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INSTITUTO REGULADOR DE ÁGUAS E RESÍDUOS

2nd IWA Leading-Edge Conference & Exhibition on **Strategic Asset Management**

Asset management and regulation: the Portuguese case

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LESAM 2007 – Lisbon 17-19 October 2007

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- The Portuguese water sector
- The need for regulation
- The role of IRAR and it's regulation model
- The need for asset management
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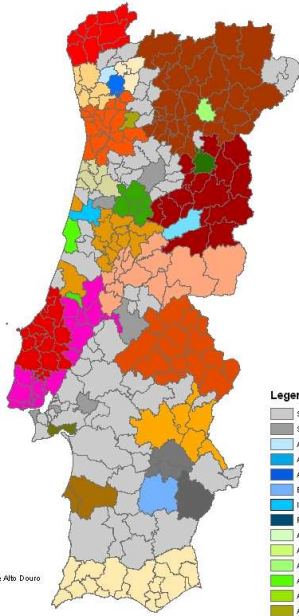
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The Portuguese water sector

Bulk operators

Legenda

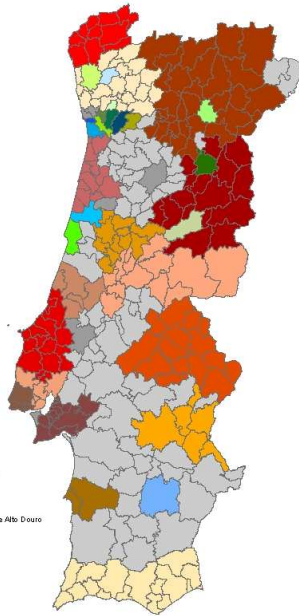
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- Águas do Vouga
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- Águas do Ave
- Águas do Cávado
- Águas do Centro
- Águas do Centro Alentejo
- Águas do Douro e Lima
- Águas do Minho e Lima
- Águas do Mondego
- Águas do Norte Alentejano
- Águas do Oeste
- Águas de Santo André
- Águas de Trás-os-Montes e Alto Douro
- Águas do Zêzere e Côa
- EPAL



Water

Legenda

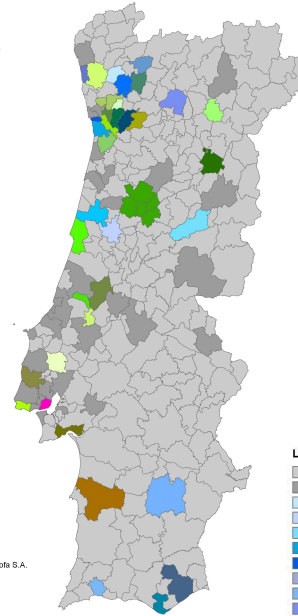
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- Águas de Gondomar
- Águas do Marco
- Águas de Paredes
- Águas da Seta
- Águas da Teja
- Águas de Valongo
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- Águas do Oeste
- Águas de Santo André
- Águas de Trás-os-Montes e Alto Douro
- Águas do Zêzere e Côa
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- SIMARSUL
- SIMLIS
- SIMRIA
- SIMTEJO



Retail operators

Legenda

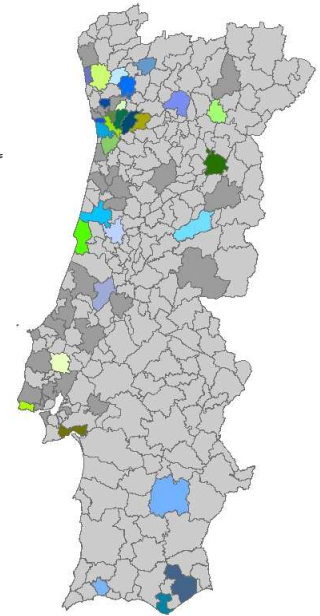
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- Águas do Porto
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- EMARVR
- EMAS
- EPMAR
- Esporanda Ambiente
- FAGAR
- INOVA
- Penafiel Verde
- Tavira Verde
- VMÁGUA
- AOS Paços de Ferreira
- Águas de Alenquer
- Águas de Barcelos
- Águas de Cascaes
- Águas de Gondomar
- Águas da Figueira
- Águas do Lena
- Águas do Marco
- Águas de Paredes
- Águas do Planalto
- Águas do Sado
- Águas da Teja
- Águas de Valongo
- CIGE Malta
- COSE Quilim
- INDÁQUA Fete
- INDÁQUA Feira
- INDÁQUA Santo Tirso/Trota S.A.
- LUSÁQUA Alcanena
- Águas de Santo André
- EPAL



