EurEau

The governance of water services in Europe

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Foreword

The first recital of the Water Framework Directive rightly reminds us that "water is not a commercial product like any other but, rather, a heritage which must be protected, defended and treated as such".

EurEau represents water operators that are tasked with supplying drinking water to consumers and returning treated waste water safely to the environment, while protecting this vulnerable resource throughout the whole water cycle.

If water is a public good, it is also true that providing water services is an activity with important technical, economic, managerial and regulatory aspects - whether carried out by public or private operators.

Water services are essential in supporting the sustainable development of our societies, but still little is known about them. This is because the infrastructure is mainly underground, accessible only to few experts and sometimes situated in locations that are far from urban areas and protected for obvious security reasons. But also because water services' organisation differs from country to country due to history, cultural heritage and national or local traditions which result in specific regulatory frameworks.

In order to bring clarity and to simplify the understanding of the governance of water services in Europe, our report provides a snapshot of the current situation in the 29 EurEau member countries and illustrates the diversity of management models, organisational structures, tasks and responsibilities of the players involved at the different levels of governance (EU, national, regional or local).

The classification is designed around four management models:[1] this has to be seen as a simplification and generalisation of the existing models, like a compass orientating the reader. In no way should the four management models be considered as exhaustively reflecting each of the various experiences in Europe, nor should they be used as a check list of dos and don'ts.

Whatever the governance model chosen by a country or region, responsibilities and information flows must be clearly defined: this proves instrumental to good governance, which in itself is a prerequisite for sustainable and high quality water services.

We hope that this report will be helpful in providing a simple but comprehensive overview of water governance models in Europe, especially to those decision makers at EU and at national level who will work on the legislative instruments to reform water policy in the coming years.

Bruno Tisserand
EurEau President

[1] Classification by Van Dijk and Schouten, in Techneau 2007.

Introduction

Water services are defined in Article 2 (38) of the Water Framework Directive

Supply of **drinking water** goes under the definition of 'water services'

Water services also includes the **collection and treatment of waste water**

Water services may also be responsible for **rain water management**

Water Services are services of general (economic) interest. They are regulated at EU and national levels. The Water Framework Directive (WFD) and the 'water industry' Directives (the Drinking Water Directive (DWD), the Urban Waste Water Treatment (UWWTD) and the Bathing Water Directive (BWD)) govern the environmental and health standards at EU level and are implemented in national legislation.

The organisation of water services (the choice of the management model) is subject to subsidiarity (Protocol 26 to the Treaty on the Functioning of the European Union) and it is a competence of Member States. The EU institutions are neutral in regard to the choice of management models.

Water services are defined in Article 2 (38) of the WFD as: "all services which provide for households, public institutions or any economic activity: (a) abstraction, impoundment, storage, treatment and distribution of surface water or groundwater, (b) waste-water collection and treatment facilities which subsequently discharge into surface water."

However, as the management of water services is a national competence, the definition of 'water services' varies from country to country and may include activities that go beyond the definition enshrined in the WFD.

Generally speaking, the supply of drinking water and the collection and treatment of waste water go under the definition of 'water services' in all European countries.

In the majority of states, water services are also responsible for rain water management, but in some countries, storm water activities do not fall within the definition of water services. In a few countries flood protection and reclaimed water provision is also carried out by water service providers.

The way water services are organised is the result of historical and cultural factors that reflect the diversity of European countries.

As a way of simplification, four management models may be distinguished across Europe:

- **Direct public management:** under this system, the responsible public entity is entirely in charge of service provision and their management. In the past, this system was predominant in Europe.

- **Delegated public management:** under this system, a management entity is appointed by the responsible public entity to execute the management tasks. Management entities usually remain the ownership of the public sector, although in the EU, in some cases, there is the possibility of a minor private shareholding.

- **Delegated private management:** under this system the responsible public entity appoints a private company to manage tasks, on the basis of a time-bound contract in the form of lease or concession contract. In the countries where this type of management is common, municipalities subcontract their duties to private companies. The ownership of the infrastructure remains in the hands of public authorities.

Public authorities are in charge of approving the tariffs

Water tariffs are proposed by the water operator

Quality of **drinking water** is generally entrusted to **health authorities**

- **Direct private management:** under this system 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 very few European countries (England, Wales, and the Czech Republic).

In the majority of countries there is a mix of the first three models (direct public management, delegated public management and delegated private management), with a general trend, compared to 20 years ago, towards public and private delegated management.

Apart from the general cases of England and Wales and specific cases in the Czech Republic, the ownership of water infrastructure across Europe is public.

Public authorities are also in charge of approving the tariffs, determining the quality of service as well as setting and enforcing the environmental and health standards.

Water tariffs contribute to recovering the costs almost everywhere in Europe: in some countries costs are still to be covered by a mix of tariffs, transfers and taxes (3Ts).

The tariff structure differs from country to country, but in the majority of cases, the tariff is made up of a fixed component and a volumetric component. A tendency to set the 'tariff structure' at national level may be observed, while price setting still takes place at local level.

Generally, water tariffs are proposed by the water operator to the competent authority (municipality, regional government or regional regulator, national ministry or independent national regulator) for approval. In a few cases customer involvement is foreseen in the process. In some examples, supervisory bodies carry out an ex-post check of the tariff.

The quality of service may be defined by the competent authority according to some minimum requirements in some cases. If the minimum requirements are not met, water operators may be obliged to compensate customers.

Depending on the country and how services are organised, customers have different fora where they can file a complaint: the water utilities customers' service, the municipalities, consumers' boards, national regulators, ombudsmen, arbitrations and courts.

The monitoring of the quality of drinking water is generally entrusted to health authorities (Ministry of Health and their regional/local bodies).

The protection of water resources and the setting of environmental standards are usually the competence of the Ministry of the Environment and/or River Basin authorities and/or regional authorities as well as national environmental agencies.

The figures given in this report were supplied by our members and can refer to data collected between 2010 and 2018.

Austria

Population
8,543,000 inh.

9.37 m
Drinking water network length per capita

135 l/cap/d
Average residential consumption

11.28 m
Waste water network length per capita

3.67 €/m³
Average price

Water services core activities

Water services are not legally defined in Austrian Water Law. However, the common understanding of water services includes drinking water supply and waste water disposal and sewage.

Quality of service

Municipalities or delegated entities (water suppliers), supply the community with drinking water and dispose of waste water. Citizens are obliged to connect to the local drinking water system, unless they can prove that their private supplies comply with the legal quality requirements.

Management models

In Austria, water services are organised through direct and delegated public management models. Among the delegated public management system, limited companies and limited liability corporations are the most frequent form of organisational management, where the public authority holds the majority (in most cases 100%) of shares.

In total, there are approximately 5.500 drinking water utilities, 49% are urban structures, 20% are smaller municipalities, 11% are water boards and 10% are water co-operations (ÖVGW statistics, 2013). The remaining 10% of the Austrian population is self-supplied by private wells or springs.

The waste water sector is mainly under direct public management. In some bigger cities, like Graz (Holding Graz) or Linz (Linz AG), the public companies are appointed by the responsible public authority to execute the management tasks and the owner of the entities is still the public sector (delegated public management).

Water tariffs

Water suppliers are obliged by law to set tariffs based on an economic calculation ensuring full cost recovery. Tariffs include volumetric and fixed parts and have to be approved by local municipal governments. Additionally they can be reviewed by external authorities (Austrian Court of Auditors and Local Courts of Auditors of the *Laender*). Many water suppliers also link their tariff to the annual inflation rate. For the waste water sector, the local government sets the tariffs under the approval of local municipal governments.

Municipalities or delegated entities regularly monitor and inspect drinking water utilities according to an inspection and maintenance plan. According to the Austrian Water Act, external auditors regularly (every five years) have to supervise drinking water utilities in regards to technical aspects. The results of this external supervision must be reported to the authority without delay. Requirements for internal/external control and best available technology are further enshrined in national standards and guidelines. In addition, the competent local authority can inspect water utilities without prior notice. For the waste water sector, every province's authority sets standards and rules for waste water treatment. Each province has its own water authority.

The sector is financed mainly by revenues from tariffs, which cover operation and maintenance costs entirely, as well as a significant share of investment costs. Some subsidies are granted by national local budgets to complement funding for investments. Water tariffs differ from utility to utility and large variability is observed. This is because of the many different conditions water service suppliers face (such as the need to pump water, the use of locally available water resources or the need of supraregional supply, treatment necessities, urban or rural supply structure, etc.). 86% of Austrians think the price of water is acceptable or even low (AQA & ÖVGW 2014).

Customer complaints

According to an international survey, 95% of the population is highly satisfied with drinking water quality and service quality (Gallup 2013), which is amongst the highest satisfaction rates recorded in the survey. Consumers can directly contact their water suppliers and submit a complaint.

Consumer protection: enforcing drinking water quality

According to the Austrian Drinking Water Act, water quality has to be monitored at fixed intervals and at fixed points of the supply system. In this context, accredited laboratories assess the water quality, while experts assess the general condition of the supply facility. Water suppliers must forward the results without delay to the authority. The public health departments of the Austrian Laender are responsible for monitoring drinking water quality. In the case of non-compliance with drinking water parameters, water suppliers must inform the public health department of the Austrian Laender and take immediate action to guarantee compliance within 30 days.

The Ministry of Health is responsible for reporting the drinking water quality (Drinking Water Report) to the European Commission. The federal Ministry of Agriculture, Forestry, Environment and Water Management regulates the urban water supply and sanitation from a technical, financial and resources' point of view.

Environmental regulation and protection of water resources

The Austrian Federal Ministry of Agriculture, Forestry, Environment and Water Management, the provinces and municipalities share responsibility for environmental regulation and the protection of water resources. The Austrian Water Act defines the legal requirements for the environmental regulation of water resources and protection. Following the division of competencies, provinces and municipalities implement legal requirements, monitored by the provinces' authorities.

OVGW
Österreichische Vereinigung für das Gas- und Wasserfach
Austrian Association for Gas and Water
www.ovgw.at

OWAV
Österreichische Wasser- und Abfallwirtschaftsverband
Austrian Water and Waste Management Association
www.oewav.at

Belgium

Population
11,209,000 inh.

9.29 m
Drinking water network length per capita

2.6 m
Waste water network length per capita

96 l/cap/d
Average residential consumption

4.53 €/m³
Average price

Water services core activities

In Belgium water services are under the competence of the regions. In Flanders, in Wallonia and in Brussels water services include drinking water supply and sanitation (including waste water treatment).

Management models

In Flanders water services are entirely under the delegated public management model. In Wallonia the predominant model is for delegated public management with a small private shareholding for the company responsible for waste water treatment coordination. In Brussels the model is delegated public management for most of the tasks, with the exception of delegated private management for waste water treatment.

Water tariffs

In Flanders the drinking water price is subject to agreement by the Water Regulator, hosted at the Flemish Environment Agency (VMM). Each operator must introduce a six-year forecast ('Tariff Path') based on a 'Tariff Plan' with the specific (yearly) prices for household consumption (basic tariff and comfort tariff) and non-household tariffs. The first cycle started on 1 January 2017. Any index adjustments are set off at the beginning of the following year. Analysis and follow up of the sanitation and waste water treatment components are executed by the Economic Surveillance department of the VMM. The water price structure is fixed by law and is the same for a. drinking water; b. sanitation; and c. waste water treatment. The water price is made up of a fixed fee and a variable fee for the volume (drinking water) consumed. There is a price reduction mechanism on both the fixed and variable fees for large families and people in financial difficulties. The VAT (which is the same for all Belgium) is 6% on the three components (drinking water, sanitation and waste water treatment).

Quality of service

In Flanders the Water Regulator, part of the VMM, supervises the quality of services. In Wallonia the *Comité de contrôle de l'eau* issues an opinion on increasing prices for water after the operators have proved that the level of service is increasing through several performance indicators such as water quality, network efficiency, policy of investments, compliance with regional regulations etc. In Brussels the water utility defines the level of quality of service for its customers.

In Wallonia each drinking water supplier has to fill a standard accounting scheme which is defined in the law. This scheme is based on analytical expenditure. The sum of the different categories of expenditure, including depreciation and provision for future investments, gives the total amount of money to be collected through the water billing. A standard formula is then given to determine the price to be applied in order to recover these costs. The cost is also based on a financial plan in order to take inflation and the expected evolution of future investments into account. Once this price is determined by this method, all the calculations are sent to the Comité de contrôle de l'eau that gathers the social partners (representatives of labour organisations, consumers' organisation, industries, farmers, etc). This committee issues an opinion on the evolution of the price of water that is forwarded to the competent authority, who prepares a decision on whether to accept or refuse the proposed price. This final decision rests with the Walloonian Minister of the Economy. The price for waste water treatment follows the same path, except that it is based on a financial plan without the research based on analytical expenditures.

