

# Management systems of drinking water production and distribution services in the EU member states

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**ABSTRACT:** Different management systems of drinking water services are found within the European Union, where the importance of private industry is becoming increasingly significant. In England and Wales, for example, where water supply services were fully privatised in 1989; and in France and Spain, the delegation of management of drinking water systems has been common practice for a long time, particularly in France.

This paper describes the report prepared by a Working Group within the European Union of National Associations of Water Suppliers and Sewage Services (EUREAU), whose aim has been to analyse the different systems in the EU Member States and group them together under five major categories, one main feature of the report establishes the strong link between the management bodies and the authoritative bodies. It concludes that 65.5% of the EU population's drinking water services provided are managed publicly, while the remaining 34.5% are privately managed.

## INTRODUCTION

The present paper is not the result of personal research, it is an extract of the report entitled 'Management Systems of Drinking Water Production and Distribution Services in the EU Member States in 1996', which was prepared by the Working Group 'Structure and Management of Drinking Water Supply' within the European Union of National Water Supply and Sewage Associations (EUREAU).

It must be noted that except for in England and Wales, we should not employ the expression privatisation for drinking water and/or sewage services, but rather for their management, since the services are the ultimate responsibility of a public body, generally a municipal body, throughout the rest of the EU.

## METHODOLOGY

In preparation of the study, the Working Group asked each National Association to provide a short general description of drinking water management in each country, and then answer each of the eight questions explained below.

The Working Group stressed that this methodology involved a certain measure of subjectivity in the choice of questions or criteria of classification, as it could not pretend to be fully exhaustive.

The responses obtained have revealed the great diversity of management systems within the EU, even within the same country. Without any doubt, this situation has arisen due to historical reasons linked to the creation of public service bodies for drinking water supply, and because of the varied institutional and legal practices proper to each Member States.

## CRITERIA OF CLASSIFICATION

### **Responsibility for the supply of drinking water**

In general, the provision of drinking water is the ultimate responsibility of a public body (except in England and Wales). It follows then that this feature of management systems does not allow for discrimination between the different types of system, but it does allow for a distinction to be drawn between the type of body which has responsibility for the provision of the service. The entity could be, for example, a municipality, another type of joint-regional body, a province, a district or the state.

### **Management body**

It was necessary to identify not only the body in which ultimate responsibility resides (referred to below as the 'responsible body') but also the body which actually carries out the management of the service. Two situations may exist:

- (a) The responsible body carries out the management itself.
- (b) The management is carried out by a body which is distinct from the responsible body.

### **Organisation of the service**

The reason for choosing to investigate this factor was to distinguish between different types of organisation of management bodies. Certain elements are of particular interest:

- The exact legal parameters of the management body, if applicable.
- The nature of the law applied to its operations (Administrative or Commercial Law).

- The structure of the share capital and in particular the possibility of the existence of private share capital, on its own or together with public capital.
- The nature, the structure and the method of appointment of the management bodies, e.g. Board of Directors (if there is one), General Manager, etc.
- The degree of budgetary independence given to the management body compared with the total budget of the responsible body.

Of course the first elements are only relevant in the case of point (b) above, where the management body is distinct from the responsible body.

### Delegation of the service

In its widest sense, delegation is present as soon as the management body differs from the responsible body. However, the various types of management system surveyed show that significant differences exist in the relationships between the responsible body and the management body.

These differences are due to two basic factors:

- The involvement of the responsible body in the management body (for example: public/private owned companies, associations of communes for direct municipal management of public services, etc.).
- The rules under which the management body operates; these may be regulatory rules, statutory rules, or rules of a contractual nature. In the last case, it may be possible to have contracts of an unlimited duration or fixed term contracts.

In broad terms these different circumstances are relevant when considering the situation described above (where the management is carried out by a body which is distinct from the responsible body). They show an increasing degree of freedom of negotiation or operation for the management body, it being understood that this body can never be considered to be truly autonomous in so far as it must account for its actions to the representative authority of the responsible body.

### Investment financing

When the responsible body itself performs the management function it is usual for it to finance new investment for the provision of the service. This element of the classification system is of interest where, for example, the responsible entity receives investment subsidies. It is of even greater interest when the two bodies are separate, when one of the two following situations may exist:

- The investment is financed by the responsible body.
- The investment is financed by the management body.

