of increasing transparency. Thanks to it, a national comparison system of water services of a benchmarking type is available for the first time in France; however, the reliability of these data is questioned by an official report of the *Cour des comptes* of 2013 that denounced irregularities in data collection and aggregation, since every French municipality is free to choose how gathering those information. "As a result, the responsibility for defining both local water management rules and the price of the service remained with local governments."⁴⁴ Thus, apart from the national regulations on environmental protection, the quality of drinking water, tenders management and the obligation to publish certain data (prices, quality and user satisfaction), everything else is left to local decision. Performance indicators and data collection methods are also local, creating a fragmented landscape both in terms of management and in terms of control and evaluation of the various services. Failure to create a national water authority, added to the fact that approximately 7 out of 10 French people are still served by the three major monopolistic operators in the country, shows, in the opinion of Pierre Bauby (2009), the immeasurable difficulty of changing the French water service management system.

From the mid-2000s, a new stream of endogenous problems began to cross the country. The problem of economic, environmental and social sustainability of the France water regimes has attracted more and more attention from researchers, institutional actors and managers. The flow of this problem stream was the result of the educational action of the French epistemic community, made up of university researchers (i.e. Canneva and Guérin-Schneider 2011a, 2011b) and state researchers who published numerous studies and technical reports aimed at

⁴⁴ Interview with an academic expert on French and European public action and public services.

assessing the results of regulatory changes in the NPM era.

The problem of economic sustainability is linked, from the state point of view, to the need to find sources of investment for local communities, which are simultaneously obliged to renew the water infrastructure by environmental legislation – especially old pipes (Bolognesi 2014) – and to face an important cutting of economic resources from the centre. This translated into a stalemate on the part of the local water communities, 50% of which, in 2006, had never carried out an evaluation of their infrastructural heritage and 70% of which had not yet prepared a program for the renewal of their plants, as underlined by Roussary and Barbier (2016) on the basis of a study by the *Direction Départementale de l'Agriculture et de la Forêt* (DDAF, actually *Direction Départementale des Territoires*) des Deux-Sèvres. The formulation of the problem of environmental sustainability took place above all by the managers of the services, both public and private, which struggle to reach national and European standards, especially in the field of wastewater purification (ONEMA 2016). Compliance with environmental regulations would require significant financial investments by operators, which would lead to an increase in the overall cost of the service in the name of the principle of full-cost recovery; moreover, they have to face the challenge of reducing water withdrawals and consumption. From the economic rationality side that leads the choices of the managers, these two obligations are in conflict with each other: if the water sector is destined to a gradual decrease in the consumption of the resource, a huge economic effort to introduce technological innovation is not justified. Finally, the social problem is the result of the sum of the previous two. The increase in service costs, due to economic and environmental challenges, combined with the context of structural economic crisis brings to light a problem of "water poverty" (Tabi and Gremmel 2013; Smets 2008), which refers to the impact of increasing water bills on the quality of life of users, especially of those who belong to economically disadvantaged social categories. A social sustainability indicator was built by Fitch and Price (2002) after having analysed the social outcomes of water bills increase in England and Wales. Immediately this indicator has been assumed by the OECD in 2003, which stated that the social sustainability of a water service is achieved if the invoice of each family registered for the service does not exceed 3 % of their income. In cases where this relationship is not respected, the local community, the operator or the state must activate to find solutions in order to cover the amount that exceeds the threshold (payment of specific aid, coupons for water, prices social, etc.). Such an international indicator should put under cover national and supranational authorities from avoiding the normative conflict between

the Universal Human Right to access to water and the treatment of water as an economic good. European Union has not yet taken a clear position on such a glaring contradiction within its regulatory framework, since it has not yet adopted any regulation to that effect (Corporale 2017). As already explained in chapter 1, European institutions have recognized the right to water of EU citizens, linking it to the right to housing, food and health declared by the (Declaration of the European Parliament of 22 March 2010), but delegating responsibility to enforce this right to member states.

Post-NPM

In recent years, therefore, a debate has opened in academic circles, parties and institutions to define a policy stream solution to be coupled with the stream of sustainability problems. This has led to substantive re-regulation of the water provision sector (Menard 2009; Lieberherr et al. 2016). Two main approaches can be glimpsed. The first is more prescriptive and centralizing, based on the attempt to impose the EPIC management scale (considered optimal) in the name of economic sustainability. The state incentive for the use of EPIC in providing local services is interpreted by some scholars as an attempt to rebalance the prevalence of economic rationality in favour of the political one (Lieberherr et al. 2016). De facto, the fostering of the constitution of EPICs represents a national support to public management of local services (Marçou 2016a). It is possible – but not empirically demonstrated – that there is a correlation between the increase in EPICs in French cities and the growth of employees in the sectors of water (from 177,900 employees in 2005 to 237,600 in 2015), electricity, gas, steam and air conditioning supply (Eurostat 2016 in Broughton and Manzoni 2017). This theoretical approach guided the policy solution stream of main government parties, which turned into an agenda-setting consisting of top-down and centralizing reforms. The second approach is more pragmatic and takes into account geographical and socio-historical dynamics, therefore considering water regimes as socio-technical systems, encouraging the exercise of water competence on an ad hoc scale defined based on the water problems to be treated. This second approach has been followed by associations and ecological parties in defining their policy solution stream: it has gradually abandoned the goal of remunicipalisation of urban water services to focus on an ecological political program that impacts on all sectors of social life.

The first approach has been represented by persons in institutional positions with strong legislative powers, as well as elected politicians and technocrats. This policy solution stream focused mainly on economic sustainability to solve in turn the environmental and social

problems. In 2003 two reports were published showing the first approach, one from Senator Gérard Miquel and the second from the *Cour des Comptes*. Both underline the problem of management fragmentation, recommending to end municipal management and above all to drastically reduce the number of structures responsible for water, in the name of economic efficiency. Based on these observations, President Sarkozy commissioned other reports studies (Attali report in 2008 and Balladur report in 2009) which supported the proposal to delegate the managing powers to the EPICs, at the expense of inter-municipal syndicates. These led to the reform of the local authorities of 16 December 2010. This law strengthens the power of the *Commissions Départementales de Coopération Intercommunale*, established by the Chevènement law, which have the task of designing with the prefect a Departmental Plan for Cooperation Intercommunal starting from 2011, which are to be reviewed every 6 years. Since the prefects are a direct expression of the central state, this is a reform that strengthens the regulatory and administrative powers of the state, also reassigning the infrastructure planning powers to it (Colon et al. 2018). Meanwhile, the state had maintained up to that moment only the regulatory powers, as indicated by the neo-liberal *doxa*. Such rationalization reform of water administration was supported by the topic of environmental and social sustainability (renewal of heritage, achievement of environmental standards and sanitation, social access to water, technical safety of networks and protection of resources) (Lejars and Canneva 2009).

The plan and objectives of the reform were then reaffirmed by François Hollande's new government in 2012. New reports were ordered (for example, the report of Deputy Jean Launay presented in 2015), which justified in front of public opinion the acceleration of the transfer of skills to EPICs. Particular attention was paid to the management of drinking water, which was described to be too expensive for users. The announced objectives were to obtain a spatial and functional optimization of the water cycle, in order to generate economies of scale, improve capacity, quality and price of the service, and reduce the state's commitment in water engineering works. The *loi de Modernisation de l'Action Publique Territoriale et d'Affirmation des Métropoles-MAPTAM* of 2014 forced metropolises to exercise jurisdiction over drinking water since 1 January 2015 and the law n° 2015-991 of August 7, 2015 on the new territorial organization of the Republic, called *loi NOTRe*, applied the same rules to other types of EPICs starting from 2020. Such acts fixed the objective to reduce the number of local authorities involved in water and sanitation management in France. Inter-municipal authorities of fewer than 15,000 inhabitants disappeared, so that only larger contracting authorities remain in

charge of water management. So doing, France would have fewer than 2,000 water and sanitation service water authorities by 2020, reducing their number by around some 90%. The theme of environmental and social sustainability remained marginal in the debate during the Sarkozy and Holland mandates. They were only faced in the law of 12 July 2010 on the national commitment for environmental sustainability, which prescribed the obligation for local authorities to produce a detailed description of their networks, as well as the objectives that each community must achieve in terms of performance. In addition, in 2015 Regions received enhanced environmental responsibilities and became leaders in biodiversity protection policy. The 2020 ONEMA report, realised by SISPEA based on 2017 data, shows us that MAPTAM and NOTRe reforms have not had the desired impact as sought by the legislator. In that year, only half of the municipalities had transferred their powers to the EPICs, and the deadlines for the transfer of management powers were moved to 2018 for the metropolises and to 2026 for the other communities. In 2017 there were still 20,094 communities that managed 31,410 municipal water services, and 75% of these communities were inter-municipal syndicates. The most interesting data is related to the management model, which tells us of a significant reduction in delegation contracts (3,718 contracts serving 58% of the national population) in favour of direct management *en régie* (8,555 *regiés* serving 42% of the population). Also today the drinking water services of approximately 7 out of 10 French citizen are provided by the oligopolistic Veolia, Suez and Saur (Dequesne et al. 2019). Finally, to respond to the problem of social sustainability, the government implemented law n° 156 of 7 February 2011 on solidarity in the water supply and sanitation sectors. This law planned the establishment, starting from January 1st, 2012, of a support system for economically disadvantaged families for the payment of water and sanitation bills, regardless of the existence of unpaid bills. The law provides that water service managers pay 0.5% of their income to the Departmental Solidarity Fund for housing (FSL), which centralizes and distributes aid in the areas of housing, energy and telephony. In addition, in 2013, with the so-called "Brottes" law of 15 April on the "transition to a sober energy system", the government started experimenting a progressive system for billing water consumption on a social basis to "promote access to water and implement social water prices." It should have expired in 2018. Municipalities had the opportunity to participate in this project on a voluntary basis, identifying needy families through various mechanisms (number of family members, economic condition, etc.), and to choose how to cover the costs of water consumption of these families. However, the program was a failure as the participating municipalities were few and

late, after which the trial deadline was postponed to 2021⁴⁵.

It is noteworthy to underline the continuity between the various rationalization reforms, by means of mechanisms that delocalise managerial responsibilities and attempt to create authorities on a governmental scale, considered optimal for the realization of economies of scale, which have been implemented by governments of different political colours. This obliges us to note, first of all, the ability of the European institutions to limit national sovereignty with a top-down movement in a sector characterized by a historic local governance. Such top-down attempt of reform is still provoking a strong resistance from local communities, which are not willing to surrender their sovereignty over "their water resources". Secondly, a similar situation once again demonstrates the explanatory force of path dependency theory. Finally, these considerations lead us to note that, despite the attempts to introduce punctual institutional changes, reforms have always implemented slow incremental changes, which occurred following the decision process of the garbage can model: any type of decision-maker – be politician or technocrat – has responded to new problems with familiar solutions and similar policies, which came from EU *doxa*.

The second approach to the problem stream of sustainability has been supported principally by academic personalities, environmental and users associations, and local spokesmen of radical left parties. These instrument constituencies criticize the top-down nature of Sarkozy and Hollande's reforms, implemented without taking into account territorial specificities and their administrative history, and without the involvement of local communities (Landel and Pecqueur 2016); these local communities to which the 1992 *loi* ATR recognized the right to manage water resources democratically, through the participation of all stakeholders. The reforms are criticized for having followed a mere economic rationality, increasing neo-liberal governance devices in order to create homogeneous territorial entities capable of competing with each other, with the aim of rationalizing and saving the budget (top-down logic). Moreover, Lise Bourdeau-Lepage (2015) underlines the fact that the reform is based on the assumption that "big is beautiful" and that the same management model must be implemented in every place, effectively decreasing the transformation of cities towards a single urban model, although these postulates have not been proven. Finally, it is necessary to register a clamorous increase in French public attention on the issue of environmental sustainability not only of water services, but also of the management of the entire national territory. The historical political forces of the French left (socialists and communists) have

⁴⁵ Institut National de la Consommation October 16, 2018 <https://www.inc-conso.fr/content/tarif-social-de-leau-vers-un-cheque-eau>

lost electoral support in all territories, especially at municipal scale, in favour of the environmental forces gathered in the *Europe Écologie Les Verts* party since 2010. With the advance of the greens and the relegation of socialists and communists, the issue of the remunicipalisation of local water operators has lost public visibility, replaced by a debate on the ecological conversion of cities, industrial productions and exploitation of extra-urban areas.

5.2. Parisian exogenous variables

Historical, economic, social and political local context

Paris is the capital and most populated city of France, the capital of the Île-de-France region and the only city to be simultaneously both a municipality and a department (since 1977). With a population of 2.229.095 inhabitants, it is, after Berlin, Madrid and Rome, the fourth most populous municipality in EU and it has one of the highest population density in the world (21,148.91 ab/km²). The city is located on a bight of the Seine river, a very favourable position that has allowed this city a privileged role in European trade. As the capital of the Napoleonic empire, its administrative history mostly reflects the events of national politics, as well as its urban development has historically been determined by interventions by the central government, rather than the local one. This figure is traceable in urban history, making Paris the capital of the greatest military power on the continent in the seventeenth century, the European hub of the Enlightenment movement in the eighteenth century, and the centre of arts, pleasures and entertainment in the nineteenth century. In the twentieth century, it was therefore the place *par excellence* of France industrial boom and the privileged area for the experimentation of the French welfare state policy. Like all Western industrial areas, during the NPM era the city faced a difficult transition from an industrial to a post-industrial society (Andreotti et al. 2018), characterized by a strong economic interdependence and a high level of competition between urban centres (Gilli 2014). Since the 80s, each European urban centre has been competing with other global cities in the challenge to attract private capital through a process of productive tertiarization (Sassen 2007, 2018). Precisely in this difficult transition phase, Paris risked losing its primacy as European economic and cultural centre in the competition with London, which has grown by 2.9 million residents (+ 26%) in the period from 2005 to 2015⁴⁶. In the 90s, Paris suffered the consequences of these difficulties, and the loss of the Olympic games in 2012 was the emblem of London's triumph. To face the challenges of the no-liberal and globalized world, the Parisian institutions began a

⁴⁶ Environment European Agency <https://www.eea.europa.eu/themes/water>

path of change that culminated in the creation of the *Métropole du Grand Paris* on January 1, 2016. This path has been long and its pillars have been represented by the solid driving variables that characterize the economic and social context of this city.

Paris' transition from a manufacturing economy to a tertiary economy has been primarily supported by favourable market conditions, which refer to a number of factors that make cities attractive for private investment – such as a stable and clear legal framework, a lean bureaucracy, the presence of centres of national and international command and control, financial and business services, tourist and cultural attractions, media networks. These factors in turn allow aligning the supply of goods and services with cities international demands, initiating a process of exportation (Hall 2000). In addition, the transition toward a new information based economy has benefited from a solid, highly educated middle class, rich in social capital and skills, which has never left central residential areas thanks to the phenomenon of urban gentrification. The development of Paris towards the post-industrial era was also supported by a strong coordination capacity between the intergovernmental scales, in which the city is nested. Besides that, over 40% of the local budget was covered by the central government until the early 2000s, and even now, both the national and regional government of Île-de-France directly invest enormous amount of public funds into mass transit and in building urban infrastructures (Savitch et a. 2002). The administration of Paris is also based on a system of neighbourhood city halls, consisting of mayors and municipal legislators that manage local services in coordination with the municipal government. They guarantee a high level of democratic representation and have the economic strength to allocate resources that encourage the associative activities of citizens, even in the most peripheral areas. Paris is, in fact, a city full of voluntary associations and committees. Another strength of this city lies in a strongly post-materialistic local culture, which focuses on the "interests of the whole", and sees development as leading to indivisible benefits designed for the well-being of all citizens (Wilson and Banfield 1971; Clark 1994). Collective benefits and public amenities are historically debated and planned via long-term plans, maps and special development zones. Starting from the 1990s, Parisians have dealt with concerns regarding the deterioration of the air quality due to traffic congestion.

The centre-periphery axis

On the side of local policy, the Parisian post-industrial transition was led from 1977 until the mid-90s by the mayor Jaques Chirac, founder of the main French centre-right party *Rassemblement pour la République-RPR*. He ruled Paris following the same top-down

approach followed later by the national governments of Sarkozy and Holland (as explained in the previous paragraph); a hierarchical development model, with a regional government focused on investments toward the transformation of Paris *intra-muros* and a formidable state control over the elaborate territorial development plans to foster culture and tourist trade. Chirac's election was highly symbolic, firstly because it ended the period of Paris administration by central government-appointed prefects. Furthermore, these elections provided the French right with the opportunity to oppose the left-wing government model, based on large-scale nationalization programs, with a liberal administration on local scale, inspired by Great Britain (Lorrain 2016). To emphasize the differences between his governance and that of the nationalizing left, Chirac inaugurated a season of delegation of urban services. He contracted out car parks, funeral services, public lighting, drinking water, part of waste collection and so on, and his example was followed by other mayors, such as those of Lyon, Grenoble, Nîmes, Sète, Orleans, Amiens, Toulon, etc. At the same time, this mayor has invested many resources in expanding local public services, in order to make them accessible to the entire urban population, ranging from day-care to free outdoor theatres, from music and art festivals to seven-day-a-week services of streets washed and waste collection. He also limited the construction of large outlets in favour of a system of small shops that attract thousands of tourists every day. The urban economy was nourished by cultural events, personal services and tourism. In this way, mayor Chirac guaranteed to Paris the highest position *per capita* income in the nation, and the second position among Europe most desired business location⁴⁷(Savith et al. 2002).

While the citizens of the central districts of Paris continued to vote for the right-wing parties, the peripheral areas supported more and more the left-wing forces. In this way, mayor Bertrand Delanoë was elected in 2001, sustained by a coalition made up of socialists, greens and communists. With the Delanoë government, which lasted until 2014, both the central and peripheral area of Paris have experienced a strong bottom-up democratization process, based on the political centrality of the citizens of the *banlieues* and on the emancipation of small and medium-sized enterprises (Gilli 2014). The state and its intermediaries have been partially replaced by self-organized systems of local, European and global public and private actors, and the economic presence of large corporations in urban policy has been scaled down.

When the mandate begun, Delanoë and his government faced an unprecedented social and administrative situation in the history of Paris. Paris *intra-muros*, enclosed by the ring of the

⁴⁷ *Le Monde*, April 4, 1994 <https://www.monde-diplomatique.fr/1994/04/>

Périphérique (the avenue built on the route of the walls of Thiers) is a relatively small city (105.4 square km), whereas the region of Île-de-France is a territory of 12,012 square km, with over three hundred municipalities, densely inhabited and zone of important industrial and production activities (which represent 40% of the French economy). For years, the development of these territories has continued on parallel tracks: cultural and tourism on one side, manufacturing on the other. At the beginning of 2000s, the *intra-muros* Parisian population was impoverished, fragile, with pockets of unemployment that often overlapped with the immigration condition. Although the *per capita* income was the highest in the Île-de-France, the disposable income for each inhabitant was lower than the rest of the region, due to extremely high urban taxes to support local services and inaccessible housing prices (Gilli 2014, Lorrain 2016). This social fragility reached its peak with the economic crisis of 2007/2008. At the end of the 90s, the Parisian *banlieues* have instead experienced a social and economic renaissance, symbolized by the inauguration in 1998 of the largest multifunctional stadium of France in the municipality of Saint Denis, a project born from a collaboration between the town hall and private companies without the state intervention. In the *banlieues* live mainly young population, having children and working. From 1970 to 2000, Paris had lost 300,000 jobs, whereas the first peripheral group earned 100,000 and the second even 700,000. The problem stream coming from these territories was composed of issues like the fragmentation of the offer of services, youthful job precariousness, difficult spatial connections between extra-urban areas and central neighbourhoods, drastic reduction of green areas in the Ile-de-France area and the difficulty of young people to emancipate themselves from their families due to the lack of affordable housing. The social issue of *banlieues* exploded in 2005/2006 with the so-called *banlieues riots* (see Mascia 2010).

In the meantime, due to the waves of delocalization, local authorities had a large number of operational responsibilities, without having appropriate institutions to face the growth of the social problems within Parisian metropolitan area. The withdrawal of the state translated into the need to find new economic and political forces to plan the policy response to the problem stream. A consensus emerged on the idea that, unlike the 70s, there was no need to plan a harmonious and homogeneous development of each territory, but to build a metropolis through the enhancement of the differences between cities and neighbourhoods; a metropolis that reduces social inequalities through the reconstruction of the links between economy, territories and democracy (Gilli 2014).

Already in 2001, the mayor started a "patient e methodical listening and collaboration

work"⁴⁸ with the elected officials of Île-de-France and their president Jean Paul Huchon, also a socialist, to set up a shared governance program. In 2004 the definition of a new institutional plan of the Île-de-France region (*Schéma de Directeur de la Région d'Île-de-France-SDRIF*) started, and in the same year, the municipality of Paris worked on the last phase of its Local Urban Plan. The common principles that guided these programs were sustainable development, environmental quality, fiscal solidarity and reduction of social inequalities, identifying the key objectives of metropolitan development in the reform of the public mobility network and in the rehabilitation of the suburbs. In 2006 they created the *Conférence Métropolitaine*, a governance body aimed at defining a financial method of fiscal solidarity funds, which in 2009 has grouped more than a thousand of municipal representatives into the *syndicat d'études Paris Métropole*. In 2007 Nicola Sarkozy organised the international consultation on the project "*Le Grand Paris de l'agglomération parisienne*", where proposals on the future development of the metropolis were collected. In the same year the president announced the launch of a national plan for the economic recovery of Paris and its region, which had to be based on strengthening airports and building 70.000 new housing and a new subway to connect centre and periphery. At that moment, the same clash between policy strategies described in the previous paragraph approached local scale: Sarkozy's project was aimed at unifying the administrations of Paris *intra-muros* and those of the first peripheral circle and reinforcing the role of the capital through state interventions. On the other hand, Delanoë's vision was focused on the realisation of a metropolitan, supportive and sustainable confederation, originated from the needs of the population.

The normative passages that symbolize this opposition were the laws of 3 June 2010, the national *modernization of territorial public action and affirmation of metropolises* law of 2013, and the regional approval of SDRIF in 2013. With the 2010 rules, the state established the expansion of the Paris metropolitan networks (4 new lines, called *Grand Paris Express*), commissioned by the Secretary of State of Grand Paris (Christian Blanc), nominated by Sarkozy in 2008; with the 2013 law, the government accomplished the special statute *Grand Paris* governance institution, which started working on 1 January 2016. It includes Paris *intra-muros*, 123 municipalities of the three departments of Hauts-de-Seine, Seine-Saint-Denis and Val-de-Marne and 7 municipalities of Essonne and Val d'Oise, with a total of 7 million citizens. The *Conférence Métropolitaine* opposed Blanc's proposals and started a phase of bottom-up consultation at local level aimed at modifying national programs through the approval of the

⁴⁸ *Citirailways.com*, February 12, 2017 <https://cityrailways.com/articoli/grand-paris-piu-grande-progetto-tcsp-mai-realizzato/>

regional SDRIF in 2012, with which Blanc's plan on urban transport was modified, and the creation of a green belt around the metropolis and the construction of 1.5 million of new social housing within 2030 were planned. This plan was then approved by the national government, which represents one of the stakeholders in its implementation, with monitoring and evaluation powers.

The government responded to this plan with the MAPTAP *loi* of 2014 and the NOTRe *loi* of 2015, which imposed a new inter-municipal fiscal and administrative organization: the municipalities of *Grand Paris* must unify in a public body with autonomous taxation, the EPCI with programming powers. *Grand Paris* is in turn composed of 12 inter-municipal administrative body aimed at managing local services, the *Établissement public de coopération intercommunale-EPT*, with its own structure and composed of representatives elected by each municipality.

In summary, *Grand Paris* is an urban development plan consisting of environmental, infrastructure, housing and social policies. It is also a new inter-municipal administrative body with fiscal autonomy, originated from the ultra-ten-year conflict between a bottom-up democratic model, based on the participation of public and private stakeholders in urban regeneration projects, and a top-down model, based on actions planned and financed by state. However, NOTRe reform derogates from the national standard referring to Parisian water supply, because it entrusts the competence of the administrative management of water and sanitation services to the 12 EPTs that make up the metropolis, to the detriment of the EPCI *Grand Paris*. The boundaries of the EPTs, in fact, are defined based on administrative, non-geographical criteria, and this management scale of water resources is not the most optimal for the realization of an environmentally, socially and economically efficient integrated water cycle. Such an administrative fragmentation does not allow the realization of economies of scale, although this is one of the stated objectives of the NOTRe law. In addition, EPTs do not possess water infrastructures or the right to directly manage water sources; consequently, they have to satisfy their water needs by purchasing water and sanitation services from other authorities such as SEDIF or *Eau de Paris*. If instead the competence of managing water services of all the municipalities of Gran Paris had been recognized directly to the EPCI, this would have represented an opportunity to carry out a project of metropolitan supply of drinking water, thus increasing social and environmental equity, in addition to economic efficiency, within this sector. As a matter of fact, there are still huge disparities in prices per cubic meter between the municipalities of *Grand Paris*: ranging from an average of € 6.19/m³

of Aubervilliers to € 4.35/m³ of Asnières-sur-Seine in 2016 (ONEMA 2019). The organization of drinking water and sanitation services on a metropolitan scale, through a single authority that is *Grand Paris*, could be the answer to several problems: the creation of economies of scale that would allow lowering the costs of a service that instead is destined to increase more and more – due to an average 2% decrease in drinking water consumption per year in the entire urban area since 1990 (Barucq and Fel 2008) – achieving greater social equity, integrated and coordinated management of water infrastructures – currently owned by SEDIF and Mairie de Paris – and a coordinated ecological control of the extraction of the resource and its release into the environment after purification. Unfortunately, the current political protagonists of Île-de-France seem to have lost the window of opportunity represented by the creation of *Grand Paris*. *Eau de Paris* and SEDIF, instead of collaborating and combining their skills and resources, as suggested by organizations such as Que Choisir or the UNI-MoDem advising group present at the *Conseil de Paris*⁴⁹, are competing with each other in the sale of drinking and non-drinking water to the various metropolitan EPTs. This is the historical-political context in which the remunicipalisation of Parisian water services is inserted.

⁴⁹ <https://www.latribune.fr/opinions/tribunes/20141203trib47cc6e241/pour-un-grand-paris-de-l-eau.html>

Paris drinking water supply

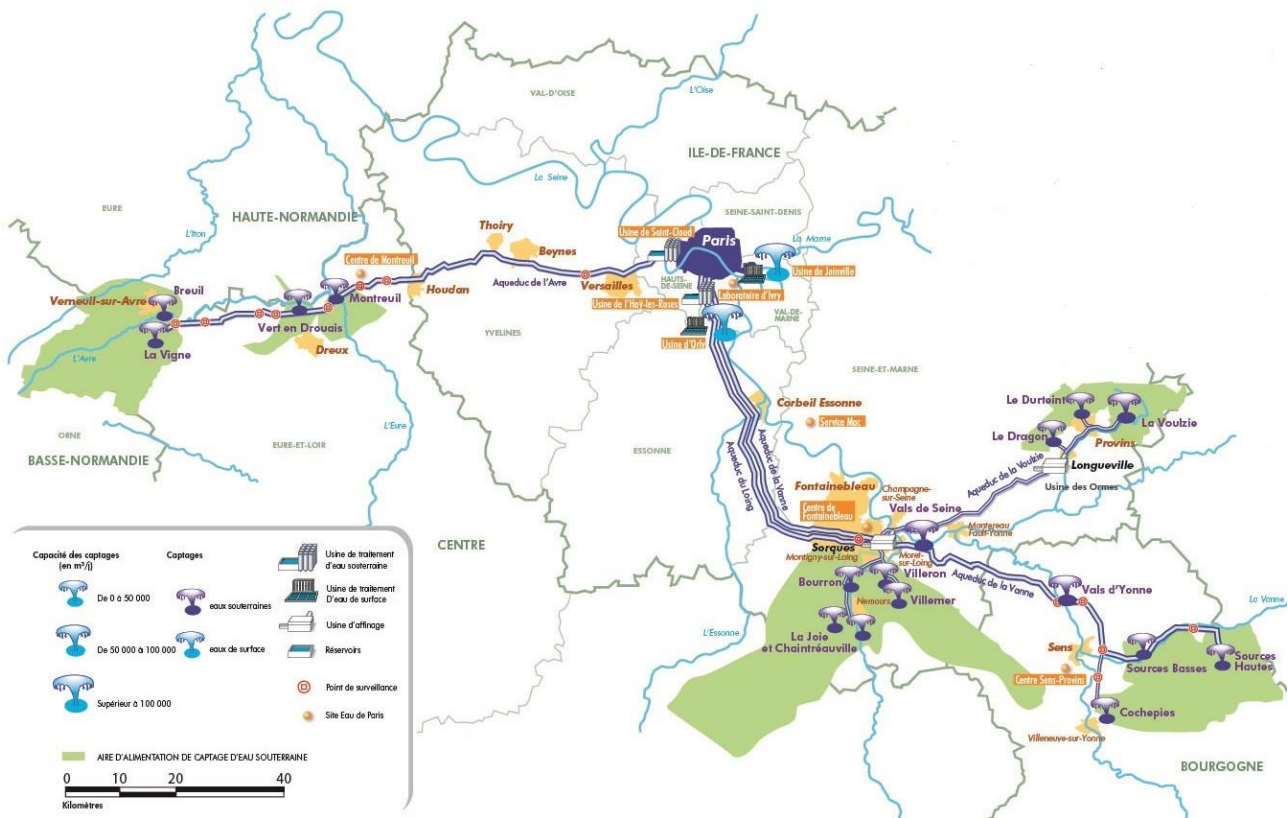


Figure 8: Paris water supply scheme (Lamoureux 2016: 39)

Drinking water used to feed Parisians comes from water sources located outside the municipal area, within a radius of 150 km, as shown by figure 8. It is transported into the Paris *intra-muros* through a system of linear aqueducts, which extract half of the water from underground sources and the other half from outdoor sources. In total, the Paris aqueduct runs through the territory of twelve departments outside Paris (Lamoureux 2016). There are a total of 102 groundwater extraction basins, distributed over the four areas over 150 km from the capital: they are in Fontainebleau, Sens and Provins in the South and Montreuil-sur-Eure in the West. The extracted water resources are transported through three main aqueducts, for a total of 470 km of pipes that exploit a drop system (less expensive than the pumping system mostly widespread in France): the aqueduct from Avre, in the west of Paris, and the aqueducts of Vanne and Loing from the south-east. These infrastructures were built by the engineer Belgrand under Napoleon III to bring uncontaminated water into the city; typhus and cholera epidemics were in fact linked to the direct consumption of water from the Seine, which was deeply contaminated (Pezon 2000). Groundwater is then brought to the four treatment plants located in Longueville, Sorques, Saint-Cloud and Haÿ-les-Roses. While river waters are treated in the three plants of Joinville sur la Marne and Ivry sur la Seine, which

were built respectively in 1896 and 1905, and in the Orly plant, erected in 1969 (Husson 1996). The surface resources are closer but they have always required a treatment process to make them drinkable, therefore their consumption is more expensive than the one from groundwater. In 2011 the Ivry plant was closed to cope with the drop in drinking water consumption for civil purposes. As a matter of fact, between 1991 and 1998 the reduction in drinking water consumption was 17%; then consumption remained stagnant, and in 2003 it started to decrease again, so much so that in 2011 it was 27% lower than in 1991 (Bauby and Simile 2013). Many explanations have been put forward for the drop in Parisian water consumption: domestic equipment or more efficient city networks, changes in behaviour, decrease in the Parisian population, fewer economic activities, and decrease in consumption due to the increase in the price of water (Florentin 2015a). It is noteworthy that there are currently 3 river water treatment plants in Paris, serving approximately 2 million inhabitants, while the treatment plants serving the four million inhabitants of the *Syndicat des Eaux d'Ile-de France*-SEDIF are also three, and are all supplied from the Seine. These are the plants of Orly, Choisy and Suresnes, which belong to three distinct communities: the Paris municipality, the SEDIF and the *Syndicat des eaux de la presqu'île de Gennevilliers*-SEPG.

Subsequently, the purified water is collected in five large water basins located at the gates of the city (Montsouris, Ménilmontant, Les Lilas, Saint-Cloud and l'Haÿ-les-Roses); they have a storage capacity of 1.1 million m³ per day, which is double the average urban requirement. The purified water is finally transported to the citizens' homes through 1990 km of underground pipes owned by the Paris municipality.

It should be noted that each of the four aqueducts, connected to a treatment plant, serves a specific area of the city, as illustrated by figure 9. These four areas do not coincide with the administrative division of the city surface.

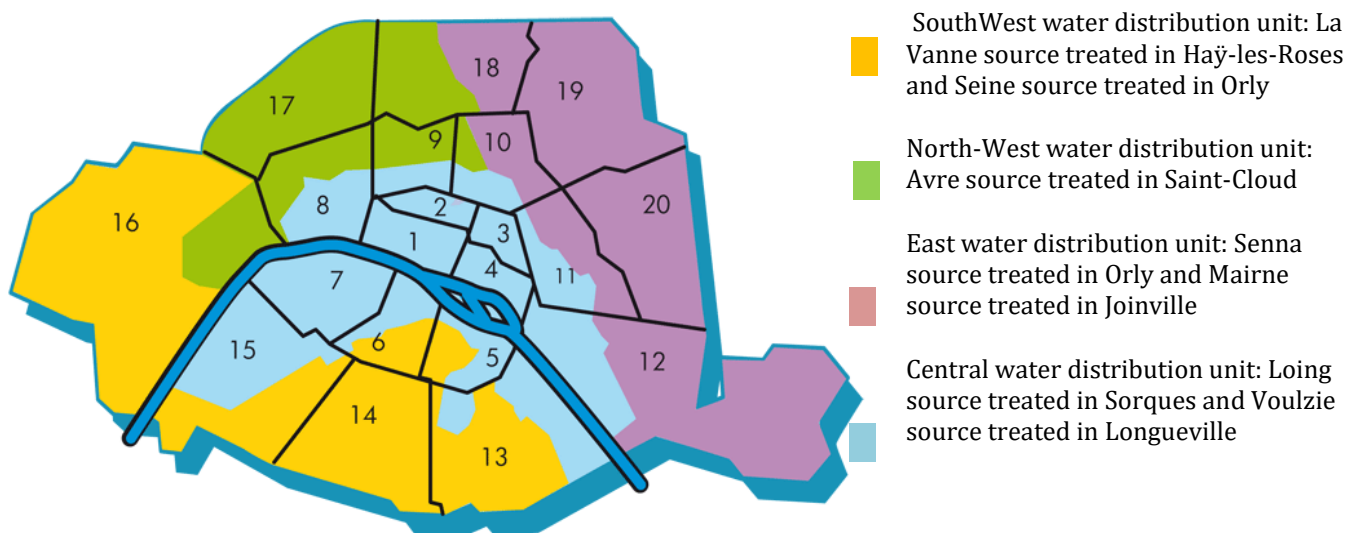


Figure 9: Paris drinking water distribution areas (handled by the author)

Another peculiarity of Paris is that it has two distinct distribution networks designed and built between 1855 and 1874, one for non-drinking water – used for street washing, sewage treatment, urban green care and other commercial purposes – and the other one for drinking water for civil use, in order to lower the costs of purification treatments. At the beginning of 2000, the non-potable water network was constituted by approximately 1.600 km of pipes, with a flow rate of almost 400.000 m³ of water per day, of which only a quarter was used for non-commercial purposes (60% for sewerage, 23% for street washing and 17% for irrigation of green areas). The network does not cover the entire city and the government has been uncertain of its maintenance after remunicipalisation. In 2012 the municipality finally decided to maintain and optimize it through an investment program, and currently it reaches the entire urban area.

The peculiarities of the Paris water supply

Although the area of Paris is not very extensive (105 square km) its population exceeds two million inhabitants (2.229.095 in 2018), making it one of the most densely populated cities in the world (21.148,91 inhabitants/km²). Given the complex organization required to distribute drinking water in a city with such characteristics, *intra-muros* Paris has always maintained its autonomy in the management of the drinking water service⁵⁰. In the surrounding metropolitan circle, however, most of the suburban municipalities have delegated the management of the water service to an intra-municipal body, the SEDIF, a union dating back

⁵⁰ Interview with academic expert on French and European Public action and public services.

to 1923, which today includes 150 municipalities scattered in seven departments of the Île-de-France, with a population of 4.6 million users. It deals with the production, distribution and monitoring of drinking water and is the largest water service in France. The service is provided through delegated management, and in 2011 the delegation contract with Veolia was renewed after a public tender in which the two multinationals *Suez Environnement-Lyonnaise des Eaux* and *Veolia Eau* participated⁵¹.

Given the high population density of Paris, its inhabitants live mainly in a condominium context. Subscription to the water service takes place on a condominium basis (at building level, not at nuclear family level); in practice, the service's price is not individualized and the water costs for each user (whether this is a family or a professional) is calculated by the condominium administrator based on the area occupied by each family and not on the real consumption (distribution for compensation). In case of rented apartments, the tenant pays the water bills, not the family living in those apartments. Thanks to this system, which allows saving on the spending for distribution pipes and financial management of subscriptions, the price of water per cubic meter in Paris is lower than in the rest of France. "With this system, however, the direct relationship with the user is missing, and this translates into a low interest of Parisians in the management of their water services."⁵² Another feature of Paris is that drinking water prices remain relatively low also thanks to the fact that the aqueducts use a drop-down water system (based on the force of natural gravity) and not an electric pump system. Moreover, users pay jointly the drinking water supply service and the sanitation service through a unique bill, not separately, although the two services are managed by different operators, which act on different scales. Sanitation services, as a matter of fact, are supplied by the *Syndicat Interdépartemental pour l'Assainissement de l'Agglomération Parisienne-SIAAP*. It manages the purification of rainwater, civil and industrial wastewater from 180 municipalities in the city walls of Paris, distributed over four departments, for a total of over nine million users.⁵³ "Also in the SIAAP there was an attempt to return to public management. The proposal was supported by PCF, Greens, Socialists and some right-wing representatives. The proposal was not supported by social mobilization, as water management in France is an administrative matter, not a social one."⁵⁴ Since water bills show a unitary price for two different services, and they are paid collectively, it is practically impossible for Parisian *intra-muros* to recognize an increase in the price of the drinking water

⁵¹ <https://www.sedif.com/index.aspx>

⁵² Interview with academic expert on French and European Public action and public services.

⁵³ <https://www.siaap.fr/>

⁵⁴ Interview with expert on water services of Île-de-France.

service. During our interview, an expert on water services of Île-de-France showed us the water bill in Paris, where actually the distinction between the items of expenditure is not clear.⁵⁵

In 2020 an average user pays € 3.42/m³ for drinking water service and sanitation service. However, it is to be underlined that the price of drinking water has passed from € 1,12/m³ in 2010 to € 1,07/m³ in 2020, whereas the price of sanitation service has gone from € 1.03/m³ in 2010 to € 1.65/m³ in 2020 (the remaining cost of water is related to service fees). Therefore, direct management has slightly reduced the prices of the service. The method of counting consumption and that of paying bills makes the production data relating to individual consumption or about the quality of the water that flows out to the tap of each inhabitant quite difficult. However, this does not seem to have a negative impact on the perception of users of the public water service. On the contrary, the surveys conducted by *Eau de Paris* show a high satisfaction rate of individual users (88% in 2020), although it has slightly decreased from 92% in 2012. The satisfaction rate of subscribers with respect to the quality of water has instead increased from 72% in 2012 to 96% in 2020.

5.3. Parisian water regime previous remunicipalisation

Eleven years before the 1778 revolution, Charles Auguste Perier and his brother Jacques Constantin Perier took the initiative to found the *Compagnie Générale des Eaux*-CGE to supply French cities with water. The first city that entered into a twenty-year supply contract with this company was Lyon, followed by Nantes in 1854 and Paris in 1860. The road that led Paris to sign the delegation contract with CGE was tortuous, characterized by a continuous transition between public and private management (Barraqué 2012).

In 1788, when the city of Paris was forced to purchase 80% of the company's shares, which had collapsed in value, the service passed to direct management by the municipality, with about 600,000 users. With two decrees (consular decree of 25 May 1803 and organic decree of 4 September 1807), the water infrastructure of Paris and the hydraulic and fire-fighting pumps owned by the crown become municipal property. Subsequently, in 1859 and 1923, the administrative boundaries of the city were enlarged and 23 suburban municipalities were annexed to Paris, where drinking water was managed by CGE through a 46-year delegation contract. The prefect of the Seine Georges Eugène Haussmann – who went down in history for being appointed by the emperor Napoleon III to carry out a massive urban renewal program of new avenues, parks and public works in Paris, commonly called Haussmann's Paris

⁵⁵ Interview with expert on water services of Île-de-France.

Renovation Program – decided to acquire these concessions. Haussmann wanted a domestic service managed through a public monopoly; however the institutional framework did not allow cities to deliver commercial services. Thus, in 1860 a delegation contract in the shape of *régie intéressée* with a duration of 50 years was signed with the CGE. The *régie intéressée* is a contractual form that has rarely been applied in the history of France. It provides that the municipality owns the infrastructure and also assumes all commercial risks by financing all forms of investment. The operator's liability is limited to the efficient management of the service through its staff, in exchange for a remuneration linked to the work done (without fix remuneration). In this case, the company was delegated for connecting, metering and billing costumes, while production and distribution of water remained public (Barrqué 2012). In just 9 years, the number of subscribers to the service tripled (Stefanovitch 2005). At that time, the municipal water supply circuits were created, which are the same that nowadays reach the houses of Parisians, and a modern sewer system was built in the city, to which the connection was made mandatory in 1852. This organization, renewed in 1910 and 1924, did not change until the mid-1980s.

When, in 1984, the delegation contract stipulated in 1924 with CGE expired, the mayor Jacques Chirac inaugurated a new local water and sanitation regime. It certainly became more complex than the previous one, since it included two private companies for distribution and billing, invoice collection and customer relations, a mixed economy company for the production of water, a municipal service for the collection of waste water, an inter-municipal union for their treatment. We will explore only the consequences of the drinking water management.

On 20 December of 1984 the Paris City Council stipulated two 25-year leasing contracts for the distribution of drinking water with *Compagnie Générale des Eaux* (via the branch *Compagnie des Eaux de Paris-CEP*) and *Suez-Lyonnaise des Eaux* (via the branch *Société Eau et Force Société Eau et Force Parisienne des Eaux-EFPE*). This delegation took place without competitive tendering and any subsequent specific framework of regulation of relationships between the grantor and the concessionaire (Lorrain 2016).

Pierre Bauby and Mihaela M. Similie (2013) show us how the right bank of the Seine, with approximately 2/3 of consumers (in 1999 it had 63,414 subscribers for a volume of 164 million m³ per year) was managed by CGE; while the left bank, with approximately 1/3 of consumers (in 1999 25,577 subscribers for a volume of 81 million m³) was entrusted to Suez. Both water bodies are easily accessible from the sewers and measure 1,200 km in length on

the right bank and 576 km on the left bank respectively. To manage them, CGE employed about 150 employees per year, while Suez employed about 70. The annual operating profit of CGE was 19.87 million francs (€ 3.03 million), while that of Suez was 19.54 million francs (€ 2.97 million). Both operators were responsible for: continuous operation of the service; repair, construction, modification and maintenance of plants and distribution links; leakage control, rental, repair, maintenance, renewal of subscriber meters; counting service costs and user consumption; sending and collecting bills. This was the first time that CDE had to share with its main competitor the management of a service in the same city. In the contract signed between the municipality and Véolia in 1984, the reasons for the choice of a split destination are connected to the need for modernization and expansion of the water networks in some areas of the city, where the services were insufficient. In fact, according to the clarifications of Claude Danglot⁵⁶ (medical biologist and hydrologist who has been managing CRECEP since 1985), the water networks were in poor condition when Chirac arrived, since the municipality had always used the profits of the service to fill the general deficit of the city and not for maintenance interventions on water infrastructures. However, both contracts concluded with private operators were leasing contracts, therefore the investment and execution of all the main expansion works of water network were under the responsibility of the city of Paris. The two operators were only in charge of checking leaks, maintenance, repair, and renewal of pipes and installation of new meters. (Bauby and Similie 2013). Thus, the most plausible explanation for such a managerial choice is connected to the closeness between the mayor of Paris, Jacques Chirac, and Jérôme Monod who was the CEO of *Lyonnaise des Eaux* from 1980 to 2000: he was, in fact, before serving as CEO, his chief of staff from 1975 to 1976 when Chirac was Prime Minister, and then he was the secretary general of the RPR party founded by Chirac from 1976 to 1978. Several authors underline the existence of a personal relationship between these two public figures (Barrqué 2012; Stefanovitch 2005), which has grown in a wider context of the financing of presidential campaigns by private operators who participate in the provision of various public services (Laimé 2014; Hall and Lobina 2001; Bauby 2009; Brochet 2017). An activist at national scale for public management of water services told us that in France there has always been a tacit agreement between the two giants of water for the equal sharing of large cities, in order to avoid competitive tenders.⁵⁷ In addition to the political reasons, the choice of delegation was linked to the need to renew the production

⁵⁶ *Contretemps* March 19, 2011 <https://www.contretemps.eu/leau-comme-bien-commun-un-retour-sur-l'experience-parisienne-de-remunicipalisation/>

⁵⁷ Interview with an activist at national scale for public management of water services.

plants within a budget deficit framework (*Inspection générale de la Ville de Paris* 2003 in Bauby and Similie 2013: 11), in particular the pipes, the drinking water treatment and containment plants had significant water losses, due to the lack of past maintenance (Sinaï 2013). In 1985, the two distributors created an economic interest company called *Groupement d'intérêt économique* to manage the relationship with private users (declarations, billing, collection, control, correspondence with subscribers), through which CGE undertook to share users' data with Suez, which has always been managed by this company.

In February 1987, drinking water production and transportation service previously managed by a municipal public body were delegated with a 25-year concession contract to a semi-public company created for this purpose on January 26, 1987. This was a *société d'économie mixte-SEM*: this is a public-private partnership-PPP, a private-law enterprise, the majority of whose capital is held by a public person and at least by a private person: 70% of shares of the *Société Anonyme de Gestion des Eaux de Paris-SAGEP* (which would later become *Eau de Paris*) was owned by the city of Paris, 14% by each of the private distributors, and the remaining 2% from the *Caisse des Dépôts et Consignations* and other institutions. SAGEP was responsible for production and transport of water, for renewal of the water extraction infrastructures and the aqueducts, as well as the control over the work of the private partners. With the privatization and technical automation of extraction, transport and distribution functions of the water service, there was a decrease in the personnel employed in the sector (about 820 jobs lost)⁵⁸, as it happened in all European countries following the waves of privatization of the water service (Broughton and Manzoni 2017). Furthermore, over time, another effect of privatization has been the gradual decline in public control capacity over the water cycle. An appendix to the contract (II - Relations between managers and the municipal technical service for operations) defined the general obligations of the three delegates, as well as those of the municipality, without setting precise performance objectives and without specifying any penalties in case of lack of return set goals. The only parameter reference set in the contract established that the city would guarantee the supply of all drinking water, provided that the effective yield of the distribution networks did not drop by more than eight points compared to that observed in 1984 (Bauby and Similie 2013). In addition to this lack of regulation, several doubts have been expressed about the role of SAGEP as controller, given the obvious conflict of interest (Pigeon 2012; Lorrain 2016): if the monitoring agency is also a direct economic partner of the operators to be controlled, SAGEP's interest in not disclosing any

⁵⁸ *Contretemps* March 19, 2011 <https://www.contretemps.eu/leau-comme-bien-commun-un-retour-sur-l'experience-parisienne-de-remunicipalisation/>

irregularities is evident.

In France, unlike the Anglo-Saxon countries, the theory of agency and its possibly negative implications were not yet widespread into the epistemic communities and policy targets (Lorrain 2016). Thus, the service management and control system was particularly weak at the end of the 1980s. Only in 1995, a national decree established the obligation to draw up an annual report on the contractual objectives achieved by the operators. The municipality had the responsibility, according to the contract, to organize the service and monitor its performance by requesting information to the three delegated operators. These functions were performed through the Department of Cleaning and the Environment (DPE), established in 1987 within the town hall with organisational responsibilities, and by the Paris Research and Control Centre for Water (CRECEP), a public laboratory that carried out quality analyses of water on behalf of the Ministry of Health. Moreover, SAGEP was run by senior civil servants with managerial and political skills; as a matter of fact, the board of directors consisted of ten members, including seven representatives from the Paris Council. Moreover, its employees came from the town hall, as they were considered able to represent public interests. This organizational structure was deemed sufficient to guarantee the control functions on the service, therefore a formal debate on monitoring procedures did not take place in the French political circles until the middle 90's (Levy-Leboyer and Casanova 1991; Kuisel et al. 1984), when the national corruption problem stream started.

Little by little, the City lost its knowledge and its competence in understanding the functioning of the service, necessary to carry out its role as organizing and controlling authority, coherently with the agent's theory.

In 1995, Jacques Chirac was replaced by his vice-mayor Jean Tiberi. Although the city government was still in the hands of the Chirac party, the political mood towards the delegated water management had changed, after the corruption scandals and the opening of various lines of judicial investigation to trace illicit funding to politics by private water operators (Stefanovitch 2005). In the flow of this national mood, law n° 92-125 of February 6, 1992 relating to the territorial administration of the Republic established the obligation for municipalities with more than 3,500 inhabitants to set up a "consultative commission responsible for one or more local public services managed under the control or within the framework of a delegated management agreement", which "must include among its members representatives of the associations of users of the service or services concerned" with controlling functions. In Paris, the *Commission Consultative des Services Publics Locaux*

(CCSPL) on water and sanitation was created by the City Council on September 22, 1998. It analysed the reports prepared by SAGEP and the water distributors before they were made available to the general public, on which the Commission was able to formulate an opinion. Finally, every year the commission had to present a report to the City Council. Moreover, on May 20, 2000 the mayor launched an internal investigation into the role of the two water distributors in the capital, the results of which were published in 2001 after the election of the new socialist mayor. Corruption scandals had produced cognitive self-undermining policy feedbacks, aggravating the lack of legitimacy that the delegated management model historically suffered due to a chronic lack of public debate on this policy choice (Lorrain 2016). As a matter of fact, water management has always been an administrative issue rather than a social or political one. For this reason, the battles for public management have never been supported by large social movements⁵⁹. In addition to this, the first indicator of an urgent problem in the delegated management of drinking water in Paris originated from the observation letter sent on September 7, 2000 to the mayor by the president of the *Chambre régionale des comptes*⁶⁰ about financial management in 1995-1997. First of all, the letter highlights the difficulty in tracking all the financial transactions of the two delegated companies. According to the President of the Regional Chamber of Auditors, the financial reports of the *Compagnie des Eaux de Paris* and *Société Eau et Force Parisienne des Eaux* did not allow verification of the adequacy between the organizational instructions of the municipality, the interpretation of these instructions by the companies and the work actually done by them. Furthermore, the traceability of the financial circuits of the branches and parent companies resulted impossible. This was the first self-undermining policy feedback from a national independent authority. Thus, in 2001 an audit was organized by the municipality with the CEP company council on the financial year 1999-2000. This underlined that the *Compagnie des Eaux de Paris* accounted for over 55% of the net profits of the central company CGE, representing one of the main sources of liquidity for the Vivendi group (Bauby and Similie 2013).

In this context, in 2000-2001, water became one of the topics of the municipal election campaign. In the October 2000 debates of the Paris Council, the candidate for mayor Bertrand Delanoë – then president of the Socialist Group of the City Council – began to speak publicly about the need to renegotiate the delegation contract with the three operators and to reacquire public control on the urban water cycle (Le Strat 2010).

⁵⁹ Interview with expert on water services of Île-de-France.

⁶⁰ <http://cace.fr/jurisprudence/ccomptes/chambre/crc07092000.html>

Episodes illustrated above are the contextual circumstances in which the remunicipalisation process of the drinking water distribution services began in Paris. The essential moments of the remunicipalisation reform have been summarized in table 6, shown below, to make the Parisian policy cycle easier to understand for the reader. Subsequently, the events considered as necessary for the development of the current water regime are exposed and analysed through the conceptual tools provided by our theoretical frameworks, in order to provide a minimally sufficient explanation of the outcomes of the whole policy change.

Agenda setting 2001-2005
<ul style="list-style-type: none"> • First election of Bertrand Delanoë. • Appointment of Anne le Strat as Chief Executive Officer of SAGEP. • Publication of the <i>Rapport de l'Inspection générale de la Ville de Paris</i> (2001) on the municipality's insufficient control over its water cycle. • Publication of the <i>Rapport de Service Public 2000, Gestion du service commercial des eaux de Paris</i> (2002) on the unjustified increase in the price of drinking water. • Publication of the report by the <i>Cour de Comptes</i> (2003) on the technical and organizational inefficiencies of the water system. • Organization of the second European Social Forum in the Parisian area. • Renegotiation of the delegation contract with the three operators (2003). • Actions to improve the quality of infrastructures by private operators (2003-2009). • Decision of the municipality to terminate the contract with SAGEP and to dismantle it (2005).
Policy formulation 2005-2007
<ul style="list-style-type: none"> • Promotion of studies and consultations to evaluate the various future scenarios for water management (2005). • Publication of the report by <i>UFC-Que Choisir</i> about water price overload in large cities by private operators (2006). • Transfer of all SAGEP shares to the municipal <i>regié Eau de Paris</i> (2007). • Announcement by the mayor of the decision not to renew the delegation contract to water multinationals and to publicly manage urban water services through a <i>Régie à Personnalité Morale et à Autonomie Financière</i>.
Legitimation 2007-2009
<ul style="list-style-type: none"> • Municipal election campaign around two themes: water management as a common good and the Parisian ecological transition. • Prefiguration of a service improvement to legitimize the management of water services by means of a single public operator: increase in the organizational and economic efficiency of the service, in transparency, in social equity in accessing the resource, in participation of users in the management of water resources and infrastructures, lower prices and in environmental protection. • Absence of popular mobilizations for/against public water management. • Re-election of the mayor Delanoë (2009).
Implementation 2009-2010

- Appointment of Anne Le Strat as deputy mayor (2009).
- Creation of a task force, led by Anne Le Strat, to manage the policy change.
- Creation of the *Régie à Personnalité Morale et à Autonomie Financière* and delegation to it of the responsibility to manage the entire water cycle of Paris (excluding sewers) (2009).
- Overcoming the major obstacles to the direct management of the water service by means of the *regié Eau de Paris*: 1) implementation of new financial instruments; 2) transfer of counters, user data and software from CED and EFPE; 3) moving of workers and activities from CRECEP, CED, EFPE and SAGEP to EdP; 4) overcoming opposition within municipal public administration.
- Start of the management of the drinking water distribution cycle by EdP since January 1, 2010.

Table 6: Chronological summary of the Paris cycle policy (handled by the author)

5.4. *Agenda setting*

In 2001 a left-wing coalition of socialists, communists, ecologists and various other minor forces won the municipal elections and Bertrand Delanoë became the new mayor. The first socialist mayor of Paris of the contemporary era.

At that time, negative feedbacks about the delegated management of the urban water service were few, but the political mood about this issue was changing. The Parisian drinking water service was fragmented, effectively managed by four different actors: *Compagnie des Eaux de Paris* and *Société Eau et Force Parisienne des Eaux* for distribution and commercial service, SAGEP for the construction and renewal of infrastructures and CRECEP for quality control. SAGEP was, at that time, involved in the construction and expansion works of the aqueducts in the *Zone d'Aménagement Concerté-ZAC*, which are areas interested by urban regeneration projects; CEP and EFPE were instead involved in the expansion works of the networks outside the ZAC areas. One of the very first action of the new city government in the water sector was to appoint Anne Le Strat, from the green party, as CEO of SAGEP. Anne Le Strat was a key figure in the process of remunicipalisation of the Parisian water regime. PhD with a thesis in geopolitics on the role of water resources in the Israeli-Palestinian conflict, in 2001 she was chosen by Delanoë government to face the controversial situation of the urban water service, recognizing her as Chief Executive of SAGEP on behalf of the municipality. In 2005 SAGEP became *Eau de Paris*, in whose Board of Directors (BoD) she remained until 2014 as “she showed strong political will in carrying out the reform”⁶¹. She assumed the role of problem broker in the stage of the agenda setting and the roles of policy entrepreneur and program champion in the later stages of the political process. She was the main promoter of the

⁶¹ Interview with academic expert on French and European Public action and public services.

remunicipalisation project⁶², despite the little support received from her own party⁶³. Evidently, she was more appreciated by the national and European epistemic community/instrument constituency for seeing the problem in private water management and the solution in remunicipalisation, rather than by the leaders of her party. This is demonstrated by her participation in publications of the groups that apply a prefigurative logic to the study of remunicipalisation reforms (Le Strat 2008) and in European projects that support the return to public management. An example among all, she assumed the role of political entrepreneur on EU scale, becoming in 2009 co-founder and president of Aqua Publica Europea⁶⁴, a European federation of public water operators that represents and promotes public water management in the EU. “The initiators of the network wanted the public water management, based on public service values to be defended at European level. The network brings together Italian, Belgian, French and Swiss operators. Spanish and German operators are currently in the process of joining. The idea is to raise the voice of European public operators, as well as share experiences and mutualise certain actions.” (Le Strat 2010: 122-123). The European Commission has invited Aqua Publica Europea to present projects in the field of water management innovation. From 2010, it is therefore possible to design public-public partnerships supported by European funding. Moreover, Anne Le Strat is a promoter of *France Eau Public*⁶⁵, a French association that brings together communities and public operators that manage water services, which in turn belong to the *Fédération Nationale des Collectivité Concédantes et Régies*⁶⁶, an association of regional authorities created in 1934 and specialized in local public services for the distribution of electricity, gas, water, sanitation, electronic communications, garbage collection and treatment. *France Eau Publique* network has been founded in July 2012 by thirteen local authorities and public operators, including: *Besançon*, the union for water and sanitation of the Haute-Garonne, the *Régie des eaux de Grenoble*, the Union of the equipment of the municipalities of the Landes (SYDEC 40), *Roannaise de l'eau*, *Haganis (Régie de Metz-Métropole)*, *Noréade (Régie du SIDEN-SIAN* in the departments of the Nord, Pas-de-Calais, Aisne and Somme), the urban community of Strasbourg, the union of waters and sanitation of Alsace-Moselle (SDEA), the agglomeration community of Annecy, *Eau de Paris*, Vienne Water Syndicate (SIVEER) and the urban

⁶² Interview with an activist at national scale for public management of water services.

⁶³ *Le Journal du Dimanche* December 9, 2017 <https://www.lejdd.fr/Politique/Le-Strat-Les-Verts-un-parti-coupeur-de-tetes-99707-3093254>

⁶⁴ <https://www.aquapublica.eu/>

⁶⁵ <http://france-eaupublique.fr/>

⁶⁶ <http://www.fnccr.asso.fr/>

community *Lacs de l' Essonne*. The values on which this association was built are proximity, transparency, general interest, economy, sustainability. Its members share the idea that water has to be managed as a common good: "Water is a common good, access to water for all constitutes an inalienable human right and the necessary performance of its management must be placed in the exclusive service of general interest. Consequently, the members of the network state that the management of this public and vital good cannot be subject to private interests and believe that only the public management of water resources will guarantee a sustainable management and united public service, its heritage and resources" (Le Strat in Sinäi 2013: 135). Anne Le Strat has always been a militant activist engaged against privatization of water services and in favour of the return to public management, becoming the symbol of the remunicipalisation of water at European level in the period of the two Delanoë mandates; in fact, she supported the cause of remunicipalisation in many cities, such as Naples and Berlin, and within European institutions⁶⁷.

When the newly elected team started looking for information on the performance of the three delegated operators, it found a low level of transparency both on their financial operations and on their management choices, and a lack of control by municipality (Le Strat 2010). According to Ann Le Strat, the municipality Delanoë found in the water and sanitation municipal offices only an engineer and a secretary to monitor and control the entire water cycle (Bauby and Similie 2013). The problem stream originated before the 2001 elections was worsened by new indicators and by a growing visibility of the parties of the French left, especially the green ones that were more critical of the socialist forces towards delegated management (Pigeon 2012). The indicators that powered the problem stream came from the epistemic communities made by technicians or politicians who worked in various public bodies, which conducted official investigations on the delegated management of urban water services between 1984 and 2009. Three reports, drawn up by different public bodies, were the origin of the fiscal and negative feedbacks that arrived in the first three years of Delanoë's mandate:

- The *Rapport de l'Inspection générale de la Ville de Paris*, which was commissioned by mayor Tiberi and published in 2001 (Stefanovitch 2005) shed light on the municipality's insufficient control over its water cycle. The report emphasized the absence of any information on water distribution services and consequently the difficulty of identifying and verifying the work done by operators to improve the infrastructural system. In addition to

⁶⁷ *Observatoire des Multinationales* April 9, 2015 <https://multinationales.org/Anne-Le-Strat-La-remunicipalisation-a-permis-a-Paris-de-mener-une-politique-de>

the lack of transparency of the operational choices of the two private giants, the report also denounced the low accountability of SAGEP. Although this PPP was 70% owned by the municipality and its Board of Directors was chaired by ten members, including seven representatives of the Paris Council, the operational decisions were mostly delegated to private partners, effectively cancelling the public control over the company (Sinaï 2013). Conflict of interest was more and more evident. The information provided by this report have been confirmed by another study published in 2000 by the *Chambre Régionale des Comptes d'Île-de-France*, the Report on the Management of the Protection and the Distribution of Drinking and Non-Drinking Water (Le Strat 2008).

- In November 2002, the municipality published the *Rapport de Service Public 2000, Gestion du service commercial des eaux de Paris*, the result of an analysis audit on the commercial water service realised by the Cabinet Service Public 2000 (Sinaï 2013). It concluded that the price of Parisian water service was not justified by the service costs presented by GEP and EFPE: while the Suez group declared € 106 of the service cost for € 75 of management costs, the Veolia group declared € 116 of the service cost for € 87 of management costs. The team responsible for conducting the audit stated, at the end of the investigation, that the economically justified cost is 25-30% lower than the price presented by the delegates. Moreover, this report demonstrated that both companies made a higher profit by overestimating annual costs of pipes maintenance by a third party (Stefanovitch 2005).
- a report published in December 2003 by the *Cour de Comptes* on the management of water and sewerage services in France⁶⁸ had a particularly strong echo in French public opinion, given the national importance of the body that published it (Lorrain 2016). It addressed issues such as the drop in production linked to the decrease in consumption and the need to decrease network losses and increase the transparency of information towards the municipality. Regarding clear water losses, the *Cour* revealed a double damage caused to the city: firstly, the operators had not completely used the funds received for the renovation works of the water networks aimed to reduce losses. Furthermore, the lost drinking water was not dispersed in the environment, but it ended up in the sewers, increasing the water volume of the water to be purified through the treatment plants. About water prices, the report shed light on the unjustified increase in the cost of water services. Although in Parisian bills the price of sanitation services had increased much more than the drinking water one (Barraque 2012), there is no doubt that in the first decade of the distribution

⁶⁸ <https://www.ccomptes.fr/sites/default/files/EzPublish/SyntheseServicesPubEau.pdf>

delegation, the price of drinking water had almost doubled, from 2.50 F to 4.65 F per m³. Between 2004 and 2011 the price of drinking water increased on average by 4.78% per year, while the consumer price index increased by only 1.79% per year. In 8 years, the price of water in Paris has steadily increased 2.66 times faster than the average prices (Bauby and Similie 2013). Investments made by delegates in infrastructure do not justify these increases, because the most important modernization and replacement works of plants completed in the 25 years of delegated management (renewal of the plants of the Ivry-sur-Seine between 1988 to 1993, of Joinville-le-Pont from 1993 to 1998 and of the Orly plant in 1992; renewal of the control centre, of the aqueducts and installation of a pipe monitoring system; modernization of the three stations pumping underground water; investment of 150 million in 2002 for the construction of four underground wastewater treatment plants) were achieved by SAGEP with the use of public funds, whereas private operators provided only the 20% of necessary investments (Le Strat 2013). The price increase applied by the private operators was directly computed according to a particularly rewarding price indexation formula, which provided for compensation in case of lower revenues linked to lower water consumption. Finally, such a report highlighted the serious conflict of interest within SAGEP, where the supervisory and controller functions overlapped, making the control actions on private operators unreliable.

In 2003 the CCSPL created by Tiberi was abolished and recreated based on the 2002 law on local democracy. The CCSPL is chaired by the mayor, by the president of the deliberative body or by their representative, and it includes members of the deliberative assembly or of the deliberative body, appointed according to the principle of proportional representation, and representatives of local associations, appointed by the assembly.

In the same period, in November 2003, the second European Social Forum took place in the municipality of Saint Denis, a symbol-area of Parisian social disparities and contradictions created by the process of urban integration of populations migrated from ex-colonies. First news of this Forum was the participation of an official delegation from the PS, together with other parties of the historical French left such as the *Ligue communiste révolutionnaire* or the Unit Labour Party, as well as many trade union organizations. From an analysis of the media press of those days⁶⁹, the presence of politicians from French institutional left represented an occasion to obscure the political issues addressed with punctuality and attention in the seminar sessions of the Forum. As already done in the occasion of the Florence Forum in

⁶⁹ For an exhaustive overview of the newspaper articles on the Parisian Social Forum see <https://www.acrimed.org/-2003-Le-Forum-Social-Europeen-de-Paris-Saint-Denis->

2001, main mass media paid more attention to the unjustified alarmism of acts of urban devastation in Paris, and gave more space to the controversies related to the participation of controversial public figures than to political contents. Media attacks against organizations such as ATTAC and Greenpeace were not lacking, as were attacks on environmental personalities such as José Bové. Such a media climate disclosed the high degree of political annoyance expressed by the political parties of the government majority, engaged in the implementation of the neo-liberal policies of the EU, in front of the political critics of epistemic communities that animated the alter-mondialist Forum (Bakker 2007). Moreover, the participation of official delegations of the French Socialist Party also marked a political turning point. In this way, PS expressed its desire to become part of French epistemic communities that gave birth to the Social Forums, which saw the participation of many associations, committees, unions and ecological parties opposed to the privatization of public services. Environment associations also grouped within the largest French federation of associations for the protection of nature and the environment, *France Nature Environnement*, which is the representative of 3,500 associations grouped in 57 territorial circles, at the forefront of the study of sustainable solutions for the management of water resources⁷⁰. The link between the ecological soul of the Forum and the French green political parties is represented by the figure of José Bové, French activist, trade unionist and politician, exponent of the non-global movement and spokesman for *Via Campesina*, the largest international movement of solidarity peasant communities. Bové was elected European Parliamentary Member in the Europe Écologie list in 2014, in which all environmental parties merged in 2009. Epistemic communities born and matured in the Social Forum venues were the origin of the problem stream, as they negatively interpreted all forms of marketization of urban services and natural resources, as well as they assumed the role of instrument constituencies that supported the remunicipalisation politics. Within the public declarations of Anne Le Strat (see above all Le Strat 2010), the coincidence of her interpretation of the Parisian urban water management problem with the alter-globalist issues spread in the Social Forums is clear: such interpretation links the problems of the management of water resources of Latin American, Indian, Africans, or U.S.A cities with privatization and marketization waves of local public services occurred at global scale, to which they couple the policy solution of services republication at urban or national scale. In Paris, as well as in the Île-de-France region, there have never been massive self-organized movements to demand the remunicipalisation of

⁷⁰ Look for example at the seminar organized in 2001 <https://www.fne.asso.fr/communiqués/france-nature-environnement-organise-un-colloque-sur-loi-sur-leau-2001-quels-enjeux-pour>

water management. “The battle for the remunicipalisation of Paris's water services began in the late 1990s. The protagonists of these battles were human rights, environmental and consumer rights associations, as well as leftist and ecological parties. The mobilizations were not massive, as in Italy, but the civil front for remunicipalisation has been fighting for many years.”⁷¹ This battle has always been confined to the epistemic communities that grew up in the venues of the alter-mondialist movement: “(In France) there has always been an argument about public water management. This question has been addressed in circles of connoisseurs and associations (the FNE was created in 1973 from an already existing associative fund). It is a whole group of user movements, environmental associations, politicians, etc. who have gradually become aware of the opacity of private management and the enormous profits.”⁷² Therefore, the remunicipalisation reform of the Paris drinking water service was developed within these communities and then adopted by the municipal government, thanks to the action of entrepreneurs and brokers policy. “The remunicipalisation was carried out by the small “water community”, which in Paris has always dealt with this”⁷³ and “The context (of Parisian remunicipalisation) was above all that of the major mobilizations against the renewal of the *Syndicat des eaux d’Île-de-France* (SEDIF) contract with Veolia (2004-2010), which managed the water around Paris in the same period, since SEDIF was privatized in 1923 and since then has delegated the service to Veolia. In 2010 the contract expired. For leftist movements and consumer associations, the two deadlines were part of the same struggle: against the renewal of SEDIF to Veolia, for the return to public management in Paris and with strong media coverage, since it was precisely the period in which the alter-globalization movement (ATTAC France) had put the question of water on the political agenda (2000-2010).”⁷⁴

To respond to the problems of lack of orientation and control capacity by the municipality, the administration launched a policy solution stream led by the responsible for water, the socialist Myriam Constantin. These policies, contained in a wider environmental program (Valdovinos 2012), provided for the recruitment of new municipal staff to be included in the DPE; the transformation in 2003 of CRECEP into an autonomous body with legal personality, so that it could participate in tenders for water analysis and quality services; and the provision of a note of an annual budget dedicated to water within the municipal budget. In the French legislation, in fact, the municipalities whose services are subject to a service delegation

⁷¹ Interview with an activist at national scale for public management of water services.

