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## **FINAL REPORT**

### **STUDY ON WATER SERVICES IN SELECTED MEMBER STATES**

### **QUOTATION N° 1/214-MARKT/C/2 UNDER THE FRAMEWORK SERVICE CONTRACT MARKT/2013/130/C3/SE/FC**



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This report has been produced as part of the study on Quotation N° 1/214-MARKT/C/2 "Water services in selected Member States" under the Framework Service Contract MARKET/2013/130/C3/SE/FC. The report is the final report with the cross-cutting analysis of the country reports elaborated in relation to the study question.

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### Appendices

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## EXECUTIVE SUMMARY

The present report constitutes the final report for a study on *Water services in selected Member States* prepared under *Request for quotation N° 1/2014-MARKT/C/2 within Framework Service Contract MARKET/2013/130/C3/SE/FC* in which the EU Commission has asked Ramboll to assess seven study questions related to water services. In the final report it is concluded that:

- In all the studied Member States, the activities referred to in Directive 2014/23/EU Article 12 are performed by a combination of private, public or mixed operators.
- In four of the Member States (Germany, Sweden, Hungary and Poland) private participation is limited, whereas the share of private participation is around 50% or above in the three other Member States (UK, Spain, and France).
- Amongst private providers, there is a significant presence of foreign investors in all countries apart from France, where private sector participation is mostly domestic.
- The collected data for study does not allow for the conclusive identification of relations between the price and quality outcomes of water/wastewater provision and the public or private ownership of the providers.
- In some of the selected Member States, the rights to provide water or wastewater services are not procured following a competitive public procurement procedure, but awarded to the providers in other ways. Since the vast majority of water supplied to the consumers in the selected Member States is supplied by publicly owned providers or under concessions not subject to open competition, the impact of the rules for public procurement on the provision of water services is generally quite low.
- The study cannot with the required certainty conclude any effect on price or quality of service, as experienced by the consumers, by the omission of water services from the ordinary rules on award of concessions in the EU.
- In the Member States where a contract is awarded after a competitive procedure most of the contracts are awarded following an open call tender procedure.
- When the rights to provide water/wastewater services have been awarded through a competitive procedure in the selected countries the awards are subject to judicial review in line with the provisions of Directive 2007/66/EC. In three of the selected Member States Directive 2007/66/EC does not apply in relation to the award of rights to provide water/wastewater services, because the award has not been made through competitive procedures.
- Rather than trusting market conditions and open competition to support the on-going improvement of water services, the Member States are generally applying strict public regulation on quality, tariffs and required efficiency gains on the providers.
- The models of regulation differ among the selected countries with the broadest delineation being between centralised regulation by a regulator like in the UK and Hungary to decentralised regulation via municipal or regional authorities as in Spain, Germany, Sweden and France. The study notes the growing use of benchmarking systems for comparing the quality outcomes between different operators.

## 1. INTRODUCTION

The present report constitutes the final report for a study on *Water services in selected Member States* prepared under *Request for quotation N° 1/2014-MARKT/C/2 within Framework Service Contract MARKET/2013/130/C3/SE/FC*.

The final report presents the findings of the research carried out, as well as the resulting conclusions.

Following this introduction (Chapter 1), Chapter 2 presents the applied methodological steps and data collections activities. Chapter 3 presents the findings of the conducted research for each of the questions to be addressed by the study. Chapter 4 features the devised typologies of water sector set up among the Member States studied. Finally, Chapter 5 presents the conclusions of the study.

## 2. METHODOLOGY

### 2.1 Analytical approach

The present study focuses on seven main questions/descriptors on the way the water sector is organised in the EU Member States:

#### The study is supposed to analyse:

1. Whether the activities referred to in Article 12 are a) provided by public, private or mixed operators? b) provided following an open call for tender or a direct award (notably to an undertaking under dominant influence of the awarding authority) c) provided under contracts the award of which is subject to judicial review on conditions comparable with those of Directive 2007/66/EC?
2. What is the outcome in terms of quality and price of the provision of those services depending on a) who the provider is b) how the contract has been awarded c) whether the awards could be reviewed by a national court
3. How often, if at all, and for what reasons there was a switch between public and private providers of water services; did switching result in higher fees/prices, to what extent was it justified by the need for additional investments?
4. To what extent private providers are domestic ones and to what extent they originate from other MS or third-countries?
5. What is the pattern of investments by private vs. public operators if at all different? (scope of works, scope of maintenance, upgrade, new technologies)
6. How do the public authorities ensure and control the adequate discharge of public service obligations i.e. related to quality, pricing or universal access?
7. Cases of irregularities (corruption, excessive pricing, health & environmental harm) detected by national/European instances related to the provision of water services

The Member States selected for analysis with respect to these subjects have been carefully designated by DG MARKET not only in view of the geographical coverage of the European Union, but also to ensure that the analysis covers different experiences with public procurement and privatisation as well as different national governance models used in the water sector. The seven Member States are:

- France
- Germany
- Hungary
- Poland
- Spain
- Sweden
- United Kingdom

In order to ensure a comprehensive assessment of the study questions the study was divided into three different phases as follows:

Phase	Activities	Outputs
<b>Structuring</b>	<ul style="list-style-type: none"> <li>• Desk research</li> <li>• Literature review</li> <li>• Refining the analytical framework development of data collection tools and reporting templates</li> <li>• Drafting of the inception note</li> </ul>	<ul style="list-style-type: none"> <li>• Data collection tools</li> <li>• Inception note</li> <li>• Inception meeting</li> </ul>
<b>Data collection</b>	<ul style="list-style-type: none"> <li>• National desk research</li> <li>• Elaboration of Pilot country report (UK)</li> <li>• Interviews with key stakeholders</li> <li>• Data analysis country level</li> <li>• Drafting of the interim report</li> </ul>	<ul style="list-style-type: none"> <li>• Interim report</li> <li>• Interim meeting</li> </ul>
<b>Synthesis</b>	<ul style="list-style-type: none"> <li>• Finalisation country case reports</li> <li>• Cross-cutting analysis and development of typologies</li> <li>• Preparation of the draft final report</li> <li>• Finalisation of the report</li> </ul>	<ul style="list-style-type: none"> <li>• Draft final report</li> <li>• Final meeting</li> <li>• Final report</li> </ul>

The methodology selected for this study relied on a two-step approach. The first step (Structuring phase) focused on expanding the knowledge base on the various dimensions of the issues at stake based on existing literature and statistics. This process enabled the development of an analytical framework which operationalised the study questions and mapped the indicators and data collection activities used to answer the questions at national level and for the studied countries in comparison (the framework is enclosed in Appendix 1).

The main data collection activities were undertaken by national legal experts and consultants who collected data on the water sector organisation in their respective Member States, particularly with respect to the use of public procurement procedures. The collected data was summarised in country reports (enclosed as annexes to this report).

Finally, the synthesis phased focused on conducting a cross-cutting analysis that compared the findings from each of the selected Member States in order to identify the presence of common trends or similarities.

## 2.2 Scope of the study

While the water sector is very broad in terms of the supply chain and range of stakeholders involved, the focus of the present study was on the upstream activities of water service provision rather than downstream. The objective of the study as a whole is to provide an analysis and comparison of different models for water service provision with a particular focus on private vs public provision.

Therefore, public procurement procedures are only to be discussed where they are applied to the award of contracts for the provision of drinking water/sewage services.

Public procurement that takes place in the downstream part of the sector (e.g. procurement of water extraction and treatment works, purchase of service pipes, valves, meters, etc.) has thus not been the focus of the research, although information occasionally has been provided in annexes to the country reports.

To ensure the consistent collection of comparable information, several terms were defined for the purpose of the study.

### **Defining private, public and mixed operators**

For the purpose of this study, public operators are defined as "State, regional or local authorities, bodies governed by public law or associations formed by one or more such authorities or one or more such bodies governed by public law and public undertakings."

Public undertakings are defined as an undertaking over which the contracting authorities may exercise, directly or indirectly, a dominant influence by virtue of their ownership thereof, their financial participation therein, or the rules which govern it.

A dominant influence on the part of the contracting authorities shall be presumed in any of the following cases, in which those authorities, directly or indirectly:

- a) Hold the majority of the undertaking's subscribed capital;
- b) Control the majority of the votes attached to shares issued by the undertaking;
- c) Can appoint more than half of the undertaking's administrative, management or supervisory body.

A private operator is defined as an entity that is not public, cf. the definition above.

A mixed operator is a union of entities consisting of one or more private operators and one or more public operators as defined above.

### **Defining prices**

For the purpose of this study, "price" is defined as the price that the customer has to pay for one m<sup>3</sup> water without VAT and taxes.

### **Defining quality of service in the water sector**

The defining purpose of all activities in the water sector is to bring water services to the end-users.

As described in Appendix 1 "quality of service" was narrowed down to a measure on the following parameters: a) unbroken supply, b) pressure, c) quality of water services.

For the purpose of the study, the term "water service quality" was understood as the perceived ability of the provider to support the demands of the end users in providing water and as a water customer, including for example waiting time for establishing service, service flexibility, change handling, availability of bills for the water consumption, having the water consumption measured etc.

The actual quality of the water supplied has not been included in the final report, as it is regulated in the Drinking Water Directive. The literature research indicates that the compliance rates for the water suppliers are very high, but the cross-cutting analysis does not discuss these in detail.

### **Defining domesticity of private operators in the water sector**

For the purpose of the study, a private operator is classified as "domestic" if the origin country of invested capital behind the operator is the country where the water activities take place.

## 2.3 Limitations

The limitations of the conducted analysis can be summarised as follows:

- Data availability among the studied countries differed to a significant extent and as such limited the possibility of making valid comparisons and deriving concrete answers to the study questions;
- The relatively small number of countries selected provides for a limited “sample” for analysis, which limits the possibility of identifying clear trends with regard to the topics studied.

## 3. FINDINGS

### 3.1 Provision of “water services”

#### Assessment question 1:

*Whether the activities referred to in Article 12 (provision and operation of public water networks, supply of water to these networks and related services such as sewage, hydraulic projects etc.)*

*a) are provided by public, private or mixed operators?*

*b) are provided following an open call for tender or a direct award (notably to an undertaking under dominant influence of the awarding authority)?*

*c) are provided under contracts the award of which is subject to judicial review on conditions comparable with those of Directive 2007/66/EC?*

#### 3.1.1 Are the activities referred to in Article 12 provided by public, private or mixed operators?

In all the studied Member States, the activities referred to in Directive 2014/23/EU Article 12 are performed by a combination of private, public or mixed operators.

However, the participation of private entities in the water service sector differs broadly between the seven selected Member States. To a certain extent the countries can be divided into two groups: One where private participation is limited (Germany, Sweden, Hungary and Poland) and one where the share of private participation is around 50% or above (UK, Spain, and France).

Mixed operators (with public and private participation) are to be found in most of the selected Member States, except for Sweden and the UK.

The management models used in the water sector are classified as direct and delegated public management, and delegated and direct private management.

The water sector in Europe is characterised by a high level of diversity when it comes to the organisation of the sector and the involvement of private entities.

In Figure 1, Van Dijk and Schouten have described four different kinds of management models which are used throughout the EU.

**Figure 1 Classification matrix for institutional arrangements for water services, with indication of the countries where each type of management is dominant**

	<b>Direct management</b>	<b>Delegated management</b>
<b>Public management</b>	<p><i>Direct public management</i></p> <p>Under this system, the responsible public entity is entirely in charge of services provision and their management. In the past, this system was by far the most widely adopted institutional arrangement in the EU</p>	<p><i>Delegated public management</i></p> <p>A management entity is appointed by the responsible public entity to execute the arrangement task. Management entities usually remain under the ownership of the public sector, although in the EU in some cases there is the possibility of a minor private shareholding</p>
<b>Countries</b>	Denmark, Luxembourg, Sweden, Austria, Finland, Northern Ireland, Ireland	Portugal, Scotland, Greece, Italy, Germany, Netherlands, Belgium
<b>Private management</b>	<p><i>Direct private management</i></p> <p>All management tasks responsibilities and ownership of water utilities are placed in the hands of private operators, while public entities limit their activities to control and regulation. This system is in place in two EU states and it stems from a long tradition of direct private management (e.g. London)</p>	<p><i>Delegated private management</i></p> <p>The responsible public entity appoints a private company for the management of tasks, on the basis of a time-bound contract in the form of lease or concession contract. In the two countries where this type of management is common, municipalities (sub)contract their duties to private companies. The ownership of the infrastructure remains in the hand of public authorities.</p>
<b>Countries</b>	England and Wales	France and Spain

Source: Van Dijk and Schouten<sup>1</sup>

However, the findings of this study show that the matrix does not totally reflect the situation in the seven selected Member States.

Private participation in the water sector is to be found in all seven countries, but there is a big difference in the manner and the extent to which private entities are involved in the sector.

Table 1 presents an overview of the extent to which the private sector is involved in the performance of water/wastewater services in the selected countries. In Figure 2 the results of the study are summed up in a revised matrix of the different models of sector management.

**Table 1 Legal form of the water and wastewater providers in the selected MS**

	<b>Water sector</b>	<b>Sewage sector</b>
<b>UK</b>	<p>England: ___ Private 100% Mixed: 0%</p> <p>Scotland and NI: Public 100% Mixed: 0%</p>	<p>England: Private 100%</p> <p>Scotland and NI: Public 100% Mixed: 0%</p>
<b>Spain</b>	<p>Average<sup>2</sup>:</p> <ul style="list-style-type: none"> <li>Private: 35%</li> <li>Mixed 15 %</li> <li>Public: 50%</li> </ul>	<p>Average:</p> <ul style="list-style-type: none"> <li>Private 35%</li> <li>Mixed 15 %</li> <li>Public: 50%</li> </ul>
<b>Poland</b>	Data on private and mixed providers not available – but the share is quite small	As in the water sector

<sup>1</sup> van Dijk, M. P. and Schouten, M. 2004. The dynamics of the European water supply and sanitation market. [http://mir.epfl.ch/webdav/site/mir/shared/import/migration/D2\\_Final\\_Report.pdf](http://mir.epfl.ch/webdav/site/mir/shared/import/migration/D2_Final_Report.pdf)

<sup>2</sup> There are many local variations in both sectors

	Water sector	Sewage sector
<b>Hungary</b>	Private: 0% Mixed: 12% Public: 88%	As in the water sector
<b>France</b>	2012: • Private: 67% • Mixed: < 1%	• Private: 47% • Mixed: ~ 1%
<b>Germany</b>	Estimated <sup>3</sup> • Private: <7% • Mixed: A small share, but number unknown	Estimated: • Private < 6% • Mixed: A small share, but number unknown
<b>Sweden</b>	• Private <sup>4</sup> : ~ 2% • Mixed: 0%	• Private <sup>5</sup> : ~ 2% • Mixed: 0%

Source: Ramboll, based on data collection at national level

In the UK and France some of the water providers are large, private companies. In **England**, the water companies are privately owned and the direct management model is used, whereas the water and sewage services in **Scotland** are provided by a single public company (*delegated public management*); water as well as sewage services in **Northern Ireland** are provided by a single public entity (*direct public management*).

