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IS THE TARIFF STRUCTURE CONTRIBUTING TO THE EFFICIENT USE OF DOMESTIC WATER IN SPAIN?

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IWA the international water association
Statistics and Economics Specialist Group

Regional Economic Workshop
Water Tariffs and Affordability
117 May 2016. Parliament Palace. Bucharest. Romania

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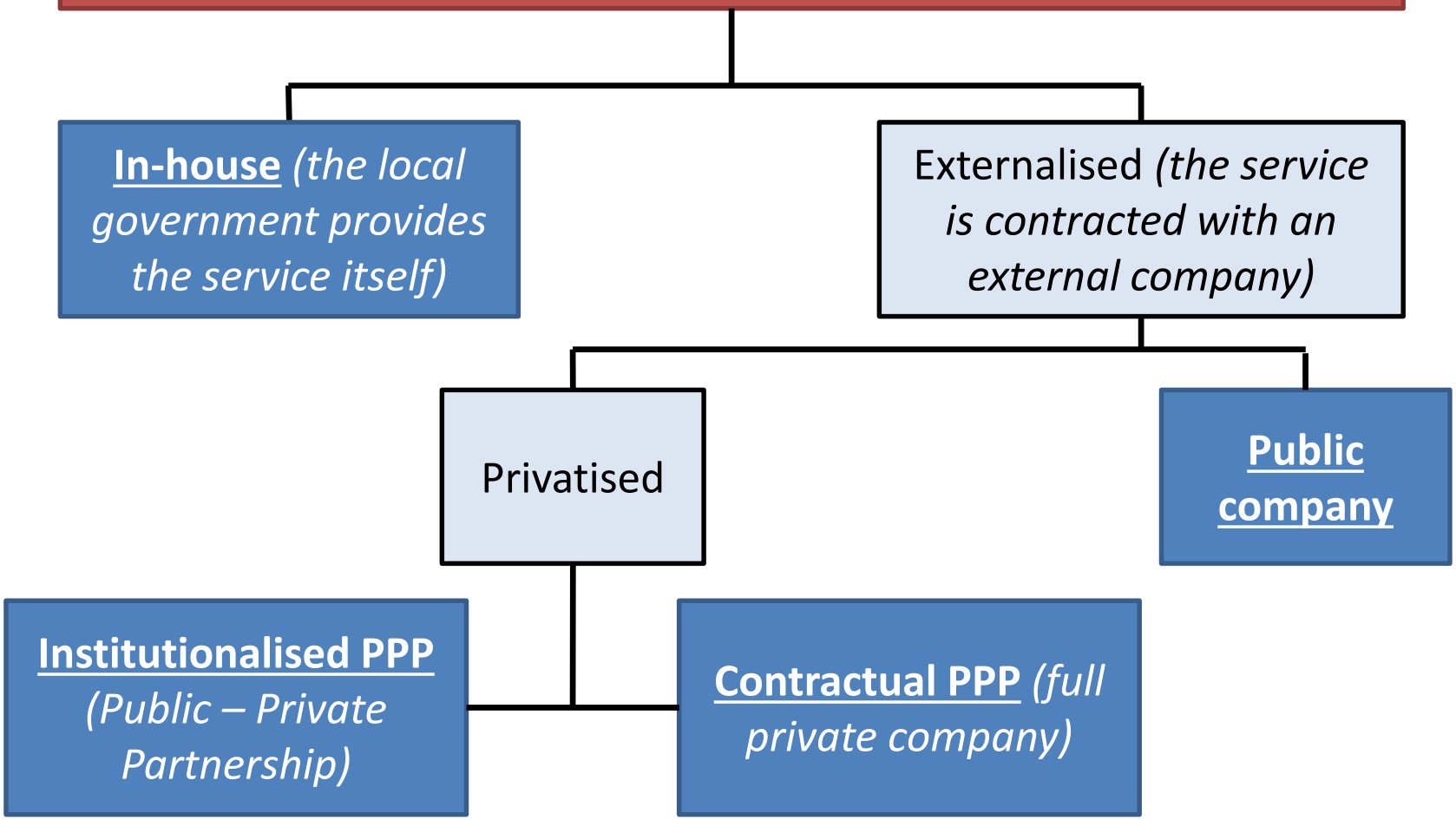
MANAGEMENT FORMS OF THE WATER SERVICE IN SPAIN