In Brussels water utilities assess the financial needs for exploitation and investments, and the price that would allow for the recovery of the operational service costs and the planned investments. A tariff proposal is sent to the minister in charge of water who makes a political decision to accept or reject it, taking into account the administration's opinions, of consumer organisations, nature protection associations etc. From 2018 the government will pass the control of the water tariff to Brugel, who already regulates the energy sector.

Customer complaints

In Flanders, Wallonia and in Brussels complaints are initially addressed to the suppliers. They are obliged to have a person responsible for dealing with complaints. If this is unsuccessful in resolving the problem, users can send their complaints to the regional ombudsman. This is a public body whose mission is to try to find arrangements between service users and public authorities (not only limited to water services). Regarding water quality, users can also complain directly to the environmental competent authority in the regional administration.

Consumer protection: enforcing drinking water quality

The Flemish environment agency (VMM) is responsible for ensuring that water delivered to customers complies with legislation.

In Wallonia and in Brussels, drinking water quality is monitored by the regional administration for the environment.

Environmental regulation and protection of water resources

In Flanders, VMM sets the standards for water quality as well as regulating catchment areas and volumes. In Wallonia and in Brussels the regional administration of the environment sets standards for water quality and regulates catchment areas and volumes.

Belgaqua
Belgische Federatie voor de Watersector / Fédération Belge du Secteur de l'Eau
Belgian Federation for the Water Sector
www.belgaqua.be

Bulgaria

Population
7,128,000 inh.

Water services core activities

According to the Water Supply and Sewerage (WSS) Services Regulation Act, 'water service' covers the services of treatment and delivery of water intended for drinking and household use, industrial use and other uses; of the removal and treatment of waste water and run-off rain water from domestic, commercial and state/municipal clients as well as construction,maintenance and operation activities for the supply of water and sewer systems, including treatment plants and other facilities.

Management models

The models represented in Bulgaria are direct public management, delegated public management and delegated private management.

Bulgaria has 64 water and sanitation service providers. Their ownership models varies but the majority are owned either by the state or by municipalities.

- 15 water and waste water operators are 100% state-owned
- 24 operators are 100% owned by municipalities
- 15 operators: 51% state owned and 49% municipal ownership
- 8 operators: 100% private
- 1 operator: 52% municipal ownership 48% privately owned
- 1 Public Private Partnership 'Sofiyska voda' – 77,1% of it is privately owned and 22,9% is owned by the municipality.

Water tariffs

The tariffs are proposed by the local water operators for each year of a 5-year period as part of their 5-year business plans. The tariffs and the business plans must be approved by the independent Water and Energy Regulator (national level) established in 2006.

Quality of service

The Water and Energy Regulator monitors the quality of the service. The Ordinance on the *Regulation of the Quality of the WSS Services* and the *Ordinance for the Regulation of the Prices of the WSS Services* were published in 2016. The new legislation introduced 15 quality-related KPIs (main ones) and the regulator determines individual levels that each WSS operator should reach by the end of the regulatory period. Five of these KPIs are also defined as "uniform efficiency indicators", i.e. they will be used by the regulator for tariff adjustments after the third and the fifth year of the business plan.

Customer complaints

Each consumer in Bulgaria (no matter whether it is with respect to water quality or other services or goods) is protected by the law and can file claims to the Commission for the Protection of Consumers. In addition, consumers can file claims and requests to the water operator itself, to the regulator or the local authority regarding water quality and the level of service.

Consumer protection: enforcing drinking water quality

There has been considerable improvement in the quality of drinking water over the last ten years. As a result, the quality of Bulgaria's drinking water is generally good, and it is supplied on a continuous basis. Still, microbiological noncompliance (such as the presence of E. coli) exceeds 5% in five regions. Deviation from the norm is characteristic of small water supply systems which do not have treatment facilities and thus supply water to the population after simple chlorination. Water quality may also be compromised by insufficient monitoring performed by water supply and sanitation companies. As a temporary measure, the Ministry of Health may perform monitoring functions.

More generally, the government's policy priorities were identified in the 2013 Water Strategy. According to the document, the strategic objectives of the sector are a) environmental, technical, and financial sustainability of water services; b) affordability of water services to consumers; c) improved efficiency and service quality of Bulgarian water companies; and d) compliance with all regulatory requirements by water stakeholders.

Environmental regulation and protection of water resources

These requirements and standards are set by the Ministry of the Environment and Waters and its subsidiaries as well as the river basin departments.

BWA
Българската асоциация по водите - БАВ1
Bulgarian Water Association
www.bwa-bg.com

Croatia

Population
4,203,604 inh.
(in 2015)

7.8 m
Drinking water network length per capita

14 m
Waste water network length per capita

150 l/cap/d
Average residential consumption

1.98 €/m³
Average price
(in 2013)

Water services core activities

Water services are defined by the Water Act and consist of services of public water supply, waste water collection and treatment.

Public water supply includes the abstraction of groundwater and surface water as well as delivery to the end user. Public waste water services include waste water collection and treatment as well as sludge management. Public waste water services involve the pumping and hauling of waste water from septic tanks.

Management models

In Croatia the majority of water and waste water services are provided under the direct public management model, where the responsible public entity is entirely in charge of services provision and management.

In the city of Zagreb the waste water treatment plant is managed through delegated private management (concession).

Water tariffs

Water service operators propose tariffs that are approved by the local government (the mayor of the municipality).

At national level, the government determines the lowest price base for water services and the types of costs covered by water tariffs, acting on the proposal from the Water Services Council, established as an independent body to ensure legality in determining the price of water services. The Croatian Parliament appoints members to this council. The water tariff is made up of a fixed and a variable part. The fixed part covers the costs associated with the connection to the municipal water network. The variable part is dependent on water consumption.

Quality of service

Water governance is under the remit of the Ministry of Environment and Energy. This ministry is responsible for the management of water resources, the governance of water services and quality control.

Customer complaints

Local governments are obliged, according to the consumer protection law, to organise councils for consumer protection, which must include members of the consumer protection associations. Customers can send their complaints to the council.

The public service provider is obliged to create a Committee for Consumer Complaints including representatives from consumer protection associations. The committee is bound to respond to a complaint within 30 days.

Consumer protection: enforcing drinking water quality

The quality of water for human consumption is governed by the Water Act (OG of the Republic of Croatia 153/2009, 63/2011, 130/2011, 56/2013 i 14/2014), the Water for Human Consumption Act (OG of the Republic of Croatia 56/2013, 64/15) and the Regulation on Parameters and Methods of Analysis of Water for Human Consumption (OG of the Republic of Croatia, 125/2013, 141/13 i 128/15).

Health and safety controls are conducted by county authorities and supervised by the Ministry of the Environment and Energy through the Water Inspectorate.

Environmental regulation and protection of water resources

The regulation of water services in terms of ecological standards and water resources protection is the jurisdiction of the Ministry of the Environment and Energy. The scope of the ministry's work includes tasks related to the protection and conservation of the environment and nature in line with the sustainable development policy of the Republic of Croatia.

The Ministry of the Environment and Energy performs tasks related to water management; monitoring and adaptation of water management development to the needs of the overall economic development of the Republic of Croatia; protection against harmful effects of water and ice; erosion and torrential protection; management of water resources and their use; irrigation and drainage; implementation of water protection and water environment protection against pollution; implementation of sea protection against pollution from land; use of water for various purposes; activities of public water supply and public sewage and waste water treatment; planning and harmonisation of the development of water structures; conducting administrative oversight of water management; international cooperation; the tasks of the Intermediate Body Level 1 for the use of structural instruments of the European Union in the Republic of Croatia, as well as other international sources of funding in the part related to water management projects and other activities from its scope of activity.

GVIK
Hrvatska grupacija vodovoda i kanalizacije - GVIK
Croatian Water and Waste Water Association

Cyprus

Population
848,300 inh.

6.55 m
Drinking water network length per capita

5.63 m
Waste water network length per capita

149 l/cap/d
Average residential consumption

2.90 €/m³
Average price

Water services core activities

In accordance with the relevant national legislation, water services are all the services that provide to households, public organisations or any other economic activity

a) abstraction, impoundment, storage, treatment and distribution of surface or groundwater;

b) waste water collection and treatment facilities, which subsequently discharge into surface water.

Management models

Cyprus generally applies direct public management for its water services. Water and waste water services are provided by the water and sewerage boards respectively, in the areas where such boards are operating. These are utility organisations governed by public law. In areas where no such boards are established, water services are integrated in the municipal or local community administration.

Water tariffs

Drinking water tariffs, for consumers living within the limits of a Water Board area (operating within the limits of the urban centres of Nicosia, Lemesos and Larnaka), are proposed by the Water Boards and approved by the Cypriot Council of Ministers. For consumers residing outside of the limits of the Water Boards, the tariffs are proposed by the relevant municipal council and approved by the Minister of the Interior or by the corresponding community council and approved by the local district officer (public servant appointed by the government).

In all cases, water tariffs must be approved in advance by the director of the water development department (the Water Director of Cyprus).

Sewage tariffs are imposed by the corresponding Sewerage Board and must be within the approved thresholds (ceiling rates). These thresholds are proposed by the Sewerage Boards and approved by the Council of Ministers and then by the House of Representatives.

Quality of service

Currently there is no national authority supervising the quality of service to customers. These issues are the responsibility of the relevant water or sewerage board.

Customer complaints

A Consumer Protection Service operates at national level within the Ministry of Energy, Commerce, Industry and Tourism. It is responsible for the protection of health, safety and the economic interests of the consumers. This service can be used for disputes concerning responsibilities deriving from the legislation of the Republic of Cyprus and that of the European Union, but not for disputes concerning decisions taken by an authority (e.g. tariffs). The Cyprus Consumers Association also safeguards consumer rights and handles complaints on faulty, damaged or unsatisfactory quality of products and services.

Consumer protection: enforcing drinking water quality

Consumer protection with respect to water quality is the responsibility of the Director of Medical Services and Services of Public Health of the Republic of Cyprus, who is accountable to the Minister of Health.

Consumer protection with respect to sewage and treated effluent is regulated by law (sewage laws and environmental legislation) and by the Department of the Environment, through the Disposal Decree and other decrees.

Environmental regulation and protection of water resources

The Department of the Environment of the Ministry of Agriculture, Rural Development and Environment is responsible for the implementation and enforcement of legislation. However, the Ministry of Agriculture, Rural Development and Environment is responsible for the application of the Protection and Water Management Act. It is the competent authority for environmental regulation and the protection of water resources. The management of water resources in particular is the responsibility of the Director of the Water Development Department (the Water Director of Cyprus) of the same ministry, who is actually responsible for the faithful and effective implementation of the provisions of the Unified Water Management Law.

CAWSB
Σύνδεσμος Συμβουλίων Ύδρευσης-Αποχέτευσης Κύπρου
Cyprus Association of Water and Sewerage Boards

Czech Republic

Population
10,526,284 inh.

7.38 m
Drinking water network length per capita

88.5 l/cap/d
Average residential consumption

4.48 m
Waste water network length per capita

3.27 €/m³
Average price

Water services core activities

The activities encompassed by the definition of water services can be derived from several legislative acts and comprise the operation of water supply and sewage systems for public use. These activities consist of water treatment to meet drinking water quality parameters, distribution of drinking water to customers and discharge of waste water to public sewers, followed by subsequent treatment, to reach the limits for discharge into the receiving water bodies.

Management models

Several management models co-exist in the Czech Republic (market size is expressed in the mean volume of water supplied to end customers):

1. Delegated private management (59% of the market)
    a. directly – based on contracts among municipalities and private entities
    b. indirectly
        i. through associations of municipalities that rent the asset to private entities
        ii. through publicly owned companies that rent the asset to private entities
2. Delegated public management either through public water companies or through a public multiservice company (usually municipal technical services company) – 25% of the market
3. Direct private management (private ownership and operation of public water systems) – 9% of the market
4. Direct public management – 7% of the market.

Delegated private management is the most widely used management model, covering 59% of the public water supplies.