In 2012 the share of private participation in **France** was 67% (water) and 47% (sewage). Both the delegated private management model and the direct public management model are used. The same is the case in **Spain** where local authorities have outsourced the water and wastewater services to private companies or involved the private sector in public-private companies in half of the market.

In **Hungary**, the water/sewage sector is characterised by public sector ownership, with around 12% of all providers being mixed ownership companies, in which the share of participation of private foreign investors is lower than that of the public sector co-owner, in line with regulations introduced in 2011. Public entities as well as large public companies are engaged in the provision of water, which means that direct public management and delegated public management are used.

The water and sewage sector in **Poland** is characterised by the presence of mostly public entities and few entities with mixed ownership. The conducted data collection in Poland did not identify any estimates of the exact share of mixed ownership in the sector, but the fragmentation of the sector and the small number of mix-ownership entities indicate that the share is low. Providing citizens with waterworks, water supply and sewage disposal services lies within the mandatory tasks of the municipality. Most of the Polish municipalities conduct such activities in-house, through various legal forms - commercial companies, budgetary establishments or even simple departments within the municipality offices. The most used management models are therefore direct public management and delegated public management.

In **Germany**, private entities are involved in the sector, but only to a small degree in cases where the majority of the share in the entity providing water is owned by private companies. No specific, official data on the legal form of the involved parties is available. Some municipalities have chosen to cooperate with other municipalities in purpose-specific associations under public law or as Water and Soil Associations governed by private law. In large German cities, water services are often provided by municipal companies operating under a specific contract, usually in-house models of procurement or a public service concession. The most used management models are therefore direct public management and delegated public management.

<sup>3</sup> No official statistics indicate the legal form and the owner structure of water services.

<sup>4</sup> The overall responsibility for the provision of services, including supervision, price setting and investments, lays with the municipality.

<sup>5</sup> The overall responsibility for the provision of services, including supervision, price setting and investments, lays with the municipality.

As of 2015, in **Sweden** only six contracts for the management or maintenance of the utilities have been awarded to private entities after procurement procedures. One of the winning entities is a publically owned company, however competing on the same premises as private ones. The most used management model in Sweden is thus assessed to be direct public management, with a few examples of delegated private management and one case of delegated public management.

In summary, Figure 2 presents the categorisation of the selected Member States along the model developed by Van Dijk and Schouten.

**Figure 2 Management models in the selected Member states**

	<b>Direct management</b>	<b>Delegated management</b>
<b>Public management</b>	Sweden, Northern Ireland, France, Spain, Hungary, Poland, Germany	Scotland, Germany, Hungary, Poland (Sweden)
<b>Private management</b>	England and Wales	France and Spain, (Sweden), (Germany)

Source: Ramboll, based on the model proposed by Van Dijk and Schouten with updated classification based on data collected from data collection activities in connection to the present study. In brackets are cases where there is some, but not dominant use of the model.

- 3.1.2 Are the activities referred to in Article 12 provided following an open call for tender or a direct award (notably to an undertaking under dominant influence of the awarding authority)?

In some of the selected Member States, the rights to provide water or wastewater services are not procured following a competitive public procurement procedure, but awarded to the providers in other ways.

In the Member States where a contract is awarded after a competitive procedure most of the contracts are awarded following an open call tender procedure.

As described in the preceding section, the water sector in Europe is characterized by significant diversity when it comes to its organization, with different levels of decentralization and the involvement of both public and private operators. While a detailed description of the regulatory arrangements in the selected Member States is presented in Section 3.6, it can already be mentioned that regulators utilise a combination of regulatory frameworks, which address issues of operational efficiency and asset management, water pricing and funding, as well as broader stakeholder and regulatory concerns.

The scope of the study is the award of rights to provide water and wastewater services *per se* and not the activities that a water/wastewater service provider has to perform as part of the provider role (e.g. procurement of new pipes or maintenance services).

The information collected in the context of the present study shows that the seven selected Member States have chosen different models for awarding the right to provide water/wastewater services. Competitive procedures for the award of this right are present only in some of the Member States.

The following table provides a brief overview of the established situation in the selected Member States as of 2015.

Table 2 Procedures for awards of rights to provide water or wastewater services

	Award instrument	Type of award procedure
<b>UK</b>	"Appointment" or "licence"	Non-competitive procedure Administrative award
<b>Spain</b>	Concession Contracts/ Contracts for mixed entities	Public procurement rules – open call procedure used
		Creation of public-private company – competitive procedure
<b>Poland</b>	Permit	Non-competitive procedure
<b>Hungary</b>	Contract – in-house model	Non-competitive procedure
<b>France</b>	Lease (affermage) contract	National legislation comparable to public procurement rules
		Negotiated procedures are used
<b>Germany</b>	Contract	Non-competitive procedure
		Public procurement rules are rarely used, because of in-house models of procurement, cooperation with other municipalities and the use of public service contracts. If public procurement procedures are applied, then the open call procedure is used.
<b>Sweden</b>	Contract	Public procurement rules

Source: Ramboll, based on assessments by national experts

In the **UK**, providers are awarded the right through an instrument of appointment referred to as "appointments" or "licences". The decision is made by the respective authority in England and Wales, Scotland and Northern Ireland after a non-competitive procedure/non- public procurement rules.

In **France**, the rights to provide water/wastewater services are delegated in service contracts, known as lease (*affermage*) or concession contracts. They are awarded through an open, competitive process governed by the national Sapin law of 1993 which contains comparable provisions to Directive 2014/24/EU on public procurement. The main difference relative to the EU public procurement Directive resides in the fact that the national provisions allow for a negotiated process in all cases. The majority of delegated service contracts in the sector are now awarded to the private sector through lease (*affermage*) contracts, while concession contracts are becoming more of a rarity. In addition to such delegated service contracts, public operators working as a *régie* will tender out contracts for specific tasks to the private sector which are subject to EU public procurement rules.

In **Sweden**, participation of the private sector is rare (see Section 3.1.1), but where contracts are awarded to private entities this takes place in line with EU public procurement rules.

In **Germany**, water and sewage services are to a large extent provided by public service providers at municipal level. This can take a variety of organisational forms, some of which involve private companies. These should, however, not be understood as private providers as seen in other European countries (see country report on Germany for more details). As a result, public procurement rules are rarely applied; instead water and wastewater services are organised through in-house models of procurement, cooperation with other municipalities and the use of public service contracts. If private companies are involved and public procurement rules or the rules for awarding service concessions apply, the open call procedures are used.

In **Poland**, procedures for award of collective water supply and collective sewage disposal service permits are enclosed in the Collective Water Supply and Collective Sewage Disposal Act. The

permit for the above-mentioned activity is issued by the mayor in each municipal entity. The permit is not equivalent to a contract, as it only allows a given entity to legally conduct business activity in water supply and sewage sector on the territory of the municipality. The entity to which the permit is granted has to find its clients on its own. There are no public procurement procedures which apply for the provision of water or wastewater services.

In **Hungary**, contracts for the provision of water and sewage services are concluded between the contracting authorities (municipalities) and the water/sewage companies via a direct award of the contract in the form of a (quasi) in-house model of procurement. As such, there is not element of competition in the award of such contracts.

In **Spain**, public procurement rules apply in relation to the award of contracts. The most used contract forms are concession contracts and contracts for mixed companies. The concession contracts must be awarded following an open call for tender.

Based on the above descriptions it is to be concluded that in the cases where public procurement rules are followed, the contracts are awarded after an open call for tenders, except for France where the national legislation allows for a negotiated process.

It is worth noting that in line with historical practices in the water/wastewater sector, contracting authorities can decide not to apply procurement rules to the award of water/wastewater services contracts, by moving away from the realm of public contracts to other frameworks - e.g. in the UK licences are granted to economic operators for the operation of water/sewage services in a privatised, competitive manner. In Poland, permits are granted based on other criteria than competitiveness (safety of supply, water quality, etc.) and only enable an operator to legally conduct economic activity in the water/wastewater sector, without guaranteeing any contracts.

If the award procedure in these countries – and maybe also in additional Member States – will be non-competitive in the years to come it will not be possible to assess the economic effects of Article 12 in Directive 2014/23/EU in the respective Member States.

### 3.1.3 Are the activities referred to in Article 12 provided under contracts the award of which is subject to judicial review on conditions comparable with those of Directive 2007/66/EC?

In general when the rights to provide water/wastewater services have been awarded through a competitive procedure in the selected countries the awards are subject to judicial review in line with the provisions of Directive 2007/66/EC.

In three of the selected Member States Directive 2007/66/EC does not apply in relation to the award of rights to provide water/wastewater services. This is the case in the UK where licence agreements are not awarded through a competitive procedure, in Hungary where the provision of water/sewage services also not are organised through public procurement procedures, but rather through (quasi) in-house contracts between the contracting authorities and the service providers and in Poland where judicial review by an administrative court can be conducted as the permits are issued in the form of administrative decisions and undergo regular administrative procedure.

As seen in the following table, about half of the selected Member States use public procurement procedures in relation to the award of rights to provide water/wastewater services. Therefore, Directive 2007/66/EU only applies in these countries in relation to the award procedures following public procurement rules (or similar as in France).

**Table 3 Possibility of juridical review of the award of rights comparable with the conditions listed of Directive 2007/66/EC**

Does Directive 2007/66/EU apply?						
UK	Spain	Poland	Hungary	France	Germany	Sweden
N/A – Award does not follow public procurement rules	Yes <sup>6</sup>	N/A Award does not follow public procurement rules	N/A – Award does not follow public procurement rules	Yes	Yes, but public procurement is rarely used	Yes, but only a few contracts are outsourced

Source: Ramboll, based on assessments by national experts

### 3.2 Outcome in terms of quality and price

#### Assessment question 2:

What is the outcome in terms of quality and price of the provision of those services depending on

- who the provider is?
- how the contract has been awarded?
- whether the awards could be reviewed by a national court?

#### 3.2.1 What is the outcome in terms of quality and price of the provision of those services depending on who the provider is?

The study did not identify sufficient evidence to substantiate the presence of differences between the quality and price of the provision of water/wastewater services depending on whether the provider is private, public or a mixed ownership entity.

The country studies indicate that private providers in some cases charge slightly higher prices, but this can be explained by various specific factors connected to the field of operation.

Prices are an indicator that can be used to compare water services across Europe and they draw a varied picture, as the water pricing system varies from country to country. In regulatory terms, Article 9 of the European Union's Water Framework Directive or WFD (Directive 2000/60/EC of the European Parliament and of the Council of 23 October 2000 establishing a framework for Community action in the field of water policy) introduces the concepts of cost recovery, the 'polluter pays' principle (PPP) and incentive pricing. Article 9 establishes that:

- Water prices have to allow cost recovery of water services, which encompasses environmental and resource costs;
- The main water uses (disaggregated for households, industry and agriculture) must contribute to recovery of costs of water services;
- Water pricing policies of the Member States have to provide adequate incentives for users to use water resources efficiently while at the same time contributing to the environmental objectives set out at Union level.<sup>7</sup>

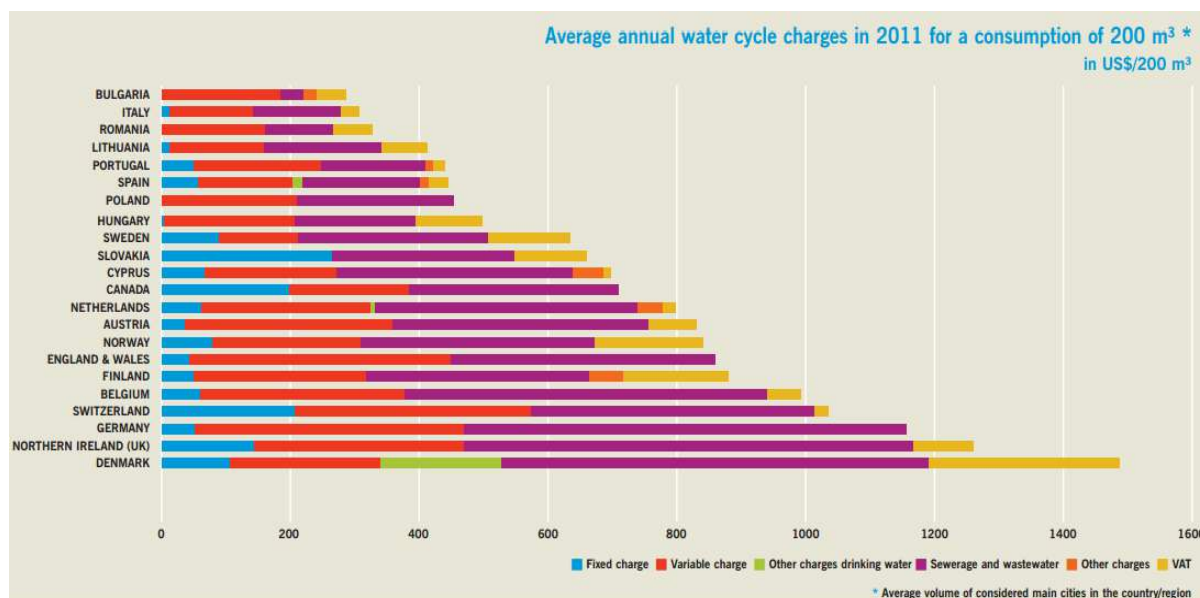
However, while in theory water prices should reflect costs in line with usage, in practice, pricing policies are linked to concerns for financial sustainability, economic and regional development objectives, or the realisation of some level of social equity. Hence, comparing water prices requires identifying differences in costs, subsidies, profits, taxes and charges and tracing these

<sup>6</sup> Although there is always the possibility to review the award of contracts before the Courts, it must be noted that the rights and conditions authentically adapted to Directive 2007/66/EC are only applicable to contracts above the EU thresholds for procurement.

