A Brief Approach to Water Sector in Portugal

Rui Godinho

President of APDA

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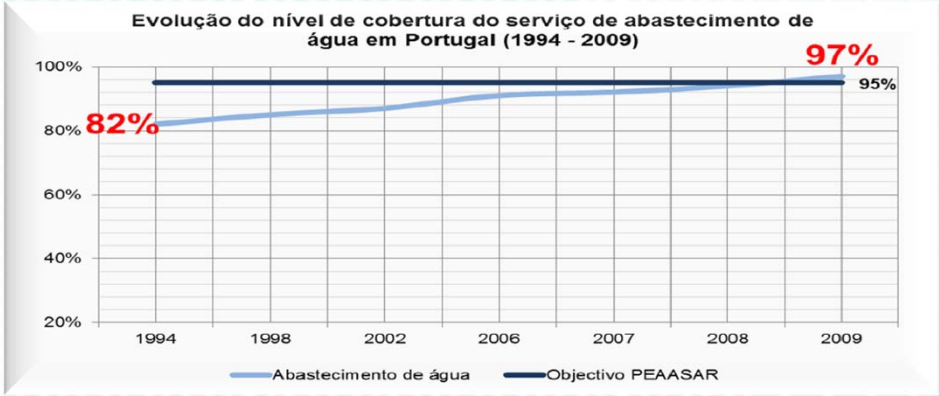
Evolution of the Water Management in Portugal

In the last 25 years Portugal acquired and developed significant experience in the following areas

- **Planning and management of water resources;**
- **Water supply, wastewater management and regulation, based on two National Strategic Plans**
- **Hydraulic ventures;**
- **Planning and management of coastal areas;**
- **Institutions for the water management and governance;**
- **Safe water to more than 99% of the population.**

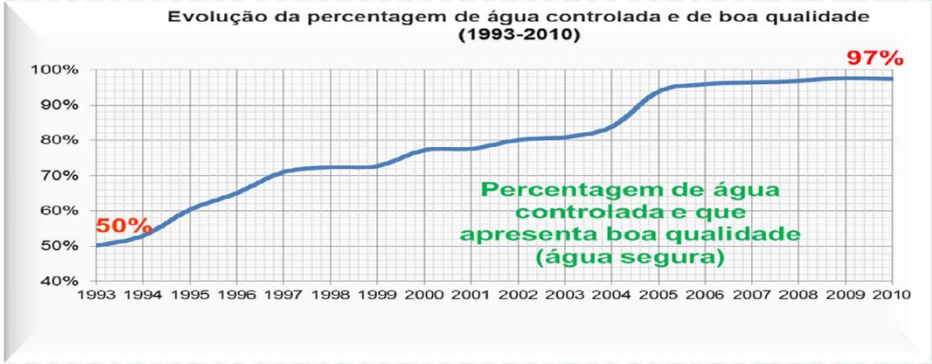
Water Sector Sustainability

Significant improvement of physical accessibility to water supply and the water quality have improved