Wastewater

Legenda

- Serviços Municipais
- Serviços Municipalizados
- Agere
- Águas de Coimbra
- Águas de Covilhã
- Águas de Gaia
- Águas do Porto
- AMBIOURÉM
- EMARPP
- EMARVR
- EMAS
- EPMAR
- Esporanda Ambiente
- FAGAR
- INOVA
- Penafiel Verde
- Tavira Verde
- TROFÁGUAS
- VMÁGUA
- AOS Paços de Ferreira
- Águas de Alenquer
- Águas de Barcelos
- Águas de Cascaes
- Águas de Gondomar
- Águas do Marco
- Águas de Paredes
- Águas do Sado
- Águas da Teja
- Águas de Valongo
- INDÁQUA Fete



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The need for regulation

- Public services, essential to population and economic activities, that constitute geographic natural monopolies;
- Risks associated:
 - Less incentives for continuous improvement of efficiency and effectiveness by operators;
 - Greater risk of operator interests prevailing over costumers' in terms of pricing and service quality.



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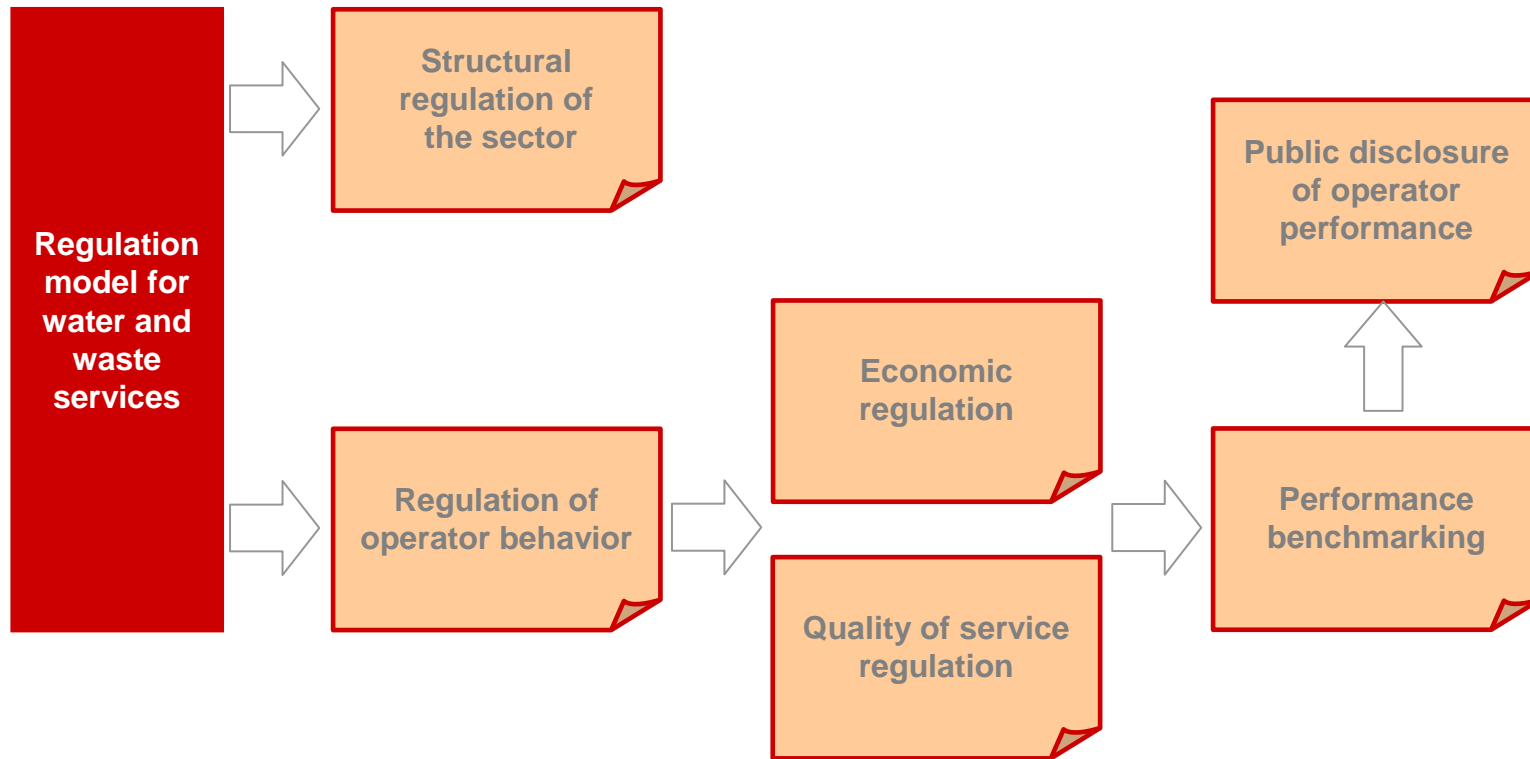
About IRAR