<sup>7</sup> Directive 2000/60/EC of the European Parliament and of the Council of 23 October 2000 establishing a framework for Community action in the field of water policy, Article 9; European Environment Agency (2013), "Assessment of cost recovery through water pricing", Luxembourg, Publications Office of the European Union

differences to objective drivers and causes.<sup>8</sup> As Figure 3 shows, prices of water in Europe vary significantly, both in terms of average annual amounts charged and in terms of charge components. A recent European report took stock of water prices in a set of European countries and assessed issues related to cost recovery through water prices. It concludes that recovery of the operation and maintenance costs of water services is the rule in most EU Member States, but the recovery of investment costs for water supply and services is not yet a rule in all countries (with exceptions in Spain and Slovenia where cost-recovery rates are lower than 100%).<sup>9</sup> Moreover, the report emphasised that one common obstacle to the implementation of cost-recovery water pricing is the lack of metering infrastructure in the domestic sector that leads to little incentives for households to use water sensibly.<sup>10</sup>

Figure 3 Average annual water cycle charges in 2011 in Europe



Source: IWA 2012 International Statistics for Water Services

With regard to the seven Member States selected for this study, the collected data did not provide conclusive evidence of the presence of a relationship between the prices charged by providers and their legal nature (public or private entities).

An overview of the results of the study can be seen in Table 4:

Table 4 Outcome in terms of quality and price depending on who the provider is

Do private providers deliver better quality/ charge lower prices?	
UK	<b>Quality:</b> Yes - Private outperform public ones
	<b>Prices:</b> No - Average price charged by private is 3,8% higher than public
Spain	Cannot be determined: Reported tendency towards higher private prices, but no comparable data available
Poland	Cannot be determined: No direct competition between private and public – no reliable, comparable data
Hungary	Cannot be determined: No direct competition between private and public – no reliable, comparable data
France	<b>Quality:</b> Cannot be determined: No data available – Stakeholders presume no difference between private and public

<sup>8</sup> Centre for European Policy Studies Task Force (2012), "Which Economic Model for a Water-Efficient Europe?", Brussels, Under the patronage of the President of the EP Water Group, pp. 15-31.

<sup>9</sup> European Environment Agency (2013), "Assessment of cost recovery through water pricing", Luxembourg, Publications Office of the European Union, p. 9-14.

<sup>10</sup> European Environment Agency (2013), "Assessment of cost recovery through water pricing", Luxembourg, Publications Office of the European Union, p. 49-87.

Do private providers deliver better quality/ charge lower prices?	
	<b>Prices:</b> Private prices are 15% higher, but this can be explained by higher degree of complexity of the services provided by private operators
<b>Germany</b>	Only few private participants: No clear difference of quality and price depending on public or private providers.
<b>Sweden</b>	No indication that any significant differences in terms of quality and price can be explained solely by the direct involvement of private providers. Regarding price, there is a reported tendency towards higher private prices, but no comparable data is available.

Source: Ramboll, based on assessments by national experts

While there is no direct competition between public and private providers in the **UK**, comparison between the average prices charged by private providers in England and Wales and public providers in Scotland and Northern Ireland shows that:

- In terms of quality of water supply, private companies outperform the public ones;
- In terms of prices, the average price charged by private companies is higher than the prices charged by public companies (by 3,8% as of 2014).

Likewise, in **Germany** a clear comparison between the tariffs charged by private and public water utilities is not possible due to the structural characteristics of the sector. According to the collected feedback from stakeholders, there should be no evidence of price differences Germany as price regulation is applied with a view to ensuring that fees are linked to the costs for providing the service (cost coverage – “Kostendeckungsprinzip”)<sup>11</sup>, regardless of the private or a public nature of the provider.

In **Hungary** there are no entirely privately owned companies in water sector, only mixed, municipal and state companies. Therefore, it is not possible to compare the price or quality of service outcomes between public and private providers. No data was available to allow a comparison between the price for provision of water/wastewater services charged mixed operators compared to fully public one (state or municipal). There are indications however that state owned companies have historically been able to charge higher prices and offer better quality of service compared to municipal ones as well as use government funds in what could be interpreted as state aid.

In **Poland** the set-up of the water and wastewater sector does not make it possible to compare prices and service quality based on the provider, because both natural and legal conditions of conducting an economic activity differ drastically in each municipality and preclude any reliable comparison. The prices of services must always be approved by the specific municipal council and, according to interviewed stakeholders, determining how much the citizens should pay for public services and products thus becomes a political matter.

In **Sweden** the fees for water and sewage services are decided by each municipal council, in accordance with national legislation, and the council’s decision is based upon information provided by the organisation providing the services. This also applies in the cases where parts of the operations of a public company have been outsourced to a private entity.

In **France** the average price of water is about 15% higher when the management of the service is delegated to a private operator rather than carried out directly by a municipal service. However, according to an ONEMA report, there are a number of reasons which can explain this, ranging from the higher degree of complexity of the services provided by private operators to tax distortions. In fact, a recent econometric study suggests that the price difference is significantly reduced when such differences in the operating environment are taken into account, concluding that the type of provider is not a determining factor in the price of water in France. No data /

<sup>11</sup> eg. § 6 I Kommunalabgabengesetz NRW: “(1) (...) Das veranschlagte Gebührenaufkommen soll die voraussichtlichen Kosten der Einrichtung oder Anlage nicht übersteigen (...)”

information has been available on the relationship between the type of provider and breaks in supply or water pressure.

In **Spain** there is a very large variance in terms of the price for water and wastewater services paid by domestic consumers. This variance can, to a certain extent, be traced back to the climatic and demographic conditions of a municipality, as these have an impact on the costs of water supply and wastewater treatment. Further, the cost of service provision and investment passed on to domestic consumers varies substantially between municipalities, with some opting for a higher cost recovery and others relying on cross-subsidisation from other public sources. Additionally, local authorities and the regional pricing committees exert a strong influence on the final price paid by consumers through their competence to decide on price changes. Finally, there seems to be a tendency for private and mixed providers to charge higher prices than public providers. There is, however, no comparable data available that would permit to generalise this statement. The quality and scope of service provision also varies between municipalities, mainly due to the lack of a unified regulatory framework. No evidence is available on the relations between the type of service provider or the contract award procedure and the quality of water services.

In summary, in almost all of the country reports it is concluded that there is insufficient data to make a robust conclusion on the difference of quality and price depending on the provision of water and wastewater services by public or private providers.

### 3.2.2 What is the outcome in terms of quality and price of the provision of those services depending on how the contract has been awarded?

Based on the data available it is not possible to determine a clear difference in the price and quality of the water/wastewater services in the selected member states depending on the type of award procedure used.

**Table 5 Outcome in terms of quality and price depending on the award procedure**

	Does the quality/price outcome depend on the award procedure?
<b>UK</b>	N/A – Award follows non-competitive rules No evidence is available on the relations between the type of service provider or the contract award procedure and the quality of water services.
<b>Spain</b>	Cannot be determined - No evidence is available on the relations between the type of service provider or the contract award procedure and the quality of water services
<b>Poland</b>	N/A – Award follows non-competitive rules
<b>Hungary</b>	N/A – Award follows non-competitive rules No comparable data
<b>France</b>	Cannot be determined - No data was available at national level to enable the analysis of the connection between water service quality or price and the contract award method.
<b>Germany</b>	Cannot be determined – There are only few private participants and public procurement procedures do not apply because of the use of in-house models of procurement, cooperation with other municipalities and the use of public service contracts.
<b>Sweden</b>	No - Contracts are usually awarded through an open call, but no difference in price and quality by private providers.

Source: Ramboll, based on assessments by national experts

As described in section 3.1.2, the legal foundation for the award of contracts within the water sector differs among the selected Member States.

In **UK, Hungary, Poland** and practically also in **Germany**, public procurement rules do not apply when contracts are awarded.

Within some of the selected Member States, one certain award procedure is used giving only a limited possibility of comparing the outcome of the awarded contract in terms of price and quality depending on the award procedure used. This applies to **Sweden** and **Spain** and in practice also to **France**, where most contracts are awarded through an open call for tender.

The data from these countries do not permit the determination of any difference in outcome in terms of service quality and prices depending on the used award procedure.

### 3.2.3 What is the outcome in terms of quality and price of the provision of those services depending on whether the awards could be reviewed by a national court?

Based on the available data it is not possible to determine a clear difference in the price and quality of the water/wastewater services in the selected Member States depending on whether the award could be reviewed by a national court.

The results of the study in relation to this question are summarised in Table 6:

**Table 6 Outcome in terms of quality and price depending on the possibility to have juridical review of the award of rights**

Does the existence of possibility to let award be reviewed by a national court influence the terms of quality and price?	
<b>UK</b>	N/A – Award follows non-competitive rules
<b>Spain</b>	Cannot be determined - No data was available at national level to enable a relationship to be established between water service quality or price and the presence of contract provisions for the review by national courts.
<b>Poland</b>	N/A – Award follows non-competitive rules
<b>Hungary</b>	N/A – Award follows non-competitive rules No comparable data
<b>France</b>	Cannot be determined - No data was available at national level to enable a relationship to be established between water service quality or price and the presence of contract provisions for the review by national courts.
<b>Germany</b>	Cannot be determined - No data was available at national level to enable a relationship to be established between water service quality or price and the presence of contract provisions for the review by national courts.
<b>Sweden</b>	No - All contracts could be reviewed by a national court, so no differences are shown.

Source: Ramboll, based on assessments by national experts

Similar to the answer of assessment question 2.2 (see section 3.2.2) the structure of the award of the right to provide water/wastewater services in some of the selected Member States means that that no data exists to determine the outcome in terms of quality and price depending on whether the award could be reviewed by a national court.

In the **UK, Hungary, Poland** and to a large extent in **Germany**, the rights are awarded through non-competitive procedures which precludes the analysis of the effect of judicial review procedures.

In **France** and **Sweden** all the awarded contracts could be reviewed by a national court. Therefore, it has not been possible to determine any difference in the quality and price depending on whether a juridical review was possible or not.

In **Spain**, there is no evidence available to suggest that the possibility of reviewing concession awards by a national court has led to noticeable changes in the quality and price of the provision of water and wastewater services

In summary, given the specific set-up in the water sector in the selected Member States it is not possible to validate whether the right to have juridical review on the award of rights to provide water/wastewater services implies any difference in the price and service quality that the consumer receives after the award.

### 3.3 Switch over between public and private providers

#### Assessment question 3:

How often, if at all, and for what reasons there was a switch between public and private providers of water services; did switching result in higher fees/prices, to what extent was it justified by the need for additional investments?

#### 3.3.1 How often, if at all, and for what reasons was there a switch between public and private providers of water services?

Historically, all of the Member States in the selection have had public providers within the water sector. All of them have also decided to open up the provision of water/wastewater services for private participation, but the extent to which private entities are involved in the provision of water/wastewater services varies greatly.

In most of the countries where there have been higher levels of private sector participation, the findings of the study show that there is a tendency toward re-municipalisation in relation to provision of water. The reasons for this are a mixture of political desires, results of civic movements (because water is seen as an essential public good), and a desire for greater public control over service provision.

The following table provides an overview of the identified reasons for switches between public provision of water/wastewater services and private participation.

**Table 7 Reason for switch between private and public providers**

	Reasons for switch to private participation/provision	Reasons for switch to public provision (re-municipalisation)
<b>UK</b>	Need for substantial investments	Not applicable
<b>Spain</b>	Need for income to municipality (concession fees)	Civic movements opposing privatisation, dissatisfaction with the quality and price of service provision by private providers.
<b>Poland</b>	Need for new investment, high expenses of the existent management costs of the water network and even new management methods	Not applicable
<b>Hungary</b>	Expected income through privatisation and the desire of "outsourcing problems connected to overused utilities".	Poor contractual experience with private provider. A general government policy towards consolidating the industry in the public sector and preventing foreign investment in it.
<b>France</b>	Need for assistance in (re-) developing the sector after Second World War	Political will, a desire for greater control, litigation or conflict.
<b>Germany</b>	Need for income to municipality	Civic movements – a desire for public management of water sector
<b>Sweden</b>	More efficient use of resources, to enhance the competence within the organisation, ideological motives, and a need for the funding of a municipality's debt.	Privatisation not profitable enough. National legislation preventing further private ownership

Source: Ramboll, based on assessments by national experts

In the **UK**, there have not been any switches between public and private provision of water/sewage services since 1989, when all public water/sewage providers in England and Wales were privatised. The main reason for that switch was the need for substantial investments in water/sewage infrastructure due to the setting of EU standards.

As a result of the privatisation, once adjusted for inflation, prices of water/sewage services in England and Wales have increased by 50% since 1989.

In **France**, after the Second World War, private companies were contracted or conceded rights to provide water services in order to assist in (re-)developing the sector which required high levels of investment. However, since 2000 France can be said to be undergoing a process of re-municipalisation leading to a relatively equitable split between private and public operators in the water sector today. The reasons for the re-municipalisation range from political will, to a desire for greater control, to litigation or conflict. The less politicised sewage services sector was reported by an interviewee to have seen a certain degree of movement from the public to the private sector in recent years.

There are no statistics that indicate how many of the municipal water and wastewater services have been transferred from public to private provision in **Spain** in recent decades; however in 2014 the share reached approximately 50%. There is no information available as to why municipalities have contracted out the services, but allegedly the dire situation of municipal budgets has been one important reason, particularly since the onset of the economic crisis. It has become a common practice for municipalities to contract out the services in exchange of a concession fee.

There have only been a few cases of successful re-municipalisation of water and/or wastewater services in Spain in the last years as well as an additional number of failed attempts. The successful attempts so far have only taken place in smaller municipalities. These have been the result of civic movements opposing the privatisation of water services on the grounds of water being an essential public good and because of dissatisfaction with the quality and price of service provision by private providers. Re-municipalisation is inherently costly as it not only entails buying out the private provider, but also repaying the concession fee, whose revenues have in most cases already been spent by the municipality and a compensation for forgone profits. Despite only a limited number of successful re-municipalisations so far, there is a growing number of civic movements in Spain demanding water services to be returned to the public sector.