More than *1 500 000 inhabitants* were served with water supply since 1993

PEAASAR objective achieved before 2013



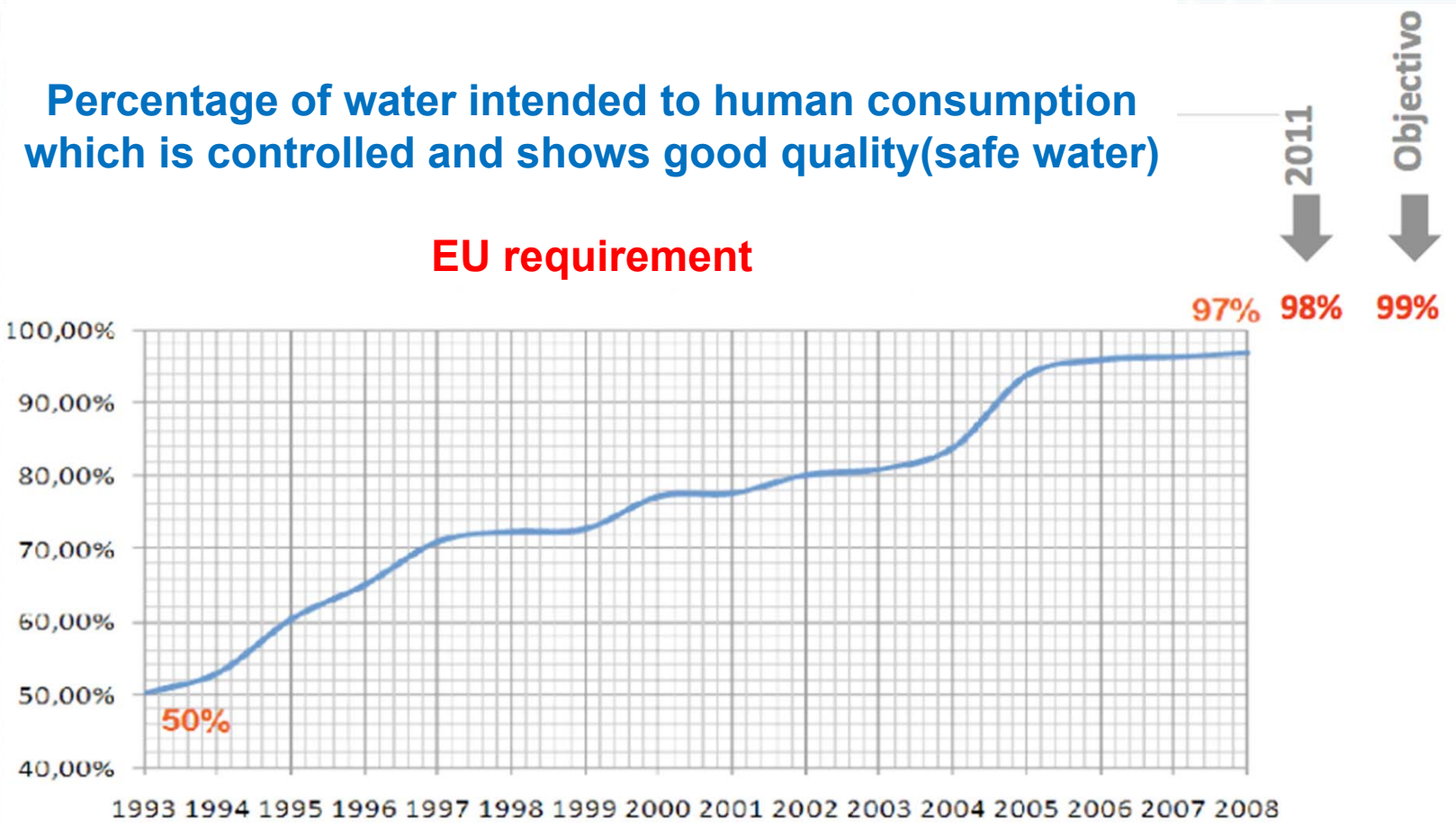
More than *4 800 000 inhabitants* were served with *"safe water"* since 1993

It is predictable to achieve ≈ 99% in 2013

Evolution of the Water Sector in Portugal (ERSAR)

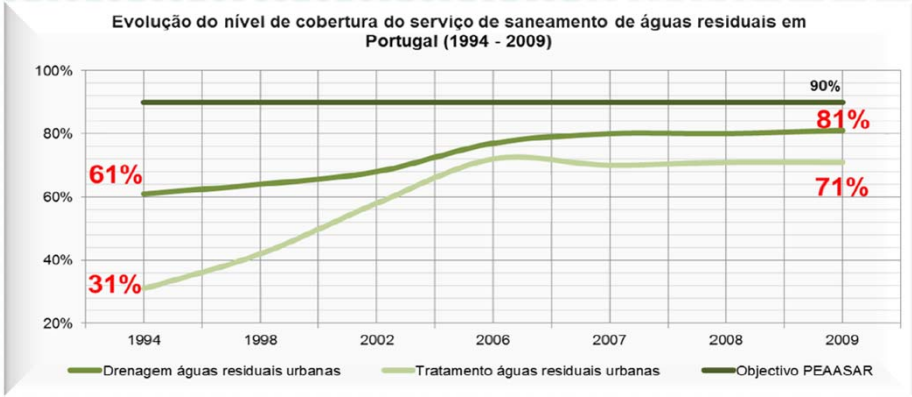
Percentage of water intended to human consumption which is controlled and shows good quality(safe water)

EU requirement



Wastewater Sustainability

Physical accessibility of wastewater services have also improved, but still far from the planned quantitative target.