⁷² Interview with an expert on water services of Île-de-France.

⁷³ Interview with academic expert on French and European Public action and public services.

⁷⁴ Interview with an expert on water services of Île-de-France.

contract towards public or private operators do not have the obligation to calculate the budget of the service separately from the whole municipal budget. This means that the service budget is included in the municipality's annual budget, which in practice allows the municipal council to use the surplus cash from the water service for financing general budget operations.

In addition, the municipality began a negotiation phase with the three distribution delegates to review the contract. Such negotiations involved only a handful of city administrators and were kept secret from the public and from most of the elected officials until their conclusion in 2003. The municipal report explaining the details of the final agreement was also published mostly censored. In 2013 Anne Le Strat publically wrote “the City estimated the provision for works that the private operators should have normally used for asset renewal according to the terms of their contracts and obtained a commitment from them to undertake works on the network worth up to 153 million Euros” (Le Strat 2013: 3). However, although operators were assigned many tasks, 80% of the investments in the operators' shares had to be financed by interest-free public loans, which represented a great deal for them (Pigeon 2012). In the opinion of Martin Pigeon (2012), this level of secrecy and convenience for private managers was linked to several factors: the Socialists had voted for the contractual renewal of 1997 with CEP and DPE, which guaranteed operators a fixed profit rate to compensate for the decrease in volumes sold; furthermore, a contract clause allowed Veolia and Suez to wait between 6 and 10 months before transferring the money collected to SAGEP, thus generating substantial extra profits in the interest accrued during that period. In a nutshell, the extra profits generated by the two companies were perfectly in line with the details of the delegation contracts, representing an embarrassment for the new mayor. In addition, the vice-mayor at the time, the socialist Anne Hidalgo, had worked for Veolia between 1995 and 1997; this data highlighted the possible channels of influence of the two water giants on the municipality during the negotiations, representing a further source of embarrassment for the mayor.

The main results of the negotiations were: the abolition of the SAGEP control mandate on distributors, the transfer of this responsibility to the municipal administration and the strengthening of control and monitoring procedures by the municipality; the obligation for distributors to develop and install remote meter reading devices, while maintaining bare ownership of this system (however, the duality of the system developed by the delegates will lead the new operator to create their own system after refitting); the obligation to renew or repair more than 1,100 km of pipes, valves and public devices by 2009 and to replace all lead

connections with plastic connections; the indexation of the basic tariff for drinking water; the compilation of trimestral and annual reports to be sent to the municipality; the payment by CEP and DPE of the employment and access to the sewerage taxes previously paid by SAGEP; the suppression of the GIE and the direct assumption of user relations by the operators; the payment, since 2003, of € 150,000 per year by distributors to the Solidarity Fund for housing, aimed at compensating the non-payment of water bills by families in economic difficulty. Finally, the Paris Council decided in December 2003 to transfer the monitoring of the private water suppliers from SAGEP to the City administration.

All technical actions subscribed by the two private operators were carried out by 2009. From 2003 to 2009, the two distributors invested an average of 11 million per year on the modernization of the networks (Sinai 2013). The objective with the most symbolic value fulfilled by the operators was the replacement of about 22,000 lead pipes (which were illegal in EU since 1993). The efficiency of the distribution system increased from 76% in 1985 to 96.5% in 2009, making Paris one of the most efficient cities in the world (BIPE 2009). To achieve this, the distributors installed an info-system of sensors to track the technical functioning of the 2,000 km of existing pipes, thus providing information on the condition of each sector of the network (Curien 2005). This corresponded to approximately 617 million cubic meters of water saved per year, the equivalent of three-year city consumption. The high levels of service efficiency achieved through the contract's renegotiation have publicly shown that the municipality was regaining the capacity, lost over the years, to directly control the entire water cycle, guaranteeing its efficiency and quality. However, a great deal of opacity persisted on the asset management of the two companies. It was evident that the control mission entrusted to SAGEP had failed. Under the profile of transparency, although the Sapin and Barnier laws of 1993 and 1995 had already forced local public service operators to publish an annual report on quality and economy of delegated services, only a municipal decree of 2005 (decree no. 2005-236 of March 14) specified the accounting data, methods and elements of economic calculation to be used for this report. In particular, it required the annual profit and loss account of the service, a report on the monitoring of the contractual investment program, an inventory of the goods purchased, and it defined the indicators of service quality and user satisfaction to be achieved. In the same year, the *Mairie de Paris* decided for the final closure of the contract with SAGEP and the dismantling of the PPP, creating a participatory group aimed at defining the steps of this path (Bauby and Similie 2013).

5.5. Policy formulation

Based on collected data, the policy formulation stage started with the official decision to avoid the renovation of delegation contract with SAGEP, and the consequent phase of exploration of future possible scenarios. Anne Le Strat stated that the decision to dismantle SAGEP was taken by the City Council to end the conflict of interest on which this SEM had been built and to increase the municipality's control over the actions of private operators (Le Strat 2013).

After the decision about SAGEP, the City Council promoted several studies and inner consultations to evaluate the various forms of a new management of the water service, involving different epistemic communities of expert and politically independent technicians in the construction of the policy solution stream. "In order to identify the best possible water services for Paris, legal, economic and technical studies were carried out, and all the personnel working for *Eau de Paris* were consulted on the organisational side of the service (technical, management of both personnel and wealth, etc.) (Le Strat 2010: 119). Official studies launched in 2006 have been conducted by independent institutes to determine the future organization of the service. Among these, researches that are worth mentioning are the start of a research program with a partnership with the BIPE statistical research institute and the federation of professional water companies FP2E, which every year publishes reports on the situation in different countries⁷⁵; two studies conducted in collaboration with the Adamas lawyers consortium⁷⁶ and the Safran legal support association⁷⁷ on contractual situation of the municipality and the possible organizational methods of future service management. In addition, the municipality asked for assistance and support in choosing the future management method (Bauby and Similie 2013).

In the same year, the oldest consumer association in Western Europe, *UFC-Que Choisir*, created in 1951 with a non-profit form "at the service of consumers to inform, advise and defend them"⁷⁸, began an information campaign on the unjustly high price of water in Paris and Île-de-France. On January 31, 2006, the association published the results of a survey on the price of water in France, denouncing a scandalous price overload in large cities by private operators (UFC-Que Choisir 2006). This is the first of a long series of reports and articles aimed at publicly asking an explanation for the increase in water tariffs to the water giants or

⁷⁵ https://slidelegend.com/public-water-supply-and-sanitation-services-in-france-fp2e_59c2e1171723dd10428c7308.html

⁷⁶ <https://www.adamas-lawfirm.com/fr/bureaux/avocats-paris.2>

⁷⁷ <https://www.ge-safran.fr/>

⁷⁸ <https://www.quechoisir.org/page-ufc-que-choisir-qui-somme-nous-n14333/>

to public bodies like SEFIF⁷⁹, who punctually avoid public confrontation. In addition, this association has actively engaged in building virtuous relationships with elected local and national politicians and other associations for collaborating in the construction of policy solutions at all government scales⁸⁰. Certainly, similar communication campaigns have strengthened the French problem stream relating to private water management, which led to a loss of legitimacy of the delegated form of management in the public opinion and left wing parties (Le Start 2010) – to which a noticeable decrease in delegation contracts did not correspond, as we have seen.

In the meantime, at the end of 2005 the City Council had already planned to prematurely terminate the contract with SAGEP (expiring in 2011). To define the future of the SEM, its managers opened a consultation called *Eau de Paris Demain* attended by spokespersons of management, supervisors, technicians and employees. Coordinated by Hélène Combe, director of the municipality's public decision observatory, this group participated in a series of seminars with employees of the water and financial departments of the City of Paris. Finally, hundreds of individual interviews with SAGEP employees were conducted to ask their opinion on the future of the company. The consultation showed a willingness of the employees towards an economic choice focused not on profit but on the financial balance sheet, the request to manage the infrastructural heritage with a long-term vision, an increase in public information on the water cycle, quality and water price, on technical or financial developments and the aspiration to have only one manager for the whole city service. During 2006, therefore, the city council set up the path to achieve the transition towards a management of the entire water cycle by a single public operator, despite the municipal technical-administrative community and SAGEP employees were very sceptical (Sinai 2013; Bauby and Similie 2014).

The remunicipalisation process of SAGEP was very complex. In March 2007, Veolia and Suez declared the sale of their shares to the national investment bank *Caisse des Dépôts et Consignations* (CDC), which repurchased 28% of the shares of SAGEP for the advantageous price of € 300/share, previously acquired in 1987 for € 15/share. A very low price, according to an expert on water services of Île-de-France⁸¹. At this point all the company's shares were

⁷⁹ See for example <https://www.quechoisir.org/action-ufc-que-choisir-prix-de-l-eau-les-mauvais-comptes-du-syndicat-d-ile-de-france-n13673/> ; <https://www.quechoisir.org/action-ufc-que-choisir-la-surfacturation-de-l-eau-dans-les-villes-francaises-veolia-et-suez-evitent-le-debat-n13255/>

⁸⁰ See for example <https://www.quechoisir.org/action-ufc-que-choisir-projet-de-loi-sur-l-eau-double-zero-pointe-n13535/> ; <https://www.quechoisir.org/action-ufc-que-choisir-le-cercle-vicieux-de-la-loi-sur-l-eau-plus-de-pollution-plus-de-redevance-n11875/>

⁸¹ Interview with an expert on water services of Île-de-France.

publicly owned. The City Council and CDC then transferred all the actions to *Eau de Paris*, a *regié* created for this purpose. SAGEP was then integrated into the *regié* through a corporate merger, and a dissolution process without liquidation of the company was started, opening a procedure for the transmission of all SAGEP's properties, activities, contracts and conventions to *Eau de Paris*. Creditors were given a month of opposition to ask for any compensation. SAGEP continued to exist with a few members of the administrative staff until May 21, 2010, when it was completely dissolved, but since May 1, 2009, all the staff and duties of the company had moved to *Eau de Paris*. CDC would occupy two seats on the board of directors of the new *Eau de Paris*, however agreeing not to receive dividends from the profits of the *regié*. According to Myriam Constantin's opinion (cited in Adler 2007) this operation concludes the decision process of the left political majority of Paris to re-gain control of the management of water in the capital city. This interpretation is confirmed by the transcripts of the Municipal Council in March 2007, in which the municipality chose to change the management of the public service to counterbalance the skills of private companies in research, technical and legal skills (Bauby and Similie 2013) and by the report that reconstructed the remunicipalisation process published in 2013 by the *Maire de Paris* (Sinaï 2013).

On 5 November 2007, the mayor of Paris announced in a press release that he would not renew the public service delegations granted on 1 January 1985 to private distributors. It also announced that it would entrust responsibility for the entire water cycle, from production to distribution, to a single public operator, and that this operator would take the legal form of *Régie à Personnalité Morale et à Autonomie Financière* (RPMAF). This announcement came after the positive opinion of CCSPL on the remunicipalisation reform of the public water service in Paris, and the umpteenth publication, on 29 October 2007, of a UFC-*Que Choisir* survey on excessive water prices in the French metropolises. The survey also denounced that Paris' water prices had not decreased despite this being one of Veolia and Suez's commitments in the contract renegotiation phase of 2001-2003. As stated by the green delegate Denis Baupin⁸² and Anne Le Strat⁸³, Greens and PCF were the first to propose the solution of the remunicipalisation of *Eau de Paris*, and they conducted a strong campaign to implement this policy within the City Council, while not all the councillors of the PS were initially convinced about the reform. Subsequently, after a common analysis path, the whole municipal majority supported the reform unanimously during the City Council of November

⁸² *Le Monde* November 5, 2007 https://www.lemonde.fr/politique/article/2007/11/06/m-delanoe-veut-confier-la-gestion-de-l-eau-a-un-operateur-public-unique_975090_823448.html

⁸³ *Contretemps* Mars 19, 2011 <https://www.contretemps.eu/leau-comme-bien-commun-un-retour-sur-l-experience-parisienne-de-remunicipalisation/>

24 and 25, with also the consensus of the advisory board Free Paris, with the declared purpose of blocking the unjustified increase in water bills. It is noteworthy to underline that the mayor had never made public statements by negatively judging the efficiency and quality of the water service of his city (Lorrain 2016); however the election campaign for his re-election was based on the theme of providing a new rigorous, transparent and efficient service (Mairie de Paris 2012). Neither the Socialist Party nor Delanoë himself had ever openly criticized the delegated management model, also because many cities governed by this party had delegation contracts. Only the Greens and the PCF had public positions in favour of the remunicipalisation of water, as this is considered by them as a common good to be managed through democratic government: “The remunicipalisation of water was decided on the basis of a strong political and ideological choice, one that is totally assumed as such: water is a common good, which implies an absolute need to control the resource and the services based on a vision and long-term project” (Le Strat 2010: 121). Evidently, the decision of the Parisian PS and the mayor to promote the remunicipalisation reform was based on both a technical-economic and political calculation, as well as on personal trust towards Anne Le Strat, as she herself stated⁸⁴.

5.6. Legitimation

The electoral campaign of the left coalition that supported the second Delanoë's candidacy – supported by the *union de la gauche* made up of PS PCF and *Mouvement républicain et citoyen*, and by the Greens, which presented a candidate of their own but announced that they would have supported Delanoë in a second round – revolved around 2 main themes, the water management as a common good and the Parisian ecological transition. As a common good, necessary for the survival of the community, reasserting public control in the water domain was necessary⁸⁵. “Water is an essential collective good that requires a sustainable and solidarity-based management under clearly accountable public control. But [the remunicipalisation of drinking water service] was also a pragmatic decision aimed at ending the failures and limitations of the previous system.” (Le Strat 2013: 2). The management of water services through a single public operator was linked, in public speeches, to an increase in the organizational and economic efficiency of the service, in transparency, in social equity in accessing the resource, in participation of users to the management of water resources and infrastructures, and in environmental protection. All these results would be reached by a

⁸⁴ *Observatoire des Multinationales* April 9, 2015 <https://multinationales.org/Anne-Le-Strat-La-remunicipalisation-a-permis-a-Paris-de-mener-une-politique-de>

⁸⁵ Anne Le Strat, personal communication March, 19 2009.

long-term planning, thus guaranteeing access to water resources for future generations (Delanoë 2007).

The organizational efficiency, to which both the issue of economic efficiency and transparency were connected, referred to the complex system of multiple operators that managed the Parisian service. The existence of 4 operators, who in turn contracted some tasks to minor operators, created an overlap of roles and responsibilities that made technical monitoring and operational traceability of the service difficult. To publicly explain this complexity, an image was often cited by Anne Le Strat: it was impossible to trace the path of a drop of water coming out of the tap of a citizen of the eighteenth arrondissement (the one in which Anne Le Strat had been elected), because it had changed manager at least 10 times from the source, passing through Veolia, Suez, SAGEP, which shared the functions of the water cycle⁸⁶. Problems in auditing and evaluating the service allowed an opaque management system to develop on various levels. The municipality did not have the ability to check whether the modernization works of plants announced by the operators had actually been carried out, as demonstrated by the story of the replacement of lead pipes or by incorrect statements about leaks and water consumption. As a matter of fact, delegated operators billed consumed volumes in a given year the year after, so this system allowed them to control to a certain extent the data they had to publish about water consumption and losses, optimizing the financial gain received as compensation for an improved network performance or for a drop in consumption. Furthermore, the subcontracting system realised by the operators has never allowed a public agency, despite various attempts, to estimate how much money was actually allocated to the water service and how much became instead dividends for the partners of Veolia and Suez. Public studies (Service Public 2000 2002; *Cour de Comptes* 2003) have shown that the profit for suppliers (after adjusting expenses and including financial incomes), amounted to at least € 22 million, also considering that between 1985 and 2001 the subsidiary of Veolia alone was able to pay dividends for € 56 million to its shareholders (15 times the initial value of their capital). However, by subcontracting tasks to other subsidiaries of the groups, without public tenders, profits were made even further down the production chain, which did not appear in CEP's and DPE's accounts. The transfer of managerial responsibilities to a single public operator would allow eliminating overlapping functions and activities, increasing service efficiency and financial transparency. This would have made it possible to monitor every drop of water from the catchment area right up to the tap. In addition, through the internalization

⁸⁶ *Contretemps* Mars 19, 2011 <https://www.contretemps.eu/leau-comme-bien-commun-un-retour-sur-l'experience-parisienne-de-remunicipalisation/>

of all operative functions (for example, CEP and DPE bought water from SAGEP), the development of an out-sourcing system based on public tenders in accordance to competition rules (only for jobs that new public operators could not carry out themselves, as installation of valves, pipes, waste water treatment, construction of new plants, and so on) and the decrease in taxes that the new *régie* would have to pay to the municipality – it would not be subject to the 'professional tax' (local tax on business turnover) paid by SAGEP for 25 years (Barraqué 2012) – the municipality would have saved from 35 to 40 million per year, allowing a decrease in the price of drinking water despite the progressive drop in water consumption. It was clear, however, that these objectives of operational efficiency, transparency and economic savings could also be achieved through the delegation of the entire water cycle to only one private operator, by means of the public tender mechanism. However, this solution was criticized by the election candidates due to the tendency of privates to make short-term profits, which collides with the goal of developing long-term strategy for environmental protection and social equity. The management by a public operator would assure that the profits produced by the new RPMAF were entirely reinvested in the service, with a long-term perspective based on the goals of lowering consumption even more – since water is a scarce resource to be preserved and not a good private to sell in larger quantities – and increasing the ecological efficiency of the supply system. The candidates also promised to lower the price of water, which would have been € 1/m³ until the end of the electoral mandate in 2015, and to activate specific policies to guarantee access to drinking water also to defaulting users and homeless people in the city (Le Strat 2010). The municipality would also fund pedagogic actions to improve citizens' consumption styles. In addition, the public management of water would enable the participation of users in the management of the service, in order to permit every citizen to be informed about all the important resolutions on water service, express an opinion prior to their study by the Council of Paris, and supplement the municipality in monitoring functions. Finally, another argument supporting the reform was the implementation of a new form of water governance, which involves all aspects related to the relationship between water and the city. Therefore, the goal was to involve all urban actors previously excluded from the water sector and to create new working relationships and collaborations between the corresponding city departments⁸⁷.

Popular reaction to this announcements was practically absent, a sign of the problem of private or public water management was in France a topic for "insiders" rather than a popular

⁸⁷ Interview with Henri Coing, representative for the UFC-*Que Choisir* association on the *Eau de Paris* board of directors since 2010 and president of OPE between 2013 and 2017 (Bauby and Simile 2014: 17).

one (Lorrain 2016; Bauby et al. 2018). Despite this, during the election campaign the theme of remunicipalisation was widely debated, with the right-wing candidate Françoise de Panafieu who challenged the outgoing mayor several times on the feasibility of this reform⁸⁸. In addition, municipal opposition accused the government of lack of transparency in the preparation of the remunicipalisation decision and in communicating the conduction of the studies ordered by the municipality to project the reform, therefore accusing the mayor for the absence of an *ex ante* evaluation with the City Council.

Spokesmen of the two water giants behaved, until the start of negotiations for closing the contract in 2009, as if remunicipalisation had been only a political proclamation to obtain votes, rather than a reform project aimed to solve managerial, financial and operative issues. Veolia project manager, Daniel Olivier, declared: "this reform is a political decision announced by Mr. Delanoë that we respect and it is not linked to any dissatisfaction concerning our provision of the service. The primary person responsible for contracts is the mayor [and] collectivities are free to choose their water [services] management model" (personal communication March, 17 2009 in Valdovinos 2012: 115). The same tone was maintained by Suez's spokesmen, who commented that the reform "is a commendable and acceptable political project" (personal communication on April, 16 2009, of Alexandre Brailowsky, Social Engineering at Suez Environnement, in Valdovinos 2012: 115).

Furthermore, as explained by Claude Danglot on the columns of the Communist area magazine *Contretemps*⁸⁹ or by an expert on water services of Île-de-France⁹⁰, there was no lack of criticism from both the leftist movements, environmental associations and PCF that supported the management of water as common good. They criticised the government's choice to create an EPIC with financial autonomy and legal personality independent from the municipality. The mayor candidate, in fact, immediately announced the decision to entrust the service to *Eau de Paris*, ex SAGEP, transforming it into a *Régie à Personnalité Morale et à Autonomie Financière* (Delanoë 2007), instead of managing it directly through the Department of Water and Cleaning-DPE through a *regie direct*, as it happened before 1984. As explained in the first chapter of this work (Wollmann 2018; Verhoest 2018), such typology of public companies spread over Europe during the NPM period by the phenomenon of corporatization; they are criticized by supporters of the remunicipalisation of LPS because,

⁸⁸ *Journal de l'environnement* November 13, 2007, <http://www.journaldelenvironnement.net/article/regie-ou-delegation-le-debat-continue,8560>

⁸⁹ *Contretemps* Mars 19, 2011 <https://www.contretemps.eu/leau-comme-bien-commun-un-retour-sur-l'experience-parisienne-de-remunicipalisation/>

⁹⁰ Interview with expert on water services of Île-de-France.

despite being publicly owned, their form requires management of water resources through the principles of economic rationality. Thus, this choice was criticized above all because it was seen as a form of delegation to an operator with budget balance obligations and with staff recruited through private contracts, without the guarantees of the public contracts. Since, in the past, both the high offices of the PS and Delanoë himself had publicly expressed appreciation for the management of local services through the delegation to PPP, there was the fear that the mayor candidate had announced the return to public management only to guarantee the votes of the far left and local associations, to then instead create a public operator that in turn would delegate its functions to other private companies. Veolia and Suez, in fact, had been chosen by the municipality as official sponsor for the 2012 Olympics, showing that relations with these multinational companies were still ongoing. Moreover, the risk of RPMAF's choice was the staff layoff for maintaining budget balance. This choice, as explained by the City Council after the second election of 2008, was guided by the desire to guarantee both the governance autonomy of the City Council and the citizens participation in the company management: a *Regié à Personnalité Morale et à Autonomie Financière* provides the tools to achieve both objectives (Sinaï 2013). Furthermore, according to the opinion of Pierre Bauby and Mihaela Simile (2014: 17), since 1926 it is not possible in France to pass from a mandate to a direct *regié*; there is only the possibility to choose between the juridical shape of the *Régie à Autonomie Financière* and the RPMAF. Being a large municipality, Paris can create an RPMAF without needing to enter an inter-municipal context. Another complaint was about the lack of plans by the municipality to lower the limits of water pollution, as indicated by associations such as Future Water⁹¹ (UK public leader in the supply of water services), or to restore the public health laboratories of the city – which have been closed one after the other throughout France since the 90s, as they were unable to compete with the larger private analysis laboratories within the competitive market opened thanks to the European legislation – as indicated in the World Water Contract (Petrella 2001). Finally, doubts about the remunicipalisation choice came from economic academic circles, which expressed the concern that a return to public management would led to the typical problems of the pre-NPM era, as well as excessive staff, absenteeism of the workforce, political interference in the definition of rates, excessive postponement of interventions on plants and infrastructures in order to keep tariffs low and not to lose electoral consensus, lack of transparency, lack of financial responsibility, discharge of costs on general taxation, etc.

⁹¹ <https://www.futurewaterassociation.com/>

(Masarutto 2011a; Barraqué 2012). Another strong criticism from academic circles, derived from a careful analysis of the results of the Parisian remunicipalisation and of the policy of the Delano's government after 2008, refers to the fact that the main reasons for the reform were political, not technical or economic (Lorrain 2016; Bauby and Similie 2013). This is proven first of all by the figure that in the autumn of 2007 the mayor assured private operators that the contract with them would be renewed⁹², and then he disproved this position with the press release of November 5, 2007. More importantly, this interpretation is supported by the gap between the rhetoric preceding the elections and the policies implemented later, as we will see below. The candidate mayor's abrupt turn would be connected to the desire to consolidate the electoral alliance with Greens and Communists in order to be re-elected in 2008 and gain political legitimacy to run for the 2012 PS primary (which he will not participate in). Water remunicipalisation reform satisfied the Parisian left, guaranteeing him re-election. Furthermore, the return of drinking water under public hands has permitted to demonstrate to Parisians that their government actions have a direct impact on the real world, despite the constant decrease in intervention powers of local authorities since the 1980s (Lorrain 2016). Finally, the issue of public water management had, at that time, a strong symbolic value within French political debate, allowing the *union de la gauche* and Greens party that supported Delanoë to conduct a very incisive electoral campaign.

There is no doubt that the remunicipalisation reform was the policy solution that made possible the building of the winner coalition in the March 2008 elections, during which the *union de la gauche* and Greens increased their consensus⁹³. Remunicipalisation of water was one of the rare subjects on which the three components of the coalition found a common ground (Bauby and Similie 2013). This common project, with a strong symbolic impact both nationally and internationally, has allowed the consolidation of a coalition of environmentalist left-wing government in opposition to the historically successful centre-right urban governance model. The experience of Parisian *union de la gauche* and Greens government, in fact, allowed the "old" local socialist party to innovate its electoral programs by introducing environmental issues⁹⁴, with the hope that Delanoë would have access to the candidacy in the primary parity elections of 2011, for the presidential race. On national scale the socialist-green front has not caught on, as history shows us. However, at the local level, the experience

⁹² Interview with a staffer of the deputy mayor collected by Dominique Lorrain in January 2014 (Lorrain 2016).

⁹³ Ministère de l'Intérieur https://www.interieur.gouv.fr/Elections/Les-resultats/Municipales/elecresult_municipales_2008/%28path%29/municipales_2008/index.html

⁹⁴ *Le Monde* June 30, 2019 https://www.lemonde.fr/politique/article/2019/07/30/loin-de-paris-ces-quodras-socialistes-qui-se-mettent-au-vert_5494791_823448.html

of socialist-green-communist government has led Paris towards a democratic-green turning point. The fruitful union of ecological and socialist principles was symbolically represented by the candidacy of the environmentalist Anne Le Strat, in 2008, on the PS list, after her breaking with Green party⁹⁵. During Delanoë's first mandate an array of projects have been implemented, permitting the strengthening of a public relations strategy stressing proximity between government and Parisian population, which had already shown its ecological and participatory soul in the 90s (especially in *banlieues*, as previously explained). Original initiatives such as Paris Plage, Nuit Blanche, the system of self-service bicycles called Vélib' and the numerous urban regeneration projects of the peripheral neighbourhoods (carried out by Anne Hidalgo, who was in charge of urban planning) were the symbols of such political strategy. They have had a noticeable impact on the international stage, to such an extent that they have been adopted by other big cities and have provoked interest on the part of many local decision makers worldwide (Valdovinos 2012). There is no doubt that the Parisians expressed, with the re-election of the coalition led by Delenoë in the first round, the desire for policies continuity. The same reform of remunicipalisation of Parisian water services was part of a larger environmental program, which includes different projects such as the Action Plan against Noise, the Waste Material Prevention Plan, and the Climate Plan. Despite the failure of the socialist-green coalition at the national level, Paris continued, even after 2014, on this path with the election of Anne Hidalgo, formerly vice-mayor of Delanoë.

5.7. Implementation

The implementation of the remunicipalisation reform of Paris water services took place thanks to the opening of two separate windows of opportunities over a relatively short period of time between March 2008 and December 2009. The municipal elections represented the first window of opportunity, which opened in the political stream, while the natural expiry of the delegation contracts with CED, EFPE and SAGEP was the second window of opportunity. In fact, the premature termination of the contract by the *Ville de Paris* would have forced the municipality to pay severe fines, cancelling the possible economic and political advantages deriving from the reform.

The appearance of this double window of opportunity has enabled to couple three streams flowed independently until that moment. The problem stream was in turn made up of two distinct problem streams. The first was animated by the problems flowing from the delegated

⁹⁵ *Le Journal du Dimanche* December 9, 2017 <https://www.lejdd.fr/Politique/Le-Strat-Les-Verts-un-parti-coupeur-de-tetes-99707-3093254>

management (uncontrolled increase in the price of drinking water, lack of financial transparency by the operators, lack of skills and capacity of the municipality to complete the mission to control their delegates). Such a stream, as already mentioned, could have been coupled with a policy solution aimed at stipulating a new delegation contract, more favourable for the delegator, and strengthening the municipal competences and resources allocated in control activities (as it happened in other French cities thanks to the legal framework created by the Sapin law and the use of public tender procedures) (Barraqué 2012). Within the second problem stream gushed political problems related to the willingness of the municipal government parties to be re-elected. As a matter of fact, PS was going through a phase of declining consensus, which had forced it to seek support from Greens and PCF during the run-off of 2001; the PCF was experiencing a stagnation phase, during which its consensus did not decrease but did not increase either; the Greens party was rising, but it did not have the strength to beat the right coalition on its own. These political actors needed to find a policy proposal that justified a pre-election coalition among parties with different programs and allowed for an election campaign that would have strongly distinguished them from the historically dominant centre-right coalition (Lorrain 2016) in Paris. The stream policy, as we know, was made up of remunicipalisation solutions, which are increasingly achievable thanks to a regulatory framework favourable to the *in house* management of LPS (Marcou 2016). Finally, the national, regional and citizen political stream was relatively favourable to the remunicipalisation reforms. As we have seen, neither in France nor in Paris there has ever been a social movement in support of public water management (Bauby et al. 2018); the form of management of water services has never been the subject of public debate (Lorrain 2016) and until then such a debate had been faced only by instrument constituencies or groups of bureaucrats and technicians within public authorities. However, in the decade preceding the 2008 elections, a strong epistemic community, with both international (the World Social Forums) and local (associations that brought together environmentalists and consumer advocates) ramifications, had taken hold in the French left. In fact, the reform of remunicipalisation was at that time one of the points of the electoral program of both Greens and PCF. Consequently, the first window of opportunity allowed Anne Le Strat and the major government supporters of the reform to assume the triple role of political broker – proposing the coupling of problems and solutions to the majority of government – entrepreneur policy – proposing the policy solution pushed during the mandate 2001-2008 – and of process brokers – connecting the various stakeholders in order to create trust between them and avoid

conflicts. Her party decided that Anne Le Stat would not be re-nominated for the 2008 elections, perhaps because of the high public visibility (that obscured the party) or perhaps because of the close and personal relationship she had with the mayor. Anyway, the figure that Parisian PS offered her the candidacy on its list shows the importance assumed by this personality in the coalition and in the implementation of the reform. One of the first measures of the renewed Delanoë government was the appointment of Anne Le Strat as deputy mayor, in order to give its voters the signal of a strong commitment in implementing the reform.

Since the beginning of his assignment, the new deputy mayor has assumed the role of program champion in the policy stream, which then became dominant over the others. “During the city council sessions, the central item had become the method of implementing the water remunicipalisation reform”⁹⁶. This allowed the passage of a one-at-a-time mode (Jones & Baumgartner, 2005) of information processing and a shift of resources (Sabatier, 1988) towards the water sector, necessary to carry out the reform. Moreover, these two passages took place quickly, as we shall see.

The electoral victory built on the remunicipalisation project – an undoubtedly overwhelming victory in the first round – combined with the rapid implementation of the reform – the new government was elected on March 16, 2008 and drinking water was entirely supplied by a single public operator on January 1, 2010 – makes it clear that the promise of remunicipalisation caused three different self-reinforcing policy feedbacks: positive cognitive effects within public perception about an increase in benefits for citizens, demonstrated by the immediate drop in image suffered by the two giants of the water supply Veolia and Suez (Sinaï 2013; McDonald 2019)⁹⁷; self-reinforcing constituency effects, proven by the strong political legitimacy gained through the election results of the government participants; and self-reinforcing agenda effects, shown by the immediate commitment of the renewed Parisian government to complete the implementation of the reform.

The change in management mode of water supplying involved several challenges, made more arduous by the purpose to solve all operational problems in just 18 months. A task force, led by Anne Le Start, was created to organise the transition, in order to start the public management of water services on January 1, 2010. The most difficult obstacles to overcome were: 1) financial functioning of *Eau de Paris* (EdP); 2) transferring of counters, user data and software from CED and EFPE and managing relationships with subscribers; 3) moving of production, transport and analysis activities from CRECEP, CED, EFPE and SAGEP as well as

⁹⁶ Interview with academic expert on French and European Public action and public services.

⁹⁷ Reuters July 8, 2014 <https://in.reuters.com/article/water-utilities-paris-idINL6N0PE57220140708>

workers to EdP; 4) overcoming opposition within municipal public administration. To solve these four types of complications encountered in the implementation phase, the management of EdP had to hire new specialized staff in order to fill the technical and knowledge gaps of the staff present in the company on January 1, 2010, the official date of the beginning of public management. In doing so, RPMAF employees went from 876 in 2010 (annual cost € 63,130,000), to 920 in 2011 (annual cost € 65,900,000, + 4.39%), to 943 in 2012 (annual cost € 132,000, + 7.9%) (Bauby and Similie 2013), which have then gradually decreased until 2019, with 900 employees. The implementation phase can be considered concluded in 2012 with the closure of the transition contracts stipulated with Veolia and Suez (except for the management of the remote consumption reading meters with Veolia).

5.7.1. The creation of *Eau de Paris*

The *Eau de Paris* joint venture has become a municipal-owned company in the form of the *Régie à Personnalité Morale et à Autonomie Financière*. A resolution of the Paris Council changed it from PPP to *régie* in 2006, while another resolution of 6 February 2009 transformed it into RPMAF. Obviously, the fact that Paris does not belong to an inter-municipal structure has played in favour of this legal form, since the municipality was able to carry out the reform with a simple unilateral vote by the government majority (Sinaï 2013).

In the French legal framework, a RPMAF has the possibility of managing industrial and commercial services on behalf of the municipality. It is a local public institution with full legal and financial autonomy from the municipality, therefore it has management bodies distinct from those of the city: a BoD, which has the main management powers on corporate governance, and a director with legal responsibility for the actions of the company. The municipality equips the RPMAF with an initial patrimony, which can be increased at any time. The BoD is appointed by the City Council on the proposal of the mayor and the majority of its members must be made up of city councillors. In Paris, the BoD's president of EdP corresponds to the deputy mayor, who is also responsible for water, sanitation and canal management. Thus, Anne Le Strat was appointed chairman of the board of directors of the *régie* on 22 January 2009. The BoD is responsible for deliberating on all matters relating to the functioning of the company, making administrative, legal and economic decisions, and approving the yearly management budget. The president of the BoD nominates the director, who is the agency's legal representative. As such, he/she adopts the measures necessary for the execution of the BoD's decisions, exercising the direction of the services (excluding the financial services that fall on the accounting officer), hiring and firing staff, prescribing the

execution of expenses and receipts, applying decisions of the BoD on all acts and contracts, and finally preparing the financial statements together with the accountant. RPMAF has a separated account from that of the municipality and is managed by an accountant from the Treasury. The management of the resources of an RPMAF is subject to the accounting rules of public institutions, except for certain functions such as hiring of employees, which can take place through public or private contracts. At the end of the year, the accounting officer prepares the corporate financial statement of the corporation together with the director and they submit it to the BoD.

The duration of the BoD member role cannot exceed that of the municipal mandate. This may have the advantage of adapting the governance of the service to a new political vision following the electoral cycle, but it has the disadvantage of a potential instability of governance. In fact, with the change of the government every 7 years, the governance of the *regié* could hypothetically change significantly, based on political rationality, with devastating effects on the quality of the service. Furthermore, the reform produced a system of governance based once again on the agent-principal relationship (*Ville de Paris* and EdP), as in delegated management, which raises all the problems of information asymmetries and loss of control by the principal exposed by the agency theory (Stiglitz 1989). Therefore, the city of Paris must act both as one of the many actors in the territorial water sector, relating to the other organizing authorities with regulated responsibility – Seine and Normandy Water Agency (AESN), Regional and Interdepartmental Directorate for the Environment and the Energy (DRIEE) of the Île-de-France, ONEMA, SIAAP, Public Territorial Establishment of the Seine-Grands-Lacs Basin, the local water commissions and the various components of the *Grand Paris Metropole* – and as a water operator that supplies the local service. The risks of overlapping the roles of agent and principal are further accentuated by the fact that the same person is both vice mayor and chairman of the Bod of the EdP. When Pierre Bauby and Michaela Similie (2013: 38) raised these concerns, Anne Le Strat replied that this overlap is aimed at ensuring consistency between the political objectives of the city and the corporate governance. Moreover, the company has an independent management, and monitoring activities are carried out, not only by the City Council but also by the Technical Service of water and sanitation and by the Department of municipal Finance. Finally, the objectives contract defines precise and quantified indicators, which allow a real assessment of the company's operations. “We cannot deny that there is also the organizational advantage in the accumulation of assignments. We must not forget that the deputy mayor, who is also the

president of the company, is subject to various constraints both as an elected representative and as president. This formula worked in Paris. The deputies of the municipality who are also members of the BoD of *Eau de Paris* have guaranteed a good management of the service and have the power to decide without other filters being applied to their decisions.”⁹⁸

The creation of the *régie*, from a legal point of view, was a relatively simple undertaking, since the French legal framework offers a clear and outlined path for the transformation of a privately owned company for the supply of local services into a public one. This occurred on January 1, 2009. At that point however, the *regié* was an “empty shell”, so through municipal resolutions the City Council “filled” the RPAF with resources and assignments:

- on January 21 he elected the president of the RPAF, took note of the appointments for the director and the accountant;
- on April 6 and 7 the contract with SAGEP was dissolved and their employees, contracts and obligations were transferred to EdP;
- on May 1 the staff of SAGEP and CRECEP started working in the RPAF; on May 5, all the shares of SAGEP, previously transferred to the municipality, were sold to EdP;
- on May 11 SAGEP was dissolved and all of its real estate and infrastructure assets were transferred to EDP; on May 13 no one opposed the dissolution of SAGEP due to bankruptcy, therefore the transfer of the property ended;
- on November 17 the BoD of EdP authorized the signing of the *Contrat d'Objectifs* which regulates its obligations in the management of drinking water in Paris;
- on November 23 and 24 it decreed the end of the contract with Veolia and Suez and defined the date of transfer of their responsibilities and staff to January 1, 2010, it also authorized the signing of the *Contrat d'Objectifs* between the municipality and the *regié* and approved the regulation of public water service;
- on December 30 the *Contrat d'Objectifs* was signed by the two sides; on December 31 the delegation contract expired.

At the end of this regulatory path, the municipality had defined the organisational structure, obligations, limits and control system of EdP. Therefore, from January 1, 2010, *Eau de Paris* manages the entire Paris drinking water cycle *intra-muros*, from collection, purification, to transport; since 2012 it has also managed all the phases of consumption measurement, invoicing and collection of payments, and relations with users and subscribers. In fact, since October 1, 2011, a multi-contacts centre has been in operation, located within the department

⁹⁸ Interview with an activist at national scale for public management of water services.

responsible for relations with users and subscribers, which brings together consumer services. Finally, EdP also manages the distribution of non-potable water, used for street cleaning and green care; in 2009 the *Ville de Paris* organized a city conference to decide collectively if interrupting the distribution network of non-drinking water, with the aim of reducing water consumption, but participants decreed that the double network should be maintained. Thus, in 2012 the municipality allocated € 10 million for the modernization of the non-drinking water infrastructure and allow the distribution of this resource also to private individuals (for cleaning needs, recovery of dehydration water or use of non-potable water in the area, heating and air conditioning networks). Only some residual services are managed externally, in outsourcing: desktop publishing, maintenance of remote measurement and reading systems, supervision of remote reading (only in the part of the city previously served by Veolia). Furthermore, there is the possibility of a secret collaboration between EdP, Veolia and Suez in the field of research and development (of which no public information can be found), motivated by the sharing of skills after the transition of personnel from private to public companies⁹⁹.

But how the service is organised?

Public mission

While the new regulation of the public water service concerns in particular the relationship with subscribers and the sharing of responsibilities with them, the corporate missions are defined by the statute:

- sustainable management of ground and surface water resources;
- drinking water production;
- drinking water transport;
- distribution of drinking water;
- information to users about the water service and good resource consumption practices;
- management of subscribers to the water service;
- access to water for all users, without discrimination, especially for the most disadvantaged people;
- water quality and its monitoring;
- development of expertise and research in the water sector;
- continuity of water supply and guarantee of satisfaction of priority needs;

⁹⁹ Interview with an activist at national scale for public management of water services.

- production, transport and distribution of non-drinking water and, in particular, in collaboration with the services and users concerned, support for the control and reuse of rainwater.

Control system

To limit the risks related to the overlapping of the offices of municipal administrators and members of the BoD of the RPMAF, the Paris government has defined, through the corporate statute tool, an operative structure based on four control mechanisms and the obligation to publish all documents produced by both the company and the municipal council. The first control mechanism is the *Contrat d'Objectifs*, a tool for regulating relations between the municipality and the company experimented for the first time in Paris; the second one is the presence of some civil society representatives in the BoD; the third is the *Observatoire Parisienne de l'Eau-OPE*; finally, the fourth is represented by two municipal authorities with control functions.

The relationship between the municipality and the *régie* is governed by a *Contrat d'Objectifs* valid for five years, aimed at defining the objectives that *Eau de Paris* must achieve to meet the political and technical guidelines dictated by the City Council, specifying the indicators that allow evaluating the operator's performance. The *Contrat d'Objectifs* is divided into 10 sections, one per objective:

- guarantee a quality water supply in all circumstances (diversified supply; protected and restored water resources; water that meets the most demanding quality standards; continuity of service guaranteed in times of crisis);
- put the user at the centre of the water service (reactive management of subscribers and users, best meeting their needs; search for new services to offer to subscribers; accessible and objective information);
- ensure rigorous and transparent management (stabilized water price; rigorous financial management; effective collection policy);
- guarantee access to water (guarantee access to water for the most deprived users; contribute to international solidarity actions);
- ensure the performance of the network and systems (available and controlled service; automated service operations);
- maintain a high level of conservation and enhancement of the water heritage (high yield thanks to an active maintenance policy; dynamic investment policy for a cutting-edge service);

- develop a forward-looking vision of the water supply system (general plan to guide investments; public research and competence centre in the water sector);
- offer a socially advanced business model (human resource management that promotes professional equality between women and men and diversity; human resource management that promotes professional development; social dialogue and quality internal communication);
- implement a certified and ecologically responsible management system (quality management; environmental management; health and safety at work);
- support changes in the non-drinking water service.

Each of these objectives is then divided into performance indicators, including thresholds, intermediate objectives, for a total of 130 indicators (38 in the contract and more than 90 in its annexes). “It is very innovative. No other community has implemented this type of contract. Our desire was very clear: to demonstrate that, through a public service, the Parisian community and citizens, in particular the Observatory, can fully follow what is happening in the public service and, through this contract, even have the means to evaluate the efficiency and quality of the service provided.”¹⁰⁰ The company, for its part, must provide the municipality with monthly information on the highlights of the contract, quarterly reports and 3 annual reports: one relating to the achievement of the objectives of the contract, one on prices and one on water quality. However, if the company does not achieve any goal, no form of sanction is foreseen. “In the absence of a performance incentive mechanism or the possibility of applying financial penalties, there is reason to question the means available to the organizing authority to enforce these obligations.” (*Cour de Comptes* 2017: 71)

The Board of Directors is made up of 20 members, none of whom are remunerated for their work, of which 13 are municipal councillors (11 majority and 2 minority) appointed by the City Council and proposed by the executive, 2 representatives of workers, 3 representatives of the associative world and 2 experts in the environmental/industrial sector (with only consultative functions). The definition of the agenda of the BoD meetings is responsibility of the *régie*, but the City Council has the power to introduce other topics at will. Being a reproduction, in small, of the City Council, this allows a mechanism of expulsion of political conflicts of the urban government and internalization within the BoD.¹⁰¹ The contents of the BoD meetings are regularly published on the *Eau de Paris* website, as well as the reports produced by it. The 3 representatives of the associations have, since 2012, the right to vote in

¹⁰⁰ Anne Le Strat during the Paris Council on March 16, 2012.

¹⁰¹ Interview with two academic experts on French and European public action and public services.

the BoD. The city government has also defined the organizations from which the representatives of civil associations must come: one from the *UFC-Que Choisir* consumer association, one from *France Nature Environnement* environmental association and the last one from the OPE. They are selected by vote within the 3 associations after a free candidacy (no other selection methods are specified, with any representative criteria) and their mandate cannot exceed 3 years.

OPE is the current heir of the old CCSPL users and citizens commission: this commission is still existing, but citizens associations have been excluded from it, thus remaining an organ composed only of institutions and stakeholders (Bauby and Similie 2013). OPE, as we have already seen, was established in 2005 as a control body of water services, with consultative powers: it is made up of 4 commissions (municipal representatives, user representatives, operator representatives, research centres), and meets 4 times a year to provide opinions and recommendations (non-binding) on issues relating to water, sanitation and information campaigns aimed at citizens. "The aim was to create a space of supervision and information for citizens, for which the elected officials of the city of Paris, the administrative services and the agents of the *Eau de Paris* are responsible. All documents, reports and resolutions relating to the management of water resources must be submitted to the Observatory before being examined by the Paris Council."¹⁰² The transparency of ex post debates has always been guaranteed, unlike what happens in CCSPL (Bauby et al. 2018; Bauby and Similie 2013). The OPE secretariat is administered by the Department of Water and Cleaning of the municipality of Paris, which holds responsibility for financing the Observatory and setting the agenda for its discussions (Bauby et al. 2018; Bauby and Similie 2013). The president of the OPE is chosen and appointed by the City Council, as well as its members. Again, the members who have the responsibility to represent civil society come from the two associations *UFC-Que Choisir* and *France Nature Environnement*. Finally, three municipal authorities have controlling mandate on the operate of EdP: a Technical Water and Sanitation Service (STEA), in which 15 people are involved at a more or less direct level in monitoring management and which acts as the secretariat of the Water Observatory, the municipal Finance Department, which has to control every operation of the company carried out by the accounting officer of EdP, who is in turn a direct employee of the Treasury and the DPE, which also directly manages the sanitation in Paris. In addition, a monitoring committee for the target contract is organized twice a year, bringing together elected officials and all city departments, without

¹⁰² Anne Le Strat in Observatoire des Multinationales April 9, 2015 <https://multinationales.org/Anne-Le-Strat-La-remunicipalisation-a-permis-a-Paris-de-mener-une-politique-de>

user representatives.

As can be noted, the civil society representatives who take part in the BoD and OPE are also selected by the municipality, as well as the agenda for discussion of the OPE and its own organization are managed directly by municipal offices. The presence of these people in the BoD is, according to the town hall, a very strong proof of the democratization of the *Eau de Paris* society. However, neither the transcriptions of the City Council nor the documents thoughtfully published by the municipality on the performance of EdP specify the criteria and methods of selection of these civil spokespersons. In France there are 15 accredited national consumer associations, according to the National Consumer Institute¹⁰³. Why was only *UFC-Que Choisir* selected to serve on the board of directors of the *Eau de Paris*? Why not another association among the 15? The same reasoning applies to the environmental association *France Nature Environment*. In the opinion of an activist at national scale for public management of water services, these two associations were chosen by the municipality as they have actively participated in the battle for remunicipalisation since the first scandals on private management¹⁰⁴. In summary, the control system defined by the second Delanoë government, which should have been based on the direct participation of citizens in corporate governance to ensure the efficiency and effectiveness of the service, is based on a self-controlled system by the urban government, which is both the owner of the company and its own controller. This control function is carried out both directly, through municipal authorities and elected officials, and indirectly, through the choice of the members of the OPE and the BoD and the definition of the agenda of their discussions. “*Eau de Paris* develops its performance indicators, which are then validated by the STEA and the DPE. There is therefore no external control body, apart from the *Cour de Comptes*, which carries out a routine control every 5 years. Control of the service is therefore largely a self-taught matter, which is not satisfactory.”¹⁰⁵ This organizational structure carries with it the same risk of lack of transparency, collusion and corruption of the previous delegated management (Boyogueno 2013).

After defining the organizational structure of the company and appointing the members of the BoD, the general manager and the accountant, the RPMAF began to perform its functions and faced the first problems of the transition phase. The first difficult step of the reform implementation process started when EdP had to face SAGEP's contractual commitments

¹⁰³ <https://www.inc-conso.fr/content/les-associations-de-consommateurs>

¹⁰⁴ Interview with an activist at national scale for public management of water services.

¹⁰⁵ Interview with an expert on water services of Île-de-France.

starting from May 1, 2009. The main problems were related to the financial system, in particular the transition from private accounting and purchasing procedures to public ones. As a public company, *Eau de Paris* requires that all purchases above a certain price threshold (a limit never specified) be subject to BoD resolution and to the Prefect's legality check. "So we are subject to the same rules as the administration of a community"¹⁰⁶. In particular, the application of public law rules concerns the entire organization of the service (administrative regime of regulatory acts; principle of equality, continuity, adaptability; application of public procurement rules). Public tenders are also more burdensome than private ones; the accounting methods of a public company are different from those of a private company; moreover, the law requires that all payments of an RPMAF be made only by the company's accounting officer (Pigeon 2012). While some difficulties had been foreseen and faced since the beginning of 2008 with the purchase of a new accounting system, other problems emerged after May 1, 2009. Such difficulties resulted in serious, sometimes dramatic, delays in payments to suppliers. In 2011 the BoD set up a centralized purchasing department, with new qualified staff. In addition, EdP had to buy another accounting software, a difficult challenge to face since the accounting software market dedicated to the management of public industrial structures was almost non-existent in France, after decades of delegations. After a series of training sessions for staff inherited from SAGEP, the new software went into operation on January 1, 2013, solving the problem of late payments (now they are carried out punctually after 30 days). Gradually, the BoD managed to formalize an effective purchasing policy, establishing and achieving cost reduction objectives while ensuring the inclusion of the reinforced social and environmental clauses for socially responsible purchases (Sinai 2013). The management of EdP therefore took more than three years to restore the situation prior to the reform.

5.7.2. The creation of an IT system

The operational activity of water distribution includes the administrative management of subscriptions and the relationship with subscribers and users of the service, the management of data provided by water meters and the establishment of a consumption billing mechanism. It also covers the management of technical maintenance of distribution networks and equipment for counting consumption and losses. All these functions have been historically performed by delegated operators, which in recent decades had developed internal

¹⁰⁶ Interview with François Poupard, directeur d'*Eau de Paris* since 2010, collected on Mars 23, 2013 (in Sinai 2014 : 51).

information technology (IT) systems for the storage and management of data (characteristics of subscribers, description and location of equipment and networks, invoice history, payments, interventions, complaints, various accidents, etc.). Difficulties in transferring such systems have been identified since the policy formulation phase. Already in 2007, the city of Paris had commissioned information audits and analysis of the information systems of the two delegates with the help of specialized consultancy companies, without however guaranteeing a detailed understanding of them. The IT systems used by the private operators were incompatible with each other; moreover, they were not easily separable from the general databases of the two giants. Even counters for reading remote consumption, installed by CEP and EFPE after the renegotiation of the contract in 2003, could be managed only with software and expert staff of the companies. For their part, the two delegates argued that these were private software, developed at their own expenses and on their behalf. The resolving phase of this problem was slow, it started in 2008 and ended partially in 2012 implying a long series of negotiations between EDP and Veolia and Suez.

In 2008 EdP set up its own IT system – UNIDIS, a unified information system for managing both consumption data, network status and commercial data; the same developed by the city of Grenoble after remunicipalisation – and stipulated a transfer agreement with the delegates, so that they would have managed the counters and data until UNIDIS was ready. At that moment, all the meters for remote reading of consumption, the technologies to use them and data on users, networks and consumption would become the property of EdP.

Only after the transition contract for the management of IT system, and after having established the obligations and limits of EdP, the delegates proved to be collaborative (Pigeon 2012). In the following years, they made user data available to EdP management. During this period, EdP had to build new IT connections with the Veolia and Suez data processing centres, but also with those of the Public Treasury, which had to be integrated into the company's invoice collection processing chains since January 1, 2010. The RPMAF also had to hire specialized staff from IT and telecommunication companies. This allowed an easy passage of data on consumption, users and infrastructure status. Thus, the municipality realized that the lead pipes that had not been substituted by the delegates in the period 2003-2009 were not 400, as stated, but 1,500. Furthermore, the lack of replacements was not related to technical difficulties, but to the high cost of operations (Sinaï 2013), uncovering serious discrepancies between the documents presented by the operators and reality (Le Strat 2010).

UNIDIS was ready for use on October 1, 2010, so EdP asked CEP and EFPE to terminate the

transition contract. Veolia and Suez however, refused to transfer the property of counters for remote reading of consumption and other negotiations began. Finally, Suez transferred all the counters to EdP in 2011, while Veolia refused to do so. Only in 2016 this transfer operation was completed. The replacement of the pipes and the lead connections was completed by EdP, at its expense, improving the performance levels of the networks, as we will see later.

This difficult handover shed light on the problem of technological and information monopoly built up over the decades by French private water management companies¹⁰⁷. For this reason, the management of EdP and other public companies have chosen to collaborate, within the national Federation of Authorities and Licensing Registers, in the drafting of technical specifications for open and interoperable remote reading solutions.

5.7.3. Integration of staff

“When the operator is changing, the employees are not laid off; they can choose to join or not the new company. In the case of municipalisation, people can stay with the private company; on the reverse in cases of outsourcing, employees can remain in the public service system. The organisations are large enough to provide flexibility in term of employment. This means that the operator is not starting from zero. Then the ongoing process is to follow the procedure of recruitment with some proportion of clientelism – to know a person who knows can be useful.”¹⁰⁸

Before remunicipalisation, the personnel involved in the management of the water service had different statuses within the various companies for which they worked, with some private and some public contracts. The corporate culture of the employees was also very different. To ensure a relatively harmonious transfer and integration of staff from CRCEP (the functions of this body were to be incorporated into EdP), SAGEP, CEP and EFPE, *Eau de Paris* launched a social audit in 2008 to seek to implement a new method of social dialogue with all the stakeholders. This method was intended to formulate union agreements aimed at maintaining employees’ treatment mostly similar to that received by the previous employer, and to conclude agreements widely shared by workers and unions through a cooperative process. However, while the management of EdP was able to meet the employees of SAGEP – with the *Eau de Paris deman* program, a program of group and individual meetings between SAGEP staff and the new corporate governance, started a year before the remunicipalisation to gather information on their idea of "public service" and to dispel any doubts about future

¹⁰⁷ Interview with Henri Coing, representative of UFC-Que Choisir association on the *Eau de Paris* board of directors since 2010 and president of OPE between 2013 and 2017, collected on April 3, 2013 (Sinaï 2014: 65)

¹⁰⁸ Interview with an academic expert on French and European public action and public services.

corporate change – they could meet with the employees of CEP and EFPE only in June 2009; and only resource representatives and senior managers of Veolia and Suez had the possibility to participate in consultative meetings with municipality. SAGEP and CRECEP staff were transferred to the EDP on May 1, 2009. SAGEP employees were almost completely transferred (560 on 600), while 55 of 126 CRECEP workers were hired, with 71 layoffs¹⁰⁹. Anne Le Strat explained this choice with the difficulties of maintaining public research centres within an extremely competitive landscape with private ones, which led EdP management to choose to internalize CRECEP's functions, but reducing its dimension to make it economically sustainable (interview in Bauby and Simile 2014: 18). After their arrival in EdP, the company management organized refresher courses for them and a "harmonization" program with the other 20 employees of the company's internal analysis centre, so at the end of 2009 a union agreement on their working conditions was signed unanimously.

After a first meeting at the town hall at the end of November 2008, in June 2009 it was possible to start the negotiation process between the management of the RPAF (represented by Anne Le Strat, president and Thierry Wahl, first managing director of the *Régie*) and the heads of the various unions representing the employees (ANACT¹¹⁰, CFDT¹¹¹, CGT¹¹², CFTC¹¹³, FO¹¹⁴) of the four companies. Two collective method agreements were signed unanimously by the union delegates of EdP, CEP and EFPE, at the presence of the SAGEP unions. The first agreement, dated 3 June 2009, listed in a non-exhaustive way the topics to be negotiated and harmonized: positioning, awards and allowances, dirty work plans, duration and organization of work, leave, specific leave, end of career leave, penalty of late payment and compensation, supplementary and complementary pensions, mutual investment and pension funds, profit sharing, gender equality, social dialogue, working conditions, etc. The agreement provided for the creation of five committees with specific themes and established a timetable of 20 meetings to be held from April 28 to July 15. The participants in the negotiation were specified: each of the union organizations of each entity could designate three employees, and the resources assigned in terms of delegation hours were defined. The opening of the negotiations was set for April 28, 2009, with the aim of finding a solution as soon as possible. The second agreement was signed on December 18, 2009 by 13 union

¹⁰⁹ *Contretemps* Mars 19, 2011 <https://www.contretemps.eu/leau-comme-bien-commun-un-retour-sur-lexperience-parisienne-de-remunicipalisation/>

¹¹⁰ Agence Nationale pour l'Amélioration des Conditions de Travail <https://www.anact.fr/>

¹¹¹ Syndicat justice de l'Île de France <https://www.cfdt-justice-idf.fr/>

¹¹² Confédération Générale du Travail <https://www.cgt.fr/>

¹¹³ Confédération française des travailleurs chrétiens <https://www.cftc.fr/>

¹¹⁴ Force Ouvrière <https://www.force-ouvriere.fr/?lang=fr>

representatives of the 3 companies involved (*Eau de Paris*/CEP/EFPE). The agreement dealt in particular with: employee positioning, professional development and remuneration (and specifically the integration of certain bonuses in the basic salary of employees transferred from EFPE and CEP), working hours (set for all employees at 37 hours/week), the unification of pension, mutual and social security systems and the guarantee of maintaining the level of participation.

On January 1, 2010, 228 workers from Veolia and Suez started their job in EdP. Upon their arrival at EdP, the human resources office organized an individual interview program to explain their new contractual situation and business organization. Eighty percent of respondents were satisfied with the new treatment, while 20% expressed dissatisfaction (Sinaï 2013). With the transition from private to public company, some employees saw their working conditions deteriorate: loss of 7 days of annual leave, loss of agreed hours, guard, rest and vacation allowances, end of career, etc. Therefore, upon the arrival of the staff of Suez and Veolia, the social tension quickly growth within the RPMAF, leading to a conflict between the unions themselves. To organize the protests against the worsening working conditions of their members, the CGT unions of Veolia and Suez – despite having participated in the previous agreements – tried to join the *CGT-Eau de Paris* organization. The latter refused their entry into the organization, and therefore the representatives of the workers of Veolia, Suez and CRECEP created the new organization *SGT-EPIC-Eau de Paris*. Shortly afterwards, *CTG-Eau de Paris*, together with the management of EdP, started a legal action against the new organization, requesting its dissolution as the CGT representation was already present in the company. The judge, however, gave reason to *CGT-EPIC-Eau de Paris*, as the other organization was derived from SAGEP, a company different from the new *régie*; moreover they did not deposit the payment of the membership fees, decreeing its dissolution. Claude Danglot argued¹¹⁵ that this story sheds light on the attempts of the Paris Water Department to lower the cost of employees' wages, by disregarding the pre-election promises. On the other hand, Anne Le Strat claimed that this is a demonstration of the opposition to remunicipalisation by the two water giants, in particular Veolia¹¹⁶. Furthermore, this story shows us the risks associated with the overlap between the role of agent and delegate, with the agent being tempted to abuse his political power to resolve corporate management issues. After these internal disputes, four "harmonization" agreements were signed in 2010 and 2011

¹¹⁵ *Contretemps* Mars 19, 2011 <https://www.contretemps.eu/leau-comme-bien-commun-un-retour-sur-l'experience-parisienne-de-remunicipalisation/>

¹¹⁶ *Observatoire des Multinationales* April 9, 2015 <https://multinationales.org/Anne-Le-Strat-La-remunicipalisation-a-permis-a-Paris-de-mener-une-politique-de>

by all the unions of EdP: the agreement on the exercise of trade union rights and social dialogue in the RPMAF *Eau de Paris* of June 15, 2010; the second phase protocol of June 15, 2010 regarding the recovery of seniority and annual and special absences; the profit sharing agreement of June 15, 2010 which provided for a uniform system of profit sharing for all RPMAF staff for a period of 3 years; the agreement number 3 on the harmonization of March 16, 2011 relating to the system of health and social security costs, career leave, healthy rest days and supplementary pension scheme for all employees. The *Cour de Comptes* (2017) estimated that these union agreements entailed a 2% annual increase in the cost of labour for the company. "Given the strong unionization, the city and *Eau de Paris* had to grant exceptional benefits to former private sector employees hired by management. *Autrement* (an environmental association) says the city and its operator bought "social peace" for a price of gold, a situation denounced in a report by the city's Inspectorate General in 2013."¹¹⁷

5.7.4. Overcoming municipal public administration opposition

One last difficulty was about the opposition to remunicipalisation reform mounted by some departments within the city administration, particularly the water and financial ones. Until the last moment, exactly as the two private delegates, they behaved as if the mayor's proclamation was a mere pre-election promise and the reform would never be implemented. Their attitude clashed with that of SAGEP employees, who instead had been involved in the transition process from the municipality as early as 2008. The consequence was that the transition was neither anticipated nor prepared for the departments opposing to the reform. In addition to this, the explanation of a lack of willingness of public officials in management positions to change the water regime of local services appears plausible (Mahoney and Thelen 2009; Pigeon 2012). As a matter of fact, after nearly thirty years of elected management, the municipal departments lacked both knowledge and skills for directly managing complex infrastructures and numerous personnel. The financial and water departments of the *Ville de Paris* had developed an institutional framework and the skills necessary for organizing delegation tenders and, if necessary, hire consultants to solve the legal difficulties and/or monitor performance (Pigeon 2012). They had no experience in direct management and monitoring of urban water services, and path dependency theory explains us that public administrations show a natural resistance to change because they have a structure of preferences shaped by the institutional context settled in history (Pierson 2000). As institutional changes take place slowly and incrementally, resistance to change of civil

¹¹⁷ Interview with an expert on water services of Île-de-France.

servants also wears down slowly and incrementally (Pierson 2011). The official position of the city of Paris (Sinaï 2013) is that this mechanism has occurred in the city administration. After expanding the departments with new specialized staff and new work tools (such as the UNIDIS software) and after internal training courses, all municipal departments have been cooperating in the direct management of urban drinking water.

5.8. Evaluation

As illustrated in chapter 4, outcomes resulting from the remunicipalised management of the Paris water services have been analysed on the basis of five evaluation criteria, in order to identify a possible implementation gap (DeLeon 1999; Hill and Hupe 2009) among the objectives of the reform and the policies actually implemented by the municipality through its RPMAF. The five criteria are: long-term environmental sustainability, transparency, service efficiency, citizen participation in service management and social equity in accessing the resource. Results have been collected through the analysis of official reports published by EdP – in particular those relating to the achievement of the objectives of the Objectives Contract – interviews with privileged observers, articles from local newspapers and the study of existing academic literature on this case study (Bauby and Similie 2013; Bauby et al. 2018; Lorrain 2016; Boyogueno 2013; Sinaï 2013; Pigeon 2012; Le Strat 2010; Mone 2016; Barraqué 2012). As Domilique Lorrain confirmed, "There is no body of regulation (regarding a public authority for the control of water services). Data are in the *Eau de Paris's* annual reports, plus in the *Contrat d'Objectifs*"¹¹⁸. Regarding the analysis of the data published in the EdP reports, some clarification is fundamental. First of all, it is noteworthy that since January 1, 2010, EdP has regularly published reports on the company's financial performance and an annual summary report on the achievement of the objectives contained in the *Contract d'Objectifs*, which brings together data collected monthly, quarterly and yearly¹¹⁹. The municipality has also regularly published annual reports on the price and quality of water¹²⁰, acting as organizing authority of the service. Since 2010, all the summary of the OPE meetings have also been regularly published (until 2017, when they were interrupted, as we will see below)¹²¹. Finally, since 2008 all the meetings of the Paris city council have been online¹²², together with a database on city issues¹²³. This demonstrates the effort made by the Paris City Council to make its

¹¹⁸ Interview with two academic experts on French and European public action and public services.

¹¹⁹ <http://www.eaudeparis.fr/lespace-culture/mediatheque/publications/>

¹²⁰ <http://www.services.eaufrance.fr/gestion/rpqs>

¹²¹ <http://www.observatoireparisiendeleau.fr/articles/147>

¹²² <https://www.paris.fr/municipalite>

¹²³ <https://opendata.paris.fr/pages/home/>

governance as transparent as possible. However, perplexities are not absent regarding the choice to publish only the summaries of the OPE meetings, and not all the full sessions; "They are only official simplifications of the discussions that actually took place. There are no real debates and conflicts."¹²⁴

In addition, if we look at the figures published on the reports, dark spots do not lack. The evaluation carried out by *Eau de Paris* on the achievement of the objectives of the first contract 2010-2015 shows that, out of a total of 38 performance indicators relating to drinking water, 15 (approximately 39%) did not achieve the objectives. Of these, 5 showed less than 10% of the target. In addition, out of 4 indicators monitored for information transparency, 2 were not achieved (*Cour de Comptes* 2017). The assessment of the objectives of the 2015-2020 Contract is not possible yet. We can only evaluate the annual performance reports. In the new 2015-2020 contract, the vast majority of the objectives set remained unchanged, only the objectives of 5 indicators were loosened, in particular to ensure consistency between the decisions of the organizing authority on the multi-year investment plan or to take into account legislative or regulatory changes.

However, by carefully analysing both the data published in the reports produced by the municipality and those published in the EdP reports, it is clear that the municipality has not made the same effort in making such data neither easily understandable nor easily comparable. Without illustrating the indicators used to collect data one by one, for a matter of sobriety, the evidence shows that they are presented in relation to completely different indicators – qualitative and quantitative performance indicators, monitoring indicators, indicators of achievement of political objectives, financial indicators – collected by different actors using non-comparable measurement scales. For instance, financial data are collected by the financial department of municipality, through an opaque accounting system (as we will see in detail later), the databases concerning the quality of drinking water and the monitoring of treatment plants are managed by the health authorities and by the water police and refer to the regulatory indicators¹²⁵, while other figures are collected by municipality authorities referring to the ONEMA indicators, or to index of the UE Research and Innovation Horizon 2020¹²⁶, or even to indicators defined by the local government itself to measure its commitment to achieving electoral objectives. These include for example the company's

¹²⁴ Interview with academic expert on French and European public action and public services.

¹²⁵ Established in particular by Decree No. 675 of May 2, 2007 on annual reports on the price and quality of public drinking water and sanitation and circular No. 12/DE of April 28, 2008 implementing the aforementioned decree.

¹²⁶ <https://ec.europa.eu/programmes/horizon2020/what-horizon-2020>

commitment rate in terms of social solidarity, the satisfaction rate of subscribers and users, the entry rate to the Water Pavilion, the self-financing rate of investments, the percentage of women in the salaried population, the rate of promotion of women towards upper managerial positions compared to the rate of evolution of men, the rate of employees who have not had training for two years. In addition to the arbitrariness of these "political" indicators, it is important to underline that even data referring to the ONEMA indicators are not entirely trustworthy, since the databases published by this institution have been criticized in 2013 by an official report of the *Cour des Comptes* that denounced irregularities in their strategy of data collection and aggregation, since every French municipality is free to choose how to gather those information. Furthermore, not all water quality data contained in the reports that EdP sends to the *Ville de Paris* and OPE are published in the reports made available to citizens. In addition, annual reports on the price and quality of public water and sanitation service, produced by the municipality, are limited, with few exceptions, to an accounting presentation of figures, without explanations or "translations" for those who do not know the language of public finance. They also lack some items required by the decree of the Ministry of Ecology and Sustainable Development of May 2, 2007 relating to the annual reports on the price and quality of public drinking water and sanitation¹²⁷. Since this decree does not penalize entities that publish non-exhaustive reports, the respect of all legal guidelines is at total discretion of LG.

A reflection is mandatory, apart from this type of analysis: if such publications have the announced purpose of providing information on corporate management to all citizens, why are data within them not presented in an understandable way for everybody – like people who do not have specialized training in the financial or bio-chemical sector?

The annual summary reports of EdP appear more like self-celebrating posters of a political government, rather than technical documents about the performance of a company. On the other hand, *Eau de Paris* is a direct expression of municipal policy, and this evidence does not affect the quality of the company, but simply confirms the obvious. That is that EdP is a tool for achieving political goals.

5.8.1. Environmental sustainability

Without a doubt, the environmental commitment of the Delanoë administration in both the first and second mandate has been remarkable. Since 2010, *Eau de Paris* has been a tool to

¹²⁷ For example the item "revenue amounts linked to the invoicing of the water price, as well as other operating revenues deriving in particular from the sale of water to other public drinking water services" is lacking.

improve the environmental sustainability of water withdrawal, not only in the urban area, but also throughout the Île-de-France region. This policy direction was maintained even after 2014, when a new urban government replaced the one that carried out the remunicipalisation. Anne Hidalgo of the PS, vice mayor between 2001 and 2008, is the first female mayor of the city, elected in the second round to head a PS-PCI electoral alliance, with external support from the Greens (the largest group advising) in 2014 and re-elected the second time in June 2020. With this new government, the water issue leaves the municipal government's agenda, to be replaced by a 360° ecological policy that includes the sustainability of water consumption among its multiple objectives (sustainable viability, renewable energy, air quality, etc.), in line with Parisian political mood¹²⁸. “Public interest on management methods has declined dramatically, except at the local level if the issues are visible and important. However, the water governance remains an important showcase for public management and, despite all the shortcomings that may arise, it is exemplary. (The attention of the public in the management of water resources) had a small awakening in the press and media this year, on the occasion of the tenth anniversary of public management.”¹²⁹ A further sign of the continuity between the Delanoë and Hidalgo governments was the choice to appoint a councillor of the Greens, Célia Blauel, as deputy mayor, and therefore president of EdP: a clear signal towards the objectives of environmental sustainability. “Today [...] interest in the climate and biodiversity has literally removed the question of water from the political agenda.”¹³⁰

Starting in 2011, EdP inaugurated three action plans for environmental sustainability: the first aimed at the protection of groundwater resources, the second focused on the protection of biodiversity and the third on the development of renewable energy. By the analysis of annual reports on economic efficiency of EdP, we can calculate that the *regié* sold around 170 million m³ of water, at a price of € 1/m³ from 2008 to 2014, and € 1.07/m³ from 2014 to today. This has produced profits ranging from € 90 to 93 million/year, of which an average of € 70 million/year have been re-invested in the service until 2014, while those reinvested in the service from 2015 until 2019 have been around € 75 million/year (*Cour de Comptes* 2017). The percentage of these investments aimed toward the first and the second action plans is on average 12% (around € 8 million/year until 2014 and around € 9 million/year until 2019), based on Annual Report of EdP 2019. While investments in research and

¹²⁸ Interview with two academic experts on French and European public action and public services.

