

*A regulação como
instrumento para a melhoria
da eficiência e da eficácia
nos serviços públicos de
águas e resíduos*



Reorganising the water sector

The Portuguese experience

Consultation with regulators



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The need for reorganisation of water services

Water services reorganisation

- **Water supply and wastewater drainage and treatment are public services, essential to the:**
 - general well-being,
 - public health
 - collective security of communities and businesses
 - environment protection.
- **These services are essential to achieve a sustainable development**
- **They should be governed by the principles of:**
 - Universal access (human right)
 - Continuity
 - Service quality
 - Price efficiency and equity.



Water services reorganisation

- **However, the situation of those services in many regions in the world is still far from acceptable:**
 - low levels of coverage
 - low levels of quality
 - lack of global organization in the sector
- **The Millennium Development Goals, approved by the UN General Assembly in year 2000, establish clear targets for these services**
- **However, they are far from being achieved.**



Water services reorganisation

- **The main problems are in general:**
 - lack of clear national strategy;
 - services are under the responsibility of too small size utilities;
 - quality of services in general poor;
 - lack of infrastructures;
 - lack of financial resources;
 - lack of skilled human resources;
 - difficulty to respond to health and environmental standards.
- **A global reorganisation of the sector is essential to ensure sustainable water services.**





The reorganisation of water services in Portugal (1993-2009)

Water services reorganisation

- **Assessment:**

- The situation of the sector before 1993 was unacceptable

- **Main problems:**

- There was no clear national strategy
- Services under the responsibility of about 300 municipalities of medium/small size
- Poor quality of services in general
- Lack of infrastructure
- Lack of financial resources
- Lack of skilled human resources
- Difficulty in responding to new challenges (i.e. European standards)

- **Conclusion:**

- A global reorganisation of the sector was urgently needed



Population with access to public water supply services:

80%



Tap water monitored and in compliance with European standards:

50%



Population with access to complete (treated) public wastewater services:

30%

Water services reorganisation

- In Portugal a strong political commitment was undertaken to reorganise the sector in the last 15 or 20 years.
- The main advances have been on:
 - defining a clear strategy for the sector;
 - clarifying institutional responsibilities;
 - creating a new legal framework;
 - defining new governance models;
 - promoting territorial reorganization;
 - promoting full cost recovery;
 - promoting quality of service;
 - creating a regulatory framework.
 - difficulty to respond to health and environmental standards.



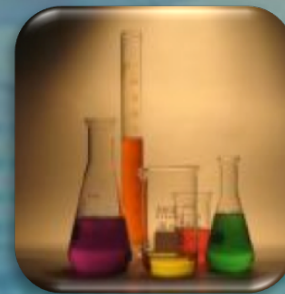
Water services reorganisation

- **Seventeen years later the situation is much better.**
- **The situation has improved dramatically since then.**
- **The reorganisation of the water services is not yet complete, but a very significant evolution has been achieved in recent years.**
- **However several problems still need to be solved.**



Population with access to public water supply services

80% ►► **94%**



Tap water monitored and in compliance with European standards

50% ►► **98%**



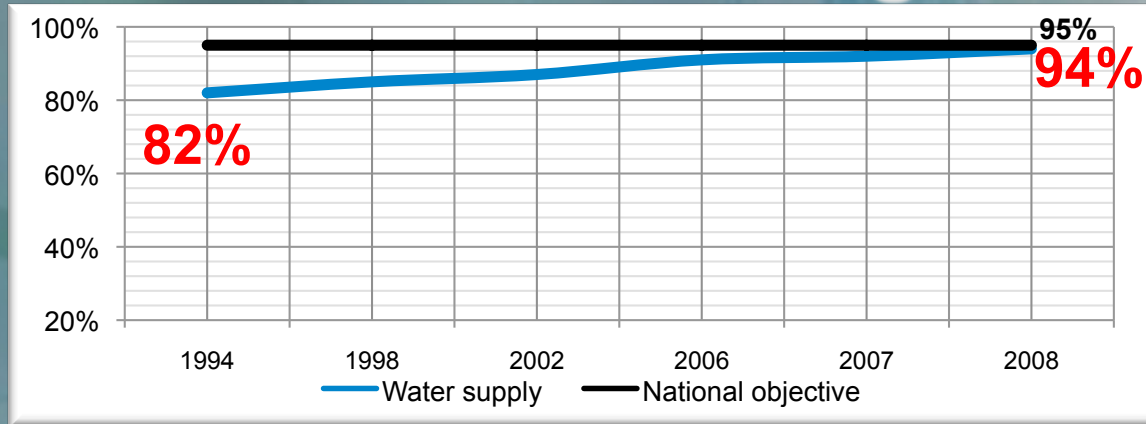
Population with access to complete (treated) public wastewater services