In **Germany**, up until 2008, an increase in the participation of private parties in the water sector has been noted. This has been associated with the debt burden of municipalities. According to interviewed stakeholders, in recent years, the trend is towards re-municipalisation. A few prominent examples, especially the case of Berlin contribute to this perceived tendency. In 1999, Berlin privatised its water utilities in order to facilitate the payment of debts by selling 49.9% of the company to a consortium of a French multinational (Veolia) and a German multinational (RWE). After citizens campaigned for a re-municipalisation of the water utilities and organised a referendum on it, the Berlin senate bought back first the shares of RWE in 2011 and then also those of Veolia in 2013. Changes in the organisation of water services are mostly linked to the local political context of municipalities.

In **Sweden**, municipalities are the key providers of public water and sewage services, however, since the late 1990s, there has been a trend toward some privatisation primarily through private management contracts. The main reasons for the switch are a more efficient use of resources, to enhance the competence within the organisation, ideological motives, but also the need for the funding of a municipality's debt. E.g. the municipally owned water and sewage company (Norrköping (Sweden's ninth largest municipality) was privatised in 2001. However, just a few years later, in 2005, Norrköping repurchased the facilities. The motivation by Sydkraft was that the operation of water and sewage was not profitable enough. Another stated reason was the

new legislation that would come into force in January 2007 (Public Water Supply and Wastewater Systems Act of 2006). This act came into place, because the national debate in the late 1990s showed that there was a broad consensus among all political parties (national and municipal), municipal water professionals, trade-unions and others that the Swedish water sector is best operated under public ownership and control. The renewed Act prevented further private ownership by stating that the municipalities are to be responsible and have the control and ownership over those entities providing public water and sewage services.

While there have never been completely private providers of water services in **Hungary**, there have been different trends in terms of private sector participation in the water sector over the years. After the regime change in 1990, ownership of the water sector was decentralised and transferred to municipality level and, thereafter, partially to the private sector. The main reason behind allowing private sector participation was reported to be the expected income from privatisation.

In 2007 the private sector participation in the water sector was estimated at close to 40%; however, government policy in 2009 changed course towards promoting the re-nationalisation of the sector. The reason for this was that the government decided to decrease dependency on foreign investment in the Hungarian utility sector and not only in the water sector. In the last 6 years there has been a process of re-purchasing previously privatised stakes in utility companies. Thus, it can be concluded that the proprietary situation has been consolidating through the buy-out of private investors in water service companies in Hungary.

In **Poland**, the first agreements on concessions or public-private partnerships in the water and wastewater sector were signed recently. Back in 2008, the participation of private operators was estimated at 3-5%, but is estimated to have increased slowly in recent years.

### 3.3.2 Did switching to a public/private operator result in higher fees/prices?

The findings of the study show that the privatisation in the UK has resulted in higher prices. For the rest of the selected Member States it is not possible to conclude with certainty that the switching resulted in higher fees/prices.

The following table provides an overview of the identified price changes following the switch to a public or private provider of water and/or wastewater services.

**Table 8 Price increase/decrease due to switch from public to private**

Did switching to a public/private operator result in higher fees/prices?	
<b>UK</b>	Yes
<b>Spain</b>	Cannot be determined - In general, the switch from public to private providers is said to be associated with higher prices. However, only limited comparable data on prices is available which prevents the inference of a concrete conclusion.
<b>Poland</b>	Cannot be determined – only a few examples of switches and no available data to determine the effect on prices.
<b>Hungary</b>	Cannot be determined - There is no conclusive evidence of the effects of private sector participation in terms of price increases. The switch from private to public providers in Hungary resulted in lower fees / prices following government policy to lower consumers' utility expenses.
<b>France</b>	Cannot be determined - The example of the re-municipalisation of the water services of Paris city council in 2010 suggests that a switch from private to public providers in France can result in lower fees / prices. However, there are a number of factors which can explain the comparatively higher prices charged by private operators relative to public ones.

Did switching to a public/private operator result in higher fees/prices?	
<b>Germany</b>	No – No impact of changes between private and public operators on tariffs established. Price regulation ensures that fees are linked to the costs for providing the service (cost coverage – “Kostendeckungsprinzip”). After re-municipalisation charges remain at the same level as before.
<b>Sweden</b>	Cannot be determined – No indication that switching to a private or public operator results in either higher or lower fees.

In the **UK**, the results of privatisation can only be identified in England and Wales, where once adjusted for inflation, prices of water/sewage services have increased by 50% since 1989.

In **Spain**, according to stakeholders the switch from public to private providers can be associated with higher prices, though limited data availability does not permit to make inferences as to why this is the case.

In **Poland** there have been relatively few switches. Due to the small scale of such examples it would be difficult to derive a representative conclusion regarding the influence of such switches on the prices charged to consumers. Until now, prices have increased after a switch to private providers, but in most cases the switch to a private operator was not connected with the high price increase in the beginning and in some cases the prices remain on the same level. However, according to interviewed stakeholders, in the long-term perspective the switch over between public and private providers results in the increase of prices.

In relation to **Hungary** there is no conclusive evidence of the effects of private sector participation in terms of price increases. After the re-municipalisation of the water services in Hungary, the centralised price determination of the government and an additional 10% reduction in the fee items (including the base fee) applied via a legal act on 31 January 2013 lead to a price decrease, but as such cannot be connected to actual improvements in efficiency or cost reductions, the decrease can be said to be “artificial”.

In **France** the example of the re-municipalisation of the water services of Paris city council in 2010 suggests that a switch from private to public providers in France can result in lower fees / prices. However, there are a number of factors which can explain the comparatively higher prices charged by private operators relative to public ones.

In **Germany** no impact of changes between private and public operators on tariffs has been established. After re-municipalisation, charges remained at the same level as prices were before. One reason for this is the price regulation in Germany which ensures that prices are linked to the costs for providing the service (cost coverage – “Kostendeckungsprinzip”)<sup>12</sup>, no matter if the tariffs are charged by a private or a public provider.

In **Sweden** neither previous studies nor the data analysed within the scope of this study indicate that switching to a private or public operator results in either higher or lower fees.

As written in section 3.2.1 there is too little evidence and data available to draw a firm conclusion on the extent to which a switch to a private/public provider result in higher fees/prices, especially given the stronger influence of different other factors for the price setting process.

### 3.3.3 To what extent was it justified by the need for additional investments?

Only in the UK and in Poland has the switch to private providers been connected to the need for additional investments.

<sup>12</sup> eg. § 6 I Kommunalabgabengesetz NRW: “(1) (...) Das veranschlagte Gebührenaufkommen soll die voraussichtlichen Kosten der Einrichtung oder Anlage nicht übersteigen (...)”

In France, Hungary, Sweden and Germany, municipalities are responsible for investment, so the switch to private providers in these countries has not been linked to the need for new investments.

In Spain there is no substantial evidence available suggesting that municipalities which have contracted out their water and wastewater services to a private provider did so primarily in order to increase the amount of investments into the municipal water and wastewater infrastructure.

As evidenced by Table 9, the question about a need for additional investment as a justification for switching to a private/public provider is not applicable in four of the selected Member States as the municipalities in all cases are responsible for the investments.

Only in the UK and in Poland, the need for investments has been brought up as the reason for a switch to private provision of water/wastewater services.

**Table 9 Justification of switch by the need for additional investments**

<b>Was switching justified by the need for additional investments?</b>						
<b>UK</b>	<b>Spain</b>	<b>Poland</b>	<b>Hungary</b>	<b>France</b>	<b>Germany</b>	<b>Sweden</b>
Yes	Cannot be determined – No data available	Yes	No – Municipalities or municipally owned utilities and concessionaires are responsible for investments, despite of switch.	N/A – Municipalities are responsible for investments, despite of switch.	N/A – Municipalities are responsible for investments, despite of switch.	N/A – Municipalities are responsible for investments, despite of switch.

Source: Ramboll, based on assessments by national experts

### 3.4 Domesticity of private investors in the water sector

#### **Assessment question 4:**

To what extent are private providers domestic ones and to what extent do they originate from other Member States or third-countries?

In all of the countries studied, there is participation of non-domestic private investors in the water sector. The degree of non-domestic private participation vary – in Sweden, England and Spain about half of the private investors are non-domestic; in Hungary and Poland the share of private sector participation is low but owned entirely by non-domestic providers. Private providers in France are mostly domestic, while the main foreign investor in Germany is French company Veolia, which is also present in all other countries studied apart from Spain.

As already described in Section 3.1, the level of private sector participation in the EU in general, and among the studied countries in particular, varies to a high extent. The conducted research further revealed that private investment in the water sector often comes from abroad. While data on this is fragmented, Table 10 provides an overview of the largest private sector water providers in the EU, by number of people served in their home and international markets, based on the latest available data from the Pinsent Masons Water Yearbook 2012 – 2013.<sup>13</sup> As evident from the following table, the largest private providers in Europe are Veolia Environment (FR), Thames

<sup>13</sup> The table below needs to be approached with some circumspection. While numbers served in „home“ contracts typically refer to contracts where the company has a majority holding of a concession, „international“ contracts (here defined as being outside the country of the company’s registration) may well involve relatively small stakes. Where companies have minority shareholdings in contracts managed by other water companies, these have been ignored. These also exclude companies which only serve industrial water customers or where no reliable customer data is available.

Water (UK), RWE (DE), FCC (ES), Suez Environment (FR), ACEA (IT),<sup>14</sup> all of which hold significant customer bases outside of their domestic markets.

**Table 10 Private sector providers in the EU**

Company	Number of people served in Home Market	Number of people served in International Market	Total number of people served	% Home
<b>Austria</b>				
Aquaplust	10,000	260,000	<b>270,000</b>	4%
Energie	170,000	880,000	<b>1,050,000</b>	16%
EVN	502,000	3,744,500	<b>4,246,500</b>	12%
<b>Estonia</b>				
Tallinna Vesi	430,000	0	<b>430,000</b>	100%
<b>France</b>				
Alteau	250,000	0	<b>250,000</b>	100%
Fingestion	0	10,800,000	<b>10,800,000</b>	0%
SAUR	5,500,000	6,923,000	<b>12,423,000</b>	41%
Sogedo	400,000	0	<b>400,000</b>	100%
STGS	350,000	0	<b>350,000</b>	100%
Suez Environnement	12,300,000	105,050,000	<b>117,350,000</b>	10%
Ternois Epuration	100,000	0	<b>100,000</b>	100%
Veolia Environnement	24,100,000	107,160,000	<b>131,260,000</b>	18%
<b>Germany</b>				
E.ON	N/A	0	<b>N/A</b>	N/A
Gelsenwasser <sup>15</sup>	5,870,000	1,830,800	<b>7,700,800</b>	76%
MVV	990,000	0	<b>990,000</b>	100%
Remondis	1,105,000	4,240,000	<b>5,345,000</b>	21%
RWE	13,200,000	5,065,500	<b>18,265,500</b>	72%
<b>Greece</b>				
Athens Water	4,300,000	0	<b>4,300,000</b>	100%
Thessaloniki Water	850,000	0	<b>850,000</b>	100%
<b>Italy</b>				
A2A	900,000	0	<b>900,000</b>	100%
ACEA	9,750,000	8,240,000	<b>17,990,000</b>	54%
Acegas-APS	530,000	0	<b>530,000</b>	100%
Acque Potabili	700,000	0	<b>700,000</b>	100%
ASCM-AGAM	250,000	0	<b>250,000</b>	100%
IREN	5,090,000	0	<b>5,090,000</b>	100%
Hera	2,800,000	0	<b>2,800,000</b>	100%
<b>Poland</b>				
Aquarius	52,000	0	<b>52,000</b>	100%
<b>Portugal</b>				
Mota-Engil	529,000	0	<b>529,000</b>	100%
<b>Spain</b>				
Acciona	4,400,000	2,500,000	<b>6,900,000</b>	64%
Abengoa	780,000	3,250,000	<b>4,030,000</b>	21%
Agval	2,040,000	150,000	<b>2,190,000</b>	93%
FCC	13,080,000	16,871,000	<b>29,951,000</b>	43%
Ferrovial	650,000	0	<b>650,000</b>	100%
Gruppo ACS	6,600,000	2,100,000	<b>8,700,000</b>	76%
OHL	1,250,000	3,750,000	<b>5,000,000</b>	25%
Sacyr Vallehermoso	920,250	1,829,000	<b>2,749,250</b>	33%

<sup>14</sup> A detailed overview of the EU water companies is provided also in David, Hall and Emanuele, Lobina (2012), "Water companies and trends in Europe 2012", PSIRU (Public Services International Research Unit), Retrieved at: [www.psiru.org](http://www.psiru.org).

<sup>15</sup> As a limited company (AG) Gelsenwasser is operating under private law but cannot be called a private company as its dominating shareholders are the two German cities Bochum and Dortmund.

Company	Number of people served in Home Market	Number of people served in International Market	Total number of people served	% Home
Tecasva	0	3,617,000	<b>3,617,000</b>	0%
<b>UK</b>				
AWG	5,792,000	1,250,000	<b>7,042,000</b>	82%
Biwater Holdings	0	2,050,000	<b>2,050,000</b>	0%
Bristol Water	1,090,000	0	<b>1,090,000</b>	100%
Cambridge Water (South Staffs)	315,000	0	<b>315,000</b>	100%
Costain	N/A	N/A	<b>N/A</b>	N/A
Portsmouth Water (South Downs)	642,000	0	<b>642,000</b>	100%
Dee Valley	258,000	0	<b>258,000</b>	100%
Glas Cymru	3,043,000	0	<b>3,043,000</b>	100%
East Surrey	560,000	0	<b>560,000</b>	100%
Kelda Group	5,993,000	0	<b>5,993,000</b>	100%
Nature Technology Solutions	N/A	N/A	<b>N/A</b>	N/A
Pennon Group	1,516,000	0	<b>1,516,000</b>	100%
Rift Acquisitions	3,320,000	0	<b>3,320,000</b>	100%
Southern Water (First Aqua)	4,500,000	0	<b>4,500,000</b>	100%
Severn Trent	8,280,000	4,970,000	<b>13,250,000</b>	62%
South East Water	2,100,000	0	<b>2,100,000</b>	100%
South Staffordshire	1,250,000	0	<b>1,250,000</b>	100%
Thames Water (Macquarie)	13,800,000	0	<b>13,800,000</b>	100%
United Utilities	7,250,000	0	<b>7,250,000</b>	100%

Source: Pinsent Masons Water Yearbook 2012-2013, p.39

The fragmented and often incomparable nature of the available data makes it difficult to draw concrete estimates of the share of non-domestic investment in terms of share of the market. Therefore, Table 11 provides an overview of the proportion of water/sewage companies out of all companies in the market.