¹²⁹ Interview with a member of the board of directors of Eau de Paris.

¹³⁰ Interview with an expert on water services of Île-de-France.

development of renewable energy technologies account for approximately € 1.5 million per year, about 0.3% of the capital invested. The share of investments reserved for the conversion of infrastructures to reduce the consumption of non-renewable energy is difficult to calculate.

Protection of groundwater

An historical problem of the Île-de-France aquifers basins is pollution by nitrates and pesticides, mainly derived from large agricultural activities (*Cour de Comptes* 2017). This situation has forced the authorities to close nearly 50% of the underground drinking water aquifers in the past 30 years¹³¹. Already in the 90s, SAGEP had incurred the expense for the installation of powerful purification systems to make underground water drinkable (Sinai 2013), thanks to which the Parisians were able to witness the return of the aquifers in the waters of the Seine, which had disappeared for decades¹³². The plan for the groundwater resources protection has been renewed in 2016 by the new City Council.

In order to achieve various objectives, such as maintaining the multiplicity of the water sources, limiting withdrawals, restoring and conserving the quality of the water, EdP has embarked on a process of acquiring the land adjacent to the aquifers. The initial goal was to buy 380 hectares of land in 10 years, a goal achieved in just 5 years; therefore, the company has planned to purchase another 200 by 2020, a target fulfilled in 2019. Part of this land is leased to rural farms, which are contractually obliged to use organic farming or sustainable agriculture techniques (without chemical pesticides) and to let the flora grow spontaneously on uncultivated land. Currently the hectares organically cultivated are 3,500, while those with sustainable techniques are 10,500. Joint actions have also been undertaken by EdP and the Seine water agencies of Normandy and Île-de-France in support of organic agricultural cooperatives on the Seine for the creation of a sustainable food market (produced nearby with sustainable agriculture). The most recent fulfilled goal is that farmers of the Vanne valley won a tender for the *Caisse des écoles* in 2019 and are now the main suppliers of lentils, chickpeas and oil for the shops of the 11th arrondissement. Municipalities generally have the possibility of intervening on the "small water cycle" (the one represented by urban pipes) but not on the "large water cycle" (that of the underground water sources and rivers); therefore to carry out these interventions, EdP had to undertake a great promotion and political-administrative coordination between various municipal, regional and national authorities responsible for the

¹³¹ Interview with an expert on water services of Île-de-France.

¹³² RTBF June 23, 2010 https://www.rtbf.be/info/regions/detail_les-poissons-ont-reinvesti-la-senne?id=4838103

management of the "great cycle"¹³³.

Biodiversity protection

Another line of intervention inaugurated in 2011 is the one aimed at protecting the flora and fauna biodiversity of the territory. This was summarized in the so-called *Trames Vertes et Bleues*-TVB, created by EdP in collaboration with Île-de-France, in order to achieve the objectives defined in the public pollen known as *Grenelle de l'Environnement* (2007-2008) (AAVV 2008) by President Sarkozy and the regional ecological coherence schemes. Using administrative tools such as territorial coherence schemes and local urban planning, the two public authorities have involved local actors such as farmers, electricity companies, telephone companies and municipal administrations to carry out a project of ecological corridors, defined as a coherent network of replacement ecosystems and habitats compatible with the vital requirements of the species. Since the construction of the aqueducts, the creation of non-building green areas had been envisaged to prevent polluting activities from contaminating the water they transport. With the TVB project, these green areas have been enhanced, for example through green walks or cycle paths, combining the protection of biodiversity with sustainable mobility.

The objectives of the TVB project were renewed in 2017 through the biodiversity strategy promoted by the Hidalgo government. Nowadays the joint results of the two programs have created 1,300 hectares of green corridors along the aqueducts that serve Paris. Furthermore, as part of the new biodiversity plan, cooperative partnerships have been established with local associations that deal with the protection of the fauna and the rescue of injured animals.

Sustainable energetic consumption

Although the water from underground sources arrives at the tanks by fall, an electric pump system enables the distribution of water from the tanks to the home pipes, keeping this at the appropriate piezometric levels. Therefore, the electricity consumption of EdP is high and constant. Since the beginning of its activities, the BoD has faced the problem of implementing an energy transition of the company towards energy consumption from renewable sources, in line with the Capital Climate Plan of 2007¹³⁴. Since 2010, EdP has therefore completed several actions – agreements with *Électricité de France-EDF* for the realization of savings on the Montsouris tank pumps; installation of photovoltaic panels on the company's buildings; installation of heat pumps to recover heat from aqueducts and waste water collectors that can

¹³³ Interview with a member of the board of directors of Eau de Paris.

¹³⁴ <https://www.apc-paris.com/plan-climat>

be used for offices heating systems (Sinaï 2013).

After its election, the new Parisian government led by Anne Hidalgo, wanted Paris to become a city-symbol of the climate struggle against global warming. In October 2014, the government signed the Paris Climate Action Charter¹³⁵, passed in September 2015 the Energy Transition Law for Green Growth and the Paris Adaptation Strategy towards a more resilient city. Consistently with this policy, EdP adopted the *Climat Énergie d'Eau Plan*¹³⁶ in 2015, a few days before the start of the COP21 climate conference that took place in Paris. The plan has four objectives to be achieved by 2020: reduce greenhouse gas emissions by 15%; reduce energy consumption by 12%; consume 95% of energy from renewable sources; contribute to reducing the local GHG emissions up to 4,500 Teq CO₂, through the production of renewable energy. Thanks to the accomplishment of the photovoltaic power plant in the L'Hay-les-Roses treatment plant and the geothermal power plant built in the new eco-district ZAC Clichy-Batignolles, which exploits the heat produced by the water table (two projects started by the Delanoë government), EdP currently uses 94% of electricity from renewable sources. In 2019 the emission of 4,250 tons of CO₂ was avoided. Greenhouse gas emissions have been reduced by as low as 32.1% in 2019. While energy consumption has been reduced by 4.3%. Thus three of the four objectives of the Climate Plan were practically achieved one year in advance.

These policies are part of a larger Parisian project, started with the first Delanoë government, aimed at making Paris a healthier city for its inhabitants and less impacting on energy. In 2018 the Hidalgo government voted the *Nouveau Plan Climat*¹³⁷, comprising over 500 administrative measures that embrace disparate areas, from the construction of eco-sustainable buildings, to electric public transport, bike sharing, new cycle-pedestrian paths, supply of food from sustainable agriculture, strengthening of separate collection of waste, reduction of energy consumption from coal, sustainable finance, etc.

5.8.2. Transparency

Since one of the public authorities that most criticized the delegated management was the *Cour de Comptes* with the 2003 report, which highlighted a serious lack of transparency in the information reports produced by the Parisian branches of Veolia and Suez, the issue of transparency has been a constant in the last ten years of management *en régime*. As explained above, both *Ville de Paris* and EdP regularly publish reports on company's performance, economic situation, water quality and summary of the meetings of the OPE meetings, as well

¹³⁵ <https://parisactionclimat.paris.fr/en>

¹³⁶ http://www.eaudeparis.fr/uploads/tx_edpevents/DPPlanClimatEnergie.pdf

¹³⁷ <https://www.paris.fr/pages/nouveau-plan-climat-500-mesures-pour-la-ville-de-paris-5252>

as of the city council. However, as pointed out by several scholars (Bauby and Similie 2013), and then verified in the present study, the data presented in these reports are particularly opaque and difficult to understand. In March 2012, municipal oppositions made a noisy protest to highlight the complexity of the indicators of the *Contract d'Objectifs* and the data contained in the reports. In particular, this complexity concerns fiscal data, exactly as it already happened in the reports presented by the two delegated companies in the period preceding the reform.

EdP has a website on which a series of communications can be consulted, including its annual activity report; the price and quality of service can be viewed on the Paris city website. However, in order to have a clear idea of business management, it is necessary to put together the relevant data from company, municipal and regional reports, since there is no single published document that summarizes all the activities of the company, in particular the financial ones.

The annual city and regional documents provide information on the investment budget assigned by each to their part of the projects. In the annual reports drawn up by EdP to assess the achievement of the objectives of the Contract, these figures are revised in order to respond to different financial indicators: means indicators (covering a wide range of sectors: self-financed investment rate, investment rate, budget for research activities, amounts dedicated to training); and result indicators (completion rate of the investment program, network performance, average network renewal rate, average age of the meter fleet). Investments of EdP follow a general investment plan (2012-2026). According to the *Contract d'Objectifs*, between 60 and 70% of the investments must be self-financed by the *Régie* and the investment rate must account for at least 20% of the revenues. Based on the information presented in the EdP reports, Dominique Lorrain wanted to examine the data about revenues and investments/expenditures published in the three-year period 2010-2012. He attempted to compare the total revenues resulting from the payment of the Parisian water bills (including also the costs for the management of the sanitation service by SIAAP and the fixed taxes) declared in official EdP reports and the total revenue amount given by the annual water consumption multiplied by the price of water/m³ (180 million m³ of water X 3.29 €). "However, we are foiled by the opacity of the accounting system, because the proceeds include amounts collected on behalf of third parties, which are simply revolving transactions" (Lorrain 2016: 83). Well, based on the figures published in the reports total revenues should amount to € 359 million in 2010, whereas according to the multiplication of the water

consumed by its price they should be € 590 million. This computing is difficult also because SIAAP does not publish its financial data. The same operation has been repeated by the scholar on the reports of the following years, always presenting the same gap. The same thing has been done in occasion of this work, with the data published up to 2019 and each time the operation gives non-matching results.

The same opacity problems in the financial accounts published by EdP have been stressed by the *Chambre Régionale des Comptes Île-de-France* in 2014 and by the *Cour de Comptes* in 2017. In its report on the water policy of the city of Paris, the Chamber recommended to check the budget information system and seek solutions to comply with the legal separation requirements between budget operations for its various activities. The authority of the *Eau de Paris* believes to have fulfilled its obligations in this area "based on the analytical tool developed since 2013" that separates the different activities: drinking water, non-drinking water and other competitive activities" (in *Cour de Comptes* 2017: 33). However, since these data remains confidential, according to the *Cour* this solution does not meet the user's transparency and information obligations. Furthermore, the *Chambre* noted some difficulties in analysing the evolution of the agency's financial situation between 2010 and 2014, due to errors or changes in the allocation of various revenues, expenses, or taxes. In 2017 the *Cour* stated that these problems had not yet been resolved "This succession of errors affects the readability of the produced accounts. Therefore, every year a gap is automatically displayed in the management's accounts, between the commissions collected and the commissions paid, which affects its operating income" (*Cour de Comptes* 2017: 34). Finally, in 2014 the Chamber highlighted the impossibility for users to know the full cost of the service due to the absence of company's financial data in the documents published on the municipal and EdP publications (*Chambre régionale des comptes* 2014). The Chamber therefore recommended presenting the financial data consolidated in the annual report in order to provide complete information to the users of the service. The *Cour* had to underline that, in the following years, the situation has not improved, since the municipality report on the price and quality of water and sanitation services presents only the amount of the algebraic sum of revenue on the one hand, and expenditure on the other, without differentiating between the type of expenditures and revenues themselves. The *Cour* concluded that: "This algebraic sum makes no economic sense. [...] Furthermore, the information provided by this algebraic sum has no added value for the user." (*Cour de Comptes* 2017: 43). In addition to the problem of transparency towards users, the *Cour* also poses the problem of monitoring the economic activities of EdP by the

municipality. The accounting document produced by EdP every year for the municipality is not directly legible. "The document, in fact, does not contain any methodological comments, even if the elements transmitted each year are not the same, [there are] no comments or explanations on any changes in the calculation perimeter, from one year to the next." (*Cour de Comptes* 2017: 72)

In conclusion, the financial data published by EdP and the *Ville de Paris* water service are not difficult to understand only for "simple" users without skills in economics and finance, but also for experts. Not only there is not a single document that reports the annual result of all aspects and indicators relating to the service's activity (as required by legislation and the target contract), but the reported data are incomplete. To carry out that control function that is reserved for users in the speeches of the Paris rulers¹³⁸, more information, more accessible and understandable by everyone, is absolutely necessary. Of the three descriptive service quality indicators required by the law of May 2, 2007 – financial and asset management, environmental performance and user service – that the *Ville de Paris* is obliged to publish, the only comprehensive data are those on environmental performance. In fact, although in the EdP reports there are indicators on the satisfaction of users and subscribers, there is a complete lack of information on the number of complaints, on the type of complaints and on the activities carried out to resolve any requests by the users. Therefore, the information on the service to users is also insufficient.

5.8.3. Efficiency

Since the water service has the primary objective of providing healthy drinking water to its users, to evaluate the efficiency of the service we started from the analysis of the service quality indicators. The quality of service indicators made mandatory by the law of May 2, 2007 are 17, three of which are descriptive. They constitute the minimum essential knowledge base for the organizing authority to carry out its mission and guarantee user information. The obligation of EdP to regularly send reports to OPE and the city government has ensured that these indicators are monitored regularly. Although they are not useful for comparative purposes with other French cities (Bauby and Simile 2018), as each city can decide how to calculate them, they are useful for assessing the quality of the service. The analysis of the rate of returns and water losses tell us that the efficiency of the EdP distribution system is excellent (*Cour de Comptes* 2017). This high level of efficiency can be

¹³⁸ Anne Le Strat in Observatoire des Multinationales April 9, 2015 <https://multinationales.org/Anne-Le-Strat-La-remunicipalisation-a-permis-a-Paris-de-mener-une-politique-de>

explained by the fact that the Paris network is short and dense and is mainly located in the sewers and therefore more easily accessible to detect and repair leaks than an underground network. Moreover, we cannot deny that technical efficiency is a legacy of the three previous delegates, which carried out extensive interventions on infrastructures in both the 1990s and 2000s.

As regards to the quality of the water supplied, the regional health authority measures the adequacy of its bacteriological parameters based on the 1998 EU directives, implemented in national legislation. Throughout the period under consideration (2010-2019), Paris drinking water respected those bacteriological and physicochemical criteria, in particular referring to the nitrate content and the presence of pesticides.

To measure the continuity of the drinking water service, the rate of unscheduled service interruptions counts the number of interruptions occurred on the network, of which the affected subscribers were not informed at least 24 hours in advance. However, the user complaints rate is not provided by EdP, so it is impossible to evaluate the continuity of the service through the indicators present in the *Contract d'Objectifs*. Each year, EdP authority carries out a satisfaction survey of over 1,000 Parisian resident and non-resident users working in Paris, contacted mainly via the Internet. In 2013 96% of users of the *Eau de Paris* authority said they were satisfied with the public water service; the same percentage was 94% in 2014, 91% in 2015 and 88% in 2019. Therefore it is slightly down, possibly related to the recent staff reduction of the multi-function centre. While the subscription holders' satisfaction rate rose from 92% in 2015 to 96% in 2019. Moreover, the consumption of drinking water from taps has steadily increased since 2003. Thanks to these results, the company has won the award for the best customer service from 2012 to 2015¹³⁹ for three consecutive years; this award is assigned annually by *Viséo Conseil*, a leading company in the management of services for corporate clients.

From the organizational and economic perspective, we cannot deny that Anne Le Strat's (2010) predictions have actually come true. In fact, the internalization of various functions previously managed in outsourcing – customer service, maintenance of remote consumption meters, maintenance of infrastructures, maintenance of sewer pipes, invoicing and collection of payments, etc. – in addition to the decrease in fixed expenses, allowed the company to save an average of € 35 million per year, compared to the cost of the delegated service. As a matter of fact, the internalization of almost the entire water cycle has permitted considerable gains,

¹³⁹ http://www.eaudeparis.fr/uploads/tx_edpevents/CPEluServiceClient.pdf

in addition to the fact that very few services are delegated through public and corporate earnings are no longer distributed among the delegated stakeholders, taxes that the company has to pay to the municipality (the delegates paid the so-called "professional tax" on the business turnover, which now EdP no longer pays) have decreased and the loans from banks and public agencies are at zero interest at a convenient fixed rate. These savings made it possible to cover the high expenses of the implementation phase – in the first three years about 10% of revenues covered these expenses, with an average of 4% increase in fixed costs per year (*Cour de Comptes* 2017) – and also allowed to set up an investment plan on the service of 70 million/year from 2010 to 2014 and 74 million/year from 2015 to 2020. Of these, on average, 15 million/year are spent on plant maintenance work (permanent programs to repair leaks and replace lead and asbestos pipes), 10 million/year for environmental sustainability projects, 1.5 million/year for research and development programs, and the rest for the development of programs for social, educational, international cooperation and energy conversion of the company (Sinai 2013).

Furthermore, such savings allowed the RPMAF to block the price of drinking water per m³ at the symbolic value of € 1 until 2014 (in the statute it is written that this price had to exceed the maximum price of € 1.0464 excluding VAT/m³ until 2014). To increase investments, the Hidalgo government has increased the price by € 0.7/m³. With these figures on every euro earned, an average of 0.36 cents until 2014 and 0.40 cents since 2015 were reinvested in the service. In the opinion of the *Cour de Comptes*, the company is financially solid, with a debt of only € 77 million in 2011 that became 66 in 2015 (EdP received a loan without interests from a bank and another from the agency for the water of the Seine Normandy with fixed interests). The *Cour* also praises EdP's choice to re-invest many profits in the service, since "A simplified way to produce water at low cost would be to reduce the amount of investments, leaving users to update the facilities for the next few decades." (*Cour de Comptes* 2017: 48). However, in the long run the company will have to face an increase in fixed expenses between 1% and 2% and a decrease in earnings due to an average annual decrease in consumption of 2%. The costs' growth is caused by the progressive increase in rents that RPMAF pays to the municipality (over € 5 million/year, which increase due to the adjustment of rents to inflation), in taxes it pays to the municipality (which exceed € 40 million/year for the rent of water networks and advertising spaces), in the cost of personnel (which increases every year by 2% due to the planned increase in salaries and the sharing of profits with employees), and in the maintenance of a very expensive water infrastructure (due to the size of its pipes and

the work to replace the asbestos parts). For these reasons, the company is developing new earning strategies. The most profitable (between € 2 and 4 million of earnings per year) has been so far the sale of non-drinking water to the neighbouring municipalities; Paris currently supplies water to the municipalities of Seine-et-Marne, Yonne, Aube and Essonne. However, in order not to risk endangering the security of supply of the capital, the municipality has asked its operator not to supply more than 100,000 m³ per day to neighbouring municipalities. In addition, EdP sells metrology, laboratory or pipeline monitoring services to third party customers, generating approximately € 3 million/year. In addition, it has won the municipal contract for the management and maintenance of all fire-fighting equipment in the city and has started in recent years to sell the electricity produced by the plants of Haÿ-les-Roses and Clichy-Batignolles. In conclusion, remunicipalisation has seemed to postpone, not to avoid, the problem of the so-called scissors of the increase in expenses and the decrease in revenues (Sinaï 2013). However, it appears that corporate management is setting up long-term economic sustainability strategies. If they are effective we will find out in a couple of decades.

5.8.4. Citizen participation in service management

As previously mentioned, in Paris there has never been a local mobilization to ask for the remunicipalisation of urban water services, as it happened in many Italian cities. The idea of the reform originated within the epistemic communities composed of anti-globalization militants and environmentalist political circles¹⁴⁰, and, after various public scandals relating to the delegated management by CEP and EFPE, was supported by consumer associations and for environmental protection. As confirmed by an expert on water services of Île-de-France: "No [there were no social movements], it started when Bertrand Delanoë arrived as mayor of Paris in 2001. Our associations have followed and supported this movement in the light of the opinions of the administrative investigations and the Court of Auditors who denounced the deprived management of water resources. The left-wing parties in Paris have unanimously agreed for once on the remunicipalisation of water distribution in Paris."¹⁴¹ Therefore, the idea of involving citizens in the management of water services was not the response to a request from Parisian, but part of an ideological construction based on the public discourse of water as a common good, which had been developed in the venues of the World Social Forum and which in turn made reference to Elinor Ostrom (1990) studies. "Collective decision-making mode, possibility of control by the public power, mechanisms for deliberation and

¹⁴⁰ Interview with a member of the board of directors of Eau de Paris.

¹⁴¹ Interview with an expert on water services of Île-de-France.

conflict resolution, opening up to new fields of competence and networking: so many criteria for the governance of a common good such as Elinor Ostrom had defined." (Sinai 2013 : 115). The places for citizen participation in urban water governance are the CCSPL, which, as we have seen, has been closed to citizen participation becoming a venue populated by administrators and stakeholders, the OPE and the BoD of the RPAF. According to the statements of the rulers of Paris (Le Strat 2010) and some scholars (Mone 2016; Dardot and Laval 2015), the BoD is an arena where decisions are made according to the rules of deliberative democracy, as the representatives of citizens have the right to vote. By deliberative arena, we mean a political space complementary – not alternative – to representative institutions, in which ordinary citizens interact according to a deliberative logic – understood as a method of dialectical debate aimed at modifying previous representations and preferences and building unanimous consensus (Vitale 2010b), which contrasts with the voting negotiation practices typical of the dynamics of representative democracy – in a structured and temporary way, in order to produce a consultation or decision on a public policy issue (Bedu 2013; Raffini 2018). Deliberative processes are considered useful tools for strengthening representative democracy, through the promotion of community's civic, democratic and epistemological virtues; while the OPE would fall into the category of participatory arena, with control function, where the representatives of the citizens have the right to express non-binding opinions on corporate decisions (Duret 2015). As we have seen, within the BoD there are national representatives of the two associations *UFC-Que Choisir* and *France Nature Environnement*, with the right to vote since 2012. The people selected so far for this role are all characterized by a high level of technical-scientific competence in several sector (environmental sciences, finance, agriculture, chemistry, etc.), allowing them to understand the technical data discussed in the sessions and to carry out administrative roles in other offices as well. As stated by a member of the board of directors of *Eau de Paris* "Me and another representative of my association are also full members (4 members of the Bod + 4 substitutes) of her tender committee (presentation of offers, tenders) with full voting rights."¹⁴² Both the interviewees and the summaries of the BoD meetings confirmed that discussions almost always take place without conflicts, through consensual practices with the aim of reaching unanimity. A member of the board of directors of *Eau de Paris* told us that the issues around which the municipal deputies and representatives of the associations have clashed the most were: fixing the price of water without the annual

¹⁴² Interview with a member of the board of directors of Eau de Paris.

indexation formula – while the rulers wanted it to be indexed to the percentage of reinvested revenues in the service; the closure of the pumping plant of the Orly plant – which councillors wanted to keep open; the implementation of a project to supply non-drinking water to the Grenelle site – environmental associations and city committees opposed the project, which was considered environmentally harmful. In all these cases, the position of the representatives of the associations prevailed over that of the municipal councillors, demonstrating the effectiveness of the debate between the various members of the BoD¹⁴³. Therefore, despite the representatives of civil associations are in the minority in the BoD, they have a strong power of influence on corporate decisions¹⁴⁴. However, great perplexities remain regarding the possibility of defining these people – unquestionably competent and in good faith – as "representatives of citizenship". The practices of deliberative or participatory democracy are always based on an institutionalized mechanism of selection of a group of people considered representative of the reference population (Bedu 2013; Fourniau 2019), such as drawing lots, voting for spontaneous candidates, primary elections, etc. In Parisian case, however, the municipality of Paris chose which national representatives of those – and only those – two associations sit in the BoD. Without transparency on the methods of selection or on the criteria that guided this choice. The third representative of civil society is also selected by OPE participants among its members. But the OPE members representing civil society are in turn chosen by the municipality within the *UFC-Que Choisir* and *France Nature Environnement* associations. None of the representatives of *France Nature Environnement* in the OPE and in the administration of the RPMAF have explained us why the municipality has chosen their association; they only told us that, although their organization has always had relations with all the Parisian political forces, after the scandals of 2003 on the management of delegates and the reports on the price of water of *UFC-Que Choisir*, their collaboration with the first Delanoë government has become grounded and constant, in order to carry out the remunicipalisation reform.

The city has also created the Parisian Observatory on Water, an advisory body, which is expected to meet four times a year. The mission is to "evaluate the service provided, increase the expectations and [decrease the] dissatisfaction of water users, suggest lines of thought on water and sanitation" (art. 2 of the decree of the mayor of Paris of 19 June 2006) and formulate non-binding opinions on business management decisions, but it seems that its meetings are quite "routinary" and difficult to work effectively (Bauby and Similie 2013).

¹⁴³ Interview with a member of the board of directors of Eau de Paris.

¹⁴⁴ Interview with an activist at national scale for public management of water services.

In the contract of objectives that binds the municipality to the *regié*, the public authority "undertakes ... to guarantee ... the autonomy [of the OPE] in the choice of the topics that its representatives will decide to address, in order to make it an impetus for public policy." However, its presidency was held until April 2013 by the city representative, deputy mayor responsible for water, and only since then by a user representative, Henri Coing, National representative of *UFC-Que Choisir*. Furthermore, at the beginning of 2014, the Observatory continued to operate without effective budget allocations to undertake its own studies and the OPE's secretariat, which defines timing and agenda of its sessions, is managed entirely by the STEA, that is a municipal authority. Looking at the OPE website, it is clear that it has not been updated since 2014. "The *Observatoire* was built by the will of the government, in order to publicly proclaim that everything is decided with the citizens. But in reality the *Observatoire* does not enjoy any kind of autonomy."¹⁴⁵ Furthermore, an expert on water services of Île-de-France told us "Since 2015, the president of the OPE, who has sat on the board of directors of *Eau de Paris* as a representative of the consumer association *UFC-Que Choisir*, wanted that OPE studied the possible future prospects for a metropolitan water management, after the creation of the metropolis of *Grand Paris*."¹⁴⁶ President Blauel opposed this proposal and this clash resulted in an internal conflict that caused in 2017 the resignation of Henri Coing as president. Upon requesting to speak about this incident, Mr. Coing refused to continue the interview for the present work, asking to exclude any statements he provided up to that moment from the writing of the present study. Mr. Coing is still a member of the BoD as represented by *UFC-Que Choisir*. However, in 2017, the sessions of the Observatory have been suspended by a unilateral decision of the deputy mayor, as confirmed us an academic expert on French and European public action and public services¹⁴⁷.

"The Parisian Water Observatory was created on the initiative of Anne Le Strat, head of the authority of *Eau de Paris*. She was the one who chose the members and defined their orientations and work. In reality, it was mainly a tool of public communication for *Eau de Paris* and its leader, who never had any real power. The new manager of *Eau de Paris* since 2014, the ecologist elected Celia Buauel, then entered into conflict with some members of the OPE, including its president who sat on the board of *Eau de Paris*, because she wanted her to become an advertising organ. Several resignations from the Observatory followed. The OPE

¹⁴⁵ Interview with two academic experts on French and European public action and public services.

¹⁴⁶ Interview with an expert on water services of Île-de-France.

¹⁴⁷ Interview with an academic expert on French and European public action and public services.

has not been active for two years."¹⁴⁸ Since then, the Observatory has only met twice, as can be easily seen on its website. It now plays only a consultative role on the communication and training activities of EdP.

5.8.5. Social equity

The 8% reduction in the price of water decided by the City of Paris starting from July 1, 2011 (which represents around 18 million loss of earnings per year for the RPMAF), as well as a commitment not to increase the price by 2014, were announced as the first social equity measure to ensure access to water for all. However, this reduction was practically not perceived by consumers (Bauby et al. 2018). In fact, this reduction was accompanied by a slight increase in withdrawal taxes and a significant 6% increase in the purification quota linked to the commitments undertaken by France to comply with European directives. In addition, Dominique Lorrain (2016) points out that this reduction has a minimal impact on the household budget, because it corresponds to € 7.50 savings/year for an annual average consumption of 90 meters³. Moreover, the scholar points out that, if one considers water in the context of the cost of essential goods "in Paris, the promised reduction had all the features of political hype" (Lorrain 2016: 81). As a matter of fact, in the housing sector, the price per square meter of residential property has more than multiplied between 2001 and 2010, causing negative social consequences: debt, gentrification, impoverishment, etc. The same reference to housing can be extended to the tax sector. In 2008 the City Council introduced a new departmental land tax of around € 140 on average for a three-room apartment. Compared to existing land taxes, this represents a 20% increase. It is noteworthy that the remunicipalisation has caused more visible effects on the family budget in the areas of the *banlieues*; the return to the direct management of the *intra-muros* water has represented an opportunity to renegotiate their delegation contracts.

Other actions toward social purposes have been launched, certainly more impacting. For families whose water bills exceed 3% of their budget, the Parisian municipality introduced in 2009 a solidarity allowance. Since 2012, approximately 45,000 families have been assisted in this way for an average amount of € 63 per family/year, for a total expenditure of approximately € 5 million per year (Bauby and Similie 2013). A clause was then introduced in the regulation of the water service that allows illegal occupants (if the building is not unsafe and if there is an accordance with property) to receive a free water supply, whose costs are covered by the company. Regarding the treatment of families in an unpaid rent situation, the

¹⁴⁸ Interview with an expert on water services of Île-de-France.

unpaid water is covered by the FSL. Created by the law of May 31, 1990, this fund supports on average over 5,000 families a year – three quarters of residents in public housing – with an average contribution of € 90 per family/year. In 2011 *Eau de Paris* doubled its annual contribution to the FSL, bringing it to € 250,000 in 2010 and since 2011 it has reached € 500,000/year. An installation project in social housing of 30,000 kits to save water has been concluded in 2013. The installation of these water saving kits in taps allows for a 15% reduction in water consumption and a reduction in hot water bills of approximately € 50/year/family for two people. Regarding policies to support homeless, EdP has increased the number of fountains and public toilets in the city. Currently in Paris there are about 1,200 free drinking water points, of which almost 400 are outside the *sanisette* (free public toilets installed in the 80s for the homeless), and 18 free showers serving approximately 900,000 users per year. In addition, *Eau de Paris* collaborates with social actors who work with the homeless by providing them with cans, cups, pumpkins and maps of the location of public fountains. Finally, in 2011, a study was conducted to evaluate the possibility of installing individual meters, in order to differentiate the price of household water from the commercial one, but this hypothesis was finally considered too burdensome.

From the educational point of view, in 2007 EdP invested 5 million euros to build the Water Pavilion, with the aim of raising awareness among Parisians and, in particular, the young public, on the diversity of problems affecting the world of water resources. Managed by *Eau de Paris* on behalf of the city, the Pavilion is the premier place for information and documentation on water in Paris. There is a permanent exhibition on the water supply of Paris and its history, temporary exhibitions and activities aim at promoting the dissemination of knowledge about water and good consumer practices. This activity is financed for about € 800,000 per year by the *Eau de Paris*, without benefiting from a subsidy from the City. The Water Pavilion welcomes between 30 and 40,000 visitors a year with free admission (*Cour de Comptes* 2017). “Hence, the typically capitalist and private principle according to which “water pays water” has not been changed, but it has been applied with greater attention to social issues.”¹⁴⁹

Finally, particular attention should be given to the working conditions of EdP employees. All 900 employees have permanent contracts, take special compensation if they perform dangerous tasks and participate in company profits. 30.5% of them are women, and 38.2% of these hold executive positions in the company organization chart. One hundred and five

¹⁴⁹ Interview with an activist at national scale for public management of water services.

workers carry out their work from home and all workers have access to a free psychological assistance service and annual internal training courses. Finally, in 2011 it was discovered that over a third of sewer pipes are covered with asbestos. Whereas this does not pose a danger to consumers, it is to workers. EdP then launched a program to secure and replace those pipes, together with the implementation of training programs for workers so that they can protect themselves from risks during their duties.

5.9. Policy maintenance, succession or termination

Positive elements of the current water regime for the *Ville de Paris* are manifold: the political legitimacy of centre-left governments has increased, demonstrating that the electoral promises have mostly been kept¹⁵⁰. As we have seen, in fact, the service has not improved neither in economic transparency nor in the participation of users in the management of the service; but, in the absence of a critical mass born from a local mobilization on these issues, the legitimacy of the Delanoë-Hidalgo governments is not threatened due to the few Parisians interested in these matters. The attention of the Parisian citizens is focused on the issues of water quality and environmental sustainability, and undoubtedly in these areas public management has proved to be excellent, as well as the previous private operators. "Water is not the major issue for Parisians. Housing, cleanness, noise, air pollution, transportation are more important in the agenda. Water was globally functioning well due to the policies of the two water companies, and there is not a lot to do – just keep the line."¹⁵¹ Moreover, the return to public management has increased competition between operators, causing a lowering in prices of delegated services both inside and outside Paris (Bauby et Similie 2013; Barraqué 2012), thus increasing the legitimacy of remunicipalisation reform also at national level. The political value of this company is demonstrated by the fact that, in order not to increase the price of water, the city has developed a technical ploy to cover the cost of distributing non-drinking water through the rates of the sanitation service, constituting an illicit (*Chambre régionale des comptes* 2014). Finally, for an increasingly indebted municipality like Paris (the new mayor Hidalgo was criticized because of the enormous public debt accumulated by Paris after her election¹⁵²), the chance to have a public company available that generates revenues around € 210-220 million a year is a big plus. As a matter of fact, the EdP revenues could be collected by the Treasure of the City and managed in a consolidated way. "The separate

¹⁵⁰ Interview with two academic experts on French and European public action and public services.

¹⁵¹ Interview with an academic expert on French and European public action and public services.

¹⁵² *Valeurs* November 18, 2018 <https://www.valeursactuelles.com/economie/paris-sept-milliards-de-dettes-depuis-larrivee-dhidalgo-100868>

financial statement for *Eau de Paris* is only produced at the end of the financial year. In the meantime, the city can use these fungible resources, and thereby reduce its reliance on short-term loans" (Lorrain 2016: 82). By doing this, the *Ville de Paris* has accumulated many debts towards the *regié*, which amounted to 3.3 million euros in mid-2016, according to documents provided to the Chamber by the Paris City Council. In total, the revenues for the general budget from the drinking water service amounted to more than € 15 million in 2014.

In conclusion, we can say that the effects of the remunicipalisation policy were mostly self-reinforcing. As a matter of fact, despite the reform was very expensive in the first three years, a balance between revenues and expenses of the RPMAF was found in the medium term, without resorting to excessive loans. Fiscal policy feedbacks have undoubtedly been self-reinforcing, both for public opinion – thanks to the proclaim about public savings and decrease in the price of drinking water – and for urban government – thanks to the possibility of using EdP profits to face current expenses. The Hidalgo's government, during the current historical moment, is being criticized for the high public debt accumulated¹⁵³, however this debt was accumulated to allow the ecological reconversion of the city¹⁵⁴, and this choice was rewarded by the voters with the reconfirmation of the mayor in the municipal elections of 2020¹⁵⁵. Such a figure shows that positive fiscal feedbacks are linked to positive administrative feedbacks. Having carried out the implementation of the policy with great speed, effectively solving the difficulties encountered, and having then guaranteed to citizens an environmentally efficient service, centre-left Parisian governments – since 2001 to 2020 – have shown to get a strong sense of organizational mission and morale, as well as a strong reputation for competence. Gathering the previous government's environmental heritage and organizational and administrative skills, mayor Hidalgo has been awarded by citizens twice. The administrative model she followed is the same inaugurated by Delanoë-Le Strat: high level technical-scientific skills, public debt for the implementation of reforms, medium-long term investments, collaboration with regional actors for the management of environmental issues and attention to local social problems through actions that are more symbolic than concrete (projects to help homeless, home occupants and families of public housing still clash with the very high municipal taxes imposed on Parisians).

¹⁵³ *Boulevard Voltaire* November 19, 2019 <https://www.bvoltaire.fr/avec-7-milliards-de-dettes-hidalgo-a-mis-paris-dans-le-rouge/> ; Capital November 19, 2019

<https://www.ecosia.org/search?q=paris+dette+publique+hidalgo+Le+Figaro>

¹⁵⁴ *Le figaro* September 23, 2019 <https://www.lefigaro.fr/elections/municipales/paris-anne-hidalgo-profite-des-divisiones-de-ses-rivaux-20190923>

¹⁵⁵ *France24* June 28, 2020 <https://www.france24.com/fr/20200628-municipales-2020-large-victoire-d-anne-hidalgo-%C3%A0-paris>

To maintain this water regime in the long term, the municipality will have to formulate a strategy to deal with the scissors of rising costs and decreasing revenue from invoices. Undoubtedly, the costs of water production and distribution, given the pollution of the resource and the evolution of technical, health and environmental standards, will be increasingly high. In the new target agreement, the municipality has set the increase in overheads at 1% as annual average for the entire duration of the contract. Only staff accounts for 40% of fixed expenses. As we have seen, the company is moving towards the sale of other services, taking the path of multi-utility.

A second option would be to redirect the distribution of water costs among different users. For example, the price per cubic meter of water could be varied according to social or environmental criteria. The "Brottes law" of April 2013 allows experimenting with the modulation of tariffs based on the size of families and their incomes, as well as the introduction of economic incentives to reduce water consumption, or the introduction of a progressive tariff. This law calls into question for the first time the principle that "water pays for water". However, a 2013 company study (already mentioned) found that progressive pricing, on individual bases, would not be suitable in dense urban areas where collective passes prevail, because it would penalize large families and benefit single people, whatever their income, without no redistributive effect in favour of the most disadvantaged. Thus, this project has been definitively shelved.

The third option to make public management sustainable in the long term is undoubtedly the economy of scale. According to the opinion of the *Cour de Comptes* (2017), the answer to the problems related to economic sustainability, environmental protection, global warming and metropolitan social issues is the organization of service on a metropolitan scale. The water policy of a metropolitan area raises a series of questions that do not necessarily find a solution at the level of one or two local public bodies. This is the case, for example, of the organization of the security of water supply through the diversification of sources, or of the management of drought and flood crises. More generally, the challenges of the new public water service are no longer exclusively or largely technical. The new public governance places service at the crossroads of economic, social, democratic and environmental issues, which require a more demanding public water service.

SEDIF attempted, in 2015, to launch the proposal to pool production capacities at the regional level, proposing a project of three ring "water highways". They would make it possible to pool all regional water resources, optimizing their distribution to all citizens and standardizing the

price for all 10 million inhabitants of Île-de-France. However, in this historical moment, the relations between the three water producers of the region – EdP, SEDIF and the Gennevilliers peninsula – are not collaborative. The SEDIF project was immediately rejected by the other two actors. Another project to share data on water quality and pollution has failed. They are perpetually competing for the sale of non-drinking water, and there have been several occasions in which one of the three operators appealed to contest the results of some tenders won by its competitors.

If elected officials recognize the benefits of pooling sources and infrastructures and nationwide supply, they could put aside competitions and tackle the problems of creating a metropolitan-scale authority to surrender all of their infrastructure and bonds: the plants and sources of the three regional operators together reach an average production of 1.2 million m³ per day. This average production would permit to cover the average needs of the entire population of the metropolis, as well as that of municipalities that are not located out of it (*Cour de Comptes* 2017). This authority should also address the problem that in the region some sources and plants belong to Veolia and Suez: for example in the departments of Essonne, Seine-et-Marne, Val-d'Oise and Yvelines, 2.5 million inhabitants receive drinking water from production facilities owned by *Suez Eau* and *Veolia Eau*.

An obstacle to this project, however, is represented by the derogation introduced in the NOTRe law regarding the city of Paris, which does not oblige it, like other French municipalities, to delegate its competences in water management to a basin authority. From a regulatory point of view, therefore, the *Ville de Paris* has no incentive to delegate its water activities to a metropolitan organization. The law recognizes the right of the capital to remain independent from other territorial actors. On the other hand, this law requires users to renounce the long-term adoption of a single water tariff, as will happen in other metropolitan areas. In summary, in order to create a metropolitan water authority in Paris, it would take a legislative adjustment, as well as a political agreement between all the regional actors to give up their competences and their infrastructural assets.

6. THE REMUNICIPALISATION PROCESS OF NAPLES WATER SUPPLY SERVICES: A BOTTOM-UP POLICY PROCESS

An effort to make the data on which chapter 6 was constructed comparable with that of chapter 5 has been carried out. The first challenge was encountered in the attempt to identify the results of the various regulatory changes relating to the water sector starting from the NPM phase. Since in Italy there have been many national authorities with regulatory and control functions, which have collected and published data in a discontinuous and methodologically inconsistent way, many of the figures analysed come from reports drawn up by different public and private subjects – for example, UTILITALIA, the Cittadinanzattiva association, Legambiente, ISTAT, *Corte dei Conti*, Invitalia, the extraordinary commissioner of the spending review, etc. For this reason, the data reported there have been difficult to aggregate and compare. As regards the local context of our case study, Naples, access to data relating to economic and environmental performance was also a difficult undertaking. Despite the compulsory publication, the municipality of Naples does not show the intention to respect this obligation, making the research work difficult. Moreover, far and fewer academic studies have been published on the evolution of the Italian water regime and on the specific Neapolitan case study, compared with those relating to the French urban service model (Lorrain 2016) and the Parisian case. Such difference is caused on one side by the historical peculiarity of the French delegated model, which, unique of its kind in the period before NPM, subsequently inspired the European legislation on the management of SGEI (Marçou 2016b); and on the other side by the high symbolism assumed by the remunicipalisation of EdP within the dichotomous debate on public/private water management in the European context. The legitimization and implementation phases of the remunicipalisation of Naples have been discussed in academic articles, especially in the legal field. However, the evaluation of the results of the Naples' policy change has not been the subject of studies, perhaps because they were not as exciting as the Parisian ones. Thus, while the Neapolitan case was exalted by epistemic communities that studied the cases of remunicipalisation with a prefigurative logic, due to the large popular participation that supported the reform, it was instead set aside by the same communities at a later time. For this reason, the present chapter has been built through a lower use of academic materials, and a greater use of direct testimonies from protagonists of the reform compared with the previous chapter. In-depth interviews with participants in the remunicipalisation process, privileged observers and academic experts have been collected. The list of interviewees also includes those who initially accepted the

interview request and then refused after having known the questions, as this behavior was also considered a data to be analyzed. The place and time of the interviews and the personal profile of interviewees are described in table 7 and, as done for the Parisian case, each of them has been included in a general typology to which reference is made during the narration, in order to keep their identity anonymous. The collected in-depth interviews are 18 and they are the result of many telephone and telematic exchanges and personal meetings that took place over a prolonged period of time. Consistently with this, table 7 shows the generic period during which these collection of testimonials took place and not a specific date.

Interviewed	Personal profile	Time	Place	General Typology
Boccardi Costanza	Spokesperson of the Naples Forum for Public Water	December 2018	Naples	Activist at local scale for public management of water services
Brancaccio Luciano	Professor of sociology of political phenomena at the Federico II University of Naples and expert on the Camorra phenomenon	January 2019	Naples	Academic expert on Neapolitan issues
Carpentieri Venanzio	Union representative of the workers of ARIN and then of <i>ABC Napoli</i> of the Federation of Energy, Fashion, Chemicals and Related-FINCA CISL	January-March 2019	Naples and Milan	Employee of ARIN and <i>ABC Napoli</i>
Carsetti Paolo	Activist of the Italian Forum of Water Movements and secretary of the organizational structure of the Forum since 2008	December 2018	Rome	Activist at national scale for public management of water services
D'Angelo Sergio	Extraordinary commissioner of <i>ABC Napoli</i> since 2017 and currently in office	January 2019	Naples	Member of the board of directors of <i>ABC Napoli</i>
dell'Oste Egidio Fedele	President of the Area Office of the Metropolitan City of Milan for the management of the Integrated Water System since 2016	November 2018	Milan	Expert on Italian water services
Frascani Paolo	Emeritus Professor of History of Contemporary European Society of the University of	January 2019	Naples	Academic expert on Neapolitan

	Naples "L'Orientale"			issues
Grauso Giuseppe	Regional Coordinator of Public Water Committees	December 2018	Rome	Activist at local scale for public management of water services
Iannello Carlo	Associate professor of Public Law and Institutions of Public Law at the Second University of Naples	December 2018	Naples	Academic expert on Italian public action and public services
Lucarelli Alberto	Full Professor of Constitutional Law at the University of Naples Federico II	December 2018	Naples	Activist at national scale for public management of water services
Massarutto Antonio	Associate professor of Applied Economics at the University of Udine and Research Fellow of Green of the Bocconi University	November 2018	Milan	Academic expert on Italian public services
Montalto Maurizio	Neapolitan environmental lawyer, former delegate of the municipality of Naples in the assembly of the mayors of the ATO Napoli-Volturno and extraordinary commissioner of <i>ABC Napoli</i> from 2014 to 2016	January-March 2019	Naples and Milan	Activist at local scale for public management of water services
Moricola Giuseppe	Full professor of History of Companies and Multinationals, History of International Economic Relations and Economic History of the L'Orientale University of Naples	January 2019	Naples	Academic expert on Neapolitan issues
Petrella Riccardo	Founder of the International Committee for the World Water Contract and writer of the Water Manifesto (2001), honorary director of the <i>Catedra Libre del Agua</i> of the National University of Rosario in Argentina, founder and president of the University of the Common Good	October-December 2019	Paris	Activist at national scale for public management of water services

Pierobon Alberto	Italian expert in the management of public services; he has been a member of various ministerial commissions on waste matters and director of public companies; currently he is a consultant at public and private entities on tariffs, public services and the environment.	January 2019	Milan	Expert on Italian water services
Piperata Giuseppe	Full Professor of Administrative Law at Alma Mater Studiorum - University of Bologna	January 2019	Bologna	Academic expert on Italian public services
Salvio Consiglia	Spokesperson and organizer of the Naples Committees for Public Water	January - July 2019	Naples and Milan	Activist at local scale for public management of water services
Santagata Francesca	Director analysis laboratory between 1999 and 2016 of ARIN and then of <i>ABC Napoli</i>	February 2019	Milan	Employee of ARIN and ABC Napoli

Table 7: Interviews about the Neapolitan case study (handled by the author)

Only the immeasurable willingness of such people to share their experiences has made this work possible, which represents the first academic contribution to the study of the case of remunicipalisation of the water services of Naples. The use of the Process Tracing Methodology, combined with the application of the conceptual and theoretical tools of Institutional Analysis and Development Framework (E. Ostrom 2005) and Policy Process Framework (Goyal and Howlett 2019) have allowed us to provide a minimally sufficient explanation of the empirical results analysed, thus making this chapter comparable with the previous one and with other case studies.

6.1. Exogenous variables

The Italian Republic is a territory with an average population density of 199.42 inhabitants/km² and a population that slightly exceeds the 60 million inhabitants (60,238,522 in 2019) in continuous decline (negative demographic growth rate since the 1990s, - 0.21% in 2019). Italy is one of the European countries with the greatest availability of good quality drinking water, due to the presence of impressive mountain ranges that run throughout the peninsula. For this reason, despite the kilometres of seacoast, a minimal percentage of the

drinking water distributed has marine origin. Withdrawal from underground water sources is predominant, with percentages higher than 75%, in all districts, with the exception of the Sardinia district, where just over 20% of the withdrawal comes from a source or well. In 2019 48.9% of drinking water was extracted from a well, 35.9% from a natural spring, 9.8% from an artificial basin, 4.8% from surface water courses and the rest from lakes or sea (ISTAT 2020). The typical morphology of the Italian territory makes the heritage of natural mineral water among the most important both for the number of springs and for the quality and mineral diversity of these resources. Only the two islands and some areas of the southern regions suffer from drought, which can reach extreme peaks during summer, forcing the municipalities to oblige the inhabitants to ration water; however this practice is not only linked to the scarcity of water, but to the growing inefficiency of the water distribution networks in the southern areas of the country. The water network system is about 500,000 km long, but even nowadays its measurement is not accurate due to the presence of illegal connections to state infrastructures. In 2017 95.8% of households were connected to state water networks, the rest of them were and still are probably connected through illegal networks or obtain water from private wells (ISTAT 2019). The relevance of this result is given by the comparison with data of 1987, when only 65% of the population was regularly served by the national water service, with negative peaks of 22% in the South and 45% in the islands (Masarutto 2011a).

Compared with its EU partners, Italy shows an awful performance both in consumption styles, in the quality of the distribution system, and in the purification capacity of wastewater. However, these negative data do not result from a homogeneous condition, but are the average of different performances in various Italian municipalities and provinces. Official reports about the Italian water system show an extremely fragmented panorama in terms of consumption styles, plant efficiency and price of drinking water. In 2018 the total volume of drinking water withdrawn to guarantee domestic, public, commercial and productive water uses amounted to 34.2 billion cubic meters, of which 28% is destined to domestic use, however ONLY 19.5% of the total actually comes to the taps of the Italian homes, due to water losses (Utilitatis 2019). Such a supply corresponds to a withdrawal of 64 m³/year per person of water for domestic use (Cittadinanzattiva 2019), proving Italy to be the worst country for European water consumption after Greece¹⁵⁶. In 2018, for the first time in the last twenty years, withdrawals for drinking use decreased slightly (-2.7% compared to 2015). However

¹⁵⁶ Eurostat 2017 https://ec.europa.eu/eurostat/statistics-explained/index.php/Water_statistics

this figure is the result of a strong territorial difference in consumption, which in 2019 increased from a supply of 300 litres per inhabitant per day in the cities of Milan, Isernia, Cosenza, L'Aquila, Pavia, Brescia and Venice, in comparison to Barletta, Arezzo, Agrigento, Andria and Caltanissetta that supplied less than 150 litres per inhabitant per day (ISTAT 2020).

Such excessive average consumption is unfortunately not linked to the consumption of tap water. In fact, in 2019, 7 million and 400 thousand families declared that they do not drink tap water. This figure is slowly decreasing: from a percentage of 40.1% in 2002, it reached 29.0% in 2019. Significant differences remain between the North and the South: in the North-East 19.3% of the population is drinking bottled water, while in Sardinia this percentage is 59.9%, in Sicily it is 53.1% and in Calabria 48.8% (ISTAT 2019). Thus, the monthly expenditure for the purchase of bottled water is also increasing: in 2019 it was 12, 48 € /month, 4.5% more than in 2018. Excessive consumption of water is due to various factors. Over 50% of consumption is destined to the agricultural sector, which is developed in areas not naturally irrigated. In 2018 Italy was among the four European countries with the highest propensity for agricultural irrigation (Malta 31.4%, Greece 23.6%, Cyprus 21.0% and Italy 20.3%) (ISTAT 2019). Moreover, 20% of the national territory is subject to the phenomenon of desertification, which obliges the transport of drinking water from very distant areas¹⁵⁷. Finally, the major problem remains that of water leaks from the transport networks, which causes the loss to the environment of more than a third of the water extracted during transport.

In 2018 "37.3% of the water fed into the network was lost, and it did not reach the end users, with significant financial and environmental repercussions, especially considering the increasing frequency of episodes of water scarcity affecting our territory." (ISTAT 2020: 7). However, ARERA published in 2019 the alarming data that the average water loss in 2019 reached 42% out of a research sample of 71% of the Italian population (ARERA 2019). The data on water losses are not unique in Italy, given the inefficiency of measurement systems (Utilitatis 2019), however what a certain figure is about water losses are increasing. The average loss of water from 2013 to 2017 was 35.3% (Cittadinanzattiva 2019), while this figure was 33% in 2012 (Cittadinanzattiva 2013; Legambiente 2012). It is therefore clear that in the majority of regions there have been no clear improvements over the years and in some cases the situation has even worsened. Again, there are great differences both between region

¹⁵⁷ *Greenreport.it* August 30, 2019 <https://www.greenreport.it/news/acqua/litalia-tra-desertificazione-consumi-dacqua-e-perdite-idriche-record/>

and region and between city and city. In 2018 one out of three Italian municipalities lost more than 65% of the water extracted, while one out of five communes has lost less than 25% of the water. Also in this case, the municipalities of northern Italy prove to be more efficient than those of central-southern Italy: water loss ranges from over 65% in Chieti (74.7%), Frosinone (73.8%), Latina (69.7%) and Rieti (67.8%), whereas the most virtuous municipalities are Biella (9.7%), Pavia (13.5%), Mantua (14.2%), Milan (14.3%), Monza (14.5%), Pordenone (14.5%) and Macerata (14.8%) (ISTAT 2020). The causes of such a bad and fragmented state of the water networks are many. First of all, the Italian water network has a diversified structure between North and South: while in the North the distribution systems are made up of small branched pipes, inexpensive and easy to replace; in the South the water infrastructures are the result of the great state engineering, which has built the main aqueducts, which bring the resource to the gates of the cities through large and kilometric pipes, difficult and expensive to maintain. They are ancient aqueducts, about fifty years old, but most of them were built to last no longer of forty (Montalto 2018). Furthermore, their maintenance has always been the responsibility of local authorities, which, governing in areas often characterized by chronic unemployment, have often preferred to keep bills low and leave the burden of maintenance to future governments, creating a mechanism in which political inactivity aggravated infrastructural inefficiency. They have not replaced even that 9% of asbestos pipes, although they have been illegal since 1992. Consistently with these figures, the causes of Italian water losses are economic and they are connected to the chronic lack of investment in the water sector, which have in turn produced a situation characterized by increasingly expensive and difficult to implement rehabilitation interventions; other reasons are physiological and they are linked to errors in the building of plants, in the choice of materials and areas of construction; finally, there are behavioural problems caused by wicked consumption styles of civil population and still widespread practices of illegal connections to state networks, which cause illegal, unbilled and unpaid water consumption (Energy and Strategy Group 2019).

The Italian purification capacity is also low, due to an historical delay in the construction of municipal sewers. In 2018 there were still 40 municipalities without a public sewerage service, affecting 0.7% of the total resident population (394,044 resident inhabitants). In these cases, each building is equipped with autonomous waste disposal systems. More than half of these municipalities are in Sicily, in particular in the province of Catania, where 22 municipalities out of a total of 55 in the overall province do not use the municipal sewerage

service (ISTAT 2020). In general, Italian drinking water has achieved acceptable microbiological standards since the late 90s (Masarutto 2011a), however the objectives imposed by the 2000 Framework Directive on EU countries have not been reached by Italy, especially in the field of water purification used for industrial purposes. Data about water quality status are collected by ISPRA and they can be consulted in the Environmental Data Yearbook, in which the data relating to the Water Framework Directive are transmitted to the Information System for Europe-WISE by the Regional Agencies for the Environmental Protection-ARPA and by the Basin Authorities. In the five-year period 2010-2015, only 43% of the 7,494 river water bodies considered had a "good or high ecological status", as required by the EU Directive, while 41% were well below the quality target and 16% were not classified. The situation of the 347 lakes was even more serious, with only 20% that complied with European legislation, while 41% were not classified. The chemical status was not good for 7% of rivers and 10% of lakes, while 18% and 42% respectively were not classified. Most unclassified rivers were found in the hydrographic districts of the Southern Apennines and Sicily.

For groundwater bodies, 1,052 in total, the chemical status was poor in 25% of cases, and 17% were not classified (ISPRA 2019). The parameter that determined the poor class was often the presence of inorganic substances such as nitrates, sulphates, fluorides, chlorides, boron, together with metals, chlorinated and aromatic substances and pesticides (Di Vito and Manutolo 2019). At the level of a single geographical area, in the North-East the percentage of wastewater subjected to tertiary and advanced treatment is maximum (88%); on the other hand, the same percentage is minimal in the southern and island regions (62%). Such figures show a low purification capacity, which reaches its peak in the areas of southern Italy and in the Po valley, where the country's most impressive water basin is located (ISPRA 2019). Despite a potential for reuse of wastewater of 20%, in Italy only 4% is reused for agricultural or industrial purposes (ARERA 2019). In terms of purification, in 2019 32.1% of the Italian coasts was subject to a permanent ban on bathing, as these coasts were destined to other purposes (ports, military areas, protected areas or inaccessible), or for health protection measures (heavily polluted areas that cannot be restored). However, 93.5% of the waters of the bathing coasts (67.9% of the total) were found in excellent quality. This data highlights how the negative performances in the purification field are concentrated in specific areas of the country, which often are venues of illegal activities of the environmental mafia (Legambiente 2019).

The price of drinking water was the lowest in the euro area, with a price of 1.43 €/m³ against an average of 4.01 €/m³ in 2017¹⁵⁸. In 2019, on the other hand, the average annual expenditure, including 10% VAT, reached 306 €/year, that is 2.22 €/m³ (+ 4.2% compared to 2017) (Cittadinanzattiva 2019). Such a figure shows that the current price of Italian drinking water has been gradually increasing since the principle according to which "water pays for water" was included in the regulatory framework in 1994, which allows financing investments in the water sector with revenues from bills (Masarutto 2011a). Between 2007 and 2016 the average cost of one cubic meter of water for domestic use increased nationally by 54.1% (Cittadinanzattiva 2013, 2016) and between 2017 and 2019 this price increased by 4.2% (Cittadinanzattiva 2019). The immediately evident figure is a price difference between the regions. The highest regional rates (above the national average) are found, in order, in Tuscany, Umbria, Marche, Emilia Romagna, Puglia and Lazio. Moreover, high differences also exist within the same regions: for example, in Sicily, between Enna and Catania there is a difference of 500 euros for an average annual consumption of 192 m³ (calculated on a family of 3) (Cittadinanzattiva 2019). This growing price is connected to a progressive increase in investments in the water sector, which passed from 30 euros per inhabitant per year in 2012 to 44.6 in 2019, with an increase of 24% in the last 7 years (Utilitatis 2019). The implementation rate of planned investments also reached 87%, which in 2009 was 55% (Coviri 2010). 54.3% of the investments in 2018-19 were aimed at maintaining the networks in order to reduce losses, while 42.59% of them were directed to the construction of new plants, especially for purifying purposes (ARERA 2019). Such a positive figure is, however, still far from those 80 euros per inhabitant per year indicated as European target for the proper functioning of infrastructures and their maintenance over time. The low price of water is the result of a historical condition of lack of investment in the water sector linked to a habit of the Italian political class of accumulating public debt for water management, rather than increasing tariffs and risking losing consensus¹⁵⁹. The sum necessary to restore Italian water infrastructures is between 2 and 4 billion euros, there is no clarity on this point, since it still remains a debated topic among the supporters of private management and those of public management.

Another positive element of the recent years has been the progressive growth in users' satisfaction about the quality of the service, which has went in parallel with the reduction in

¹⁵⁸ 11ème édition du baromètre NUS Consulting sur les prix des services d'eau et d'assainissement en Europe <https://www.fp2e.org/11eme-edition-du-barometre-nus-consulting-sur-les-prix-des-services-deau-et-dassainissement-en-europe/>

¹⁵⁹ Interview with an academic expert on Italian public services.

service interruptions and water rationing periods. This figure traces the territorial condition of the infrastructures: nine out of ten families in the North are very or fairly satisfied, eight in the Centre and South and seven in the Islands. At the regional scale, the share of unsatisfied families exceeds the percentage of those very satisfied in Calabria (25.7% unsatisfied versus 13.0% very satisfied), Sardinia (24.3% versus 11.1%) and Sicily (23.8% vs 11.2%) (ISTAT 2020).

As regards water regimes, in Italy two thirds of the population (67%) is served by MOEs, 31% by mixed companies (almost always with predominantly public capital) and 2% is managed by private operators. Even the sources, networks and plants are historically publicly owned, but their management can be given in concession to private actors (Utilitatis 2019).

6.1.1. Italian rule system about water services

Modern Italy is the result of the aggregation of powerful municipalities originated in the early Middle Ages, as autonomous local communities. They were subject to the formal control of the Western Roman Empire, which in practice left the Germanic rulers to govern in its stead. Italy in the late Middle Ages was therefore an agglomeration of independent Roman-Germanic kingdoms, administered in the manner of the feudal era, with its own administrative and cultural traditions. In the year of the proclamation of the Kingdom of Italy (1861), the peninsula was divided into 7 autonomous administrative units, which were in turn divided into 7,720 municipalities. With the unification of Italy, municipalities and provinces were given administrative autonomy (Casoli Law of 1865) as the headquarters of the decentralization of the central administration; however, this was not recognized to regions (geographical compartments that traced the cultural specificities, recognized only for statistical purposes) for fear of an immediate dissolution of the newly born Kingdom. In 1921, the first state census sanctioned the existence of 9,195 municipalities. Only with the Constitutional Charter of 1948 the 20 Italian regions were endowed with political and administrative autonomy. However, they were actually created only in 1972, and through various waves of decentralization they were increasingly delegated to perform administrative and fiscal functions that were originally state-controlled. The regions are, together with the Municipalities, the Metropolitan Cities, the Provinces and the State, one of the five constitutive elements of the Italian Republic. Each region is a territorial body with its own statutes, powers and functions, and has not been included in the category of local authority since 2001, when the reform of Title V of the Constitution recognized to regions the power to produce first-rate laws, like the state. Five of the 20 Italian regions have a special statute, which gives

them additional powers compared to the other 15.

The number of Italian municipalities has changed over time due to aggregations and separations. Currently, the Italian territory is divided into 7,904 municipalities, 14 metropolitan cities, 80 provinces (since 2012 there have been numerous attempts by the legislator to suppress these local authorities, but without success; currently the provinces' powers are residual, most of them have been delegated to municipalities and regions), and 20 regions. Being largely mountainous, the Italian territory is historically characterized by small municipalities often isolated: the 2011 census established that 70.5% of the municipalities had less than 5,000 inhabitants and just 6.3% more than 20,000. Among these, the municipalities with more than 50,000 inhabitants totalised 141, and those with more than 100,000 inhabitants 46. These small administrative units are the undisputed protagonist of the history of the Italian water service.

The regulatory steps considered fundamental in the production of the current Italian institutional context are summarized in table 8 and retraced below.

Before New Public Management
Royal Decree of 1884: nationalization of superficial waters and municipal obligation to supply drinking water to citizens.
Ministerial Instructions of June 20, 1896: recognition of water as a public health issue and standards for soil protection.
Law of March 29, 1903: organizational norms for the "Direct Assumption of public services by the Municipalities".
Laws of 1933: national regulatory reference points for the municipal management of water services and plants.
Decree of the President of the Republic n° 616 of 1977: delocalization to regions of functions regarding the planning of construction of aqueducts, sewers, water purification plants, and hydraulic works.
Merli Law of 1976: affirmation of the "Rules for the protection of water from pollution" Law n° 183 of 1989, containing "Rules for the organizational and functional reorganization of soil defence".
Law n° 142 of 1990: definition of new management tools for local services.
New Public Management
Galli reform of 1994: reform of the whole system of water supplying.
1997: signature of the Stability and Growth Pact.
Title V of the Italian Constitution of 2001: delocalization of legislative powers about LPS to regions.
Contradictory and confused legislative measures between 2002 and 2004
Environmental Code of 2006: harmonisation of the previous norms aimed to foster privatization and limit <i>in house</i> management models.
Ronchi decree of 2009: compulsory management of water service though private-law operators.
Post-New Public Management
Referendum of 2011: introduction of the concept of free choice between forms of deluded

<p>management and those <i>in house</i>.</p> <p>Three waves of austerity policies between 2008 and 2011, 2012 and 2013 and 2014 and 2018 of which:</p> <p>Law n° 2 of 2010: Repeal of the Area Authorities (AATO) and creation of the new EGATO by the provinces.</p> <p>Del Rio Law of 2014: Establishment of metropolitan cities and attribution of the functions of organizing SGEI in the metropolitan area and redefinition of the system of provinces.</p> <p>Sblocca Italia decree of 2014: extension of AEEGSI's powers; possibility of autonomous management in mountain municipalities under 1,000 inhabitants; obligation of local authorities to transfer the management of the water infrastructure they own to the area manager within a peremptory time limit.</p> <p>Stability Law 2014: Possibility of entrusting the SII to <i>in house</i> companies owned by the entities premises falling within the reference ATO.</p> <p>Law n° 221 of 2015: creation of the Guarantee Fund for the water sector, for interventions aimed at strengthening the water infrastructure set up at CSEA and new attribution to AEEGSI (ARERA from 2018) in terms of arrears.</p> <p>Water Bonus Law of 2016: definition of the criteria and principles to which ARERA must comply for the definition of social tariff, diffusion of the minimum vital quantity of 50 l/ab/day free, assignment of the water bonus to users in a state of social economic hardship and definition of the discounted tariff for access to the minimum vital quantity for other resident domestic users.</p>
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Table 8: Key points of the Italian legal framework on water (handled by the author)

Before NPM

Until the mid-nineteenth century, the distribution of drinking water in Italian municipalities was regulated by private law and took place through fairly developed water networks, thanks to the system of Roman aqueducts inherited from the Roman Empire. The management of water sources and distribution facilities occurred through municipal concessions to private citizens. The water distribution systems in urban areas took place through public fountains, whereas wealthier families received water at home thanks to door-to-door vendors (Cangiano 2018). In the second half of the 19th century, the Kingdom of Italy needed to change the national water regime, starting a process of municipalisation of the distribution of drinking water. The problem stream to which the subsequent policy stream responded was composed of three different types of issues: the main one was connected with industrialization, which used water as a production tool; sanitation problems of the increasingly populous cities – between 1891 and 1901 the population of Rome had increased of 54%, Milan of 43%, Turin of 32%, Palermo of 27% and Naples of 14% (Spadoni 2003) opened the doors to hygienist principles (Villermé 1828); and increased demand for hydroelectricity. All these services, until then conceived as private activities, gradually took on the dimension of public interests. “The creation of the Local Public Services was the organized response to a need of society

after the private response had proved to be insufficient. Local authorities took responsibility for organizing them.”¹⁶⁰ The umpteenth cholera epidemic of 1884-1885 – with frightening effects in its epicentres Naples, Palermo and Cuneo – led the political class to carry out a national health investigation that ascertained the total non-existence of sewage systems in 6,404 municipalities out of 8,258 surveyed. With the Royal Decree of August 10, 1884, national waters were declared public property and municipalities were given the obligation to provide citizens with pure and good quality water. In 1885 the special law for Naples was enacted, which will become the model of subsequent laws: the city was granted a loan for urban renewal activities financed by the state; the mayor and the Prefect were granted the power to expropriate aqueducts, pipes and water systems, and to impose on private individuals the construction of pipes for drinking water and sewerage systems in buildings; finally tax concessions were recognised to individuals who built new edifices respecting hygienic standards. These rules were then extended to all municipalities in 1888.

Therefore, even before the concept of public service was outlined, a special legislation was born for the supply of drinking water: collective consciousness was beginning to conceive water as a special good, different from the others, which had to be protected through a special discipline (Caporale 2017). The Ministerial Instructions of June 20, 1896 decreed that water management was a matter of public health and established a complex set of regulations aimed at protecting the soil and safeguarding water resources. The national investigation of 1903 decreed that the *Cassa Depositi e Prestiti* (CDP) – the main national financial institution, established in 1850 – had financed the construction of 2,089 new aqueducts (out of a total of 5,795 existing) between 1888 and 1903, with a marginal participation of the municipalities. Given the positive outcome of such investigation, the parliament decreed with the Law of 29 March 1903 the "Direct Assumption of public services by the Municipalities", approving the regulation on the municipalisation of public services, including aqueducts. The municipalities had to manage the water services directly “in economy”, or through an *azienda speciale* (AS) – which is a public economic body, separate from the municipality, to which it is linked through a relationship of instrumentality – or through the establishment of inter-municipal consortia or indirectly through concessions to private persons. Municipalities had the economic responsibility of the service, the obligation to supervise the company's operations and budget; they could access tax concessions to redeem old concessions recognized to private individuals. The ASs were subject to the direction of municipal councils, which held the power

¹⁶⁰ Interview with an academic expert on Italian public services.

to fix their aims and control their progresses. Although an AS had the ability to perform all the operations necessary to achieve its purposes, it was without legal personality and therefore it had not the ownership of its own tools and assets. Moreover, the lack of juridical personality entailed the responsibility of the municipality for any liabilities in the budget; company's profits were allocated to cover the costs of the service, and the remains had to be devolved to municipal budget; in the event of a budget deficit, the municipalities could transfer resources to the AS from special reserve funds. In this way, the so-called *municipalizzate* companies were born, within an institutional context that had produced a decision-making system in which management, property, government and regulation coincided and even blended. Consequently, the *municipalizzate* took the form of mono-service production units, generally operating in territorial areas corresponding to the respective municipalities. The result was that the municipal companies were configured more as subjects for the supply of services, rather than as real commercial enterprises.