MANAGEMENT FORMS OF THE WATER SERVICE IN SPAIN

In-house *(the city council provides the service itself)*

Externalised *(the service is contracted-out an external company)*

Privatised

Public company

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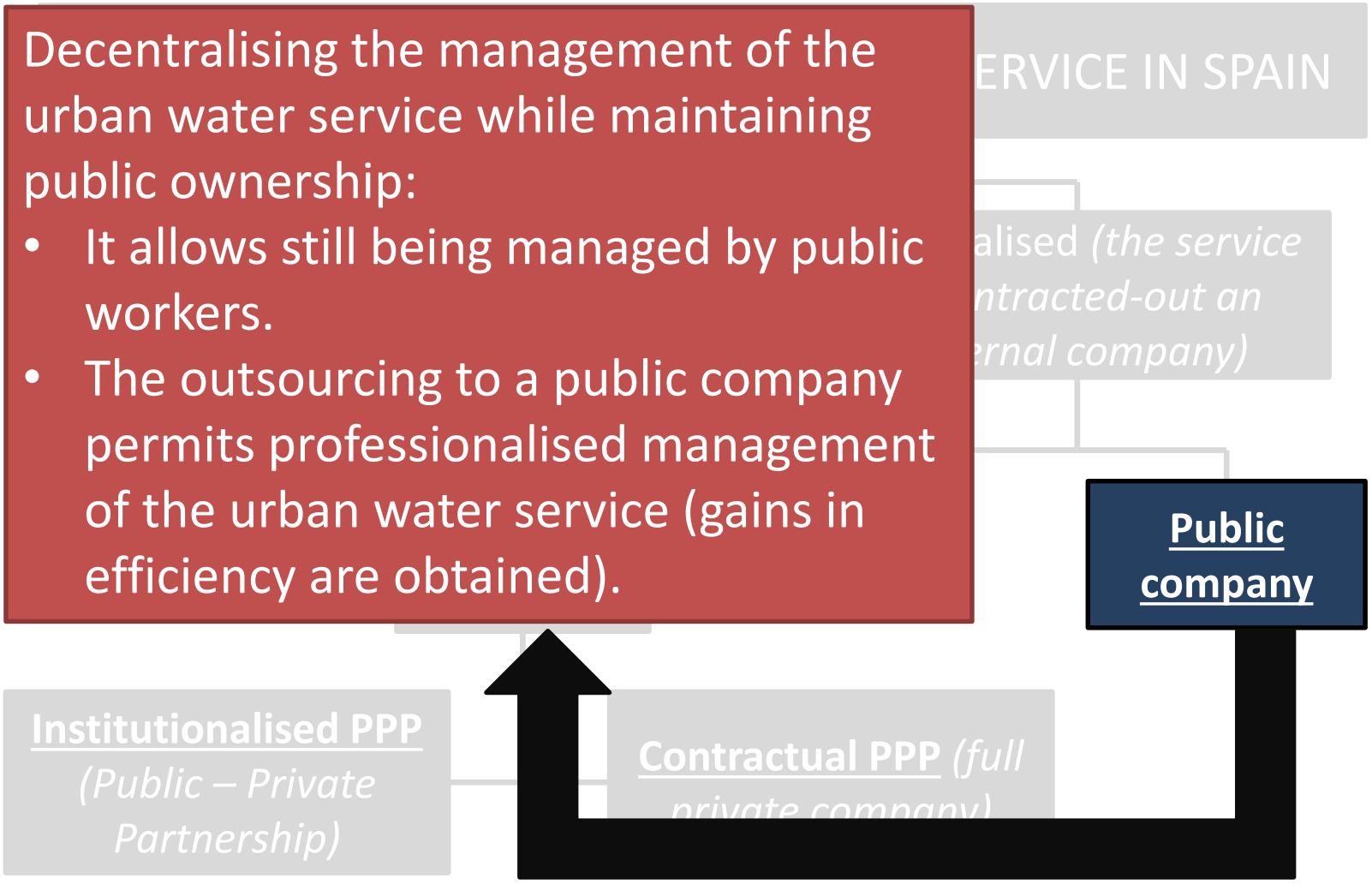
Local Government must assume all the responsibility:

- Decision making and management.
- Use its own employees.
- Cover production costs with funds from the municipal budget.