**Table 11 Non-domestic investment in the studied countries**

MS	PSP in water sector in in 2012 <sup>16</sup>	Estimated share of non-domestic private investors out of all private investors	Countries of origin for non-domestic capital
<b>UK</b>	87%	Approx. 50%	Non-EU countries
<b>ES</b>	49%	Approx. 50%	France
<b>FR</b>	67%	< 10%	n/a
<b>DE</b>	21%	30%	France
<b>HU</b>	28% <sup>17</sup>	100%	France, Germany
<b>PL</b>	3%	100%	France, Germany, Belgium, Czech Republic
<b>SE</b>	1%	70%	France, Finland

Source: Pinsent Masons Water Yearbook 2012-2013, p.39; assessments by national experts

As evident from the table, the situation in the UK's completely private market (in England and Wales) has proven attractive for foreign investment, with about half of all private investors assessed to be based outside of the EU. While private sector participation in France and Spain is

<sup>16</sup> Based on information from Pinsent Masons Water Yearbook 2012-2013

<sup>17</sup> The information collected in the country report indicates that this estimate might be too high given the recent process of re-municipalisation.

also fairly high, it is worth noting that about half of Spain's water sector company are owned by French parent companies, while the French market itself is dominated by domestic private investment.

On the other end of the scale, private sector participation in Hungary, Poland and Sweden is lower in general, but then taken entirely by non-domestic investors.

An interesting finding of the conducted research at national level is that the French company Veolia has investments in water providers in all studied countries apart from Spain.<sup>18</sup>

### 3.5 Pattern of investments

#### Assessment question 5:

What is the pattern of investments by private vs. public operators if at all different? (scope of works, scope of maintenance, upgrade, new technologies)?

Data collected among the seven study countries did not reveal any consistent patterns of investments of private vs. public providers.

Historically, water infrastructure systems in Europe built since the 19th century have been provided by the state (national, regional or local) and the degree of access to water services and the level of coverage achieved has been very high.<sup>19</sup> For the past several decades, however, the main driver behind water infrastructure investments has not been the need to extend the services provided. Rather, at present capital-intensive investment in water infrastructure arises from the need to meet new standards and requirements, as introduced by EU legislation and in particular the Water Framework Directive, for water quality and supply given the age and deterioration of the existing infrastructure. In the UK, meeting the EU directives obligations was reported as a key driver for expenditure in the 1990's.

The basic financing instruments to finance water industry operations are water tariffs and sewage/ wastewater treatment tariffs. This source is supplemented by various subsidies from national or EU budgets. Such financial support, generally dedicated to infrastructure can be direct transfers from the budgets to the sectors or indirect subsidies covering not only capital costs, but may also support operation and maintenance cost through tax rebates and exemptions.<sup>20</sup>

Recognising the role of EU-level rules in driving investment requirements, the Water Framework Directive points towards the principle of recovery of the costs of water services in the tariff setting of water and wastewater services as a source of revenue for investments.<sup>21</sup> A recent report by the European Environmental Agency took stock of water pricing approaches in a set of European countries and concluded that recovery of the operation and maintenance costs of water services is the rule in most EU Member States, but the recovery of (capital) investment costs for water supply and services is not yet a rule in all countries.<sup>22</sup> Over the years, the European Commission has taken steps to address the implementation of this principle of the Directive at national level (see Section 3.2.1 for more information).

The EEA report emphasised that one common obstacle to the implementation of cost-recovery water pricing is the persisting use of metering infrastructure in the domestic sector, that leads to

<sup>18</sup> Veolia has ownership in a water desalination plant in Spain but does not appear to be directly involved in the provision of water to consumers.

<sup>19</sup> OECD 2006, infrastructure to 2030: telecom, land transport, water and electricity, p. 341

<sup>20</sup> European Commission (2014) Water Industry Summary Report - Potential for stimulating sustainable growth in the water industry sector in the EU and the marine sector - input to the European Semester. P.41

<sup>21</sup> Art.9

<sup>22</sup> European Environment Agency (2013), "Assessment of cost recovery through water pricing", Luxembourg, Publications Office of the European Union, p. 9-14.

little incentives for households to use water sensibly.<sup>23</sup> According to an earlier OECD report, metering coverage has been on the increase for the past 20 years. The following table provides a recent overview of the approach to pricing adopted in EU Member States.

**Table 12 Water tariffs and pollution charges in the EU28.<sup>24</sup>**

Country	Water and wastewater tariffs			Abstraction charges	Pollution charges
	Flat rate	Volumetric rate	Mixed rate (fixed + volumetric)		
BE					
BG					
CY					
CZ					
DE					
EE					
IE	(Unclear*)				
EL					
ES					
FI					
FR					
HR					
HU					
IT					
LT		(Unclear**)			
LU					
LV		(Unclear**)			
MT					
NL					
AT					
PL					
PT	Wastewater		Water supply	***	***
RO		(Unclear**)			
SE					
SK					
SI	(But unclear)				
UK			England+Wales		

\*In Ireland, only non-domestic users are charged, but the tariff structure was unclear in the country fiche. Domestic users do not pay for water. \*\*In these countries, the reported information does not state clearly whether tariffs are solely volumetric, or a mixed rate is in place. \*\*\*Scarcely developed

Source: European Commission 2014

At present, however, full recovery of supply costs is achieved only in a few countries, as demonstrated in the following table.

<sup>23</sup> European Environment Agency (2013), Ibid, p. 49-87.

<sup>24</sup> European Commission (2014) Water Industry Summary Report - Potential for stimulating sustainable growth in the water industry sector in the EU and the marine sector - input to the European Semester.p. 42

**Table 13 Incentiveness and cost recovery capacity of existing economic instruments in the EU28<sup>25</sup>**

Cost recovery rates and incentiviveness	Countries											
	DE	DK	FI	FR	NL	AT	SE	RO	UK			
Tariff levels ensuring cost-recovery (>90%) and an efficient water use												
Cost recovery reached in some areas/ by some operators/ increasing prices have led to lower consumption	BE	EE	CZ	EL	ES	HU	HR	MT*	LT	PL	SI	
Tariff levels not ensuring full cost recovery and an efficient water use	BG	CY	EI	IT	LU	LV	PT	SK				

\*Malta is reaching cost recovery for water supply but fully subsidises waste water treatment

Source: European Commission 2014

As mentioned, when full cost-recovery is not achieved, clearly different forms of subsidies are in place. Some indirect subsidies might exist even in those countries with a cost-recovery rate close to 100%. The types of subsidies existing in the EU28 are the followings:

- Direct subsidies: public authorities at different levels (e.g. national, regional, river boards) directly finance water- and wastewater-related infrastructures (both in terms of investment, operation and maintenance costs);
- Indirect subsidies: in some countries, a reduced VAT rate is applied to water service bills. In other cases, social subsidies directed to low-income households can also be considered as indirect subsidies;
- EU Structural and Regional Funds: in some countries (especially countries which recently joined the EU) Structural Funds play an important role in the financing of water infrastructures.

The table below provide an overview (although not exhaustive) of existing subsidies in place in the EU27.

**Table 14 Overview of subsidies to the water sector in the EU<sup>26</sup>**

Subsidies	Countries																
Direct	BG	CY	CZ	EI	ES	FI	FR	HU	IT	AT	PL	PT	SE	SI	RO		
EU Funds	BG	CZ	EE	HR	HU	LT	LV	PL	PT	RO	SK	SI					
Indirect	BE	CZ	DE	ES	FR	HR	IE	IT	CY	LU	MT	NL	AT	PL	PT	SI	UK

Source: European Commission 2014

The conducted investigation at national level revealed that investment in drinking water and wastewater infrastructure is driven by factors such as population growth and per capita demand, drinking water quality standards, and environmental preservation needs.

### 3.5.1 Capital and operational expenditure

Most generally, investments can be treated as:

- Capital expenditure CAPEX used by an operator to acquire or upgrade physical assets

<sup>25</sup> European Commission (2014) Water Industry Summary Report - Potential for stimulating sustainable growth in the water industry sector in the EU and the marine sector - input to the European Semester. P.43

<sup>26</sup> European Commission (2014) Water Industry Summary Report - Potential for stimulating sustainable growth in the water industry sector in the EU and the marine sector - input to the European Semester. P.44

- Operational expenditure OPEX used by an operator to operate a utility network and maintain the assets.

In the countries studied, no concrete patterns of investment were identified, although it is interesting to highlight that in the presence of delegated management through contracts with private or mixed operators, as present in France, Sweden and Hungary, and to a certain extent in Spain, the responsibility for capital expenditure remains (mainly) with the public sector.

In the UK investments are implemented by the water and wastewater operators (private in England and Wales and public in Scotland and Northern Ireland), subject to investment plans approved by the economic regulators in the sector – OFWAT, the Utility Regulator and the Water Commission.

In Germany, there have been stable amounts of investments in drinking water supply in the past ten years. Investments in sewage infrastructures have decreased after legally obliged maintenance was completed. The available evidence did not indicate the presence of any differences between the investment patterns of private vs. public operators.

In Hungary, different types of contracts which are available to contracting authorities determine the investment obligations of water sector operators. However, since all operators are owned fully or in majority by the public sector, no distinction can be made between public and private patterns in investment. Some evidence from interviews suggests that private investors are typically not inclined to invest in capital investment projects due to the high uncertainty of the rate of return.

In Spain, Interviewees from AGA, AEOPAS and FNCA pointed out that the lack of regulatory requirements regarding service contracts for water and/or wastewater services have meant that the extent to which services concessions require concessionaires to invest in the water and wastewater infrastructure will vary from municipality to municipality. In practice, investment into the water infrastructure of the Spanish water sector are primarily funded through general taxation<sup>27</sup>, as well as through special charges levied by the Autonomous Communities or municipalities through the domestic water bills. There is no clear demarcation of what investments are to be made by whom, yet generally speaking Autonomous Communities and/or the central government cover the costs of the larger infrastructure facilities like dams, desalination plants, water purification plants, as well as wastewater treatment plants<sup>28</sup>. There are exceptions to this general rule, with some of these investment made at the municipal level by the municipality itself or by the company running the water and wastewater services, as agreed in the concession<sup>29</sup>. Maintenance, repair and expansion of the municipal water distribution and sewage network on the other hand are the responsibility of the municipalities themselves. When water and/or wastewater services are bestowed upon a public, private or mixed company, the company is typically tasked with carrying out investments in maintenance and repair of the distribution and sewage network, though there is no regulatory standard that stipulates what investments have to be assumed by service contractors and how much they are required to invest over the time period of the service contract<sup>30</sup>. A lack of data availability at provider level does not permit the drawing of conclusions on any differences in investment patterns between types of providers.

In France, overall, private operators take on a less significant part of investments, as per their contractual arrangements. In fact, under the more common lease (affermage) contracts, private operators are contractually only responsible for repair and maintenance work and in some cases contractual provisions are included for upgrade work.

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<sup>27</sup> Francisco González-Gómez; Miguel A. García-Rubio; Jesús González-Martínez; (2014) "Beyond the public private controversy in urban water management in Spain", *Utilities Policy*, 31, pp. 1-9.

<sup>28</sup> Interview with AEAS

<sup>29</sup> Interviews with AEAS and AGA

<sup>30</sup> Interviews with AEOPAS and AGA

In Sweden the calculations of water and sewage fees are based upon the so-called "cost price principle", i.e. the fees are directly linked to the actual cost the municipality has for providing the services. If the municipality are making investments, such as maintenance or upgrade of water infrastructure, the municipality's water and sewage fees will increase in relation to the pattern of investments. There are no findings indicating that there is a difference in terms of investment patterns between those municipalities that have outsourced parts of the operations to private providers and those municipalities that provide these services without the involvement of private companies. Moreover, there are no previous studies suggesting that those types of differences are to be found in the Swedish water and wastewater sector.

In Poland, the accession of the country to the European Union and obligation of the implementation of the European legal acts on the water sector as well as possibility of the absorption of the EU structural funds resulted in the rapid increase of investment in the water/wastewater sector.

**Table 15 Investment in selected EU MS**

		Capex	Opex	Source of capital <sup>31</sup>
<b>UK</b>	Private	X	x	Cost recovery + indirect subsidy
	Public	X	x	
<b>Hungary</b>	Public (municipal)	X	x	Partial cost recovery + direct subsidy + indirect subsidy + EU funds
	Public (state)	X	x	Partial cost recovery + indirect subsidy + EU funds
<b>Germany</b>	Public	x	x	Cost recovery + indirect subsidies Cost recovery + indirect subsidies
	Mixed	x	x	
<b>France</b>	Public	x	x	Cost recovery + direct subsidy + indirect subsidy
	Private		x	
<b>Sweden</b>	Public	x	x	Cost recovery + direct subsidy
	Private		x	
<b>Spain</b>	Public	x	x	Partial cost recovery + direct subsidy + indirect subsidy + EU funds
	Private	x	x	<i>unclear</i>
<b>Poland</b>	Public	x	x	Partial cost recovery + direct subsidy + indirect subsidy + EU funds
	Mixed	<i>unclear</i>	<i>unclear</i>	

Source: Ramboll, based on assessments by national experts and European Commission (2014) Water Industry Summary Report

### 3.5.2 Investment related to new technologies or climate change

The conducted data collection at national level did not result in a comprehensive evidence base to indicate that among the studied countries there are any concrete movements related to the introduction of new technologies or addressing the challenges of climate change.

<sup>31</sup> Based on data from European Commission (2014) Water Industry Summary Report - Potential for stimulating sustainable growth in the water industry sector in the EU and the marine sector - input to the European Semester (as presented in the preceding figures) and data collection at national level collected for the purpose of this study.