The Royal Decree n° 1775 of 1933 "Consolidated Law on water and electrical systems", together with the Royal Decree n° 1776 of 1933 "Consolidated Law on integral reclamation" and the Royal Decree n° 1265 of 1934 "Consolidated text on health laws" became the regulatory reference points for the national management of water services, which remained in force until the 1994 reform. These Decrees sanctioned the obligation of the Municipalities to supply all citizens with pure and healthy water in order to guarantee public health, the public nature of all sources and water systems, the methods of granting them to private individuals, the total state responsibility to identify areas – urban or agricultural – worthy of regeneration actions, and how to manage and finance such works together with local authorities. There is no doubt that the obligation of municipalities to manage and maintain aqueducts has contributed in keeping the fragmentation of Italian water services, its main characteristic, very high (Citroni et al. 2008). In these three Decrees, all the special rules of the previous years were harmonized and became national laws of first rank: since that moment the right of access to water for all people living on the state territory was decreed and surface waters – until 1994 only surface waters were regulated by state institutions, whereas groundwater was freely usable by anyone – and infrastructures were treated as assets aimed at satisfying anthropogenic needs (Massarutto 2008). Such aim was pursued by means of the construction of public works financed through state loans and built by the state engineering service, whose management was subsequently entrusted to the municipalities. In this way, the Italian model of municipal capitalism has been affirmed, with local authorities responsible for the direct

provision of services. They carried out this task by mediating with the central government for resources transferring, which were to be invested in the provision of services necessary to respond to the demands of urbanization and industrialisation. In Italy, municipal capitalism of the nineteenth and twentieth centuries was inspired by socialist and Catholic doctrines, which held that the goal of local rulers was to support the social emancipation of the less well-off classes (Galanti 2016).

The institutional set-up described up to here remained unchanged even after World War II, when the Italian government was able to benefit from funding from the Marshall Plan and many water infrastructures were built or expanded. The tariffs, fixed by the municipalities, had guaranteed a certain balance of budget to *municipalizzate* up to the Second World War. After the war however, they remained frozen at nominal values, without being updated with rising inflation. The result was the zeroing of autonomous investment capacity of the operators, which increasingly depended on transfer of public resources; only a few municipal multi-utility companies did not produce budget deficits, financing the distribution of water with earnings from energy services (Masarutto 2011a). In 1960, just over 25% of ASs were involved in the management of more than one service.

In the meantime, the major infrastructural works continued and the General Plan of the Aqueducts (PRGA) was drawn up in 1963, in order to calculate the municipal water needs (based on the estimates of the demographic increase) to be taken as a reference for the design of the works. This was the first national intervention for drinking water planning, entrusted by the Ministry of Public Works. With Law n° 308 of 1970, the dependence of the ASs on politics was strengthened even more, as they had to obtain authorizations by Municipal Council for every action and their managers commissions had to be renewed with the change of local government; moreover, the ASs were subjected to a rigid system of national controls, putting a strong brake on the development of the industrial activities of these companies.

After their creation, the Decree of the President of the Republic n° 616 of 1977 delocalized to the regions all the functions regarding planning of construction of aqueducts, sewers, water purification plants, and hydraulic works. The functions of updating and modifying the PRGA were also delegated to the regions. Therefore, functions relating to national planning of water resources distribution, establishment of restrictions on their exploitation, the overall evaluation of the PRGA and the provision of loans and professionals for the construction of major works remained within the state.

With the industrial and demographic boom of the 60s, a new problem stream began to flow

along the peninsula. The substantial increase in water consumption and the consequent dispersion of wastewater volumes into the environment had increased without limits. Numerous episodes of serious pollution of surface waters had a strong echo in the mass media (Citroni et al. 2008), characterizing as focus events that led to the change in the national mood and the onset of a new problem stream focused on environmental protection. Such a stream obliged the political class to improve the collection and purification services of wastewater, as well as to introduce a more strict legislation to discipline discharges and protect the environment. The policy stream that began to address these issues was inaugurated with the Merli Law of 1976, indicating the "Rules for the protection of water from pollution". This law introduced the principle of authorization for all types of discharges into surface waters, it defined the concentration limits of harmful substances and it assigned to regions the responsibility for providing for the planning of water remediation plans. From that moment, the environmental problem stream and the consequent policy stream would become increasingly dominant over those aimed at responding to anthropogenic needs. In 1982 the EEC directive 74/440 on the quality of water intended for anthropic use was implemented and in 1986 the Ministry of the Environment was created together with legislation that regulates the assessment of the environmental impact of human activities.

The increasing attention to environmental issues brought to the surface another problem stream, represented by the excessive fragmentation of the water management system and infrastructures, built on administrative rather than environmental principles. The policy stream deriving from these matters merged into law n° 183 of 1989, containing "Rules for the organizational and functional reorganization of soil defence". This was a very ambitious law in the field of soil defence (Citroni et al. 2008): it introduced the principle of integrated management of water resources, which had to be managed at the river basin level. The integrated approach starts from the assumption of the interdependence between all the components of the water system and it affirms that water resources should be managed on an adequate and optimal scale, in order to address the multiple interactions that occur between different uses of the resource and their consequences; it also implies an autonomous management of the entire Integrated Water Service (IWS), both at an organizational and economic level (Massarutto 2008). Furthermore, the Merli law identified the river basins of national, interregional and regional interest and required that the relevant Basin Authorities had to be established within one year; these were mixed bodies made up of state, regions and local governments with administrative authority. Such authorities had the responsibility of

safeguarding the soil and water and would have had to make very large investments to reorganize the river basins and purify their water. They were also responsible for defining the Basin Plan, a planning tool for the management, use and protection of the water basin. The provisions of the plan, following its approval, became immediately binding for public administrations, as well as for private entities. The basin plan, moreover, had to be subject to continuous updating and coordination between the various authorities involved in its programming (State, Basin Authority, Regions and Provinces). With this law, the political focus shifted from guaranteeing the right to human access to water, to protecting the water resource as a whole, that is, with a view to preserving the natural heritage over time.

During the 80s, the self-undermine policy feedbacks of the pre-NPM water regime became increasingly evident. Due to the habit of closing the municipal budgets in deficit, thanks to the certainty that they would be covered by the state, the municipal administrations continued to calculate water tariffs based on "non-commercial" criteria, covering investments on water infrastructure through state money. In the meantime, the resources necessary to maintain the existing infrastructures increased, due to the deterioration of the hospitable pumping plants, characterized by decreasing yields, and of the adductors and distribution networks, with increasing quantities of dispersed water (Spadoni 2003). In partial justification of the local management, there was the difficulty in finding the necessary funds to carry out the investments for the modernization of the plants and the replacement of the pipelines, the reluctance to have tariff increases to pursue jobs whose benefits would probably be observed only in the long term, and finally the inefficient tool of the AS, totally unsuitable to face the challenges of water management (decisions made too slowly due to the need of municipal approval and state controls, lack of juridical personality, lack of economic autonomy, modification of the company's administration every 5 years). Fiscal and administrative effects of this centralized planning and construction system of public works were very negative: in 1987 over half of the population suffered from service interruptions for long periods, the purification system was still largely incomplete and inadequate, and the maintenance of existing plants were blocked due to the chronic budget deficit of the *municipalizzate* (Masarutto 2011a). With the law n° 142 of 1990 the government tried to make new management tools for local services available to local administrations, alongside the ASs:

- "in economy", directly by municipalities through public offices without any type of company, only for small municipalities;
- concession to third parties, for technical or economic necessities;

- *Aziende Speciali*;
- an institution for services without economic significance;
- joint stock company (JSC) with prevalently public capital (MOE) when there was the opportunity to involve other public or private entities in the management, in relation to the nature of the service to be provided;
- intercommunal consortia.

In addition, the law established the legal and accounting separation of the ASs from their Local Authorities, the legal subjectivity of the company, which became a functional subject of the local authority, with legal personality, entrepreneurial autonomy and its own statute, approved by the municipal or provincial council. The AS, conceived as a public economic body, can, even today, manage its own endowment capital and is the holder of patrimonial rights; it has the right to stipulate all the contracts necessary for the performance of the management and to contract loans. The company is created with a municipal resolution, and is administered by a board of directors, a president, and a director, who is responsible for all its legal acts. These figures are established by the City Council. The functioning of the company is governed by a statute, approved by the municipal or provincial council, which cannot be in contrast with the rules of the city. The resolution for the assumption of the service through the AS must be accompanied by a technical-financial project, which highlights the means by which the municipality intends to meet the costs of setting up and managing the service, and by a Service Contract, which specifies the company's tasks and eventual indicators to measure its performance. The City Council maintains the function of direction and control of the company actions, while the instrumental body has the objective of balancing budget under the constraints imposed by the government. Its gains and losses are counted in the municipal budget at the end of the year; there is no authority that controls the performance of the ASs as it happens for private companies. Therefore, their finances are subject to the control of the *Corte dei Conti*, the national body with control and jurisdictional functions towards public administrations.

This law represented the first attempt to reorganize the Italian local service sector according to the principles of economic efficiency (Bolgherini et al. 2019). However, assessing the effects of this new law was impossible, as in 1992 Italy was overwhelmed by the *Tangentopoli* scandal: an institutionalized and widespread system of corruption based on the exchange of private money in return for privileged access to public administration decisions. This practice mainly affected the procurement system of large public works, overwhelming the entire water

sector. *Tangentopoli* shed light on a huge flow of public money linked to the centralized management of public works. For many years corruption had experienced an invisible expansion in Italy, with an intertwining of different types: from the centralized corruption of hidden financing of political parties at national level by large public companies, to the micro-corruption of public administrators in marginal roles, to complex distribution of bribes between public administrators and party secretaries, which emerged as the dominant typology in the 'clean hands' investigations (Della Porta 2007). The local services development took place, in the period preceding the NPM, mainly through administrative laws (Ongato et al. 2018), which gave immense political and economic power to local and national administrators. Through a centralized system of tenders for the construction of major works, first managed by the state and then by regions, these administrators had made a systematic use of bribes in the awarding and management of contracts. Such a system of corruption involved, in addition to administrators, private entrepreneurs – who were often part of cartels, where confidential information on future contracts allowed the manipulation of tender procedures – police forces responsible for carrying out controls on the procedures for tenders awarding – in 1994 a line of investigation about bribes paid by entrepreneurs to avoid tax checks led to about 100 arrests in the *Guardia di Finanza*¹⁶¹ – and the structures of the main Italian political parties – a party system parallel to the visible one guaranteed the reproduction of this corrupt and clientelist system, managing the collection of bribes, collecting percentages on bribes paid to administrators and entrepreneurs, distributing jobs and information in exchange for favours, guaranteeing impunity to those involved in exchange for electoral votes. Political clientelism is defined here as a method of electoral mobilization. It is essentially the giving of material resources in exchange for political support. The phenomenon of clientelism presupposes the existence of an ongoing relationship between patron and client, which is based on the fear that the flow of benefits will be cut off, or perhaps in addition to, norms of reciprocity (Stokes 2011). Clientelism is intimately linked to poverty and inequality, of which it is probably both cause and consequence. This link between clientelism and poverty is explained by the fact that poor people value a handout more highly than wealthy people do (Dixit and Londregan 1996; Calvo and Murillo 2004) or by the fact that poor people are risk averse and hence value more highly an immediate increase of their resources than the promise of a redistributive public policy tomorrow (Kitschelt 2000). In addition to poverty, some analysts show that electoral systems that encourage the personal

¹⁶¹ Armed force with expertise in economic and financial crimes.

vote also strengthen clientelism (Hicken 2007). One of the most widespread forms of clientelism is patronage, defined as the proffering of public resources (most commonly public employment) by office holders in return for electoral support, where the criterion of distribution is again the clientelist one: “did you — will you — vote for me?” (Stokes 2011: 3). In public companies managed by political personnel, such as *municipalizzate*, the personnel who were appointed by the parties were often chosen through patronage mechanisms, with the result that these bureaucrats did not administer the companies either based on political or economic rationality, but using the companies as tools for implementing decisions obtained through corrupt exchanges. The spread of the various forms of corruption has been attributed to various pathologies of the Italian political system: an unprofessional public bureaucracy, recruited and managed by patronage; consistent party machines, the more in need of material resources the less effective the ideological appeals became; management of public economic entities by party-appointed personnel; limited sense of the state among the public and in the elites; a family market particularly permeable to political pressures; the possibility of running a public deficit thanks to the public control of banks and the weak development of the Stock Exchange (Maiolo 2011). *Tangentopoli* was a shocking issue for the national political mood, which brought down the system of the main post-war political parties; however this event did not eradicate the Italian system of public corruption, since most of the judicial investigations were filed in the absence of reforms specifically aimed at combating crimes against the public administration.

Within the water sector, as well as in all public services, this system produced the worst results of the LPS management model based on political rationality: large public debt borne by local authorities, lack of investments in infrastructure maintenance and renewal, low quality of materials for the construction of infrastructures, excessive number of public employees in municipal companies, inefficient management of public operators both economically and environmentally, lack of data collection on distribution systems, lack of controls and sanctions for crimes, indefinite postponement of increase in tariffs and maintenance and renovation of the plants. The excessive fragmentation of the water network management system, which fed the exchange power of local administrators, had produced a water system managed, in 1994, by over 13,000 different subjects, often with a technological and professional level sufficient to manage activities that complex, but increasingly inadequate to meet the needs of the industry (Masarutto 2011a). The implementation of the environmental regulations contained in the Merli law also encountered the challenge of

recording and controlling a huge number of civil and industrial discharges: in 2001 the conditions of the discharge systems for wastewater were known only for half of the Italian provinces (Massarutto 2008).

NPM

Although the law n° 142 of 1990 included elements typical of the NPM “recipe” (Hood 1991; Pollitt and Bouckaert 2011, 2017), such as the distinction between regulator and operator, the efficiency of the supply system through company privatization, the contractualization of the agent-principal relationship and the financial autonomy of companies supplying services, in this work the beginning of the NPM period was made to coincide with the beginning of the so-called Second Italian Republic. As a matter of fact, *Tangentopoli* has represented, in contemporary Italian history, a political watershed: the major post-war mass parties have disappeared, giving way to a widespread sentiment of anti-politics, to localist parties and to the growing phenomenon of the personalization of politics (Della Porta 2007). Reforms of 1992-1993 were implemented by “technical” governments, which are governments that rely on people with specific technical skills and knowledge that should guarantee their extraneousness to such mechanisms that led to the failure of the First Republic politics (patronage, corruption, clientelism, destruction of public resources, low levels of efficiency, etc.); after which the Berlusconi era began, forcefully introducing the principles of the NPM in the Italian panorama.

The NPM season opened with a reform of delocalization of regulatory and control powers in favour of municipal and provincial governments, in line with the waves of European decentralization. Law n° 81 of 1993 sanctioned the direct election of the mayor, the strengthening of the city government’ powers on local bureaucracies through the recognition of the mayor’s responsibility to appoint both assessors and BoD’s members of municipal companies (Profeti 2010; Galanti 2016). This reform produced greater political stability of the municipal governments, which City Councils have been connected to the political survival of the mayor (Fabbrini 2001). However, this law marked also the beginning of several waves of contemporary delocalization, characterized by an increase in the regulation and control powers of local authorities along with an increase in their spending limits. However, such a growth of regulation powers did not include fiscal powers of imposing taxes: this kind of legislative prerogative will never be recognized to local authorities, marking them within a condition of chronic limited autonomy. Moreover, a progressive increase in spending limits was confirmed by Italy’s signature of the Stability and Growth Pact in 1997, concerning the

control of public budget policies of EU countries, and by the subsequent inclusion of the balanced budget obligation in the Italian Constitution in 2012. Having brought such a principle to a constitutional level, all Italian government scales have the peremptory obligation to maintain a balanced budget. Compliance with this obligation, combined with constant cuts in economic resources transferred from central governments and the impossibility of imposing local taxes (Polizzi and Vitale 2010) have produced what Maurizio Ferrera and Michael Keating call “decentralization of penury” (Keating 2008; Ferrera 2008), which is, the shift of responsibilities from the centre to the periphery, not accompanied by an endowment of tools for achieving these objectives. The discharge of tasks for providing local services to local governments has had the obvious advantage of also transferring the blame for unpopular policies to reduce spending and service cuts (Ferrera 2008). This phenomenon, in Italy, has produced an extreme increase in territorial diversity, both about quality and quantity, of all types of public services, either economic or not-economic. Such a territorial difference in the services sector perfectly follows the map of the economic conditions of the territorial areas: where there is economic growth the services are numerous and efficient, whereas within economically depressed areas, the supply of services is scarce and of low quality. A delocalising approach has been maintained by all Italian governments, from the time of the NPM until today, even by those most convinced of the need to relocate powers and responsibilities. Consequently, the provision of local services has increasingly become the main dimension of the central-periphery conflict, focused on the theme of the transfer of financial resources and the increase of fiscal powers, as we will see later during the period of austerity policies (Vitale 2013).

One of the last actions of the last government of the First Italian Republic was the law n° 36 of 1994, the so-called Galli law, approved by almost complete unanimity by the parliament. This reform revolutionized the Italian water supply sector. It had the purpose of responding to the flow of problems produced by the water management model of the glorious thirty years, based on the centralized planning of large water infrastructures and their management through a strong relationship between municipalities and local water firms, which operated as agencies completely dependent on local governments. Such a model certainly had the merit of having built the basic infrastructure of the national water supply system in just thirty years, however it proved to be unsuitable to face contingent situations on the territory during the “fine tuning phase” (Masarutto 2011a: 49).

Problem stream flowed from both internal and external sources. The nascent European Union

pressed for the creation of a competitive market for SGEI and a liberalization of public services. In Italy, this line of problems found support in the collapse of credibility of public management following the judicial inquiries of "clean hands". Furthermore, the enormous public debt and the need to recover national accounts in order to join the European Monetary Union pushed the government towards a massive sell-out of assets. However, a handful of municipal companies had achieved good or even excellent performances, leading the government to implement a commercialization policy of water sector without privatization, in the hope of creating an internal market for water supply (Massarutto 2011b). Furthermore, in a country like Italy, characterized by a water distribution traditionally supplied by local authorities directly to citizens with social tariffs, the policy choice to transfer this service to private companies would have been extremely unpopular (Citroni et al. 2008). From the European Union also came the pressure for an increase in the environmental protection of the resource, with the EU directive on urban wastewater (EC 91/271). Such exogenous problem streams fed on internal problems: regulation and control problems, since centralized planning had failed and at the beginning of the 1990 there was still no census of national water networks (Citroni et al. 2008); economic efficiency problems, as the sector was burdened by a chronic lack of investments; technical efficiency problems, caused by the lack of investments in the maintenance and renewal of infrastructures; environmental sustainability problems, connected to the dramatic levels of water loss and pollution of surface and groundwater.

The main factors that made water utilities systems economically, technically, environmentally and socially unsustainable were summarized in the report of the Institute for Water Research-IRSA¹⁶² published in 1999 (IRSA-CNR 1999). This institute was established in 1968 with the task of carrying out research activities in the sectors of management and protection of water resources and in the development of methodologies and technologies for water purification, in collaboration with the National Research Council-CNR¹⁶³; however its research activity remains very sporadic today. The availability of drinking water was decreasing due to qualitative factors in the North and quantitative factors in the South: the development of industry and intensive agriculture in northern Italy, combined with unplanned urbanization, had caused an heavy contamination of underground resources; whereas southern Italy was plagued by growing problems of drought (especially in summer, due to the increase in tourism) and by the scarcity of purification plants. Although the treatment capacity had reached 60% of the pollution loads in just thirty years, the lack of investments in the

¹⁶² <http://www.irsacnr.it/index.php/ita/>

¹⁶³ <https://www.cnr.it/en>

maintenance and renewal of the plants had caused a situation of generalized water pollution, taking Italy far from the European objectives of the "good ecological status" of rivers. The low prices of water, combined with continuous cuts in economic transfers from the centre and the limited decision-making autonomy of local authorities, had made local investments impossible toward wastewater treatment, rainwater management systems and research for innovative solutions.

Galli reform is even now the point of reference for the discipline of drinking water management. It was the starting point of a contradictory and confused policy stream caused by the heavy dominance of a political stream focused on the dichotomous debate on public or private management of water. A debate that dominates the Italian political mood on the issue of water management even today and that "tends to overestimate the role of tools (i.e. the franchise bids), formal control (i.e. the ownership of the firms) and formal decisions in the management model. Conversely, it underestimates the real and differentiated abilities and powers of the actors in the sector, undermining our understanding of the inherent complexity of the reform process." (Carrozza 2013: 752). Even the evaluation of the investments necessary to restore the Italian water network is also today an issue debated by the supporters of privatization or municipalisation of water services: while economists estimate the sum indispensable to make the Italian water infrastructure efficient at around 4 billion euros¹⁶⁴, appealing to the need to attract private investments to cover this sum, the experts of the Italian Forum of Water Movements argue that this outlay does not exceed 2 billion and that it is a sustainable expenditure for the state.

The reform shows to be perfectly in line with the nascent European legislation, based on the transition from an entrepreneur state to a regulatory state, the strengthening of environmental safeguards and the creation of a competitive market of SGEI. In fact, the reform decentralized regulatory and control powers to the regions, brought out the environmental issue, replacing the concept of water as a good with the concept of limited resource, and reorganized the entire water service according to industrial principles aimed at achieving efficiency, effectiveness and cost-effectiveness, through concepts such as economy of scale and scope (Caporale 2017) and the adoption of a market oriented mode of governance, based on competition and on soft regulation. However, from the environmental point of view, this reform appears to be a defeat compared to the innovative system of law n° 183 of 1989, since the latter had chosen the hydrographic basin as an organization scale, undoubtedly more

¹⁶⁴ Interview with an academic expert on Italian public services.

adequate for the holistic protection of water and soils belonging to a single basin. The Galli reform, on the other hand, has brought water protection back to an administrative scale, unsuitable for the implementation of an effective environmental protection policy (Massarutto 2008, 2011), which favours political interests rather than environmental ones.

Such a law begins with the recognition of the public nature of both groundwater and surface water, without specifying to which public body they belong. Moreover, it re-organised the water sector on the base of the following four principles (Massarutto 1993; Citroni et al. 2008):

- Horizontal integration of management in Optimal Territorial Areas (ATO), considered the optimal scale both at organizational and economic level, with the aim of decreasing the fragmentation of the system and achieving economies of scale. The ATOs had to be defined by the regions within six months; the regions also had to fix the operating and coordinating methods of the ATO Authorities (AATO), which are inter-municipal bodies with planning, monitoring and control functions, and regulate the tools made available to them by law n° 142 of 1990. The planning tools of the AATOs are the ATO Plan. However, no role was assigned to the pre-existing Basin Authorities.
- Vertical integration of the management of the entire IWS, from collection to purification, through the delegation to a single manager, which is required to comply with the basic quality requirements established by the legislation and by regional and external environmental planning regulations. This principle had the objective of giving a strong push to the rationalization of the organization of the water sector. Even in the case of *in house* management, the use of a contract to formalize the obligations of each party involved became necessary in order to have an evaluation tool.
- Separation of the regulation and control functions, exercised by the local authorities gathered in the AATO, and the service management function, exercised by the operators, considered independent subjects by local governments.
- Recovery of the entire cost of the service, including maintenance interventions and investments, through bills (although there is some margin left to subsidize large projects deemed to be of general interest). Furthermore, the tariffs within each ATO had to be uniform. The responsibility of regulating the cost of the service was taken away from local authorities to return to the state.

In 1996, the Ministry of Public Works, responsible for the water service, identified a new system for fixing water tariffs, which is based on standardized tariff (calculated based on the

average costs of the service within the ATO) and on remuneration fixed at 7% of the invested capital. The standardized tariff system defined the maximum price for water, beyond which AATOs members could not go. This system increased territorial fragmentation, penalizing the citizens of ATOs with very low starting prices, who had substantial tariff increases, and penalizing the inhabitants of those virtuous municipalities that had always kept the infrastructures in good condition, who had to pay for investments for the safety of the plants of less virtuous municipalities within the same ATO (Citroni et al. 2008).

The whole implementation of the reform, which should have been completed in just six months, showed a worrying slowness, due to the numerous attempts of local governments to sabotage it (Masarutto 2011a). The resistance to change of public administrations is a founding feature of the path dependency theory (Liu et al. 2010; Spohr 2016), which influences the implementation of a policy as much as the political logic of the actors of a system (Sager and Thomann, 2017). The Galli law, in fact, did not fit into an empty institutional context, but into an established and functioning system; especially in the Centre-North, where there is an abundance of water resources, and where many municipalities had achieved water self-sufficiency. The participants in the action situation, gathered in the AATOs, would have had to coordinate in order to dismantle a system based on micro-managers that were equivalent to micro-centres of local power (Masarutto 2011a). Both municipalities and regions, instead, tried to dismantle the reform itself, keeping the *status quo* as much as possible. Furthermore, the difficulty encountered by regions in creating a new regulation framework capable of attracting private operators and encouraging their investments is noteworthy (Caporale 2017). As a matter of fact, the empirical analysis shows that an operator that becomes monopolist of a service with very low profit margins, such as water, rarely adopts long-term strategies for the conservation of water networks, preferring to invest only in interventions necessary to guarantee its functioning in the short-term (Masarutto 2004 in Citroni et al. 2008). Furthermore, a private operator, to whom the water service is delegated in the institutional context defined by the Galli law, is simultaneously forced to set up an investment plan, to respect the water tariffs decided by the AATOs and to inherit all the workers of the outgoing company. Although the law provides for an assignment of at least 20 years to amortize managerial costs, the low level of economic attractiveness of this sector is evident, in a devastated infrastructural context like the Italian one that requires huge investments.

The effects of this reform were controversial (Caporale 2017): the fragmentation of

distribution was not reduced, just as the service had not passed to private management and the water cycle had not been vertically integrated. In fact, in 1999, 7,826 different water managers were still active, most of them directly delegated without tender, but through “in economy” or *in house* management, and only 43 of these managed the whole IWS. Horizontal integration of the service had not been achieved everywhere, since only 87 ATOs had been implemented out of the 91 required by law, and only 80 of these had approved the ATO Plan. Five out of 20 regions had waived the principle of uniqueness of management of IWS with local laws, allowing the creation of sub-ATOs. Many of the tenders failed, due to problems in their organization, which in turn depended on a poor organization of ATOs, regulated in a confusing way and managed by personnel selected according to political and non-meritocratic criteria, and to the low level of resources allocated to them. Furthermore, the control capabilities of the ATOs were severely limited by the evident conflict of interest existing when the municipality owned assets of the service supplier, where the role of regulator, planner and controller coincided with the role of delegated and controlled operator (Galanti 2016). This structural lack of a control and evaluation system reflects the complaint made by the Supervisory Committee for the Use of Water Resources-COVIRI – established by the Galli law with control and data collection functions – in its 2003 Report to Parliament on the failure of ATOs to fulfil the goal of carrying out a census of water withdrawals and needs of their territory.

On the other hand, the situation of the utilities appeared very dynamic. International players (such as Water-RWE, Severn Trent Thames, Suez and Vivendi) showed their interest in the Italian market, and began to build up partnerships with local operators, creating the first PPP experiences. Simultaneously, the main national groups operating in local service supply tried to become multi-utilities (the ENEL group, for example, created ENEL Hydro to operate in the water sector) (Carrozza 2013). If in 1960, approximately 25% of companies were involved in the management of more than one service, at the beginning of 2000 this percentage had already risen to over 50%, with an average of almost 3.5 services managed per company (Spadoni 2003). The most massive phenomenon was that of corporatization of public-law municipal companies, which were transformed into private law JSC with total public capital (MOEs). The most dynamic of them have begun paths of aggregation to reach economies of scale, inaugurating a new phase of municipal capitalism (Scarpa et al. 2009; Galanti 2016). The transition from *municipalizzate* to MOE could in fact take place without big formalities, furthermore the law provided for tax breaks for these companies, the possibility of direct

assignment of services to them without tender, and the possibility for MOEs with *in house* concessions to participate in tenders in other municipalities (Masarutto 2011a). The MOEs became real arenas of local power (Citroni et al. 2012), administered by top managers who were appointed by city governments becoming their direct expression, and where local policy decisions were taken without the control of citizen representatives elected in municipal councils. In such venues, a municipality is not only the principal of the agent-principal relationship, being the majority shareholder of the company, but at the same time it also becomes the agent of its own decisions: it must therefore pursue both the corporate profit objectives and the political objectives of satisfying social needs, in a clear conflict of interest situation. Corporatization phenomenon strengthened the power of mayors, with the consequent exclusion of the municipal councils from the control of these companies (Citroni 2010), negatively affecting the transparency and accountability of the system. Finally, the mayor's power of freely selecting members of the BoDs' corporates produced a serious risk of clientelism and corruption.

Consistently with these figures, the reform of 1994 did not produce a material privatization of the water market but its commercialization and integration, through the formal privatization of the municipal companies, and the unification of small companies into larger ones. A material privatization of the sector would have been possible only after a long process of modernization of water infrastructures by the state, in order to limit the investment burden on private operators and make the water market truly attractive and competitive for private companies (Citroni et al. 2008). Even in this case, maintaining low water tariffs would have been impossible, given the technological investments required to reach European standards. However, the changing process described up to here collided head-on with the *acquis communautaire* that was being defined in the management of SGEI through the rulings of the European Court of Justice (Marécou 2016b). The Teckal sentence of 1999 began a phase of EU interventions in Italian politics, aimed at preventing public companies that are in a privileged position of monopoly in their municipality from entering into competition with private companies in other areas; moreover, the tax concessions granted to MOEs were considered "state aid", prohibited by the legislation on SGEI.

While the principles of the European water discipline were taking shape, going to constitute the current legal framework that provides for the *in house* entrustment of the service only in the water sector, Italy suffered several complaints by the EU Commission, which forced the various governments to modify the matter of the assignment of local services and the

approach to the water sector.

In 2001 the Title V of the Italian Constitution had been reformed, increasing the legislative powers of local authorities, in particular the regions, and creating 16 metropolitan cities (local authorities halfway between regions and provinces with special powers: Turin, Milan, Venice, Genoa, Bologna, Florence, Rome, Bari, Naples, Reggio Calabria, Cagliari, Catania, Messina, Palermo, Trieste). In the same year, the national regulatory competence on the water sector was transferred to the Ministry of the Environment and Territorial Protection, a sign of alignment with EU regulation. Such institution became the spokesperson for community instances, modifying the political stream and the policy stream that until that moment had been mainly fed by the centre-periphery clash. Within political stream, from this moment on, the European objectives of liberalization of the water market and environmental protection of water resources were added to the centre-periphery issues. During the same year, 2001, the dichotomization of the debate on water management in Italy began. In that year, in fact, Italy implemented several European norms including those that separated the non-economic services from the Services of General Economic Interest, the SGEI, among which water services were included. These services must be managed using tools inspired by the principles of private business management. "Hence the ideology battle over water was born, since some people consider it too important a good for human life to be managed through an entrepreneurial logic"¹⁶⁵.

A production of a long series of contradictory and confused legislative measures has begun, which is not yet completed today. In the following paragraphs we have tried to synthesize the most decisive measures.

The note from the Ministry of European Affairs (October 2001), a proposal by the Ministry of the Environment (the so-called Matteoli decree, issued in November 2001) and the article 35 of the financial law for the year 2002 (law 448/2001) showed the same approach: the supply of local services must normally be managed by private companies, selected through competitive tenders. After several regions had appealed to the Constitutional Court to criticize this decision, in 2003 the Consolidated Text on Local Authorities was again modified, allowing the *in house* entrustment of local services while respecting community conditions. Thus, in 2004, the presence of private companies in the water sector was almost absent, only half of the ATOs had concluded the implementation of the Galli law, while most had approved laws delegating the principles of the reform (Coviri 2004), clearly showing their will to acquire a

¹⁶⁵ Interview with an academic expert on Italian public services.

central role in the governance of the water sector.

At the same time, the EU was adding pressure on Member states to increase market liberalization with Directives 2004/18/EC and 2004/17/EC (the new benchmarks for public procurement issues), the so-called Bolkestein Directive (approved in 2006 and implemented by Italy in 2010) to encourage the free circulation of services and the removal of barriers between the various countries.

In 2004 a circular from the Ministry of the Environment and Territorial Protection established that the *in house* entrustment of water service should have become a strictly residual hypothesis, superimposing the concept of competition on that of efficiency (Caporale 2017). In 2006 all the norms governing the water sector merged into the new Environmental Code (Law n° 152 of 2006), making some changes. The most significant of these was the sharp downsizing of regions legislative power; moreover, in order to incentivize the assignment to private operators, the principle of free grants usage concessions was introduced, causing a potential loss of national profit that could be spent on the renovation of infrastructures that are still very powerful today¹⁶⁶; finally, the residual nature of the *in house* assignment was reaffirmed.

At the same time a new political actor had entered the Italian political panorama: the popular movement against the privatization of water, which in Italy had a profound impact on the political mood, determining the fate of the entire water sector.

Since 2003, when the First Alternative Water Forum has occurred, the Galli reform together with all its modifications have met with strong local opposition from civil society, left and environmental movements and trade unions, worried about layoffs due to the privatization of public services. The Italian Forum of Public Water Movements¹⁶⁷ was born from a meeting between the Italian Committee of the World Water Contract (Petrella and Soares 1998), local networks of activists, civil society associations, associations linked to left and green parties, and trade unions. The movement has been effective in moving forward its agenda, thanks to its ability to exert pressure on local, national and European institutions and thanks to the presence of a heterogeneous and transversal epistemic community, particularly endowed with skills and public influence; indeed it is composed of academic professors (in the field of public law), representatives of important national associations, NGOs and public personalities from the third sector and Catholic world, as showed by figure 10.

¹⁶⁶ *Il Fatto Quotidiano* July 29, 2020 <https://www.ilfattoquotidiano.it/2020/07/29/le-concessioni-in-italia-vengono-date-con-troppa-leggerezza-per-me-il-caso-rocchetta-ne-e-un-esempio/5884093/>

¹⁶⁷ <https://www.acquabenecomune.org/>

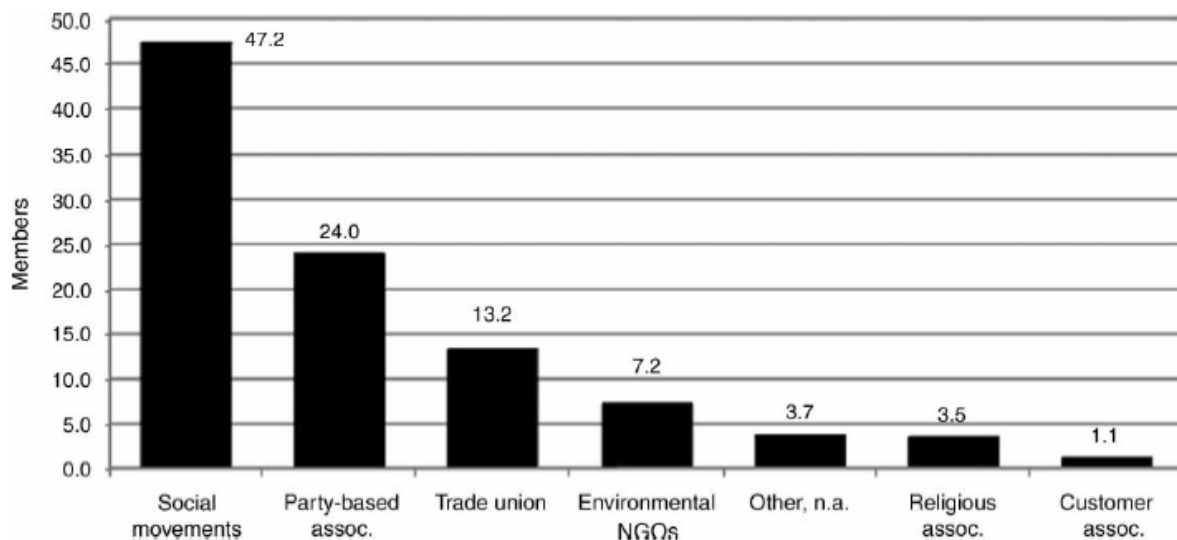


Figure 10: Composition of the Italian Forum of Water Movements in 2007 (n ¼ 997) (re-elaboration of data produced by Italian Water Forum by Carrozza 2013: 759)

The Forum has had a strong local and national connotation: on a local scale it has become a real player in municipal politics, organizing mobilizations and initiatives that have often made this movement an electoral actor. At national level it managed to obtain the inclusion of the principle of non-privatization of water, both in terms of resource and its management, in the electoral program of the progressive coalition (composed of the Democratic Alliance, Cristiano Social, Verdi, La Rete, Communist Re-foundation, Democratic Party of the Left, Italian Socialist Party, Rebirth of the Left) that won the elections in 2006; whereas at the European level it created political links with the European United Left/Nordic Green Left (the parliamentary group briefly called GUE/NGL), which supported in the EU Parliament the proposals presented through the Citizens' Initiative Right2Water¹⁶⁸ (already mentioned in chapter 1: pp. 28). The main initiative of the Forum was the formulation of a pro-public bill on water management in 2006. The popular initiative law "Principles for the protection, governance and public management of water and provisions for the public management of the water service" was born from an experience of training and collective writing (led by the group of jurists at the centre of the Forum). The law was born from the awareness of the limits of the public management system of the past, but also from the failures of the business management model implementation by the Galli law, which had not increased investments in the water system and had not improved its performance, but had only allowed to distribute dividends among private shareholders (between 2010 and 2016 the 4 Italian water

¹⁶⁸ <https://www.right2water.eu/>

companies listed on the stock exchange distributed 2.9 billion dividends, which could be invested in the refurbishment of the plants)¹⁶⁹. The objectives of the law are: resource and its quality, the public management of the integrated water service by means of participatory democracy tools. The law provides for a restructuration of the entire regulatory framework that regulates public water services, proposing: a centralized replacement plan for all national water infrastructures in line with European standards; a system of investment financing through state-guaranteed loans (with low interest rates) and payment of bills by users; a management system on a local basis where the participation of citizens has the purpose of supervising and controlling the work of public managers; the guarantee of access to the resource for the weakest strata of the population through the free of charge of 50 litres of water/day for all¹⁷⁰. The text of the bill explicitly linked its contents with the reform undertaken in the early 1990s: delegations through competitive tenders were to represent the general rule for public services with the exception of the water sector. A massive campaign to collect signatures in support of the Forum's law proposal collected and delivered over 400,000 signatures to the Speaker of the House, however the bill was never voted on by the Italian Parliament. In the meantime, the centre-left government had blocked the Environmental Code, following the grievances of the local authorities and began drafting the so-called Lanzillotta law for the reorganization of local public services, which provided for the rule of delegation to private individuals through a tender for all LPS; this decree was thus subject of strong criticism within the governing coalition. The impasse was finally overcome with the achievement of an agreement that introduced a moratorium on competitive offers in the water sector, included in the 2007 tax law (law 222/2007). An important experience of strengthening the epistemic community that was the *core* of the Forum was the establishment of the so-called *Rodotà Commission*, appointed on June 14, 2007 by decree of the Minister of Justice in charge of drafting a reform of the rules of the Civil Code on public goods. Such a Commission included important jurists, such as Ugo Mattei and Alberto Lucarelli, protagonists of the Forum for Public Water and subsequently of the remunicipalisation of the water service of Naples. The Rodotà reform established a revolution in the categories of public goods recognized in the Civil Code, introducing important innovations such as the classification of goods not on the basis of their consumption but on the basis of their social and emancipatory value, the classification of services and natural resources as common goods necessary for the survival of citizenship to be safeguarded in the long-term through the participation of citizens,

¹⁶⁹ Interview with an activist at national scale for public management of water services.

¹⁷⁰ See the law text http://www.senato.it/leg/17/BGT/Schede/Ddliter/testi/46777_testi.htm

and the classification of immaterial goods such as culture and knowledge among public goods, to be made universally available (Mattei et al. 2010; Mattei 2011). However, in 2008, the Prodi government fell and the reform Rodotà proposal was never discussed either in the Chamber or in the Senate, but it became the starting point for the 2011 referendum battle (which will be analysed below). Before collapsing, the government made a last gift to the regions, modifying the Galli law so that the obligation to manage the entire IWS by a single operator turned into the obligation of coordination between multiple operators within the same ATO.

With the start of a new centre-right government headed by Berlusconi, a new phase of regulatory changes took hold. Legislative decree n° 112 of June 25, 2008 established that the SGEI should normally be managed by public or private companies selected through a competitive guarantee; only in particular social, economic or environmental situations direct management “in economy” or *in house*, without tender, could take place. To access this option, the local authority had to send a report, justifying the reasons for this choice, to the Competition and Market Authority. In all cases, for the services managed *in house*, the interruption of activities was foreseen by December 31, 2010. However, the legislator had guiltily neglected to establish rules for the conduct of the tenders of the LPS, necessary to guarantee success of the reform (Caporale 2017). This data, combined with the story of the only manager for the IWS within the ATO and that of the national body for the control of water services, allows us to understand the contradiction and the lack of a univocal reform project in the water sector. Already in 2009, the government began the discussion on the re-introduction of the principle of uniqueness of the manager in the regulatory framework, which actually happened in 2014. The national body with supervisory functions created by the Galli law, the Supervisory Committee for the use of Water Resources-COVIRI, was strengthened and transformed by the Environmental Code into the Authority for the Use of Water Resources and Waste. This Authority, endowed with important control and sanctioning powers, was never established, and the old COVIRI was recreated. After this, other changes affected this authority: in 2009 its composition was changed, in 2011 it was transformed into the National Agency for Supervision of Water Resources, but after seven months the agency was suppressed and its functions were transferred to the Authority for Electricity and Gas, subsequently transformed into the Regulatory Authority for Energy, Networks and the Environment-AEEGSI. The latter, established with the 2014 decree n° 102, which implemented the European Directive 2012/27/EU, assigned to the Authority specific powers

of control and inspection, as well as sanctioning powers, in order to favour the development of competitive markets in the electricity, natural gas and drinking water. Over time, its powers were further increased in the field of tariff setting regulation, becoming the Authority for Electricity, Gas and the Water System-AEESGI; which was finally transformed into ARERA in 2018, extending its skills also to the waste sector. Such events shows how the government intervened over the years in a confused manner on the name of the National Supervisory Authority, without ever seriously addressing the issue of consistency of powers attributed to it and of the actual conflict of interest present in many supervised entities.

In 2009 the Galli reform had not yet been implemented: of the 90 ATOs created, only 84 had approved the ATO Plans, and only 69 of them had assigned the service through tenders; most of the management was *in house* and the presence of private operators was almost non-existent; investments also did not grow as expected (only a tenth of those planned had actually been made), while water tariffs had soared, causing public indignation (Coviri 2010). However, the problem stream within which the organizational, environmental, economic and technical problems of water services took place, was overshadowed by the fiscal problem stream caused by the financial crisis of 2007-2008.

Post-NPM

Although Italy was one of the member countries with the highest sovereign debt crisis – the so-called PIGS: Portugal, Italy, Greece, Spain – its condition was not as serious as that of other states, forced to borrow money from supranational economic institutions. This happened for two reasons "on the one hand, the Italian Treasury had managed a process of gradual consolidation over the course of previous decades; and on the other hand, while the other three countries were heavily indebted to the outside world, Italy was not, thanks to a relatively conservative banking sector" (Citroni et al. 2019: 117-118). Therefore, only the sector was heavily indebted, while the citizens' finances were in good health. The problem stream coming from the communitarian institutions was the bearer of this message, which resulted in a policy stream made up of reforms aimed at reducing public spending through processes of re-centralization of the spending powers of local authorities and rationalization of public administration. This policy stream began to be dominant over all the others precisely in the historical period during which the effects of the commercialization processes of water services caused by the implementation of the Galli law became visible to citizens (Bolgherini et al. 2019). In fact, water tariffs had increased as a result of the new calculation methods,

causing many local mobilizations that interpreted these increases as an effect of the formal privatization processes of the municipal companies (Carrozza 2013). In addition, employment cuts and freezes occurred, as effect of the commercialization of municipal enterprises (which had to face new spending limits) that worsened in the first years of the economic crisis (Leisink and Bach 2014), provoking protests by trade unions (Fantini 2013). In a country with an institutional history like the Italian one, where the distribution of water for civil use has always been treated as a matter of municipal social policy and where the work in public spheres has always been a remedy for widespread unemployment (especially in the South and the Islands), similar evidences caused a wave of popular indignation. This indignation was intercepted by the Italian Forum of Water Movements, which initially developed in the No global environment of the Alternative Social Forums for Water, and then consolidated at national and local level thanks to numerous lobbying experiences with national parties and cooperative actions with local actors in the cultural field (see box 1). As part of the capillary cultural activity carried out locally, in order to spread a new awareness on the water issue, the Forum undertook important collaborations with committees, associations, trade unions and local authorities.

In 2009 the so-called Ronchi decree (law n° 135) confirmed the regulatory setting of law n° 112 of 2008, both of which were much more restrictive than the European legislation on *in house* management – the European legislation, built on the judgments of the Court of Justice, recognizes to local authorities the possibility to freely choose between delegated management and *in house* management of water services, unlike what happens for other SGEI, due to the peculiarities of this sector that make competition between private individuals difficult (Masarutto 2011a; Caporale 2017). In 2010 the group of judges who had become a point of reference for the epistemic community that animated the Forum, raised the referendum questions on which the "Two SI for the common good water" committee was built and the disruptive communication campaign to push the citizens to vote in the referendum. Among the three proposals presented by the Forum in July 2010, the Court of Cassation¹⁷¹ declared two questions admissible: the first referred to the obligation to use tender as ordinary procedure to delegate LPS, except for direct assignment to a PPP company only if the public share was below 60% (Article 23 bis of Law n° 133 of 2008), and the second relating to the fixed quota of 7% of profit to be paid to the service provider through tariffs (Article 154 of the Environmental Code). Alongside these, the referendum included a question on the

¹⁷¹ The Supreme Court of Cassation, in the judicial system in force in the Italian Republic, represents the judge of legitimacy of last resort of the sentences issued by the ordinary judiciary.

opportunity to restart the production of nuclear energy and one on the rule, introduced by the Berlusconi government, known as a legitimate impediment, to guarantee the suspension of criminal trials for personalities with public commitments (Quarta and Mattei 2016).

Although the referendum questions referred all the LPS, the communication campaign focused on the theme of water, full of symbolism as water is perceived as an essential source of life in Catholic culture (Dicastero per il Servizio dello Sviluppo Umano Integrale 2020; Duret 2015)¹⁷². On 11 and 12 June 2011, over 27 million Italians voted for the referendum, with an overwhelming result in favour of all four referendum questions (over 94%). Participation in this vote is considered exceptional for its homogeneity – in all regions the quorum was reached – for youth participation – 66% of the voters were under 25 years old – the transversal features – half of the voters belonged to right-wing parties – the new participation – 25% of the voters came from the normal share of abstentionists (Bersani 2016). Despite the communication campaign taking place in a hostile climate, with national parties and media that at times explicitly hindered the dissemination of information on referendum¹⁷³ and on the reasons of the promoters (Carrozza 2013), the Forum showed to the country the strength of the movement for public water and its capillary organizational structure. Sociologists and scholars of voting dynamics (Diamanti 2011) linked these striking results with the transversal nature and breadth of the participants in the communication campaign. In fact, it was not based only on the forces of the militants, but above all on the action of sympathizers or occasional supporters, traditionally positioned on the margins of political commitment (Catholic associations, ecclesiastical orders, parishes, theatre companies, neighbourhood committees, groups of school parents, etc.). Furthermore, the referendum success was not caused only by the effectiveness of the organizational machine or by the particular national and international political context in which it took place, but also by the type of imagery that the Forum managed to mobilize. The main slogan of the committee was in fact "you write water, you read democracy", declining the concept of water as a common good in three different ways: the idea of water as a commons of humankind has been

¹⁷² Always engaged in actions for access to drinking water and health services for all world populations, every Pontiff of the contemporary era has always taken clear positions against the water market that prevents those most in need from accessing a resource vital. In recent years, with the pontificate of Benedict XVI, the social theme of access to water has been associated with the theme of environmental protection, as evidenced by the document published by the Dicastery for Integral Human Development in March 2020, on the occasion of the world water day. Vatican News March 30, 2020 <https://www.vaticannews.va/it/vaticano/news/2020-03/acqua-fonte-vita-dicastero-sviluppo-umano-poverta-terra.html>

¹⁷³ In Italy, the results of a referendum are valid only if half plus one of those entitled to vote participate in the voting. Preventing the dissemination of information on the date and methods of voting is often a strategy put in place by political actors opposed to the referendum, which becomes a tactic of sabotage.

associated with a governance model that is essentially public. The concept that water is a common good of local territories, combining with the more traditional discourses about localism, positioned the battle for water on the centre-periphery axis, instead of on the right-left one (Fantini 2013). This interpretation of the concept of commons has made it possible to intercept the vote of even those citizens most disappointed by the national politics and it was the base of the campaign for the remunicipalisation of water services. Finally, the third understanding of the commons emphasized the dimension of democratic and direct participation by citizens, informed the idea of a “democracy of common goods” (Lucarelli 2013), a political regime beyond the state and a market based on the direct participation of citizens' in common goods' management (Carrozza and Fantini 2016).

Box 1: overview of the history of the Italian movement for the management of water as a common good

Having been the largest, most transversal, horizontal and impacting social movement over Italian contemporary history, the Italian movement for water as a common good deserves an in-depth analysis. The history of such political actor has been divided into four phases, based on the messages disclosed, the type of actions taken and the actors involved.

The origins

The official birth of the Italian water movement can be identified in the establishment in 2000 of the Italian Committee on the World Water Contract-CICMA, inspired by the "Water Manifesto" written by the economist and sociologist Riccardo Petrella (Petrella 2001). Initially, CICMA was made up of a few actors: some NGOs (CEVI and CIPSI), the Punto-Rosso Association, the Environmental Forum and a minority part of the Communist Refoundation (Molinari and Jampaglia 2010). The main activities of CICMA, at this stage, were focused on raising public awareness about the recognition of water as a fundamental human right and the common good of humanity, to be managed according to the logic of ecological and social sustainability, in opposition to the strategies of private promoted by the water *doxa* of international economic organizations (Payen 2013).

Educational initiatives with schools, associations and parishes, photographic exhibitions, researches, surveys and classes on good consumption practices have been promoted throughout the country (Manunta 2001; Lembo and Petrella 2006), often in collaboration with local institutions. These initiatives often involved artists and personalities from the

world of culture such as Dario Fo, Beppe Grillo, Moni Ovadia and Marco Paolini.

Within such context, CICMA tightened relations with some protagonists of the NO Global movement (Raffini e Viviani 2011), including various NGOs, the regional Social Forums, the Lilliput Network and the political and cultural association ATTAC. By participating in the World Social Forum in Porto Alegre in 2002 and 2003, these groups solidarized with the struggles of indigenous Latin American movements in favour of a communitarian and natural resource management model, which is alternative to the market, and came into contact with the networks of European and North American activists who fight against the privatization of water services – among the most important are IRIN (International River Networks), Blue Project (Canada), Public Citizens (USA), Transnational Institute (Holland) and Public Service International Research Unit (United Kingdom). These alliances led the movement to the organization of various international "water caravans" in solidarity with the struggles for water access (Palestine, Turkish Kurdistan, Bosnia or Central America). In 2003 they organised the first Alternative World Water Forum in Florence, in opposition to the World Water Forum¹⁷⁴, an expression of the Washington Consensus. These collective actors thus had various common experiences by participating in all the Alternative World Water Forums, from that of Geneva in 2005 to that of Marseille in 2012. Another important common experience, which has strengthened the collaborative capacities of the Forum, was the collective writing of the popular initiative law "Principles for the protection, governance and public management of water and provisions for the public management of the water service" in 2006 and its signature collection campaign.

Despite the weakening of the propulsive thrust of the anti-globalization movement, the Italian movement for water as a common good has inherited various aspects of that movement: values such as autonomy, creativity, spontaneity, self-realization take on a central role in the movement, making its organizational structure pregnant; from the choice of flexible forms of coordination to inclusive participation in several groups; from the search for consensus through discussion to a non-totalizing activism, respectful of subjectivities (Carrozza 2013). In addition to these values, it undoubtedly also inherited NO Global internationalism, the criticism of the forms of traditional representative democracy and of the role of economic values in social life (Fantini 2013).

From global to local

¹⁷⁴ <https://www.worldwatercouncil.org/en/world-water-forum>

During cultural campaigns at local level for water consciousness, the movement's actors came into contact with the first local mobilizations in opposition to the processes of commercialization and privatization of water resources. Actions of support and solidarity to local battles against pollution of springs and aquifers, of denunciation of the bottled water business, or of the various forms of privatization of water regimes got different forms. First of all, a profound process of internal self-training on national legislation and on the various international cases of resistance to the commercialization of water services begun, guided by the various academic figures and specialists who animated the movement, leading it towards a process of professionalization¹⁷⁵. Various forms of collective action arose from it (Della Porta and Diani 2006; Della Porta 2014): in Tuscany the movement elaborated a popular initiative law proposal for public water management in 2005, in Lombardy it supported regional authorities in asking for a referendum repeal of the Galli law, in cities such as Arezzo, Latina, Nola and Aprilia it supported local committees in opposing the increase in water bills that occurred after the delegation of services to multinationals such as Veolia and Suez and it promoted various appeals to the Constitutional Court presented by various regions (Piedmont, Emilia Romagna, Tuscany, Puglia), to challenge the water choices of the Berlusconi government.

The 2003 Florence Forum was organized with the support of local Tuscan institutions, of which however the movement grabs and denounces an ambiguity: from a cultural point of view the centre-left Tuscan administrations embraced the principles of the movement, but in practice they implemented the principles of the 1994 reform. The observation of this contradiction brought the movement closer to local battles of civic committees, trade unions and local associations. Despite some collaborations with local governments, the movement also denounced the negative effects of the Italian model of municipal capitalism (Scarpa et al. 2009; Galanti 2016), calling for a return to public water management, combined with strict control of citizenship in order to avoid economic-environmental inefficiency, and clientelist and corrupt drifts of the past. In this way, the movement promoted the 2008 campaign "Save the water", with the aim of recognizing water as a "common good and fundamental human right" and of the water service as "free of economic relevance" by City Councils, in order to escape the rules of the market. About 30 local authorities participated in the campaign and this was the occasion for the creation of the Coordination of Local Authorities for Public Water, which was joined by more than 200 local institutions. The movement thus passed

¹⁷⁵ Interview with an activist at local scale for public management of water services.

from an identity positioning on the right-left axis to a positioning on the global-local axis (Fantini 2013).

The national referendum campaign

In 2006 the movement – at that point made up of CICMA, territorial committees, regional Social Forums, ARCI, CGIL-Public function, ATTAC, and various realities of the Catholic world led by Father Alex Zanotelli (Zanotelli and Ingrao 2002), who became a symbol of the defence of sacredness of water – created the Italian Forum of Water Movements. Such an organization formalized the experience carried out by collective writing of the popular initiative law for public water and the lobbying action undertaken to include public water management in the electoral program of the progressive coalition that won the 2006 elections. Thanks to the pre-existing structures of the subjects of the movement, the Forum was equipped with a lean and not very institutionalized organization, guided by the decisions taken by the National Assembly, which brought together the representatives of the various actors of the movement and whoever wanted to participate. It was able to coordinate and support local initiatives and to organize thematic study groups and information campaigns. At the local scale, the Forum's initiatives were carried out by a plurality of spontaneous territorial committees, each with its own particular history.

After the fall of the Prodi government and the laws of the centre-right government of 2008-2009, the Forum promoted a referendum to repeal some provisions of Legislative decree n° 112 of June 25, 2008, in order to undermine the institutional framework favourable to the entry of private operators in the water sector. The referendum questions were elaborated in 2010 by a group of jurists – Stefano Rodotà, Alberto Lucarelli, Ugo Mattei and Luca Nivarra – returning from the experience of the Rodotà Commission. In 2010 the referendum committee "Two SI for the common good water" was born, which was joined by important subjects of the national associations: Federconsumatori, Legambiente, the finance and fair trade networks (Banca Etica, Botteghe del Mondo), the "Friends of Beppe Grillo" (which will later become the Five-Stars Movement party) and various actors from the Catholic world such as ACLI (Christian Workers' Associations), AGESCI (Association of Italian Catholic Guides and Scouts), various missionary groups, the Jesuit Social Network (Fantini 2012). In the months preceding the referendum, a series of official pronouncements by the ecclesiastical hierarchy in favour of public water and explicit invitations to vote in the referendum finally stimulated the involvement of numerous parishes and faithful individuals who had never had political

experience. According to the analysis carried out by the Cattaneo Institute in 2011, these citizens were moved primarily by the moral condemnation of policies contrary to the human right to water; 16% of them were made up of members of sports associations, parishes, student organizations and artistic companies and for 60% of them participation in the referendum campaign was their first political experience (Diamanti 2011).

After the referendum victory

Despite the physiological decline in participation (Della Porta 2014), the Forum consolidated itself as a unitary political subject, legitimized by the referendum success. It had developed a policy stream based on the remunicipalisation process of corporatized water management companies: the idea of this epistemic community consisted in the transformation of publicly owned JSCs into public-law *Aziende Speciali* – the old *municipalizzate* – that are functional bodies of local governments, without managerial or economic autonomy, controlled by BoD composed of both personalities chosen by the City Council and representatives of citizens; the direct participation of citizens in corporate management would have the purpose of controlling political management and directing them towards long-term protection paths of water resources and social equity. Only in this way water would be removed from commercialization and commodification. The Forum thus became the interlocutor of various local administrations that started processes of re-communicating water services: the most significant experience was the Naples one, where two of the jurists of the Rodotà Commission and formulators of the referendum questions, Alberto Lucarelli and Ugo Mattei, became respectively member of the City Council for Common Goods and Vice-president of the MOE that managed the water service (ARIN), to transform it in a AS (Acqua Bene Comune Napoli) under public law. However, at national level, a serious inertia of the institutions in following up the referendum result was recorded. For this reason, the Forum organized the "Civil Obedience Campaign", aimed at self-reducing water bills by 7%, relating to the fixed remuneration of the capital invested that the referendum should have abrogated. At the same time, two appeals were launched at the regional court of Lombardy and Tuscany to follow up the referendum decisions. The difficulty of identifying a stable and reliable interlocutor in the national party institutions was overwhelming. Emanuele Fantini interprets the attempts of national parties to bury the referendum results through the contradiction opened by the Forum within the main political parties, the Democratic Party or the North League, within which there had been a rift on the water issue (Fantini 2013). Distrust of the party system led

the Forum to stem the participation of institutional representatives in its initiatives and to develop a profound criticism toward the traditional political representation system. Thus, the discourse on the "democracy of common goods" (Bersani 2001), founded on the union between political practice and theory in a continuous constituent process of rules for the use of common goods (Dardot and Laval 2015), inspired by the experiences of direct management of the commons documented by Elinor and Vincent Ostrom (E. Ostrom et al. 1984; E. Ostrom 1990). In this way, the Forum brought back some of the themes of the alter-globalist movement, social and progressive Catholicism, trade unions and environmentalism, such as the contrast between the low (common citizens, the 99%, the people) and the high (élites of finance, 1%), the critique of the neo-liberal model of state subsumption, local direct action, horizontal decision-making practices, rejection of charismatic leadership and the use of communication technology (Fantini 2013). The movement, therefore, was in sharp discontinuity with respect to the growing personalization of Italian politics, developing an organization based on a series of reference figures, important but not indispensable – among these Riccardo Petrella, Emilio Molinari, Ugo Mattei, Alex Zanotelli, Marco Bersani, Paolo Carsetti, Alberto Lucarelli – as demonstrated by the fact that some of them entered into other political experiences, without co-opting the movement.

After the failure to implement the regulatory changes desired by the Forum and the loss of media visibility, the Italian Forum of Water Movements continued to exist. It is still coding a lobbying activity towards the (few) parliamentary groups willing to dialogue (Five-Stars Movement, in particular) in order to achieve the objective of obtaining a parliament vote on the bill of popular initiative "Principles for the protection, governance and public management of water and provisions for the republication of the water service" formulated in 2006 and subsequently updated¹⁷⁶. Therefore, the strategy of realizing the public management of the Italian water service through changes to the regulatory framework has not changed. Even today the organizational structure of the National Forum is functioning and is working to reach an agreement with the national political forces to carry out a state managing and financing of national water infrastructures. However, neither the national parties of the right nor those of the left support this project and also the party of the Five-Star Movement (which in 2011 made the public management of water one of its five stars)

¹⁷⁶ Interview with an activist at national scale for public management of water services.

appears to be divided on this issue, suggesting an annual failure of the legislative project of the Forum¹⁷⁷.

The referendum results have been imposed in a context created more by the expectations of a future pro-privatization regulation than on an actual regulatory change. However, these expectations had produced two different macro-results (Citroni 2016): local authorities had hurried to transform municipal public-law bodies into corporatized private-law companies and had launched merger projects to make themselves internationally competitive; private operators had undertaken programs to acquire company shares and territorial expansion, even in the absence of guarantees of immediate earnings. Since 2011, the referendum has prevented any government from resorting to compulsory tenders and the privatization of municipal companies. However, attempts to introduce rules contrary to referendum principles have been made by all successive governments.

In 2011, with the decree law n° 138, the Berlusconi government provided for the compulsory competitive management of all LPS, excluding the water one. This decision was declared unconstitutional by the Constitutional Court in 2012 after the appeal of six regions. Again in 2011, the Authority for Electricity and Gas, which was also given responsibility for water services, developed a new method for calculating the water bill, which did not include the fixed and automatic remuneration of capital invested, but the relative return on the invested capital. This second rule was recognized as legitimate by the Constitutional Court, with the consequence of making the Italian water market more attractive for private operators. With the decree law n ° 133 of 2014, the Renzi government decreed, in the wake of the referendum results, the full freedom for local authorities to choose between delegated management through tender and *in house* management through direct concession, making the Italian legislation consistent with the European one. However, the government itself, through the so-called Madia decree, wanted to open a preferential channel for the concession of services to listed multi-utilities (of which there are four in Italy, A2A, IREN, HERA and ACEA; see Galanti 2016). This law was also declared unconstitutional and inoperative. Finally, the decree of the President of the Council of Ministers of October 13, 2016 provided free access to 50 litres of water per day for families, in addition to the provision of a "social bonus" for the payment of water bills for less well-off families.

However, those interventions are just some of those that have changed the regulatory framework for the organization of Italian water services: the LPS sector has in fact been

¹⁷⁷ See <https://www.acquabenecomune.org/240-iniziativa-legislativa/legge-iniziativa-popolare>

modified, starting from 2010, through three different waves of the so-called austerity policies that have assumed the shapes of centralization of powers and rationalization of the organization of local authorities. Austerity may be defined as "a form of voluntary deflation in which the economy adjusts through the reduction of wages prices, and public spending to restore competitiveness" (Blyth 2013 in Lippi and Tsekos 2019b: 3). Austerity policies implemented in the EU after the 2007-2008 financial crisis, are considered different from the past as they have put the states in a permanent condition of inadequacy, as the policy making process is now permanently evaluated in light of perpetual and self-reproducing financial, political and cognitive premises (Pierson 2001). If the advent of the NPM caused a general shift from political rationality to economic rationality within EU politics, the financial crisis materialized this transition in every aspect of the EU evaluation of state policies. Austerity, in fact, is not only a concept, but it is a concrete set of policies that have a profound impact on the provision of services to citizens (Léon et al. 2015). It mostly includes direct or indirect cuts in financial transfers by the state and changes to the institutional and organisational public background, in the name of containing public spending. In particular, three waves of authenticity have been identified in the context of the supply of Italian LPS (Citroni et al. 2019). They heavily restricted LG spending margins, decreased their regulatory powers, and increased central government taxes. The general impoverishment of the population generated by the increase in unemployment and taxes has been producing a dramatic increase in the gap between rich and poor¹⁷⁸ and in the demand for access to local public services, aggravated by the impossibility of municipalities of adequately responding to this demand due to the spending limits imposed by the centre.

An impressive effect of the austerity policies and consequent decrease in the offer of local services was the affirmation of the so-called "parties of the great recession", which are radical forces characterized by strong anti-establishment rhetoric and born or strengthened following the financial crisis of 2007 and the Italian crisis of the public debt in 2008. These parties have drawn their strength from the opposition to the "parties of the great depression", represented by those centre-left political forces that have implemented the unpopular

¹⁷⁸ According to data published by Eurostat in 2019, relating to the previous ten years, Italy is the seventh European country for poverty. Furthermore, the middle class has almost disappeared in favour of a group of the very rich and a group of the great poor: 20% of the population with the highest incomes can count on more than six times the income of those who are in 20. % more in difficulty. A gap that has widened in the last decade: the difference was 5.21 times in 2008, which became 6.09 times in 2018. In the South of the country the situation is even more exasperated: in Campania and Sicily the Affluent 20% have an income 7.4 times higher than the poorest quintile of the position. Source: Eurostat Income Poverty Statistics https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Income_poverty_statistics

austerity policies (Vassallo and Valbruzzi 2018). Several researches, in fact, have underlined how the crisis of 2007-2008 has changed the voting criteria of the Italian population: if before the crisis Italians voted on the basis of choices of belonging on the right-left line, after the crisis, Italians make electoral choices based on the analysis of the consequences of the economic crisis and on the perception of its gravity (Passarelli and Tuorto 2014; Cepernich et al. 2018; Tomassi 2018). This resulted in a national anti-political mood and a new political stream based on social rancour towards all subjects considered responsible for the Italian employment, economic and social crisis. Such a stream determined the subsequent developments of national and local politics: at the national level the affirmation of populist and anti-system parties such as the Lega and the Five-star Movement took place, while at the local level, together with the advent of populist forces, the affirmation of the Orange Movement (Brancaccio and Fruncillo 2019) – a political formation that collects left-wing personalities disappointed by the parties founded by the mayor of Naples Luigi De Magistris in 2012, which had not successful at national scale but only at local level – has increased the process of personalization of local politics, which over time has developed specifically local forms (Fruncillo and Gentilini 2016) following the path dependency theory.

The first wave of austerity policies was between 2008 and 2011 (Berlusconi government), resulting in:

- the abolition of the estate tax, which was the main source of municipal revenue;
- the permanent supervision by the Ministry of Economy of all expenses made by municipalities, including those made by their municipal enterprises;
- the obligation for municipalities under 5,000 inhabitants to unite in providing LPS;
- the impossibility of municipalities under 30,000 inhabitants to own municipal agencies;
- the reduction of numerous municipalities and provinces, with the consequent dismissal of their staff;
- the suppression of municipal consortia;
- the abolition of inter-municipal bodies and the public funds that fed them.

This last rule, above all, had an impact on the water sector as it abolished the AATOs, which had the main responsibility for planning interventions on ATOs. This abolition was not carried out through the introduction of an alternative organizational model, since its sole purpose was to save public money, without changing the regulatory framework (Citroni et al. 2016). Consequently, the regions had the responsibility to reorganize the entire water sector with the same objectives, but without tools and resources.

The second wave of austerity provoked, between 2012 and 2013 (Monti and Letta governments):

- the inclusion of the Stability Pact in the Constitution, which made any form of deficit and debts illegal for local authorities and made the provision of services subject to transfers from the state;
- the suppression of the provinces, with the consequent dismissal of its staff, while the obligation of joint management of LPS in smaller municipalities was strengthened, leaving them without a territorial coordination body;
- the imposition of new taxes on housing, infrastructure and waste collection, collected by municipalities but transferred to the state (which leaves them a percentage of up to 0.3%);
- transfer of the regulatory powers of local authorities in the field of LPS to the National Autonomous Authority for Electricity, Gas and the Water System-AAEGSI.

The third wave of austerity between 2014 and 2018 (Renzi and Gentiloni governments) has decreed:

- new cuts in transfers to local authorities;
- reintroduction of the obligation of a single manager for each ATO;
- increase in financial charges for local authorities that choose the *in house* management of LPS;
- reorganization of sub-regional bodies, with the definitive transfer of the powers of the provinces to other bodies, and the creation of Metropolitan Cities;
- attempt to re-transfer to the central government the regulatory powers of the regions and municipalities, assigned to them through the 2001 constitutional reform; however this extreme act of centralization was blocked by a constitutional referendum;
- transformation of AAEGSI into the Regulatory Authority for Energy, Networks and the Environment-ARERA, with the expansion of its competences also to the field of waste.

The consequences of these institutional changes have been manifold. The Italian integrated water service is nowadays administered through a multilevel governance system about which two national authorities share the legislative powers: the Ministry of the Environment and the Protection of the Territory and the Sea together with the Ministry of Health defines the rules regarding the protection of the water resource, the parameters of drinking water quality and the legal frequency of checks; indeed, the ARERA – of which EGATO (Optimal Territorial Area Government Body) are official territorial branches – is responsible for setting the rates, investments, management and contractual forms that govern the award of the service. The

Basin Authorities define the Hydrogeological Basin Protection Plans, while the regions have the task of approving such Plans, of outlining new ATOs and the operating rules of their governing authorities, the new Governing Bodies of the Territorial Area-EGATO. The EGATOs are inter-municipal authorities that have the task of identifying a sole manager of their ATO or sub-ATO of reference, defining the Area Plan and controlling the operations of the manager. Finally, the municipalities have the responsibility of organizing the IWS on an ATO scale and have the obligation to participate in the EGATO (Utilitatis 2019).

The effects of the rationalization reforms are starting to be visible, although the data show that all the objectives of the legal framework have not yet been achieved. The most positive element, underlined by Federico Caporale (2017) and the Blue Book of Utilitatis (2019), is the transfer of regulatory powers to the national authority ARERA and the controlling powers to central ministries, which have been standardizing the national legislative framework on the basis of efficiency, effectiveness, quality and economy criteria (Caporale 2017). All laws relating to competition and environmental protection are now responsibility of the state, and the regions can only implement ameliorative corrections, decreasing regulatory uncertainty and maybe territorial fragmentation of performances. One of the first acts of the new authority was the approval of the new tariff method, which allows increases in service prices only if these are linked to investments on the IWS. Also in 2016, the Authority promulgated the Integrated Text for the Regulation of the Contractual Quality of the IWS (RQSII), which entered into force in 2016. The RQSII defines the minimum levels and the contractual quality objectives of the IWS, by identifying indicators and minimum quality standards that water services have to reach, homogeneous throughout the national territory. However, some experts of Italian water sector are critical of this positive reading of investment data. "They give a positive reading because investments are increasing. And where are investments increasing? Where companies work, that is not in the southern areas."¹⁷⁹ Indeed, the data confirm the area most in need of infrastructure investment are also those in which less investment is made (Utilitatis 2019). The criticisms refer in particular to ARERA's attitude towards administrations that do not comply with the European regulatory indications of quality: to keep out of political controversy, ARERA collects data and carries out checks, but would not fully exploit its sanctioning powers to stimulate the industry innovation¹⁸⁰.