Source: Adapted to García – Valiñas et al.. 2013

Decentralising the management of the urban water service while maintaining public ownership:

- It allows still being managed by public workers.
- The outsourcing to a public company permits professionalised management of the urban water service (gains in efficiency are obtained).



- Capital is shared between the private and public sector.
- Local government participation is normally sufficiently significant to guarantee that public objectives will be accomplished.
- Combine public interests (such as universal access and quality standards) with the industry know-how of private management.
- The private partner is mainly responsible for managing these companies, while the political decisions are made by the public partner.

Institutionalised PPP
(Public – Private Partnership)

They are the most widespread form of privatising public services in Spain.

- Concessions are made official by contract (for a limited period), whereby the local government entrusts an corporation (legal entity) the management of the service, but retains ownership.
- At the end of the contract, local governments decide how to be managed for a new period.

It is worth highlighting that in the Spanish legislation:

Only is contemplated privatising the **management of the service**

Facilities remains public property

Its is very important to establish clear criteria for maintenance and renovation of facilities

Atomization of services

Are there a different water utility for each municipality?

There are about 2,000 water operators for 8,119 municipalities

Joint management

325 groupings of municipalities provide wholesale or retail water services

Examples of groupings promoted by the public administration are the Bilbao Water Consortium and the Association of Municipalities in the Pamplona Region

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Spanish urban water sector in figures

Contractual and institutional public–private partnerships operate in population centers with an average of **14,000** inhabitants

Public sector management operate in cities with an average population of **3,400** inhabitants

AGBAR* and **Aqualia*** manage **67%** of water services in the municipalities that have privatized their urban water service

*AGBAR is a subsidiary enterprise of Suez Environment
*Aqualia belongs to Fomento de Construcciones y Contratas (FCC)

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WATER TARIFF IN SPAIN

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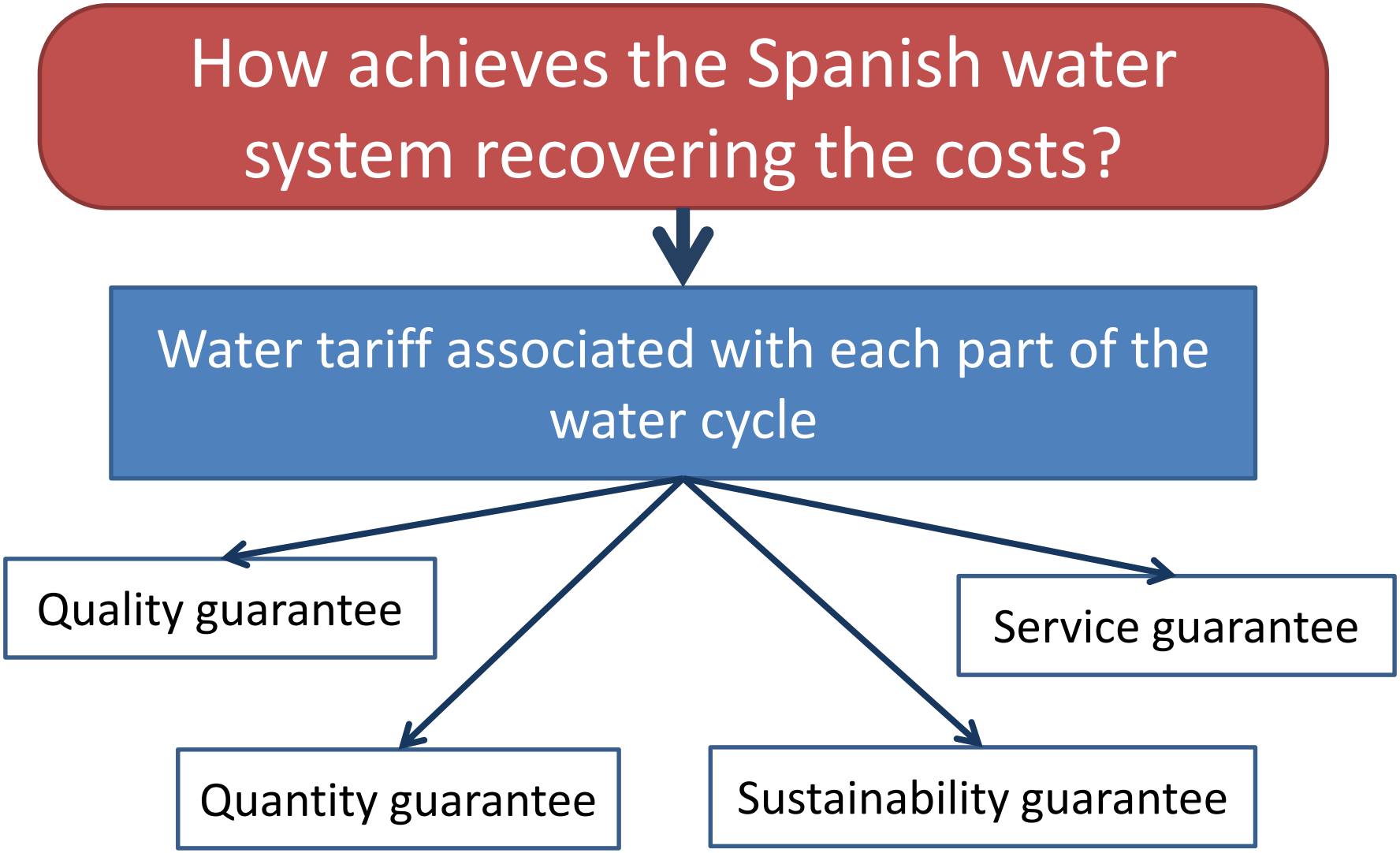
How achieves the Spanish water system recovering the costs?