Structure of the water service sector

In the Czech Republic, there are 6.700 owners and 2.800 operators of public water and sewage infrastructure. Despite this fragmentation, national regulations ensure that data is collected and comprehensive benchmarking is performed. This data and regular reports are available on the industry regulator's website: www.eagri.cz.

Quality of service

The Ministry of Agriculture (Department of Regulation and Supervision of the Water Industry) supervises the quality of the service. It concerns in particular technical matters such as service connections, metering, interruption of water supply, water quality, technical specifications for contracts, and the disclosure of information regarding the calculation of water and sewage tariffs. The Law on Consumer Protection contains additional requirements.

Regional water authorities (part of the state administration) and municipalities ensure the supervision of the service quality at local level. Tasks are broadly defined and partially shared among multiple institutions of the state administration – ministries and municipalities. In addition, mandatory service quality parameters may be included in the operational contracts when the public/private management model is applied. Finally, some service providers set and maintain voluntary quality-of-service charts. They are accessible to all customers and include voluntary penalties in the event of non-compliance.

SOVAK
Sdružení oboru vodovodů a kanalizací České republiky
Water Supply and Sewerage Association of the Czech Republic
www.sovak.cz

Since 1989 the water sector has grown significantly and large investments were carried out. At the same time, consumption dropped by 55%, from 1.25 million m³/y to 585 million m³/y. Nevertheless the unit leakage rate fell from 17m³/km/y to just 3m³/km/y.

As all surface waters are classified as 'sensitive areas' under the Urban Waste Water Treatment Directive, the number of waste water treatment plants in the Czech Republic increased to 3.070, covering all agglomerations over 2.000 population equivalent. In addition, there are tens of thousands of small installations.

Water tariffs

Water tariffs are included in the list of goods with regulated prices and governed by the Law on Prices. Water tariffs are calculated by water operators based on constraints following from this law. The Ministry of Finance acts as the regulating authority supervising cost elements and prices.

With the exception of direct private management, there is also an essential regulatory function of the public sector (municipalities, associations of municipalities, etc.) based on operational concession contracts, defining in detail pricing schemes, risk transfers and the efficiency parameters to be met by the operator. As infrastructure owners, they approve each tariff proposal submitted by the local water company – private or public. The law authorises entities with the right to charge water and sewage fees to subsidise the price for water and sewage services from other activities (cross-sector subsidies). Many municipalities make use of this option.

Customer complaints

Customers can address complaints to their local water services provider and/or to the competent water authority (water departments at municipalities, health departments).

Consumer protection: enforcing drinking water quality

The quality of the supplied drinking water is regulated by the Ministry of Health. Local health authorities (county health department) directly supervise compliance with the legislative requirements. They may also conduct independent drinking water quality checks. In fact, water providers conduct the majority of the mandatory sampling and reporting which is directly fed to the digital national water database used for compliance reporting.

Environmental regulation and protection of water resources

The regulation and control regarding water protection and the quality of discharged waste water is the responsibility of the Ministry of the Environment, which delegates these tasks to an executive institution: the Czech Environmental Inspection.

Apart from the local office of Environmental Inspectorate, the direct field supervision is carried out also by the local water authority office and the locally competent river basin state owned company. Conditions and limits for specific discharges and water collection are determined by the competent water authority office.

Denmark

Population
5,717,014 inh.

2016

9.4 m
Drinking water network length per capita

104 l/cap/d
Average residential consumption

15.9 m
Waste water network length per capita

9.00 €/m³
Average price

Water services core activities

Water services deliver drinking water and take care of waste water, including storm water, from customers. Drinking water companies and waste water companies are separate entities and carry out their activities independent of each other.

Other tasks: Water operators sell water to other water service providers. Waste water operators also treat and/or incinerate sewage sludge on behalf of other waste water service providers. They sell residual products, surplus products or by-products (e.g. biogas, fertilisers from sludge).

Management models

Up to 2010 the main management model was direct public management as municipalities, in general, had water and waste water services integrated in the municipal administration. The Ministry of Energy, Utilities and Climate is the relevant authority with regard to the organisational setup and tariffs. Since 2016 the situation is as follows:

Private management: there are around 2.100 consumers-owned water service providers.

Delegated public management: there are around 140 publicly owned limited companies responsible for water services and around 110 publicly owned limited companies responsible for waste water services.

Water tariffs

For small water operators (< 200.000 m³/year):
The Water Supply Law demands that price setting is based on the break-even principle. The provider proposes the tariff and the municipal council approves it.

For water service and waste water operators (at least 200.000 m³/year):
The Water Supply Law demands that price setting is based on the break-even principle. The operator proposes the tariff and the municipal council approves it, taking into account the demands from the national regulator.

They exploit and sell the energy produced. They carry out climate change mitigation activities with regard to storm water if the service provider is involved in the co-financing of the project. They also operate mandatory collection systems for sewage from private tanks.

Quality of service

Currently there is no national authority supervising the quality of service to customers. If the municipal council can find a legal basis for a legal order, then it can be established locally and water operators can increase tariffs according to the local legal order. When the operator increases the service quality, it is financed through the revenue cap given by the national regulator.

From 2018, providers handling at least 200.000m3/year will be subject to performance benchmarking in terms of the environment, public health, energy consumption, climate impact and security of supply.

The independent national regulator sets the individual revenue cap and efficiency goals according to the Water Sector Law. The economic regulation from 2016 is very complex and includes total economic benchmarking (TOTEX benchmarking) for providers handling more than 800.000 m^3/year.

Customer complaints

There is a Consumer Complaints Board at national level which can be used in regard to disputes concerning the delivery terms – but the board cannot be used when the dispute concerns a decision taken by an authority (ex. tariffs).

Consumer protection: enforcing drinking water quality

Municipal councils are responsible for public health protection. The councils follow the Danish Health authorities' scientific guidance at national level.

The relevant authority with regard to regulation and standards is the Ministry of Environment and Agriculture. Municipal councils are responsible for supervising drinking water quality as well as abstraction permits. Municipalities play also a central role in the protection of ground water resources.

Environmental regulation and protection of water resources

The Ministry of Environment and Agriculture is the relevant authority with regard to the regulation and the standards for waste water.

In general, the municipal councils are responsible for the supervision as well as for the permits of discharge and connection to sewers. The municipality also plays a central role in regard to protection of surface water resources.

The Ministry of the Environment and Agriculture is responsible for the water management plans while the municipal councils are responsible for the implementation of different sectors' plans and for the respective legal orders.

DANVA
Dansk Vand - og Spildevandsforening
Danish Water and Waste Water Association
www.danva.dk

Estonia

Population
1,316,000 inh.

4.73 m
Drinking water network length per capita

78 l/cap/d
Average residential consumption

4.30 m
Waste water network length per capita

3.16 €/m³
Average price

Water services core activities

The definition of water services comprises ground and surface water abstraction, barring, collection, processing and the distribution of drinking water as well as the collection of waste water in the public sewage network, the cleaning and discharging to a receiving water body. Water services are provided to households, state and local authorities, private and public legal persons as well as all physical persons.

Water undertakings, on the other hand, have a narrower obligation, i.e. to supply their clients with drinking water and to lead off and treat waste water, rain water, drainage water and other soil and surface waters through the public water supply and sewage system.

Management models

All water companies are organised through delegated public management.
Water companies are mainly owned by the local government, except few privately owned companies, one of which is listed on the stock exchange, and serves the Estonian capital; around one third of the whole population (Tallinna Vesi).

Water tariffs

Water tariffs are proposed by water undertakings, but approved by the relevant regulator. All companies treating waste water in agglomerations of over 2000 population equivalent are covered by the competition authority i.e. by national level regulation and surveillance (national regulator). All other companies are regulated through local governments.

Quality of service

Today, there is no harmonised nation-wide service quality standard. This means that each local government can establish its own quality of service rules for water services. Some local governments have done so, e.g. the Tallinn City Council for the service provider in Tallinn, the capital of Estonia. The Public Water Supply and Sewage System Act is currently being revised. Efforts are undertaken to include nation-wide rules on the service quality.

Customer complaints

There is no deviation from the general rules for other customer complaints. Therefore, customers have the right to present claims and complaints to the court according to general dispute resolution legislation. Also, customers have several out-of-court options, e.g to complain to local government, who by law is responsible for arranging drinking water and waste water services; to the relevant regulator (see above) regarding tariff issues; to the Health Board; to the Consumer Protection Board etc.

Consumer protection: enforcing drinking water quality

The Estonian Health Board is an authority under the Ministry of Social Affairs, and it monitors and enforces the quality of drinking water.

Environmental regulation and protection of water resources

The Ministry of the Environment sets the environmental standards, i.e. the overall framework and rules. The Environmental Board or the Environmental Inspectorate carries out the execution and supervision.

EVEL
Eesti Vee-ettevõtete Liit i.e.
Estonian Water Works Association
ww.evel.ee

Finland

Population
5,509,000 inh.

19.4 m
Drinking water network length per capita

11.0 m
Waste water network length per capita

119 l/cap/d
Average residential consumption

5.89 €/m³
Average price

Water services core activities

According to the Water Services Act (119/2001) the definition of water services covers the conveyance, treatment and delivery of water for household consumption, as well as sewerage, i.e.: the disposal and treatment of waste water from households. In addition to households, water services also include services for business and for leisure activities comparable with the needs of households. Water utilities also perform services that are vital to providing water services, for example connection to the network, metering, etc. The definition of 'water services' no longer covers storm water activities, still many water utilities collect storm water from their customers through a separate network. The storm water services are also separately defined in the Water Services Act.

Management models

Finland has 311 municipalities and most of them have one or more utilities providing water services in their area. Direct public management is still the most common management model: the municipality is in charge of provision, production and management of water services. About 70% of the municipal water utilities are organised as municipal entities or municipal enterprises under the direct administration of the municipality. Lately Finland has moved slightly from direct public management towards delegated public management. Approximately 30% of municipally owned water utilities are organised as companies. They have their own administration, but they are usually owned by the public sector, that is by municipalities. Additionally, Finland has over 1000 (small) co-operatives managed by consumers - especially in sparsely populated areas. These co-operatives can be mentioned as examples of some kind of direct private management in water services.

Water tariffs

The Water Services Act frames the utilities' economy: tariffs must cover both running costs and investments. There is no economic regulator for water services in Finland at the moment. The act includes rules and principles to improve economic transparency. The utilities have to publish data describing their economic situation and performance. Approval of the tariffs takes place at the local level. The institutional model of the body providing water services defines who sets the tariffs. The municipal administration can make suggestions related to the tariffs for the local utilities. The tariffs depend on the governance of the utility and are set by the management board of the company in the case of delegated public management, and in the case of direct public management, are set by the municipal council, board or committee.

Quality of service

The Ministry of Agriculture and Forestry has the general role of supervising water services at national level. The Ministry of Social Affairs and Health has a central role with respect to water quality and health. The Ministry of the Environment is responsible for the environmental issues related to water services. At the local level there are regional and municipal authorities responsible for monitoring and supervising water services. In addition to the authorities mentioned above, the Finnish Competition and Consumer Authority supervises competition and consumer issues at the national level. So, the quality of water services is defined by several authorities.

Customer complaints

As a first step, complaints should be addressed to the utility, which responds to them. If the consumers are unsatisfied with the outcome they can turn to the responsible municipal authority or take the case to the local court, depending on the reason for the complaint. Consumers can also contact the authorities responsible for consumer affairs. The Consumer Ombudsman does not primarily resolve individual disputes where the consumer is seeking reimbursement for an error with a product or service; these cases are handled by consumer rights advisors and the Consumer Disputes Board. The Consumer Ombudsman may, however, help the consumer to resolve an individual dispute, if its resolution is important for other consumers in similar cases.

Consumer protection: enforcing drinking water quality

The Ministry of Social Affairs and Health is responsible for drinking water quality. Its competence extends to all kinds of issues related to the protection of consumers' health.

Responsibilities related to water quality need special knowledge at local level, and it is the task of the regional and municipal authorities to assure that the quality of water delivered to customers is safe and complies with the relevant regulations. Municipal authorities (boards and officials) are set up specifically to protect public health. In the event of water quality problems these officials are the first in line to act and give instructions to consumers and to water operators. The National Supervisory Authority for Welfare and Health guides the municipal authorities together with the Ministry of Social Affairs and Health and the National Institute for Health and Welfare.