As a matter of fact, in the event of non-compliance with specific quality standards, the Authority has the power to sanction unsuitable operators. However, only the Antitrust

¹⁷⁹ Interview with an employee of ARIN and ABC Napoli.

¹⁸⁰ Interview with an expert on Italian water services.

Authority began in 2015 to distribute sanctions to operators who have rightly increased the prices to users without a corresponding investment in infrastructure improvement (Cittadinanzattiva 2016). Consequently, since 2016, ARERA has not yet distributed negative incentives (in the form of fines) aimed at stimulating the commitment of the competent public administrations to comply with the technical and environmental quality standards defined by the European framework.

From an organizational point of view, the oppression of the AATOs forced the regions to re-design the institutional setting of ATOs for 2012, based on the obligation of inter-municipal cooperation for the provision of LPS. They had to identify the new EGATO, which all municipalities are obliged to join, and their operating mechanism, without involving expenses. EGATO are responsible for choosing the methods of management of the service, drawing up contracts with the operators, setting the water tariffs, and carrying out control and sanctioning tasks. Their main tool is the Area Plan. "Innovation, experimentation and elaboration of optimal solutions for local contexts have not been the main criteria for regulation, with many regions replicating older models or remaining inactive" (Citroni et al. 2019: 128).

Outcomes of such change are sometimes conflicting. From 91 ATOs of 2000, they have now reduced to 62 and a total of 91 sub-ATOs as optimal areas for entrusting the service in 2019, so a process of rationalization has begun, however Many of them have delegated the national legislation by creating sub-ATO of management and many municipalities have evaded compulsory participation in their EGATO (in Calabria this share reached 70% in 2016) (Utilitatis 2019). In this way, a situation of great unevenness, in which the ATOs of the same region can have totally different dimensions (in Abruzzo region the ATO Peligno Alto Sango with 74,000 inhabitants coexists with the ATO of Pescara which has over 400,000 inhabitants).

Due to the regulatory uncertainty and the slow process of joining the municipalities to the new inter-municipal governments, not all the EGATOs are still functioning (especially in the Lazio, Molise, Calabria and Sicilia regions), with the consequent delay in the mapping of infrastructures and in the definition of Area Plans. As a matter of fact, the new normative asset organization has been implemented when the local authorities have just assumed an organization consistent with the 1994 Galli law (in 2006 all 91 AATOs defined by the legislation have become operational), with the effect of upsetting the organizational balance that has been difficult achieved (Utilitatis 2019).

Regarding the goal of vertical management interaction, the identification of a single manager for ATO or sub-ATO has not been completed in many areas of Southern Italy (Molise, Campania, Sicily and Calabria areas), while this objective has been achieved in the northern and central areas of the country (81% of national population). Out of 91 ATOs, 78 have identified the managers of the IWS (from the collection of drinking water to the purification of waste water), and only in 59 cases such subjects manage the entire water cycle (84% of population), while in the remaining cases the IWS is entrusted to different managers (Utilitatis 2019). The low degree of vertical integration of the supply chain in the southern areas is largely attributable to the Campania region, where the region itself deals with the purification segment, resulting in *de facto* management fragmentation in most of the regional territory.

As regards the objective of the horizontal integration of water operators, this goal is only partially achieved (the former premier Renzi had promised that he would pass the number of operators from over 8000 to less than 1000 by 2016). Today, the total number has fallen to 2,551 units in absolute terms. This type of rationalization took place above all through the aggregation of "in economics" managements or mergers of private-law companies (utilitatis 2019).

As regards the legal form of the manager, the comparison between data of 1999 and 2019 has been summarised in the table 9.

Italy	"in economy"	<i>azienda speciale</i>	Inter-municipal consortium	Private-law operators (JSC, PPP, etc.)	others
1999	6,463	98	628	675	62
2019	2,217	2	7	228	37
percentage reduction	-66%	-98%	-99%	-57%	-40%
population percentage	7%	3%	na	82%	8%

Table 9: Italian water management in 2014 and 2019 (handled by author using data by Utilitatis 2019, ISTAT 2019 and ARERA 2019)

The data shown in the first four columns of table 7 refer to the rationalized forms of management in the 2006 Environmental Code, while those in the last column refer to the forms of management originated before 2006, which represent derogations from the current regulatory framework. Municipal direct management "in economy" has been reduced increased from 6,463 in 1999 to 2,217 in 2019, as effect of the many financial obstacles posed by regulatory framework to local authorities in doing this choice (Bersani 2016). This type of

management is majority in the southern regions – Sicily, Campania, Calabria, Molise, Sardinian, Puglia and Valle d'Aosta –but remains as a minority in all regions. Managements “in economy” are generally small, whereas market share managed by PPPs or MOEs is grouped in large cities, since this management model concerns the 82% of the population. It is worth noting that only 2% of management through private-law operators is represented by forms of delegation of the service to companies totally owned by private actors (Utilitatis 2019). Moreover, the phenomenon of the assignment of service to PPP or MOEs and listed on the stock exchange is absolutely circumscribed at regional level, as result of the past delegation of regulatory powers to regions: PPPs are concentrated in Umbria and Tuscany, while large companies listed on the stock exchange have developed in Liguria, Emilia Romagna and Lazio. In summary, the data show that in Italy there has never been a functional privatization, since in 2019 the management of water services delegated to private operators concerned 2% of the municipalities, while in 1987 the municipalities that delegated water services to private individuals were 3.8% (ISTAT 1988 in Caporale 2017).

The state of the water networks is absolutely disastrous, as mentioned at the beginning of the chapter: the Italian network has an average of 42% of water losses, with peaks of 70% in southern Italy (ARERA 2019). In 2016 8% of the pipelines were still in asbestos, more than a third of them are between 30 and 35 years old and a quarter of them are over 50, almost 4 out of 10 counters are over 15 years of age and precise information on the state of the majority of water plants is lacking (AEEGSI 2016). This set of reasons probably explains why more than 2% of water intended for human consumption does not reach the minimum levels of potability, with peaks to 9% in the islands (AEEGSI 2016). From this point of view, an increase in 2018-2019 investments was identified as a consequence of the implementation of the technical quality regulation introduced by ARERA (Utilitatis 2019). In fact, in 2018, ARERA identified six fields for improving technical performance within which ATOs must articulate investment planning: water losses, service interruptions, water quality, adequacy of the sewage system, quantity of sludge purification residues sent to landfills and, finally, quality of the purified water. Thanks to the increase in regulatory clarity, investments for an average of 44.6 euros gross per person were planned in the two-year period 2018-2019. “With the transfer of regulatory and control skills to the Arera and the growth of technologically advanced and efficient industrial companies, investments have recorded constant growth reaching 38.7 euros per inhabitant, with an increase of 23.7% compared to 2012 . The average implementation rate of planned interventions was approximately 87% in 2017, while the

impact of regulation on technical quality recorded a 24% growth in programming for the two-year period 2018-2019” (Utilitatis 2019: 3). However, this figure only concerns ATOs managed through industrial operators, while in the municipalities with a management “in economy” the average investment was in fact just 4 euros per inhabitant in the two-year period 2016-2017 (Utilitatis 2019). However, this growth in investments is not even sufficient to carry out routine maintenance on an infrastructure that is too old; furthermore, given that consumption has decreased while the quantity of water introduced into the networks is constantly increasing (ISTAT 2020), it can be assumed that the water lost during transport is increasing. Finally, after a first drastic reduction of the personnel employed in the Italian water sector in the early 2000s, starting from 2008 the number of employees began to increase - in 2008 they were 177,900 while in 2015 they were 237,600 (Broughton and Manzoni 2017), probably a sign of managerial autonomy of corporatized companies and PPPs.

As mentioned at the beginning of the chapter, the conditions of the Italian purification plants are in even worst conditions. Italy is, for this reason, subject to four infringement proceedings for failure or inadequate compliance with Directive 91/271/EEC concerning the treatment of urban waste water: the 2004/2034 and 2009/2034 procedures, which have already been sentenced, the procedure 2014/2059 and the most recent 2017/2181 procedure for which a letter of formal notice was sent. Overall, agglomerations currently in infringement are 987, most of which involve small municipalities in Southern Italy (Utilitatis 2019). However, even in this sector, a slight improvement in the Italian performance is evident: the municipalities interested by the first condemnation that have not correctly fulfilled the Community obligations of the European went from 109 in 2004 to 74 in 2019; while for the second in 2019, 27 purification sites are now regular out of the 41 illegal reported in 2009 (Utilitatis 2019). In addition, in order to foster the regions to bring the agglomerations up to standard, the Inter-ministerial Committee for Economic Planning assigned, in 2012, approximately one billion and 776 million euros to the regions of Campania, Basilicata, Puglia, Calabria, Sicily and Sardinia for the realization of 183 interventions in collection and purification of urban waste water field; adding resources have been allocated by the 2014 Stability Law and by the 2014-2020 Cohesion Policy.

To conclude, several authors agree that in Italy the process of commercialization of water services has taken the form of the corporatization process (Citroni 2010; Citroni et al. 2015; Galanti 2016). The old public-law *municipalizzate* have mostly been transformed into private-law JSC and PPP, but publicly owned (MOEs). In this way a process of de-municipalisation

occurred, which is not a real process of privatization, much less liberalization. This process translates into a "flight from public law" (Citroni 2009): local authorities and the state continue to operate directly in the economy, but no longer through public-law companies, but through participation in private-law companies (Cassese 2007). This is a transformation of the organizational structures of public entities, which manage public works or territorial planning abandoning the hierarchical models of the past, to activate new organizational models based on the interaction with other stakeholders in a dynamic network of interactive, heterogeneous and flexible networks: the corporate governance. The group of economic actors articulated around the local authority can then be made up of companies directly owned by the local authority (MOEs), but also of companies controlled only indirectly by the municipality; some of these companies can operate as real holding companies that manage some transversal activities through their own holdings. Consequently, local governments have "left" official political venues subject to the control of elected representatives of citizens, and have entered the BoD of local companies that provide LPS: consequently, the true demunicipalisation of the water sector is not depended on the entrusting of services to private individuals, but on the obscurity of the decision-making system (Citroni et al. 2008), which escapes all kind of public control and is based exclusively on the discretion of the mayor and her/his collaborators.

Among the outcomes of this management system, we find, therefore, that the BoDs can become places for the political manoeuvres of the actors based on clientelism and exchange of favours. In this view, almost paradoxically, market-like instruments can be strategically exploited to strengthen – or at list to maintain – governments and elected class (Citroni et al. 2008). During the period of direct management through the *municipalizzate*, the company management was equally linked to local political equilibrium, but management decisions were discussed by the entire City Council, in a situation of full accountability towards citizens and full control by oppositions. Now, however, if political benefits exceed the costs of implementing clientelist strategies, the possibility that private-law companies become arenas of local power, where local political decisions are taken in the dark of the elected representatives, becomes high (Christensen and Pallesen 2001). In similar cases, the ownership of all or the majority of the company shares becomes the main instrument of decision-making influence. Such a system produces even the information asymmetry about the technological know-how and management strategies to increase in favour of management (Galanti and Moro 2014). Undoubtedly, given the redundant and contradictory regulatory

framework like the Italian one, developed more on the dichotomous discourse of the public or private nature of the manager than on the need to build an efficient and effective system based on incentives, controls and sanctions, the opportunities to interpret the rules in opportunistic ways are numerous (E. Ostrom 2005). It is noteworthy to mention the identification by Tullia Galanti and Francesco Niccolò Moro (2015) of two different strategies carried out by the mayors-managers: on the one hand, the pro-dividends mayors use dividends or dismissal to balance the budgetary position of the municipality; while the pro-service mayors promote the industrial growth of the corporatized company to obtain dividends to invest in the quality of service and infrastructure, thus securing the support of the voters.

As for the battle over public water management, the regulatory changes produced by the actions of the Italian Water Forum have been disappointing, since the reform of the Civil Code drawn up by the Rodotà Commission has not been approved, the proposed law of popular initiative has never been included in the parliamentary agenda and the referendum principles were only partially implemented, without causing a big change in the regulatory framework for the management of SGEI. Overall, the impact of these few regulatory changes on the water sector has been virtually absent. Only in the city of Naples major changes took place. Currently, the Italian regulatory framework is perfectly aligned with the EU one, while the referendum battle has helped to eliminate the excessively privatizing regulations that obliged municipalities to delegate the water service to private operators. This data brings to light two evidences: the first is the impossibility of an EU member state to implement laws that are inconsistent with the EU ones, which being equated to the Constitution, leaves no possibilities of manoeuvre to the legislators; the second evidence results from the limits of the public water movement.

However, we cannot deny the enormous impact that the movement for water management as a common good got on the Italian cultural and political landscape. The concept of the common good has become part of the popular lexicon, so much so that the Democratic Party (which has never supported the proposal to remunicipalise water services) conducted the 2013 election campaign with the slogan "Italy Good Common". The Italian water movement represents one of the most inclusive and resilient mobilisations in contemporary Italy (Carrozza and Fantini, 2013), which has developed a discourse on the theme of common goods that has no equal in Europe (Dardot and Laval 2015). Although the reference to the commons was also present in other battles for the remunicipalisation of water, in those contexts, such as Paris and Berlin or

the European Citizens' Initiative Right2 Water, it assumed only the meaning of universal human right to water (Carrozza and Fantini 2016). In Italy, however, the notion of commons has become polysemic, assuming different and superimposable meanings, which have made this concept applicable to many dimensions of social life: labour, knowledge, internet, culture, education, soil, occupation of theatres and other public spaces. Through the correlation between commons and participatory deliberative democracy, the promotion of a broader alliance between these different mobilisations took place at the cultural level and sometimes in local political practices. The public water movement has contributed to spreading different topics: the refusal of water privatization and commodification, a complementary reference to water as human right and commons, the overlapping and blurring between the commons and the public. According to some scholars, the policy of the commons represents a viable alternative to capitalism (Bakker 2007; Luccarelli 2013; Dardot and Laval 2015, 2017). However, tensions existing between the various meanings assumed by the concept of the common good have made the materialization of a coherent "common good policy" difficult within a complex industrial sector such as water (Carrozza and Fantini 2016; Barbier et al. 2019). In particular, the concept of commons spread by this movement refers to three arguments, each connected to one of the communities that animated the movement and to one of its phases: the reference to water as the source of life of humanity has contributed to the initial strengthening of the movement and its internationalization; the reference to water as a local heritage has allowed the movement to take on a local connotation and to merge with other territorial battles; the idea of participatory water management has given strength to the national referendum battle and contributed to the experimentation of various forms of civic participation at urban scale. As a matter of fact, by superimposing the idea of commons and public management through deliberative democracy practices, the movement focused solely on the legal nature of the manager, leaving out an exhaustive analysis of an industrial sector with multiple facets – health, infrastructural, economic and environmental. The spokespersons of the Italian Forum of Water Movements state to be aware of these limits¹⁸¹, since the proposed law of popular initiative that it is still trying to get approved by the parliament addresses all these problems and proposes a nominative reform consistent with the historical problems that have created the poor state of Italian infrastructures (lack of maintenance interventions, low investments, negative ecological impact, increased

¹⁸¹ Interview with an activist at national scale for public management of water services.

drought)¹⁸². However, the preferred use of legal concepts, languages and tools to organize the struggle, marginalized other knowledge and approaches (cultural, ecological and ethical). Moreover, without a change in the entire water regulatory framework, the Forum's outcome resulted in the proposition of a water regime based on the transformation of private-law MOE corporatized into public-law ASs (Lucarelli 2011), namely functional enterprises of local authorities, completely dependent on the decisions and economic transfers of the City Council. The legislative framework that regulates the functioning of the ASs has not been updated since the 1990s, making this type of model misaligned with respect to European legislation (which requires companies to have managerial and financial autonomy). There is no doubt that this typology of organization could have solved some of the problems created by the demunicipalisation of services, such as the lack of public control, transparency and accountability; but this could only have happened if the local authority had autonomously decided to carry out actions in this sense, since the Italian regulatory framework does not impose obligations and sanctions regarding the effective implementation of infrastructure improvement projects or reduction of water waste. Furthermore, the Forum proposed that these public-law companies are managed through a form of deliberative democracy, with the direct participation of citizens in order to control and protect the safeguarding of the resource in the long term. However, the only forms of direct citizen participation in politics envisaged by the Italian regulatory framework are the referendum and the popular law initiative: participatory governance in LPS dimension has never been tested and its forms have not yet been perfected. The few experiences made in this field have shown many problems (chronic decline in participation, inability to find volunteers to be included in the corporate BoD due to too many responsibilities, lack of technical knowledge of citizens, internal conflicts¹⁸³) and the participation of citizens potentially lacking in technical skills and management experience in the management of a highly industrialized and complex service such as water objectively represents a huge risk of mismanagement¹⁸⁴. Finally, the Forum supported the idea that water services, considered as common goods to be managed exclusively according to publicist models, should be financed both by the state and the users bills; this proposal, perfectly aligned with the idea of access to water as a fundamental human right, nevertheless clashes with the EU regulatory framework, which prohibits member states from directly financing SGEI (considering this as state aid that prevents competition). In a context of increasing cuts

¹⁸² See the law text http://www.senato.it/leg/17/BGT/Schede/Ddliter/testi/46777_testi.htm

¹⁸³ Interview with an activist at national scale for public management of water services.

¹⁸⁴ Interview with an employee of ARIN and ABC Napoli.

in central transfers, limitations of spending, regulation and taxation powers of local authorities, the risk of an enormous increasing in water bills persists – going against the dictates of the Forum.

Consistently with these issues, the policy proposed by the Forum would be able to respond to the streams of serious technical and environmental problems caused by the painful state of Italian water infrastructures, and to the social problems that would have resulted from an inevitable increase in tariffs, only after a deep change in the national legal framework about SGEIs management. Without such a national reform, the proposal to remunicipalise water services only on a local scale appears economically, environmentally and socially unsustainable. As a matter of fact, the numerous municipalities that have considered the possibility of remunicipalisation, have then changed their path: this is the case for all the local administrators of the 5-Star party, Communist Refoundation and Left Ecology and Freedom-SEL, which participated in the referendum campaign and then retrofitted on remunicipalisation projects. Emblematic was the confrontation with the governor of the Puglia region Nichi Vendola, in the aftermath of the referendum victory: although both the governor and his party (*Sinistra Ecologia e Libertà*) had been protagonists of the referendum battle, Vendola declared that the management of the Puglia's aqueduct through an AS would have been impossible in the current regulatory context. The regional council has in fact brought the ownership of the aqueduct back into the public regional sphere, but has decided to manage it through a JSC for reasons of economic and environmental efficiency¹⁸⁵. The current legal framework, in fact, makes the management of LPS through ASs very expensive and not transparent. Furthermore, the Italian law does not provide a path for the transformation of JSC into AS (see Pierobon 2014; Lucarelli 2015), making this choice impractical for many jurists and difficult to realise.

The polysemy of the concept of water as common good has therefore allowed such a concept to enter the collective imagination, but has also made it difficult to translate it into a sole set of coherent policies. After the movement for public water, various political experiences, both at national level – such as ALBA-*Alleanza Lavoro Beni Comuni Ambiente*¹⁸⁶ – and at local level – territorial lists such as *Milano in Comune*¹⁸⁷, *Sinistra Progetto Comune*¹⁸⁸ in Florence, etc. –

¹⁸⁵ *Lagazzettadelmezzogiorno* May 12, 2010

<https://www.lagazzettadelmezzogiorno.it/news/home/191840/aqp-azienda-pubblica-regione-approva-ddl-i15-nuovi-articoli.html>

¹⁸⁶ <http://www.albasoggettopoliticonuovo.it/>

¹⁸⁷ <https://milanoincomune.it/>

¹⁸⁸ <https://www.comune.fi.it/taxonomy/term/1632>

with explicit reference to Italian commons theory were developed. However, the epistemic community that built the meanings of the concept of water as a common good has never produced a unitary program of commons policies.

The policies of urban regeneration in collaboration with citizens, which refer to the discourse on the direct management of local common goods, are noteworthy: the most interesting experience is undoubtedly that of Turin, where the government has built a municipal legislation on the recognition of Urban Common Goods¹⁸⁹ and has developed numerous regeneration projects of abandoned areas and buildings through co-planning, co-management and co-design with associations, citizens and territorial committees in the context of the Co-City program¹⁹⁰. Even the municipality of Naples still led by the mayor Luigi De Magistris, after the experience of water remunicipalisation, has shifted the application of the commons theme from the water to urban spaces, certainly more predisposed to experimenting with forms of deliberative and participatory democracy. The experience of the ex-Filangeri kindergarten¹⁹¹ is perhaps the one most reported by national news: a school abandoned and regenerated by local committees, to which the municipality has recognized the right to use, in the name of the defence of the cultural common goods¹⁹² that are produced and made available to the city community.

6.2. Neapolitan exogenous variables

Historical, economic, social and political local context

"The city has never endured being studied, nor interpreted, in its overall and inaccessible globality" (Frascani 2017: VII); with this phrase the historian Paolo Frascani, professor emeritus of the University of Naples "L'Orientale" opens his study on his own city, where he lived and grew up. Naples is an elusive city even for its inhabitants, and it is difficult to classify in the standard categories of other European cities. Rather, it could fall into the category of southern European cities, characterized by high levels of unemployment, semi-employment and irregular work, tax evasion and the possibility of accessing social and civil rights only through participation in the labour market (Andreotti et al. 2001). The city has always been described through dichotomous stereotypes, where the high intellectual middle class coexists with social misery and school dropout – in the well-to-do districts of the city the graduation

¹⁸⁹ http://www.comune.torino.it/benicomuni/cosa_sono/benicomunidef/index.shtml

¹⁹⁰ <http://www.comune.torino.it/benicomuni/co-city/index.shtml>

¹⁹¹ <http://www.exasilofilangieri.it/>

¹⁹² The Resolution of the Council of Naples n° 400 of 25 May 2012 assigned the building to the artistic-cultural committee that revived it and approved the Declaration of Civic Use of this public space drawn up together with the committee <http://www.exasilofilangieri.it/regolazione-duso-Street-number/>

rate reaches 34.4%, while in the peripheral districts it drops to 3.5% (ISTAT 2011); overall Campania is the region with the highest school dropout rate in Italy, with 31.6% of students not finishing the compulsory school cycle (Comune di Napoli 2017a) – where the streets of the centre are crowded by tourists alongside aspiring *Camorristi* shooting at themselves¹⁹³, and where the spectators of the numerous cultural events meet the *Camorra* bosses who control the drug trafficking between the districts.

Naples is not easy to grasp. For this reason, a quick summary of its history is necessary to frame the social and political phenomena of recent years.

Today Naples is a relatively big city that extends for 117, 27 km², with a population of 962, 589 inhabitants as of December 31, 2019 (ISTAT 2019), in continuous decline due to high rates of emigration (in the second post-war period it exceeded one million and 200 thousand inhabitants) and a relatively low population density (8, 208.31 inhabitants/km²). However, this is a city with a history of over 2000 years, built in a land rich in fertile soils and abundant waters, which even today run through kilometres of underground aqueducts dug into the tuff. A city that passed through ancient empires, feudalism, city-states and became the capital of the Bourbon kingdom, which dominated all of Southern Italy from the 14th century to the Unification of Italy in 1860. The problems of Naples have ancient origins: already in the 17th it suffered from overcrowding and irregular and dangerous buildings, where masses of poor people lived in total misery and where the epidemics of cholera and plague caused thousands of victims. The Italian model of state interventionism through great engineering works was born precisely to address the socio-health problems of the former capital of the South, where the epidemics of plague and cholera killed thousands of people from the 15th to the 20th century (the last epidemic of cholera in Naples was in 1973). Such a model was inaugurated with the Law for the Restoration of the city of Naples in 1885, which created the CDP to manage the allocation of one hundred million lire for the reclamation of degraded areas and the construction of the Serino aqueduct. In 1904 it was the turn of the Provisions for the Economic Resurgence of the City of Naples, which distributed incentives for the rehabilitation of buildings and private water networks: this law also created the Autonomous Body of Volturno, to produce the hydroelectric energy necessary for the development of the

¹⁹³ *LaRepubblica* May 4, 2019

https://napoli.repubblica.it/cronaca/2019/05/04/news/camorra_le_faide_tra_clan_di_napoli-225462018/; *Il Mattino* May 17, 2019

https://www.ilmattino.it/napoli/cronaca/napoli_la_camorra_in_ospedale_spari_ad_altezza_d_uomo_e_il_giallo_di_un_auto_crivellata_di_colpi-4498385.html; *Quotidiano.net* May 5, 2019

<https://www.quotidiano.net/cronaca/bimba-ferita-a-napoli-1.4573554>

mechanical industry of Bagnoli and the iron and steel plant of Ilva. In 1943-44, the city was devastated by Allied bombing and once again rebuilt by the state. In 1980, Naples was destroyed by an earthquake, and the central government, again through the CDP, invested in the development of the suburbs through public housing. Thus began the transfer of the chronic problems of overcrowding, social degradation, poverty, and illegal building that still grip the city today. State interventionism, through loans to the city hall, is therefore the origin of the enormous accumulated public debt of the city. The industrial development of the city was also driven by state investments, which led to the de-ruralisation of a population that shared values and resources typical of an agricultural and religious community (Frascani 2017). Given that its urban and economic development were implemented by the state, "Naples has never had a strong municipal power and a strong civic sentiment" (Macry 2018: 131); it has never become the cultural and economic reference point of its region, preserving its monarchical vocation to this day. "In Campania there is no contact between the populations or the administrations of different cities"¹⁹⁴. After the war it was ruled by strongmen of the Italian right, such as Achille Lauro, who nourished his political power through the contrast of the Neapolitan identity to the national one. Meanwhile, poverty, the *Camorra*, unemployment and the unlimited exploitation of the natural resources of the territory grew without limits.

Consequently, the city came unprepared to face the challenges of post-Fordism (Andreotti et al. 2018). As we did for Paris, we assume, based on the research conducted by Savitch et al. (2002) that the socio-economic characteristics favourable to the transition from a Fordist to a post-Fordist economy are: high educational level, different economic base, high agglomeration forces (Hall 2000), synergy with the suburbs, competitive advantages market, robust service sector, sustained employment base and vibrant office market. The research of the three scholars, who compared 10 OECD cities including Naples and Paris, decreed that Naples belongs to the group of disadvantaged cities. For most of the XX century, Naples was either a single-industry town or strongly dependent on a single industry; the tertiary sector was weakly developed (it was confined to the public sector of education, health and social services); overall, the cultural level of the city remained low, also due to the never-ending migration of the most cultured young people towards northern Italy and abroad¹⁹⁵. Naples has been considered a city positioned within one of the most integrated institutional systems of Western Europe, however these relations have been dominated by the partisanship,

¹⁹⁴ Interview with an academic expert on Neapolitan issues.

¹⁹⁵ Interview with an academic expert on Neapolitan issues.

ideology and patronage within a highly organized party system. Moreover, the city has never built cooperative or competitive relationships with the neighbouring territories (not even with its suburbs) or with the supra-municipal government scales, as it has always received fiscal aid directly from the central governments, which have however contributed to the distress of the city rather than supporting its socio-economic development. From the cultural point of view, the city has faced the advent of neo-liberal globalization with a strong materialist tradition caused, by the high numbers of unemployed and poor people. The city economy has always been driven by landed interests, managed through patro-client relationships rather than following the rules of economic competition and meritocracy. "Clientelism overrides broad values and touches everything, from business contracts to personal relationships" (Savitch et al. 2002: 86). Consequently, the Neapolitan economic system hardly attracts investments from outside. Clientelism colours also public planning, since urban master plan required by law have always been realized with enormous delays; and even when they were published, policy-makers ignored them. Therefore, the chronic problems of poverty and illiteracy are added to the bad urban management (traffic congestion, illegal building) and to the low quality and coverage of local and social services. Given the particularity of the Neapolitan political system, it deserves a separate study.

A territorialized and clientelist political system

The political and social history of Naples is characterized by low levels of per capita income and low levels of education, phenomena that represent a fertile ground for the proliferation of clientelar relations between political candidates (both at the district and city level) and voters (Dixit and Londregan 1996; Calvo and Murillo 2004; Kitschelt 2000). Clientelism, which involves the distribution of public resources in exchange for votes, has a negative impact on the availability of resources for public policies, such as those aimed at managing local services. Between the end of the 1980s and the early 2000s, a serious crisis of legitimacy of the intermediate bodies, combined with the drastic reduction in transfers of economic resources from the national government, caused the transition from a political system based on party clientelism to one based on neighbourhood clientelism and small exchanges of favours between voters and candidates (Brancaccio 2018). This passage has therefore strengthened the historical Neapolitan cultural tendency to the personalization of politics and the conflict between the various actors of the municipal scene.

Since 1980 the Neapolitans have elected their neighbourhood representatives, first within 21 district councils and, since 2006, in 10 municipal councils. With the 2006 reform of the

municipalities, the number of neighbourhood councillors dropped from 430 to 300 (30 members for each council) and the system of single preference was introduced. Moreover, the Unified Text of the Laws on the Organization of Local Authorities of 2000 has delegated important management functions of local services and economic resources to such councils. Until the 1980s, those elected in the municipal and district ranks were substantially subordinated to the decision-making mechanisms of the hierarchical mass parties. This method strengthened the mechanisms for recruiting voters based on the party clientele, which controlled the distribution of institutional assignments as well as the definition of the main policy choices through the management of the economic resources provided by the central government. In the 90s, this system was shaken by the *Tangentopoli* investigations, which were also devastating for Naples. A public procurement system based on the payment of bribes to both municipal administrators and *Camorra* bosses had created a mechanism of never-ending building projects, with exorbitant prices and huge holes in the municipality's budget: "Parties and politicians melted like snow in the sun" (Macry 2018: 145).

In the early nineties, when Law n° 81 of 1993 on the direct election of mayors passed, Naples was one of the cities most devastated by the problem stream of corruption, bad administration, unemployment, lack of education and poverty. Over time, this has produced what in the literature is known as the "concentration effect", which is, a condition of isolation in which subjects live trapped in segregating social networks because they are made up of individuals who live in the same situation of poverty and social marginality, which in turn causes an exacerbation of the processes of impoverishment (Corbisiero and Perone 2009). This problem stream, composed of serious social, urban and environmental issues, has historically found an answer both in political clientelism (Stokes 2011) and especially in a self-organizing policy stream built on the development of forms of solidarity of proximity (Di Nicola 2006). This was constituted by a dense and active network of civil society organizations, more or less legalized, animated by actors of both lay and Catholic associations and social cooperatives committed to coordinating and managing services and projects in the area.

The direct election of mayors was expected to be a solution to bad party politics and to work as an instrument of stability and efficiency of municipal policy (Fruncillo and Gentilini 2016). The mayors would have had to acquire autonomy with respect to the parties' interests and increase their political legitimacy through a direct relationship with the electorate.

The direct election of the mayors and of the district and municipal councils through the

expression of the single preference, however, pushed Neapolitan politics towards a strong personalization of politics, which, in turn, creates a favourable ground for patronage strategies to collect votes (Stokes 2011). The phenomenon of personalization of politics translates in the propensity to express a political preference towards a particular candidate, regardless of its ideological connotation: it can be centralized, when it concerns the selection of holders of monochromatic party or top executive positions, or decentralized, when expressed in the election of members of deliberative assemblies (Balmas et al. 2014). Furthermore, this phenomenon has two sides: universalistic personalism that develops around monochromatic figures with strong media visibility, and particularistic personalism fuelled by the direct relationship with the candidate and the exchange of votes (Roth 1990; Hicken 2007). Process of political personalization found fertile ground in a city like Naples, characterized by "a strong district identity. It did not have the urban development by concentric circles typical of modern industrial cities in the Borgia era, but was born from an agglomeration of many independent villages that were unified under the same administrative organization, but that maintained each one their specific history and culture."¹⁹⁶

In 1993 Antonio Bassolino was elected, an exponent of the Italian Communist Party, which remained unharmed by the *Tangentopoli* investigations. He implemented a *dirigiste* policy¹⁹⁷, assuming the traits of an anti-statist, anti-welfareist, liberal, legalitarian, perhaps security man (Macry 2018). He inaugurated a period of symbolic policies, called "Renaissance of Naples", based on projects of urban regeneration of abandoned areas, administrative reorganization, improvement of urban mobility and cultural and artistic projects of international importance that should have attracted foreign investments and guided the economic rebirth of the city. These programs went hand in hand with a media emphasis centred on breaking with a past of decay and corruption. However, such policy projects clashed with the first cuts in economic transfers by the central government and with the system of territorial clientelist interests, which immobilize the administrative machinery. Thus, none of the transformation projects were carried out and democratic participation was reduced to a minimum. "I was born here, I studied here and I was able to breathe the various seasons of the city. [...] I saw this dream of industrial rationalization and economic modernization die. The victims were not only the workers, but also a class of left-wing intellectuals who never saw a reform plan for the city realized."¹⁹⁸ At this stage, Neapolitan

¹⁹⁶ Interview with an academic expert on Neapolitan issues.

¹⁹⁷ Interview with an academic expert on Neapolitan issues.

¹⁹⁸ Interview with an academic expert on Neapolitan issues.

politics was still party-based, as demonstrated by the fact that preferences were distributed homogeneously over the city and neighbourhood or municipal candidates came mostly from the parties: "The recruitment criterion was still based on the party clientele. Through the management of public resources, the parties were intermediate bodies that had the power to intervene on urban policies (public procurement, hiring administrative staff, project financing, etc.). This system however entered into crisis in the 90s and definitively died in the 2000s. It went into crisis already with the first councils directly elected by the electorate."¹⁹⁹ Electoral committees met in party sections, but the link between political parties and the population was becoming increasingly fragile.

The governments following that of Bassolino showed continuity with it, in their inability to create policy streams capable of responding to the urban problem stream. The phase of centre-left governments ended in 2011 with Rosa Russo Iervolino. The social situation of the city had worsened considerably, since de-industrialization was not followed by the birth of a post-industrial economy. Between 2007 and 2014, the employment rate dropped to 37% and the employment rate of the working age population did not exceed 50% (Orientale Caputo 2016). Urban regeneration projects financed with money for EU development funds were not realised, mainly due to the inability of the regional and municipal administration to carry out the expenditure planning and procedures related to the calculation of expenses required by the EU institutions, which forced the local entities to return more than 60% of the allocated resources. Local and social services were outsourced at low cost and municipal enterprises were corporatized, with the consequent loss of qualified personnel, their experience and knowledge (Frascani 2017). The Iervolino government touched the bottom with the so-called waste crisis of 2008, the result of twenty-year of inadequate organization of the waste cycle at regional level (1994-2012), which culminated in the inability to dispose of urban waste, which accumulated in the city streets reaching heights that exceeded the windows of buildings. This incident led to the commissioning of the urban waste service by the central government and an infringement procedure against Italy for the chronic waste crisis involving Naples and the rest of the Campania region: in 2010 the EU Court of Justice condemned Italy.

The administrative inability shown by the centre-left governments had provoked a serious political crisis, understood as the loss of legitimacy of both the local political class and the party system (Brancaccio and Martone 2007). The crisis of the intermediate bodies combined with the drastic reduction of transfers from the centre had decreased the possibilities of

¹⁹⁹ Interview with an academic expert on Neapolitan issues.

exchanging public resources and votes, dissipating a world based on party power. Such a situation resulted in the shift from a party clientelist policy to a district clientelist policy. The dissolution of the vertical power network of the parties translated into a diffuse and fragmented political power at micro-local level. At first, the parties reorganized on a territorial basis, with lighter organizational structures such as neighbourhood associations, cultural clubs and electoral committees, building increasingly personalized relationships, less mediated by ideology and party organization (Brancaccio and Zaccaria 2007). In these public venues the electoral campaigns took place and the distribution of preferences was still quite homogeneous over the city.

At a later time (with the re-election of Iervolino in 2006), however, it became clear that the local tax assistance centres (CAF) had become the new headquarters of district politics. The CAFs were born as agencies for tax practices but they have gradually increased their offer becoming up to these days delivering centres of multiple services, thanks to special agreements signed with the municipality. Within these places the candidates build personalistic relationships with their voters and most of the time the candidates for the neighbourhood councils are the CAF holders themselves. Parties' organizations apply in elections by means of autonomous electoral lists on a neighbourhood basis, to which the candidates adhere according to opportunistic calculations, by offering packages of votes that are territorially defined and quantifiable based on the preferences obtained. Due to the dwindling public resources, candidates can offer their constituents small favours in exchange for their votes (parking space, voting card, identity card, authenticated photograph, facilitated access to popular buildings, medical examinations, etc.): the distribution of jobs in public administration is now a rare commodity. "This is the progressive affirmation of a personalism that we could define as 'particularistic', characterized by circuits of exchange and distribution of resources to the minute dimension of the city districts" (Brancaccio and Martone 2011: 27). The electoral campaigns are now taking place within the CAF or through the construction of door-to-door exchanges of all kinds. The municipal councillors elected in 2006 stated that in more than 8 cases out of 10 citizens prefer to make their requests directly to an elected person (86.4%) (Brancaccio and Martone 2011). The proliferation of CAFs in recent years demonstrates how they have become organizations of control and recruitment of the vote, with database of voters' contacts and numerous bureaucrats who disband practices. The most popular candidates are those with close relationships with municipal technicians, hospital staff or managers of LPS companies. "In 2006 the councillor with the greatest number of

preferences condensed into a single neighbourhood was a *Forza Italia* candidate who was then arrested because he had used the CAF he owned to implement a scam to the *Istituto Nazionale Previdenza Sociale* (INPS), aimed at getting disability checks to false invalids, in a system of complacent doctors issuing fake health certificates. This phenomenon was all concentrated in the same neighbourhood."²⁰⁰ Furthermore, the need for candidates to be present and visible in the neighbourhoods meets another form of territorial control, that of *Camorra* clans, which offer packages of votes and territorial control in exchange for favours or money (Brancaccio 2017).

The preference votes are now divided by districts and sub-districts. Such a hyper-personalized method of accumulating electoral consensus has resulted in an extreme competition among candidates, in a high level of litigation in representative assemblies, where councillors fight each other to distribute benefits to their voters, and a general inability to bring forward universalistic and long-term policy projects. Municipal politics is fragmented in a multiplicity of electoral lists (the number of council groups were 12 in 2008 and 11 in 2011), which do not dialogue with each other because they are engaged in grabbing the few resources available (as can be seen by reading the reports of the municipal councils, which often do not even arrive at the time of the vote due to conflicts during the safe phase of the council motions)²⁰¹.

The election of Luigi De Magistris

The success of Luigi De Magistris, who won two elections to the office of mayor of Naples by an urban population deeply disappointed by the local political class, was based on his ability to turn the sentiment of anti-politics and the tendency to personalization of politics in his favour²⁰². The current mayor of Naples comes from the judiciary and has become famous for some inquiries on the relationships between politics, Freemasonry and public enterprises. His media appeal and oratorical skills made him very popular when he was still a magistrate. He was thus noticed by the *Italia dei Valori* party that offered him a seat in the European Parliament, where he was elected in 2009, with a percentage of preferences second only to that of Berlusconi.

When De Magistris decided to run for the office of mayor of Naples, the city was crossed by various local mobilizations, all characterized by extreme participation and popular transversality and by strong media visibility. The Naples Public Water Forum, born in the

²⁰⁰ Interview with an academic expert on Neapolitan issues.

²⁰¹ <https://www.comune.napoli.it/flex/cm/pages/ServeBLOB.php/L/IT/IDPagina/14>

²⁰² Interview with an academic expert on Neapolitan issues.

early 2000s to oppose a regional law that would have stipulated a ten-year lending contract with water multinationals for the management of Campania aqueducts, was one of the most structured in the whole country, and De Magistris could count on personalities of undoubted moral value such as Father Alex Zanotelli, and of indisputable professionalism, such as Professor Alberto Lucarelli or environmental lawyer Maurizio Montalto. In those years the streets of Naples were also animated by multiple local mobilizations, most of them on a neighbourhood scale, against the attempts of the national government to build new landfills or reopen old ones in the peripheral areas of the city, in order to resolve the serious crisis of Campania waste that had conquered the front pages of the major European newspapers. Emblem of this complex phase of the history of Naples were the images of piles of waste set on fire by the most extremist fringes of the population²⁰³, which went around the world and scandalized the European institutions. Buses and garbage trucks were also set on fire, testifying to the violence of the protests of that period. The protests also intensified after the government attempted to resolve the waste crisis through a government decree (n° 90 of May 23, 2008), which required the intervention of the army to restore order to the city (Operation Clean Roads) and the opening of four new waste-to-energy plants and ten landfills, where the waste would be disposed through operations that derogated from both national and EU environmental and health regulations. The citizens of the metropolitan area, worried about the environmental and health effects of this decree, accentuated the protests and the centre-periphery conflict, with the mayors of the various municipalities involved alongside the citizens, against the military and commissioners sent by the government.

De Magistris structured his electoral campaign on two topics: on the one hand the opposition to all the strong powers – the government of Rome, the EU, the International Monetary Fund, the water multinationals, the corrupt white-collar workers and the mafias (Marcy 2018) – proposing himself as a "man of the people", as a representative of the many against the few who command; on the other hand by supporting and legitimizing – often in an uncritical way²⁰⁴ – every form of participation in the urban community, by building a direct dialogue with its actors, from the bridge assemblies, to the social centres, to the square processions and, obviously, the battle for the public management of urban water. In this way a new form of populism was born, based on both universalistic and particularistic personalism²⁰⁵, as he proved to be able to speak to the masses both through the mass media and in the face-to-face

²⁰³ *IlGiornale* May 4, 2008 <https://www.ilgiornale.it/news/emergenza-rifiuti-roghi-campania.html>

²⁰⁴ Interview with an academic expert on Neapolitan issues.

²⁰⁵ Interview with an academic expert on Neapolitan issues.

relationship. The "De Magistris phenomenon" must therefore be inserted among those radical political forces characterized by strong anti-establishment rhetoric and born or strengthened following the global crisis of 2007 and in Italy of the public debt of 2008 (Vassallo and Valbruzzi 2008). Naples has shown that it appreciates the left populism originated within austerity period, not only through electoral support for De Magistris, but also for the nascent Five-Star Movement party on occasion of national and European elections. However, this party has never conquered the municipality of Naples, as it never managed to fit into a well-established local political system on particularistic exchange circuits at the decentralized level, as De Magistris did instead (Brancaccio and Fruncillo 2019).

Although he led a coalition that gathered pieces of the old centre-left parties, civic lists and the support of some exponents of the movement of social centres – *Italia dei Valori*, Federation of the Left, Party of the South and the civic list *Napoli è Tua* – without the support of the big parties, in the 2011 elections De Magistris conquered 27 out of 29 neighbourhoods, demonstrating that he had won the trust of all strata of the Neapolitan population, from the poor in the suburbs, to environmental and Catholic associations, up to the left intellectuals of the upper middle class (Frascani 2017).

One of the first reforms of the new city government, after the remunicipalisation of the corporatized water company ARIN, was the conversion of the coastal area of Naples into a pedestrian zone – maybe one of the major successes of the De Magistris' government²⁰⁶ – which should have been the starting point of the economic revival of the city, by means of the development of the tourism sector and the rediscovery of the ancient artistic beauties of the Bourbon city. Thanks to the communication campaign led by the charming mayor, tourist entries increased. During the 2015 New Year holidays, Naples was the first city in Italy for tourists' presence. However, the arrival of tourists soon clashed with the inefficiencies of the administration: inefficient public transport system, widespread dirt (an effect of the waste crisis, never totally resolved), street crime, unlimited increase in housing prices in the centre, lack of green areas equipped to accommodate masses of tourists on foot, museums and archaeological zones closed due to public neglect. In just 2 years, people stopped choosing Naples as a tourist destination: in 2017 the landings of cruise ships in the port of Naples had dropped by 35% compared to two years earlier (Frascani 2017). Like the previous city governments, De Magistris government has proven to be unable to implement administrative long-term reforms capable of facing chronic problems of the city as a cumbersome public

²⁰⁶ Interview with an academic expert on Neapolitan issues.

machine, poor in skills and innovative capacity, widespread illegality and clientelism, lack of economic growth, building abuse, inefficiency of territorial services, etc. The administrative inability of municipality is undoubtedly one of the consequences of the financial disarray condition²⁰⁷ of the city, which does not make any form of investment possible: in 2019 the budget deficit of Naples amounted to 1.7 billion euros²⁰⁸, which is why the city government has negotiated with the Regional Court of Auditors and the Constitutional Court various repayment plans in recent years (2012 and 2019), in order to avoid the risk of a commissioner by the state. Such a critical economic condition was tackled in 2012 by the City Council through the increase in municipal taxes and the liquidation of public properties, but without a long-term economic return plan, the situation has worsened²⁰⁹. "In the meantime, LG problems have emerged. Public services have entered a spiral of serious inefficiencies. Waste is exported at a high price, rather than disposed of, and waste recycling grows very modestly. The profitability of the municipality's real estate assets has decreases dramatically, while public finances are on the verge of bankruptcy and local taxes at the maximum allowed. All that, however, does not seem to end the popularity of the leader who, for his part, is a politics of image" (Macry 2018: 160). De Magistris's coalition has been defined as an electoral collection (ranging from insurgent groups to neo-Bourbons) that has drawn its strength from a new narrative of the city, which mixes commonplaces (the proud Neapolitan character, natural generosity, the beauty of the site) to topical issues (sustainable development, defence of common goods, participation, self-government), in forms that are often consoling and useful for building consensus. It is the so-called liberated city, presented as different from both that of Bassolino's Renaissance and the city of Iervolino (Laino and Lepore 2018: 127). However, the strength of De Magistris is not only rooted in his communication skills, but also in his commitment to build genuine relationships with the social groups of the Neapolitan radical and cooperative left and to leave the small centres of local administrative power untouched. Through the inclusion of the concept of Common Good in the City Statute and the creation of the Department of Common Goods, the municipality has inaugurated a series of municipal resolutions (n° 740 of 16/06/2011, n° 17 of 18/01/2013, n° 521 of 11/07/2013, n°

²⁰⁷ *Il Mattino* July 4, 2020

https://www.ilmattino.it/napoli/politica/comune_di_napoli_a_rischio_dissesto_ultime_notizie_oggi-5325923.html

²⁰⁸ *Fanpage* April 25, 2019 <https://napoli.fanpage.it/comune-la-corte-dei-conti-boccia-il-salva-napoli-ma-spunta-un-piano-di-salvataggio/>

²⁰⁹ *Corriere del Mezzogiorno* March 8, 2018

https://corrieredelmezzogiorno.corriere.it/napoli/politica/18_marzo_08/comune-napoli-il-dissesto-realfonzo-non-sono-tutti-debiti-passato-assurdo-non-dichiararli-d40948da-22a2-11e8-a218-a3e0ddb9688a.shtml; *Il Mattino* July 17, 2020 https://www.ilmattino.it/napoli/politica/comune_napoli_dissesto-5351057.html

258 of 24/04/2014, n° 400 of 25/05/2012, n° 893 of 29/12/2015, n° 446 of 01/06/2016 and n° 458 of 10/08/2017)²¹⁰ aimed to protect all forms of popular and self-organized cultural and social production within spaces defined precisely as Commons. In this way, many social centres illegally occupied were assigned – through forms of symbolic rent and management statutes co-produced together with the administration - to the people who reopened them to the population and who made them points of reference for social and civic life of a city lacking in social services. This policy of Common spaces and of dialogue with the most radical and creative realities of the urban context represents a unique case in Italy, aligning Naples to the great European capitals of pop culture such as Berlin or Copenhagen. Furthermore, the mayor has been able to defend the small privileges of the local public administration, blocking any attempt to rationalize the organization of municipal offices, protecting public employees and hiring indefinitely whenever he could. In this way, the political support of the local public administration and of the trade unions connected to it was ensured. Emblematic were the bitter conflicts that arose with some professionals who took part in the De Magistris government and who broke off relations with the mayor due to his actions to bury rationalizing reforms of the municipal machine. The first dispute was with Maurizio Montalto, who proposed a business management plan of the remunicipalised company *ABC Napoli* based on the principles of economic efficiency, which prevented the immediate hiring of dozens of new workers (as we will see later). Another similar conflict involved Raphael Rossi, an expert in the design of advanced and virtuous waste management systems, called by De Magistris to solve the waste crisis, which led to the resignation of Rossi after only 6 months of work for his refusal to hire staff in municipal waste companies; the same happened when Riccardo Realfonso, economist of national fame, who proposed a plan to rationalize the municipal machine that would have resolved the debt crisis in Naples. Also the creation of the new municipal government body, the Metropolitan City of Naples, to which the municipality should have delegated important functions (including the management of LPS companies), and to which it should have assigned resources and skills, was interrupted by the municipal council after its formal creation on October 9, 2016.

Despite De Magistris' failure to take his political model nationwide – the *Rivoluzione Civile* list in which he ran for the 2013 national elections garnered only 3.7% of the votes – and his failure in achieving important electoral goals – such as the direct management of the entire IWS or the spread of separate waste collection above 60% – in 2016 he was re-elected,

²¹⁰ See municipal website <https://www.comune.napoli.it/flex/cm/pages/ServeBLOB.php/L/IT/IDPagina/16783>

although his success was drastically reduced (abstentions reached 50% and his votes were concentrated in the central neighbourhoods, once cornerstone of the Communist vote). Currently, the mayor enjoys the support of those who have leftist values (only those who can digest its administrative incompetence), the entire municipal machine and the neighbourhood committees, and occupied social centres. They represent a young, educated, left-wing electorate that works in the territories and offers services in a self-organized way, concentrated in the downtown and university neighbourhoods.

This is the historical-political context in which the remunicipalisation of Naples water services is inserted.

Drinking water supply

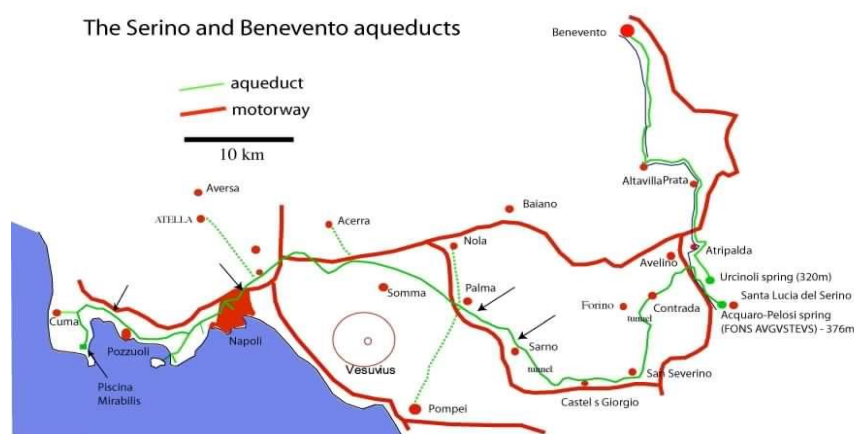


Figure 11: Map of the Serino aqueduct (source: <https://www.pinterest.it/pin/283445370268668927/>)

Drinking water supplied to the inhabitants of Naples comes from four aqueducts, the *Acquedotto della Campania Orientale*, the *Acquedotto Campano*, the *Acquedotto di Integrazione e Riserva* and the *Acquedotto del Serino*. About 50% of the water distributed by ABC Napoli is purchased from the first three aqueducts listed, which are managed by the Campania region, which transports this resource through its pipes to the entrance of the city²¹¹. The remaining 50% comes from the Serino aqueduct, of which the section relating to the province of Naples has been managed directly by the municipality of Naples since 1959, together with the network that transports water from the Serino aqueduct to the city and to 20 other municipalities. Such a service has been initially provided through the AS the *Azienda Municipalizzata Acquedotto di Napoli* (AMAN), which became in 1992 *Azienda Risorse Idriche di Napoli* (ARIN), transformed into private-law MOE in 2001 and in the public-law AS ABC

²¹¹ Interview with a member of the board of directors of ABC Napoli.

Napoli in 2013.

Serino aqueduct is a colossal infrastructure built by the Roman Empire in the 1st century BC and renovated in 1884 to increase the water flow to be transported to Naples and the other 7 municipalities of Campania region (Nola, Acerra, Atella, Pozzuoli, Baia, Cuma, Miseno), as well as several municipalities in Puglia, Basilicata and Molise regions. Its management is divided between multiple operators on a local scale. The section managed by the municipality of Naples supplies drinking water to about one million people in the city area of Naples and an additional 650, 000 residents in the provinces of Avellino, Benevento and Caserta. The water distributed by it comes from two groups of springs: Acquaro-Pelosi called high springs (377-380 m. Asl) and Urciuoli called high springs (330 m. Asl), both located in the upper valley of the river Sabato and managed under concession by the private company ASC Avellino. Such springs provide groundwater, naturally filtered by the volcanic stones from which they originate. The area of the springs is surrounded by walls in order to protect them from human pollution. Their waters are collected in different collectors and then transported through an adductor channel built in tuff masonry, limestone and bricks with a flow rate of 200 litres/second (0.2 m³/s). In this way the water travels by fall for 60 km up to the hill of Cannello, at an altitude of 245 meters above sea level, crossing the provinces of Avellino, Benevento and Caserta and from there other water pipes depart to the city, for a total of 200 km in length. These channels have 236 wells for maintenance and, upstream and downstream, 116 wells for water drainage.

The city of Naples has an extension of more than 10, 000 hectares, with strong altimetric unevenness and with large variations in population density from area to area. To respond to these differences, 8 drinking water tanks surround the city, located at different altitudes, from which the various distribution networks branch off. The pipes that carry water to the homes of citizens are 70 km long. The system is constructed in such a way as to make the most of the force of gravity, therefore each tank serves an area located at a lower elevation level. The primary water distribution network is over 1, 000 km long and is characterized by 3 different types of materials: grey cast iron, steel and nodular cast iron. It is mostly buried in order to avoid contamination from the surface. Seven electrical systems are necessary to allow the circulation of water in the pipes and to keep it under pressure. Between 2003 and 2005, various modernization interventions were carried out on the networks, which equipped them with remote control systems. In particular, these mechanisms allow the remote control of flow and pressure measurements in the supply pipes, in the primary distribution pipes and in

the operation of the mechanical supply pumps. In 2007 an important mapping work of 1,007 km of the Neapolitan water network was carried out, collecting precise data on any problem of uptake, adduction, accumulation, lifting, distribution and remote control.

In general, the water introduced into the city has a naturally excellent quality and abundant quantity, making the Naples area one of the few in the South without problems of summer drought. Each year an average of 110/115 million m³ are introduced into the Neapolitan water networks, for a total of 300 m³/day.

Peculiarities of the water regime of Naples

Like the entire population of Southern Italy, the water consumption styles of the Neapolitans are not virtuous. In all the cities of Southern Italy, including Naples, the reduction in the consumption of drinking water for civil use does not show a consistent decrease over time, as does the consumption of bottled water (33% of Campania families do not trust to drink tap) (ISTAT 2020). These figures demonstrate the persistence of a culture of intensive use of water resources and an insufficient awareness of the scarcity of drinking water in Naples, despite the growing problems of drought in Southern Italy. Awareness campaigns direct to the population for encouraging a decrease in water consumption were not conducted until the late 2000s, when ARIN JSC invested both in communication campaigns and in modernization of the Neapolitan networks. The drinking water consumption styles of the Neapolitans are probably connected with two other peculiarities of Neapolitan water peculiarities: the fact that Neapolitan water networks were mostly built through state and non-municipal funding and the historically low prices of the Neapolitan water service. Since the aqueducts that bring water to the city were built and managed by the state and the Campania region – with the exception of a section of the Serino aqueduct that is managed by the city of Naples – the municipality of Naples has the sole responsibility to maintain city networks. Over the decades, the maintenance interventions of municipal networks have been managed according to the philosophy of urgency – we intervene when the network breaks down – in order to spend as little economic resources as possible. The choice of investing municipal resources only to solve emergency situations has been made practically by all Neapolitan governments in all eras, whether they were right or left. Probably, this is directly linked both to the clientelist nature of the relations between politicians and voters, which led elected representatives to direct municipal resources towards the satisfaction of particular needs rather than towards the improvement of universalistic services, and to an attitude that can be defined as opportunistic waiting. This approach consists of waiting for the situation to become so serious

as to oblige the state to intervene directly with its own resources and skills, as it happened in Neapolitan history with cholera and plague epidemics of the eighteenth and nineteenth centuries, as well as earthquakes and the waste crisis of the early 2000s. Such an opportunistic expectation behaviour can be explained through the academic literature about the theme of blame avoidance policies (Weaver 1986; Hood 2010), which aim to avoid blame for unpopular actions that could electorally weaken a government. Conversely, by opportunistically waiting for the intervention of the state, the municipality has been able to invest few resources in the urban water service and keep the tariffs low for its citizens (a choice that can be read as a widespread clientele). As a matter of fact, in 2007 the average national expenditure for an annual consumption of 192 cubic meters of drinking water (the average quantity consumed in Italy per year by a family of e people) was 223 € (ranging from 312 € paid in Tuscany up to 147 € in the Valle d'Aosta), while the inhabitants of Campania paid an average of 190 €. Between 2007 and 2015, this figure underwent an increase of 47.8%, reaching an average of 281 €. Here, the cost of 192 cubic meters of drinking water reached 324 € per year in 2018, against an average of 426 € paid nationally. Consequently, in Naples on average the water cost is lower compared with both the rest of Italy and the rest of Campania: for 192 cubic meters of water/year a family spends on average 273 €, which corresponds to an annual expenditure of 205 € for 150 cubic meters of water (the average quantity consumed in the EU) (Cittadinanzattiva 2019).

The same opportunistic waiting behaviour followed by Naples municipality has been followed by the Campania region and the state, which have not made substantial investments in the maintenance of the Campania water systems after having built them. Naples is part of the Campania region, one of the areas with the highest water loss rate in Italy (43%) due to the age of the plants (Water Management Report 2018). The result was, consequently, an old and inefficient urban and regional water network, with water loss rates exceeding 40%, European sanctions for the insufficiency of the purification plants and excessive water consumption by the entire population. The Campania data are in line with national ones, showing a progressive increase in water losses between 2007 and 2014, which went from 39% to 48% (Cittadinanzattiva 2016), and a slight improvement in recent years, connected to the increase in investments for maintaining infrastructures in turn caused by the growing of environmental controls by ARERA. The same trends are found at the urban level, since data show us that in Naples the average loss reached 40.2% in 2017, while for the 2013-2017 period it was 40.5% (Cittadinanzattiva 2019). Thus, the city performs better than the rest of

its region, but worse than the national average.

Another characteristic of the behaviour of the citizens of Naples in the water sector is the low rates of payment of water tariffs. Until 2006, the year in which the MOE ARIN signed a contract with a credit recovery agency, over 50% of Neapolitan citizens did not pay their water bills (ARIN 2008a). This data highlights a condition of scarcity of economic resources to be allocated to water services and an opportunistic culture of use of the water service (E. Ostrom 2005).

Relations between the municipality and the region

Unlike Paris, which has always enjoyed a strong autonomy in the administration of water sources and infrastructures, the management of the Neapolitan water service depends heavily on the administrative decisions of the Campania region, which is responsible for organizing the regional IWS. To grasp the characteristics of the Neapolitan water regime the understanding of the regional administrative choices and the relationship between municipal and regional stakeholders is therefore necessary. Campania region identified in 2015 the territory that corresponds to its administrative borders as the optimal area, complying with legal obligations. The ATO is managed by the Campano Water Authority-EIC²¹², which is in turn divided into 5 sub-areas: Naples sub-ATO, Sarnese-Vesuvian sub-ATO, Sele sub-ATO, Caserta sub-ATO and Calore Irpino sub-ATO. The city of Naples falls within the first one, together with 31 other municipalities, for a total of approximately 1,900,000 inhabitants. Among the 5 Campania sub-ATOs, only the Naples sub-ATO has identified a single manager for the entire IWS, which is the remunicipalised company *Acqua Bene Comune Napoli* (ABC Napoli). Although ABC Napoli has been identified as manager, this choice has not yet been implemented. In fact, ABC Napoli sells to the others 31 municipality of Naples sub-ATO water from the Serino aqueduct and manages the 2,300 km of pipelines, for a total of 120,000,000 m³ of water/year (Water Management Report 2018). However, the distribution systems within these and the others 11 cities of the Naples sub-ATO are mostly managed “in economy” by the municipalities (EIC 2020).

In the remaining 4 sub-ATOs, a single management body has not been identified and in addition, multiple managers coexist with the most different forms of management, from management “in economy” to that through PPPs owned by Veolia or Suez. Only in the Sarnese-Vesuvian sub-ATO a single manager dominates, Gori Acqua JSC, which is a subsidiary of ACEA, one of the 4 Italian multi-utilities listed on the stock exchange and owned by the multinational

²¹² <https://www.enteidricocampano.it/>

Suez; the company Gori Acqua hit the headlines for its bad management and for the increase in the prices of the service²¹³. In fact, in 2015, this company was sanctioned by the antitrust authority due to unfair commercial practices to the detriment of final consumers (Cittadinanzattiva 2016).

Nowadays, EIC has not yet adopted the Area Plan for the planning of environmental protection actions based on the 2006 Environmental Code. The delay of this body in achieving the objectives of the 2006 law is emblematic: in February 2020 it had only completed the preliminary mapping operations of the existing water infrastructures and forms of management, and had identified the environmental performance indicators, without however having completed either the municipal data collection or the identification of future objectives and interventions. These data show a situation of very high fragmentation in the management of water and waste services (the data are not provided separately), with a total of 372 operators (EIC 2020). Just under half of the municipalities of Campania manage the water distribution service “in economy”, and this form of management reaches 80% for water purification services. The management fragmentation of the IWS also affects the vertical organization of the service, since in Campania the wastewater purifiers are entirely managed by the region, while the sewers and water services are managed by the municipalities. Therefore, the EIC proves to be one of the least performing EGATOs in Italy, since the implementation of the national regulatory framework is absolutely insufficient, the goal of vertical and horizontal integration of water cycle is not fulfilled, ATO has been divided into 5 sub-ATOs waiving to national norms and no effort has been made to rationalize water management and identify a single operator for the IWS.

In the Campania region, the issue of the management of water sources and distribution services has been a political battleground since the early 2000s. This conflict involves, on the one hand, the civic committees for the defence of public water and, on the other, the regional government. Such a political clash originated in 2004, when the assembly of mayors of ATO2 Napoli-Volturno (before 2015 the Campania region was divided into 4 sub-ATOs, of which the largest was ATO2 Napoli-Volturno), comprising 136 Municipalities of the Naples and Caserta provinces, approved a resolution for the delegation of IWS to a PPP (51% public and 49% private stock) (Lucarelli 2011). In 2006 the struggles of the committees and the increase in the number of mayors against the commercialization process of the ATO2's IWS resulted in the withdrawal of the 2004 resolution and in a formal commitment by the assembly of mayors

²¹³ http://www.difesaconsumatoriecontribuenti.com/DCC_GORI_RECLAMI_CAMPANIA_2014.htm

to delegate the management of the IWS to a public company²¹⁴. In 2015 when the Campania region reorganized the IWS, through the L.R. 15/15, the Forum for Public Water of Naples, together with other local Forums and a good number of mayors, strongly opposed the regulatory changes decided by the Campania government. The regional law, in fact, not only provided for a reorganization of the sub-ATOs by inserting Naples in the smallest of them – and effectively blocking any possibility of expansion of the special company ABC Napoli in the Naples-Volturno ATO, as instead the BoD would have liked to do – but it also saw a downsizing of mayors' assemblies. In fact, as of now not all the mayors of the sub-ATO can participate in its meetings, but only 30 representatives for each area (although the law obliges every municipality to attend EGATO meetings). Finally, the L.R. 15/15 removed the power of sub-ATOs to approve the Area Plan (leaving them only the opportunity to make proposals and being consulted), concentrating such decision-making power in the hands of the EIC management bodies: Executive Committee (20 members chosen from the 552 mayors of the region), President and Director. Several forms of opposition to this law were organized: from the presentation of a regional law of popular initiative, up to the occupation of the Council Chamber of the Region²¹⁵. Despite these efforts, the law was passed.

The latest argument between the Forums for Public Water and the Campania region relates to the attempt by the regional government – together with the governors of other regions: among the leading promoter is the governor of the Puglia region Michele Emiliano, and the national governments of Renzi and Gentiloni– to create a single body for the management of sources and aqueducts in Southern Italy, to be then delegated to operators participated by multinationals Veolia and Suez (Montalto 2018), which already manage part of the water services of the South (Utilitatis 2019). Already in 2004, the Campania region tried to sign a multi-ten-year contract with companies participated by the multinationals Veolia and Suez for the management of the sources and the aqueducts of the Naples-Volturno ATO, a decree that was withdrawn thanks to the pressure of the mayors and social movements. With the Regional Budget Law of 2015, the regional government attempted to acquire the powers to regulate and manage water sources and aqueducts use, effectively subtracting this competence from the municipalities, and to create a Regional Mission Structure that excluded municipalities. The Regional Coordination of Public Water Committees challenged the rule to the Regional Administrative Court and the decree was considered unconstitutional, since institutional framework assigns the management of water sources to municipalities. The same

²¹⁴ Interview with an activist at local scale for public management of water services.

²¹⁵ Interview with an activist at local scale for public management of water services.

project of Campania region was carried out by other regional governments, leading to the creation of the Network in defence of the water sources of Southern Italy, which has since been joined by hundreds of local governments, in order to block the project to remove the management of water sources from the municipalities. The project to create a single water district for all of central Italy has been shelved, but it is not excluded that it will be implemented in the future, since many *in house* managements are on the verge of bankruptcy (Montalto 2018).

The result of these political tensions on the public/private management axis, embodied by the clash between the governor De Luca and the mayor of Naples De Magistris, has been a total emptying of the political legitimacy of the sub-ATOs and an immobility of the EIC, as it can be deduced by reading the reports of the assemblies of such organizations, characterized by widespread absenteeism and by an almost lack of debate (for example: the last Area Plan approved by ATO2 Naples-Volturno dates back to 2002²¹⁶, despite the obligation to update it every 6 years).

6.3. *Naples water regime previous remunicipalisation*

The Neapolitan water cycle is characterized by a never resolved vertical fragmentation. The drinking water distribution service is currently managed by the municipality through a public-law *azienda speciale*, the sewers are managed "in economy" by the municipality and the wastewater purification systems by the Campania region. This organization, which originated after the Second World War, for reasons of costs and administrative inertia²¹⁷, has not yet been resolved and the management of the IWS by a single operator has not yet been planned by the competent ATO.

While the drinking water service has always shown good qualitative performance, since water coming from the Serino is naturally of excellent quality, the sewerage and purification services show low levels of efficiency. Sewerage infrastructures have not been subject to maintenance for decades; moreover, the service is in a serious state of financial deficit, since it counts 25 million/year but the bills cover only 8/9 million/year, due to an excess of staff and a very high cost of extraordinary maintenance²¹⁸. The management of public fountains is also a responsibility of the municipality but, due to the lack of preservation of the pipes, only 2 of the dozens of monumental fountains of Naples, dating back to the classical age, are functioning. The purification service of the Campania region does not show better

²¹⁶ <https://www.enteidricocampano.it/distretto-di-napoli/>

²¹⁷ Interview with an activist at local scale for public management of water services.

²¹⁸ Interview with an activist at local scale for public management of water services.

performance, because of old and poorly maintained purification plants. Campania region, for this reason, is currently subject to 104 infringement procedures by the EU, for failing to implement the regulations on environmental pollution (Utilitatis 2019).

Another feature of the Neapolitan water system is that inhabitants pay drinking water distribution service, sewerage service and wastewater purification service by means of a sole invoice. The drinking water management company has always had the task of collecting the bills, and then distributing the relevant amount to the municipality and the Campania region. However, the transfer of incomes relating to the purification service did not take place for decades, causing the company to accumulate a debt toward the Campania region of over 100 million € (Collegio dei Revisori 2017).

After the expansion of the Serino aqueduct in 1884, the drinking water service of Naples was managed by the Naples Water Works Company, an Anglo-French company founded in 1885 to collect and distribute the waters of the Serino springs to the city of Naples. In 1959, the service was municipalized and the management body *Azienda Municipale Acquedotto di Napoli* (AMAN) was created, and then transformed into an *azienda speciale* in 1996, when it took the name *Azienda Risorse Idriche Napoli-ARIN*. In 2001 the mayor Rosa Russo Iervolino transformed ARIN into a MOE, a JSC fully owned by the municipality. From the analysis of the financial statements of ARIN's activities from 2008 (before 2008 such document were not published) to 2011 (year of juridical remunicipalisation), we can deduce a lot of useful information for our purposes.