Sometimes investment may in fact be funded by both the responsible body and the management body at the same time, according to the nature of the investment:

- Investment for renovation or new works; and
- Capital expenditure or operating expenditure, etc.

### Ownership of facilities and equipment

If the responsible body and the management body are the same body, the infrastructure and the equipment are owned by that body.

This factor is of interest only therefore where the two bodies are distinct. One finds, again, that there are two possible situations:

- (a) The facilities are owned by the responsible body.
- (b) The facilities are owned by the management body.

The same comment as above can be made regarding the existence of different systems of ownership according to the type of facility. However, it should be noted that the financing body and the owner of the property are not necessarily the same.

### Price setting

Some management systems are based on prices set 'at the risk of the management body' (found mainly in contractual forms of management) and others have prices set with the aim of balancing prices and costs (cost recovery).

In the first case, once the price is set (it is usually accompanied by an adjustment formula or a revision procedure) the management body bears all the consequences of any gap between the costs of service provision and income (except if there is a change in circumstances). In the second case, the price is set so as to equalise income and costs.

To analyse the situation when income and costs are equalised it is necessary to distinguish between a number of different possible situations where the equilibrium is:

- planned on an annual basis (balanced budget) or on the basis of several years (long-term balance).
- established on the basis of operating costs alone, or takes into account (in part or in whole) interest charges and the amortisation of the investment as well.
- achieved with or without operating subsidies, etc.

### Management control

The reason for the inclusion of this factor is to clarify the methods used by and the identity of the authorities which control the public service obligations taken on by the management body, whatever its nature (even if it is itself responsible for the provision of the service).

The elements of control referred to are principally the following:

- Price control.
- Control of investment (choice and performance).
- Management control.

- Control of conformity with health standards (or more generally control over the quality of the service).

## MANAGEMENT SYSTEMS OF DRINKING WATER SERVICES IN SPAIN

Owing to their extensive nature, this paper cannot reproduce the responses obtained to the eight questions for each of the management systems in each of the EU Member States. So, we will limit ourselves to the answer from one country, Spain for instance, and analyse the procedure employed.

### Spain

In Spain, the supply of drinking water to households is the responsibility of the Communes and legally that of the local Councils. Under the law governing local government and the provisions relating to it, Communes or Communes associated with them, must provide a water service.

The local authorities must employ suitable management methods so as to be able to take the measures required for a domestic water supply service, for setting up the infrastructure and providing drinking water to consumers.

The service may be managed directly or indirectly. Direct management is by the local Council, or an organisation responsible to it alone. In the case of delegated management, responsibility for the service lies with an intermediary between the consumer and the local Council.

In the case of direct management, the three principal systems are: simple direct management, complex direct management and the commercial private municipal company.

In the case of simple direct management, management of the service is linked to the municipal administration structure. The body carrying out the service has no assets and is not independent.

In the case of complex direct management, there is a special administrative body which is administratively and financially independent but has no legal status.

A commercial private municipal company has legal status and operates as a private enterprise. It is ultimately controlled by a municipal council.

Delegated management is based on private management of the service. The three most common systems are the mixed enterprise, concessions and leasing.

Local councils together with one or more private partners participate in mixed enterprises. The characteristic of this system is that its management is provided on a commercial basis and there is participation by Communes in the control and management of the company.

In the cases of concessions and leasing/affermage, management is provided entirely by private enterprise, and is based on contracts with the local Council. The latter lays down the technical, legal and financial conditions for the service provided. There is a considerable difference between concessions

and leasing. In the case of leasing, a price is fixed by contract, while for concessions the rates to be charged by the successful bidder are revised periodically during the concession in order to maintain the economic and financial balance initially established in the contract.

The concession includes all the existing possibilities between the concession for operating the service and the classic concession whereby the concessionaire supplies all the equipment necessary to carry out the service. Assuming that the Concession is for operating the service, we have before us a 'lease (affermage) of the service' in which the business manager collects a tariff from the service users. But if the manager collects a fee as remuneration from the responsible body, the arrangement is a 'lease (affermage) of personal services', or a lease (affermage) properly speaking.

The following three public bodies, the intercommune association, the consortium and the public enterprise associated with an autonomous community, are also examined next, although they are not direct or delegated methods of managing the service.