30% ►► **71%**



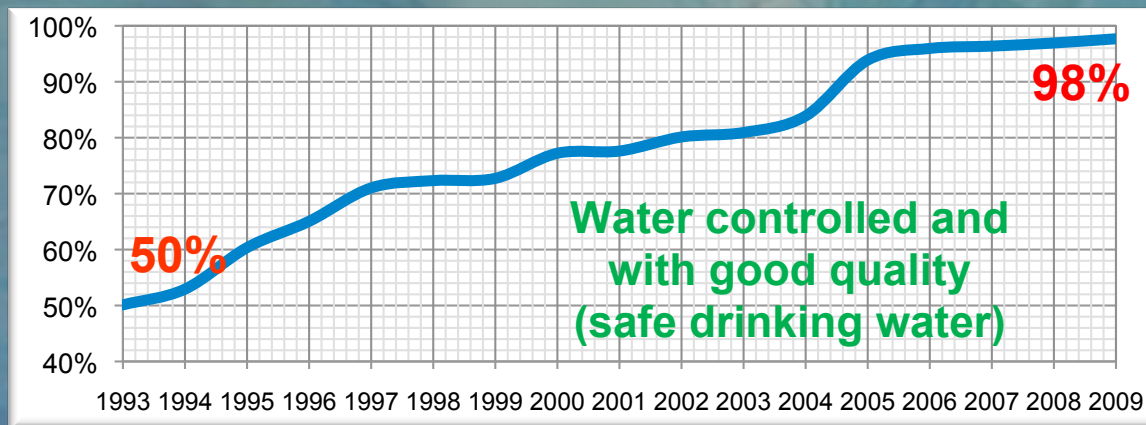
Water services reorganisation

Evolution of the population with **public water supply** (1994-2008)



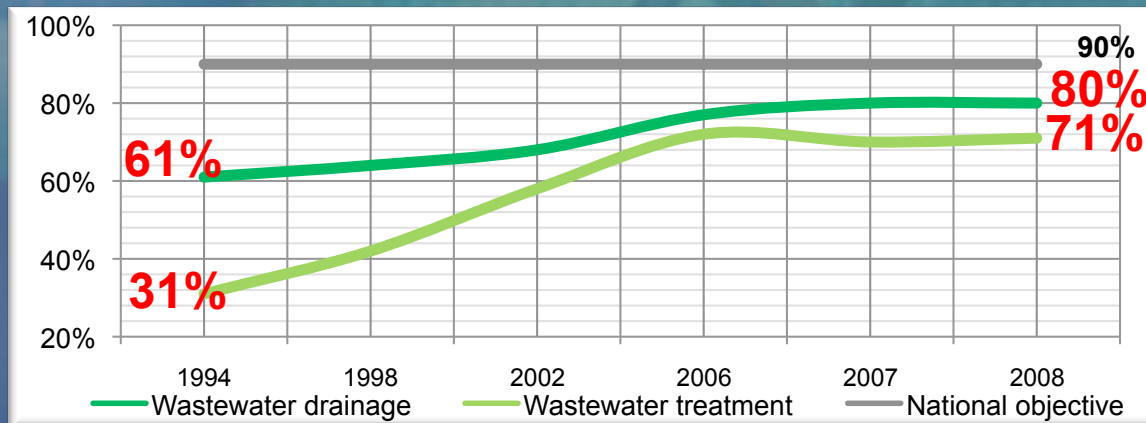
Target
95%

Evolution of the percentage of **water monitored and of good quality** (1993-2009)