At the moment of the transformation of ARIN into JSC it was in a dreadful financial state, with 40 million € in debt and 611 employees (Comune di Napoli 2012). The BoD of the new MOE ARIN, led since 2002 by Maurizio Barracco – a person with many years of experience in both public and private administration – carried out a process of rationalization and increased efficiency of the company that made it the “flagship of the municipality of Naples, since it was the sole municipally-owned company with international quality certificates and positive balance sheets”²¹⁹. In just 8 years, ARIN became a company with a profitable balance sheet: in 2007 its net earnings reached 2,602,000 €, in 2008 they were 3,126,000 €, in 2009 4,606,000 € and in 2010 3,909,000 € (ARIN 2008a, 2009a, 2010a). Such profits were achieved despite the company owning two companies with financial statements in progressive loss: Net Service (100% of ARIN, for the realization of engineering projects) and the *Consorzio del Serino* (70% directly owned by ARIN and 30% indirectly through Net Service, for the realization of an

²¹⁹ Interview with an employee of ARIN and ABC Napoli.

aqueduct maintenance project). Furthermore, the company had accumulated these profits after having made annual financial reserves of approximately 31 million € for the benefit of its employees and the company itself.

Employees had dropped in number compared to 2001, becoming 385 in 2010, corresponding to a fixed cost of 28,950,000 €/year (ARIN 2010a), to which 22 employees of a municipal purification plant must be added, transferred to the company by the Municipal Council and who, at the time of the expiry of the contract, should have returned to the municipality. The outflow of redundant staff was organized through agreements between management and trade union representatives, which were very convenient and had left the ex-employees satisfied²²⁰. The relationship between the BoD and union representatives were very cooperative, as the BoD had always respected and quickly executed the agreements made, and the working conditions of the employees were advantageous²²¹: all employees were hired on permanent contracts; their contract referred to the National Collective Agreement for Public Services of light and gas (more advantageous than other contracts used in the water sector); each year the company distributed 8% of its profits to employees; the descendants of employees had the right to take over the place of their parents after retirement (a very welcome element in an area characterized by severe chronic unemployment such as Naples); in addition to the INPS pension contracts, the company had registered its employees in a Complementary Pension Fund for workers in public utility companies (Pegaso), which would have ensured a very advantageous pension; the company owned three associations that offered leisure services (CRAL, the Financial Commission and the Institute of Social Security, Subsidy and Mutual Aid), which provided various services to employees including sporting and cultural events, educational services for employees' children (a company nursery was available at the company's headquarters) and medical services; each year, employees had access to an average of 5,500 hours of training on the subject of occupational safety, which in 2007 led the company to obtain the UNI EN ISO 18001: 2007 corporate safety system certification (ARIN 2008b, 2009b, 2010b).

The BoD has worked to rebalance ARIN's accounts through three strategies. The first has been a program to recover water tariffs not paid by users, a task assigned to a credit recovery agency (Equitalia). Naples has always been one of the cities with the lowest rate of payment of bills and taxes in the country, who engage in free ride behaviour. The average collection rate

²²⁰ Interview with an employee of ARIN and ABC Napoli.

²²¹ Interview with an employee of ARIN and ABC Napoli.

of bills in Naples is 50%, while ARIN has brought this figure to 85%²²². ARIN documents show that in 2007 approximately 23,000 repayment plans with defaulting citizens were signed and over 20,000 tax bills were posted. Secondly, ARIN has internalized some services that were previously delegated to third parties: the most profitable and efficient was the realization of the first internal water analysis laboratory in Italy²²³, certified by the Local Health Authority, which offered his services to third parties and carried out important research projects funded by the Ministry of Education, University and Research; another internalized service was the one for the maintenance of the city water plants and fountains through the creation of the company Net Service, wholly owned by ARIN. For the purposes of this study, it appears important to underline that ARIN, in the early 2000s, hit the national news headlines as an example of excellence and transparency regarding the water analysis laboratory and the publishing system of results of the analysis activity. Every week ARIN published the median data relating to the quality of drinking water of the whole city, making available to users an interactive map to easily access information relating to each district of the city. Moreover, data at the district level were updated monthly, with reference to 28 quality parameters, based on samples collected in 51 sampling points²²⁴. In total, the number of checks carried out on water samples is 5 times higher than that required by the Ministry of Health.

Finally, the last financial strategy has consisted in the progressive increase in water tariffs decided by the Inter-ministerial Committee for Economic Planning, in order to support ARIN's business recovery. Thanks to these programs, the increase in company earnings has made it possible to achieve several important results, including the recovery of liabilities accumulated before 2001, the launch of various lines of investment and the execution of an agreement with the Campania region for the payment of previous purification and sewerage fees, which the company did not transfer for decades.

About investment programmes, ARIN created in 2004 a consortium for the modernization of the Serino aqueduct through the installation of a pressure system that has minimized the electricity consumption of the plants (completed in 2017). It also launched a program for the construction of a purification plant for some municipal wells (never inaugurated), and the program of "Redevelopment of the city water network", financed by the municipality of Naples. Finally, an investment program was defined for the production of energy from renewable sources (photovoltaic and hydroelectric), for the safety of old water plants and the

²²² Interview with a member of the board of directors of ABC Napoli.

²²³ Interview with an employee of ARIN and ABC Napoli.

²²⁴ SkyTG24 June 3, 2012 https://tg24.sky.it/cronaca/2012/06/01/qualita_acqua_italia

reduction of carbon dioxide emissions into the atmosphere. These programs for environmental protection and energy saving, together with the levels of excellence shown by the water analysis laboratory, have made ARIN acquire the ISO 9001 Certification, which certifies the achievement of Environmental Quality requirements that a management system must possess within the European standard.

It is noteworthy that the interruption of investment programs or projects already approved was determined, in the years 2001-2012, by the failure to transfer the necessary resources by the municipality of Naples: in 2008 ARIN had to interrupt the “Urban water network requalification” program due to the lack of transfer of the last tranche of payments by the municipality (a program later concluded in 2012); in the same way, the 9 million service delegated to ARIN by the municipality for the census, arrangement and adaptation of the fire-fighting systems of the city has never been started due to the failure of transferring municipal funds; lastly, the installation project of 42 photovoltaic panels on the roofs of municipal schools has been blocked and restarted several times due to continuous delays in the transfer of the necessary municipal resources (a program later concluded in 2012).

In summary, the water regime implemented by ARIN had not produced fiscal or administrative negative feedbacks – or at least, if it had produced them, they had not become public. The only type of feedback perceived by citizens was of a fiscal nature: as mentioned, Naples has always been characterized by a high number of defaulting users who act as free-riders (E. Ostrom 2005). The data of this phenomenon are not clear, but from an analysis of ARIN's accounting documents, a share of chronic defaulting users between 5% and 10% in 2001 can be deduced (ARIN 2008a). Therefore, the credit recovery plans launched by ARIN, combined with the progressive increase in water tariffs, have undoubtedly produced a self-undermining feedback among the population (especially among the economically weaker groups), which has perceived the change in the water regime through the increase in bills. Conversely, the same data, looked at from the point of view of national and regional control institutions, produced a self-reinforcing fiscal feedback.

The data illustrated so far regarding the management of Neapolitan water services by ARIN are, together with the exogenous and institutional variables of the system, the starting point of the policy cycle analysed below. To support the reader in understanding the case study under consideration, the essential moments of the remunicipalisation reform have been summarized in table 10. The selection of these moments was based on the criterion of sufficiency (Beach and Pedersen 2016) in the production of an explanation of the outcomes of

the water regime currently operating in Naples.

Agenda setting 2000-2006

- Creation of the Italian CICMA and organization of the first Alternative World Water Forum in Florence (2003).
- Foundation of the first Neapolitan Committees for Public Water in opposition to the decision of the mayors of *ATO2 Napoli-Volturno* to delegate the management of the entire IWS to a PPP (2003).
- Popular indignation for the censorship of Father Alex Zanotelli's public speech against the privatization of water in Campania (2004).
- Media coverage of the protests of Neapolitan Committees for Public Water against the privatization of Neapolitan water.
- Involvement of active citizenship networks and schools in awareness-raising campaigns for water management as a common good.
- Cancellation of the resolution of *ATO 2 Napoli-Volturno* that assigned the management of the IWS to a PPP due to popular protests against the privatization of water (2006).

Policy formulation 2006-2007

- Drafting of the text of a national popular initiative law for the public water management by the epistemic community that animated the Italian Forum of Water Movements (2006).
- Presentation to the national government of the huge amount of signatures in favour of the popular initiative law (2007).
- National political legitimization of the epistemic community of the Italian Forum of Water Movements through the establishment of the Rodotà Commission (2007).
- Convictions of Italy by the EU for non-compliance with the legislation on protection of water resources from human pollution (2009).
- Approval by the City Council of a resolution in favour of the remunicipalisation of ARIN JSC (2009).
- Approval by the City Council of a resolution to guarantee the vital minimum of water to citizens (2010).
- Presentation to the national government of the huge amount of signatures collected by the Italian Forum of Water Movements for promoting a popular referendum to abrogate the Ronchi decree on the privatization of the Italian IWS (2010).

Legitimation 2010-2016

- Luigi De Magistris municipal election campaign around three themes: criticism towards the national political class, resolution of the waste crisis and water management as a common good (2010).
- Prefiguration of a popular management of water service to legitimize the remunicipalisation policy: a water service more socially and ecologically sustainable, price increases blocked, experimentation of direct democracy.
- Overwhelming national victory of referendum votes against water privatization (2011).
- Municipal election of Luigi De Magistris (2011).
- Publication of the report of the newspaper "L'Espresso" on the mismanagement of the Neapolitan water service by ARIN JSC (2013).
- Various judicial investigations on ARIN JSC's managers (2011-2016).

Implementation 2011-2016

- Municipal approval of several resolutions for water management as a common good (2011).
- Municipal creation of Department of Common Goods, Public Water and Participatory Democracy and appointment of Alberto Lucarelli as head of this department (2011).
- Resolution of the City Council for the transformation of ARIN JSC into *Acqua Bene Comune Napoli azienda speciale* and beginning of the legal dispute on the legitimacy of this act (2011).
- Appointment of three spokespersons of the Italian Forum of Water Movements in the BoD of *ABC Napoli* (2011).
- Approval by City Council of the Statute of the new AS containing the rules for the co-management of the company with citizens (2012).
- Overcoming the main obstacles to the management of the water service through *ABC Napoli*: 1) resolution of the legal dispute on the legitimacy of the transformation of a JSC into an AS (2013); 2) implementation of the participatory management model described in the statute and management of conflicts between the Neapolitan Committees for Public Water and the mayor (2011-2016); 3) modification of the regulations and contractual conditions of employees (2011-ongoing).
- Breakdown of relations between the Neapolitan Committees for Public Water and the City Council (2016).
- Suspension of the BoD of *ABC Napoli* and appointment of an extraordinary commissioner by the City Council in charge of managing the company until a new BoD will be appointed (2016-ongoing).

Table 10: Chronological summary of the Naples cycle policy (handle by the author)

6.4. Agenda setting

In the early 2000s in Naples there were no particular negative feedbacks from the management policies of the water distribution service. Water distribution service had always worked, the quality of the water had always been good and the bills had always been among the lowest in Italy. As already mentioned, in that period the citizen problem stream was crossed by multiple issues ranging from widespread unemployment, high illiteracy rates, a generally low level of quality of local and social services, illegality and crime, poor administrative management, illegal building etc., all connected to a growing feeling of distrust toward local political classes.

However, in this period the problem stream of the privatization of water management began to flow over the world and Europe, as demonstrated by the creation of the Italian CICMA, the diffusion of the "Water Manifesto" among the circles of the no-global movement and the European Social Forums and the organization of the first Alternative World Water Forum in Florence in 2003. Thus, sensitivity towards this issue as well as the interest in the policy solutions adopted in foreign countries (Bolivia, India, USA) was growing among actors of the radical left such as *Rifondazione Comunista*, the autonomous trade unions, and the

associations of the third sector or of Catholics associations that were part of the organizers of the meetings of the Social Forum in Italy.

The first event that increased the problem stream of water privatization in the Neapolitan territory was a resolution passed by the assembly of mayors of the ATO2 Naples-Volturno in 2003, which grouped at that time 136 Municipalities gathered in the Single Basin Consortium, to delegate the management of the IWS of the ATO to a PPP (51% owned by the region and 49% by a private operator), which would later become a total private operator (resolution of 23 November 2004) (Lucarelli 2011). The shares of this operator are owned by the municipality of Rome and the Caltagirone Group, whose owner is one of the main shareholders of Suez Environnement. At the time of the vote on this resolution, the legal representative of ACEA PPP was present in the room, arousing the indignation of those who were against the proposal²²⁵. During the voting, the municipal representatives were asked to choose between management through JSC and PPP operators, excluding from the discussion the possibility of managing the water cycle *in house* through a public-law operator²²⁶. The mayors who voted in favour of such a proposal were basically carrying out the voting instructions coming from their national secretaries, and the debate in the assembly took place without contradictory details or criticisms, except those coming from the radical left²²⁷.

In that year the first Neapolitan Committees for Public Water was born. In the meantime, other local committees for public water management had been created in other ATOs, as several projects of delegation of aqueducts and the city water services to JSC were in progress. All of them denounced the lack of political will of the regional government to solve the problems of water infrastructures and the interest in making a profit through the sale of public assets and the usurpation of the municipal right to manage water directly.

The main problem broker of the Naples Committees for Public Water has unquestionably been Father Alex Zanotelli, who would have ardently desired to take part in this research project but unfortunately, for health reasons, had to turn down the interview requests. Student of theology, he graduated in the United States, and then became an ordinary priest in 1964 in the order of the Comboni Missionaries of the Heart of Jesus. In the following decades he made many experiences as a missionary in the territories devastated by the civil war of Sudan, where he worked in the realization of local economic development projects of a solidarity type and where he publicly took a position in defence of the poorest sections of the

²²⁵ Interview with an activist at local scale for public management of water services.

²²⁶ *Unimondo.org* March 25, 2015 <https://www.unimondo.org/Notizie/Napoli-lettera-ai-partiti-su-voto-e-acqua-58060>

²²⁷ Interview with an activist at local scale for public management of water services.

population, so much so that the government forbade him to return to the country in 1974. He later took over the direction of the publishing house of the order of Comboni, in Italy, from which he carried out various campaigns to denounce the political model of the Italian underworld, the Italian arms trade to African countries, the models of cooperation in the development of supranational financial organizations, and the apartheid system in South Africa. In 1999 he was one of the founders of the Lilliput Network, a network of local Catholic and non-violent associations with the aim of implementing a "Lilliputian strategy with which to block the giant of unbridled liberalism"²²⁸, by carrying out targeted and concrete social actions on a local scale. Their goals are those of eco-sustainable development, social equity, opposition to any conflict, anti-mafia and legality. The Lilliput Network was one of the main collective actors of the Italian no-global movement, as well as taking part in the organization of the Italian Social Forum and the Italian Forum of Water Movements (Zanotelli 2011). This actor has often taken positions openly contrary to those of national governments, being able to count on the powerful means of communication of the Catholic Church. After other experiences as a missionary in the areas most devastated by African civil warfare and the publication of several books, Zanotelli returned to his Naples, establishing his base in a basilica of the Rione Sanità – a neighbourhood located in the historic centre of Naples, where social misery and economic poverty are very high - with the aim of "helping people to get up, to regain confidence" (Zanotelli 2012: 53).

In 2004, during the cultural event *La Notte Bianca di Napoli* organized by the municipality, Father Alex Zanotelli took the stage to read a document denouncing the attempt of the AT02 Naples-Volturno and the regional government to privatize the management of the water sources of the territory. This intervention by the Father was foreseen during the show of the comedian Beppe Grillo, who at that time was on tour with his MeetUp campaign during which he collected experiences of local mismanagement and social injustice²²⁹. However, the order service of the initiative, coordinated by the municipality, burst onto the stage and censured Father Comboni's appeal (Zanotelli 2011). This event, aggravated by the fact that the Neapolitan government was centre-left, made the rounds of the local and national media and gave enormous visibility to the Committees for Public Water of Naples and to the battles

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<https://web.archive.org/web/20071019083421/http://www.retelilliput.it/modules.php?op=modload&name=News&file=article&sid=326>

²²⁹ This experience culminated in the founding of the national Five-Stars Movement party in 2009, now a national government force.

carried out by the other Campania Committees²³⁰. "With that event, we started talking about water as a common good which was under attack from privatization. Zanutelli's ability and vision of the world were at the origins of the Neapolitan movement."²³¹

The CICMA denounced what happened as an act of censorship of the voice of the people²³² and gathered the solidarity of various public figures from the world of entertainment and the whole no-global context, causing the legitimacy of the Iervolino government to collapse in the eyes of national public opinion. The Naples Committees for Public Water then exploited the media visibility to carry out radical protest actions such as an hunger strike, an initiative joined by dozens of people from different realities and cultures, including Father Alex Zanutelli, administrators of the Communist Refoundation, spokesmen for cultural associations such as the city Buddhist Centre or the Albatros Group, workers of the Neapolitan water sector, members of the association of the social cooperatives of Naples, representatives of the "friends of Beppe Grillo" of Naples, actors and directors of the Neapolitan theatre, university and high school collectives, and dozens of free citizens²³³.

This was the opportunity to broaden citizen participation in the Naples Committees for Public Water and to involve the network of socially active citizenship in numerous awareness-raising initiatives on the issue of public water management and in debates with local political forces on the resolution of November 23, 2004. During these public meetings, the risks related to the privatization of water were exposed, such as the unjustified increase in the cost of water bills, the decrease in the quality of the service as well as in investments in infrastructure maintenance, and environmental damage. Similar issues were brought in support to the discussion, such as the experiences of the other ATOs in Campania, where corporatization and privatization processes were occurring, such as the Sarnese-Vesuviana ATO3 where the IWS of the 76 municipalities was delegated since 2003 to JSC Gori Acqua, a company owned by ACEA PPP. Such a company had incredibly increased water bills for years (2003-2011) despite a poor quality of service. In 2015 the Gori Acqua company was obliged by the regional court to return to citizens the money obtained through unjustified increases in water bills, on which the ATO3 president had not carried out the necessary controls.²³⁴ The

²³⁰ Interview with an activist at local scale for public management of water services.

²³¹ Interview with an activist at local scale for public management of water services.

²³² See the appeal of CICMA <https://contrattoacqua.it/?v=n&n=173>

²³³ See the list of members <https://www.ildialogo.org/economia/adesioniscioperofameacqua24012006.pdf>

²³⁴ *LaRepubblica* October 17, 2015

https://napoli.repubblica.it/cronaca/2015/10/17/news/il_tar_accoglie_il_ricorso_contro_le_maxibollette_della_gori-125307629/; *Corrieredelmezzogiorno* October 15, 2017

complaint of this abuse came from the local committees and from the Federconsumatori association, for the protection of consumers²³⁵. The matter of Gori was emblematic in Campania, as it was an example of private mismanagement combined with the connivance of local public authorities. In the meantime, alongside the appeals of the CICMA against privatization, the call for keeping water a public service also came from the Vatican. "Among the main emergencies of today is the tendency to privatize water", underlined on Vatican Radio Monsignor Marcelo Sanchez Sorondo, chancellor of the Pontifical Academy of Sciences, who promoted a seminar on water as a primary good, symbol and measure of social equity. "Of course, if water resources are privatized, it will then be very difficult for states to be able to deal with the distribution of water. As Paul VI already said, all the goods of the Earth have a universal destination, that is, they are 'for all men', and in this case for all living species. Therefore, with the question of finding drinking water and figuring out how to store it, there is the problem of knowing how to distribute it: the problem of distribution. And of course, if it is privatized it is not easy distribution."²³⁶ In this context the Campania Water Forum was born, which brought together and coordinated the local Committees.

Simultaneously with the organization of public initiatives, the Naples Committees for Public Water undertook an internal self-training process on the technical, administrative and regulatory aspects of the Italian urban water services management system: it was a real professionalization process that made the people involved able to read and understand accounting documents, legal texts, make requests to local courts and criticize the internal choices of operators of the sector²³⁷. Parallel to the local path, the individual actors most involved in the organization of the Neapolitan Committees were taking part in the various moments of formation, meeting, exchange and international solidarity organized within the Alternative World Water Forum venue, becoming reference points of the national epistemic community who played both the role of problem broker and policy entrepreneur in the Italian problem streams and policy streams relating to water management.

The pressure of the local population on the municipal institutions was so strong that Rosa Russo Iervolino convened again in February 3 and March 9, 2005 the meeting of the mayors of AT02 to discuss the resolution of November 23, 2004. However, both meetings went deserted

https://corrieredelmezzogiorno.corriere.it/napoli/cronaca/15_ottobre_17/acqua-tar-annulla-conguagli-bollette-gori-e1ecd8b0-74d3-11e5-99ec-58d4c7e16c71.shtml

²³⁵ Interview with an activist at local scale for public management of water services.

²³⁶ *Unimondo.org* November 16, 2005 <https://www.unimondo.org/Guide/Ambiente/Acqua/Napoli-l-acqua-rimanga-bene-pubblico-85664>

²³⁷ Interviews with two activists at local scale for public management of water services.

and the mayor of Naples took on the commitment to directly involve the other mayors in a new discussion (the representatives of the city of Naples owned 38% of the votes of the Consortium and the power of the Naples' mayor was very strong in that meeting venue). The meeting finally took place on January 31, 2006 and the 136 mayors of the ATO2 unanimously withdrew the proposal of November 23, 2004, publicly accepting the commitment to entrust the IWS to a public-law organization²³⁸. After the cancellation of the ATO2 resolution, the Naples Committees for Public Water met in a classroom of the *Politecnico di Napoli*, where several qualified speakers from the academic world (Ugo Mattei, Riccardo Petrella, Maurizio Montalto, Alberto Lucarelli) and social media (Father Alex Zanotelli, spokesman for other Campania Committees) presented their reports and testimonies about what happened. After the meeting, the crowd poured into the city streets turning into a very attended parade. The day ended with a big party in Piazza Dante in which took part all the actors who had participated in the experience of fighting against the resolution of November 23, 2004²³⁹.

The urban political mood had therefore focused on the issues of water management, merging into an urban problem stream in which the concern for the increase in the cost of the service crossed with the religious themes of water holiness and environmental protection issues of the sea and its riches. This problem stream was certainly strengthened by the loss of legitimacy of the urban government parties, which – besides having abundantly demonstrated their administrative inability already – had made a sensational gaffe when they prevented a clergyman from speaking in front of religious people like the Neapolitan one.

6.5. Policy Formulation

The policy stream aimed at responding to the various local problem streams relating to the marketization of urban water services did not originate at local scale, but was formulated in a national venue. In 2006 the epistemic community of public water – strengthened by the success of the World Social Forums and the Alternative Water World Social Forums, combined with the echo of the battles for the direct management by state of water management in Latin America and India – exploited the window of opportunity of the 2006 national elections to push for the insertion of the principle of non-privatization of water in the electoral program of the progressive coalition (composed of the Democratic Alliance, Cristiano Social, Verdi, La Rete, Communist Re- foundation, Democratic Party of the Left, Italian Socialist Party, Rebirth of the Left) that won the elections in 2006. Some of the actors of this progressive alliance,

²³⁸ Interview with an activist at local scale for public management of water services.

²³⁹ Interview with an activist at local scale for public management of water services.

such as *Rifondazione Comunista* and the *Verdi*, were an integral part of the no-global movement and the management of water as a common good was already one of their electoral objectives. Including such theoretical construction in the program of the progressive coalition was not difficult, given the tendency of the Democratic Party (the largest force in the coalition) to co-opt themes and personalities from social movements and civic experiences (Lanzafame 2019) to broaden the electoral basis. In addition, the arguments presented by remunicipalisation policy brokers in support of their proposal were unequivocal: the 1994 Galli reform had produced self-undermining fiscal effects, since investments toward the water service had not increased in any way after the commercialization of the service. Moreover, the negative social and environmental outcomes produced by some national and foreign experiences of privatization of water management, combined with the propaganda of the Water Forum, had made evident the spread of self-undermining cognitive effects that were progressively de-legitimizing the theoretical construction of the *doxa* of privatization.

Shortly before the national elections of June 2006, the participants in Italian Forum of Water Movements of 10-12 March deliberated to equip themselves with an additional instrument of political pressure. The epistemic community of the Forum, led by academics mostly from the legal sector, proposed drafting a text of law for the radical change of the regulatory framework of the governance of water resources, in contraposition to the Galli law. The text of the popular initiative law called "*Principi per la tutela, il governo e la gestione pubblica delle acque e disposizioni per la ripubblicizzazione del servizio idrico*" took shape in the following months. As already mentioned, it predicted a water resources management system based on public financing of investments for the maintenance of the water network through the CDP (a national banking institution with incredible financial solidity since its coffers contain tens of billions of euro in the form of postal deposits), as it had happened before the 90s; the obligation of managing the water service by means of non-profit public-law operators in order to guarantee both access to the resource for all and job stability for the employees; access to 50 litres of free drinking water per day for each family; strengthening of the central controlling and sanctioning system in compliance with European environmental legislation; direct participation of citizens in the local management of water services with a guarantee of legality and control of the quality of the service. The bill text also provided all references to the constitutional legitimacy of the political principles expressed and the legal methods for converting private-law companies into public-law ones. The election of the progressive coalition represented the window of opportunity to get this bill voted by national Parliament.

At this point the policy stream, containing the policy proposals to be implemented to solve the problem stream, was defined on a national basis, and local actors had the opportunity to define the most suitable strategy to increase the public legitimacy of those proposed in their own political context. The occasion to achieve this goal was the obligation to accompany the proposed law of popular initiative with 50,000 signatures to have it accepted by Parliament. A massive hut for the collection of such signatures was organized on a local basis. This was the chance to organize training seminars, public debates, awareness campaigns in schools and universities. The promoters of the popular initiative law toured the country, meeting the organizers of the citizens' committees. The Italian Forum of Water Movements showed at that moment the strength of its network organization: the local Committees carried out their territorial disputes, then gathered in the regional Forums to summarize the accumulated experiences and reported their contributions on a national scale. Within the national venue, these contributions were re-elaborated and generalized, in order to create a policy stream suitable for all local contexts, and this in turn became the starting point for new communication and participation campaigns on a regional and municipal basis²⁴⁰.

In Naples Alberto Lucarelli, Maurizio Montalto, Consiglia Salvio, Father Alex Zanotelli, Costanza Boccardi and the other local actors of the Forum became active personalities within the local political scene, building collaborative relationships with social and political actors of the city.

In 2007 the law was presented to the government with 404,000 signatures collected in every area of the country, which exceeded by 8 times the minimum amount required by law. The speaker of the popular initiative law in Parliament was never able to put it on the agenda of the parliamentary hall, but promised the Italian Forum of Water Movements to introduce corrections to the Galli reform to make public management of water possible²⁴¹.

In June 2007 the legitimacy of the policy stream of the Public Water Forum was confirmed at national level with the establishment of the Rodotà Commission by the Prodi government, aimed at reforming the Civil Code in order to lay the legal foundations for participatory management of everything that fell into the legal categories of public good and common good. Within the Neapolitan context, the problem stream made up by the current management structure of the regional IWS was firstly strengthened by a sentence of a Justice of the Peace (n° 335 of 2008), which recognized the right of Neapolitan citizen to be compensated by the Campania region for the payment of the service purification, since this service was practically

²⁴⁰ Interview with an activist at local scale for public management of water services.

²⁴¹ Interview with an activist at local scale for public management of water services.

non-existent, due to the closure of several purification plants because of their bad conditions. The problem stream was then reinforced by the arrival, in 2009, of the first convictions by the EU for non-compliance with the legislation on the protection of water resources from human pollution. Six out of the 74 agglomerations found out of law by the conviction for the first infringement procedure (2004/2034) were in the Campania region (Utilitatis 2019). With the subsequent infringement procedures (2009/2034, 2014/2059, 2017/2181), the Campania agglomerations with purification services not compliant with European standards reached the number 104, out of a national total of 987. Due to these convictions, Italy must pay a total of € 530,746,664.27 in fines to the EU by 2024, as well as it has to find the necessary resources to put the plants in order (Trezzini 2017).

Strengthened by this juridical legitimacy, the local Committees for Public Water of Campania began to investigate the system of delegation of local water services, bringing to light mechanisms of political exchange between administrators and private managers, contractual offenses and debts of private managers towards municipalities (stipulation of outsourcing contract in exchange for jobs, multiple assignments to the same company that emptied the municipal budgets in favour of private interests, private companies that do not pay infrastructure use taxes, sending municipalities into bankruptcy, multiplied water bills illegitimately)²⁴². Actually, these problems were extraneous to Naples, where the water service showed very high levels of quality and efficiency, but they represented solid evidence of the dangerousness of the commercialization and privatization processes of the water services. The convictions of the EU, combined with the testimonies of the local water malpractice, reinforced the position of the local committees toward the AATO and above all the regional government, as the only manager of the regional purification system.

Given the collaboration between the Italian Forum of Water Movements and the national government, the local centre-left governments also showed their willingness to implement the proposed policy stream. On the other side, the Neapolitan Committees were determined to become the first city to remunicipalise water services on a municipal scale, before the national regulatory framework was changed. "In 2006 the Minister of the Environment Pecoraro Scanio adopted a circular to promote the management of public water. We also discovered that, while the TUEL [Consolidated Text on Local Authorities] only provided for the transition from an *azienda speciale* to a JSC, in 2003 some changes in the Civil Code occurred that made the transformation of JSCs into other legal forms, including the *aziende speciali*, possible; so in

²⁴² Interview with an activist at local scale for public management of water services.

2010, considering this technical possibility, we proposed to remunicipalise ARIN to Iervolino. Iervolino did not have the numbers to get the resolution approved by the City Council, but this measure was adopted by the government council"²⁴³. "During the administration of the mayor of Naples, Rosa Russo Iervolino, we spread the Parisian victory through the information campaign "Naples like Paris", making everyone known how the French capital had obtained public water management, against the multinationals Suez and Veolia, in favour of citizens and the administration itself. In the same way, it was useful and stimulating for us Italians to know that in 2010, in Uruguay, thanks to the national referendum won, the voters expressed in favour of the public management of the IWS"²⁴⁴.

Thus, on May 25, 2010, the Iervolino government adopted a resolution (n° 830) aimed at guaranteeing 40,000 families at risk of poverty (total income not exceeding 7,500 € /year the free supplying of the "guaranteed minimum vital", equal to 250 litres of water per day. This initiative was a reaction of the municipality, on the proposal of the Naples Committees for Public Water, to the adjustment of tariffs (an average increase of 2.40 € per quarter, i.e. around 80 cents per month), approved by the Inter-ministerial Committee for Economic Planning.²⁴⁵

In the meantime, a national campaign had started to collect signatures for the referendum that would abolish the Ronchi Decree, which introduced the obligation to delegate the water service to a private-law body through a competitive tender, and paragraph 1 of art. One hundred and fifty four of the Environmental Code, which introduced the obligation of a fixed remuneration of 7% of collected bills to the service manager (Quarta and Mattei 2011). Once again the Italian Forum of Water Movements organized a massive campaign to collect signatures, municipality by municipality. Awareness-raising initiatives were organized on local scale, with the collaboration of all local actors – from catholic scouts, theatre companies, parishes, to social cooperatives and neighbourhood committees to support the education of children – which allowed the spread of the theme of common goods to every social stratum and the collection of 1 million and 400 thousand signatures in favour of the referendum (the

²⁴³ Interview with an activist at local scale for public management of water services.

²⁴⁴ Interview with an activist at local scale for public management of water services.

²⁴⁵ Democratic Party May 25, 2010 https://www.partitodemocratico.it/archivio/acqua-minimo-vitale-garantito-alle-famiglie-povere-delibera-n-606-del-18052010/?_cf_chl_jschl_tk_=f73bd15027a7ae798a27485cbeb92bf1e0148718-1599065686-0-AWv1PVbOfHE4w4htX8h6fWl8EFRedq_YbQ3D_uRnT1d55QD--aUPYMwqzKBz3JiqHiE38siFrowmn3xsobU7D1vN5lz2rOIBrTelc98lRBcF_HFGTlGBVwo5b83mq39eEZ-DF9Q4lA3QiS3_NtueAvPZDvwCkWZrEZLl7O2uL80puh32iypiYthnN0_sw8igZRfBwZHF9BDeveEmPzGisVwYKlXZnSzUBRSTLE42W4xyjrNa_IEGodeNuj2RQ9JKlTVYilPqD3XEnShzORYJ97QEkKm_ymWT9S4Uuu4pDiZs9HzQeLzVwnnZMFqvoRchWht7S-HlOlaotfyXFXpbaTjjWBUR1mIM6AlZiu2VnQYtjnqwltpTeXalsB61WFR-BMIn9LzaRR08S6AlbUz4qk

law requires a minimum of 500,000). The success of the signature campaign was disruptive, despite the silence of the main national political parties on this issue.

In Naples, the referendum signatures coincided with the electoral campaign for the election of the mayor. The popularity of the Iervolino government was at its historical low after the waste crisis of 2008, and the two populist candidates put the remunicipalisation of urban water services among their priorities: Roberto Fico, head of the Five-Star Movement list, and Luigi De Magistris, at the head of a group of civic lists and minor parties.

6.6. *Legitimation*

Luigi De Magistris' electoral campaign revolved around strong criticism of the ruling class and the issue of LPS management: on the one hand, the promise to solve the waste crisis and guide Naples towards achieving the target of 60% separate waste collection; on the other hand, the promise to remunicipalise the water service in order to guarantee 50 litres of free water per day to each family and water bills for all and to ensure the management of the entire water cycle through a single public operator²⁴⁶. In particular, the candidate for mayor denounced the risk of increasing bills through the privatization process incurred throughout the region – an argument that, in a period of economic crisis in a city like Naples, has certainly taken root among the population – and promised to bring water management back into the hands of the population, who could manage it directly through forms of participatory democracy. Naples should have become the first city to experiment the "democracy of common goods", respecting the will of the people of the referendum: it would have been the first city to be governed by a government that was different from representative democracy, "a political project based on the effective sovereignty of citizens" (Lucarelli 2011: 1). Therefore, according to a prefigurative logic, the remunicipalisation reform of urban water services would have allowed both the creation of a socially and ecologically more sustainable water service and the experimentation of a form of management of the LPS based on the direct participation of users. In turn, the direct management of the water service by citizens would have made possible the creation of a political model based on popular sovereignty, overcoming the concept of delegation and political representation by parties (Lucarelli 2013). Such a local political model would protect water from commercialization and, consequently, would guarantee the universal right of access to water sources for every citizen, including future generations (Petrella 2001).

The policy reform of remunicipalisation of the JSC ARIN received indirect political

²⁴⁶ Interview with an activist at local scale for public management of water services.

legitimation at national level, through the vote in the referendum (95.35% of the 25,209,425 voters voted in favour of non-commercialized water management), and direct political legitimation at the local level through the preference vote to the candidate for mayor Luigi De Magistris. At the elections of May 2011, De Magistris's charisma won the heart of the Neapolitan electorate, collecting over 32,000 votes (about 27%) against 17,000 collected by the electoral lists that supported him (about 16%), demonstrating that the vote of the Neapolitans had gone to that specific person²⁴⁷. Although the Five-Star Movement was the first party in Naples national (2013, 2018), regional (2015) and European (2014, 2019) elections, its municipal candidate did not pass Luigi De Magistris neither in 2011 nor in 2016, when he was elected for the second time. In the opinion of Luciano Brancaccio and Domenico Fruncillo (2019) this happened thanks to the ability of De Magistris to build relationships with the actors of a well-established local political system on particularistic exchange circuits at decentralized level and thanks to his ability to pressure on personalization of policy mechanism. Furthermore, De Magistris was able to anticipate the populist and anti-establishment themes that guaranteed national success for the Five-Stars Movement.

The political legitimacy of the choice of the City Council was then kept high through the close collaboration between the Naples Committees for Public Water and the municipality, which jointly carried out civic mobilizations and communication campaigns that proposed an open criticism of the privatizing choices of the national government and the failure to implement the referendum results. Some of these were: the cycle of meetings entitled "You can remunicipalise, you must remunicipalise"²⁴⁸, in which the policy brokers of the Italian Forum of Water Movements took part; the use of municipal spaces for holding the meetings of the European network of Forums of Water Movements, which were organizing the Alternative World Water Forum in Marseille in 2012²⁴⁹. During such events, the mayor De Magistris defined himself as the only mayor who implemented the referendum will of citizens on the subject of water management²⁵⁰.

However, no arguments for legitimizing the remunicipalisation reform from a technical, legal or economic point of view emerged in the period preceding the municipal elections. The

²⁴⁷ *Fanpage.it* May 16, 2011 <https://www.fanpage.it/politica/risultati-parziali-alle-elezioni-comunali-di-napoli-2011-liste-e-partiti-a-confronto/>

²⁴⁸ Comune di Napoli <https://www.comune.napoli.it/flex/cm/pages/ServeBLOB.php/L/IT/IDPagina/21418>

²⁴⁹ World Alternative Water Forum December 18, 2011 <http://www.fame2012.org/it/2011/12/18/napoli-10-e-11-dicembre-2011/>

²⁵⁰ *La Repubblica* February 27, 2017

https://napoli.repubblica.it/cronaca/2013/04/20/news/de_magistris_a_castel_dell_ovo_iniziativa_sull_acqua_pubblica-57080085/

service, in fact, showed excellent levels of environmental and health quality and a solid economic balance at the time of the remunicipalisation. ARIN EBITDA (i.e. the operating margin before depreciation, which represents the company's ability to self-finance) had never fallen below 16 million € (ARIN 2008a, 2009a, 2010a; ABC Napoli 2014). Only after the remunicipalisation some lines of criticism on the management of the service by ARIN appeared publicly.

In 2013 an investigation by the national magazine L'Espresso (in-depth magazine published by one of the major Italian newspapers, La Repubblica) published a shock dossier entitled "Drink Naples then die"²⁵¹ in which the non-potability of the water distributed by ARIN was demonstrated through surveys made by the US army during the waste crisis of 2007. Dr. Francesca Santagata, director of the water analysis laboratory of ARIN/ABC Naples until 2016, decided to expose herself publicly during an episode of the television broadcast of investigation Report, presenting the results of the clinical tests carried out by her laboratory and approved by the Ministry of Health. Subsequently, the mayor De Magistris denounced the magazine L'Espresso for defamation, which presented a public denial of the claims made. The documents on which the accusations were based came from a dossier of the United States army that had carried out tests on the water of the city using reference parameters on the presence of pollutants up to 10 times lower than those indicated by the World Health Organization. Thus, the water of Naples was absolutely respectful of international parameters. After the remunicipalisation, the CEO Maurizio Barracco was reconfirmed as president of the company, while the members of the BoD were modified, with the appointment of Ugo Mattei as president and Alberto Pierobon and Andrea Pisani Massamormile as members (prominent Italian academics). The new BoD began to work and reported some alleged irregularities in the management of public finances by the former MOE to the Regional Court of Auditors. Several judicial investigations began, most of them completely unfounded. For example, an investigation was opened to question the accusation of "population poisoning" by means of a purification plant for some municipal wells that was never put into operation by the management of the JSC, precisely because of some concerns about the risks of pollution of the aquifers through the chemical compounds used in the purification process²⁵². Another line of investigation was born in 2013 to discover alleged misconduct in the management of municipal funds paid to ARIN for the management of the Net Service and Consorzio del Serino

²⁵¹ L'Espresso November 13, 2013 <https://espresso.repubblica.it/inchieste/2013/11/13/news/bevi-napoli-e-poi-muori-1.141086>

²⁵² Interview with an employee of ARIN and ABC Napoli.

finals. This investigation informed the CEO Maurizio Barracco and the former general manager Francesco Panico²⁵³. In 2012 Barracco resigned, to then become the general manager of Banco di Napoli, while Panico was fired without fair cause by the BoD²⁵⁴. After this happened, Francesco Panico in turn sued the company, which was forced to re-hire him and pay him a compensation of about 1 million €. In 2016 the Regional Court of Auditors filed a sentence (n° 198 of 2016) condemning the two former managers, who were forced to pay compensation for the tax damage to the municipality of Naples of about 2 million € for Barracco and 400,000 € for Panico, in addition to 93,000 € each to Net Service²⁵⁵. A system of financing of plant and network maintenance works by Consorzio del Serino was actually discovered (*Corte dei Conti* 2016). Such a system created, thus, new successive emergencies (always on the same points of the network), guaranteeing a relatively constant flow of money from the municipality to ARIN, which in turn was used to guarantee the survival of the consortium. Other events that demonstrated a bad performance of the company management prior to 2011 did not emerge. Thus, the major source of legitimacy for the remunicipalisation reform remains political.

6.7. Implementation

The election of Luigi De Magistris, who had built a solid relationship of collaboration with the Committees for Public Water of Naples, was the window of opportunity for the implementation of the policy solutions that flowed along the policy stream originated by the epistemic community at the centre of the Italian Forum of Water Movements and, in particular, by its Neapolitan component. In fact, the law experts of the Naples Committees for Public Water had hypothesized the possibility of implementing a remunicipalisation process without a national regulatory reform. The problem stream to which such a policy solution aimed to respond was fundamentally political. It was made up of the relational problems that arose between the National Forum and the centre-left political parties that had repeatedly disregarded the agreements made: the inclusion of the 2006 popular initiative bill on the parliamentary agenda, the implementation of the Civil Code reform formulated by the Rodotà Commission and the modification of the LPS regulatory framework after the referendum. The

²⁵³ *La Repubblica* July 4, 2013

https://napoli.repubblica.it/cronaca/2013/07/04/news/arin_irregolarit_nella_gestione_danni_per_3_milioni_e_600mila-62390835/

²⁵⁴ *Global Project* May 5, 2016 https://www.globalproject.info/it/in_movimento/napoli-ex-arin-3-milioni-di-euro-di-danni-allerario/20080

²⁵⁵ *Il Tirreno* April 28, 2016 <https://iltirreno.gelocal.it/italia-mondo/2016/04/28/news/napoli-un-buco-nell-acqua-di-2-milioni-e-mezzo-1.13380515>

Forum pushed to implement a reform on a local scale, which would represent the starting point of a "non-violent revolution that starts from the bottom, from the movements, from the committees, from the various participatory bodies that have been brewing in the Neapolitan fabric for years and for this reason it is credible and it will determine, [...] a real change that will make the Naples laboratory a political reference point for Europe" (Ferrara 2011: 1). The remunicipalisation reform was interpreted by the epistemic community of the Forum as an opportunity to experiment a form of direct democracy that would have been the answer to the rampant crisis of political representation (Raffini and Viviani 2011; Altieri and Raffini 2014; Caruso 2015) and to the progressive loss of the solitary values of cooperation and solidarity, put under attack by the neo-liberal doctrine. Furthermore, this reform would have challenged the large national parties of the centre-left, strengthening the political legitimacy of the Forum and the local committees along the centre-periphery axis. Thus, City Council created the Department of Common Goods, Public Water and Participatory Democracy of the municipality of Naples and appointed Alberto Lucarelli as head of this department. Other political acts of the municipality to implement the theoretical contents of the referendum campaign were: in 2011 the legal category of the common good was introduced in the Municipal Statute (Council Resolution n° 797 of July 23, 2011), taking up the same legal definition of common goods developed by the Rodotà Commission (Lucarelli 2011); the municipality of Naples affirmed the principle of water as a common good and as such of absolute public property (Council Resolution n° 740 of June, 16, 2011), three days after the referendum results; in 2012, the Regulation of the Councils for the Discipline of common goods was approved.

From the point of view of Luigi De Magistris, moreover, the implementation of the reform would have solved the problem stream of the loss of political legitimacy of the Neapolitan administrators. Such a policy solution would have shown that he, unlike previous local politicians, did implement the policies promised in the electoral campaign. The Neapolitan waste crisis, in fact, was not so easy to solve, as it was the problem of the private water management "of the mayor". According to experts, ARIN's remunicipalisation process was relatively simple: "it involved adopting a resolution in the city council and a notarial deed, so nothing complicated"²⁵⁶. In the beginning of his assignment, the new assessor Alberto Lucarelli has assumed the role of program champion in facing juridical aspects of the policy stream, which then became dominant over the others. Even in defining the organizational aspects of the new company, Lucarelli assumed the role of policy champion. Alberto Lucarelli

²⁵⁶ Interview with an activist at local scale for public management of water services.

was in fact Assessor for Common Goods, Public Water and Participatory Democracy from June 2011 to January 2013, when he left office following his candidacy for the political elections of February 2013 with the Civil Revolution list, led by the former magistrate Antonio Ingroia²⁵⁷. After his departure and having resolved the problem of the transformation of the corporate legal form and its Statute, the role of policy champion was assumed by the mayor himself. De Magistris increasingly assumed a centralized attitude in solving problems relating to the definition of the company staff, or in choosing the members of the BoD and other key roles of company's management, imposing his decisions on the members of the Committees for Public Water of Naples, which instead expected to co-manage the company. It is noteworthy that in following this strategy, the mayor was always supported by the City Council, which evidently did not look favourably at the transfer of decision-making power to the members of the Committees²⁵⁸.

Moreover, the implementation process of ARIN's remunicipalisation was slow and complex; the problems to be solved were many, showing a total lack of planning except in the legal dimension. Reading the reports of the city council meetings²⁵⁹, we can understand that implementation problems were one of the most discussed topics until 2013, when this process ended on a legal level. Thus, a passage of a one-at-a-time mode (Jones & Baumgartner, 2005) of information processing took place between 2011 and 2013; however a shift of resources towards the water sector hypothesized by Sabatier (1988) never took place. In fact, the reform did not involve an increase in expenses for the municipality; on the contrary (as we will see later) all the expenses caused by this process were borne by the former ARIN companies.

The main obstacles to overcome during the implementation process were: 1) alleged illegality of the change in the legal form of the company; 2) corporate participatory management model and conflict resolution; 3) change of the contract of the workers already hired.

6.7.1. The creation of *Acqua bene Comune Napoli*

On September 23, 2011 assessor Lucarelli presented the text of deliberation n° 740 to the City Council, which retraced all the stages of the national referendum campaign and the decision to insert the legal category of common good in the Municipal Statute, in order to demonstrate the political need to transform ARIN MOE into *Acqua Bene Comune Napoli* AS to respect

²⁵⁷ *Vesuvius* January 29, 2013 <https://www.vesuvius.it/2013/01/29/news/comune-di-napoli-de-magistris-presenta-i-nuovi-assessori-ce-la-figlia-di-silvia-ruotolo/>

²⁵⁸ Interview with an academic expert on Neapolitan issues.

²⁵⁹ Comune di Napoli <https://www.comune.napoli.it/flex/cm/pages/ServeBLOB.php/L/IT/IDPagina/14>

popular will²⁶⁰. The proposal was approved by the municipality unanimously on October 26 and the municipality subsequently filed the notarial deed, certifying the change in the legal nature of the company with the local Notary Council. With the Municipal Resolution n° 900 of December 14, 2012 the Statute of the new ABC Napoli was approved. Finally, the agreement that assigned to ABC Napoli the management of the entire IWS of the city of Naples was stipulated in 2015, providing for a duration of 30 years of this water regime. Such a convention does not contain specific indications on the objectives or on the criteria for evaluating company performance, but assigns general management of the service, from the collection to the purification of wastewater, to ABC Napoli.

An AS, in the Italian legal system, is an instrumental public body with public legal personality, entrepreneurial capacity, statute approved by the municipal council, fiscal subjectivity and financial autonomy. It is not for profit and must pursue a balanced budget, as the public administrative body here is an instrument. As a non-profit organization, its profits must cover the costs of the services managed and it is up to the municipality to decide what to do with the surplus income. After the remunicipalisation of ARIN, one of the first measures of the municipality was to try to transfer the 16 million profits of the company to the municipal budget²⁶¹, an attempt that was blocked thanks to the mobilizations of workers²⁶², who asked that the ban on using the profits of ABC Napoli to cover municipal expenses be put into the Statute, to prevent any future attempt. In the event of a budget deficit, the municipalities are therefore obliged to cover this debt; moreover, the municipality has the task of controlling the work of the company and defining its objectives. As previously mentioned, its regulatory origins date back to 1903, when the law n° 103 of 29 March municipalized the LPS and indicated three management methods ("in economy", outsourcing to private firm and *azienda speciale*). The AS is administered by a president, a director and a board of directors appointed by the City Council. The legislation governing the functioning of these *municipalizzate* has not substantially changed over time. It is noteworthy, as Professor Carlo Innello pointed out during his interview on December 20, 2018²⁶³, that in the academic texts of administrative law of the 1980s (for example Satulli 1989), the AS was described as the privatized version of the "in economy" managerial model, since through this type of company the local institutions could compete with private-law firms on the local service market. According to the sentence

²⁶⁰ Comune di Napoli https://www.acquabenecomune.org/attachments/1115_Delibera_Giunta_ABCNapoli_23-09-11.pdf

²⁶¹ Interview with an activist at local scale for public management of water services.

²⁶² Interview with an employee of ARIN and ABC Napoli.

²⁶³ Interview with an academic expert on Italian public action and public services.

of the Supreme Court of Cassation n° 12654 of December 15, 1997 these companies are public economic entities and do not belong to the category of public administration, since they carry out business activities that produce taxable income. They are also subject, under the public procurement code, to public procurement legislation. Let us see how Naples municipality organized the service.

Public mission

The preamble of the Statute immediately clarifies that the configuration of the AS ABC Napoli aims to overcome the inefficiencies of both the public management model and the private sector model, which involve the risks of fragmentation, corporatism, lobbying, inequity and social disorder. By means of the publicist company organized through the functions of double supervision by the municipality and the local citizenship, the objective of guaranteeing the fundamental rights of individuals is pursued. Furthermore, the company's profits are destined exclusively for the "enhancement of the integrated water service and related common goods" (commune di Napoli 2012: 3), excluding by law the possibility – provided for by legal framework – that the municipality uses the profits accumulated through the direct management of the IWS to cover expenses in other sectors.

The AS is assigned the task of managing the IWS in all its components: collection, adduction and distribution of drinking water for civil use; collection, purification and disposal of wastewater; sewerage services. Furthermore, it must realize all the activities necessary to guarantee the quality of the aforementioned services:

- build plants and infrastructures, directly or through a tender;
- provide services and assistance to users;
- provide services and assistance in the field of chemical analysis of the resource;
- provide services in the field of environmental protection of water, directly or through projects aimed at this;
- organize and manage information campaigns for the dissemination of scientific, technological, managerial and organizational knowledge in the fields of interest;
- develop and direct projects for the realization of works with professionals hired for an indefinite period;
- assume the concession of construction and management of public works functional to the services provided;
- promote research activities.

All company activities must be carried out based on ecology, economy, efficiency,

transparency, and participation criteria; the company also undertakes to respect the outcome of the referendum of June 12 and 13, 2011 in order to promote social cohesion and guarantee equal access to the water service (Comune di Napoli 2012).

Control system

The control system of the company operations is fundamentally based on administrative bodies required by law and on the assignment of surveillance functions to the representatives of civil society. They are present within the BoD and within a body external to corporate governance (which from 2015 became 2). Tools for defining company objectives or measuring their achievement have not been envisaged. Only Service Charter is updated by law every year, with the purpose of indicating to the citizen the services offered and specifying the procedures for reporting any disservices. There are no criteria for evaluating company performance or quantitative objectives to be achieved, thus it cannot be considered a tool of transparency but only of information. The Statute indicates the water bill (together with the websites of the municipality and the company) as the main tool for accountability towards citizens, used as direct communication tool for corporate projects and initiatives and users involvement in corporate governance.

The management bodies of an AS envisaged by national legislation are the BoD, its President, the Director and the Board of Auditors.

The BoD, responsible for setting up strategies aimed at implementing the guidelines received from the City Council – which is the actor responsible for the company's managerial policy – would be made up of 5 members "with proven technical, administrative, legal and managerial experience" (Comune di Napoli 2012: 5) appointed by the mayor, who carry out their activities free of charge. Three of the five members must come from civil society, while two from environmental associations in the area. The selection process for these members involves the publication on the municipality website of a notice for the presentation of candidacies. Proposals for candidacy can be made by environmental associations recognized by the Ministry of the Environment, while self-nominations are not allowed; such proposals must be accompanied by a CV and a letter of intent explaining the reasons for the choice. If the applications received from environmental associations were more than two, the members of the BoD would be drawn by lot. The remaining 3 members of the BoD have to be selected by the City Council based on technical, legal or administrative competence requirements, as well as in compliance with gender balance. The selection model, therefore, is very similar to that of Grenoble (Mone 2016), where representatives of civil society are selected by the mayor.

Ineligibility criteria are then listed, such as having relatives or offices in the public administration.

The President of the BoD is chosen among its members by the mayor and has the task of ensuring the implementation of the indications of the City Council. The Director (who cannot be a company employee or a member of the Municipal Council) is appointed by the BoD after a public selection procedure, he/she would be responsible for implementing the management decisions taken by the BoD and by the Chairman. The Board of Auditors, also selected by the City Council, has the task of auditing company financial statements. It is made up of three members, selected by the City Council, and has the task of auditing company financial statements, supervising compliance with the laws, accounting regularity and economic-financial management.

The Supervisory Committee is a "body external to the governance of the special company" (Comune di Napoli 2012: 25) made up of 21 members: 5 appointed by the Municipal Council among its members, 5 representatives of citizens-users, 5 representatives of environmental associations and 5 ABC Napoli worker representatives. It should be coordinated by the Assessor for Public Water, supported by two persons appointed by the company BoD and the City Council. Through the water bill, users are notified about information on the constitution of the Supervisory Committee and the methods of submitting the application form as user representatives. Selection should take place by drawing lots, a mechanism aimed at producing participatory arenas that are supposed to have a certain degree of legitimacy and political representation (Fourniau 2019). The Committee should perform, like the Paris OPE, "functions of consultation, control, information, listening, cooperation and debate for all stakeholders with collective interests in relation to the integrated water service" (art. 4 of the regulations of the supervisory committee). The Committee would have the power to adopt guidelines on any matter relating to corporate governance, but such guidelines are not binding; however it has the right to ask for the reasons behind the decisions of the BoD and the City Council. It is not specified how the committee should become aware of company decisions – the company is not obliged to publish reports outside the financial and social balance sheets at the end of the year – thus it is assumed that the presence of the municipal councillors is aimed at creating a direct involvement of the other participants in the corporate policy decisions. The Committee therefore takes the form of a consultative democracy body (Duret 2015). Moreover, in December 2015, the Civic Council was created, a body for consulting citizens on corporate decisions, with the possibility of signing non-binding

governance proposals. Its regulation was approved by the City Council on April 27, 2016, and refers in particular to the Civic Council's task of supervising the protection of the fundamental right to water, the long-term preservation of the resource and the participation of users in management decisions. It consists of the Assembly, open to all citizens to whom the date of meetings and the topics covered should be communicated via bills, and the Working Group composed of 4 people selected by the assembly to build a direct relationship with company management. Furthermore, a Laboratory of Ideas should be implemented within the Council, which would have the purpose of collecting proposals on the lines of research that ABC Napoli should develop. The overlap of responsibilities between the Supervisory Committee and the Civic Council is evident. The creation of the Council originated from the need to fill the participatory void left by the failure of the Supervisory Committee, which was never really activated due to a lack of candidates to represent civil society and environmental associations²⁶⁴.

Finally, article 43 of the Statute declares that ABC Napoli undertakes to immediately respond to complaints from users, to requests presented by workers representatives, associations, movements and every citizen.

6.7.2. The transition from JSC to AS

As previously reported, the Naples City Council with Resolution n° 32 of October 26, 2011 approved the decision to transform ARIN MOE into ABC Napoli AS. Subsequently, on April 19, 2012, the ARIN BoD approved the transformation of the JSC into an AS, finalizing the decision with a notarial deed on July 31, 2012. The transformation became effective as of February 20, 2013, since no request for opposition to the transformation was filed by any corporate creditor. Following this procedure, based on article 2498 of the Civil Code, a debate arose within the Italian legal community on the legitimacy/illegitimacy of this procedure (see Lucarelli 2015).

The first criticism concerns the legitimacy of this procedure compared to many norms that over the years attempted to make residual, if not prohibited, the possibility of managing SGEI through an AS (Article 150 of the Environmental Code, Article 35 of Law n° 448 of 2011, art.23-bis law n° 112 of 2008, repealed by the outcome of the referendum 2011, but then re-introduced by art. 4 of law n° 138 of 2011). However, the sentence of the Constitutional Court n° 24 of January 12, 2011, which made the referendum result effective, *de facto* rendered those rules ineffective, aligning the Italian legislation with that of the EU. The TFEU prohibits

²⁶⁴ Interview with an activist at local scale for public management of water services.

any direct management of SGEI by local authority, but it does not prohibit the management of such services by public-law companies. European legislation maintains a position of neutrality on the legal nature of the supplier of the service, requiring only that it has the ability to act according to the economic method, in order to cover the costs of the service with its activity, as the AS must effectively do within Italian legislation (Pierobon 2014). In addition, European legislation requires that the operations of SGEI are managed through public tenders, and also on this element the AS is aligned with EU law.

A second criticism about Naples' choice comes from those who argue that the power to legislate on the management of LPS rests exclusively with the state; however, the Lisbon Treaty and the Treaty on European Union recognize the principle of self-organization of local authorities. As a matter of fact, the TFEU and the European Charter of Fundamental Rights recognize the right of a municipality to declare the water service a Service of General Interest, or a Service of No Economic Importance, justifying this decision with issues of social or health relevance, allowing therefore to derogate from the general regulation and manage the service directly, through publicly owned companies, which can be subject to public or private-law.

Finally, some scholar have argued that Article 2498 of the Civil Code does not allow the transition from JSC to AS; however the 2003 reform of company law has expanded the possibilities of transition from one company form to another, also legitimizing the transition from one joint stock company to a non-corporate body (Lucarelli and Longhi 2015).

Such positions on the legitimacy of the transformation process carried out by the municipality of Naples have been subsequently confirmed by the judgment of the *Corte dei Conti* of January 15, 2014, (n° 2/SEZAUT/2014/QMIG), at the request of the Municipal Council of Turin, which underlined – among many principles: that this type of transformation can concern all SGEI, not just water, on the basis of referendum results of 2011; that such typology of transformation guarantees the continuity of the service; that there are no greater elusive risks to the rules of public finance than the JSC, since the AS are subject to more stringent controls. Finally, the sentence of the Council of State, Section V, n° 3946 of June 27, 2018, concerning a case of request for cancellation of a provision by the Secretary General of the municipality of Benevento, confirmed that the European legislation provides for the derogation of the competition rules on SGEI and, therefore, indirectly, the possibility of using direct management models. According to Giulio Saltelli (2018), if a community decides that a service belongs to the category of common good, with reference to the principle of collaboration and participation of the community in the management of this asset, it then has the right to

manage this service through public bodies, on the basis of article 43 of the Constitution, which allows to publicize companies or goods that have a character of general interest.

Although criticalities regarding the formal transformation of a JSC into an AS have been abundantly clarified, those regarding the substantial usefulness of such a tool for the management of an industrial service remain. As a matter of fact, formal differences between AS and JSC of total public ownership are few: an AS is subject to the obligations and controls of public bodies (balanced budget, obligation to public tenders, obligation to publish its documents, financial control by the regional Court of Auditors), its employees are hired under a public administration contract. Conversely, a MOE is subject to the rules and controls of private companies, is obliged to publish financial and social balance sheets every year, it must participate in competitive tenders to win services and hires employees under private-law contracts.

The substantial difference is in the financial sphere: while the AS cannot fail, since the local authority of which it is a tool cannot fail either, a JSC can declare bankruptcy; for the same reason, an AS does not have the possibility to sue the municipality if it does not respect its commitments since they coincide legally, while a JSC can sue its debtors. This condition causes the fact that an AS has a higher probability than a JSC of obtaining low interest rates from banks, since it can provide more guarantees for the repayment of the debt. However, doubts arise about this possibility in the case of a municipality like Naples, with over one and a half billion in debt: what guarantees can an administration provide in such financial conditions?²⁶⁵ Furthermore, in a balanced budget context, whether the municipality owns an AS or a MOE, it is required by law to cover the company's budget holes. Therefore, in both cases the conduct of a sustainable financial governance in the long term is a priority not only for users (interested in receiving a good quality service), but also for the city government, which risks accumulating further debts and meeting the commissioning by the state in case of financial mismanagement. Thus, understanding the advantages offered by AS from the point of view of economic-financial efficiency becomes crucial.

Italian jurisprudence has consolidated the principle that the AS has a strong entrepreneurial character, which allows it to operate in the field of the exchange of goods and services with economic methods; exactly as the JSC can refer to private law for the stipulation of contracts and for participation in tenders. Furthermore, an AS is subject to more stringent fiscal controls than a MOE, increasing the burden of a legal management. In addition, from the point

²⁶⁵ Interview with an academic expert on Italian public services.

of view of the treatment of employees, an AS has the possibility of recognizing its employees a higher remuneration in the case of higher duties (unlike employees of the Public Administration) (Ianniruberto 2015).

However, the greatest value of the AS is also its shortcoming: every management choice of the BoD must be approved by the City Council that owns it. Consistently with this, its management is more transparent than that of a MOE, as the acts of a Municipal Council are subject to the obligation of publicity, partly avoiding the problems of information asymmetry and lack of accountability (Galanti 2016). However, this procedure hugely slows down the company's management process, making it dependent on the timing and objectives of the local policy, which could not coincide with the efficiency and effectiveness objectives of an industrialized service provider. This was the reason why in the 90s the Italian legislator decided to go beyond the *municipalizzate* model: they were used more to achieve political-electoral purposes than to provide an economically and qualitatively solid service (Farneti 1991). However, there are several studies that underline that today, the Italian MOEs and PPPs could have the problems of corruption, patronage and lack of transparency of the *municipalizzate* of the past (Zardetto and Pierobon 2017; Previtali et al. 2016). Therefore, even on this element we cannot affirm the superiority of one model over the other.

The real problem of the organizational form of the AS seems to lie, therefore, in the slowness of its administration activity, which makes the AS not very competitive with private-law operators. The AS model was born, in fact, to manage LPS in limited local contexts, where it was not necessary to reach high levels of economic efficiency since it was not expected that the company should operate in a highly competitive economic context. "It is rather a kind of "in economy" management with some more corporate elements. However, it is not suitable for managing an urban service for million users in a context of international competition. The *azienda speciale* is an economic public body, different from the municipality, to which it is linked through a relationship of instrumentality, which adds up all the defects of the public without having the advantages of the private sector. The *azienda speciale* seems to be an anti-historical organizational and recessive model."²⁶⁶

"The JSC was favoured by the legislator because it allows a more streamlined management, since its financial and managerial decisions do not have to be approved every time by the City Council"²⁶⁷. This makes a MOE more suited to compete on the market with other operators and therefore more receptive to those competitive mechanisms that stimulate the efficiency of

²⁶⁶ Interview with an academic expert on Italian public services.

²⁶⁷ Interview with an academic expert on Italian public action and public services.

the service (Masarutto 2011a).

However, these are rough generalizations. It is always important to remember that "Organizational formulas are neutral. There is no ideal model that always works and one that never does. We need to understand on a local basis what is needed"²⁶⁸. As a matter of fact, scientific evidence abundantly shows (Lorrain and Poupeau 2016; Utilitatis 2019; ARERA 2019) that both private-law and public-law firms can show high or low levels of efficiency from an economic, social or environmental point of view. The only element that matters is the way in which the body responsible for the direction and control of the company exercises its prerogatives.

6.7.3. Participatory management model implementation

The implementation of the co-managed organization described in the company's Statute has proved complex, eventually vanishing after various attempts, conflicts and relational tears between the actors of the action situation. The members of the BoD have been appointed and then deposed through unilateral decisions of the City Council many times, finally opting for the appointment of an extraordinary commissioner: an individual government officer appointed to deal with urgent or extraordinary assignments through a centralization or increase of powers and an action in derogation. This figure should have therefore a transitory and limited character, with the purpose of reconstructing a form of "ordinary" management. However, from the remunicipalisation to today, the ABC Napoli has been governed for a longer time in an "extraordinary" manner, through a commissioner linked by a personal trust to the mayor, rather than in "ordinary" mode, through the management bodies described by the Statute.

The reasons for what happened are many and originate in the karstic nature of social movements, which made it difficult to find volunteers willing to assume managerial responsibilities in the BoD and in the Supervisory Committee, in the micro-clientelist mechanisms typical of Neapolitan political representation (Brancaccio 2018) and in the chronic condition of financial distress of the municipality of Naples. The reconstruction of what happened was complex, since not all documents on the organizational structure of the company are public, and, above all, three of the main protagonists of these events – Alberto Lucarelli, Ugo Mattei and Alberto Pierobon – have kindly declined any request to go into the details of the Neapolitan affair.

In 2011, after the municipal resolution on the transformation of ARIN into an AS, President

²⁶⁸ Interview with an academic expert on Italian public services.

Barracco – openly opposed to remunicipalisation – was confirmed as president of the BoD; Ugo Mattei and Alberto Pierobon were entrusted with him who, as already mentioned, was carrying out a work of analysis of the previous business operations. One year later, the process of water remunicipalisation finally finished with the official birth of ABC Napoli and the approval of the new Statute. In July 2012, President Barracco quitted, assuming the office of President of the Banco di Napoli. Ugo Mattei was nominated president, Alberto Pierobon and Andrea Pisani Massamormile were appointed as members in the first BoD. Based on the reconstructions made through the analysis of local newspapers of the time and through the interviews collected, it would seem that the first years of "management of the Committees" have mainly produced a change in the management positions of the company, with the attempt to mark a discontinuity with past management. After assuming the position of president, Ugo Mattei declared that: "The municipal JSC produced crazy waste with a top-down and self-referential structure: multiplication of seats and salaries, zero transparency, blocked investments to the detriment of users, opaque and dispersed tenders in various controlled companies"²⁶⁹. At that time, ARIN's senior staff felt under attack from the new BoD, which seemed to be pursuing an attempt to discreetly throw on the old administration. Francesco Panico, initially reconfirmed as Director, was however dismissed in December 2012 by the new BoD for "the management of contracts that would have led to an increase in costs" and the use of the company car²⁷⁰. After the dismissal, Panico filed a lawsuit against ABC Napoli, complaining of unfair treatment and even mobbing. Soon after, the new administrators sent a complaint to the Public Prosecutor of the Court of Auditors to challenge the former top management of ARIN, Maurizio Barracco and Panico, for tax damage of 3 million and 600 thousand €.

Thanks to the newspaper articles relating to this cause, it was possible to reconstruct part of the incident, which seems to tell a situation in which the BoD did everything to publicly demote the previous management and increase the political legitimacy of the decision to remunicipalise. The Court of Appeal of the Court of Naples, in the first-degree sentence on the lawsuit brought by Panico, wrote in fact: "There was no urgency to start the disciplinary dispute other than to quickly reach the result of discrediting the previous management,

²⁶⁹ *Corriere del Mezzogiorno* October, 26, 2013

<https://corrieredelmezzogiorno.corriere.it/napoli/notizie/politica/2013/26-ottobre-2013/riassumere-direttore-licenziatola-strana-logica-acquedotto--2223547967948.shtml>

²⁷⁰ *LaRepubblica* July 17, 2016

<https://ricerca.repubblica.it/repubblica/archivio/repubblica/2016/07/12/panico-licenziato-da-abc-per-motivi-politiciNapoli07.html>

probably in useful times for the elections of February 2013"²⁷¹. This hypothesis seems to be confirmed by the attitude assumed by the BoD during the trial, which is completely different from that assumed in front of the microphones of journalists. In March 2013, Mattei declared to the journalists of the newspaper *La Repubblica* that: "ABC would never again be the fiefdom or property of any municipal administration in office whatever the colour, it would never again be owned by any small group of power managers, but it would have been directly governed by the best Neapolitans energies; as a result, the millions invested in the aqueduct will really go where they need to go, they will not get entangled in accounting and creative corporate structures that make seem as profitable what is not"²⁷². However, during the trial initiated by the former director, he strove to reach a reconciliation with Francesco Panico in advance. The lawyer of the ABC proposed to Panico to re-assemble him in a managerial position and to grant him the maximum remuneration allowed, as well as compensation equal to one year's salary. In return, he had to forgo concluding the trial. After various negotiations and a compensation of one year and six months of arrear salary, equal to over one million €, the immediate re-assumption of Panico in the role of Director was approved by the BoD.

After the elections of February 2013 and the resignation of Lucarelli from the office of assessor, the media attention diminished and the administration had to face the challenge of union bargaining for the transition of employees from private to public regimes, as we will see later. In the words of an employee of ARIN and *ABC Napoli*: "In November 2013, the company was destroyed, beheaded; all of us who had directly participated in the reorganization of the company felt constantly under attack. Just think that they accused me of paying I don't know how many millions of euros to be hired by ARIN... Really crazy... That I was the manager's lover! Things that were without rhyme or reason"²⁷³

With regard to business management, the distribution of water proceeded in the wake of the previous administration, confirming investments and organizational status quo. The biggest changes since 2012 were that the profits of the company have no longer been distributed, the career advancements of employees, provided for in the contract, have been blocked and the debt repayment plan with the Campania region has been interrupted.