An Intercommune Association is a group of Communes which deals with one or more services. Among these services is the service for supplying water to households in towns for which the Communes are responsible management may either be direct by the Association or delegated to a private enterprise.

A consortium is very similar to an association, except that in addition to local Councils, it includes the central administration and autonomous administration (regional).

In the case of a public enterprise associated with an autonomous community, the latter delegates the provision of the service to a public company, except in the case of Communes where the service is provided by the local Councils, unless the latter decide to let a company manage it.

Details of the above management systems are as follows:

#### *Simple direct management*

- 1 The Commune is responsible for the service.
- 2 The Commune manages the service.
- 3 The organisation of the service is included in the municipal organisation chart.
- 4 The service is not delegated.
- 5 Investments are financed from the Commune budget and by subsidies from the municipal budget.
- 6 The facilities are municipally owned.
- 7 Water charges are proposed by the municipality and approved by the Regional Authority.
- 8 The service is under municipal supervision.

#### *Complex direct management*

- 1 The Commune is responsible for the service.
- 2 Management of the service is the duty of the Commune, which fulfils this role via an internal body.
- 3 There is a Board of Directors consisting of Town Councillors

and municipal technicians. The Mayor appoints the Manager, or Director, who is a local government officer. The budget is independent of the municipal budget. Operation is at the Commune's economic risk.

- 4 The service is not delegated.
- 5 Investments are financed from a specific budget and by subsidies.
- 6 The facilities are municipally owned.
- 7 Water charges are proposed by the Commune and approved by the Regional Authority. The charges are fixed so as to balance revenue and expenditure.
- 8 The service is under municipal supervision.

#### *Municipal company*

- 1 The Commune is responsible for the service.
- 2 The service is managed by a company with entirely 'municipal' capital.
- 3 The Municipal Council determines the composition of the Board of Directors, up to a third of whose members may be Municipal Councillors. The members of the General Meeting are chosen by the Municipal Council. The Board of Directors appoints the Manager or Director.
- 4 Management of the service is delegated to the Company by a decision of the Municipal Council.
- 5 Investments are financed by the company or by subsidies.
- 6 The facilities belong to the Commune, which transfers them to the Company for their operation.
- 7 The Company proposes water charges to the Commune for approval. The Commune submits them to the Regional Authority for final approval. The charges are fixed so as to balance revenue and expenditure.
- 8 The Municipal Council, duly convened as a General meeting exercises the ultimate control over the management.

#### *Mixed economy company*

- 1 The Commune is responsible for the service.
- 2 The Commune transfers the management of the service to a company with both private and public capital.
- 3 The management structure consists of a General Meeting, where some decisions must be agreed to by a qualified majority, the Board of Directors and the General Manager appointed by the Board. Public capital must be in the minority, otherwise it will be a direct management.
- 4 The service is delegated by virtue of a convention with an already existing company, by public subscription for shares or by tender. The maximum duration is 75 years. The private capital is amortised during the life of the Company. If the duration of the contract is less than 75 years, it can be extended to that limit.
- 5 Investment is generally financed through the contributions of the private partner, and can be recovered during the life of the company.
- 6 The facilities belong to the Commune, which transfers them. But the company owns those installations which it has

financed itself; they will, however, revert to the Commune on expiry of the contract.

- 7 The company proposes water charges for approval by the Commune, which submits them to the Regional Authority for final approval. The charges must maintain the initial balance laid down in the contract.
- 8 Technical and health management are supervised by the Commune, which, in its capacity as partner, also supervises the financial and economic aspects of the company.

#### *Concession*

- 1 The Commune is responsible for the service.
- 2 The service is managed by a private company.
- 3 The management bodies are the meeting of shareholders, the Board of Directors and the General Manager. None of the members belongs to the Commune.
- 4 The delegation of the service takes place by public tender with a bidding specification which determines the method of rendering the service. It can also include the execution and financing of a works project. The maximum duration is 75 years, although the contract length is usually much shorter, of the order of 10 years.  
The remuneration assigned to the concessionaire must allow the cost of establishment and expansion of the service to be paid off (through the reversion fund) during the period of the concession, the operating costs (which include technical depreciation of the facilities) to be covered and a fair margin of operating profit.
- 5 Investments are financed by the concessionaire by means of the water charges or, in exceptional cases, through public financing and subsidies.
- 6 The concessionaire owns the facilities it has financed, although they will revert to the Commune on expiry of the contract. The Commune retains ownership of the facilities which it transfers, while their operation is the concern of the concessionaire.
- 7 The concessionaire proposes the water charges. It prepares the file of charges for approval by the Commune, which submits it to the Regional Authority for final approval. The charges must maintain the initial balance laid down in the contract.
- 8 The Commune supervises the management company by virtue of the powers which are vested in it by the bidding specifications.