Spanish tariff targets

Cost recovery

Environmental sustainability

Responsible consumption

*"The **principle of recovery of the costs** of water services. including environmental and resource costs associated with **damage** or negative impact on the aquatic environment **should be taken into account** in accordance with. in particular. the polluter-pays principle. An **economic analysis of water services** based on long-term forecasts of supply and demand for water in the river basin district will be necessary for this purpose"* (Principle nº 38. WFD).

Which tariffs exist in Spain?

Regulation charge	It covers services of surface water catchment and reservoir
Water usage rate	It covers services of surface water transport
Servicing fee	This serves to recover the costs of services purification and distribution water through distribution networks
Irrigation community fee	Covering the costs of distributing water to irrigators
Sewer rate	For covering the costs of collection services of urban wastewater
Sanitation tax	For covering the costs of wastewater treatment
Dumping tax	This serves to cover the costs of discharged control service to Public Water Domain

Which tariffs exist in Spain?

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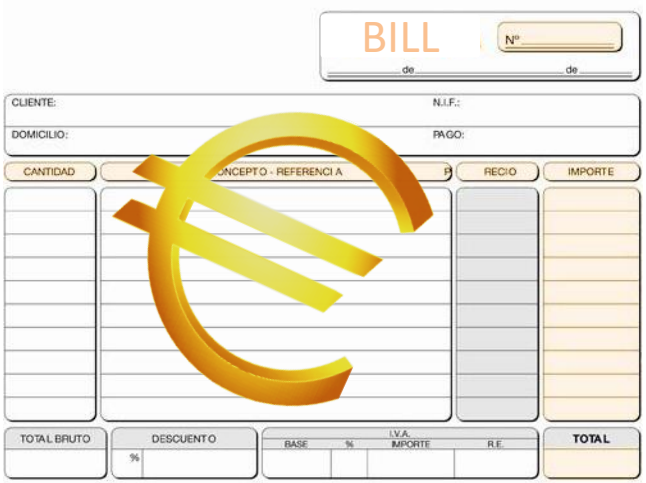
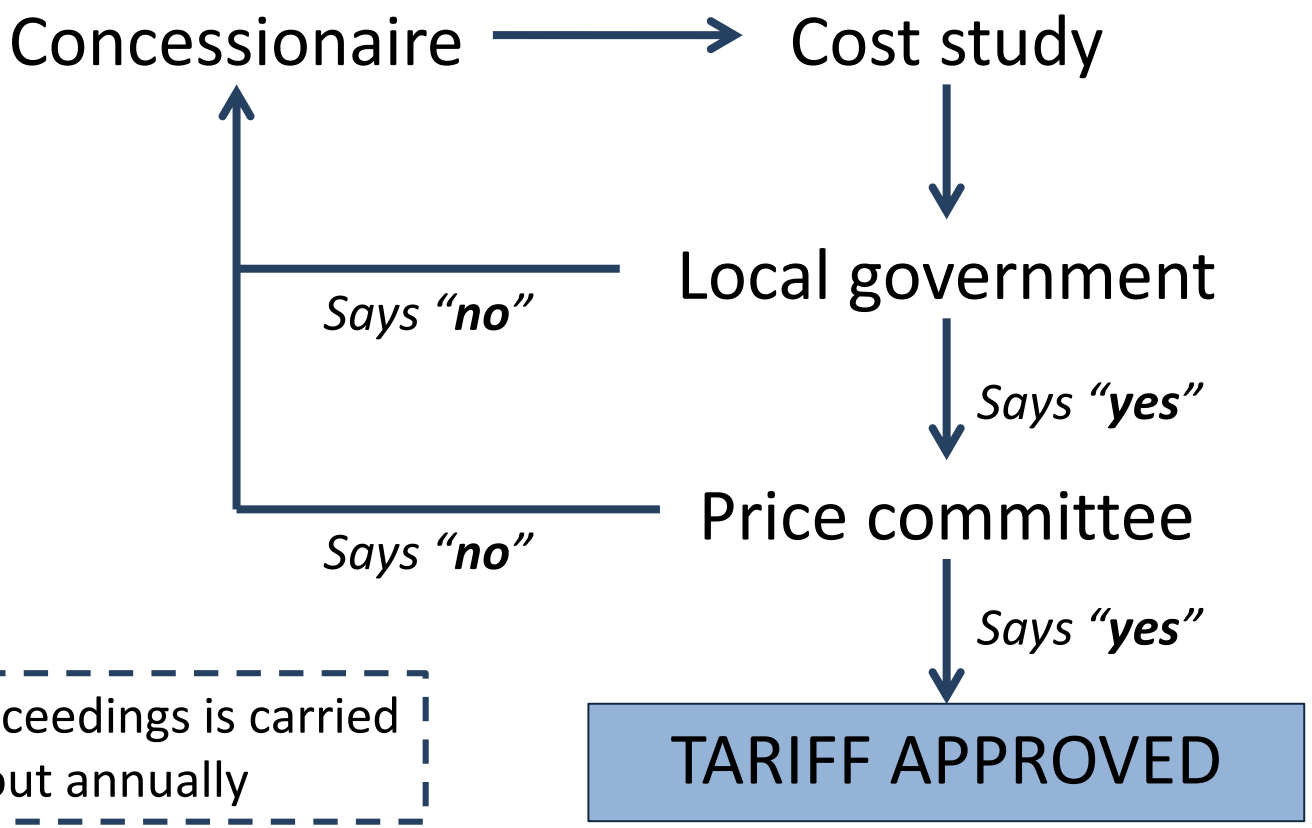
Sewer rate	For covering the costs of collection services of urban wastewater
Sanitation tax	For covering the costs of wastewater treatment

These are the fees that are included in the urban water bill



What is the Spanish legal mechanism for approving water tariff?



This proceedings is carried out annually

How is structured the Spanish water tariff?