Target
99%

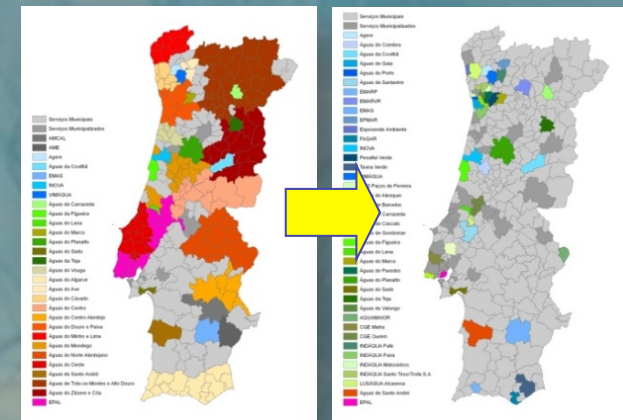
Evolution of the population with **public wastewater collection and treatment** (1994-2008)



Target
90%

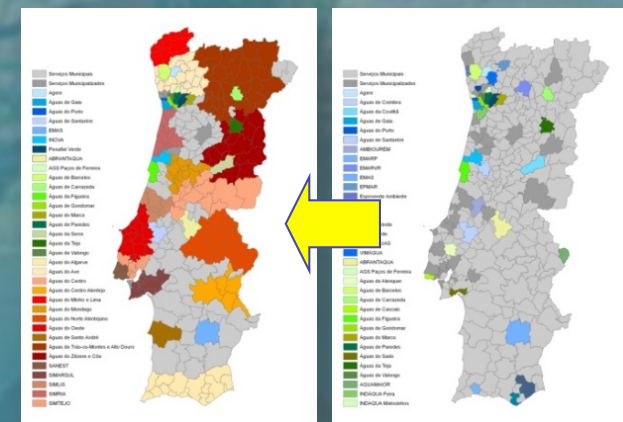
Water services reorganisation

- **Territorial reorganisation is almost completed on bulk systems:**
 - New regional level utilities have been created
 - Small number of large and modern regional utilities providing bulk services
- **Territorial reorganisation is still starting on retail systems:**
 - Still large number of small/medium size local utilities providing retail services
 - Current trend to aggregate those local utilities to the regional level



Water bulk services

Water retail services



Wastewater bulk services

Wastewater retail services

Water services reorganisation

- **These services are:**
 - a public responsibility in terms of their provision ...
 - ... but they can have public, private or public-private management.
- **Different governance models are possible:**
 - Political decision must be based on sound studies
 - Good capability/competence is needed to manage concession / delegation contracts
 - Some healthy competition occurs between models

State-level services
(regional bulk services)

Municipal-level services
(local retail services)

Direct management

Direct management

Delegated management
(>1998)

Delegated management
(>1998)

Concession management
(>1993)

Concession management
(>1993)



ERSAR: the Portuguese water services regulator

- **The Portuguese water regulator:**
 - Operates at **national level** (mainland)
 - Regulates **all the utilities**, regardless the governance model (State-owned, municipal-owned and private utilities)
 - Regulates with an **holistic approach**, based on a global and integrated regulatory model
 - Guaranties **articulation** with other relevant authorities:
 - Water resources
 - Public health
 - Competition
 - Guaranties **transparency** and **stakeholders** participation (ex. consumers and utilities)



- Fulfil functional, organic and financial **independence** from Government
 - Regulation develops State functions, not Government functions
- Guaranties technical and organizational capabilities
- Has a small structure (70 employees)
- Has a small budget (6 500 000 €/year)
- Has a small impact on the tariffs (0,5-1%)
- Apply regulatory taxes based on the volume of activity of the utilities (m³) but not their income (€)
- Do not benefit from economic penalties to the utilities