### 3.6 Assurance and control of service obligations

#### Assessment question 6:

How do the public authorities ensure and control the adequate discharge of public service obligations i.e. related to quality, pricing or universal access?

With regard to price regulation, the control arrangements vary significantly among the countries studied. From centralised regulation by an economic regulator, like in the UK and Hungary, to decentralised regulation via local municipal bodies like in Spain and Poland.

The quality of water provision can also be regulated in different ways. While in England and Wales, water providers are responsible for monitoring the quality of drinking water and reporting it to the regulator, in Germany there is a system of monitoring and voluntary benchmarking on regional level.

As described in the preceding sections, the water sector in Europe is characterized by a significant diversity when it comes to its organization with different levels of decentralization and the involvement of both public and private operators. To counter the risks of water sector monopoly (see text box), regulators utilise a combination of regulatory frameworks, which address issues of operational efficiency and asset management, water pricing and funding, as well as broader stakeholder and regulatory concerns.

#### The water sector as a natural monopoly

From an economic point of view, the water sector is a natural monopoly as one company is able to supply the entire demand in a market at a lower cost than two or more companies can. As average costs decline with increase in production, the more a company produces, the lower the average cost of one unit produced will be. Water is supplied via pipes and it is economically senseless to lay a second network of pipes in the ground next to the already existing one. As such, one company will inevitably be in the position to supply the entire demand at a lower cost than two or more firms with individual networks could.

Consequently, the water sector is characterised by a low level of competition and high entrance costs.

Placing such a monopoly power in the hands of a water supply company, means that the company will have two distinct ways in which it could exploit its position to maximize its profit. Firstly, it can keep prices high and secondly, it can minimize its costs by neglecting the infrastructure, which in turn could lead to a decreased water quality. To prevent such outcomes, regulatory measures must be taken in order to protect consumers from exerted monopoly power.

Source: Mark Oelmann and Christoph Czichy (2013), "Water Service Provision as a Natural Monopoly", p.145

The regulation of the water and wastewater sector in Europe is characterised by a fragmentation of actors both in a vertical and a horizontal dimensions.

Horizontally, different public bodies are involved in the regulation water services – typically from the governmental domains of environment (for managing water pollution) and public health (for setting and monitoring water quality standards) and in some cases government authorities from the financial or economic domain (for investment and tariff regulation). In addition, different competition and consumer protection authorities can have regulatory mandates with respect to the water and wastewater sector.

Vertically, regulation takes place from the supra-national level (through EU directives) to national level (centralised sector regulators or ministerial bodies) to sub-national level (regional and municipal regulation).

As already described under Section 3.1, there are four distinct types of water sector management based on the direct or delegated provision of services by public or private operators. A recent OECD publication on water sector regulation worldwide identifies three main regulatory approaches applicable to the European context – regulation by government, regulation by contract and independent regulation. Oelman and Czichy (2013) further delineate the specific mechanisms for ensuring optimal price and quality outcomes from the market. The three typologies are merged in the following table, which shows that among the studied countries there are different approaches to water sector regulation.

**Table 16 Typology of water sector regulation**

<b>Sector management<sup>32</sup></b>	<b>Type of regulation</b>	<b>Description</b>	<b>Mechanism of regulation</b>	<b>MS where this approach is used<sup>33</sup></b>
<b>Direct public management</b>	Regulation by government	Under this system, the responsible public entity is entirely in charge of services provision and their management. In the past, this system was by far the most widely adopted institutional arrangement in the EU.	Benchmarking	France Sweden**
			Tariff approval	Sweden, France, Spain, Hungary, Poland, Germany
			Price review	Northern Ireland (UK)
<b>Direct private management</b>	Independent regulation	Dedicated agencies for the water and wastewater sector are established to regulate the sector independently from government, operators and consumers.	Price review process	England and Wales (UK) <sup>34</sup>
<b>Delegated public management</b>	Regulation by government	The public sector is responsible for the management of the water sector and owns the assets. The provision of water services is delegated to public water operators, <sup>35</sup> while the regulatory functions are carried out directly by the state at its different levels (central, regional, municipal).	Tariff approval	Sweden, Hungary, Poland, Germany
			Benchmarking	Germany* <sup>36</sup> Sweden**
			Price review	Scotland (UK), Germany
<b>Delegated private management</b>	Regulation by contract	Public authorities are responsible for water and wastewater sector regulation but the provision of water services can be delegated to private operators through contract agreements, while the infrastructure remains in the public domain.	Lease or Concession contracts	France, Spain, Germany
			Public procurement contracts	
			Benchmarking	

\*voluntary; \*\*voluntary, organised by an industry association

Source: Ramboll, based on assessments by national experts

<sup>32</sup> Van Dijk and Schouten (2004),

<sup>33</sup> The focus is on the main types of sector management used in the studied MS

<sup>34</sup> Italy is also an example of a country using direct private management

<sup>35</sup> Or mixed operators

<sup>36</sup> The Netherlands is an example of a Member State with a compulsory benchmarking system in the water/wastewater sector.

**Benchmarking** refers to an assessment of the utilities' performance through the measurement of specific indicators in different areas, e.g. customer service, quality or efficiency. It can be either voluntary or compulsory. The collected data at national level indicates that benchmarking exercises are carried out in a number of the studied countries:

- In France, public operators (and an increasing number of private operators) are required to report annually on a set of 17 descriptive and performance-related indicators which enable cross-municipality comparisons.
- In Germany, participation in a benchmarking process takes place at regional (Länder) level. The evaluation criteria applied include safety of supply and disposal, water quality, customer services, sustainability and profitability. The data collected usually remains disclosed from the public and only allow for exchange between the providers.
- In Sweden, the Swedish Water & Wastewater Association (SWWA), which is an industry association of municipal entities in the water and wastewater sector promotes a benchmarking system (VASS) amongst providers of water and sewage services.
- The **price review process** conducted in England and Wales also has an element of benchmarking to it, in that it collects a standard set of indicator data from all operators. However, it is understood that the outcomes of the process are determined on a case-by-case basis rather than as a result of a comparison. According to information collected for the country report on the UK, the regulatory bodies in Northern Ireland and Sweden use the performance of private companies in England and Wales as documented through the set indicators in order to assess/determine the performance of the public entities providing water and wastewater services.

**Tariff approval** can be applied ex-ante at the point of concluding a contract with the public entity (like in Hungary, Poland and Sweden) or ex post, when prices are not pre-approved but rather are thoroughly analysed by authorities to determine if there are grounds to suspect abuse of monopolistic power (e.g. regulation by the cartel offices in Germany).

**Regulation by contract** creates a setting in which companies are asked to quote a price at which they are willing to operate services in a certain market for a specific period of time. As a result, the most efficient company places the winning quote, and a limitation on monopoly revenue is simultaneously ensured.<sup>37</sup> In the case of France, the collected evidence indicates that in some cases the ex-ante approval through the contract is supplemented with ex-post approval through a process of benchmarking - private operators/representatives interviewed for the purpose of this study referred to the introduction of such indicators and annual reporting requirements into their contracts in recent years and the introduction of penalties should performance standards / requirements not be met.

In addition to this more general categorisation of the studied countries, for the purpose of the analysis it is useful to map in greater detail the allocation of responsibilities among regulatory actors from different domains and public sector levels. The following table is based on some of the main regulatory functions delineated in the abovementioned OECD publication on water sector regulation worldwide and analyses them based on the information collected at national level in the context of this study.

The table illustrates that in all studied countries there is a mixture of different level of regulatory oversight – from municipal to state level, with several cases of specialised regulatory agencies for the water/wastewater sector and even industry associations in the case of Sweden.

In **France**, regulation takes place mostly on the municipal level, although a number of mechanisms for control of the adequate discharge of public service obligations are implemented by different actors including the Competition, Consumption and Anti-fraud Office (*Direction générale de la concurrence, de la consommation et de la répression des fraudes - DGCCRF*), the Ministry of the Ecology, Sustainable Development and Energy, the Ministry of Health, regional health agencies (*Agences régionales de santé - ARS*), the ONEMA, private auditors and the local authorities themselves. For private operators, the frequency and extent of the controls is to a degree influenced by the size of the contract.

<sup>37</sup> Mark Oelmann and Christoph Czichy Water Service Provision as a Natural Monopoly, p. 146

In **Germany**, assurance and control of the water sector is performed at the municipal and regional level, although the regulatory mechanisms for the level of prices or charges set depends on whether utilities operate under public or private law. Public and mixed ownership utilities that operate under private law set prices under the control of regional antitrust authorities (cartel offices), while the charges set by public utilities operating under public law are supervised by municipalities. Quality control is performed by local authorities as well, with voluntary benchmarking projects taking place on regional level.

In the **UK**, economic regulation is centralised in a delegated regulatory authority in England and Wales (OFWAT) and carried out by state (or equivalent) bodies in Northern Ireland and Scotland, while quality and environmental regulation is performed by state government branches. The process is called price review and takes place every five years. The process is based on submission of information and business plans by the operator to the regulators who then determine the price level to be charged based on the performance of the operator and the proposed investment plans. If private operators in England and Wales disagree with the outcome of the process, they can refer to the Competition and Markets Authority.

In **Spain**, municipal and in some cases supra-municipal bodies have oversight over the price-setting mechanism. In the case where services have been contracted out to a private provider, the municipality and the service provider will usually agree upon a service plan at the beginning of the service concession that sets out criteria (e.g. population growth in the locality, changes to the consumer price index, planned water infrastructure investments, etc.) according to which water tariffs should normally be revised. The private provider will propose changes to the water tariffs on a regular (usually annual) basis, based on a technical report that justifies the price increases. It is then up to the local public authority to either accept the proposed modification to the tariffs or decide on alternative tariffs.<sup>38</sup> In all but one Spanish region there is an additional layer of price oversight through a pricing committee [*comisión de precios*] at the regional level that can suggest amendments to the fees or charges set forth by the local public authority and in some cases authorise changes to the water tariffs made by the local authority<sup>39</sup>. According to recent estimates, in 73% of the cases, the municipal politicians decide on prices together with the regional pricing committee, while in 23% of cases the municipal politicians decide on the price level independently.<sup>40</sup>

In **Sweden**, the main entities responsible for supply of drinking water and wastewater services are Sweden's 290 local authorities (municipalities) that bear the responsibility for the planning and the construction of water and sewage plants, as well as the operation of the services. Municipalities establish the prices, financing and investment plans for w.<sup>41</sup> Moreover, the Swedish water sector is particular due to one more aspect, namely the existence of a special court for legal matters related to public water services that has been established since the 1970s. The National Water and Wastewater Tribunal (*Statens VA-nämnd*) is responsible for solving conflicts between water service providers and their respective customers.<sup>42</sup> A layer of self-regulation is present through the voluntary benchmarking system (VASS) promoted by the Swedish Water & Wastewater Association (SWWA).

In **Hungary**, the main controlling authority of the water sector is the Hungarian Energy and Public Utility Regulatory Authority. Among the Authority's tasks are consumer protection, providing regulated access to networks and systems, carrying out regulatory competencies in order to maintain security of supply and fostering competition. Within the complex field of consumer protection the key task is – besides regulating the quality of supply – to keep end-user prices on an affordable level by approving the contracts concluded between municipalities and

<sup>38</sup> Roberto Martínez-Espiñeira, María A. García-Valiñas, and Francisco González-Gómez, (2012), "Is the Pricing of Urban Water Services Justifiably Perceived as Unequal among Spanish Cities?", *International Journal of Water Resources Development*, Volume 28, Issue 1, pp. 107-121.

<sup>39</sup> Report, FACUA (2013), *Estudio sobre la normativa vigente en materia de suministro de agua*.

<sup>40</sup> Press Conference, AEAS-AGA (2014), "Suministro de Agua Potable y Saneamiento en España – XIII Encuesta Nacional", "Water Supply and sewerage in Spain". 29th of October 2014.

<sup>41</sup> EUREAU (2009), "Statistics Overview on Water and Wastewater in Europe 2008 (Edition 2009) Country Profiles and European Statistics" pp. 72-73.

<sup>42</sup> EUREAU (2009), *Ibid.* pp. 72-73; David Hall (2004), "Privatising other people's water the contradictory policies of Netherlands, Norway and Sweden", PSIRU (Public Services International Research Unit).

water and wastewater operators (public or mixed entities). The National Public Health and Medical Officer Service is responsible for controlling the quality of drinking water in Hungary.

In **Poland**, the most important control functions are performed by municipalities, which are responsible for the approval of tariffs and prices for water and wastewater services and for defining the public service obligations of operators. These functions are performed by the municipal council, while the mayor is responsible for issuing permits to water and wastewater operators and revoking such, when the defined quality standards are not met. As far as the monitoring the quality of drinking water is considered it is the obligation of the State Sanitary Inspectorate.