#### *Lease contract (affermage)*

- 1 The Commune is responsible for the service.
- 2 A private company manages the service according to the terms of the tender bidding specifications. The Commune may place the staff and the means necessary for operating the service at the disposal of the lessee.
- 3 The lessee company will opt for the organisation which it considers most efficient, even if the approved choice was not envisaged by the bidding specifications.

- 4 The delegation of the service takes place by public tender according to the bidding specifications. The maximum duration is 75 years although the contract length is generally much shorter, of the order of 10 years. The managing company receives a fixed remuneration per invoiced cubic metre, which has been previously stipulated by contract, and undertakes to bear the operating economic risk.
- 5 The financing of investments is the concern of the Commune, and can be the subject of a subsidy.
- 6 The facilities belong to the Commune (Ayuntamiento), which leases them to the private company for operation.
- 7 The Commune proposes the scale of water charges and may have the benefit of the lessee's advice for this purpose. The charges are then submitted to the Regional Authority for final approval.  
The charges are fixed so as to balance revenue and expenditure, the latter including the remuneration of the managing company.
- 8 The lessee's activity is checked at regular intervals by the Municipal Technical Services.

#### *Intermunicipal association*

- 1 Ownership of the service is transferred to the Intermunicipal Association by the member Communes with a view to the joint management of one or more services.
- 2 The Intermunicipal Association manages the service and operates the production and distribution facilities of its member communities, or the production equipment only.
- 3 The directing bodies of the Association consist of representatives from all the associated Communes.
- 4 The Memorandum and Articles of the Association lay down the method of delegating the service, which may be managed by a private company.
- 5 Investments are financed according to the management system, (management may be delegated to a private company by a public tender).
- 6 The facilities belong to the respective associated Communes.
- 7 The Intermunicipal Association proposes the scale of water charges, which must be approved by all the associated Communes before being submitted to the Regional Authority for final ratification.
- 8 In the event of delegation of the service, the Intermunicipal Association supervises its management. If the service is not delegated supervision is exercised by the Communes themselves.

#### *Consortium*

- 1 The associated Communes are responsible for the service.
- 2 The management of the service is carried out by the members of the consortium, of which other public bodies in addition to the Communes may be members.
- 3 The Memorandum and Articles of the Consortium determine its organisation, aims and structure. Representatives of the associated Communes and other bodies constitute the

General Meeting. There is a Board of Directors consisting of representatives from the Communes supplied, the Autonomous Community and the Central Government. The consortium is governed by public law.

- 4 The Memorandum and Articles of the Consortium determine the delegation of the service, which may be managed by a private company.
- 5 Investments are financed according to the management systems.
- 6 The facilities belong to the Commune, except those directly financed by the Consortium.
- 7 The Consortium proposes the scale of charges, which must be approved by all the associated Communes before being submitted to the Regional Authority for final approval.
- 8 In the event of delegation of the service, the Consortium supervises its management. If the service is not delegated, supervision is exercised by the associated bodies themselves.

#### *Public enterprise belonging to an autonomous community*

- 1 The Autonomous Community and the Communes share the powers for the conveyance and distribution services involved in supplying the water, in accordance with the provisions of paragraph 4 below.
- 2 Where the Communes do not manage the service, it is managed by a public undertaking, which has capital assets of its own, and independent administration and full powers to enable it to achieve the aims set for it. The public company is governed by public law, except in its relations with third parties, which are governed by private law. For civil works, supply and services contracts, however, it must comply with the principles of public government tenders.
- 3 The Memorandum and Articles determine the structure and organisation of the public enterprise. Organisation is governed by public law.
- 4 The Autonomous Community delegates the supply of drinking water to the public enterprise by Royal Decree, except in the case of conurbations where the service is already provided by the Communes, unless the latter decide to transfer management to the public company.
- 5 The necessary investments are financed by the public enterprise, which may make use of subsidies.
- 6 The public enterprise assumes ownership of the facilities whose construction it has financed itself and also of those of the Community as a whole, and operates the equipment and facilities belonging to the Communes, except in conurbations where the service is managed directly by the Communes.
- 7 The public enterprise proposes the scale of water charges and submits it to the Regional Authority for approval.
- 8 The Board of Directors of the public enterprise supervises the management of the service.