Environmental regulation and protection of water resources

The environmental norms are set nationally by parliament (in legislation) and the Finnish government (the Ministry of the Environment). At the local level there are currently regional Centres for Economic Development, Transport and the Environment (ELYs) and municipal boards and officials for the environmental supervision and monitoring. Locally the municipal authorities can set some environmental norms in their area for example with respect to the protection of water resources. The impacts of water services on the environment and water resources are regulated mainly by the terms of individual permits. The Regional State Administrative Agencies (AVIs) are state authorities that handle permits for activities with major environmental impacts or impacts on water resources. Other environmental permits are dealt with by the municipal environmental protection authorities.

FIWA
Vesilaitosyhdistys -
Vattenverksförening
Finnish Water
Utilities Association
www.vvy.fi

France

Population
66,900,000 inh.

15 m
Drinking water network length per capita

6.0 m
Waste water network length per capita

143 l/cap/d
Average residential consumption

3.92 €/m³
Average price

Water services core activities

Article L2224-7 of the General Local Authorities Code (*Code général des collectivités territoriales*) includes under 'water services' all activities related to the protection of the abstraction area, treatment, transportation and storage, and distribution of drinking water as well as the collection, transportation, treatment and discharge of waste water.

Management models

In France, municipalities are legally responsible for water supply, waste water services and customer service. They are supervised by the state but are free to decide on one of the following management models:

- The direct public management system (régie). Municipalities choose to handle water services (personnel, infrastructures, etc.) and directly collect compensation from users.
- Municipalities may also choose delegated public management, by adopting a public structure or company such as a société publique locale to manage water services.
- The delegated private management system (gestion déléguée). Municipalities retain ownership of facilities but sign Public Private Partnership (PPP) contracts with private operators that carry out water services.

Ways and means of managing investment, retribution and maintenance vary.

Quality of service

The municipality is accountable for the service level, including the monitoring of customer complaints (subject to a national performance indicator) and ways to answer to them. The ministries in charge of water define the standards for quality, continuity of service and resource preservation. Municipalities are responsible for guaranteeing the application of these norms and for insuring the quality of service. They have to report yearly on these topics, which are also subjected to national performance indicators.

In addition, the delegated private partner (if any) must publish a report on actions taken analysing the quality of service.

Water tariffs

Water tariffs are set at local level. Indeed, elected municipal assemblies deliberate on tariffs and must abide by certain rules. Tariffs must cover investment and maintenance costs. However, the variable/fixed ratio cannot exceed a maximum amount set at national level. Tariffs must also include taxes set by the state and by basin authorities. When water services are provided by a delegated private management body, the contract defines the terms for price evolution over its period. Yet tariffs can be very heterogeneous between areas, depending on differences in exploitation conditions.

Prices are composed of a fixed part, covering the subscription, and of a variable part which depends on consumption volume, the ratio between the two being framed by national law.

Customer complaints

Customers can take part in consultative commissions through local associations, which give an opinion on local changes in water services. Some local authorities also include civil society more closely in the decision-making bodies.

In addition, the Office of Frauds (under the Ministry of Finance) monitors the compliance of customer-related matters; customers may also call for an arbitration from the national water ombudsman's office.

Consumer protection: enforcing drinking water quality

Regional Health Agencies (*Agences régionales de santé*), under the authority of the Ministry in charge of Health, publish detailed information on drinking water quality, which is available online. They also provide day-to-day arbitration on decisions aimed at protecting public health. Municipalities are obliged to publicly display this data, which is made available to customers through water invoices.

Environmental regulation and protection of water resources

In France, water preservation is of general interest according to the *Code de l'environnement*. Environmental standards are thus set through state laws by the ministry in charge of water, which is currently the Ministry of the Environment, Energy and the Sea. These standards are then implemented by the water police (police de l'eau) who control the compliance of potential installations with water preservation requirements. The water police are organised locally at the level of each river basin.

FP2E
Fédération Professionnelle des Entreprises de l'Eau
Professional Federation of Water Companies
www.fp2e.org

Germany

Population
81,198,000 inh.

6.94 m
Drinking water network length per capita

7.37 m
Waste water network length per capita

122 l/cap/d
Average residential consumption

Water services core activities

Water services supply drinking water and, in some parts of Germany, also take care of waste water treatment.

When water supply is provided under private law, it is often part of the company also responsible for municipal services such as energy supply or public transport.

Management models

In total, there were approximately 6.065 drinking water supply enterprises and utilities in 2010. These are mainly small ancillary municipal utilities and owner-operated municipal utilities.

Direct public management: Only a small number of drinking water utilities (less than 50) are organised as ancillary municipal utilities. The share is even lower for water output. As regards waste water, the majority are own-operated municipal utilities.

Delegated public management: Delegated public management is carried out mainly through special purpose associations which account for almost 64% of drinking water utilities (about 3.880 companies). These companies account for almost 40% of water output. Special purpose and water associations are also common in waste water service provision.

Delegated private management: The share of drinking water companies managed through delegated private management was to 35% in 2012 (about 2.120 companies described as AG or GmbH). These are mainly companies with private participation. The share increases to 60% when looking at water output.

Waste water disposal is predominantly carried out by utilities under public law.

Quality of service

As part of self-governance rules, municipalities decide on the implementation and organisation of water supply and waste water disposal.

Local statutes determine that each citizen and commercial company is obliged to connect to and utilise the public drinking water supply and sewers of the local government or responsible special purpose association. Exceptions might occur outside municipalities in rural areas.

Binding regulations ensure that no residential buildings may be constructed without a proper drinking water supply. Home owners have to respect technical standards of their house water supply installation.

BDEW
Bundesverband der Energie- und Wasserwirtschaft
German Association of Energy and Water Industries
www.bdew.de

DVGW
Deutscher Verein des Gas- und Wasserfaches e.V
German Technical and Scientific Association for Gas and Water
www.dvgw.de

Water tariffs

Tariffs are subject to extensive regulatory and judicial control. The control mechanisms depend on the nature of the contractual relationship. The pricing decisions for water supply in privately organised utilities are mostly taken by the utility supervisory board. In municipal utilities, the elected local councillors ensure that citizens have considerable codetermination rights.

The Local Rates Act and federal acts determine the framework for the calculation of charges. Cost coverage is anchored in law, which means that charges include all actual costs incurred to companies, including capital costs.

The antitrust review of water prices is the responsibility of the cartel authorities of the federal states or, in case of cross-border activity, the Federal Cartel Office.

Customer complaints

Concerning tariffs, there is the 'fairness control' in accordance with §315 of the German Civil Code, which consumers can assert through the civil courts. The court checks the appropriateness (fairness) of the agreed price of water in relation to the performance of the water service.

Consumer protection: enforcing drinking water quality

The qualitative requirements are laid down in the Drinking Water Ordinance (TrinkwV 2001). Federal states and the municipal public health departments are responsible for monitoring quality. The latter supervises the internal control and quality assurance measures taken by the water utilities, including the prescribed documentation. They also carry out their own checks.

The public health authorities also monitor trends in water quality. As a precaution, water utilities are required to prepare plans of measures to be taken in case of temporary non-compliance with requirements and limits.

Environmental regulation and protection of water resources

Municipalities have to fulfil certain tasks regarding the implementation of regional environmental laws. Depending on the amount of water involved, lower or middle level water authorities or the water management offices implement the water rights within urban districts and cities not attached to districts in the lower instance of the water management administration.

This includes the approval of waste water systems, waste water treatment plants, small sewage works, the management of waste water and rain water discharges as well as the use of water bodies such as for the abstraction from groundwater and surface water resources.

Greece

Population
11,200,000 inh.

6.61 m
Drinking water network length per capita

...150 l/cap/d
Average residential consumption

4.46 m
Waste water network length per capita

1.40 €/m³
Average price

Water services core activities

According to national legislation, 'water services' covers drinking water supply and waste water collection and treatment.

Management models

The main management model for water services in Greece is delegated public management. In the two biggest cities of Greece - Athens and Thessaloniki - that provide water services to approximately 5 million people (out of a total population of 11 million people (2011)), there is a special type of delegated public management. The Greek state delegated two public companies (E.YD.A.P for Athens and E.Y.A.TH. for Thessaloniki) to provide water services. E.YD.A.P. and E.Y.A.TH. have been listed on the Greek stock market for approximately 15 years and the Greek state is the main shareholder. The President of the Board of Directors and the CEO of both companies are appointed by the government.

In cities with more than 10.000 inhabitants, water services are provided under delegated public management, since 130 municipal companies (D.E.Y.A.) founded by municipalities, provide water services to 5,3 million people. In cities with fewer than 10.000 inhabitants the management model is usually direct public management. In these cities the municipality is the responsible public entity in charge of water services provision. Every municipality, by law, can have only one operator providing water services to all cities and villages within the municipality.

Quality of service

In the Greek legal framework there is no clear definition of quality of service and no authority is clearly appointed to supervise it.

Water tariffs

Economic regulation depends on the legal framework that governs the water services management model.

In the case of E.YD.A.P. the main legal framework for economic regulation is the Law n.2744/1999 and for E.Y.A.TH. the Law n.2937/2001. For D.E.Y.A., the legal framework for economic regulation is the Law n.1069/80 while the Municipal Code (Law 3463/2016) is the legal framework for the municipalities. According to the decision of the National Water Committee (n.135275) that was put into effect in May 2017, water tariffs have to recover the costs in compliance with the Water Framework Directive (60/2000/EC) and the national legislation (Law n. 3199/2003 and Presidential Decree n.51/2007) transposing the WFD into the national legal system. Therefore, water tariffs have to include and incorporate economic, environmental and resource costs. The Regional Administration Department for Water that operates under each regional administration is entitled by the Common Ministerial Decision to define the environmental fee in order to meet the environmental cost recovery.

The board of management of each local company proposes the tariff. In the case of municipal water companies (D.E.Y.A.) the proposal for water tariffs is approved by the municipal council (local level) and its decision is supervised for its legality by the competent Department of the Regional Administration (regional level). In case of the Water and Sewerage Companies of Athens (E.YD.A.P.) and Thessaloniki (E.Y.A.TH.) tariffs have to be approved by the Ministries (national level) of Finance, National Economy, Environment and Energy and the Ministry of Macedonia and Thrace (for E.Y.A.TH. exclusively). The municipal council's decision is supervised regarding its legality by the competent Department of the Regional Administration.

Customer complaints

Customers can address their complaints to the board of each water company or to the municipal council (the board of the municipality). Additionally they can go to the Greek Ombudsman, although its decisions are not binding, since it has an advisory role.

Consumer protection: enforcing drinking water quality

The Ministry of Health is responsible for consumer protection with respect to water quality.

Environmental regulation and protection of water resources

The Special Secretariat for Water regulates water services with respect to environmental regulation and protection of water resources and sets the environmental standards. The Special Secretariat operates under the Ministry of Environment and Energy.

EDEYA
ΕΝΩΣΗ ΔΗΜΟΤΙΚΩΝ ΕΠΙΧΕΙΡΗΣΕΩΝ ΥΔΡΕΥΣΗΣ ΑΠΟΧΕΤΕΥΣΗΣ - Ε.Δ.Ε.Υ.Α.
Hellenic Union of Municipal Enterprises for Water Supply and Sewage
www.edeya.gr

Hungary

Population
10,000,000 inh.

6.74 m
Drinking water network length per capita

95 l/cap/d
Average residential consumption

5.01 m
Waste water network length per capita

2.65 €/m³
Average price

Water services core activities

Water services are defined in act No. CCIX of 2011 on public water utility services 2.§ 24) 'Water Utility Service': within the framework of a public service contract, the provision of public drinking water utility services and the provision of water for fire fighting purposes; public waste water collection and treatment; the collection of rainwater in combined systems.

Management models

The public water infrastructure used for the provision of drinking water, waste water disposal and waste treatment services can be owned exclusively by local municipalities or the state. It is also the responsibility of the local governments and, in certain cases specifically defined in the legislation, of the state itself to provide customers with these services. The asset owner (the municipality or the state) signs a contract of service provision with the service provider (utility company).

The contract can be one of three different types: asset management contract, concession or rent-operation scheme. Each type of contract involves different legal provisions and obligations. The 'concession' contract provides the widest range of rights and the largest responsibility to the operator. The smallest responsibility and narrowest scope are given to the service provider by the 'rent-operation' type of contract.

Quality of service

The Hungarian Authority for Consumer Protection is responsible for settling accounts, billing, payment of fees and tariffs, metering, prosecuting the violation of provisions laid down in legislations and upholding business regulations concerning the restriction or suspension of public water utility services concerning public users.