Between the end of 2013 and the end of 2014, the BoD was composed of 5 members,

²⁷¹ *LaRepubblica* July 17, 2016

<https://ricerca.repubblica.it/repubblica/archivio/repubblica/2016/07/12/panico-licenziato-da-abc-per-motivi-politiciNapoli07.html>

²⁷² *Corriere del Mezzogiorno* October, 26, 2013

<https://corrieredelmezzogiorno.corriere.it/napoli/notizie/politica/2013/26-ottobre-2013/riassumere-direttore-licenziatola-strana-logica-acquedotto--2223547967948.shtml>

²⁷³ Interview with Francesca Santagata, see note 179.

including two representatives of environmental associations, who in that case were drawn by lot, since more than two candidacies had been presented²⁷⁴. However, the selected people proved unprepared to face the assignment. As reported by Tomaso Sodano, spokesman for the mayor of Naples: "For the first ABC BoD appointed by the municipality, we went personally, together with other colleagues, to the City Council to attend this draw [...] It was a real draw. The applications were collected in an excel file; there was an urn with the name cards and then someone extracted the name [...] "Number 2. Who is he? Turri." Turri is appointed... And we had the experience of a very young board member, he was younger than us, he was really, really, really young... His wife was present at the draw and, after the appointment of her husband, she rejoiced at the hiring of her husband within the company, and we tried to make her understand that he had not been hired and would not receive any salary. The boy resigned after the first meeting. He did not feel up to it... Then, the method of the draw?!? ... Then, I repeat, I am for participation, but we must find the appropriate forms."²⁷⁵

In October 2014, the City Council announced the decision to revoke president Mattei due to his absenteeism, caused by numerous academic commitments abroad, in order to guarantee to the company the presence of the administration in a delicate period. "We must, in fact, reach the definition of the relationship with the ATOs, the entrustment of the integrated water service by the region, the management of the purification plants, the completion of the internalization process of the workers of the San Giovanni purification consortium and of the companies wholly owned by ABC. To achieve these objectives, in agreement with the administration, it is clear how much a full-time president is needed."²⁷⁶

The mayor appointed Maurizio Montalto, environmental lawyer of the Forum, previously represented by the Comune of Naples at the assembly of the mayors of the ATO2, and politically placed in the field of the Green party. After the revocation of Mattei and the appointment of Montalto there was a split in the Committee, between those who wanted to break off relations with the administration and those who wanted to maintain it. This first internal conflict led to the participation in the meetings of the Committee for Public Water of Naples and inaugurated the beginning of a path of self-criticism within it on any errors

²⁷⁴ See the document announcing the opening of applications published by Comune di Napoli [file:///C:/Users/Administrator/Downloads/Avviso x associazioni ambientaliste Consiglio di Amministrazione ABC.pdf](file:///C:/Users/Administrator/Downloads/Avviso_x_associazioni_ambientaliste_Consiglio_di_Ammministrazione_ABC.pdf)

²⁷⁵ Interview with an employee of ARIN and ABC Napoli.

²⁷⁶ Statement by Tommaso Sodano, spokesman for the mayor of Naples, on Napolitoday October 30, 2014 <https://www.napolitoday.it/politica/ugo-mattei-presidente-abc-napoli-revoqa.html>

made²⁷⁷.

In March 2015 a big change took place: the City Council approved a deliberation to transfer the management of the entire integrated water service to ABC Napoli. “We also had to give ourselves a completely different group strategy from that of the past, and therefore we are completing hiring the integrated water service, as had been promised by the municipal administration since 2011. Taking on this responsibility implies that we do not have to manage only the aqueduct but the entire integrated water cycle; including the lifting systems, the first part of water purification and the management of the sewer network.”²⁷⁸

Thus, the municipality entrusted ABC Napoli with the management of the city sewers and established that 107 workers of a purification plant, the San Giovanni Purifier in the province of Naples (Teduccio), were to be absorbed by the company. Although the responsibility of selecting the IWS manager lies with the ATO, the jurists of the Naples Committees hypothesized that this resolution of the City Council was legitimate by the inertia of the AATO in deciding a single manager for the water cycle: the resolution was challenged to the Regional Court of Campania by the AATO, which agreed with the government of Naples.

Moltalto remained in office until September 2016, when he was revoked by the mayor after a series of clashes over company management. From an analysis of the press of the time, the *casus belli* was the obligation imposed by the City Council to immediately hire the 107 workers of the San Giovanni Consortium, the public body owned by the municipality, to manage the San Giovanni Purifier²⁷⁹.

During his tenure, the lawyer Montalto tried to implement the participatory management model described by the Statute. Since the Supervisory Committee had never been established, the commissioner, together with the Committees, chose to create a more streamlined participatory body, the Civic Council, in which the whole population could participate. Indeed, the participation of citizens increased in this phase of the company's life. Through the bill, dates of the council meetings were communicated to the population; business management issues were discussed by the Council, which elected every time 4 members who would participate in the next BoD meeting, and finally Montalto had the role of mediating between the guidelines expressed by the municipality and the positions of the Council.

In this period, the Council has carried out operations of social equity, communication and

²⁷⁷ Interview with an activist at local scale for public management of water services.

²⁷⁸ Interview with a member of the board of directors of ABC Napoli.

²⁷⁹ *LaRepubblica* September 15, 2016

https://napoli.repubblica.it/cronaca/2016/09/15/news/napoli_il_sindaco_commissaria_l_azienda_idrica-147815499/

training towards citizenship. A newspaper on good practices of water consumption (Managua) was distributed free of charge along with the bills. Cooperation projects with schools and social cooperatives have been carried out, financed by private partners in the environmental sector, as well as international cooperation projects (ABC Napoli 2016). In addition, the BoD approved the restitution of 3 million € to citizens, corresponding to the deposit that they had to pay when signing the water contract and which had decreased over the years. "Currently it is 44 euros while previously it was 50, 60"²⁸⁰. Finally, the mapping program of networks and water losses, initiated by ARIN, had been reactivated.

The Civic Council, moreover, was on the point of deciding the restitution to the citizens of another 3 million € unduly paid by them, for the maintenance of the municipal fountains. In fact, fountains do not belong to the drinking water distribution service, and the municipality contracted out the maintenance service to the Net Service (branch of ABC Napoli). This service had to be paid for by the municipality; however, its cost was included in the water bills, so the *Corte dei Conti* decided in 2015 that the company had to return these revenues to citizens. However, Montalto was revoked before he could approve this action, which was never implemented by subsequent company administrators.

About the taking over of the city sewers and the hiring of 107 workers of the *Consorzio di San Giovanni*, the participants of the Civic Council, which also included the workers' union representatives, analysed the situation and identified three main problems to be addressed: the first was related to the cost of the entire operation, which exceeded the available liquidity of the company, the second related to the legal obligation to demonstrate through a three-year repayment plan the possibility of facing such an expense²⁸¹ and the third related to sustainability in the medium-long term of the management of sewage systems²⁸². As a matter of fact, the sewers had always been managed "in economy" by the municipality through about 150 people hired directly by the municipality and through a series of consortia created specifically to manage the municipal purification plants, as the San Giovanni one. These hiring dates back to the time of the *municipalizzate* and the number of employees exceeded the real current need, since most of the systems have in the meantime been made automatic and the plants control is now done remotely; the workers of the consortia, on the other hand, had the main task of constantly monitoring their functioning, a type of control that is no longer

²⁸⁰ Interview with Maurizio Montalto, see note 217.

²⁸¹ Interview with an activist at local scale for public management of water services.

²⁸² Interview with an employee of ARIN and ABC Napoli.

necessary²⁸³. Furthermore, the sewerage infrastructures have not received maintenance for about four decades, and in 2015 the union representatives had taken a solid position against the possibility that the modernization work could be carried out by employees of ABC Napoli or by those of the operating consortia due to the danger of the infrastructures: the intervention of an external company of professionals was necessary, able to replace the old pipes and keep them in good condition. To achieve these objectives, a cost of 4/5 million € was estimated by the company's technicians²⁸⁴. Finally, the sewerage service costed an average of 25 million €/year to the municipality, however the bills recovered 8/9 of this amount a year and the service was consequently at a loss, risking to represent a financial problem also for ABC Napoli after its absorption. Finally, under those conditions, a service insurance company would have to be found.

In line with these evidences, the proposal of the Civic Council consisted of: a municipal covering of the expenses needed for the modernization of the sewer networks and their safety; a training program of several months for the staff of the *San Giovanni Consorzio* in order to give them a new professionalism; a plan for the assignment of new tasks to the new staff within ABC Napoli; the definition of a three-year financial return plan to be drawn up together with a professional financial advisory company²⁸⁵. Consequently, neither the representatives of the Committees for Public Water, nor the company unions were opposed to the recruitment of the workers of the consortium – as superficially stated by the mass media – but asked that this operation be managed in order to have the necessary economic coverage to guarantee the economic sustainability of the company in the long term. An employee of ARIN and *ABC Napoli* told us: "Our fear was that even this matter would end like that of Coroglio. We managed the Coroglio plant for 7/8 years with a delegation contract from the municipality that entrusted us with the plant and its workers, for a contract of, I think, one million € a year. The first two years the municipality paid us this money, but since the second/third year onwards the municipality did not pay us a cent anymore. So, just to say, we managed Coroglio plant for years and paid the cost of the work without a cent from the municipality. So what was asked of the municipality was this. We were not opposed to hiring. Workers can enter yesterday as well! But you have to give me the money."²⁸⁶

However, the City Council did not accept these proposals, refused to pay for the upgrading of

²⁸³ Interview with an employee of ARIN and ABC Napoli; interview with an activist at local scale for public management of water services.

²⁸⁴ Interview with an employee of ARIN and ABC Napoli.

²⁸⁵ Interview with an activist at local scale for public management of water services.

²⁸⁶ Interview with an employee of ARIN and ABC Napoli.

the sewage systems and removed Maurizio Montalto from his post. This affair represented the second breaking point with the Naples Committees for Public Water. The Committees were divided again between those who wanted to continue the collaboration with the City Council and those who wanted to completely break off relations. Father Alex Zanotelli publically called this administration's choice a "betrayal of the Civic Committees for Water"²⁸⁷. After Montalto's expulsion from the BoD, the less militant part of the Naples public water movement left the Committees, which today are officially existent but are essentially emptied of their social base. The actors who animate the Committees are the most politicised, those who belong to the political area of the radical left such as *Rifondazione Comunista*²⁸⁸.

After the revocation of Montalto, the company management was entrusted to a series of extraordinary commissioners, until 2017 when Sergio D'Angelo, former assessor for social policies of the municipality, and current extraordinary commissioner of the company, was appointed.

In the years following 2015, the company went ahead with a management plan in continuity with the past. The 107 workers of the San Giovanni Consortium were absorbed by ABC Napoli, respecting the legislation that obliges ABC Napoli to hire them with the same treatment as the previous company in 2016. Considering the number of people before retirement, the new hires were 99 in all. In the opinion of Maurizio Montalto and Father Alex Zanotelli²⁸⁹, these hires, made in haste and without adequate financial coverage, were necessary to respect the agreements between the municipal Councillors in the pre-election period; moreover, some City councillors were not happy with the direct collaboration relationship between the mayor and the Committees for Public Water, and this was an opportunity to get them out of company management²⁹⁰. Consequently, a shift within policy brokers and policy entrepreneurs occurred at this stage of the policy cycle: political entrepreneurs from the epistemic community of the Forum of the Movement for public water had been replaced by the elected municipal councillors, also causing a change in the objectives of the policies and public management strategies of ABC Napoli.

Providing a necessary and sufficient explanation for this choice was not easy. Based on the data collected, the recruitment of the workers of the San Giovanni Consortium seems to be the

²⁸⁷ Federicadaga.net September 19, 2016 <http://www.federicadaga.net/2016/09/19/zanotelli-sullacqua-il-sindaco-de-magistris-ci-ha-tradito/>

²⁸⁸ Interview with an academic expert on Neapolitan issues.

²⁸⁹ *Contropiano* October 23, 2016 <https://contropiano.org/interventi/2016/10/23/de-magistris-zanotelli-non-lacqua-problema-085021>

²⁹⁰ Interview with an activist at local scale for public management of water services.

result of a mechanism of patronage between the mayor and the rest of the Municipal Council. In exchange for the hiring of these 99 workers through a municipal company with a positive balance and the revocation of Maurizio Montalto and his Civic Council from the BoD of ABC Napoli, the municipal councillors have guaranteed their support to the mayor in all other decisions relating to ABC Naples. As a matter of fact, these workers would have risked losing their job due to the economic failure of the Consortium, which had been in deficit for years. According to Montalto, all the operations of hiring employees from bankrupt municipal companies into a public company with budgetary profits (in reference to the hiring of workers of the San Giovanni consortium and subsequent recruitments) were the result of a pre-election exchange agreement between the city councillors and the workers' union representatives, who thus guaranteed their election support to De Magistris in both the 2011 and 2016 elections²⁹¹. This explanation is also supported by the fact that water workers' unions took a public stance against the remunicipalisation of ARIN JSC²⁹², and an exchange agreement between jobs and political support would have led to a strengthening of the urban government. Literature shows that political candidates build clientelar relationships with people who are indifferent or slightly against them on ideological or programmatic grounds, not those who strongly support them (Stokes 2011). In addition, we found evidence of such hypothesis in the academic literature that shows the micro-clientelist mechanisms on which the municipal elections of Naples were based (Brancaccio and Martone 2011). In contrast to this explanation, commissioner a member of the board of directors of *ABC Napoli*²⁹³ affirmed that the hiring of new staff in ABC Napoli is to be interpreted as a management strategy aimed at preparing the company to manage the entire IWS of the sub-ATO to which Naples belongs. However, analysing D'Angelo's explanation through economic rationality, this interpretation appears less plausible than the clientelist one. In fact, given the total uncertainty regarding the timing and ways in which ABC Napoli would have started managing the water services of all 32 municipalities of the sub-ATO to which it belongs, the company's choice to risk bankruptcy for immediately hiring workers that perhaps would have never be able to do the job for which they were hired seems unlikely.

The hiring operation increased the company's fixed costs by approximately 3 million €/year (ANC Napoli 2017a), which roughly represent the company's annual profits. The 99 new employees have all been relocated; however, the municipality has not allocated the money

²⁹¹ Interview with an activist at local scale for public management of water services.

²⁹² Interview with an employee of ARIN and ABC Napoli.

²⁹³ Interview with a member of the board of directors of ABC Napoli.

necessary to bring the sewers up to standard, which are still in a very bad state. To address the over-staffing problem, a massive early retirement plan for those who had the legal qualifications to do so was launched. In 2018 another 84 employees of a branch of ABC Napoli (Net service) were hired, and in 2019 other employees of purification plants joined the company, bringing the total fixed penalty of 3 million euros higher than that of 2017 (ABC Naples 2019). Furthermore, starting from 2019, the management of the sewage system has become the responsibility of ABC Napoli. An activist at local scale for public management of water services told us that at the time of the remunicipalisation ARIN had an investment fund of several million euros, set aside based on legal obligations, and that in her/his opinion the costs of these new hires were covered with such money. However, this information is not verifiable through the company and municipality documents, which show a progressive decline in company profits, but also a positive financial situation of the company (ABC Napoli 2016, 2017a; Comune di Napoli 2017, 2018). According to an analysis of the temporary financial statements from 2013 to 2017 (ABC Napoli 2013, 2014, 2015, 2016, 2017a) published by the company (those about the last two years are not available to the public), the activities and properties of the company were managed aiming at reducing fixed costs. In addition to the investments for the hiring of new staff, the investments made since 2016 seem aimed at guaranteeing the ordinary management of the water networks, with maintenance interventions carried out only in the event of a malfunction of the infrastructures and blockage of the service. Investments for the improvement of plants quality or for the development of innovative projects do not appear in the corporate balance sheet documents. For this reason, ABC Napoli's management can be defined as a minimalist or emergency strategy; in doing so, investments for the improvement of water systems have been delegated to the state or to future urban governments, allowing the current government not to face the thorny problem of finding resources to invest in water networks. Analysing the various testimonies collected on the subject of hiring employees from other municipal companies²⁹⁴ and conflicts with the Committees for Public Water²⁹⁵, together with the academic literature and interviews²⁹⁶ on clientelism in Naples and data on ABC Napoli investment lines, a definitive explanation of the chosen policies made by the whole City Council can be provided by works on blame avoiding strategies. Following the classification of Weaver (1986), which

²⁹⁴ Interview with an activist at local scale for public management of water services; interview with an employee of ARIN and ABC Napoli; interview with a member of the board of directors of ABC Napoli.

²⁹⁵ Interviews with three activists at local scale for public management of water services.

²⁹⁶ Interviews with two academic experts on Neapolitan issues.

identifies 8 blame avoidance strategies, the choice of the first and second De Magistris' government to direct all company resources on hiring new staff and not on improving the water network – in bad conditions – coincides with the sum of two strategies: the first is called Pass the Buck: “if a blame-generating decision has to be made, policymakers are likely to try to delegate that decision to someone else” (Fiorina 1982 in Weaver 1986: 386); the second is called Redefine the Issue: “if policymakers cannot keep a blame-generating issue off the agenda, they may be able to reshape it in such a way as to prevent blame” (Weaver 1986: 386). In fact, by choosing not to improve the conditions of the water infrastructure, the City Council has indirectly decided to adopt an attitude of opportunistic expectation, hoping that sooner or later this problem would have been solved by the state, implementing the strategy of Pass the Buck. Moreover, by publicly explaining the decision to hire dozens of new employees with the remote possibility that ABC Napoli would have soon managed the IWS of 31 other municipalities, the City Council implemented the Redefine Issue strategy. The sum of these strategies has allowed the municipality to maintain the status quo, excluding the Naples Committees for Public Water from the groups that benefit from municipal policies.

The decision to invest municipal resources to solve the serious problems of Naples' water infrastructure, as the Committees would have liked, would have generated various outcomes, including a decrease in the electoral support of the City Council. First of all, the government would have been obliged to increase water bills to find the economic resources necessary to cover the costs of infrastructural interventions; this would have had a negative impact on the citizens, accustomed to paying very little for the water service, and therefore on the electoral consent to De Magistris and his municipal councillors. Secondly, the municipality would have probably been forced to cut resources to other public policies, undermining the acquired benefits of various sections of the population; this would have certainly had a negative electoral impact in a municipality like Naples, where electoral competitions are highly personalized and patronizing (Brancaccio 2017). Finally, the search for resources to carry out infrastructural investments would have obliged the municipality to manage both ABC Napoli and all its companies according to an economic mentality, eliminating unnecessary fixed costs. The cost of personnel, profoundly over-dimensioned due to patronage hiring at the era of *municipalizzate*, would undoubtedly have been included among the expenses to cut. This would have led the City Council towards a deeply unpopular decision – especially in a city like Naples, characterized by historic high unemployment rates – to dismiss some of the municipal staff, opening a clash with public employees and their unions, which represent the

most solid electoral base of Neapolitan governments from the Iervolino era (Brancaccio and Martone 2011).

Under the leadership of commissioner D'Angelo, investments have been made to promote good water consumption practices and to improve customer service. The D'Angelo's management realised several training projects in the schools of the city, as well as a program of guided visits to the Acquedotto del Serino and the company plants. The funding of a "School of Water" for citizens has been approved. The company's website has been revamped and new company contact tools have been made available to customers. Finally, Civic Council meetings restarted in 2019, however attendance is very low given that bills are no longer used as communication tools and the circulation of information on these meetings is more difficult than in the past.

The thorniest situation that the administrators of ABC Napoli had to manage was the difficult mediation with the City Council and its bureaucracy for the definition of the municipality's debt towards the Company and the consequent transfer plan of these debts. This debt amounted to approximately 80 million € in 2019, the result of services supplied to the city by the operator and never paid. Evidently, the new hires of workers carried out between 2016 and 2019 have eroded the company's profits – the profits declared in 2017 amounted to 224,166 € (ABC Napoli 2017a) – and, fearing a legal procedure for not respecting the obligation of the balanced budget, the company administrators have begun to press the City Council for the recognition of its debts.

This situation has caused various tensions between the administrators of ABC Napoli and the municipality, as demonstrated by the fact that the company budget was not approved by the LG in the 2014-2020 period, due to the agreements on the fixing of this quota²⁹⁷.

Furthermore, given that since 2012 the company has stopped paying the debt it owed to the Campania region, this has sued ABC Napoli, whose company administration are currently also negotiating with this body.

On August 20, 2020, the news about an agreement reached between ABC Naples and the City of Naples has been published²⁹⁸. The City Council approved in one fell swoop all company financial statements from 2014 to 2019 with council resolution 290 of 6 August. If they had not found an agreement, the company would have risked a procedure by the regional *Corte dei*

²⁹⁷ *Voce di Napoli* August 4, 2017 <https://www.vocedinapoli.it/2017/08/04/la-crisi-abc-dimostra-fallimento-delle-partecipate-della-gestione-pubblica/>; *Fanpage* August 8, 2019 <https://napoli.fanpage.it/abc-e-crisi-il-comune-boccia-i-bilanci-2014-2016-fuga-delle-banche-bloccate-le-utenze/>

²⁹⁸ *Fanpage* August 20, 2020 <https://www.fanpage.it/napoli/acquedotto-napoli-approvati-5-bilanci-dopo-6-anni-contenzioso-da-600mila-euro-col-comune/>

Conti. The LG has recognized receivables for 83.9 million of 84.5 million calculated by the company (of which 29 million for water consumption, 7.9 for flat-rate water consumption, 12.4 for tariff adjustment, 8 for the distribution of collection costs, 18.3 for the Coroglio and San Giovanni plants, 1.6 for the Bagnoli plant, 1.4 for the maintenance of the fountains and 5.2 for prepaid VAT"). An agreement was reached on the realignment of the company and City Council accounts: "through a depreciation credit fund of 19 million and the signing of a settlement agreement of 17 million with the recognition of off-balance sheet debt for the management costs of the Coroglio and San Giovanni a Teduccio sewage plants"²⁹⁹. However, there are still 600,000 € of discount between the calculations made to the municipality and those made by the company, which will be the subject of future co-negotiations.

6.7.4. The transformation of the employee contractual framework

The transition from a private-law company to a public-law one entailed the obligation to change the contractual framework of the former employees of ARIN. This passage, according to Italian labour legislation, causes the risk of a worsening of employees' working conditions. Normally, in fact, public employees refer to the national contract of the public administration that, compared to a contract of the private sector, does not provide for automatic career advancement mechanisms, as these mechanisms are not automatic but they are subjected to the decision of the public-law company administration. However, as mentioned previously, the BoD of an AS has the possibility to contractually place the employees referring to a national contract framework that regulates employment relationships in private-law firms, given the particular economic nature of the AS (Ianniruberto 2015). Moreover, the calculation for paying pension contributions is different between the public and private sectors: some of the activities for which contributions are required in the private sector are not recognized in the public sector; consequently, with the same job, the contributions paid by a public employee will be lower than those paid by a private employee, resulting in a lower pension for the individual hired under a public contract. Furthermore, given that since 1994 there has been a different social security institution for public employees (*Istituto Nazionale di Previdenza e Assistenza per i Dipendenti dell'Amministrazione Pubblica*-INPDAP) and private individuals (*Istituto Nazionale Previdenza Sociale*-INPS), with the transition from JSC to AS, the pension contributions paid to INPS must be transferred to INPDAP through a mechanism called contributive reunification. However, this reunification is not easy, due to the regulatory

²⁹⁹ *Fanpage* August 20, 2020 <https://www.fanpage.it/napoli/acquedotto-napoli-approvati-5-bilanci-dopo-6-anni-contenzioso-da-600mila-euro-col-comune/>

chaos existing in Italy about the management of contribution collection institutions and there is a serious risk that, upon retirement, ABC Napoli employees will not be able to access such reunification: "without reunification they would receive a pension from INPS and a pension from INPDAP, the sum of which would never be equal to the sum of the pension paid by a single fund. The problem in my opinion is absolutely serious and must be solved quickly."³⁰⁰

To push the BoD and the municipality to tackle these problems, since 2013 (actual moment of their change of contractual framework) the workers, led by their union representatives, have opened various negotiating tables and, sometimes, organized demonstrations under the City Council palace to attract the attention of mass media and increase the pressure on the top management. An employee of ARIN and *ABC Napoli*, together with three other union representatives of CGIL (*Confederazione Generale Italiana del Lavoro*) and UIL (*Unione Italiana del Lavoro*), told us that the employees preferred not to raise the level of conflict with the company management too much, since before the remunicipalisation the relations with them were very collaborative and the company climate was a family type. For this reason, they hoped to rebuild a similar relationship with the new leadership before organizing conflictual actions. Moreover, the workers were also in favour of public water management, they had been involved in the referendum campaign, and initially agreed on the public passage, since ARIN was 100% a private-law MOE owned by the municipality and they did not imagine how much change it would cause.

The first bargaining argument was on maintaining the contractual conditions relating to the National Collective Agreement for Public Services of light and gas, created to regulate relations in the private sector. In this way they would have retained the right to automatic career advancement and the automatic increase in salaries by seniority. However, some of the results achieved through internal bargaining with the old management clashed with the rules contained in the ABC Napoli Statute, such as the possibility of hiring the descendants of retired workers or the obligation to ask the BoD for permission to carry out a second job outside ABC Naples (in conflict with anti-corruption and conflict of interest rules). The workers took action to ask the BoD chaired by Mattei to modify the Statute, aware that the risks of corruption in this case are valid for management figures, but not for simple workers: "in our opinion, the conflict of interest can exist for higher levels... But for a simple worker, who works on the plants, who cares, in short... It is difficult that the presence of a relative in the company can influence company decisions, no!?!".

³⁰⁰ Interview with an employee of ARIN and ABC Napoli.

However, the BoD did not take action to fulfil these requests and the building of collaborative relationships with its members was hampered by their absenteeism. For example, in 2014 Ugo Mattei only came to the company twice, on the occasion of the BoD meetings³⁰¹. In addition, the major problem underlined by the union representatives is that the agreements made with the members of the BoD have practically no value, since each of them must then be ratified by the City Council. Instead, in the past, when the ARIN BoD assumed responsibility with the unions, from the following day it was operational. Consequently, the requests for modifying the company Statute have never been implemented; in addition, since 2014, due to the lack of approval of the company financial statements by the LG, the remuneration and career advancement mechanisms have also been blocked. Only in 2018, thanks to the direct intervention of Sergio D'Angelo, these mechanisms were reactivated³⁰². As stated by an employee of ARIN and *ABC Napoli*: “We have a problem with the municipality, in the sense that municipal officials and municipal bureaucrats do not know our contact, because they have never seen it. They reason as public employees, rightly so, and therefore we clash on many topics. When we meet with politics, with assessors, the deputy mayor promise that they will make your requests operational [...] However, politician may no longer be there tomorrow morning, and our agreements remain under the responsibility of the public executive who can ignore them.”³⁰³

As regards to the transfer of workers from the INPS contribution fund to INPDAP, the LG took action in 2013 to request the reunification of the contributions of ABC Napoli employees. However, this mechanism has not yet been agreed upon by INPS and the municipality is negotiating with the national government on this issue (ABC Napoli 2017a). In the meantime, the union representatives of the three trade unions present in ABC Napoli (CGIL, CISL and UIL) filed a civil suit against the government of Naples, considering it to be in a state of default in the context of company employees. This means that, if the state defines the need for additional payments for the execution of the reunification of the contributions of ABC employees, the unions hold the municipality responsible for these payments; in turn, the City Council put the company ARIN MOE in a state of default, declaring that such payments must be co-opted with the company assets. However, this situation has not yet been resolved.

In conclusion, the opinion of all the trade unions present in the company on the transition from JSC to AS is strictly negative. In their opinion, the legal form of the SA has compromised

³⁰¹ *Napolitoday* October 30, 2014 <https://www.napolitoday.it/politica/ugo-mattei-presidente-abc-napoli-revoca.html>

³⁰² Interview with an employee of ARIN and ABC Napoli.

³⁰³ Interview with an employee of ARIN and ABC Napoli.

the possibility of creating collaborative and constructive trade union relations. On December 10, 2018, the three trade unions took a unified position against the Daga bill³⁰⁴ (senator of the Five-Stars Movement party), which provides for the conversion by law of all private-law operators into public-law operators, at national scale. In the joint public notice of December 10, 2018, unions stated that without a specific reform of the Italian regulatory framework, which adapts the organizational form of the AS to today's needs, in order to force public governments that administer these companies to invest in the renewal of infrastructures and on the quality of their employees' work, the solution to the problem of the water emergency and the purification of resources will not be solved. The Daga law risks upsetting the water sector, which has been hardly regulated by the Galli law, without remedying the chronic problem of the scarcity of investments in the water sector, with the risk of negative repercussions on the 40,000 workers in the sector.

An employee of ARIN and *ABC Napoli* concluded: "Now we need new legislation. This is the trade union position taken on October 10 in Rome, during a unitary assembly of the CGIL, CISL, UIL categories. I publicly spoke precisely on this topic. Given the lack of basic reference legislation, it is difficult, in my opinion, to manage a company in the water sector in the form of an *azienda speciale*. Now, do we want the *azienda speciale*? Ok! We intervene in law and then we proceed."³⁰⁵

6.8. Evaluation

As illustrated in chapter 4, outcomes resulting from the passage of the Naples water services between a private-law management to a public one have been analysed based on five evaluation criteria: long-term environmental sustainability, transparency, service efficiency, citizen participation in service management and social equity in accessing the resource. Such an evaluation is aimed to identify a possible implementation gap (DeLeon 1999; Hill and Hupe 2009) among the announced objectives of the reform and the policies actually implemented by the LG through its EPIC. Results have been collected through the analysis of official reports published by ABC Napoli, municipality of Naples and national agency ARERA, interviews with privileged observers and articles from local newspapers. Academic literature about ABC Napoli's business management is still not available today.

In particular, the analysis of the official data on the state of the company ABC Napoli was

³⁰⁴ *Glistatigenerali* March 22, 2019 https://www.glistatigenerali.com/acqua_beni-comuni/cosi-la-legge-daga-vuole-stravolgere-la-gestione-dellacqua-in-italia/; *startmagazine* December 7, 2018 <https://www.startmag.it/energia/sindacati-aziende-contro-governo-acqua-rinnovabili/>

³⁰⁵ Interview with an employee of ARIN and ABC Napoli.

difficult for several main reasons: first of all, the reports on the financial balance and the social balance available to the public about the AS operations from 2014 to today are temporary, since the government of Naples approved them only on August 20, 2020 (the final texts have not yet been published). These reports, due to their provisional nature, lack a huge amount of data; moreover, such reports do not refer to performance evaluation parameters, therefore their evaluation can only be made by comparing the trend of the data available over time. Furthermore, it is noteworthy that the composition criteria of ABC's provisional company financial statements have completely changed since the document relating to company activities in 2017. While previous reports published the precise number of real estate and movable assets managed or owned by the company, accurately defining the number and type of these objects, starting from the 2017 report these assets are only enumerated by category. For example, if before 2017 within the real estate category there was a distinction between buildings, lifting systems, pipes, after 2017, only the data relating to the total amount of real estate managed/owned was published, without distinguishing between various types of assets. In this way it is not possible to make an exhaustive estimate of the plants that have been sold or closed. Finally, when we attempted to deduce the data relating to company performance from the analysis of the consolidated financial statements of the municipality of Naples (the report that local authorities should publish every year relating to all the economic activities of the LG) we discovered that these reports have not been published by the municipal authorities since 2016. Only after numerous insistences by the author of this study and the Sociology Department of the Bicocca University, the municipality made available the reports on the consolidated financial statements of Naples relating to the 2016, 2017, 2018 activities, publishing them on the municipality's website. As denounced through the reports published by the Board of Auditors of the company starting from 2014 until 2017 (ABC Napoli 2014c, 2015c, 2016c, 2017c), the comparison between the company and the municipal balance sheet shows a serious misalignment of the accounts, making an assessment of details of the balance sheet and investments undertaken by the company very difficult.

In any case, the analysis of the available documents allows us to state that the Naples City Council, responsible for defining the objectives of ABC Napoli, has chosen to manage the company and its infrastructures according to a public management model that can be defined as minimalist or emergency strategy, namely aimed at limiting expenses for non-ordinary activities. Investments for the extraordinary maintenance of water systems – those aimed at improving their performance – and the development of new production lines – such as the

production of renewable energy – have been reduced, and the systems in poor condition have been closed rather than repaired. The only maintenance interventions on the water network were those necessary to guarantee the continuity of the service: repair of broken pipes, replacement of non-functioning meters, etc. Investments in the involvement of the local population in company management have also been reduced: the water bill has no longer been used as an information tool, the publication of the Managua newspaper has been suspended and information about the meetings of the Civic Council has become poorly known to the citizens. Most of the resources obtained from water bills are now intended to cover the ordinary management costs of the service, in particular personnel costs. Such policy choices have been the result of the replacement of policy entrepreneurs from the Italian movement for water as a common good with political entrepreneurs who are within the Municipal Council of Naples, which ultimately caused the change in the objectives pursued by ABC Napoli. Our explanation of the causal mechanisms that have produced the outcomes assessed below is that the policy entrepreneurs who have defined the water policies since the implementation phase have opted for a combination of two blame avoiding strategies – Pass the Buck and Redefine the Issue (Weaver 1986) – in order to maintain the status quo and, with it, the electoral support of citizens and in particular of public employees and their trade unions.

6.8.1. Environmental sustainability

As previously mentioned, the installation program of a pressure system for minimizing the electricity consumption of the Serino plants was completed in 2017 and the *ad hoc* company was dismantled. Regarding the construction program of a purification plant for some municipal wells, it was closed in 2013 by the BoD of Mattei³⁰⁶. About the program of "Redevelopment of the city water network" financed by the municipality of Naples in the ARIN period, it was completed in 2014. An activist at local scale for public management of water services declared that the BoD led by Maurizio Montalto had financed the continuation of this program until 2016³⁰⁷, however starting from 2015 the item "investments" disappeared from the report on company activities, as well as the item "research and development". However, during the press conference of De Magistris and commissioner D'Angelo on September 20, 2018, the creation of a mapping system of the water networks, which has operated for years, to search for leaks was announced, together with a system

³⁰⁶ Interview with an employee of ARIN and ABC Napoli.

³⁰⁷ Interview with an activist at local scale for public management of water services.

based on instant detection of faults and losses through sensors that remotely alert the company's technical centre. Furthermore, an alert system is in operation for landslides (Naples is located in a seismic area). Undoubtedly, these elements seem to be aimed more at maintaining than at improving the environmental impact of the distribution system. However, given the situation of serious financial distress of the city of Naples, it is noteworthy the choice of not having divested in the loss mapping technology inaugurated by ARIN. In addition, there is a commitment to reducing water consumption by the administration, which has never stopped organizing training meetings with the schools and social actors of the city. In 2018 a decrease in the city's water consumption of -6.7% was announced compared to 2017; we do not know if this is an effect of the decline in consumption by the civil population, or by the industrial actors of the city, however it highlights a trend towards water saving.

Nevertheless, we can see that an involution in the production of renewable energy through photovoltaic systems has occurred in the company. In fact, according to the study of the company financial statements from 2013 to 2016, the number of photovoltaic plants owned/managed by ABC Napoli has progressively decreased over time: in 2012 they were 396, in 2013 they were 340, in 2014 they were 285, in 2015 they were 229 and in 2016 they were 173 (ABC Napoli 2013, 2014, 2015, 2016). As mentioned, the data on the number of photovoltaic plants owned or managed by the company (which fall into the category of tangible fixed assets derived from the previous year) has not been published since 2017, so we do not know the number of plants currently managed or owned by ABC Naples. However, we can affirm with certainty that between 2012 and 2016 the renewable energy production activity was treated as an expense to be reduced rather than as a goal to be increased. It is not known whether these plants have been sold or simply transferred to a high body by decision of the municipality; however, a loss of interest of the company management in this type of activity is evident.

Starting from 2014, on the reports on company activities (ABC Napoli 2014) nothing is present in the "Environment" section; however the company has not been reported for causing damage to the environment during the current year of operation and the company has some environmental quality certifications (i.e. ABC Napoli 2017a: 6). On the other hand, in ARIN's financial statements several pages were dedicated to recounting the initiatives undertaken for environmental protection and energy saving.

Finally, we are sure that the requests made by the union representatives to the City Council of Naples to invest important sums in the safety and renovation of the sewerage system and

wastewater lifting systems detected by ABC Napoli in 2018 and 2019 have not been accepted on the basis of declarations by an employee of ARIN and *ABC Napoli*³⁰⁸, the official positions taken by the company unions and the lack of this expenditure item from the consolidated budget of the municipality (Comune di Napoli 2017). Evidently, environmental sustainability came out of the criteria for assessing company activities after remunicipalisation.

6.8.2. Transparency

The election promises to increase corporate transparency through remunicipalisation also appears not to have been kept. Surely, this figure has been affected by the lack of approval of the financial statements from 2014 onwards by the municipality, the lack of completeness of the provisional financial statements and the mismatch between the data contained in them and those published through the Municipal Consolidated Statements. Such a typology of statement is an accounting tool that local authorities with a population of more than 5,000 inhabitants are obliged to publish every year starting from financial year 2016 (law n° 118 of 2011); it must contain the account of all economic activities carried out both directly and indirectly, through companies owned or participated by the public authority. The government of Naples approved and published its consolidated financial statements from 2016 to 2018, however in the documents presented at the end of the fiscal years 2016 and 2017, the items of expenditure or income were not separated (Comune di Napoli 2016, 2017), therefore understanding the economic status of the water service or the sewerage service appears impossible, as well as understanding the misalignment between the payables to ABC Napoli calculated by the municipal or corporate offices.

If the publication of ABC Napoli's financial and social balance sheets had been regular and smooth, the level of corporate transparency would have probably been higher. Furthermore, a citizen who decides to inquire by reading official documents published by the company and the LG, as done by us, would find the understanding of the data difficult, since they mostly use a language and evaluation indexes purely financial, difficult to decipher for those who are not specialists. On the other hand, documents on the financial and social balance sheets published by ARIN up to 2012 combined the exposition of financial data with an explanation that would be easily understood by anyone.

However, what seems to have had a more negative impact on the levels of corporate transparency is the *de facto* implementation of an "extraordinary" management model. In fact, the Statute provides for the use of the bill for sharing company programs with each family of

³⁰⁸ Interview with an employee of ARIN and ABC Napoli.

the city. The bill was also identified as an instrument for involving the population in co-management initiatives, such as the meetings of the Supervisory Committee or those of the Civic Council. The failure to hold the meetings of such Committee and the organization of those of the Board for a limited period of time (2015-2016) have inevitably produced a communication gap between the Company and citizens. The only form of communication on which the municipal administration have really invested in sharing company matters are mass media, used to maintain a high level of political legitimacy of remunicipalisation rather than to communicate the achievement of substantial objectives.

This local situation has also been aggravated by two other exogenous factors: the first is represented by the failure to publish the Area Plan by the EIC, through which the data of each ATO, aggregated on the basis of evaluation criteria provided by the national regulatory framework, should be published. Furthermore, as a consequence of the inefficient data collection by the regional EGATOs, even the national data aggregated by ARERA are incomplete and collected following questionable criteria. The water services evaluation criteria established by ARERA appear superficial: data on the investment rate are published according to the calculation of the national average, without going into the specifics of the type of investments made, the objectives they had to achieve or the operator that made them. The level of efficiency of the service is also measured based on the rate of water dispersion or consumption of the resource: a figure that can be easily distorted through some technical tricks by an operators who would want to appear performing (Zardetto and Pierobon 2017). An employee of ARIN and *ABC Napoli* in fact explained to us that the measurement of the loss is given by the difference between the water introduced into the pipes and that which comes out of the meters. Especially in large cities, the water networks are not always continuous, the water does not follow a circular path, but the pipes are often interrupted. Therefore in these points the water stagnates and there is sanitary necessity to wash the pipes, opening them from time to time to disperse the water in the ground, in order to avoid microbiological contamination that is dangerous for consumers. An example is the legionella bacterium, which infected 16 people on September 5, 2020, resulting in the death of one of them³⁰⁹. Well, in the words of Santagata: "Since there is this fixation on losses, some managing bodies have reduced the washes because otherwise the value of the losses comes out high! They put their citizens in danger! I would kill them all!"³¹⁰ In fact, ARERA has set the reduction of losses

³⁰⁹ *Il fatto Quotidiano* September 5, 2020 <https://www.ilfattoquotidiano.it/2020/09/05/legionella-a-busto-arsizio-gallera-rassicura-dopo-i-16-casi-e-un-decesso-sotto-controllo/5921683/>

³¹⁰ Interview with an employee of ARIN and ABC Napoli.

among the parameters that allow the increase in tariffs, encouraging similar behaviour. Undoubtedly, the sector in which the company ABC Napoli reaches the highest levels of transparency is that relating to water quality and repairs to faults on the drinking water distribution network. On the company website, the data on the chemical quality of drinking water are updated monthly, and the user can access the data relating to each area of the city through an interactive map. This service was inaugurated by ARIN in the mid-2000s and currently its layout has not been changed. Furthermore, on the new website inaugurated in 2018, there is a section "Faults Bulletin", which lists all the faults on the network and the time to resolve the problem. In addition, a telephone service has been implemented to alert households about service interruptions due to network failures. In 2018 ABC Napoli also inaugurated its Facebook, Instagram and Twitter page, useful for the timely reporting of major maintenance interventions on the networks.

6.8.3. Efficiency

As underlined in the previous chapter, the concept of efficiency can be declined in many ways. In Italy, an efficient water service is firstly a service that reaches most of the population, given that until the early 2000s the problem of water network coverage was still widespread in the South of the country (Caporale 2017; Massarutto 2011a). Undoubtedly, from this point of view, the service provided by ABC Napoli can be considered efficient, since the coverage rate exceeds 98% of the population, with 290,000 drinking water supply points (ABC Napoli 2018b). However, this level of efficiency had already been reached by ARIN, so it is not attributable to the new remunicipalised management.

Even the efficiency of the analysis laboratory did not decrease after remunicipalisation, recording in 2018 the same quality levels of the past: an average of 5, 400 water samples taken from 70 different points in the city is analysed every year based on 24 bio-chemical parameters and regularly published on the city website. Therefore, compared to the management of ARIN, the evaluation parameters have decreased (they were 28) however the points of samples collection have increased (they were 51), testifying the commitment to increasing the reliability of the surveys. Despite this, two worrying facts have been highlighted by the newspapers and told us by an employee of ARIN and *ABC Napoli*. Both in 2013³¹¹ and in 2015³¹² the internal laboratory found some signs of contamination of drinking

³¹¹ *Fanpage* November 22, 2013 <https://www.fanpage.it/attualita/napoli-acqua-non-potabile-ma-la-scuola-rimane-aperta/>

water from two specific areas of the city. The laboratory immediately sighted the LG to request the suspension of the service in order to avoid damage to public health, since it is the main holder of the quality control functions and the solely responsible for the decision to stop the service. In both situations, the City Council decided to proceed with other analysis and to advise citizens not to drink water from the tap, but did not interrupt the supply service. In the case of 2013, boarding school attended by primary and secondary school children was even involved. In addition, in both situations, the non-potability of water was subsequently confirmed by the chemical analyses conducted by the Local Health Authority. According to Dr. Santagata's interpretation, this has been the consequence of the conflict of interests in which Luigi De Magistris and his council live, since they have the responsibility of both avoiding loss of political legitimacy to their policy reform and of providing a public health service. In 2013, after remunicipalisation had just been completed, the interruption of the service due to a non-potability cause would have exposed the city government to attacks by the opposition. Similarly, in 2015, before the re-candidacy in the municipal elections, the interruption of the service could have affected the electoral results. In such two cases, the political interests of the Naples government clashed with the collective interests of public health. "This event shows that the mayor does not have the necessary impartiality to carry out his control functions. The municipality does not have to be part of that company. The mayor has responsibilities towards the health of the citizens, so it is better for them if he stays out of that company. Because he's in control, and he has to plan and control, not manage the service."³¹³

From an organizational and economic point of view, the choice of introjecting the staff of the sewerage service three years before starting to manage that service and of dealing with the management of a service in chronic deficit without a medium-term industrial plan does not appear aimed at efficiency of the company. The profit margin of the company has progressively decreased since 2016, with the parallel increase in fixed costs for personnel.

When ARIN JSC was created in 2001, it had 614 employees and a negative balance sheet; in 2009, its employees were 412 (22 of which were hired under the obligation of the municipality by the San Giovanni purification plant, in serious economic deficit), 390 of which were actually dedicated to the distribution of drinking water, for a total cost of 29,765,202 €/year (ARIN 2009a). In 2017, after the remunicipalisation of ARIN, the employees amounted to 467 (ABC Napoli 2017b), for a total of 31,056,243.89 euros of fixed expenses/year, whereas

³¹² *Fanpage* December 2, 2015 <https://autori.fanpage.it/napoli-est-ecco-le-carte-dell-asl-sull-acqua-nera/>; *Lastampadelpmezzogiorno* October 30, 2015 <http://www.lastampadelpmezzogiorno.it/napoli/18787-napoli-barra-san-giovanni-acqua-nera-abc.html>

³¹³ Interview with an employee of ARIN and ABC Napoli.

in the documents on the personnel cost of 2018 we read that the employees in 2018 were 447, corresponding to a fixed cost of 31,736,663.78 €/year (ABC Napoli 2018). In 2018 another 84 employees were hired, coming from Net Service, a branch of ABC Napoli that was dismantled. According to the statements of De Magistris and D'Angelo, this operation produced savings of 1.5 million €/year³¹⁴. However, another 50 workers were hired from other wastewater lifting plants in 2019. The current number of ABC Napoli employees is unclear (due to early retirements), however the fixed cost of personnel in 2019 was 33,922,585.00 €/year (ABC Napoli 2019), i.e. almost 3 million more than in 2017. The increase in labour costs is reflected in the progressive decrease in operating profits, as shown in table 11 (values extended in €).

2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
2,626,000	3,909,000	2,933,000	2,547,127	1,489,439	7,972,210	654,880	3,247,294	224,166	60,922**
		2,188,292*		1,372,730*			3,247,295*		

Table 11: Operating profit of the ABC Napoli company from 2011 to 2018 (handled by the author based on the data published by the company and the Comune di Napoli)

* discrepancy between the data published in the ABC Napoli financial statements of the current year and the following year.

** figure published in the 2018 Consolidated Financial Statements of the Comune di Napoli.

Given the reduction in corporate profits, the strategy undertaken by the company management – the same despite the changes in the BoD members – seems to travel on two parallel tracks: reduction of fixed costs and battle with the City Council for the return of the money owed. As previously stated, the public management model implemented so far by the managers of ABC Napoli can be defined as minimalist or emergency strategy: it is based on decreasing investments for the qualitative improvement of the service and infrastructures, reducing water and energy infrastructures that are to be managed and scheduling maintenance interventions on water networks only in the event of emergency malfunctions. In addition to the modernization of the company's website, the only investment made so far by ABC Napoli is in the hiring of new staff. According to an analysis of the temporary financial statements from 2013 to 2017 (ABC Napoli 2013, 2014, 2015, 2016, 2017a) published by the company (those about the last two years are not available to the public), the activities and properties of the company were managed aiming at reducing fixed costs. Part of the real estate and movable properties have been liquidated, just as part of the water plants have been permanently closed (also due to the pressure of trade union representatives, worried about the danger of any type of activity on those infrastructures). Nevertheless, this decrease in

³¹⁴ Press conference of mayor De Magistris and commissioner D'Angelo on 20 September 2018.

operating expenses was offset by the increase in the plants to be managed through the introjection of the sewerage service and the personnel assigned to the lifting systems (50 employees in 2019³¹⁵) added to the 84 coming from Net Service in 2018. In 2017 the first 20 sewage lifting systems passed under the management of ABC Napoli, in 2018 another 45 passed to ABC Napoli and in 2019 the management of the entire sewerage network was inaugurated.

In accordance with the opinion of an activist at local scale for public management of water services³¹⁶ and with the academic literature that sheds light on the patronage mechanisms characteristic of the Neapolitan political culture (Brancaccio 2018; Savitch et al. 2002), the hiring of employees of other bankrupt public companies can be interpreted as the result of a pre-electoral patronage agreement aimed at guaranteeing the first and second elections of De Magistris' government. On the contrary, the official position of the managers of ABC Napoli (Sergio D'Angelo and Luigi De Magistris³¹⁷) is that such hires were part of a management strategy aimed at making the company suitable for managing the entire IWS of the sub-ATO to which it belongs. According to the statements of a member of the board of directors of *ABC Napoli*, the company exceeded 500 employees in 2019, and is preparing to hire about another 70 people with a high professional profile to face the challenges of managing the entire urban water cycle and the IWS of all 32 municipalities that make up the ATO³¹⁸. Thus, the hiring and early retirement plan implemented so far by the company executives is part of a consolidation strategy aimed at making ABC Napoli suitable for managing both the water cycle of Naples and the entire district. "We are internalizing everything we can manage on our own. [...]. We are preparing for these demanding challenges: integrated cycle, network, sewerage and management of the district water cycle. Therefore, ABC is the natural candidate for the Naples district, which in addition to Naples includes 31 other municipalities, practically doubling the number of current users. Now we have a million citizens to whom we supply drinking water directly, in the future they will be almost 2 million. We are preparing for this challenge, knowing that in the other 31 municipalities we will find a very heavy, complicated situation: it means reorganizing the whole company. For this reason we are developing a company reorganization project with the most important job rotation of internal management"³¹⁹.

³¹⁵ Interview with an employee of ARIN and ABC Napoli; interview with a member of the board of directors of ABC Napoli.

³¹⁶ Interview with an activist at local scale for public management of water services.

³¹⁷ Press conference of mayor De Magistris and commissioner D'Angelo on 20 September 2018.

³¹⁸ Interview with a member of the board of directors of ABC Napoli.

³¹⁹ Interview with a member of the board of directors of ABC Napoli.

The clientelist explanation makes it possible to clarify both the choice to invest all the company's profits in hiring new employees and the choice of the mayor to abruptly interrupt relations with the Naples Committees for Public Water, which over time had lost consensus and would not have been able to provide mayor De Magistris with the necessary electoral support for the second election in 2016. Given the evidence, we assume that the patronage explanation is the most plausible (Stokes 2011). The hypothesis set out by a member of the board of directors of ABC Napoli does not appear consistent with the uncertainty about the times and ways in which ABC Napoli would have started managing the IWS of the Naples sub-ATO in the future. Since the decision about the times and methods of management of the water services of all 32 municipalities of the Naples sub-ATO depended on an inefficient body (the EIC), taking charge of the entire IWS of the sub-ATO by ABC Napoli did not appear to be fast or safe. Furthermore, most of these 32 municipalities have been managing the water services "in economy"; therefore, each municipal administration has full autonomy to decide when to stop its experience of *in house* management, increasing the uncertainty about the delivery date of these plants waterworks at ABC Naples. Consistently with such evidence, hiring almost 200 new employees in just 3 years in a company with the size and sales volume of ABC Napoli put the company at risk for failure in the case of a – more than likely – delay in the transfer of the water services of all the 32 municipalities of the sub-ATO to ABC Napoli management. Moreover, the uncertainty about the timing of the repayment of the money that the municipality of Naples had to give to the company appears too high to justify an expensive investment in new staff. Therefore, the decision to hire many people does not find justification in the laws of economic rationality; instead, it can be explained by the logics of political rationality. Such a political rationality led the municipality of Naples to choose the strategy of blame avoiding in the management of ABC Napoli (Weaver 1986; Hood 2010). These strategies have produced the minimalist public management model that has minimized investments in infrastructures, in the hope that the costs of maintenance interventions would have been faced by other actors and not by the municipality; in this way, the municipality of Naples could keep the cost of the water service low and use company profits to distribute jobs.

We do not know what the real economic situation of the sewerage service is, but we are aware that its infrastructures need maintenance and major investment programs. Undoubtedly, the over 84 million euros that the municipality must return to the company can cover the current management costs, the maintenance and replacement costs of Naples sewer networks, and

any investments necessary to address the management of the IWS of the entire sub-ATO. Consequently, the future of ABC Napoli totally depends on the political will/convenience of this and future city governments to effectively transfer this money to the company. If the survival of the water service will become an electoral game, we cannot exclude that a government that wants to discredit the De Magistris administration will decide in the future to make ABC Napoli fail. Conversely, a government that is in continuity with the current municipality will probably undertake not to make ABC Napoli fail. Against the background of these hypotheses, the impressive debt of the city stands out, which exceeded 4.8 billion in 2018 (Comune di Napoli 2018). The De Magistris government is playing a difficult battle with the Ministry of the National Treasury to charge the state with the responsibility of repaying the public debt of Naples, given the numerous bankruptcy programs for the rehabilitation of the city implemented by the state and the periods of commissioner management³²⁰. The future of urban water services certainly depends on the outcome of this centre-periphery challenge.

6.8.4. Citizen participation in service management

Without hesitation we affirm that the implementation gap created in Naples in the participatory dimension is unbridgeable. The Naples movement for public water management was one of the most active and important components of the most participatory, heterogeneous, inclusive and resilient national movement experience of the last decades in Italy (Carrozza 2013; Carrozza and Fantini 2016). The direct participation of citizens in the water company activities was one of the key concepts of the movement and the expulsion of the Naples Committees for Public Water from the management of ABC Napoli has not only weakened the Committees, but the internal movement, certainly feeding the spreading feeling of disappointment and frustration towards the national political class. The increase in consensus towards national populist parties such as Lega and Five-Stars Movement, venues of refuge for those disappointed by the politics of traditional governing parties, is not surprising. The participatory model described by the ABC Napoli Statute, which should have inaugurated a new season of national and European democracy (Dardot and Laval 2015) and a rebirth of Constitutional Law (Lucarelli 2015) has never seen the light. Since in the passage between the policy formulation and policy implementation phase, the policy entrepreneurs that were in favour of experimenting a model of deliberative democracy in the management of the water

³²⁰ *Vesuvio*live April 21, 2020 <https://www.vesuvio.it/vesuvio-e-dintorni/notizie-di-napoli/336419-napoli-cancella-debito-storico/>

service have left the company's BoD and the municipal government, the goal of citizen participation has been removed from the government agenda. The main channel of citizen participation in water governance, the BoD, was actually participated by citizens for no more than two years out of seven, if we make the participatory experience begin in 2013, when ABC Napoli became in effect an AS. The Supervisory Committee, an instrument designed to allow civil society and company workers to exercise the power of control recognized to them, has never been inaugurated. The Civic Council, created in 2015 to replace the Supervisory Committee, functioned well for less than two years; however, this experience of participatory democracy with deliberative effects (since each meeting of the Council nominated who would join the next BoD) was suspended in September 2016. The use of tools created to involve citizens in company management – the bill or the Managua newspaper – has been suspended together with the Civic Council, and the means of communication used today by the company – the website and social media – are not used as channels of communication for company choices but only for emergencies and extraordinary interventions. The message expressed through these communication channels is clear: citizens are passive users of the service, with the only right to demand a good quality of water and of the distribution system. There would be nothing wrong with that if the current city government had not been selected after an election campaign centred on the promise of co-management of water resources.

The rupture of the participatory experience was clear, with no possibility of recovery, since it occurred through an authoritarian and top-down act of the City Council, in stark contrast to the cooperative methods used up to that moment. In Naples, the transition between "real participation (that which in everyday life sees movements, associations, committees and individual citizens as protagonists)" and "artificial participation (the one artificially constructed by gathering a few hundred "common" citizens in individual and highly structured events)" (Raffini and Viviani 2011: 45) had a profound normalizing effect on the Committees for Public Water of Naples and, indirectly, on the entire National Forum. With the concept of normalization, Giuseppe Campesi (2008) refers to those disciplinary mechanisms (Foucault 2015) put in place by the government elites to eliminate the most critical and conflicting elements from the political scene. This normalization process has the purpose of purifying the group of critics of the most intransigent elements, so that the implemented political model is never questioned in its entirety but only in some particular choices: the result is a government that is legitimized by the existence of an opposition with which it is willing to mediate and dialogue, even appearing democratic and cooperative. At this moment,

in fact, the Naples Committees for Public Water and the Civic Council itself still exist, but they are animated by those who have accepted to assume a subordinate role to the management model implemented by the De Magistris government; a model that respects neither the 2012 Statute nor the national law, which provide that an AS has to be managed through a BoD composed of five members, not a single commissioner, expression of the Municipal Council. Strong and tenacious people like Father Alex Zanotelli and Ugo Mattei never abandoned the battle for public water and still support the various local committees both in Campania and in the rest of the country.

Although the manner in which the relationship between the government and the Committees for Public Water was chosen by the mayor – as evidenced by the statements made to the newspapers and the author of this study³²¹ – it would be unprofessional to identify in the choices of the mayor and the municipal government all the responsibility for the failure of the model of deliberative participation described in the company Statute. As a matter of fact, the same protagonists of the Forum of Water Movements conducted an internal analysis on the experience of Naples, demonstrating how the participatory model outlined in the Statute was the origin of the failure of this experimentation. The person who oversaw the transition from JSC to AS was Alberto Lucarelli, and the first BoD, who wrote the Statute, was also linked to him. These people were elaborating the theme of public management of common goods in the Rodotà Commission and they defined the participatory model based on an ideal model of management of common goods, not according to the characteristics of the Neapolitan context. A context where political micro-clientelism is the norm, where relations with the highest administrative scales are conflicted, where unemployment is a structural problem and where the managers of a water company have to make complex decisions on the management of water supply networks in bad condition. "In addition, we think that the committee did not have to manage the water directly but only had to supervise the management."³²² In order to take part in the management of the company, the Naples Committees for Public Water went through a process of profound professionalization, and this alienated many participants. In addition, the choice not to pay the BoD members discouraged participation. "They never found representatives of environmental associations who wanted to participate, also because they had to take responsibility without compensation."³²³

³²¹ Interviews with two activists at local scale for public management of water services; *Federicadaga.net* September 19, 2016 <http://www.federicadaga.net/2016/09/19/zanotelli-sullacqua-il-sindaco-de-magistris-ci-ha-tradito/>

³²² Interview with an activist at local scale for public management of water services.

³²³ Interview with an activist at local scale for public management of water services.

According to an activist at national scale for public management of water services, the process of remunicipalisation and taking charge of the entire IWS was so difficult that the participation was shelved by the local government. Furthermore, the definition of participatory instruments has never been fully addressed in the Forum, neither in Italy nor at European level. "Still today, this remains an experimental question. Furthermore, there is the problem of professional participation: to manage a company, precise technical skills are required and serious responsibilities have to be taken. If you do not pay them, people do not accept such a responsibility. The debate among us is also about how to select participants: if you elect them, participation shrinks, if you do not elect them, every time there is a different person. The debate is still open. On this issue, the theorists of the commons give no solutions."³²⁴

The validity of these lines of analyses is rooted in the total failure of attempts to find volunteers willing to participate in BoD: "Who is in the BoD must decide for investments even for millions of euros [...] But also the dismissal of an executive, which unfortunately here are frequent, which is the worst thing [...] We, as CISL, are favourable to the participation of workers, but only of workers, in the life of the company, in management [...] like in the German model. CISL proposes the participation of workers within the BoD since 60s, but only after a regulated training course."³²⁵

6.8.5. Social equity

Naples water service seems to be accessible to most of the local population. As previously illustrated, the average water prices in Campania have almost doubled from 2007 to today (Cittadinanzattiva 2016, 2019). Although the data of the Naples water price of the early 2000s are not available, a similar increase has also affected its regional capital. Despite this, Naples is today the third biggest city with the lowest prices for water services, after Rome and Milan. For 192 cubic meters of water/year a family spends an average of 273 €, which is equivalent to 205 €/year for an average consumption of 150 cubic meters (Cittadinanzattiva 2019). Thus, the drinking water supply service remains easily accessible by most Neapolitan families. Furthermore, for those who have difficulty paying, the resolution n° 52 of 2017 of the City Council has brought to € 9,000 of ISEE (Equivalent Economic Situation Index) the threshold for families who are entitled to receive the water bonus established by national law (according to which families with an income of less than € 7500/year are entitled to the

³²⁴ Interview with an activist at national scale for public management of water services.

³²⁵ Interview with an employee of ARIN and ABC Napoli.

bonus). Given the general economic situation of Neapolitan families, this is a considerable increase. However, this aid for families with greater economic difficulties was recognized in a context of gradual increase in the cost of living in the city. The Eurispes 2020 Report on Italy (Eurispes 2020) shows that Naples is the second Italian regional capital with the highest local taxes. Therefore, the Neapolitan water service is one of the few LPS to have maintained low rates. The document shows that the state invests less in Naples than in the cities of the North and Centre, so local authorities are forced to tighten up the tax burden to guarantee LPS. "In the South, in addition to enjoying less efficient services, very onerous taxes are paid, despite the fact that on average we find ourselves facing much lower incomes than our fellow citizens of the North" (Eurispes 2020: II). The low tax collection rate is likely another factor that affects these increases. In addition, this increase in local taxes seems to be a consequence of the city's economic disarray, which translates into a greater tax burden on a population historically bent by unemployment. The increase in the threshold for access to the water service therefore represents an attempt of the LG to make at least vital local services accessible.

From the point of view of the treatment of company employees, despite the non-compliance with the trade union agreements entered into during the ARIN period, the overall evaluation is positive. Most of them are hired with permanent contracts under the terms of the National Collective Agreement for Public Services of light and gas (ABC Napoli 2019). Over the past two years, career advancement and seniority salary increase have been reactivated. ABC Napoli employees have, moreover, the company nursery school service available, all people (both women and men) with dependent relatives (children or parents) have received a decrease in the amount of working or weekly hours at unchanged salary. The family solidarity fund, in which company profits and percentages on wages are set aside, inaugurated at the time of ARIN, has been maintained by the new management: this money is used to financially support the families of dependents who lost their lives prematurely. Commissioner D'Angelo explained to us that his reference model is the business management of Roberto Olivetti³²⁶.

6.9. Policy maintenance, succession or termination

Summing up the remunicipalisation of the Neapolitan water company is not easy. The results of the last 7/9 years of management are multiple and contradictory.

Despite the poor condition of the Neapolitan sewerage networks and purifiers, or the high rate of losses of the drinking water networks, ABC Napoli was included by the researchers of

³²⁶ Interview with a member of the board of directors of ABC Napoli.

the Energy and Strategy Group of the *Politecnico di Milano* among "the top ten managers with significant market shares" (Energy and Strategy Group 2018: 104), since it manages the drinking water service of approximately one million inhabitants and sells drinking water extracted from the sources of the Serino to 21 other municipalities. Many actors of the remunicipalisation process³²⁷ and experts in Neapolitan issues³²⁸ confirmed us that the messages that water is managed publicly and that ABC Napoli has unified the management of the entire urban water cycle has passed among citizens. They told us, moreover, that after 2013 the issue of water management gradually came out of public debates, remaining a matter of the "experts". Furthermore, in a city like Naples, where access to work in public sectors has always been considered a privilege – so much so that it has become an object of political exchange (Brancaccio 2017; Brancaccio and Zaccaria 2007) – also the commitment made by the municipality to hire the workers of the San Giovanni Consortium, Net Service and other MOEs of wastewater lifting systems certainly produced both self-reinforcing cognitive and administrative effects, demonstrating to voters that the public administration has a strong sense of organizational mission and morale, as well as a strong competence. In fact, from the point of view of a simple voter who never intended to take part directly in the management of the company, the De Magistris government has achieved most of the objectives it had announced in the 2011 electoral campaign: taking charge of the entire city IWS – purifiers are of regional competence and therefore the failure of ABC Napoli to manage them is the blame of the regional government (Sulitzeanu-Kenan and Hood 2005; Hood et al. 2016; Weaver 1986); public hiring of workers of the water sector; access to water for economically troubled families. The failure in keeping the electoral promise to fulfil the co-management of the water service does not interest all those Neapolitans who have never intended to take part in that process, therefore the judgment of most citizens on remunicipalisation is positive.

Furthermore, during the years of drinking water management through the AS, the LG and the company have found an agreement on the age-old question of the municipality's debts towards the company; City Council has been elaborating a debts repayment plan with the Campania region; finally, city government is officially implementing a corporate rationalization and reorganization plan aimed at achieving the goal of managing the entire IWS in the Naples sub-ATO. These results have undoubtedly had self-reinforcing constituency and agenda effects among the municipal administration, municipal councillors and actors of

³²⁷ Interviews with two employees of ARIN and ABC Napoli.

³²⁸ Interviews with two academic experts on Neapolitan issues.

the Committees that support the managerial choices of the mayor and commissioner D'Angelo. As a matter of fact, from the point of view of these actors, their work has produced positive results, strengthening their sense of legitimacy and their ability to defend the flow of benefits produced; in this way, participants of these action situations can continue on the same path, concentrating their efforts on the supplementary corrections of the program.

Only for the actors of the Naples Committees for Public Water, who have faced disputes with the local administration on the management of ABC Naples – after the revocation of the BoD of Mattei and after the revocation of the BoD of Montalto –, the remunicipalisation reform has produced self-undermining cognitive, constituency and agenda effects. In fact, for this group of actors, who assumed the role of epistemic community and instrument constituency within the problem and the policy stream in its initial phase, there is the perception that the water policies implemented by the LG have produced losses, causing resentment towards the De Magistris government (as demonstrated by the refusal of Ugo Mattei, Alberto Lucarelli and Alberto Pierobon to comment on the conflicts they had with the mayor). These collective actors have indeed lost the role of policy target and instrument constituency during the policy implementation stage; these roles, in fact, have been assumed by municipal councillors and by municipal bureaucrats and technocrats, who had the greatest responsibility for defining the objectives and political solutions of water management from 2015 onwards. In this way, the protagonists of the Naples Committees for Public Water of the 2004-2016 period were dissatisfied with the way in which the City Council has carried out the policy program and has focused its attention on non-incremental corrections of remunicipalisation policies, through participation in parallel policy projects: Father Alex Zanotelli and the Lilliput Network promoted remunicipalisation in the neighbouring municipalities of Naples, while the group of jurists focused on the attempt to promote the direct state management of water services through the Daga law proposal.

However, the fiscal effects produced by the reform in question are largely self-undermining: the company's profits and its investment capacity have been seriously reduced through the implementation of short-term spending programs not supported by a solid financial recovery plan over the medium-long term; the urban sewage system that ABC Napoli took over in 2019 is in poor condition and the company does not have the economic strength to carry out the necessary interventions to replace and maintain pipes and out-of-use lifting systems; the water distribution services of the 31 municipalities of the Naples sub-ATO that ABC will have to manage in the near future show very low performance: "the disaster of the "in economy"

management in these municipalities made directly by the municipalities is even less performing than Gori itself. There is no integrated cycle, there is no economy of scale and the payment collection capacity of many of these municipalities is stuck at 15/20%. This means that the rates are very high and the burden of management falls on the general taxation, as the municipality is forced to cover all the economic losses of the service [...] Even the quality of the water is very questionable as it is not very controlled."³²⁹

Consequently, if ABC Napoli wants to manage the services of the entire sub-ATO, it will have to make huge investments both in the infrastructures and in the organizational structure of the service, realizing economies of scale capable of supporting the long-term maintenance costs of the entire company.

In sum, the future of ABC Napoli is directly linked to the policies of the government of Naples. It all depends on the payment of the debt that the municipality has towards the company, on the type of agreement that will be signed with the Campania region for the repayment of the debt and on the way in which the City Council will decide to address the problem of its financial distress. Undoubtedly, if the municipality decides to continue using the AS for client purposes, it will have to face the problem to find new resources for covering the fixed costs of personnel.

The project of the current company administration is to create a consortium of *aziende speciali* at district level, in order to achieve the goal of public management of the entire sub-ATO. Only in this way ABC Napoli can remain an AS and manage the IWS of its ATO.

"The problem is the ATO. This is the question: who will manage the service in the ATO? If ABC does it, there will have to be a transition from private to public for all 32 municipalities of the ATO. If this change does not happen, ABC Naples will not be able to manage the services of all 32 municipalities while remaining an AS"³³⁰.

Even the current Naples Committees for Public Water agrees on this reasoning: "ABC Napoli's problem is its local dimension. If ABC fails to expand and take on consortium dimensions, achieving economies of scale, it risks becoming private again. When the administration will change and so will the need to find new revenues to settle its public debt, if the *Corte dei Conti* requires to the municipality to sell something, the next administration will sell the company. So far De Magistris has sold other things, and has not touched ABC. But it is unlikely that, if administration changes, it will not do the same to ABC, unless it is a solid economic reality."³³¹

³²⁹ Interview with a member of the board of directors of ABC Napoli.

³³⁰ Interview with an academic expert on Italian public action and public services.

³³¹ Interview with an activist at local scale for public management of water services.

Finally, the problem of administrative control on ABC Napoli still persists. Since the possibility for citizens to carry out a control on the management of the company has ceased to exist, and being still administered by a commissioner who is a direct expression of the Municipal Council, the risk that the quality of the service deteriorates in total silence is likely. The municipality, in fact, has already shown a profound conflict of interest in covering both the role of administration and controller of the company, abandoning itself to a management based more on political rather than economic rationality. It is clear that a company that has to provide an industrial service in an infrastructural bad state context such as that of Southern Italy (Masarutto 2011a; Utilitatis 2019) needs a good investment capacity and technological innovation to keep the quality level of the service high.

7. FINAL CONCLUSION: ACTORS FACING SOCIO-ECOLOGICAL AND INSTITUTIONAL LIMITS AND OPPORTUNITIES

The conclusions of this study comes from a double level of comparison between evidences: the comparison within each single case between the results of private-law management and public-law management, and the comparison between the results produced by the two specific cases (E. Ostrom 2005; Goyal and Howlett 2019). The comparative process was guided by the intent to test three working hypotheses: first of all, that there is no management model that can produce positive economic, social and ecological outcomes always valid in any context, since water services are socio-technical systems resulting from the combination of institutions and practices that embody the lived history of water heritage (Hein et al. 2018; Couling et al. 2019) born by the use of water resources made by local populations; consequently, the legal regime of the operators providing water services is one of the many variables that cause their outcomes. Secondly, that to grasp the outcomes of a water regime it is necessary to go beyond the dichotomy on the public or private legal form of the operator (Lorrain and Poupeau 2016). Finally, the third hypothesis that led our work is that the outcomes of a water regime can only be explained through the analysis of the interactions among three macro-groups of variables: exogenous variables, institutional variables and the behaviour of each actor who participates – directly or indirectly – in the definition of the socio-technical system that supplies drinking water in that particular place.