**Table 1** 'Table of Major Management Types', the different management systems in each member State are grouped in brief in the five major categories

	Direct public management		Direct supramunicipal management		Delegated public management			Delegated private or mixed companies		Direct private management	
	Direct management	Autonomous boards	Consortiums and associations	Regional and state bodies	Cooperatives companies	Public trading companies	Private companies	Mixed capital companies	Private companies	Private companies	
Belgium	x	x	x			x		x			
Denmark	x				x						
Germany	x	x	x			x		x	x		
Spain	x	x	x	x		x		x	x		
France	x	x	x					x	x		
Greece	x	x	x	x		x					
Ireland	x										
Italy	x	x	x	x		x		x			
Luxembourg	x										
Netherlands	x					x					
Austria	x		x		x	x					
Portugal	x	x				x		x			
Finland	x										
Sweden	x	x						x	x		
UK:											
England and Wales										x	
Scotland											
Northern Ireland	x	x				x					

**Table 2** 'Statistical Table of Management Types', gives a global percentage distribution in the EU, according to the five major categories. It can be noted that public management of drinking water services represents 65.5% of the EU population, and that private management corresponds to 34.5%

EU member states	Population ( <sup>'000 inhabitants</sup> )	Direct public management	Direct supramunicipal management	Delegated public management	Delegated private or mixed management	Direct private management
Belgium	9958	5	50	40	5	
Denmark	5228	67		33		
Germany	81 800	27	24	31	18	
Spain	40 460	39	12	12	37	
France	56 576	2		2	75	
Greece	10 269	61	10	29		
Ireland	3526	100				
Italy	57 280	72	23	1	4	
Luxembourg	477	100				
Netherlands	15 493	6		94		
Austria	8030	90	10			
Portugal	9865	93		6	1	
Finland	5117	90			10	
Sweden	8838	98			2	
UK	57 897	3		9		88
Total	370 744	138 652	44 471	60 970	75 702	50 959
Average weighted by population	100	37	12	16.5	20.5	14

UK: England and Wales, 100% Direct private management; Scotland, 100% Public water authorities; Northern Ireland, 100% Direct public management.

## CONCLUSION

To conclude, the obvious great diversity of management systems for the distribution of water in EU Member States may be reduced by focusing on a limited number of features and a series of models. When carrying out the analysis, the group found it useful to reclassify the different models according to a simplified classification based on five major categories:

- 1 Public direct management.
- 2 Direct management by intermunicipal or regional structures.
- 3 Delegated public management.
- 4 Delegated management with mixed or private capital.
- 5 Private management.

At this level, systems in the same class can show significant differences in terms of the eight factors looked at in the classification scheme.

The main feature which divides the classes is essentially the strength of the link between the management body and the responsible body. The link clearly decreases in strength from class 1 to class 5. One can conclude therefore that the systems of management found in the EU can be placed on a continuum, from total dependence to total independence.

The percentage of population served by each management

system in each country and for the EU is provided in Tables 1 and 2.

## SUMMARY

Various management systems of drinking water services are found in the European Union, where the importance of the private industry is increasingly significant. As in the case of England and Wales, where the public water services were fully privatised in 1989; or such as in France and Spain, where delegation of the service management has been a common practice for long, particularly in France. The article describes the report prepared by a Working Group within the European Union of National Associations of Water Suppliers and Sewage Services (EUREAU), which aim has been to analyse the diversity of systems in the EU Member States and group them in five major categories, which main feature is essentially the strength of the link between the management entity and the entity responsible for the provision of the service, and finally conclude that drinking water service provided to 65.5% of the population of the EU is publicly managed, while the remaining 35.5% is supplied with water through private management.