In all other issues the regulatory authority (MEKH) is responsible for supervising the quality of services. MEKH also have a department for consumer protection.

Water tariffs

Service providers can only carry out their water utility services if they are in possession of the operating license that is issued by the Hungarian Energy and Public Utility Regulatory Authority (MEKH) and during the validity of their operation contract.

With the Water Utility Act entering into force in 2011, local municipalities (local governments) lost their price setting authority and currently tariff setting takes place at national level. The Regulator (MEKH) provides the minister responsible for the supervision of the sector with the suggested tariffs. The minister takes the proposed tariffs into consideration and defines the official tariffs for each water utility provider/ water utility system or the type of water utility provision activity in a decree. A leftover from the previously decentralised tariff setting system, there are currently around 10.000 different tariffs in use, and there are significant variations between these.

Customer complaints

Consumers can address their complaints to the rapporteur of the Consumer Protection Agency at the Government District Offices; to the water utility company; and also to institutions such as MEKH (Hungarian Energy and Public Utility Regulatory Authority) and the regional Conciliation Boards.

Consumer protection: enforcing drinking water quality

The National Public Health and Medical Officer Service enforce drinking water quality. The National Inspectorate for the Environment and Nature implements the Urban Waste Water Treatment Directive.

Environmental regulation and protection of water resources

The General Directorate of Water Management within the Ministry of the Interior is responsible for the protection of water resources, while environmental regulation is under the remit of the National Inspectorate for the Environment and Nature.

MaViz
Magyar Víziközmű Szövetség
Hungarian Water Utility Association
www.maviz.org

Ireland

Population
4,792,000 inh.

10.6 m
Drinking water network length per capita

19.1 m
Waste water network length per capita

130 l/cap/d
Average residential consumption

Water services core activities

In Ireland, water services core activities include drinking water and waste water services together with storm water management. The National Water Utility (Irish Water) provides drinking water and waste water services while storm water management and river basin management remain with local authorities.

Management models

The management model is a delegated public management, where Irish Water – the publicly owned national utility – is responsible for providing drinking water and waste water services, while local governments are responsible for storm water as well as certain duties under the Water Framework Directive relating to river basin management, pollution of water courses etc. Exceptions to the above include small rural (drinking) water supplies which remain with the local authorities and privately owned and operated group water schemes (in rural areas).

Water tariffs

Following a decision by the Irish parliament in 2017, general domestic charges for water services were abolished with immediate effect and a new regime of excessive usage charges was introduced, effective from July 2019. Non-domestic customers are unaffected and continue to pay for water services. These non-domestic charges are currently based on historic rates and will be set by the regulator (Commission for the Regulation of Utilities or CRU) when national charges are in place following a public consultation process.

Funding for domestic customers is provided from central taxation. Legislation is being drafted to allow charging for excessive use, the level of this to be set by the regulator (CRU).

Quality of service

The CRU prepared a 'customer handbook', which includes a requirement for a Customer Charter, with the CRU providing minimum levels of customer service. The handbook is due for regular review and the latest version is available at: www.cru.ie/professional/publications.

Under the Water Services Act 2017, a Water Forum was established to advise the minister and the CRU on various aspects of water services, including customer service and water conservation. The Act also established a Water Advisory Body which is to advise the minister in terms of the performance of Irish Water and measures required to improve its transparency and accountability for the purpose of increasing the confidence of members of the public in Irish Water and to report on the performance by Irish Water in the implementation of its business plan.

Customer complaints

The CRU is responsible for dealing with customer complaints as they relate to Irish Water customers, whether domestic or non-domestic. See the link: www.cru.ie/home/customer-care.

Consumer protection: enforcing drinking water quality

The Environmental Protection Agency (EPA) sets the standards for drinking water quality and monitors compliance, while the Health Service Executive (HSE) decides on any public health interventions such as issuing public health notices.

Environmental regulation and protection of water resources

The Environmental Protection Agency (EPA) is responsible for the protection of water resources.

CCMA
The County and City Managers' Association
www.lgcsb.ie

Italy

Population
60,600,000 inh.

5.8 m
Drinking water network length per capita

4.7 m
Waste water network length per capita

245 l/cap/d
Average residential consumption

1.5 €/m³
Average price

Water services core activities

Water services include: drinking water supply, sewage (including urban drainage and rain separated sewage management) and waste water treatment (sludge included). The definition of water services also includes all the operations needed to run them such as new connections and water meter management.

Management models

In Italy there are different managing systems for water services. About half of the population are served through the delegated public management model. PPPs (Public Private Partnerships) cover 36% and concessions cover 5% of the population. Water services are directly provided by municipalities (direct public management) to the remaining share of the population.

Water tariffs

The tariff for water services is proposed by the local regulator (*EGA - Ente di Governo d'Ambito*) to the national regulator (ARERA (the Regulatory Authority for Energy Networks and the Environment) which can approve it.

If the local regulator does not act, the water company can send its proposal directly to the national regulator (ARERA) for tariff approval.

The law n. 214 of November 2011 established the national regulator ARERA (the Regulatory Authority for Energy Networks and the Environment). ARERA is the independent regulator, which regulates, controls and monitors water services. This law provides that: "with respect to the national Agency for both regulation and vigilance of water services, the functions of regulation and control of water services are assigned to the Authority making use of the same powers given by the law November 14 1995, n.481".

Quality of service

Both the national regulator (ARERA) and the local regulators (EGA) define the quality of service.

With the resolution 655/2015/R/idr, ARERA now approves the service quality for regulating the quality of the Integrated Water Service contracts, i.e.: of each of the individual services (RQSII). this follows a complex process of consultation involving management company associations and consumer associations.

The measure defines minimum contract levels and quality objectives of the Integrated Water Service, through the identification of significant indicators for maximum times and minimum quality standards, uniform at national level, for the services. It also determines methods for recording, reporting and verifying data on services provided by operators upon the user's request.

In case of failure to meet specific quality standards in individual services, the authority introduced automatic compensations to be paid to users, and a penalty mechanism for failing to meet general quality standards for all services.

Customer complaints

Customers may address their complaints directly to the national regulator or to the local one.

Consumer protection: enforcing drinking water quality

The Ministry of Health, with the structure of an *ISS (Istituto Superiore di Sanità/ Institute of Health)*, establishes the working framework of ASL (*Azienda sanitaria locale*/local health authority), operating at local level. It sets standards for quality parameters (chemical and biological), analytical methodology and implements EU legislation, liaising with the European Commission.

The ASL is responsible for ensuring drinking water complies with EU and national legislation at the local level.

Environmental regulation and protection of water resources

The Ministry of the Environment sets the environmental standards. The River District Authority regulates the protection of water resources.

The *ARPA – Agenzia Regionale per la Protezione Ambientale* (regional environment authority) is in charge of the environmental audit and is responsible for waste water treatment plants compliance with EU and national legislation.

Utilitalia
Associazione delle imprese idriche energetiche e ambientali
Federation of Energy, Water and Environmental Services
www.utilitalia.it

Luxembourg

Population
590,000 inh.

7.0 m
Drinking water network length per capita

8.0 m
Waste water network length per capita

...137 l/cap/d
Average residential consumption

5.5-6 €/m³
Average price

Water services core activities

Water services (drinking water and waste water) are regulated by the municipalities. Water services include drinking water supply, quality control, new connections, water meter management, waste water treatment, urban drainage and rain water management.

Management models

The management model is direct public management: municipalities in general have drinking water and waste water services integrated into their administration.

Water tariffs

Water tariffs are proposed by the municipalities (voted by the municipal council) and have to be approved by the competent national ministry, the Ministry of Sustainable Development and Infrastructure.

Prices are set based on the break-even principle.

Quality of service

The norms governing quality of service are defined nationally and the quality of service is supervised locally.

Customer complaints

Customer complaints are addressed to the municipality.

Consumer protection: enforcing drinking water quality

The drinking water quality is under the remit of the Ministry of Health and the Ministry of Sustainable Development and Infrastructure.

Municipal councils are responsible for the supervision of drinking water quality as well as abstraction permits. Municipalities play also a central role in the protection of ground water resources.

Environmental regulation and protection of water resources

The protection of the environment and of water resources are within the competences of the Ministry of Sustainable Development and Infrastructure.

In general, the municipal councils are responsible for the supervision as well as for the permits of discharge and connection to the sewer system. The municipality plays a central role in regard to the protection of surface water resources.

ALUSEAU
Association Luxembourgeoise des Services d'Eau
Luxembourg Association of Water Services
www.aluseau.lu

Malta

Population
425,000 inh.

5.6 m
Drinking water network length per capita

79.36 l/cap/d
Average residential consumption

3.83 m
Waste water network length per capita

3.32 €/m³
Average price

Water services core activities

Chapter 355 of the Laws of Malta sets out the obligatory functions of the Water Services Corporation such as: water supply, disposal and reuse, sewers and drainage systems operations, sewage treatment and disposal, promoting the proper disposal of waste water and storm water run-off, promoting the reasonable use of water and encouraging the conservation and appropriate reuse of water resources.

Quality of service

The REWS was established on 31 July 2015 through the Regulator for Energy and Water Services Act.

Management models

In Malta the management model adopted is delegated public management. The Water Services Corporation is a public utility owned by the state.

Water tariffs

Water tariffs are established after a request for their review is submitted by the Water Services Corporation to the Regulator for Energy and Water Services (REWS), and written approval is granted by the regulator. The periods for such reviews are not specified in the law. Approved tariffs are required to provide sufficient revenue to the

Corporation in any financial year:

a) to cover operating expenses, including taxes, if any, and to make provision for the adequate maintenance, depreciation, interest payments on borrowings and other interest payments

b) to meet periodic repayments on long term indebtedness to the extent that any such repayment exceed the provisions for depreciation

c) to create reserves to finance a reasonable part of the cost of future expansion, being expenses, repayments and reserves incurred or made by the Corporation in the exercise of its functions

d) to provide a reasonable return on investment and expenditure incurred by the Water Services Corporation.

It is responsible for regulating energy and water services in Malta. Art. 5 of the REWS Act further describes the functions of the regulator to:

1. regulate, monitor and keep under review all practices, operations and activities relating to water services
2. grant any licence, permit or other authorisation, for the carrying out of any operation or activity relating to water services
3. promote fair competition in all such practices, operations and activities and to monitor the occurrence of restrictive contractual practices
4. establish minimum quality and security standards for any of the said practices, operations and activities
5. secure and regulate the development and maintenance of efficient systems
6. regulate the price structure for water services and to establish the mechanisms whereby the price is determined.

Moreover, the license granted by the regulator defines key performance indicators which must be met, recorded and reported by the Corporation.

Tariffs are computed on the basis of full cost recovery. Part of the costs is carried through a government subvention to the water operator. Water tariffs are designed as a rising block tariff which encourages efficiency at the consumers' end. The tariffs are therefore designed to discourage wasteful practices and inefficient use of water. Water tariffs are published through amendments to the Water Supply Regulations (subsidiary legislation).

Customer complaints

REWS promotes the interests of consumers and other users in Malta, particularly vulnerable consumers, especially in respect to the prices charged for, and the quality and variety of the services and/or products regulated by or under this act. REWS decides on disputes in relation to water services.

Consumer protection: enforcing drinking water quality

The Environmental Health Directorate, within the Superintendence of Public Health, promotes and safeguards the well-being and health of the public through the enforcement of legislation, including the Drinking Water Directive (98/83/EC). They are also responsible for the monitoring and reporting on the quality of coastal waters.

Environmental regulation and protection of water resources

Environmental standards are set at national level, usually through legislation and transposition of EU Directives. The following national authorities regulate water services with respect to environmental regulation and protection of water resources:

- The Energy and Water Agency (EWA) is a government agency whose main functions include the formulation, evaluation, monitoring and implementation of national policies concerning the use of energy and water in a sustainable manner.
- The Environment and Resources Authority which monitors the quality of all surface water and groundwater bodies and protected areas. Monitoring programmes are required to establish a coherent and comprehensive overview of water status within each water catchment district.

WSC
Water Services Corporation
www.wsc.com.mt

Norway

Population
5,190,000 inh.

8.43 m
Drinking water network length per capita

12.2 m
Waste water network length per capita

...140 l/cap/d
Average residential consumption

5.7 €/m³
Average price

Water services core activities

There is no official definition of 'water services' in Norway. The financing (pricing) and ownership of 'water and waste water utilities' are regulated in the 'Water and Waste Water Utilities Act'. The 'water and waste water utilities' are defined as "main pipes for water and waste water, pumps, service reservoirs, utilities for handling and treatment of water and waste water".