More than *4 000 000 inhabitants* were served with waste water drainage and treatment since 1993

It is predictable to achieve

≈ 80 % in 2013

- **In the water supply we are close to the planned targets, but in wastewater not yet;**
- **The rest of the quality of service indicators have been becoming better gradually;**
- ***Portugal has evolved from a stage of "infra-structuration" to a stage of "patrimonial management"***

Economic Accessibility to the Service

It was introduced by ERSAR the indicator of economic accessibility to the service:

$$\text{Iae}(\%) = \frac{\text{Average cost of each family with water utilities}}{\text{Available average income of each family}}$$

The portuguese situation is, in average, comfortable, although with an increasing trend.

According to this indicator the economic accessibility of these services in Portugal is in the present of 0,5%

- **Portugal (ERSAR) recomends < 1% (max 2%)**
- **Several european countries recomend < 2%**
- **USA recomends < 2,5%**
- **OECD recomends < 3%**

Water Public Policy

- In last 20th century, Portugal has developed several cycles of public water services policies, many times without sucess;
- Actually we are living a period of 20 years, started in 1993, of the most recent and well succeded Strategic Cycle of Public Water Policy, supported by *PEAASAR II (Second Strategic Plan of Water Supply and Wastewater Services Implementation).*

Includes:

- Adoption of corporate management model;
- It has been created the "holding" Águas de Portugal, as over arching corporate struture of water sector;
- Opening the operation to private sector;
- Aggregation and merger of the regional systems;
- Creation and implementation of a regulation body – ERSAR.

MARKET AND PRICING

Strong tariff dispersion

The disparities verified are *1:21* in the case of the municipal systems of water supply (minimum – € 0,078 ; maximum – € 1,659) and of € 0,00 (still in 28 municipal systems) and € 1,166 (maximum) in the wastewater systems.

APDA – O Mercado e os Preços da Água e Saneamento em Portugal – 2012

(The Market and Pricing of Water and Sanitation in Portugal – 2012)

Evaluation by CELE/APDA – Specialist Commission dedicated to Economic and Legal Affairs.

MARKET AND PRICING

- The tariffs systems in practice only allow *a partial recovery of costs* not covered by european community grants;

- *2009 data* allow us to conclude that occur levels of cost *recovery of 90%* for the water supply and only *46%* for wastewater services.

There is a great deal of cause of concern

MARKET AND PRICING

- The dispersion of tariffs of water services and sanitation is a *serious distortion* in its rationality, equity and sustainability;
- In the 308 Portuguese municipalities, in only 5 of them the cost of water services and sanitation exceeds 1% of median family income;
- The weighted average is 0.5%.

ERSAR – *Economic Acessibilty to Water and Sanitation Services*, 2011

MARKET AND PRICING

- *In the case of Portugal*, it is recommended, however, to be careful in immediate application of the concept of *"full cost recovery"* in the *tarification policy* implementation;

- APDA propose the adoption of the concept of *"sustainable cost recovery"*, tool that can be more adjusted to consider more properly the social, environmental and other components, namely the current crisis (recession) and strong social effects suffered today by Portugal and Eurozone as well.

MARKET AND PRICING

- Implementation process, must include a consideration of a *"convergence period"* of at least *5 years*, adopting the *"sustainable cost recovery"* mechanism supported by a tool as a *Equilibrium Tariffication Fund;*

- In the present circumstances in Portugal, is best suited to the consideration of social and environmental pillars, which must be present in a strategy to achieve sustainability and equitability to the sector, *without putting it at risk and avoiding social disrusption.*

Need for a more efficient water use

Inefficiency in the water use

An important part of the water captured is not effectively consumed

- **Costs for the society without benefits**
- **Potential for important savings**

Total Inefficiency

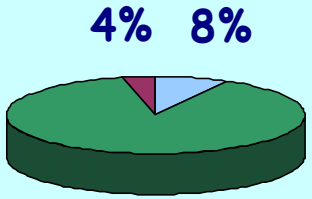
3 100 x 10^6 m^3/year – 39% of water demand