Table 17 Regulatory functions<sup>43</sup>

	UK (E&W)	Germany	France	Poland	Hungary	Spain	Sweden
<b>Tariff regulation</b>	Ofwat	Public: Municipalities Private: Regional Anti-trust authorities	Municipalities	Municipalities	Ministry of National Development Hungarian Energy and Public Utility Regulatory Authority	Municipalities Regions	Municipalities
<b>Quality Standards of drinking water</b>	Drinking Water Inspectorate	Regions ("German Länder"), Local health authority, Regional Health Agency	Municipalities	State Sanitary Inspectorate	National Public Health and Medical Officer Service (Ministry of Human resources)	Ministry of Health, Ministry of Environment and equivalent regional bodies	Swedish Water & Wastewater Association (SWWA)
<b>Quality standards for wastewater treatment</b>	Environmental Agency	Municipalities	Municipalities	State Sanitary Inspectorate	National Public Health and Medical Officer Service (Ministry of Human resources)	Ministry of Health, Ministry of Environment and equivalent regional bodies	Swedish Water & Wastewater Association (SWWA)
<b>Defining public service obligations/ service standards</b>	Ofwat	Regions, Municipalities	<i>unclear</i>	Municipalities	Hungarian Energy and Public Utility Regulatory Authority	Municipalities	Municipalities
<b>Analysing water utilities investment plans</b>	Ofwat	Municipalities	<i>unclear</i>	<i>unclear</i>	Hungarian Energy and Public Utility Regulatory Authority	Municipalities, Regions, Regional or state-level River Basin Authorities	Municipalities
<b>Licensing of operators</b>	Ofwat	Municipalities	<i>unclear</i>	Municipalities	Hungarian Energy and Public Utility Regulatory Authority	Regional or state-level River Basin Authorities	<i>unclear</i>
<b>Supervision of contracts with utilities/private actors</b>	Ofwat	Regional Anti-trust authorities	Regional accounts office; Competition, Consumption and Anti-fraud Office	<i>unclear</i>	Hungarian Energy and Public Utility Regulatory Authority	Before award of the contract: Administrative and judicial review After award: municipalities	Municipalities
<b>Consumer protection and dispute resolution</b>	Ofwat	Public: Municipalities; Local health authorities, administrative courts; Private: Regional Anti-trust authorities, Local health authorities	Civil courts	Municipalities	Hungarian Energy and Public Utility Regulatory Authority	National and regional administrative authorities for the protection of consumers	National Water and Wastewater Tribunal ( <i>Statens VA-nämnd</i> )

Colour scheme: ■ Sector-specific agency ■ Ministerial body ■ Regional / municipal authority ■ Industry organisation

Source: Ramboll, based on assessments by national experts

<sup>43</sup> Adapted from OECD 2015, The Governance of Water Regulators, DOI:10.1787/9789264231092-en

### 3.7 Irregularities

#### Assessment question 7:

Cases of irregularities (corruption, excessive pricing, health and environmental harm) detected by national/European instances related to the provision of water services

#### 3.7.1 Corruption

Among the studied countries, the only one in which classic cases of corruption<sup>44</sup> were identified was Spain. There have been some cases of suspected or currently investigated presence of corruption or conflict of interest in Poland and France, and several cases of favouritism in France. In the UK, there have been several cases of misreporting of data to the economic regulator which constitute fraudulent conduct by water companies.

While on a global level corruption in the water sector is found to be one of the root causes of persisting challenges in water governance,<sup>45</sup> the conducted research reveals that corruption is not prevalent in the water and wastewater sectors of the selected study countries.

**Table 18 Presence of cases of corruption**

	DE	ES	FR	HU	SE	PL	UK
Presence of cases of corruption	No	Yes	Yes	No	No	Yes	Yes <sup>46</sup>

Source: Ramboll, based on assessments by national experts

Among the studied countries, **Spain** is the only country where “classic” cases of corruption are to be found. In recent years, there have been several cases of corruption committed by public officials in collusion with managers of private entities that were awarded the provision of water services. In general, these cases have to do with the payment of bribes or indirect incentives to politicians of municipalities companies engaged in the provision of water supply in order to gain lucrative contracts in this sector. Many of these cases are still under investigation or trial.

In **France**, corruption in the water sector is assessed to be scarce with the last registered case dating back to 1990. There are also few cases of **favouritism** (a criminal offence, which does not imply the proof of an advantage to a public official) – there was a case regarding a public procurement contract for the construction of a sewage treatment factory<sup>47</sup> and another one for a public work contract for water pipelines<sup>48</sup>.

The specifics of ownership in the water and sewage sector in the **UK** make it difficult to discuss “corruption” in the standard meaning of the term. However, it is understood that one of the general objectives of the study is to investigate cases where dishonest or fraudulent conduct by a stakeholder in the water/sewage sector results in economic loss for another stakeholder. In the water/sewage sector in England and Wales, such an outcome can materialize if a private company provides the regulator Ofwat with incorrect or incomplete data, which then influences the outcome of Ofwat’s determination of the prices that the company is allowed to charge. Over the past 5 years, there have been 7 cases of such “misreporting” of data.

The conducted research in **Germany** and **Sweden** did not reveal any registered cases of corruption. No cases of corruption in the water sector in **Poland** are known, although at least one

<sup>44</sup> A definition often used is “abuse of power for personal gain”, cf. footnote 2 in EU Anti-corruption report dated 3.2.2014, COM /2014) 38 Final, but in everyday life corruption is also seen as dishonest or fraudulent conduct by those in power, typically involving bribery.

<sup>45</sup> Transparency International (2008) Global Corruption Report 2008 - Corruption in the Water Sector, xxiv

<sup>46</sup> Cases of mis-reporting of data to the regulator in the price-review process

<sup>47</sup> Cass. Crim, 22 November. 2006, N° 05-85.919

<sup>48</sup> Cass. Crim, 4 December 2004, N° 04-83.079

has been suspected in the coordination of an investment process operated while under a conflict of interest. In **Hungary**, there are also no known cases of corruption in the water sector, which is not surprising given the fact that there is no competitive environment in the sector, as local governments provide water and wastewater companies through their own companies or directly contract state owned enterprises.

### 3.7.2 Excessive pricing

Cases of excessive pricing were more prevalent in the studied countries. In England and Wales and Poland there were noted cases of excessive pricing for the connection of households to the water/sewage network. In France, Germany, Sweden and Hungary there have been several cases where the price of water was deemed excessive and reduced following rulings of the relevant authorities. No cases of excessive pricing were identified in Spain.

As already discussed, the water sector is a natural monopoly and as such creates favourable conditions for abuse of monopolistic position in the form of excessive pricing. According to the Water Framework Directive, the provision of water and wastewater services should not be conducted with a view to obtaining a profit and should be guided by a cost recovery and polluter pays principles.

#### Water Framework Directive

The WFD does not allow governments to profit from water charges, but the directive recommends two policies which will push water charges upward. First, governments are directed to price water at a sufficiently high level so as that users will be motivated to reduce their water usage. (Higher water charges, together with more water-efficient technologies, have been an important factor in falling domestic water usage in many European countries.) Second, governments are encouraged to take a long-term economic view. In principle, this means that prices might fall due to anticipated falling costs of supplying water in the future. In practice, it is more likely to mean that governments will factor into current prices anticipated future increases in the cost of maintaining an adequate water supply due to higher demand, increased industrial activity, the need to replace or upgrade infrastructure, or more exacting environmental standards, etc.

Source: European Commission 2012 – Principles of EU Environmental Law<sup>49</sup>

Since the introduction of the Directive, the Commission has been monitoring its implementation and has raised questions with regard to the implementation of the cost recovery principle in several EU Member States, among which Germany and Sweden (see Appendix 2 for an overview of cases of infringements). In the case of Germany, the Commission is reported to have referred the case to the Court of Justice of the European Union but no information regarding ensuing legal proceedings was identified.

In this context, the country reports looked at recent cases of excessive pricing at national level. The conducted research is summarised in the following table.

**Table 19 Presence of cases of excessive pricing**

	DE	ES	FR	HU	SE	PL	UK
<b>Presence of cases of excessive pricing</b>	Yes Excessive tariffs	No	Yes Excessive tariffs	Yes Excessive tariffs	Yes Excessive tariffs	Yes Excessive connection charges	Yes Excessive connection charges

Source: Ramboll, based on assessments by national experts

<sup>49</sup>

[http://ec.europa.eu/environment/legal/law/pdf/principles/4%20Polluter%20pays%20in%20other%20areas\\_revised.pdf](http://ec.europa.eu/environment/legal/law/pdf/principles/4%20Polluter%20pays%20in%20other%20areas_revised.pdf)

In the context of the **UK**, cases of excessive pricing can be found in connection to the charges required by companies for making a connection of supply for domestic purposes. Between 2008 and 2013, there were 24 cases on this subject in England and Wales.<sup>50</sup>

In **Spain**, data availability does not permit the drawing of conclusions as to the prevalence or absence of excessive pricing in the Spanish water and wastewater sector. The conducted research did not identify any legal cases regarding excessive pricing.

In **Poland**, there is evidence of cases of excessive pricing regarding:

- unlawfully collect certain fees;
- unfavourable contract conditions;
- arbitrary determination of discounts in case of water quality drop;
- determining the fee for collected water at the maximum level possible in case of loss or damage to the meter by fault of the recipient;
- charging consumers for connection to sewage network in a disproportional manner.

According to an interviewed representative of the Polish Supreme Audit Office, excessive pricing also occurs through the failure of responsible municipal bodies charged with controlling tariffs to consistently verify the costs demonstrated by the water/wastewater operators in the process of price determination. However, no concrete cases on this were identified.

In **Hungary**, there have been several cases related to excessive pricing in relation to the authorisation of water meter devices as well as one case of enterprises charging consumers based on excessively high projections of water sector demand.

In **Germany**, antitrust authorities have identified several cases of misuse of prices by service providers in the water sector by comparing their charges to those of similar providers. If higher prices are not justified the antitrust authorities can impose a reduction of charges<sup>51</sup> or allow for claims for repayment.<sup>52</sup>

In **France**, there have been few cases of excessive pricing, mainly related to surcharges used to finance infrastructure investments which have been misappropriated for other types of municipal investment.

In **Sweden**, the National Water and Wastewater Tribunal adjudicates legal disputes related to pricing in the water and sewage sector. Complaints on fees occur on a relatively frequent basis, and there are several cases where residential consumers have initiated complaints that have led to price revisions. Research shows that in at least one recent case, customers have based their complaint on the difference in price compared to a neighbouring region within the municipality. The Water Supply and Sewage Tribunal found that the price discrimination was illegal, and prices were revised. According to the law, municipalities are only allowed to price discriminate between geographical regions or areas if it can be justified by differences in the costs of water provision.<sup>53</sup>

### 3.7.3 Health or environmental harm

Cases of water contamination and pollution incidents were noted in the UK, Poland, Hungary and France. The collected evidence shows that in the case of France and UK these irregularities resulted in financial fines on the water providers but there is no data available for the rest of the studied countries.

<sup>50</sup> Data for Northern Ireland and Scotland is not available.

<sup>51</sup> Bundesgerichtshof (Federal Court) decision of 02.02.2010 – KVR 66/08 –, BGHZ 184, 168-189;

<sup>52</sup> Bundesgerichtshof (Federal Court) decision of 15.05.2012 – KVR 51/11. Further cases include Bundesgerichtshof (Federal Court), decision of 19.06.2012 – KVZ 53/11; OLG Brandenburg, decision of 11.03.2014 – Kart W 1/13; OLG Frankfurt, decision of 04. 09.2014 – 11 W 3/14 (Kart); OLG Düsseldorf, decision of 24.02.2014 – VI-2 Kart 4/12 (V), 2 Kart 4/12 (V).

<sup>53</sup> Ibid.

At the EU level, several Directives were identified as particularly relevant for the analysis of cases of health and environmental harm in the water and waste-water sector.

In 2000, the Water Framework Directive (WFD) established a legal basis to protect and restore clean water across Europe and to ensure its long-term, sustainable use. The general objective of the WFD is to get all water – for example, lakes, rivers, streams and groundwater aquifers – into a healthy state by 2015.

The Drinking Water Directive<sup>54</sup> concerns the quality of water intended for human consumption. Its objective is to protect human health from adverse effects of any contamination of water intended for human consumption by ensuring that it is wholesome and clean.

The Urban Wastewater Treatment Directive<sup>55</sup> requires Member States to ensure that agglomerations (towns, cities, settlements) properly collect and treat their urban wastewater. Untreated wastewater can be contaminated with harmful bacteria and viruses, presenting a risk to public health. It also contains nutrients such as nitrogen and phosphorous which can damage freshwaters and the marine environment, promoting excessive algae growth that chokes other living organisms, a process known as eutrophication.

The Nitrates Directive aims to protect water quality across Europe by preventing nitrates from agricultural sources polluting ground and surface waters and by promoting the use of good farming practices. Member States have to designate areas that are vulnerable to nitrate pollution and adopt measures to reduce and prevent pollution in those areas. These must include for example closed periods when manure and chemical fertilizers cannot be spread, a capacity for storing manure when it cannot be spread, and limitations on fertilizer application.

A check of the Commission's register of infringement cases regarding the transposition of these legislative acts at Member State level shows that among the studied countries there have been several different challenges over recent years. Appendix 2 presents a complete overview of the identified infringement cases, the most recent ones among which are from March and April 2015 and address the failure of France and the UK to ensure the presence of adequate wastewater treatment arrangements in agglomeration in line with the EU standards set by the Urban Waste Water Treatment Directive.<sup>56</sup>

Within this context, the conducted research at national level revealed the presence of cases of environmental harm related to the water and wastewater sector in four of the studied Member States. As illustrated in the following table, there have been cases of pollution or contamination in France, Hungary, Poland and the UK, while no evidence was found to indicate the presence of such cases in Germany, Spain and Sweden.

**Table 20 Presence of cases of environmental harm**

	DE	ES	FR	HU	SE	PL	UK
<b>Presence of cases of environmental harm</b>	No	No	Yes	Yes	No	Yes	Yes

Source: Ramboll, based on assessments by national experts

In the UK, cases of environmental harm are reported as pollution incidents and the number of serious incidents has been decreasing over the recent years. That said, in the period of 2005-

<sup>54</sup> Council Directive 98/83/EC

<sup>55</sup> Council Directive 91/271/EEC

<sup>56</sup> Council Directive 91/271/EEC

2013, water companies have been fined by the Environmental Agency a total of £3.5 million for more than a thousand pollution incidents.<sup>57</sup>

The detected cases in Poland referred to the failure of water services to obtain the required quality parameters of treated wastewater and water supplied to the water supply network. In France, several recent cases of water contamination were reported.

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<sup>57</sup> Damian Carrington and Sophie Barnes "Revealed: how UK water companies are polluting Britain's rivers and beaches" published in the Guardian on 03 August 2013. Retrieved on 25 February 2014 from <http://www.theguardian.com/environment/2013/aug/03/water-companies-polluting-rivers-beaches>

## 4. CONCLUSIONS

The background for this study is Art. 53 of Directive 2014/23/EU on the award of concession contracts, which obliges the EU Commission to assess the economic effects on the internal market of the exclusions set out in Article 12 of this Directive, taking into account the specific structure of the water sector.

The study provides information for this assessment by looking into the patterns of provision of water services in seven Member States, on the basis of a set of study questions which aim to explore the connections between different models of water sector organisation and the outcomes in terms of price, quality of services and noted irregularities.

The possible correlation between organisational setup, contract types, and contract award with the quality and price of water experienced by the consumer has been explored through desk research and interview with stakeholders in the selected Member States.

The findings of the assessment show that the diversity in the organisation of the water sector in the selected Member States as well as the chosen procedures for award of rights to provide water/wastewater services shows no apparent connection between these factors and the benefit of the consumers.