Waste water is defined by law as being both waste water and storm water.

Management models

In Norway water services are managed through direct public management. Still, the municipalities are not obliged directly by law to serve inhabitants with water and water facilities, but have an obligation to secure the health of their inhabitants and to avoid pollution from waste water. It is enshrined in law that utilities should be owned by the municipalities.

Water tariffs

The Norwegian Enviromental Agency is the national authority establishing the regulations for the structure of the municipal tariffs. The basic tariff structure (obligation of cost recovery and having both a fixed and a variable part of the tariff) is regulated at the national level, while at local level, municipality officials propose the tariffs and municipality politicians approve them. They are controlled by a municipal auditing body.

Quality of service

Supervision is very fragmented and carried out at national and at regional levels. The quality of service is defined by national regulation. The water sector has its own benchmarking system. There are several organisations monitoring the local tariffs, like The National Federation for House Owners and The Consumers Council.

Customer complaints

Consumers can address their complaints to the municipal body and also to a specific body that has court authority and which handles complaints from consumers.

Consumer protection: enforcing drinking water quality

The Norwegian Food Safety Authority (NFSA) approves and oversees the potable water supply systems, approves water treatment products and develops regulations and guidelines. The NFSA also works closely with other authorities in order to achieve a wholesome water management. It is organised at both regional and national levels.

Environmental regulation and protection of water resources

The Norwegian Environmental Agency regulates water services with respect to environmental issues and sets the environmental standards while the Norwegian Water Resources and Energy Directorate regulates a comprehensive and environmentally sound watercourse management. The municipalities regulate waste water utilities below 2.000 persons equivalents (pe) discharging to freshwater and 10.000 pe discharging to the sea.

Norsk Vann
Norwegian Water
www.norskvann.no

Poland

Population
38,486,000 inh.

7.59 m
Drinking water network length per capita

94.17 l/cap/d
Average residential consumption

5.4 m
Waste water network length per capita

2.15 €/m³
Average price

Water services core activities

Drinking water and waste water services are regulated by the Act on the Collective Supply of Water and Collective Discharge of Waste Water. The act describes the operational conditions and organisation of the water services sector. It includes water treatment and the supply of water intended for human consumption as well as waste water collection and treatment. Drinking water and waste water services are in most cases delivered by the same company, which in some cases may deliver other services like solid waste management, district heating, administration of public buildings etc.

Management models

The management models in Poland are: direct public management by municipalities (budgetary unit), delegated public management (the biggest part of the market - municipal companies such as limited liability companies, joint stock companies, etc) and delegated private management (private operator). There are also small entities owned by consumers or private companies. A large section of drinking water consumers have their own wells and are not subject to any regulation.

Water tariffs

Tariffs have to be proposed by the water company operating in each municipality for a three-year period. Tariffs should be prepared in accordance with the ministerial regulation on the method of tariff settling indicating the costs and profits which can be included in the tariffs.

The last amendment to the Act on the Collective Supply in Water and Collective Discharge of Waste Water entered into force on 12 December 2017. It implements the institution of Central Tariffs Regulator. Tariffs are now approved by this governmental institution; therefore they are no longer regulated by municipalities. Moreover, the 2017 Water Law includes new types of water charges for industry, agriculture and public water services as well (for example fixed charges depending on the water permit).

Other tasks: water utilities treat waste water delivered by slurry tanks, manage sludge (incineration, drying, fertiliser production, composting etc.), produce and sell energy from biogas and sludge as well as from heat pumps, photovoltaic panels and provide other services like network infrastructure construction, rain water management etc.

Quality of service

In terms of quality of water and sewage services, consumers are protected by the Office for Competition and Consumer Protection. According to the Act on the Collective Supply in Water and Collective Discharge of Waste Water, every water utility is bound to issue a local service regulation including general obligations of the utility in relation to the consumers. The Chief Sanitary Inspectorate checks drinking water quality while the Inspectorate for Environmental Protection is obliged to check the treated waste water quality.

Customer complaints

Complaints can be directed to the water company, to the president/mayor/head of the town/city/village, to the Epidemiological Office of the District (regional unit of the Chief Sanitary Inspectorate), to the Office for Competition and Consumer Protection or to the Ombudsman.

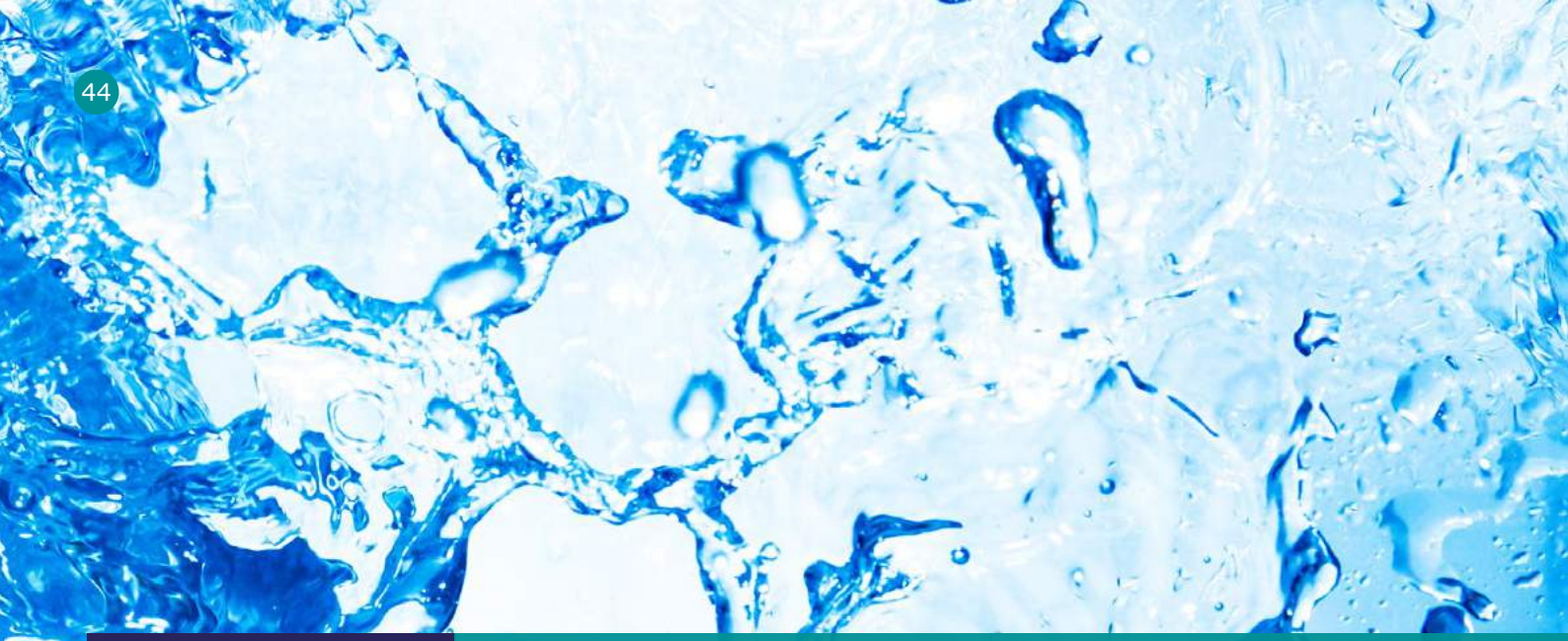
Consumer protection: enforcing drinking water quality

Every water utility has to check the quality of drinking water in an accredited laboratory. Additionally the quality of water for human consumption is controlled by the district Sanitary Epidemiological Office. Drinking water quality is regulated by the Ministry of Health according to the DWD.

Environmental regulation and protection of water resources

The standards are set by the Ministry for Environmental Protection, which is responsible for the water management plans. Every waste water treatment plant has to check the treated waste water quality in an accredited laboratory. The quality of discharged treated waste water is also controlled by the Inspectorate for Environmental Protection.

IGWP
Izba Gospodarcza
Wodociagi Polskie
Polish Waterworks Chamber of Commerce
www.igwp.org.pl



Portugal

Population
10,325,000 inh.

11.3 m
Drinking water network length per capita

7.2 m
Waste water network length per capita

204 l/cap/d
Average residential consumption

1.82 €/m³
Average price

Water services core activities

According to Portuguese legislation, water services include: the abstraction, treatment, transport, storage and distribution of drinking water; the collection, drainage, elevation, treatment and discharge of urban waste water as well as the collection, transport and final disposal of sludge from septic tanks. Urban waste water is defined as domestic waste water or a mixture of domestic waste water and rain water or industrial waste water.

Management models

In Portugal, three management models coexist: a) direct public management, b) delegated public management and c) delegated private management. 'Direct private management' is not considered in Portuguese legislation.

The public management model (a) is predominant, allowing distinctive subtypes: a1) direct municipal management; a2) specialised and autonomous water services of a municipality or group of municipalities (mostly in large or medium-sized municipalities); a3) in the case of the biggest, state-owned, water company in Portugal (EPAL, in Lisbon).

The delegated public management model (b1) can have a municipal or regional (covering several municipalities) basis.

Besides the delegation, appointed directly by a municipality or a group of municipalities, a specific model with a wide territorial extent, named 'multi-municipal systems' (b2) is implemented, differing from the straight delegated public management model appointed solely by a municipality or group of municipalities.

Those multi-municipal systems are regional service systems jointly owned by a Portuguese state-owned company (Águas de Portugal) and several municipalities. Their scope of operation, at the regional level, includes the abstraction, treatment and main regional piping of drinking water (but not its distribution, which remains at municipal level); the collection, elevation and transport in the final waste water drainage pipes, its treatment and discharge, (but not its domestic collection; that remains at municipal level). Being structural in the Portuguese water services organisation, this model has no direct links with the consumers, providing its services to the municipalities that maintain – directly or through their delegated public or private services - responsibilities for the domestic water supply and drainage systems.

Quality of service

ERSAR supervises the quality of both drinking water and waste water services. They also organise a national benchmarking system annually.

The delegated private management (c) can also have a municipal or regional scope. It is not predominant, but there are several cases, mostly in medium-sized municipalities.

Direct municipal management without a specific administrative organisation for water services (a1) covers 33% of Portuguese households for drinking water and around 39% of the households for waste water. Together, the other sub-models of public management and the delegated public management model (a2, a3 and b1) cover 52% of drinking water consumers and 46% of domestic waste water collection. The delegated private management model covers around 15% of drinking water consumers and of household waste water collection.

Water tariffs

The national regulator - Entidade Reguladora de Serviços de Águas e Resíduos – ERSAR - has been independent from the government since 2014. It is responsible for tariff regulation and approval. The tariff time range can be yearly, for direct management, or longer for the state-owned services or private concessions. For the state-owned systems, namely multi-municipal systems (b2) and EPAL (a3), ERSAR approves the tariffs, within the conditions arising from the original laws of attribution of the multi-municipal systems.

For the other models, tariffs are approved by municipalities, shaped obviously by the concessions agreement in the delegated private management case. However ERSAR, even for delegated public or private management services whose tariffs are approved by municipalities, has strong powers to approve by-laws, to audit, to recommend and control the tariffs, and even to issue binding instructions related to the tariffs set by the municipalities. Specifically, after independence from the government, ERSAR is now trying to improve its influence in shaping the tariffs for public management services appointed by municipalities, either to control some excessive tariffs or to avoid the practice of under-pricing and to reach full cost recovery.

Customer complaints

Consumers have direct access to ERSAR, namely through complaints. The regulator hears the concerned municipality and/or utility and takes action, if it considers it is needed.

Consumer protection: enforcing drinking water quality

ERSAR is also responsible, on a national level, for water quality control.

Environmental regulation and protection of water resources

The Environment Ministry agency, (Agência Portuguesa do Ambiente), regulates waste water treatment, discharge control and protection of water resources, through setting environmental standards, the governance of water resources and the licensing and control of their uses.

APDA
Associaçâo Portuguesa de Distribuiçâo e Drenagem de Aguas
Portuguese Association of Water and Wastewater Services
www.apda.pt

Romania

Population
19,943,000 inh.

3.5 m
Drinking water network length per capita

1.3 m
Waste water network length per capita

136 l/cap/d
Average residential consumption

1.42 €/m³
Average price

Water services core activities

Water supply service includes all the activities necessary for the abstraction of and treatment of raw water, transporting and distributing potable and/or industrial water to users.