Basing our comparison on the elements of convergence and divergence between the two cases, a rigorous and parsimonious explanation of the events allowed us to evaluate the outcomes of the water regimes arising from both remunicipalisation processes. We evaluated the outcomes of the two water regimes using five criteria selected through the analysis of the main affinity between the two case studies: the reasons announced by the policy-makers who proposed and then implemented the reforms of water services. In both cases, they prefigured an improvement in the long-term ecological sustainability of water supplying systems, in the transparency of the financial operations of local water supplier, in the efficiency of the service, in the participation of the citizens in the management processes and in the social equity. An assessment based on such criteria has permitted us to realise if there was an implementation gap (DeLeon 1999; Hill and Hupe 2009) between the expectations of policymakers and the actual outcomes of both cases.

Based on the data collected, we can state that neither in Paris nor in Naples the management of water services has been developed in accordance with the theory of common goods, contrary to what policy-makers of Naples and Paris promised before their election;

conversely, in both cities the "classic" model of public and centralized local governance was implemented. Such a model was enforced in line with the institutional path typical of each of the two local contexts, in accordance with the path dependency theory (Pierson 2011). Consistently with these evidences, we can state that in both cases an implementation gap (DeLeon 1999; Hill and Hupe 2009) occurred. Both policy processes produced expected and perverse outcomes, caused by free-riders behaviour of the actors of the systems (Howlett 2020). However, in the case of Paris the variance between the pre-electoral announcements and the outcomes of the reform is minimal, while in the case of Naples it is substantial. By comparing the various stages of the two processes, the explanations of these considerations come to the surface.

7.1. Urban water regimes outcomes

Table 12 provides a schematic summary of the expected and unexpected results of each phase of the two political cycles, connecting them to the main participants of each action situation, in order to highlight the relationship between the actors' agency and the outcomes of the system. As underlined in chapter 2, this does not mean that the responsibility for the perverse results of a policy is to be ascribed solely to the policy-makers, since we have demonstrated that the outcomes of a certain policy are always the result of an interaction between the multiple actors of the system, their socio-ecological context and institutional framework. However, the direction taken by a policy is determined by the agency of the most relevant actors at each stage of its cycle and we want to shed light on this evidence. The results summarized in table 12 are set out, explained and compared below.

Paris			
Policy stage	Key actors	Expected results	Perverse results
Agenda setting	<ul style="list-style-type: none"> · Anne Le Start. · Epistemic community composed of representatives of associations and left parties belonging to the European Social Forum network. · Technicians and bureaucrats within public bodies. 	<ul style="list-style-type: none"> · Local problem stream about delegated water management (2001-2005). · Renegotiation of the delegation contract (2003). 	
Policy formulation	<ul style="list-style-type: none"> · Anne Le Start. · City Council. · Epistemic community 	<ul style="list-style-type: none"> · Termination of the contract with SAGEP (2005). 	

	<ul style="list-style-type: none"> · composed of experts and independent technicians. · Technicians and bureaucrats within public bodies. · Municipal employees. 	<ul style="list-style-type: none"> · Drafting of the policy stream of remunicipalisation of water services (2005-2007). · Creation of the <i>regié Eau de Paris</i> (2007). · Announcement by the mayor of the project to remunicipalise water services (2007). 	
Legitimation	<ul style="list-style-type: none"> · Bertrand Delanoë. · Anne Le Strat. · Candidates of the <i>union de la gauche</i>. · Epistemic community composed of representatives of associations and left parties belonging to the European Social Forum network. 	<ul style="list-style-type: none"> · Electoral agreement with the <i>union de la gauche's</i> parties (2007). · Electoral campaign around the water management as a common good and the Parisian ecological transition (2007-2009). · Prefiguration of improvement of service quality (2007-2009). · Public opposition of the spokespersons of the water multinationals to the remunicipalisation proposal. · Municipal election victory (2008). 	<ul style="list-style-type: none"> · Absence of a popular reaction to the water remunicipalisation project. · Criticism from the left-parties, leftist movements, environmental associations and economic academic circles.
Implementation	<ul style="list-style-type: none"> · Anne Le Start (2008-2014). · City Council (2008-2014). · Representatives of the associations and workers in the BoD of EdP. · Technicians and bureaucrats within public bodies. 	<ul style="list-style-type: none"> · Rapid implementation of the reform (2008-2010). · Resolution of implementation problems (2008-2016). · Self-reinforcing cognitive effects (2010-ongoing). · Self-reinforcing constituency effects (2010-ongoing). 	<ul style="list-style-type: none"> · Problems in the reform implementation about: public financial system (2008-2012), transferring of counters, user data and software from CED and EFPE (2008-2016), integration of staff (2008-2011), municipal public

		<ul style="list-style-type: none"> · Self-reinforcing agenda effects (2010-ongoing). · Self-reinforcing administrative effects (2010-ongoing). 	<ul style="list-style-type: none"> administration opposition (2008-2010). · Conflicts with representatives of associations at the OPA.
Evaluation	<ul style="list-style-type: none"> · Anne Hidalgo (2014-ongoing). · City Council (2014-ongoing). · Representatives of the associations and workers in the BoD of EdP. · Technicians and bureaucrats within public bodies. 	<ul style="list-style-type: none"> · Replacement of the water theme with the issues of the ecological reconversion of the city. · Improvement of the environmental sustainability. · Improvement of the efficiency. · Improvement of the social equity. · Increase in the public debt of Paris. · Development of new earning strategies. 	<ul style="list-style-type: none"> · Conflicts with representatives of associations at the OPA. · Suspension of the activities of the OPA (2017). · Insufficient transparency increase.
Policy maintenance, succession or termination	<ul style="list-style-type: none"> · Future City Councils. 	<ul style="list-style-type: none"> · Increase in the political legitimacy of the local government. 	<ul style="list-style-type: none"> · Long-term financial unsustainability. · Conflicts with the other water producers of Île-de-France.

Naples

Policy stage	Key actors	Expected results	Perverse results
Agenda setting	<ul style="list-style-type: none"> · Social movements (national scale). · Epistemic community composed of academics and spokespersons of civic associations, social movements and left parties belonging to the European Social Forum network (national scale). · Father Alex Zanotelli (local scale). · Maurizio Montalto 	<ul style="list-style-type: none"> · National problem stream about privatization of water services (2000-2011). · Local problem stream about privatization of regional water services (2003). · Foundation of the Neapolitan Committees for Public Water (2004). · Professionalization 	

	<ul style="list-style-type: none"> (local scale). · Alberto Lucarelli (local scale). · City Council (2006-2011). 	<ul style="list-style-type: none"> process of Neapolitan Committees for Public Water. · Favourable position of the municipality towards remunicipalisation (2009-2010). 	
Policy formulation	<ul style="list-style-type: none"> · Epistemic community composed of academics belonging to the Italian Forum of Water Movements (national scale). · Father Alex Zanotelli (local scale). · Maurizio Montalto (local scale). · Alberto Lucarelli (local scale). · Neapolitan Committees for Public Water. 	<ul style="list-style-type: none"> · Creation of the Italian Forum of Water Movements (2006). · Drafting of the policy stream of remunicipalisation of water services (national and local scale) (2006-2011). · Self-reinforcing cognitive effects (national and local scale). · Self-reinforcing constituency effects (national and local scale). · Announcement by candidate for mayor De Magistris of the project to remunicipalise water services (2010). 	
Legitimation	<ul style="list-style-type: none"> · Epistemic community composed of academics and spokespersons of civic associations, social movements and left parties belonging to the European Social Forum network (national scale). · Luigi De Magistris (local scale) · Father Alex Zanotelli (local scale). · Maurizio Montalto 	<ul style="list-style-type: none"> · Prefiguration of improvement in quality of democracy (2006-2011). · Electoral campaign around criticism towards the national political class, resolution of the waste crisis and water management as a common good (2010-2011). · Referendum victory for the repeal of the 	<ul style="list-style-type: none"> · Judicial investigations on ARIN JSC's managers (2011-2016).

	<ul style="list-style-type: none"> (local scale). · Alberto Lucarelli (local scale). · Neapolitan Committees for Public Water. 	<ul style="list-style-type: none"> law on the privatization of national water services (2011). · Municipal election victory (2011). 	
Implementation	<ul style="list-style-type: none"> · Luigi De Magistris (2011-ongoing) · City Council (2011-ongoing). · Technicians and bureaucrats within public bodies. · Epistemic community composed of academics belonging to the Italian Forum of Water Movements (2011-2014) · Alberto Lucarelli (2011-2014). · Maurizio Montalto (2011-2016). · Neapolitan Committees for Public Water (2011-2016). 	<ul style="list-style-type: none"> · Slow and difficult implementation (2011-2017). · Resolution of implementation problems (2011-ongoing). · Self-reinforcing cognitive effects (2011-ongoing). · Self-reinforcing administrative effects (2011-ongoing). · Self-reinforcing constituency effects. · Self-reinforcing agenda effects. · Re-election of Luigi De Magistris (2016). 	<ul style="list-style-type: none"> · Problems in the reform implementation about: transition from JSC to AS (2011-2013), participatory management model implementation (2011-2016), transformation of employees' contractual framework (2011-ongoing). · Conflicts between City Council and Neapolitan Committees for Public Water (2011-2016). · Conflicts and divisions within Neapolitan Committees for Public Water (2011-2016). · Suspension of participatory management experimentation. · Use of the water company for patronage purposes (2016-ongoing). · Appointment of an extraordinary commissioner to lead the company (2017-ongoing).
Evaluation	<ul style="list-style-type: none"> · Luigi De Magistris (2011-ongoing). · City Council (2016- 	<ul style="list-style-type: none"> · Replacement of the water theme with socio-economic 	<ul style="list-style-type: none"> · Worsening of environmental sustainability.

	<ul style="list-style-type: none"> · ongoing). · Sergio D'Angelo (2017-ongoing). · Technicians and bureaucrats within public bodies. 	<ul style="list-style-type: none"> · issues. · Improvement of the social equity. · Increase in the public debt of Naples. 	<ul style="list-style-type: none"> · Worsening of transparency. · Worsening of economic efficiency. · Failure of the experimentation of co-management of the company with citizens.
Policy maintenance, succession or termination	<ul style="list-style-type: none"> · Future City Councils. 	<ul style="list-style-type: none"> · Business expansion strategy. · Inactivity of the Regional ATO. 	<ul style="list-style-type: none"> · Self-undermining fiscal effects. · Long-term financial unsustainability.

Table 12: Summary of the results of the two policy cycles (handled by the author)

Agenda setting and policy formulation

The Parisian remunicipalisation reform has originated in a context of low public participation, where the policy formulation took place in the venues of sector experts and party bureaus who had prior knowledge of the local administrative context and of the strengths and weaknesses of the Parisian delegated water regime. In this context, the role of problem broker and policy entrepreneur was assumed by Anne Le Strat, ecologist and expert in the management of urban water services, as well as in the administrative characteristics of the French system. She, together with various experts from multiple disciplines, led the entire policy reform process – from agenda setting to outcomes evaluation – planning all its phases in advance and trying to avoid implementation problems. The presence, in the French legal framework, of norms that rule the transformation of private law company into public law companies suitable for managing industrial and large-scale LPS made the policy formulation phase simple for supporters of the remunicipalisation of Paris water.

Vice versa, the remunicipalisation reform of Naples has been imagined by the members of a social movement of exceptional, heterogeneous and transversal scope, where the policy formulation took place within an epistemic community populated by militants with the most disparate knowledge. In such a community, a group of Italian jurists had a prominent role in identifying the problem and policy formulation to be promoted within the Italian context, leading the entire movement to focus first of all on the regulatory framework of reference (popular initiative proposal in 2006, proposal to amend the civil code in 2008 and referendum in 2011) and after on the legal form of the local operators. Consequently, the problem brokers and policy entrepreneurs who guided the phases of agenda setting and

policy formulation in Naples – Alberto Lucarelli, father Alex Zanotelli, Ugo Mattei, Maurizio Montalto and other leading figures of the Neapolitan Committees for Public Water – focused only on the problem of the legal form of the water manager and on the problem of guaranteeing the participation of citizens in corporate decisions; the definition of the company objectives, of the indicators for evaluating the water performance, the planning of various strategies to solve the implementation problems and any problems related to the clientelist political culture of the city did not occur. The choice to focus attention on the legal nature of the water operator and on citizen participation in company management can be explained through the analysis of the Italian institutional history. It is characterized by an excessive, contradictory and confused legislative production (Caporale 2017; Lippi et al. 2008) and by a water sector where corporatization has produced disappointing results and has negatively impacted the transparency (Galanti 2016; Citroni et al. 2012) and the public accountability (Boves et al. 2008). As a matter of fact, the Italian commercialization process led to the creation of a huge number of publicly owned JSCs, which add up both the defects of the private model – information gap, progressive loss of public sector skills, inability to control of local governments – and the inefficiencies of the statist model of company management – clientelist logics, waste of public money, low level of investment in infrastructure and little innovation. The Forum's choice to propose the *azienda speciale* model to increase citizens' control over management choices is easy to understand. This is the only type of public-law company with characteristics suitable for the management of an industrial service present in the Italian regulatory framework and, moreover, it allows restoring control of the company to the citizens representatives of the City Council. Furthermore, this proposal was born only after the Forum had tried many times to modify the entire regulatory context, starting from the analysis of the global experiences of privatization. International and local negative experiences of privatization have strongly impacted on the Italian collective imagination, due to its strongly publicist tradition, based on the symbolic and religious value of water resources (Zanotelli 2019). Finally, the issue of the increase in water bills has appeared in the Italian debate during the economic crisis, increasing social fear. These contextual aspects explain the extreme dichotomization of the Italian debate and the choice of the protagonists of the Forum to focus on the transformation of the JSC into an AS, although this model had not been modified since the 1980s and it is no longer suitable for managing LPS in a competitive context such as the European one.

Legitimation

In both cities, the legitimization phase was guided by a prefigurative logic: in Paris an improvement in the service was prefigured above all in the economic, ecological and social sphere (Le Strat 2010), while the Naples policy brokers used less concrete and more theoretical-political legitimation arguments, prefiguring the experimentation of a new model of deliberative democracy that would have guaranteed the human right to water for all (Lucarelli 2011; Zanutelli 2011). The way in which the legitimation phase took place in both cities is the direct consequence of the characteristics assumed by the agenda setting and policy formulation phases. In Paris, the legitimation process took place mainly during the first Delanoë mandate and was characterized by economic-organizational and environmental arguments, as well as by the rhetoric of common goods and the lowering of the cost of the service. This reflects the features of the epistemic community and, in particular, of policy entrepreneurs that generated the problem and the policy streams, which were profoundly professionalized and more capable of analysing a water regime from a technical, administrative and economic point of view. Such epistemic community, together with the local elected officials and the main policy entrepreneur of the process – Anne Le Strat – showed a very precise analytical capacity of the defects of the management regime preceding the remunicipalisation. Consequently, they were able to plan both the implementation process and the organizational model of the new *regié* in advance and with precision. Undoubtedly, the electoral campaign of the second Delanoë government was steeped in the themes of water management as a common good: lowering water tariffs, co-managing with citizens, improving the working conditions of employees and long-term protection of water resources (Tindon et al. 2019). However, parallel to the prefigurative rhetoric of public water management, the preparation of tools typical of the Public Management sector occurred, in order to solve the technical, administrative and organizational problems that a remunicipalisation reform would have involved: a plan to absorb personnel from the company re-publicized, involvement of employees of the reform (Sinaï 2013; Valdovinos 2012), planning of new tools and mechanisms for evaluation, control and transparency (*Le Contrat d'Objectifs* and the OPE), designing of user participation mechanisms in company management and definition of the future industrial plan, aimed at improving the environmental performance of the company. Unlike Paris, in Naples the legitimization process preceding the reform was characterized by legal and political arguments. In this case too, therefore, the prefigurative topics underlying the reform reflected the characteristics of the epistemic community that guided the problem stream, the policy stream and the political stream during the agenda setting and policy

formulation phases. In particular, the arguments that legitimized the Neapolitan reform coincide with the theoretical issues exposed by the main policy entrepreneurs of the process – Alberto Lucarelli, Riccardo Petrella and father Alex Zanotelli – who respectively theorized in their works the concept of citizen participation in the management of water (Lucarelli 2011), the idea that through the direct management of the service the universal right to water would be guaranteed (Petrella 2001) and the concept of free water as a necessary good for life (Zanotelli 2019). De Magistris' first electoral campaign was structured above all on the centre-periphery axis and on the public-private dichotomy, placing the responsibility for the mismanagement of LPS on the central government that wanted to sell water, the source of life, to private multinationals. However, no direct mention has ever been made of any ARIN JSC handler problems. The type of legitimacy of the Neapolitan reform was eminently theoretical and ideological, not at all rooted in the Neapolitan water regime of the time. There was talk of negative experiences of the private management of other municipalities, but not of that of Naples. The prefigurative logic used to legitimize the Neapolitan reform, totally set on legal and political issues and lacking a critical analysis of the water regime implemented by ARIN JSC, was reflected in the lack of technical, organizational or economic planning of the reform. Only a legal design of remunicipalisation by the group of Neapolitan jurists took place and, as it is logical, they concentrated only on the legal form of the management, postponing the question of the organizational and economic aspects of the reform to the post-election phase.

Implementation

The implementation of the reform was completely different in Paris and Naples: the Parisian one took place after a long preparatory phase, it was completed quickly and effectively and the company became operational from the first day of public management (Sinaï 2013; Bauby and Similie 2013). It was guided by the same group of administrators, led by Anne Le Strat, who assumed the roles of problem brokers and policy entrepreneurs in the previous phases, allowing for an implementation process consistent with its objectives and not very conflicting. Conversely, in Naples the implementation process proceeded without a preparatory phase on corporate organizational and economic issues, the process of changing the legal form of the company was long and troubled (Pierobon 2014, Lucarelli 2015) and its asset arrangement has not yet fulfilled a definitive organizational equilibrium, since the management of the sewage infrastructures by ABC Napoli has only started in 2019 and its commissioner explained to us that they are planning new hires and turn-over plans. The implementation phase was guided by numerous policy entrepreneurs, of which only a few had assumed the

role of problem brokers and policy entrepreneurs in the previous phases of the political cycle – those who came from the Neapolitan Committees for Public Water. It is in this phase that the policy entrepreneurs coming from the Committees were forcefully replaced by the municipal councillors of the first De Magistris' government, completely modifying the objectives pursued through the remunicipalisation reform. This resulted in a long, discontinuous, contradictory and conflicting implementation process.

Differences between the two implementation modalities are explained above all by the fact that the French regulatory framework is much clearer and more coherent than the Italian one: it is the result of an incremental improvement process of a regulatory framework born in the end of 19th century (Lorrain 2000; Bauby 2009), while the Italian institutional framework is instead the consequence of several attempts – mostly unsuccessful – to upset the starting regulatory framework (this too was born at the end of the 19th century) by introducing principles and objectives that were not born to solve the local problems of water services, but rather to demonstrate to the voters that the political class of the Second Republic was different from those of the First Republic, delegitimized by the *Tangentopoli* scandal. The French regulatory framework provides for the management of water services through an economic rationality since its inception, and, through various additions, it was ready to receive the EU legislation aimed at creating a competitive market for SGEI already in the 80s: "in the early 1980s, after these institutional adaptations, the "model" was ready to take advantage of the liberalization process favourable to private sector" (Lorrain and Poupeau 2016: 196). On the other hand, the Italian regulatory framework was built solely for the management of LPS through political rationality, and the European regulations for the liberalization of the SGEI market collided head-on against a century of formal institutions and second-rank institutions conceived for the public management of water regimes (Brochet 2017). In fact, the French legislator has adjusted the national regulatory framework in an incremental way by following two paths: on the one hand, it has implemented the rules of the Water Framework Directive on the environmental theme, those on the transparency of tenders for the delegation of services and those on the possibility to manage the water service *in house*; on the other hand, it has adapted these European standards (except the environmental ones, which have remained almost similar to the EU ones) to the internal context, by introducing formal institutions and second-rank institutions in order to increase the transparency of tenders, service management methods and citizens supervision of the work of the suppliers. Moreover, it updated the tools for the direct management of services by

local authorities by creating and modifying the forms of management through a *regié* and making them suitable for acting in a competitive and globalized market. The French regulatory system still shows many limitations, such as the lack of a state authority for the centralized control of water performance (Bauby 2009), however it proves to be more suitable than the Italian one to create a context for the collective action adequate for the management of an industrial and infrastructural service. Conversely, in 1994 the Italian legislator upset a regulatory framework that had just been revolutionized through the introduction of the hydrographic basins administrative bodies, effectively creating an overlap of the various local authorities in the management of the same territories. After 1994 a proliferation of laws inspired by abstract private or publicist values occurred, more as a response to lobbying pressure from various interest groups (private companies or local authorities), then as a response to the problems of lack of infrastructure maintenance and necessary investments. In this way, Italy has been hit by several European infringement procedures. Only in recent years, with the creation of a national authority, an order to ineffective and confused second-rank institutions has been made (Caporale 2017), although this authority has not yet begun to use its powers of sanction and therefore to incentivize better performance (Vitale 2010a).

Furthermore, political elites, public officials and bureaucrats of French local public administrations have an administrative culture more suited to managing public enterprises within a globalized competitive context such as the current European one. Their culture and skills is the result of the experience within public offices, where the principle of full cost recovery has been introduced even before the Second World War, and which has governed the contracts with delegated operators for many decades (Lorrain 1992). Vice versa, the Italian national political class has imposed on the local administrations top-down reforms, inspired by the management of LPS according to private principles. The concepts on which these reforms were based and the second-rank institutions connected to them have clashed strongly with Italian local administrations rules of use, which were built on decades of dependence on skills and rules aimed at implementing management LPS regimes deeply rooted in public logics – sometimes also patronage and corruption (Farneti 1991; Della porta 2007). This led to a process of corporatization of the former *municipalizzate* that has rarely increased their economic, environmental or technical performance. Indeed, local entities have put up a strong resistance to change and in some cases the patronage and corrupt mechanisms have transferred public offices to the BoDs of publicly owned JSC companies.

This shows that the evolution of the program over time is influenced by the prevailing institutional environment, policy mix and political logics of the context in which new policies have to be integrated (Liu et al. 2010; Spohr 2016; Sager and Thomann 2017). This is confirmed by the fact that also in Paris the municipal bureaucracy resisted the institutional change (Sinai 2013); however, the local government was able to overcome their resistance thanks to the careful planning of the implementation of the reform. In Naples, instead, without a prior preparation of cultural and organizational tools to counter the resistance to change of municipal employees and elected representatives who did not approve the participation of the Civic Committees in water management, path dependency won over the innovation of forms management proposed by the movements (Hess 2018). The micro-clientelar logic of the Neapolitan political culture and the public rationality always used by municipal employees to manage the services prevailed over the pre-electoral promises. For these reasons, the representatives of the Neapolitan Committees for Public Water were excluded from the policy implementation phase and, for the same reasons, the Neapolitan government preferred to implement blame avoiding strategies rather than experimenting with innovative public management models. Without suitable tools – such as financial resources, personal skills and deep motivations – and incentives to carry out innovative processes, participants in action situations tend to prefer the status quo (E. Ostrom 2005).

Moreover, the analysis of the two implementation phases shows us that, although both in Naples and in Paris the management of water services has not improved in terms of transparency, direct public management has made the service more accountable to the political expectations of citizens. In Paris, where the political context is characterized by increasing attention to environmental issues, this has resulted in the implementation of a management model aimed at achieving ecological objectives of not only local but even regional significance. In Naples, on the other hand, where the political culture is profoundly materialist (Savitch and al. 2002) and where the electoral consensus is collected through clientelist practices (Brancaccio 2017, 2018), the City Council has decided to invest the company's profits to respond to the social demand of stable employment instead of investing those profits in water infrastructure. This choice has certainly not benefited the ecological quality of the water service, however it shows us that remunicipalisation makes the management of the water service more consistent with the expectations of the electorate, for better or for worse.

Finally, the comparison between the two implementation phases shows us how public policies

are connected to the local culture of each LPS. In fact, the tendency of Parisians to decrease water consumption for ecological reasons forced EdP executives to implement a strategy to deal with the increase in service management costs; on the contrary, the tendency of the Neapolitans to consume a lot of water and to pay little for it, showing total disinterest in the ecological implications of this habit, encouraged the LG to abandon any investment project that would have increased the costs of water consumption together with the ecological performance of ABC Naples.

Outcomes assessment

Environmental sustainability

An exogenous variable equates the Municipal Councils of Paris and Naples in terms of environmental management of water resources: the freedom of action of the two municipal governing bodies in terms of environmental protection. Paris has a profound legislative autonomy, historically granted to the city government by the national government as the capital of the French Republic. The Parisian government has decided to invest most of the corporate profits in the development of innovative programs for the protection of biodiversity, groundwater and renewable energy production, creating a new source of economic gain. On the other hand, Naples has an indirect regulatory freedom in the water field, because in Campania the EIC is deeply behind in carrying out its planning and regulatory powers (it has not yet started the data collection procedures on the state of the municipal water infrastructures under its responsibility and has not approved the Area Plan, which was to be ready in 2015); therefore the Campania municipalities are free to implement water policies – as established by the regional court. However, the Neapolitan government decided to use this regulatory freedom to implement a stabilization policy for the staff of the municipal branches, rather than investing company profits in the continuation of the company's energy efficiency programs or in the repair of sewer pipes. Consistently with this, we have called this attitude of the municipality of Naples opportunistic waiting, referring to the conscious decision not to address the infrastructural problem and wait for the intervention of other institutional actors. This type of behaviour is the result of a blame avoiding strategy called Pass the Buck (Weaver 1986: 386), which allows an actor to shift the blame for an action – in our case a non-action – to other actors. In addition, the City Council implemented a second blame avoiding strategy, called Redefine the Issue (Weaver 1986: 386), through which the municipality publicly redefined the question of water management as a problem of personnel management and not of management of infrastructure. In this way, in the eyes of local voters,

the government of Naples can boast of having dealt in time with the problem of managing the IWS of the entire sub-ATO to which it belongs.

Without a shadow of a doubt, these choices are influenced by contextual factors: the first is the profound ecological sensitivity of the Parisian population, who elected a greater number of City Councillors from the Green area at each election stage; vice versa, in Naples (as in all of Italy) a solid ecological party does not yet exist and ecological issues are present in many parties, but always secondarily with respect to economic and labour issues.

The investment in the environmental sustainability of the remunicipalised company is therefore the mirror of the political culture of the two groups of peoples analysed: one is deeply post-materialist (Paris) and the other is deeply materialist (Naples) (Savitch et al. 2002). This cultural sharing is linked to the economic conditions of the population and of the urban government. While the population of Paris managed – albeit with difficulty – to make the passage between the industrial and post-industrial economy, managing to renew the city economy and make the city innovative; Neapolitans remained stuck between the decline of the industrial economy and the failure to implement a post-industrial economy. For this reason unemployment and *Camorra* still spread today in the former Bourbon capital (Frascani 2017). In turn, Naples' low rate of economic development is an effect of the poor conditions of the municipal economy, unable to make investments in the cultural innovation of its bureaucracy, in local services or in urban economic activities. The phenomenon of the delocalization of “decentralization of penury” (Keating 2008; Ferrera 2008) makes the Neapolitan municipality fully responsible for financing urban investment and development programs, effectively abandoning the city to its fate. Added to this, the lack of regional and municipal skills necessary to manage and invest EU funding for the development of under-developed urban areas worsens the situation. Such a condition of lack of capacity and possibility of innovation has heavily impacted on the political and water consumption culture of the majority of Neapolitan citizens, who – like all economically disadvantaged populations (Stokes 2011) – prefer to receive some material “gifts” from institutions today, rather than waiting tomorrow from the outcomes of any reforms to improve universal services. In order not to lose electoral support, therefore, the Neapolitan LG preferred to keep water tariffs low – a “present” for all citizens – and use the company's profits to distribute jobs rather than improving the ecological impact of the whole urban water service.

Paris, on the other hand, is a city with growing public debt problems, but with a productive and innovative economy, which can permit the municipality to allocate corporate profits in

long-term plans for the ecologic redevelopment of public companies.

Finally, the choice to invest/disinvest in environmental sustainability programs is also affected by the exogenous variable of the conditions of the infrastructures at the time of remunicipalisation. When EdP took over the Parisian networks, they had mostly been renovated by the two private operators in the period 2003-2009, after the redefinition of their contractual obligations. The pipelines were in good condition, as evidenced by the low loss rate of the networks, and the municipality was able to make investments in programs aimed at developing new production lines.

Vice versa, ABC Napoli has inherited networks for the transport of drinking water in mediocre conditions, and sewage networks in very bad conditions. To modernize and improve the ecological performance of the city water networks, the municipality would have to face an impossible investment of several million euros, due to the poor economic conditions of the municipality. Therefore, it preferred to divert existing resources – too few to guarantee the good ecological status of the water infrastructures – on urgent maintenance and repair programs, in order to ensure continuity of service to users, and on the recruitment of new staff.

Transparency

As highlighted in chapters 5 and 6, the two cities share an implementation gap on the issue of transparency in the management of both corporate and municipal accounts. Paris presents data in a confusing way, referring to changing standards and different measurement scales, depending on the office that draws up the report (Bauby and Similie 2018), whereas Naples often doesn't publish its figures. This negative performance about transparency outcomes can be explained through the process of nationalization of the EU Water Framework Directive 2000/60/EC. As a matter of fact, both in France and Italian legal framework, the Water Directive rules have been implemented without substantial changes. This EU directive, as all the directives about SGEI, aims to "stimulate the development of evaluation culture throughout Europe by means of the following: extensive usage of evaluation, imposing evaluation, and similar methods (monitoring, benchmarking, regulatory impact assessment, etc.) in regulatory and other networks, and requiring evaluation within the EU funding procedures" (Kopric 2018: 338). While in Paris this evaluation culture has already entered in the rules of use of municipal staff – albeit in an imperfect and chaotic way – the municipality of Naples is lagging far behind evaluation needs or EU.

As we have seen, in Paris, both the EdP and the municipality are obliged by law and by the

Company's Statute to regularly publish evaluative reports based on precise standardized criteria. Whereas in Naples, both the municipality and the company produce financial statements based on evaluation criteria that sometimes differ from year to year. However, both the EdP and the Parisian municipality show a better performance than the ABC Naples and the Neapolitan municipality. This result depends on the fact that French local authorities have been obliged since 1993 to respect obligations of transparency and to publish public reports; moreover, in France ONEMA, the national authority for the collection of data on water services, was created in 2006 and since that year it has been carrying out a levelling out action of the French second-rank institutions (Lorrain 2008) on the subject of water, despite the fact that much of the autonomy is still granted to local authorities (Bauby 2009).

In Italy, the municipalities have been subject to the obligation of making their activities transparent only since 2001 and they have been obliged to publish the Consolidated Financial Statements only since 2016. On the contrary, the financial and social report documents of the companies have to be published since 1994 and, in fact, both the documents published by ARIN and ABC Napoli are more understandable than the municipal ones. Even the control and data collection authority of the Italian local services ARERA, ex AAEGSI, began to function seriously only a few years ago, due to the various regulatory changes on this issue (Caporale 2017; Massarutto 2011).

Consequently, the process of standardization and publication of data on the management of local water services is suffering a profound delay in Italy compared to that underway in France. Attempts at rationalization and democratization of local authorities have failed due to the resistance of ruling political parties, the ineffective economic incentive mechanisms implemented by the legislator, the slow and ineffective reorganization processes, and the fact that in many sectors the evaluation indicators have not still been defined by the competent national authorities and the Italian system lacks ex-post evaluation and sanction mechanisms (Citroni et al. 2018). For all these factors, local authorities are not incentivized to be more transparent and to invest resources in empowering the skills of public employees, with the consequence that the Italian public administration is often inadequate to face EU challenges.

Efficiency

As we have shown, the water services of Naples and Paris are considered efficient from the point of view of coverage and continuity of the service offered to citizens, as well as in the quality of the water distributed.

Both companies also carried out internalization programs of various functions previously

managed in outsourcing, which reduced annual fixed expenses. ABC Napoli, unlike EdP, has also internalized the management of the sewage system, and it is planning to take over the management of the regional purifiers.

Both companies show a reduction in the medium-term profits, which goes hand in hand with the reduction in water consumption, forcing them to program an expansion strategy of the areas served in order to achieve economies of scale.

However, the difference between the two companies lies in the serious lack of an investment planning and industrial strategy by ABC Napoli. EdP's profit margins fell due to major investments in the production of renewable energy and cooperation programs with neighbouring municipalities for the protection of river basins and biodiversity. In this choice we can see a medium-long term strategy aimed at making EdP a multi-utility that sells both drinking water, raw water and electricity to the municipalities of Grand Paris and Île-de-France (with whom they have previous experiences of collaboration in the environmental protection field), showing a good level of economic efficiency.

Vice versa, ABC Napoli has invested its profits in the recruitment of often "old" staff, without adequate skills to guide the company towards technological and organizational innovation, following a patronage rationality rather than an economic rationality. Furthermore, the company has made the choice to manage a sewage system in poor condition, without having a financial plan to find the necessary funds to make it safe. In addition, the company is planning to manage the water services of the entire district, being aware that it will detect services with low levels of infrastructural, organizational and financial efficiency. Finally, it has given up the right to manage the hundreds of photovoltaic panels that had been installed by ARIN with municipal money, losing an excellent source of savings and income. Both companies share the full cost recovery rule, which allows them to recover their investments through their water bills. Both also enjoy a good level of payment collection in the drinking water sector (in Naples the sewage service has a collection rate of no more than 50%). However, the prices of the water service in Naples are still too low to guarantee the cover of the investments necessary to put all the networks that the company manages in good condition. Moreover, the Neapolitan administrative rules in use are still led by the political rationality, thus the government of Naples has not requested tariff increases in the last 2 years, probably due to the fear of losing electoral support. The logic of full cost recovery, in fact, has not been easily accepted by the Italian population – especially by citizens in poor economic conditions – as they have always been used to paying low water tariffs, historically calculated according to a

"fiscal" and "non-commercial" (Massarutto 2011) logic that assigns a price to water not on the basis of consumption but on the basis of the social characteristics of the family unit.

On the contrary, the public administration of Paris, as well as the citizens, accepted the principle of full cost recovery after World War II (Lorrain and Poupeau 2016) and this allowed the Hidalgo government to approve an increase in water tariffs, to cover investments, without the fear of losing political legitimacy.

Finally, both companies have credits towards the reference municipality. However, EdP's receivables from the *Maire de Paris* (around 3 million euros) are much lower than those that ABC Napoli has from the *Comune di Napoli* (around 85 million euros). Above all, the payment capacity of the municipality of Paris is significantly higher than that of the municipality of Naples, although both cities have exorbitant public debts (about 7 billion Paris and about 4 billion Naples). In fact, the City of Paris has a thriving local economy and the municipality is investing heavily in the development of sustainable economics; the City of Naples, on the other hand, has no investment programs in place and the only strategy adopted to settle the debt is the increase in taxes and the sale of public assets (Eurispes 2020). Finally, the *regié* administrative instrument has shown to be much more suitable for managing an industrial service in a competitive market than the *azienda speciale*. Since the BoD of EdP is chaired by members of the Municipal Council, this body has the ability to make decisions independently from the City Council without the latter losing control over the company's operations. The anachronistic organization of the Italian AS, on the other hand, requires a double step (first BoD and then City Council) for each business decision, slowing down the implementation of each decision and, above all, negatively impacting the company's economic efficiency. As we have seen, in fact, ABC Naples does not even have the autonomy necessary to approve its company financial statements, or to entrust the drafting of an industrial plan to an external consultant. This condition subjects every corporate strategy to the political objectives of the local government, seriously jeopardizing the survival of the company in the medium-long term.

Citizen participation in service management

Both in Paris and in Naples, the spaces for citizens to participate in business management have been reduced over time by the City Councils. However, in Paris, while the control activities of the OPE have been blocked, the participation experience of the representatives of the citizens associations in the BoD continues and the closure of the OPE did not substantially affect the entire company organization.

In Naples, on the other hand, the decision to interrupt the experience of co-management of the company with the representatives of the civic Committees for Public Water has impacted the entire company organization, leading to the stabilization of an organizational form that should be extraordinary and transitory: that of the extraordinary commissioner.

The causes of these different outcomes are manifold and are connected with the entire local policy process.

The literature on the topic of citizen participation in water management teaches us that in creating deliberative arenas, urban governments subject civic participation to a profound process of institutionalization (Duret 2015), which passes through the definition of specific rules and the construction of standardized participatory devices (Bedu 2013; Fourniau 2019) – the lottery mechanism for the selection of participants appears to be very widespread – which aim at the production of deliberative arenas that are supposed to have a certain degree of legitimacy and political representation (Fourniau 2019). Furthermore, the citizens selected to be part of these arenas must go through an inevitable process of professionalization. When the request for participation comes from numerous and heterogeneous mobilizations, the process of professionalization in which some representatives of civil society are inserted, contributes to the division and differentiation of activists within public venues, with the risk that those who do not participate in the deliberative arenas lose their interest, whereas those who are part of the arenas become professional to such an extent that they are unable to communicate with others (Tindon 2018). Finally, the professionalization and standardization of participation methods produce an effect of de-politicization and de-conflictualization of decisions, understood as the process of removing political elements from decision-making (Raffini 2018), and of normalizing social movements (Campesi 2008).

On the basis of the evidence gathered, we can affirm that in Naples the model of participation identified by the policy entrepreneurs that elaborated the Statute of ABC Naples was inspired by a too idealized model of the concept of the common good, difficult to apply to an industrial service at urban scale (see Barbier et al. 2019). The methods for selecting participants had two main effects. The removal of the City Council powers of planning and control of the service, feeding the resistance of the Municipal Councillors expropriated of their powers; and a process of profound professionalization of the Naples Committees for Public Water, which in turn caused the failure of the entire participatory model, since no more volunteers willing to participate for free in the corporate BoD were found. The result was, on the one hand, the total assumption of business management by the City Council, causing the exasperation of the

existing conflict of interest, and on the other, the de-conflictualization and normalization of the Committees.

In Paris, instead, the starting situation was completely different. A strong and heterogeneous movement that called for participation in corporate management never appeared on the public scene. Collective actors who asked to participate in company management were professionalized by nature, since they were drawn from environmentalist or consumer associations that had existed for decades. These organizations have an internal solidity such as to allow the autonomous selection of participants in the BoD of EdP, without the municipality need to identify selection procedures. Consequently, the conflicts between the members of the OPE and the City Council have not impacted the stability of these associations, but only the functioning of the OPE.

What really unites the experiences of Naples and Paris is the implementation gap between the pre-electoral announcements and the decisions following the implementation of the remunicipalisation reform in the field of participation. In both cases, the pre-electoral promise to co-manage the water service with citizens seems to be part of a strategy aimed at strengthening and legitimizing a reform of urban services, as also happened in Lyon (Coulmain 2018). However, after receiving popular legitimacy for a reform that, in both cases strengthened the municipal budgets (Lorrain 2016), efforts to resolve conflicts with citizens representatives in a cooperative way decreased, along with the decrease of media attention on the water issue.

As stated by the spokespersons of the Italian Forum of Water Movement³³² and demonstrated by scholars (Duret 2015; E. Ostrom 1990), there is no single model for the co-management of a territory's water resources: it must be built and tested at local scale, through a continuous process of defining common norms and meanings.

We remain sceptical of the theory that foresees the possibility of co-managing urban water services for millions of citizens through forms of deliberative democracy: Elinor Ostrom (1990), in fact, has shown that the experiences of direct management of common goods take place in small local contexts, where citizens have the opportunity to directly confront and learn from shared mistakes and situations, developing cooperative and non-opportunistic behaviours (E. Ostrom 1998, 2005).

However, only experimentation can overcome the limits of theory, also perfecting over time the experiences that have produced negative outcomes. The unilateral decision of the

³³² Interview with an activist at national scale for public management of water services.

governments of Paris and Naples to interrupt these experiences inevitably represents a lost opportunity to improve and strengthen democratic mechanisms in the entire EU.

Social equity

In the field of social equity, Paris and Naples do not share exogenous variables. The EU has not set common rules to guarantee access to water services for all EU citizens, delegating all types of decisions on this issue to the member states (Caporale 2017; Brochet 2017). Both the Italian and French legislators have implemented rules for the recognition of a social minimum of water for economically disadvantaged families, leaving to local authorities the possibility to improve these forms of economic support aimed at guaranteeing access to drinking water and toilets for all citizens.

Also in this case, the actions taken by EdP in terms of access to water are numerous, while ABC Napoli has implemented a single tax law. Knowing the economic conditions of the municipality of Naples and the low investment capacity of ABC Napoli, the increase in the access threshold to the water bonus and the maintenance of low tariffs must be considered as political choices aimed at guaranteeing access to all citizens to urban water systems, equal to the projects carried out by EdP.

Policy maintenance, succession or termination

The two analysed remunicipalisation reforms share the fact that they have produced self-reinforcing effects among the city electorate, demonstrating that they have stabilized their degree of political legitimacy.

In order to continue, the two experiences of direct public management must face similar challenges: cooperation with neighbouring municipalities for the construction of the Metropolitan City, intended as an inter-municipal administrative body; the realization of economies of scale to support the increase in the structural costs of the management of urban water services (Massarutto 2011; Barraqueé et al 2017; Florentin 2015a, 2015b); the resolution of conflicts with regional actors for the identification of a single manager of the entire IWS. Moreover, both municipalities have heavy public debt, which could lead future administrations to re-privatize the water company by selling all or parts of its shares to private actors.

Without doubt, EdP appears to be more apt to face the economic challenges that await it; however ABC Napoli can count on the uncertainty of the regulatory framework and on the poor state of the infrastructures – which discourage private investments in the Italian water

market, especially in the South – as well as on the immobility of the EIC to gain room for manoeuvre and create an inter-municipal consortium of special local-based companies that manage the service of its sub-ATO. Paradoxically, the fact that EdP operates in a dynamic and competitive market exposes it to a greater risk of competition with other operators and of not being able to achieve the economies of scale it needs.

7.2. Actors matter

In our path of research, the most puzzling results emerged in testing the third working hypothesis. It hypothesized that outcomes of a water regime can only be explained through the analysis of the interactions among three macro-groups of variables: exogenous variables, institutional variables and the behaviour of the actors. We discovered that during the policy cycle, the participants of each action situation, who have to choose between different options at each decision node, evaluate the limits and opportunities offered to them by the socio-ecological context – local culture and bio-physical conditions – and by the formal and second-rank institutions. Therefore, the key elements to understand the causal processes that determine a policy change are the choices of the actors of the system. Through the study of the behaviour of the actors of a system it is possible to understand the way in which they have defined water policy problems, generated policy solutions, articulated policy objectives, matched objectives to tools, implemented solutions, and monitored and evaluated the process of defining the water regime (Goyal and Howlett 2019).

However, the survey carried out showed us that the actions of some actors are more decisive than those of other actors in defining a water regime. We refer to those actors who identify problems in the exploitation model of these resources and intend to modify it (problem brokers, policy entrepreneurs, program champions, process brokers and political entrepreneurs). A minimally sufficient explanation of the outcomes of a water regime can only be reached through the analysis of the characteristics and actions of the main protagonists of the policy cycle that produced that specific water service. As a matter of fact, a water regime is always the result of a confrontation between the local government and the public company, between political rationality and economic rationality. However, the analysis of this dialectical confrontation is not sufficient to explain the specific outcomes of a local water regime. The specific organization, objectives and outcomes assumed by a local water company depend on the actions taken by municipal problem brokers, policy entrepreneurs and political entrepreneurs involved in the policy cycle. Personalities like Anne Le Strat and Riccardo Petrella in Paris, or like Alberto Lucarelli and father Alex Zanotelli in Naples, have invested

resources and attracted the attention of the mass media in order to push their respective local governments to give their personal interpretation and solution to the water management problem. Their lobbying activity profoundly influenced the policy choices made by the two local governments analysed, consequently determining the production of specific outcomes. We cannot affirm that without similar personalities, with specific skills and resources, the two remunicipalisation reforms would not have taken place; however, we can firmly assert that if the roles of problem brokers, policy entrepreneurs, and political entrepreneurs had been filled by different people, the reform processes would not have had the same characteristics and outcomes. The choice of the Parisian government to implement a water regime aimed at improving the corporate performance in the environmental or social sphere is strictly connected to the commitment of Anne Le Strat in these two fields of public policy (Le Strat 2010). In the same way, the most interesting element of the corporate governance model outlined by the statute of ABC Napoli – and never fully implemented – is its participatory system, aimed at redistributing managerial power and control power among citizens: this is the declared objective of the "democracy of common goods" outlined by Alberto Lucarelli (Lucarelli 2011), Ugo Mattei (Mattei 2016) and father Alex Zanotelli (2011). The fact that ABC Napoli's management model has changed with the change of policy entrepreneurs, during the policy implementation phase, provides counterfactual proof of our statement about the central role of policy entrepreneurs in determining the shape of a water regime.

Consequently, to grasp the specificities of a water regime, it is necessary to take into consideration all those who played a key role in the policy cycle that defined the water model, even if they do not have direct decision-making responsibilities.

The second lesson from studying the behaviour of the policy cycle's protagonists is that key actors of a policy cycle can change over time. Therefore, it is important to identify the actors who play a predominant role in each stage of the policy cycle. If we had only studied the Parisian case, we could have concluded that the understanding of the actions of policy-makers is sufficient to explain a policy change. This is because in Paris the role of problem broker, policy entrepreneur, program champion, political entrepreneur and process broker was held by the same person – assisted by a large staff of technicians and bureaucrats – along the entire policy cycle: Anne Le Strat. Thanks to the comparison with the Neapolitan events, however, we were able to understand that the Parisian results are not generalizable. A problem broker or a policy entrepreneur can exit the decision-making process. For many reasons this condition can occur. In general, in the course of a policy cycle, the causes for which the actors

who cover these roles change are many: the most common is probably the change of the local government; for example, a policy entrepreneur may leave his/her lobbying activity for personal reasons or for having changed ideas and beliefs; exceptional events, such as natural cataclysms or socio-health emergencies, can cause the replacement of political entrepreneurs during the political cycle, etc. In the Neapolitan case, the problem streams flowed out of an epistemic community belonging to a large social movement and, for this reason, the political entrepreneurs who formulated the policy came from the same movement and not from the urban government. Subsequently, from the implementation stage onwards, the role of program champion and process broker were held by the mayor and the municipal councillors due to managerial conflicts with previous policy entrepreneurs.

The third evidence originated from our analysis of participants' behaviours highlights the close connection between public policies on the management of LPS and the behaviour of all social actors of water system, not only those who participate in the political decision-making process, but also the users. Just as public policies influence the behaviour of citizens, they in turn impact the choices of local governments, definitively demonstrating that water regimes are not technical systems but rather socio-technical ones (Lorrain and Poupeau 2016). Users can carry out multiple behaviours that impact on policy-makers' choices: they can waste water or consume so little as to force the government to raise tariffs; they can focus on the importance of environmental sustainability or the price of the service, thus guiding corporate investment strategies; they can protest against the outcomes of a given water regime, constraining policy-makers to respond to their requests; they can claim their participation in the management of a public company or completely ignore its existence, changing the importance of the water issue in the LG policy agenda. In Paris, for example, the decisions of the LG caused a progressive decline in water consumption per capita, which in turn forced the LG and the BoD of EdP to modify the company development strategies. In Naples, the choices of the governments caused a collection rate of bills and taxes of less than 50%; however, the company policy of ARIN JSC has brought this rate to over 80%. In turn, the increase in the payment rate of water bills allowed the company and LG to change investment strategies. Moreover, in Naples, the citizens' habit of consuming a lot of water and paying little for it led the municipality to follow two blame avoiding strategies (Weaver 1986) to escape increasing the cost of water bills and losing electoral support. Consequently, in both cities, the water consumption styles of citizens (decreasing in Paris and intensive in Naples) have profoundly influenced the policy choices of local governments. The intense protests of Naples citizens

have encouraged two governments – the first led by Rosa Iervolino and the second by Luigi De Magistris – to take a stand against the unanimous decision of the 136 mayors of the *ATO2 Napoli-Volturno* to delegate the management of the entire IWS to a PPP (2003) and to change the legal nature and management model of a water operator that had shown high levels of performance. Following the course of action defined by the citizens, the Naples LG has implemented a water regime that has proved to be inadequate to face the socio-technical challenges – low quality of infrastructures, low investment possibilities, low popular participation in the management of the company – and institutional – *azienda speciale* as the only option for the new legal form of the operator – of the local context. To correct its mistakes, the municipality then changed the management model desired by the citizens with the current model, chosen by rummaging inside a "garbage" in which there are ideas and approaches with which the municipality is already familiar (Cohen et al. 1972). In this way, the overall quality of service has deteriorated and the challenges that future LG will face have become more serious. Conversely, the LG of Paris immediately implemented the management model deemed most appropriate, since local citizens have always shown little interest in this issue. Finally, in both cities studied, the political decisions of the two LG determined the form, trend and results of citizen participation in the governance of water services. These figures highlight the mutual dependence between individual behaviours to first and second-rank institutions (Lorrain 2008) and the social, economic and cultural characteristics of a community to its infrastructure (Easterling 2007, 2016). The choice of the management model of an urban water service cannot ignore the analysis of the socio-technical characteristics of the system in which it works.

7.3. Actors challenge socio-technical and institutional limits and use opportunities

To understand how the actors involved in the definition of a socio-technical system for the supply of drinking water in an urban space take decisions, its exogenous variables have to be taken in consideration. As a matter of fact, the choices of participants in action situations are not only determined by their utilitarian preferences (Simon 1955) or by the belief system of the actors (Sabatier and Weible 2007), but also by the limits and opportunities that the bio-physical context, formal and informal institutions put on their agency. Socio-technical exogenous variables are the first of the three macro-groups of variables to be analysed, and are in turn composed of other groups of variables. The first group of variables relate to the presence, quantity and quality of the water resources present in the geographic area. In turn, the definition of another exogenous variable depends on the first group of socio-technical

variables: the features and the conditions of infrastructure for capturing, purifying, transporting and distributing the resource. Such physical variables enable the participants involved in decision-making processes to select different management strategies of urban water services. In Paris, for example, the efficient modernization of the water infrastructures by the delegated operators (2003-2009) allowed the second Delanoë government to invest company profits in the improvement of the ecological and social sustainability programs. On the other hand, the EdP *regiè* faces high fix costs per year for maintaining electrical water pumping systems. Conversely, Neapolitan LG chose to avoid taking responsibility for financing maintenance and modernization projects of water and purification infrastructures due to their huge costs; in so doing, this responsibility falls on future local governments. On the other hand, the excellent quality, the abundant availability of Naples water and the inexpensive suppling infrastructures – since they exploit the force of gravity and not electricity to push the water into the pipes – gave the municipality of Naples the chance to implement this blame avoiding strategy (Weaver 1986). In fact, despite the few investments in the maintenance of water transport and purification infrastructures, the bio-physical conditions of the Neapolitan context permit the LG to provide citizens with excellent quality water without interruption.

The social exogenous variable we analysed during our study process is represented by what Elinor Ostrom called culture (E. Ostrom 2005) and what Dominique Lorrain and Frank Poupeu (2016) define as informal institutions. The culture of a community affects the mental models of the participants in an action arena; it is the result of a collective historical evolution, which affects the way in which local participants understand, implement, modify, or ignore rules written by public officials (Medard and Geheb 2001). Informal institutions originated from personal experiences with infrastructures and the rules of use stratified over time in a specific local context (E. Ostrom 1990), which have shaped the mental maps of the actors of that particular local action situation. Moreover, local culture defines the mechanisms for legitimizing the political choices of rulers, the flows of problems and solutions and the symbolic meaning of material elements, such as water. It structures the system of preferences and the criteria of choice of the actors and inevitably influences the evolution of a socio-technical system. The comparative work we have done, as a matter of fact, has allowed us to discover that two very different governments that manage very different cities have acted in the same way: both have chosen public management strategies consistent with the local culture. In Paris, a post-materialist and increasingly environmentalist city, the municipality incurred huge debts to carry out the ecological transformation project that affects all LPS, not

just water ones. In Naples, a profoundly materialistic city where local policy is based on clientelar exchanges between candidates and voters, the municipality has faced conflicts and protests in order to use the water company for patronage purposes. In summary, despite the profound differences between the two cities studied, the respective LG preferred to face a difficult path in order to make policy choices aligned with the social and political culture of their citizens rather than implementing public management models that could be in contrast with the dominant local culture.

Among the various cultures present in a place, the political culture of the policy-makers, their interpretation of the institutional framework of the country, mainly determined the production of the outcomes of the water regimes studied. The decisions of the Parisian LG caused a functional separation between EdP and the City Council. Second-rank institutions based on clear evaluation criteria that have been implemented allow the municipality to play the role of planner and controller. In fact, although the criteria for evaluating corporate performance may be incomplete and questionable, they fulfil the purpose of separating the principal from the agent (Bauby 2009). They act as positive incentives to achieve goals such as environmental sustainability or social equity. The BoD of EdP, even if partially superimposed on the City Council, acts with different times and methods from those of the City Council. It is obliged to be accountable; moreover, the company has showed decision-making and operational autonomy in achieving the objectives set by the principal. Such a situation depends not on the national legal framework – French law does not provide for either the use of the contract of objectives or the publication of monthly and quarterly reports – but on way in which local policy-makers have interpreted and used the available regulatory tools; in particular, the policy choices made by the policy entrepreneurs during the policy formulation and implementation have been decisive.

Conversely, in Naples, the corporate BoD and the City Council totally overlap. The actions carried out by the LG are not distinguishable from those carried out by the BoD of ABC Napoli. Second-rank institutions for planning and assessing company performance have not been outlined and the control system envisaged in the company statute has never been implemented. These two local outcomes seem to depend on the actions political culture of the policy entrepreneurs of the policy formulation stage: the statute of ABC Napoli is the result of the strategies of entrepreneurs, who were interested in inaugurating a management model based on deliberative democracy – Alberto Lucarelli, Ugo Mattei, Father Alex Zanotelli. In outlining this participatory model, much attention was focused on the definition of

participatory mechanisms, while the quality standards of the service and the second-rank institutions for assuring and assessing their achievement were not defined. Moreover, in the passage between the policy formulation and policy implementation phase, the policy entrepreneurs that were in favour of experimenting a model of deliberative democracy in the management of the water service had left the company BoD and the municipal government, consequently causing the goal of citizen participation to be removed from the government agenda. During the policy implementation stage, the policy brokers and policy entrepreneurs from the epistemic community of the Italian Forum of Water Movements for public water were replaced by the elected municipal councillors, characterized by different political cultures. They implemented policies that coupled with their problem stream and that responded to the clientelist logic typical of Neapolitan political culture (distributing jobs in exchange for electoral support) (Brancaccio 2018; Savitch et al. 2002; Allum and Allum 2003) and to the need to shift the responsibility for improving the quality of water networks to other actors (the state or the next municipal governments) (Weaver 1986; Hood 2010). For this reason, we can affirm that ABC Napoli company is managed, from 2016 onwards, according to a political rationality. Nowadays, timing and decisions of the company's BoD coincide with those of the City Council. The company is not accountable because its principal did not require it. In addition, when the company produces reports of its activities, City Council does not approve them, thus restricting the space of action of the directors of ABC Napoli. The Neapolitan LG could decide to define a three-year industrial plan of the company, set parameters for evaluating its objectives and implement a system of incentives to stimulate the BoD of ABC Napoli to achieve its goals. The national framework allows this. Also in this case, the interpretation of national norms by policy-makers determined outcomes of the local water services.

Other social variables define the form assumed by the water infrastructure are: the spending capacity of the managing actors, the spending power of the users who will receive the service and the technical skills possessed by the service organizers. Our comparison showed us how much of the spending capacity of both the company that provides the service and the reference local authority impacts the policy decisions of LPS managers.

Such evidences irrefutably demonstrates that every water regime is the result of the intersection of hyper-localized variables, closely related to the geographical, institutional, social and economic history of the territories. Consequently, water regimes inevitably vary place by place, and any attempt to impose a management model that is the same for all local

contexts is doomed to fail every time it will not be adaptable to local specificities. The remunicipalisation reforms are therefore the response of local populations to the attempt to impose from above public management models that are inconsistent with their exogenous variables.

Once the socio-technical variables of the socio-technical water system are known, those who are responsible for managing the distribution service have a space for action defined by the institutional context, which they partly have the power to modify over time by acting on various levels (E. Ostrom 1999), as the epistemic communities and the actors of the Italian Forum of Movements for Water have tried to do engaging in a level-shifting strategy. Since institutions are not neutral policy tools, but they are bearers of the specific representations of the problems addressed and of the strategies that the actors must implement to achieve the objectives set by the legislator (Lascoumes and Le Galès 2011; Halpern et al. 2014), they deeply affect the behavioural choices of policy-makers. The institutions outline the options available to LG in managing LPS in the salient nexus of the decision-making process. In the case of a socio-technical service, the rules that matter most are formal institutions (North 1990) and second-rank institutions (Lorrain 2008). To fully understand the functioning of a water regime, the simultaneous analysis of the regulatory framework on macro, meso and micro scale is necessary. The EU institutional context has pushed member states to delegate the management of LPS to local authorities, without having the possibility of managing them in conditions of budget deficit (Ferrera 2008; Keating 2008; Polizzi and Vitale 2010). These rules have restricted the space of movement of European LG, which are often obliged to sell public assets in order to find the resources necessary to finance local services. Within such an institutional framework, cities in good economic status such as Paris have an advantage over economically depressed cities such as Naples, as the former have a greater chance of benefiting from economic competition than the latter (Vicari Haddock 2013). Consequently, the Paris government could dare to increase the costs of water services and innovate the entire LPS sector in an ecological sense; vice versa, the government of Naples – aware of the economic immobility of the local market – preferred to use the few resources available – insufficient to solve the infrastructural and ecological problems of the water service – to maintain the status quo.

Similarly, the analysis of the French and Italian national regulatory framework allowed us to understand among which options the governments of Naples and Paris could have chosen at the stage of policy formulation. While Paris had the opportunity to choose the *Regiè à*

Personnalité Morale et à Autonomie Financière, more suited to the management of an urban industrial service, the Italian regulatory framework directed the choice of the government of Naples towards the *azienda speciale*, an obsolete organizational form that is not suitable for facing market competition.

Institutions, not only structure the space of action of the actors of a water regime, but they are the historical result of the development of concepts, communication styles and logical schemes. The comparison has allowed us to understand that public offices need a lot of time to adapt their path to an institutional change, whether it concerns formal or second-rank institutions. The Parisian public offices, which have dealt with the implementation of new second-rank institutions aimed at evaluating water services on the basis of their outcomes since the 1990s, are now more efficient in producing evaluations consistent with European parameters. Although the Parisian LG has shown that it can improve its levels of transparency and accountability towards citizens, we cannot deny that the outcomes achieved in transparency field are attributable to the national regulatory framework and its control system. Conversely, the municipality of Naples, which introduced new second-rank institutions for the evaluation of water services a few years ago, face greater challenges in respecting the European standards for the evaluation of LPS. The lack of experience of the City Council and of the municipal bureaucrats and technicians in respecting the new regulations on the transparency of the economic activities was reflected in the low quality of the accounting documents published by both the municipality and the water company. The delay of Italian legislators in introducing in the national framework the new European rules for the transparency and evaluation of SGEI management strategies strongly impacted the outcomes of the current Neapolitan water regime. Moreover, the lack of a national authority with control and sanction powers has made the outcomes of water services deeply fragmented and territorialized in both countries.

Formal and second-rank institutions, as well as the culture of a specific people, convey specific visions of the infrastructures and services and represent a field of common experience that has an eminently communicative and relational value (Easterling 2007, 2016). For this reason, when new rules or new technical standards of the game are dropped from above, without actors sharing the values and logic parameters underlying them, they put resistance to change, following the path dependency theory. The result could be an institutional conflict between norms produced at higher government scales and norms already in use (Bauby 2009; Brochet 2017), which in our cases has been expressed in the strengthening of the

centre-periphery axis during the pre-electoral periods. It is noteworthy that the analysis of our case studies has shown us that this type of institutional conflicts not only explode when the norms are imposed from the top, but also when the norms come from the bottom. As a matter of fact, in both local contexts analysed, there were conflicts on the corporate public management model between local elected officials and representatives of movements and associations. The comparison between the Paris and Naples policy cycles has in fact taught us that having an innovative project to implement is not sufficient: this project has to be positioned along the lines of the institutional path of the city to be implemented. In Paris, since the policy entrepreneurs of remunicipalisation came from municipal institutions, the public management model of the water operator was conceived to be consistent with the French and local institutional context, and consequently the conflicts with the representatives of civil society concerned marginal and non-impacting topics on the general water regime. In Naples, on the other hand, the political entrepreneurs of the remunicipalisation reform of the local water service did not come from the municipal institutions and did not know their internal functioning, consequently the management model outlined in the Statute of ABC Napoli was in clear contradiction with the institutional urban path, causing a serious conflict between local elected officials and civic Committees about key issues of the public management model to be implemented.

In synthesis, the rules used by citizens for managing a local service, to be respected by all its users, must arise from a slow process of sharing experiences, languages, errors and learning (E. Ostrom 1990, 1998, 2005). Furthermore, an institutional system, in order to function and produce the desired results, must include second-rank institutions that are functional to the formal regulatory framework (Lorrain 2000). Only a stable and coherent institutional system is able to direct the behaviour of the actors towards the same goal.

Such evidences shows us that without grasping the socio-technical and institutional characteristics a place, the explanation of the results of a water regime cannot be provided, just as the formulation of an adequate policy to produce positive outcomes cannot be achieved.

7.4. The value of the present work

The two remunicipalised water regimes object of this study have shown different starting points, different implementation paths and different outcomes, showing us that the study of a policy process through the simple prefigurative logics is misleading, since it cannot be assumed *a priori* that two similar policies in different contexts always produce the same

results. This finding refers both to the studies that have tried to spread the commercialized model of urban water services (World Bank 1992, 1993, 1994), and those that have tried to spread the remunicipalised model of these services (for example Lucarelli 2015; Dardot and Laval 2015, 2017; Le Strat 2008, 2010; Hall 2012; Balanyá et al. 2010), without having previously performed an outcome analysis produced by real experiences. Furthermore, this study shows us that, in a European context that gives ample room for action to local authorities, the institutional perspective (Wollmann and Marcou 2010; Wollmann et al. 2016; Ongaro et al. 2018) is no longer sufficient to grasp the characteristics of the management models of European LPS. Such studies are necessary to understand the regulatory context of a water regime, but not sufficient to explain their results. The analysis of institutional variables of the system is necessary to reconstruct the causal mechanisms that have produced a given urban water regime, in line with our third working hypothesis. However, they are not sufficient. The comprehension of the way in which the key actors of the system interact with the bio-physical and institutional context is necessary to fully grasp the operating principles of a water regime, evaluate its outcomes and modify it in order to make it achieve particular results. Thus, the *core* of this work is the demonstration that a water regime is the result of the actions of the actors who have the power to direct its development, which in turn are determined by the opportunities and limits defined by the physical, social and institutional context in which the actors are embedded.

So, the double work of comparison carried out – at first between the results of the water regime of the same city before and after the remunicipalisation process and then between the outcomes produced by the two policy changes – to achieve such outcomes has above all a strong descriptive value. Before this work, a scientific analysis capable of explaining the outcomes of the entire political cycles of the remunicipalisation of urban water services of Paris and Naples did not exist. Therefore, this work has systematized a knowledge that was instead dispersed and known only by the actors of the two policy cycles. Now, however, this knowledge is available to everyone.

Secondly, the work of comparison allowed us to understand something we would not have been aware of by studying only one of the two cases.

The first innovative insight in the field of LPS studies is the need to place the historical-political variables at the basis of any attempt to anticipate changes in public management models. To achieve this result, the study of the path of change made by these historical-political variables must take place through a long-term perspective, as specified by the

theoretical assumption that a political cycle must last at least ten years to be considered such (Cairney 2012). The analysis of the long-term historical development of the geographical, social, economic, infrastructural, institutional, political and cultural variables of a given territory allows making precise predictions about the public management models that its government will adopt in implementing a policy change. This does not mean that the study of the local historical-political processes will permit a scholar to prefigure the outcomes of a policy reform, as done by those who have studied the remunicipalisation reforms of urban water services with a prefigurative logic. However, it will enable people to predict which public management model will be implemented by a LG, since the study of the historical-political processes of a local area allows understanding which policy options the actors of a system have in each decision-making node of the policy cycle and which of them they will be probably choose. Such a research result represents a news in the field of study of local public management models, usually based on the comparative analysis of institutional changes occurring on a national and supra-national scale (Ongaro and Van Thiel 2018; Koprić and Wollmann 2018; Kuhlmann and Wollmann 2014). The few existing works that do not apply a prefigurative logic to the study of European LPS on a local scale (i.e. Bauby et al. 2018; Lorrain 2016; Bauby and Similie 2013; Barraqué 2012; Valdovinos 2012; Chiu 2013; Boyogueno 2013; Blanchet 2016; Bauer 2012; Röber 2009) aim to explain their outcomes but not to make predictions about the evolution of their public management models.

The second unprecedented outcome of the present work is to have identified a research method suitable for providing a minimally sufficient explanation of the LPS outcomes. In particular, here we have shown that the outcomes of a water regime depend on the decisions of policy-makers as much as of non-decision-making actors, such as policy entrepreneurs or service users. Nevertheless, the existing literature on local services does not confer sufficient importance to the action of the users of the socio-technical system to explain their outcomes. The behaviour of users, for example, is taken into consideration in studies on the cooperative production of a service (Duret 2015, Cooperatives Europe 2016; Polizzi 2016), or in the works on the relationship between consumers and infrastructures (Easterlin 2007; Florentin 2015a, 2015b). However, in the field of study of local water service management policies, the impact of consumers' behaviour on the outcomes of water companies has not been highlighted as in this work. As a matter of fact, the literature that analyses the results of LPS focuses on issues such as the decision-making chain, the economic resources available to managers, control over infrastructures, etc. For example, the innovative researches about LPS as arenas of local

power (Citroni et al. 2012; Galanati 2016), which are part of the line of studies in which public policy is investigated based on the power of its actors (Cairney 2012), focus on the actions of political classes and economic elites. New and original theoretical frameworks such as the Punctuated Equilibrium (Baumgartner and Jones 2002, 2009), the Advocacy Coalition Framework (Sabatier and Weible 2007; Weible et al. 2009) and the Policy Process Framework (Goyal and Howlett 2019) also demonstrate the importance of studying the behaviour of individuals and social groups that influence the choices of policy-makers, but ignore the behaviour of users of public policies.

The comparison of the reform processes that took place in two cities as different as Naples and Paris shows us, instead, that the behaviours of citizens who use a given service deeply influence the decisions of both policy-makers and the administrators of the company that provides the service. This evidence has been achieved only thanks to the analytical method theorized here, which allowed us to simultaneously analyse both the exogenous variables of a socio-technical system (including consumption styles and local cultures) and the behaviour of the components of epistemic communities and of policy-makers.

In conclusion, our comparison work has definitively demonstrated the correctness of the third working hypothesis formulated at the beginning of the research path that has led us up to here: the outcomes of an urban water service depend on the combination of multiple factors, which are equally important. The form taken by a water regime depends on the sum of the actions of the people who use it and of the actors involved in the decision-making process and, in turn, the actions of these actors are determined by the characteristics of the action situation that defines the range of choices that the participants can make at each decision node (E. Ostrom 2005), which in turn is the result of the actions and behaviours of service users and past policy-makers, and so on.

Such innovative insights prove the high epistemological value of the present research. As a matter of fact, the "theoretical toolbox" elaborated to realise this study showed to be capable of simultaneously capturing all necessary variables and their connections, in order to produce a single explanation of the whole causal process that produced the outcomes of each water regime. This analytical grid proves to be adequate for multiple uses: it can be applied to evaluate, to design and to criticize a water regime. These three actions – evaluate, design and criticize – do not presuppose different analytical tools; on the contrary, they need to be done by means of the same explanatory processes. The evaluation of a local water regime, resulting from decades, if not centuries, of interactions between the citizens and their exogenous

context, cannot take place through standardized quantitative parameters to be applied without distinction to each local context, as the EU imposes to the member states (Koprić and Wallmann 2018). Such an evaluation method does not take into account the different local development paths and the causes behind certain outcomes; therefore it cannot represent the starting point of strategic planning for solving problems that have a hyper-localized origin. The same reasoning applies to the side of criticism. Criticism of a particular water regime can become the beginning of the design of a policy change only when it is rooted in the minimally sufficient explanation of its outcomes. When a criticism is based on the analysis of the outcomes of a generic service model, and not on the explanation of the outcomes of a contextualised water regime, the consistency relationship that should connect the criticism with the design activity is lacking. This is exactly the mistake made by the World Forum of Water Movements, and, consequently, by the Neapolitan Committees for Public Water: the policy entrepreneurs belonging to these venues have designed a local policy starting from the critique of a generic water regime, not from the criticism of the Neapolitan water regime.

There is a need to acknowledge the merit of international movements for public water for having brought to light the eminently social nature of the theme of water management, opposing the global water *doxa* (Payen 2013) that considers water services as mere technical systems .

However, the local actors of these movements have not always managed to maintain a consistent regime in the transition between criticism and policy design. Citizens' claim to participate in the management of the water resources of their territory is not only legitimate, but also desirable: without civil participation there can be no social innovation (Vitale 2009; Barbera et al. 2018). However their contribution to the improvement of a water regime should not be based on the theoretical re-elaboration of the empirical results of the studies of other local contexts (E. Ostrom 1990), but should be rooted in the explanation of the outcomes of the water regime they want to enhance.

Only when evaluation, criticism and design have common conceptual foundations a policy change project can maintain its internal coherence and political radicalism over time.

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