[730 x 10^6 €/year – 0,64% of GDP]

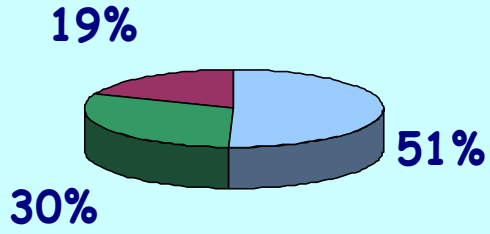
Need for a more efficient water use

Inefficiency in the water by sector

- **Urban use:**
  - 240 x 10^6 m^3/year
  - 370 x 10^6 €/year
- **Agriculture use:**
  - 2 750 x 10^6 m^3/year
  - 220 x 10^6 €/year
- **Industrial use**
  - 112 x 10^6 m^3/year
  - 140 x 10^6 €/year



Ineficiência no uso em volume



Ineficiência no uso em valor

Need for a more efficient use

- *Environmental* imperative;
- *Strategical need to preserve the availability* of the country water sources;
- Economic interest at a *national level (0,64% GDP*);
- Economic interest at *entrepreneurial level;*
- Economic interest at *water operators level;*
- Economic interest at *the citizens level;*
- *Country obligations* in terms of EU legislation (eg. *WFD)*;

Proposals to improve the water sector

Reform to assure a sustainable management

- **Improving "*structural efficiency of the sector*", too much fragmented and not very well coordinated;**
- **Improving "*organic efficiency of the water operators*" – claims for good information, both internal and external;**
- **Achieving *economic and financial sustainability* with an adequate level of cost recovery (sustainable).**

Proposals to improve the sector

To assure a sustainable management

- **Adaptation to changes and *innovation*;**
- **Creation of new management models, involving the *urban water cycle* (water and wastewater);**
- **Water operators *specialization*;**
- **Implementation a truly professional management practices;**
- **Improvement the *service quality*, protecting and preserving the *natural resources* and *qualifying the environment.***

Proposals to improve the sector

Management in an environment of lack of financial resources

- **Particular attention to natural, financial and human resources productivity *– productive efficiency*;**
- **Implies an higher level of *economic efficiency*;**
- **Strengthens the application of the *Subsidiarity Principle*:**

Do only at a higher level what can´t be done in a proper way at a lower level.

Better Governance of the Water Operators

WATER GOVERNANCE

"Good Water Governance"

- ***It is a sensitive question*, whatever the model of its management (private property of the infrastructures with national regulators, public-private partnerships, or *"in house"* management);**

- ***Water is a local question* involving a large amount of stakeholders at different levels;**

- ***The so-called "Water Crisis" is, in a large way, a "governance crisis" (OECD multi-level approach).***

When exists a good "Water Governance"

- When exists an ***National Water Authority*** at the countries highest level;
- When the country is supported by a modern ***Water Legislation*** that includes important advances in knowledge and where the ***public participation is guaranteed;***
- When the country has adequate ***Human Resources,*** both in quality and in quantity.

When exists a good "Water Governance"

- When the country has adequate ***Financial Resources*** at short, medium and long terms;

- When the country provides ***Reliable Information***, to public access, transparent and when the information and communication are guaranteed at all levels – institutional and "civil society".

Water Crisis, "Governance" crisis and the emergency of a New Paradigm

Basic Principles of an effective "Water Governance"

- ***Participation*** **of all the interested parts (stakeholders);**
- ***Transparency*****;**
- ***Equity, accountability, coherence*****;**
- ***Responsabilities, integrated policies and adoption of ethical and moral criteria;***
- ***Water management*** **as a *"Scarce Resource"*, economic, social and environmentally relevant.**

What is blocking us?

- ***Political constraints*** – lack of moral and political leadership, will and compromise in the resources allocation and corruption at different levels;

- ***Institutional constraints*** – lack of appropriate institutions at all levels and a permanent lack of cooperation among the institutions that co-exist today;

- ***Financial constraints*** – lack of financial investment and the increasing impossibility of the poorer people to pay for the water services.

- ***Technical challenges*** – extend the services to the poorer rural and disperse areas or in dense urban communities is one of the most difficult planning problems today!

EUREAU

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“Water is the driver of Nature”

Leonardo da Vinci