Sewage services includes all activities necessary for collecting, transporting and evacuating waste water from users to waste water treatment plants; waste water treatment and evacuating the treated water to rivers; collecting, evacuating and the adequate treatment of waste from meteoric water drainage holes and ensuring of their functionality; evacuating, treating and storage of sludge and other similar waste derived from the activities mentioned above; evacuating the meteoric water.

Management models

Delegated public management: In 2013, there were 43 active regional operators (RO) - commercial companies with public capital owned exclusively by local public administration authorities managed according to the delegated public management model.

Delegated private management: two large local water utilities were created in 2000, in Bucharest and Ploiesti, as a result of an international public tender - commercial companies with mixed capital (public and private).

Direct public management: more than 1000 small local water systems are managed by specialised servicies from municipalities.

Regional operators and the two private managed companies cover 85% of the water supply and sewage services's market. The process of absorbing the small operators continues with a rate of 1.5%/year

Generally, water operators are responsible for sewage services as well.

Other tasks: Water operators are allowed to sell drinking water to other water service providers and to collect waste water as well. They can also exploit and/or sell the energy produced from biogas.

Quality of service

The National Regulating Authority sets up the service quality indicators by tertiary regulation. In general, they are monitored by the local public authority. The approval, monitoring, controlling and modifying of the level of the quality indicators is done as follows: by the local public authority in case of direct public management or delegated management (local companies), by the Intercommunity Development Association (IDA) in case of ROs and by Municipal Technical Authority (AMRSP) in case of Bucharest (authority created based on the Term of Reference requirements from delegated management tender procedure).

ARA
Asociatia Romana a Apei
Romanian Water Association
www.ara.ro

Water tariffs

A. The general principle for the establishment, adjustment and modification of prices and tariffs is set out in the Law 51/2016. The calculation methodology is established by the competent regulatory authorities and the prices and tariffs are based on the full cost recovery principle. Based on this principle, the regulatory authority sets up the procedure for establishing, adjusting and modifying prices and tariffs through a decision. The request to establish and adjust the prices and tariffs is brought by the operator, endorsed by the National Regulating Authority and approved by each local authority/Intercommunity Development Association (IDA).

B. In case of delegated private management, contracts set up formulas or specific requirements. In the case of Apa Nova Bucuresti and Apa Nova Ploiesti, the adjustment formulas are approved by governmental decisions.

C. For the RO's having EU grants approved and contracted loans for financing, supported by tariffs, the 4-years Tariffs Policy Paper is annexed to the delegated management contract and is approved by each local public authority. In this case, the prices and tariffs are approved by the National Regulating Authority according to the Tariffs Policy Paper.

Customer complaints

Users can address complaints to the water utility (or RO), the local public authority, NARPSCH/AMRSP and National Authority for Consumer Protection.

Consumer protection: enforcing drinking water quality

The local public authority/IDA is responsible for the quality of water supplied. The Ministry of Public Health is the relevant authority with regard to the regulation and standards for water quality. It monitors the quality of drinking water through the Local Public Health Centres.

Environmental regulation and protection of water resources

The Ministry of the Environment, Water and Forestry, through the National Authority for Romanian Waters at the level of each river basin, monitors compliance with environmental requirements and water resources management. The Ministry of the Environment, Water and Forestry regulates and sets the environmental standards in the water sector.

Serbia

Population
7,057,000 inh.

Water services core activities

The Law on Utility Services defines services that are instrumental for realising living conditions for people, private and legal entities. The self-government unit is obliged to create the conditions that allows for the provision of utility services of adequate quality, quantity, availability and continuity and to carry out the necessary supervision. Utility services, among others, includes: a) drinking water supply; and b) the treatment and discharge of rainwater and waste water.

Drinking water supply includes the catchment, cleaning, treatment and delivery of water through the water network up to the consumer's water meter, including the measurement instrument.

Management models

The needs for utility services (including water services) are defined depending on the size, organisation structure and number of inhabitants of the local self-government, or the number of consumers. Under the Utility Services Law, services can be either direct or delegated public management. In the Republic of Serbia water providers are public utility companies.

Water tariffs

A government act defines who pays for utility services, the basis for the tariff calculation, indicators for the utility service tariff, the highest tariffs, exemption from payment and other issues instrumental for determining the amount and collection of the utility service payment.

The local self-government unit determines the tariffs for the utility services, including the tariff for water services.

A proposal to change the water services tariff is made by the water operators. The operator submits the request for the price change, as well as the explanation for it, and the detailed structure of the suggested price, to the local self-government unit. The competent local self-government can then agree or disagree to this change.

Treatment and discharge of rain water and waste water includes the channelling, treatment and discharge of the rainwater and surface water from areas intended for public usage, or from the connection of the consumer to the street sewage network, treatment of the waste water in the waste water treatment plant, pumping, removal and treatment of faeces from the septic tanks.

Quality of service

The ministry responsible for utility services inspects and supervises services with respect to the implementation of the national law through the state inspectors for utility services. The local self-government is responsible for inspecting and supervising the implementation of local regulations through the utility services inspectors. The supervision of the utility services providers - that is the public utility companies for water supply and sewage - is carried out by the local self-government unit in charge. The quality of services is defined by the national government, through the competent ministry.

CCIS
Privredna Komora Srbije
Chamber of Commerce and Industry of Serbia
www.pks.rs

Customer complaints

Consumers can address complaints to various institutions, depending on the nature of the complaint: 1) to the water service provider in the form of questions, complaints and claims; 2) to the inspection departments in charge of utility services at the local level and at national level; 3) to the regional advisory institution for consumer protection, according to the Law on Consumer Protection.

Consumer protection: enforcing drinking water quality

The Ministry of Health monitors compliance with the parameters for the quality of the public water supply. Drinking water quality control is also performed by the local institutions dealing with public health (city institutes for public health).

The water operators – public utility companies for water supply - also perform water quality controls based on the valid Regulation for the Hygienic Correctness of the Drinking Water (Official Gazette SRJ 42/98 and 44/99), which defines the conditions for controlling the water supply in the form of the types of analysis, number of samples, and place and time of the sampling.

Environmental regulation and protection of water resources

The government of the Republic of Serbia issues laws that are implemented by the relevant ministry in charge, along with the Ministries for Agriculture and Environmental Protection. This latter is responsible for environmental protection, protecting waters from pollution and preventing the quality deterioration of groundwater and surface waters, following and analysing adjustments to EU standards.

The main legislation regulating this area, governing the legal status of waters and the integrated water management, is the 'Law on Waters' as well as the 'Law on Environmental Protection'.

Slovakia

Population
5,427,917 inh.

5.5 m
Drinking water network length per capita

2.4 m
Waste water network length per capita

79 l/cap/d
Average residential consumption

2.4 €/m³
Average price

Water services core activities

Two laws in Slovakian legislation define the activities of water services. The act no. 364/2004- 'Water Act' and the act No. 442/2002 on 'Water Supply Systems and Sewage Systems'. The specific tasks are grounded in national legislation. The authority responsible for water services is the Ministry of the Environment. Water services deliver drinking water and take care of waste water, including storm water. Drinking water companies and waste water companies are combined companies and carry out their activities together.

Management models

The majority (85%) of Slovak waterworks companies are managed according to the delegated public management model. The owners of the networks systems are public bodies (municipalities: towns or villages) which are responsible for providing water services. The services are carried out by public waterworks companies.

About 15% of the network is managed according to the delegated private management model. It is owned by public bodies, while private companies provide water services. The cooperation between the public authorities and the private companies is defined by specific contracts.

Water tariffs

Tariffs are proposed by the providers, i.e.: the water companies or the municipalities. The tariffs are regulated, approved and established by the national regulation office, which is the only authority responsible for confirming maximum prices.

Water companies supply drinking water, producing it (including treatment), and distributing it to customers. The same companies carry out waste water collection, drainage and waste water treatment: the Slovak model is an 'all in one'. Sewage sludge disposal is not within the tasks of waste water operators.

Quality of service

Currently there is no national authority supervising the quality of service to customers.

Customer complaints

Consumers can address their complaints to the local public authority (municipalities, towns, villages). As a following step they can address the district offices and the environmental inspectorate. At national level, the competent authority is the Ministry of the Environment.

Consumer protection: enforcing drinking water quality

The national authority responsible for the enforcement of drinking water quality is the Office of Public Health of the Slovak Republic. There are also 16 regional offices of public health in Slovakia.

Environmental regulation and protection of water resources

Environmental regulation is carried out by the Ministry of the Environment and the Office of Environmental Inspection. The protection of water resources is entrusted to the Slovak water management office.

AVS
Asociácia Vodárenských Spoločností
Association of Water Companies
www.avssr.sk

Slovenia

Population
2,065,890 inh.

15.09 m
Drinking water network length per capita

102.34 l/cap/d
Average residential consumption

4.33 m
Waste water network length per capita

2.17 €/m³
Average price

Water services core activities

In Slovenia water services include drinking water supply (including abstraction, treatment and distribution via public supply systems) and urban waste water collection and treatment (including rain water if collected in public sewer systems and sludge collection and treatment from individual WWTP).

Management models

The management models are mostly delegated public management and, in some cases, direct public management (direct management by municipalities) and delegated private management (time bound contract in the form of a concession). Drinking water supply and the collection and treatment of urban waste water are obligatory municipal public services, so the responsible public entities are municipalities.

Water tariffs

The tariff is proposed by the public water service provider and approved by municipalities. The methodology for price setting is set by governmental decree. The tariff for drinking water supply services and urban waste water collection and treatment services consists of a fixed price (generally infrastructure costs) and a variable price (generally service costs) for the volume (of drinking water) consumed.

Quality of service

The framework for services of general interest is set at national level in governmental decrees and detailed at local level in municipality decrees. Municipalities are responsible for supervising service providers and the Ministry for the Environment and Spatial Planning is responsible for the supervision of municipalities.

Customer complaints

Consumers can address a complaint to the municipalities and to the national ministry if the public service provider has not addressed the complaint satisfactorily.

Consumer protection: enforcing drinking water quality

The Ministry of Health at governmental level (the Health Inspectorate and the National Institute for Public Health) is responsible for consumer protection with respect to water quality.

Environmental regulation and protection of water resources

The Ministry for the Environment and Spatial Planning is responsible for the protection of water resources. Environmental standards and drinking water protection zones are set by governmental decrees.

GZS-ZKG
Gospodarska zbornica Slovenije – Zbornica komunalnega gospodarstva
Chamber of Commerce and Industry of Slovenia - Chamber of Public Utilities
www.gzs.si/zbornica_komunalnega_gospodarstva

Spain

Population
46,600,000 inh.

4.8 m
Drinking water network length per capita

3.54 m
Waste water network length per capita

139 l/cap/d
Average residential consumption

1.78 €/m³
Average price

Water services core activities

The Water Law defines water services as all activities related to water management that enable its use, such as extraction, storage, conduction, treatment and distribution of surface or groundwater, and the collection and treatment of waste water, which subsequently is discharged in surface waters (article 40.bis). The activities of protecting people and properties against flooding are included in this definition. The treatment of waste water to be reused, meeting quality standards for each authorised use, could be added to the listed activities.

Management models

In Spain, water services are organised according to direct public management, delegated public management and delegated private management. The AEAS 2016 National Study on Water Supply and Sanitation details the management model in different activities of water services as follows:

Water supply: 10% of the population is served by local entities (direct public management), 34% of the services are performed by public companies and 22% by public-private companies (considering both delegated public management) and 34% of water services are provided by private companies (delegated private management). The data for water supply is representative for the situation in the whole country.

Sewage: 43% of the population is served by private companies (delegated private management), 56% according to the delegated public management model (41% by public companies, 15% by public-private companies) and 1% is administered directly by local entities (direct public management). The data for sewage may not be representative of this part of the urban water cycle, since the scope of the study on this issue covers 56% of the Spanish population. It is estimated that a high percentage of those who did not take part in the study are under direct public management.

Waste water treatment: the study refers to those entities that supervise the installation and control operators and the data is representative of the situation in the country. Although the vast majority of the management of this part of the urban water cycle is public (mainly public companies and supra-municipal consortia), the operation of the plant is usually awarded to private companies through contracts. Therefore, it can be ensured that in Spain the operation, understood as a set of related plant maintenance and proper operation activities, is carried out by private entities, while the supervision of these activities lies mostly with public institutions.