As regards the award procedures used on the provision of water/wastewater services, some countries have chosen not to let the award of provision rights to be covered by public procurement rules. As described in section 3.1.2, e.g. in the UK and Poland the regulating authority can choose to apply an award procedure solely based on ad hoc procurement principles designed by the authority, meaning that the exclusion of the water sector in Directive 2014/23/EU, Article 12 is of lesser importance.

Therefore, if the award procedure in these countries – and maybe also in additional Member States – will be non-competitive in the years to come, it will not be possible to assess the economic effects of Article 12 in Directive 2014/23/EU, nor other relevant public procurement directives, in the respective Member States.

As regards the assessment of how the outcome in terms of price and quality relates to the type of provider, the finding of the study is that for the majority of the studied countries there is insufficient data availability to compare such outcomes between different types of providers. A recently conducted econometric analysis of the French water sector (where a comparison could be meaningful given the significant presence of both public and private providers) revealed that there are factors related to differences in the operating environment of providers that have the leading influence on the price outcomes.

In all of the assessed countries the water sector was originally publicly founded and a public responsibility. The reasons for switching from public to private providers differ, but the main reasons mentioned are the need for income in the municipalities, need for investments or for experience in the management of the water sector activities. Sufficient historical price data was identified only in the case of the UK – the data suggests that the privatisation process led to substantial price increases in the 1990s. For the rest of the selected Member States it is not possible to conclude with certainty that the switch resulted in higher fees/prices and in some of the Member States (e.g. Germany) a switch is estimated to not have an effect on prices due to the price regulation mechanisms in place and the observance of the cost recovery principle.

In some of the selected Member States there is a tendency towards a re-municipalisation. The reasons for this are of political nature or the results of civic movements, (because water is seen as an essential public good).

In all of the countries studied, there is participation of non-domestic private investors in the water sector. The degree of non-domestic private participation varies – in Sweden, England and Spain about half of the private investors are non-domestic; in Hungary and Poland the share of

private sector participation is low in general, but owned entirely by non-domestic providers. Notably, the French company Veolia is present in all of the countries studied apart from Spain.

Data collected in the seven study countries did not reveal any consistent patterns of investment that can be traced to the public or private ownership of providers.

The approaches to regulation in the water sector vary significantly. With regard to price regulation, the control arrangements range from centralised regulation by an economic regulator like in the UK and Hungary to decentralised regulation via local municipal bodies like in Spain and Poland. The quality of water provision can also be regulated in different ways, with different approaches to benchmarking emerging in several of the studied countries.

Since the vast majority of water supplied to consumers in the selected Member States is supplied by publicly owned providers or under concessions not subject to open competition, the impact of best practice in public procurement on the provision of water services is generally quite low.

However, this study cannot with the required certainty conclude any effect on price or quality of service, as experienced by the consumers, by the omission of water services from the ordinary rules on award of concessions through public procurement in the EU.

Rather than trusting market conditions and open competition to support the on-going improvement of water services, the Member States are generally applying strict public regulation on quality, tariffs and required efficiency gains on the providers.

## **APPENDICES**

### **APPENDIX 1 – ANALYTICAL FRAMEWORK**

Separate attachment

## APPENDIX 2 - CASES OF INFRINGEMENT OF EU LAW

Member State	Directive	Infringement
UK	Urban Waste Water Treatment Directive	<p><b>26/03/2015: Commission refers the United Kingdom to Court over poor wastewater collection and treatment</b> (<a href="#">IP/15/4672</a>)</p> <p>The European Commission is referring the United Kingdom to Court over its failure to ensure that urban wastewater is adequately treated in 17 agglomerations. In four of the agglomerations in question (Banchory, Stranraer, Ballycastle, and Clacton), treatment is inadequate, and one agglomeration, Gibraltar, has no treatment plant at all. In ten other agglomerations, where the wastewater discharges into sensitive areas such as freshwaters and estuaries, the existing treatment fails to meet the more stringent standards required for such areas.</p> <p>The case also concerns excessive spills from storm water overflows in collecting systems serving the agglomerations of Llanelli and Gowerton. Innovative and environmentally positive sustainable urban drainage solutions are now being implemented to improve the situation. However the current spill rates are still too high and compliance is not foreseen before 2020. The deadline for having in place compliant collecting systems for these agglomerations was end 2000.</p> <p>The Commission is referring the case to the Court of Justice of the EU.</p>
PL	Water Framework Directive	<p><b>21/02/2013: Commission takes Poland to Court over water legislation</b> (<a href="#">IP/13/144</a>)</p> <p>The European Commission is referring Poland to the EU Court of Justice for failing to transpose European water legislation correctly. Polish water legislation has shortcomings in a number of areas, including the transposition of some definitions provided by the Directive and gaps in transposition of the Directive's Annexes. The Commission is particularly concerned about the absence of Annex II, which outlines the characterisation system for surface waters and groundwaters, and about omissions in the transposition of Annex III, which should provide specifications and reference points for river basin district analysis, reviews of the environmental impact of human activities on water, and the economic analysis of water use. The monitoring of water status is also a cause for concern. Despite a number of reminders no satisfactory reply has been forthcoming. On the recommendation of Environment Commissioner Janez Potočnik, the Commission is therefore calling Poland before the European Court of Justice.</p> <p>The Commission first sent Poland a letter of formal notice on this matter in June 2008. As Poland's reply and corrective actions did not cover all of the Commission's concerns, the letter was followed by a reasoned opinion in June 2010. Poland then revised its water legislation in March 2011 and also adopted a number of regulations in November 2011, but as some of the issues identified in June 2010 are still unresolved, the Commission is summoning Poland before the Court. Poland received a similar summons last month over nitrates and water pollution.</p>
	Nitrates Directive	<p><b>24/01/2013: Commission takes Poland to Court over nitrates and water pollution</b> (<a href="#">IP/13/48</a>)</p> <p>The European Commission is referring Poland to the EU Court of Justice for failing to guarantee that water pollution by nitrates is addressed effectively. Europe has strong legislation on pollution from nitrates, and although the requirements have been applicable in Poland since 2004, too little has been done. Poland has still has not designated a sufficient number of zones that are vulnerable to nitrates pollution, and measures to effectively combat nitrates pollution in these zones have not been adopted. On the recommendation of Environment Commissioner Janez Potočnik, the Commission is therefore taking Poland to the EU Court of Justice.</p>

		<ul style="list-style-type: none"> <li>• Almost all of Poland's waters drain into the Baltic Sea, an area which is already suffering from excess levels of nitrates. International data indicates that the Polish contribution to the overall nitrogen load in the Baltic Sea is significant, and that most of it comes from agriculture. Only a very small part of the Polish territory, however, has been designated as nitrate vulnerable zones. This is why the Commission is pressing Poland to take action and to designate more areas, and to adopt appropriate plans to deal with the problem.</li> <li>• In addition, the legislation and action plans that have been adopted for designated zones lack precision and have numerous shortcomings, including inadequate closed periods and insufficient limitations for manure and fertilizers application. The Commission sent a reasoned opinion on this matter on 24 November 2011, urging swift action to redress the situation, and Poland has agreed to amend its legislation, but slow progress and insufficient proposed changes have led the Commission to refer the case to the EU Court of Justice.</li> </ul>
	Water Framework Directive	<p><b>27/02/2012: Commission asks Poland to correctly transpose legislation concerning water monitoring</b> <u>(IP/12/172)</u></p> <p>Poland has not yet complied with EU legislation on water protection, including monitoring of water quality. On the recommendation of Environment Commissioner Janez Potočnik, the Commission is sending an additional reasoned opinion to ask Poland to correctly implement the EU's Water Framework Directive (WFD). This is the third time Poland has been reminded of the need to comply with EU water legislation and if Poland fails to reply within one month, the Commission may refer the case to the EU Court of Justice.</p> <p>The Water Framework Directive is Europe's key tool for protecting its waters. Article 8 of the Directive obliges Member States to gauge the health of their surface waters and groundwater through national monitoring programmes, so that the status of waters can be established and any corrective measures can be properly targeted. Poland's deadline to transpose the Directive expired in May 2004, but at this time it had not adopted laws to meet the Directive's requirements in a number of areas, including water quality monitoring.</p> <p>The Commission sent Poland a letter of formal notice in June 2008. As Poland's reply and corrective actions did not cover all of the Commission's concerns, the letter was followed by a reasoned opinion in June 2010. In response, Poland revised its water legislation in March 2011, and also adopted a new law on monitoring surface and ground waters in November 2011. But the new Polish legislation has created further instances of non-compliance, leading the Commission to send Poland an additional reasoned opinion.</p>
FR	Urban Waste Water Treatment Directive	<p><b>29/04/2015: Commission takes France to Court over poor wastewater treatment</b> <u>(IP/15/4873)</u></p> <p>The European Commission is taking France to the EU Court of Justice for not complying with EU legislation on urban wastewater treatment. Some 17 agglomerations are listed as not having wastewater treatment up to EU standards. France was first warned in 2009 about this particular case, which concerns areas with a population equivalent in a range between 2000 and 15000.</p>
	Nitrates Directive	<p><b>27/02/2012: Commission takes France to Court for failing to combat water pollution by nitrates</b> <u>(IP/12/170)</u></p> <p>The European Commission is referring France to the EU Court of Justice for failing to take measures to guarantee that water pollution by nitrates is addressed effectively. Although the Nitrates Directive has been in force since 1991, France has still not designated a number of zones that are vulnerable to nitrates pollution, and it has yet to adopt measures to effectively combat nitrates pollution in these zones. The Commission is therefore taking France to the EU Court of Justice, on the recommendation of Environment Commissioner Janez Potočnik.</p>

ES	Urban Waste Water Treatment Directive	<p><b>26/11/2014: Commission takes Spain to Court over wastewater treatment presenting a risk to public health</b>  <a href="#">(IP/14/2129)</a></p> <p>The European Commission is taking Spain to Court over a failure to ensure that wastewater is properly treated. Spain was first warned in 2003 about this particular case, which concerns areas with a <u>population equivalent</u> of more than 10 000. Although some problems have since been solved, the slow rate of progress has now led the Commission, on the recommendation of Environment, Maritime Affairs and Fisheries Commissioner Karmenu Vella, to refer the case to the Court of Justice of the European Union.</p> <p>EU legislation on urban wastewater treatment dates back to 1991. By the end of 1993, Member States had to identify "sensitive areas" where more stringent treatment is required (sensitive areas include areas where freshwater is abstracted for drinking water), and they had to put in place systems to collect and treat water entering these sensitive areas by 31 December 1998.</p> <p>Spain has lagged behind in implementing the legislation, and reports from the Spanish authorities show that appropriate treatment is still lacking in agglomerations such as Berga, Figueres, El Terri (Banyoles), all in Catalonia, and Pontevedra-Marín-Poio-Bueu, in Galicia. For some other areas (Bollullos Par del Condado, Andalusia, and Abrera and Capellades, both in Catalonia) the Commission takes the view that the data submitted is either incomplete, or shows a failure to comply with the appropriate standards.</p>
	Drinking Water Directive	<p><b>16/06/2011: Commission asks Spain to improve drinking water in Alicante</b>  <a href="#">(IP/11/728)</a></p> <p>The Commission is asking Spain to take action to improve the quality of drinking water in Las Filipinas, an area in San Miguel de Salinas, Alicante, Spain. The Commission is concerned that local residents have suffered from water that is not fit for human consumption for more than a decade. Despite petitions to the European Parliament in 2005 and 2006, and the acknowledgement by the Spanish authorities that the local drinking water was not adequate for human consumption, no tangible action has been taken to solve the problem. Spain was sent a letter of formal notice about the matter in 2009, and despite a number replies, no satisfactory action has been implemented. On the recommendation of Environment Commissioner Janez Potočnik, the Commission is therefore sending a reasoned opinion, giving Spain two months to comply. If Spain fails to fulfil its legal obligations, the Commission may refer the case to the EU Court of Justice.</p>
DE	Water Framework Directive	<p><b>31/05/2012: Commission refers Germany to Court over incomplete cost recovery for water services</b>  <a href="#">(IP/12/536)</a></p> <p>The European Commission is concerned Germany is not fully applying the principle of cost recovery for water services. Under the Water Framework Directive, Member States must price water in a way that provides an adequate incentive to use it efficiently. Whilst Germany is of the opinion that such cost recovery should apply only to the supply of drinking water and the disposal and treatment of wastewater, the Commission considers that Germany's exclusion of other relevant activities such as hydro-power from the definition of water services hinders the full and correct application of the Water Framework Directive. Therefore, upon the recommendation of Environment Commissioner Janez Potočnik, the Commission has decided to refer the case to the European Court of Justice.</p> <p>On several occasions, the Commission has asked Germany to change its interpretation of water services to ensure correct application of Article 9 of the Directive; by sending a letter of formal notice to German authorities in November 2007, followed by another in September 2010 and finally a reasoned opinion in September 2011. However at this time Germany has not widened the scope of their interpretation of water services, so the Commission is referring the case to the court.</p>

HU	-	-
SE	Water Framework Directive	<p><b>27/10/2011: Commission asks Belgium, Denmark, Finland and Sweden to recover costs of all water services</b></p> <p><u>(IP/11/1264)</u></p> <p>The Commission is concerned that Belgium, Denmark, Finland and Sweden have incorrectly implemented the concept of water services as described in EU water legislation – leading to inappropriate water pricing. On the recommendation of Environment Commissioner Janez Potočnik, the Commission is sending the Member States a reasoned opinion to ask them to adjust their national legislation accordingly. If the countries fail to reply within two months, the Commission may refer the cases to the European Court of Justice.</p>

### APPENDIX 3 – BIBLIOGRAPHY

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The following appendices constitute separate documents attached to the report.

- APPENDIX 4 – COUNTRY REPORT - UK**
- APPENDIX 5 – COUNTRY REPORT – FRANCE**
- APPENDIX 6 – COUNTRY REPORT – GERMANY**
- APPENDIX 7 – COUNTRY REPORT – SPAIN**
- APPENDIX 8 – CONRTRY REPORT – POLAND**
- APPENDIX 9 – COUNTRY REPORT – HUNGARY**
- APPENDIX 10 – COUNTRY REPORT – SWEDEN**