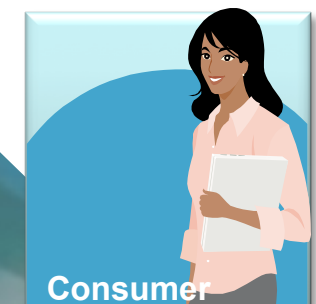
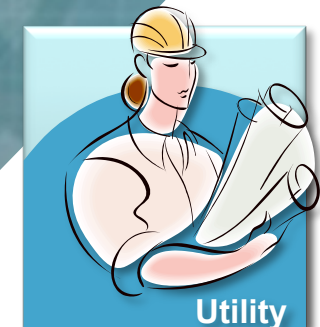


- **Based on 7 years of experience in regulation in Portugal, we can say:**
 - Regulation is a modern and powerful tool for public policy in this monopolistic sector of water services
 - Regulation can have a fundamental role in the continuous improvement of efficient water services



The role of the water services regulation. Why, what and how?

- **When a public service is a monopoly, we find:**
 - Lower incentives for utilities to increase efficiency
 - Risk of lower quality of service and higher than necessary prices
 - Risk of dominance of utility over consumer interests
- **This means there is an increased need for explicit regulation**
- **What is regulation?**
 - It is a modern form of government intervention aimed at the protection of the public interest
 - It seeks to guarantee a better balance between utility and consumer interests in the provision of these services under more transparent processes
- **What is the “rationale” for regulation?**



The rationale for regulation

- The sustainability of the services under an holistic approach:

Sustainability of the sector:

- National strategy
- Legal framework
- Information
- Innovation (R&D)

Environmental sustainability:

- Uses of environmental resources
- Prevention of pollution

Water resources

Water supply services



350 Utilities



10 000 000 Consumers

Wastewater services

Sustainability of the utilities:

- Economic
- Infrastructural
- Human resources

Social sustainability:

- Physical access
- Economic affordability
- Quality of service
- Water quality for human consumption

Regulatory model

Structural regulation of the sector:

Contribution to national strategy formulation for the sector

Contribution to the clarification and improvement of rules and legislation governing the sector

Regulation of utility behaviour:

Legal and contractual monitoring of the utilities

Economic regulation of the utilities

Quality of service regulation of the utilities

Water quality regulation of the utilities

Consumer complaint assessment

Auxiliary regulatory activities:

Collection, validation, processing and public disclosure of sound information

Innovation and technical support to the utilities



Consumer protection: ensuring right to water



- Tools has been created to protect consumers, namely the poor population ...

- ... at global level:

- National **strategy** with clear targets to serve 95% of the population with water supply and 90% with treated wastewater.

- National strategy to achieve tariffs sustainability but also **affordability** based on a new indicator of affordability:

$$\text{Economic accessibility indicator} = \frac{\text{Annual water bill for a typical family (120 m}^3\text{)}}{\text{Annual income for a typical family in the region}}$$

- “**Tariff harmonization fund**” as a toll to avoid too high tariffs in some regions (under development)



- ... **at specific level:**

- Right to be served when public system is available within less than 20 meters.
- Right to be served within 5 days of subscription request.
- Right to have a 24h x 365 days service, which can be interrupted only due to strong technical reasons or lack of payment (after due diligence procedures).
- Right **not to pay autonomous charges for service *subscription and connection*** to the network (whose costs must be included in the general tariff).
- Right to benefit from a ***social tariff*** (poor families).
- Right to benefit from a ***family tariff*** (large families).
- Right to benefit from a ***seasonal tariff*** (touristic areas).



- **Results:**

- **Affordable services:**

- At macro level they represent 0,5% of average disposable income.
- Micro-affordability problems can be solved by recommended social tariff mechanisms.
- Potential accessibility problems due to connection costs can be solved if recommendations are followed.

- **Affordability levels are a criteria for subsidized funding allocation.**

- **Increasing coverage levels**

- Public drinking water networks – 94%
- Public wastewater networks (with treatment) – 71%

- **Benchmarking allows for a more interventive society, on demanding quality services at an affordable price.**



- **Other possible solutions (not implemented yet):**

- Provision of technical expertise to private solutions as an alternative for public networks.
- Monitoring of prices for services regarding private solutions.
- Facilitation of public water and sanitation infrastructures serving the deprived.
- Creation of manuals for local decision makers on how to facilitate water as a human right.