Quality of service

Municipalities supervise the quality of service to customers at local level. Each municipality has the legal authority to establish the quality of service. AEAS developed two reports with recommendations for regulating water supply and sanitation services, together with the Spanish Federation of Municipalities and Provinces (FEMP). Municipalities are increasingly using commitment letters with customers, in which they offer, on a voluntary basis and as a plus-to-standard quality, agreements with customers to improve the quality of the service.

Water tariffs

The most common forms of tariff approval are: 1) joint actions by municipalities and price commissions, which are dependent on the respective regions, and where the former approve tariffs and the latter authorise price revisions; or 2) through regional public bodies or regional governments.

Customer complaints

Customers can address their complaints to service operators (whether they are public, private or public-private) through different customer support channels, such as telephone support or via a web site. Official external bodies such as arbitration boards guarantee that customers' complaints are settled. According to the AEAS study, the percentage of municipalities with a 'client's ombudsman' has increased, and the progress made by external bodies in settling customer claims is significant.

Consumer protection: enforcing drinking water quality

Consumer protection with respect to water quality is the responsibility of health offices in the regional governments, which answer to the Ministry of Health.

Article 30 of the Royal Decree 140/2003 prescribes that the Ministry of Health establishes an information system on supply areas and on the quality of water for human consumption. This National Information System on Drinking Water (SINAC), is coordinated by the Directorate General of Public Health (Ministry of Health). All parties involved in the supply of water for human consumption are obliged to provide electronic data to SINAC and can use the information therein: water operators, municipalities and health authorities must ensure that the data generated through their own checks, health surveillance or monitoring at the tap of the consumer, are collected in the SINAC.

Environmental regulation and protection of water resources

Environmental regulation and the protection of water resources is a national competence entrusted with the Water Directorate General, which is part of the Ministry of Agriculture, Fisheries, Food and the Environment. Discharges of treated waste water into receiving bodies are the responsibility of River Basin Authorities (which are accountable to the Ministry of Agriculture, Food and Environment). Discharges of industrial waste water to urban collecting systems are the responsibility of municipalities.

AEAS
Asociación Española de Abastecimientos de Agua y Saneamiento
Spanish Water and Wastewater Association
www.aeas.es

Sweden

Population
10,000,000 inh.

9.2 m
Drinking water network length per capita

8.9 m
Waste water network length per capita

140 l/cap/d
Average residential consumption

4.44 €/m³
Average price

Water services core activities

Water services in Sweden deliver drinking water and take care of waste water, including storm water, from customers.

Management models

In Sweden water services are managed either by the municipality itself according to the direct public management model, or by a 100% municipality-owned company, according to the delegated public management model.

Water tariffs

Water tariffs are set by law, according to the Water and Waste Water Service Act. The law states that prices are not to be higher than the cost for delivering the service. The public company or the municipality itself proposes the tariffs. The tariffs are approved at the local level by the competent city council.

Quality of service

There are no authorities supervising the quality of service like in other Member States. National County Administrative Boards supervise the geographic development of the service.

Customer complaints

Complaints on service quality may - in particular cases - be addressed to the Environmental Court which handles conflicts between the company/municipality and the customer.

Consumer protection: enforcing drinking water quality

The National Food Agency enforces drinking water quality at national level. There are also local level agencies entrusted with this task.

Environmental regulation and protection of water resources

Several authorities regulate the protection of water resources, for example the County Administrative Board.

Environmental standards are set by law by national and local authorities. Standards are also set by the Environmental Court when the company/municipality applies for conditions for waste water disposal for example.

Svenskt Vatten
The Swedish Water and Wastewater Association
www.svensktvatten.se

Switzerland

Population
8,420,000 inh.

7.2 m
Drinking water network length per capita

15.4 m
Waste water network length per capita

307 l/cap/d
Average residential consumption

2.1 €/m³
Average price

Water services core activities

As Switzerland is a federal state, according to the principle of subsidiarity, it is the responsibility of the cantons to define the scope of tasks and to deliver 'water services'. These definitions vary widely amongst the 26 cantons: bigger cantons have quite detailed definitions and cantonal strategies for water services, such as the Canton of Bern; rural cantons leave this task to the municipalities. Although there is no consistent definition of water services it is common that the activities involve the sufficient supply of drinking water, water for sanitation, fire protection and emergencies (the latter is regulated by a federal directive). Drinking water supply is further delegated from cantonal level to communities.

Management models

For drinking water supply all four management models are possible, however the direct public management and delegated public management models are prevalent. Direct private management often takes the legal form of cooperatives. In remote areas households also own and manage their own supplies.

For waste water, the cantons usually delegate these tasks to the municipalities or to a joint body of municipalities, so direct public management or delegated public management are the most prevalent models.

Water tariffs

In general tariffs are set by the municipal authorities, whereas the basic principles of the tariff are approved by the municipal legislator (e.g. local parliament). The tariffs have to be reported to the national price regulator. If a public authority decides on a tariff, the regulator can only give recommendations. Guidelines for strategic investment planning and tariff setting are provided by the Swiss Gas and Water Industry Association (SGWA) based on recommendations published by the national price regulator. The basic principle is to ensure that tariffs cover all costs on a long term basis and to ensure the long term financial sustainability of utilities. The average reinvestment rate of utilities is about 1.5%[2] of the Swiss asset value.

[2] http://wasserqualitaet.svgw.ch/index.php?id=767

For historical reasons, there are also drinking water supplies which are organised and owned by associations or cooperatives.

Concerning waste water, the responsibility of the cantons is defined in federal law for the protection of water. The cantons are obliged to organise the construction of sewage and waste water treatment plants. Waste water services include collection, treatment, and storm water management.

In Switzerland the connection rate is about 100% for drinking water and over 97% for waste water and sewage.

Quality of service

Quality of service is specified and supervised by the cantonal authorities and municipalities. SGWA sets the standards, norms and best practices for drinking water. SWGA developed good practice guidelines 'for auto-control' (GVP) according to the Water Safety Plan principles to ensure good practice of quality control and management within utilities. The GVP guideline was approved by the national authorities as a good national standard and supports small and medium sized utilities in their effort for doing their 'auto-control'.

SVGW
Société Suisse de l'Industrie du Gaz et des Eaux - Schweizerischer Verein des Gas- und Wasserfaches - Società Svizzera dell'Industria del Gas e delle Acque
Swiss Gas and Water Industry Association **www.svgw.ch**

Customer complaints

Drinking water customers can address their complaints to the local water utility, then to the mayor and finally to the cantonal authorities (e.g. cantonal environmental protection agencies). There is no customer complaint service at national level for water services.

Consumer protection: enforcing drinking water quality

Water quality is regulated by different federal legislation. If drinking water as 'a food item', it is regulated under the federal foodstuff legislation (2017). If it is considered as a natural resource, which is or could be used for drinking water purposes, it is regulated under the federal law for the protection of water.

The federal foodstuff office sets the standards for the quality of drinking water provided by the utilities. The supervision and enforcement of the law 'on food items' is delegated to the cantonal authorities through food and drinking water inspectorates at the cantonal level.

Environmental regulation and protection of water resources

The national law on water protection delegates the enforcement of the law to the cantonal level, i.e.: to the cantonal authorities in charge of environmental protection. In general, standards such the ones for the design of protection zones are set by the federal office for the environment, however enforcement is the responsibility of the cantons.

The Netherlands

Population
16,993,000 inh.

7.01 m
Drinking water network length per capita

6.2 m
Waste water network length per capita

126 l/cap/d
Average residential consumption

3.91 €/m³
Average price

Water services core activities

In The Netherlands water services include the following activities:

1. production and delivery of drinking water
2. collection and draining of storm water and waste water (sewage)
3. purification of waste water;
4. groundwater management
5. regional water system management (including flood control)
6. national water system management (including flood control).

Management models

The services of the production and delivery of drinking water are organised according to the delegated public management model (where water companies are 100% owned by local and/or regional governments). All other water services mentioned above are carried out by public authorities;

- the municipalities for the collection and draining of storm water
- the regional water authorities for the purification of waste water
- the regional water authorities and the provinces for groundwater management
- the regional water authorities for regional water system management
- the national government for national water system management.

Quality of service

The national Ministry of Infrastructure and the Environment is ultimately responsible for the quality of of all water services. Quality of services (in relation to customers, consumer's protection, environment and water resources) is laid down in European and national laws and regulations.

Water tariffs

In the case of delegated public management, the tariff is proposed by the water service management and decided upon by the local shareholders (municipalities and/or provinces). The national inspectorate (advised by the national Authority for Consumers and Markets) supervises and advises the competent minister about the correctness of the tariffs; if necessary the minister can intervene.

For water services carried out by different public authorities such as the collection and draining of storm water and waste water, the purification of waste water, the groundwater management and the regional water system management, the tariff from the different local taxes is proposed by the municipality board and decided upon by the democratically elected representatives that make up the different local councils.

For the national system of water management, direct taxes are a minor source of income. This is mainly financed through the national government, for example income tax.

Customer complaints

Customers can address their complaints to the organisations providing water services. Dispute resolutions may ultimately end up before the independent Dutch Foundation for Consumer Complaints Boards and/or before the national ombudsman. They can also address their complaints to the Authority for Consumers and Markets. As a last resort they can go to court.

Consumer protection: enforcing drinking water quality

The national inspectorate and the provinces monitor and supervise the correct execution of laws and regulations by water companies, municipalities and regional water authorities. The minister can intervene.

Environmental regulation and protection of water resources

Different European and national laws, provincial regulations, municipalities and regional water authorities protect water resources in The Netherlands. The democratically elected representatives that make up the different (local) councils decide upon these regulations.

UvW
Unie van Waterschappen
Dutch Water Authorities
www.dutchwaterauthorities.com

Vewin
Vereniging van waterbedrijven in Nederland
Association of Dutch Water Companies
www.vewin.nl

United Kingdom

Population
65,100,000 inh.

6.45 m
Drinking water network length per capita

6.02 m
Waste water network length per capita

139 l/cap/d
Average residential consumption

3.54 €/m³
Average price

Water services core activities

In the UK, water services include:

- the provision of public water supplies - including abstraction, treatment and distribution networks
- the provision of waste water services, including waste water collection and treatment, and sludge management.

Water policy is devolved within the UK, and different arrangements apply in England, Northern Ireland, Scotland and Wales.

Management models

Water services are organised under the direct private management model in England and Wales, with the latter operated on a not-for-profit basis.

In Northern Ireland and Scotland, services are organised according to the delegated public management model.

Water tariffs

Water companies operating at a regional level prepare long term business plans, setting out the outcomes and improvements they intend to achieve over a five-year period. Plans cover infrastructure as well as other outcomes like cross-subsidy schemes for vulnerable customers.

Water companies are required to consult their customers and stakeholders to develop these business plans and related plans that set out how they plan to balance water supply and demand over the longer term (25 years and beyond).

The Water Services Regulation Authority – known as Ofwat – is the independent economic regulator for England and Wales, monitoring performance and setting price limits within which companies have to operate. The Utility Regulator performs this role in Northern Ireland and the Water Industry Commission is the economic regulator for Scotland.

Quality of service

Customers are entitled to guaranteed minimum standards of service, as laid down by the governments. If a company fails to meet any of these standards of service then it is required to make a specified payment to the affected customer. In England and Wales, Ofwat monitors the scheme and recommends changes; the Utility Regulator and the Water Industry Commission carry out similar roles in Scotland and Northern Ireland.

Customer complaints

The Consumer Council for Water represents consumers within the water and sewage sectors for England and Wales. They investigate and mediate consumer complaints that have not been satisfactorily resolved by the water companies, and unresolved complaints can be further escalated to an independent customer redress service. There are similar arrangements in Northern Ireland (involving the Consumer Council for Northern Ireland) and Scotland (the Scottish Public Service Ombudsman).

Consumer protection: enforcing drinking water quality

The independent Drinking Water Inspectorate is responsible for enforcing drinking water quality and standards in England and Wales. This task is performed by the Drinking Water Inspectorate in Northern Ireland and the Drinking Water Quality Regulator in Scotland.

Environmental regulation and protection of water resources

The Environment Agency (covering England and Wales), the Northern Ireland Environment Agency and the Scottish Environment Protection Agency are responsible for environmental regulation and the protection of water resources, setting standards within a policy framework determined by the governments and the European Union.

Water UK
www.water.org.uk

EurEau

EurEau
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Associations of Water Services

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