Progressive binomial formula

$$P = F + a \times Q + b \times Y$$

F → Fixed component of water services contracted

a → Price per water unit consumed (€/m³)

Q → Total amount of water consumed (m³)

b → Price per unit of wastewater produced (€/m³)

Y → Total amount of wastewater (m³)

Binomial tariff

Fixed component

This part of the tariff guarantees a level of revenue per user with which to cover the associated fixed costs of supplying the service. I.e.. **This component is charged regardless of water is used or not**

Variable component

This **part is associated to water amount consumed**. Involving **increasing block rates** (unit water prices are progressively higher with increasing water consumption). to ensure the efficient use of water

Binomial tariff (block example)

Service tariff	
Water meter of 13 mm	11.43 €/trimester
Water meter of 15 mm	11.43 €/trimester
Water meter of 20 mm	19.36 €/trimester
Water meter of 25 mm	30.77 €/trimester
Water meter of 30 mm	44.39 €/trimester
Water meter of 40 mm	88.58 €/trimester
Water meter of 50 mm	132.83 €/trimester
Water meter of 65 mm	154.74 €/trimester
Water meter of 80 mm	176.64 €/trimester

Consumption tariff	
Until 15 m^3/trimester	0.1855 €/m^3
Between 16 - 40 m^3/trimester	0.2783 €/m^3
Over 40 m^3/trimester	0.9275 €/m^3

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Binomial tariff in figures

95% of the municipalities in Spain apply binomial tariffs charged from the first cubic meter of water consumed

5% of the municipalities in Spain fixed component includes a free minimum allowance

Variable component

58% of the municipalities set three consumption blocks	**29%** of the municipalities apply four consumption blocks	**11%** of the municipalities use two blocks	**2%** of the municipalities apply a flat rate

Average price of water in Spain = **1.59 €/m³**

0.92 €/m³ refer to water supply (58% of total price)

0.67 €/m³ refer to wastewater treatment (42% of total price)

These prices do not achieve the cost recovery

The recovery percentage is between **65 – 96%**

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Water tariff per Regional Governments (€/m³)

Regional Governments	Water supply		Water treatment		Integral Water Cycle		
	Domestic	Industrial	Domestic	Industrial	Domestic	Industrial	Joint
Andalusia	0.83	1.11	0.58	0.64	1.41	1.75	1.5
Aragon	0.55	1.12	0.46	0.97	1.01	2.09	1.28
Asturias	0.6	0.9	0.62	0.78	1.22	1.57	1.31
Cantabria	0.55	1.38	0.36	0.53	0.9	1.91	1.15
Castilla-La Mancha	0.68	0.83	0.43	0.52	1.12	1.34	1.17
Castilla-León	0.44	0.66	0.42	0.53	0.86	1.18	0.94
Catalonia	1.12	1.62	0.72	0.83	1.84	2.45	1.99
Valencia	0.74	0.87	0.58	0.66	1.33	1.53	1.38
Estremadura	0.83	1.03	0.36	0.47	1.19	1.5	1.27
Galicia	0.61	0.96	0.4	0.68	1.02	1.64	1.17
Balearic Islands	1.38	2.5	0.81	1.49	2.2	3.99	2.65
Canary Islands	1027	2.23	0.34	0.33	1.61	2.56	1.85
Rioja	0.52	0.57	0.53	0.53	1.05	1.09	1.06
Madrid	0.79	0.86	0.53	0.68	1.32	1.53	1.37
Murcia	1067	1.57	0.68	0.72	2.35	2.29	2.34
Navarre	0.44	0.57	0.62	0.72	1.06	1.29	1.11
the Basque Country	0.54	0.79	0.5	0.74	1.03	1.53	1.16
Spain	0.85	1.12	0.56	0.69	1.4	1.81	1.5

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The water bill accounts for **0.8%** of the household budget and is one of the lowest in Europe

0.92 €/m³ refer to water supply (58% of

of total price)

Tariff should be increased for achieve the cost recovery

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But how?.....

The complexity of the tariff system and the large number of charges on the bill are excessive.

Because of this, elasticity demand water price is expected to be significantly reduced.

Initially the use of a first block subsidized makes the smallest users be favored over the largest.

Nevertheless, the volume of subsidized consumption in the tariff is very different according the municipalities and it not corresponds to the basic consumption obtained from international organizations.

If the fixed part of the tariff increases due to different reasons, it will be against the principle of increase blocks of the variable part and the efficiency in water use will not be encouraged.

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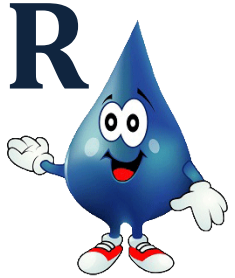
THANK YOU FOR YOUR ATTENTION



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