- IRAR is the Portuguese agency responsible for the regulation of the public water supply, urban wastewater treatment and urban solid waste management services.
- IRAR's objectives are:
 - Protect user interests;
 - Safeguard economic and financial sustainability of the utilities;
 - Promote the Portuguese water cluster;
 - Protect the environment.



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IRAR's regulation model



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The need for asset management

- Water utilities are amongst the most capital intensive industrial businesses:
 - Very high capital to revenue ratio;
 - Ex-post investment irreversibility;
- Maximizing the long term performance-to-cost ratio of assets is critical:
 - To ensure operational sustainability and service quality;
 - To minimize long term service provision costs;



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The need for asset management

- It is very difficult to assess investment and their timing using traditional cost-benefit analyses;
- Stakeholders expectations reinforce the criticality of advanced management practices:
 - Legal requirements on service quality and effectiveness;
 - Increasing consumer awareness and involvement.



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Asset management in Portugal

- Diversity of approaches for asset management;
- Operators still undertaking major investment in many regions (specially on wastewater);
- Repair operations are common but not rehabilitation and renewal;
- Several asset management activities and techniques but few are part of integrated and systematic strategic asset management plans.

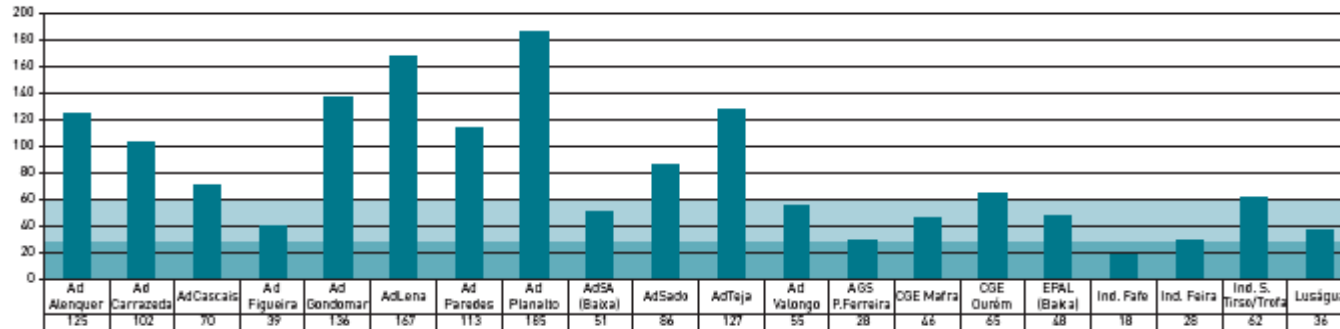


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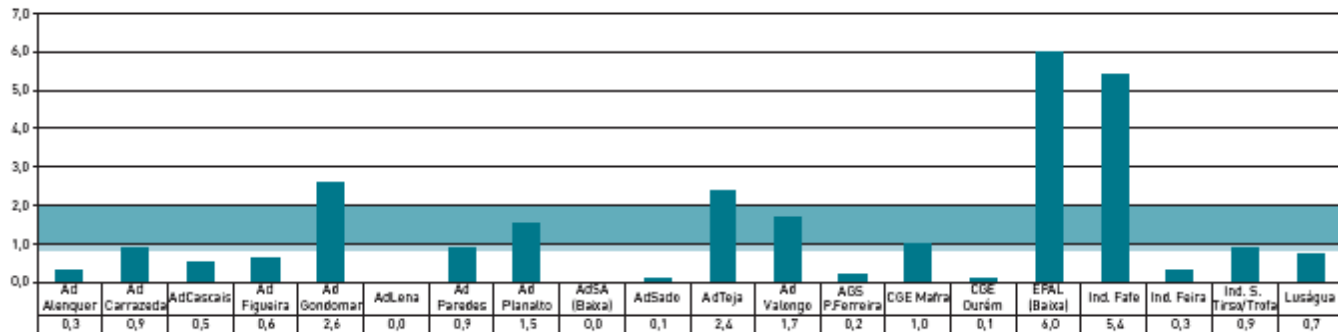
Asset management in Portugal

Water mains failures (no./100km/year)

2005

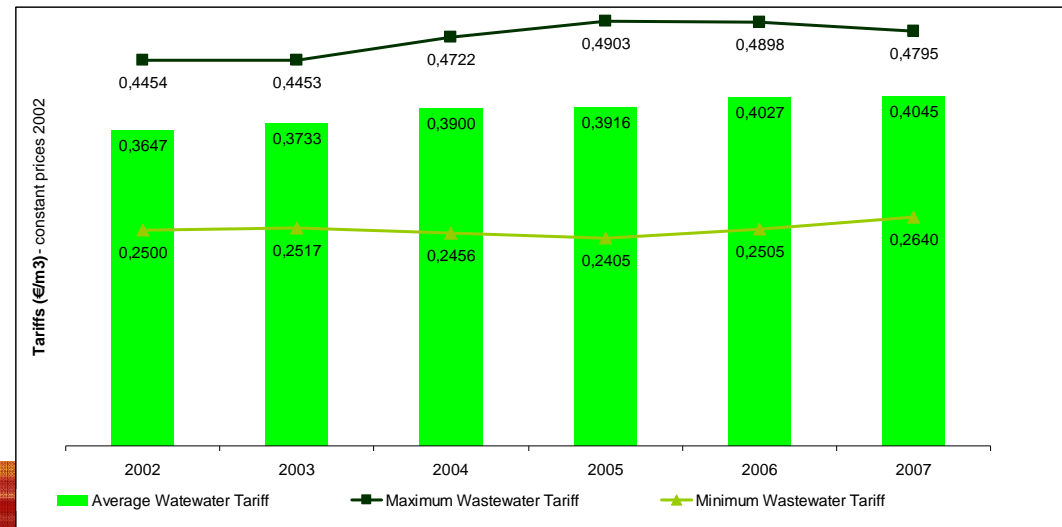
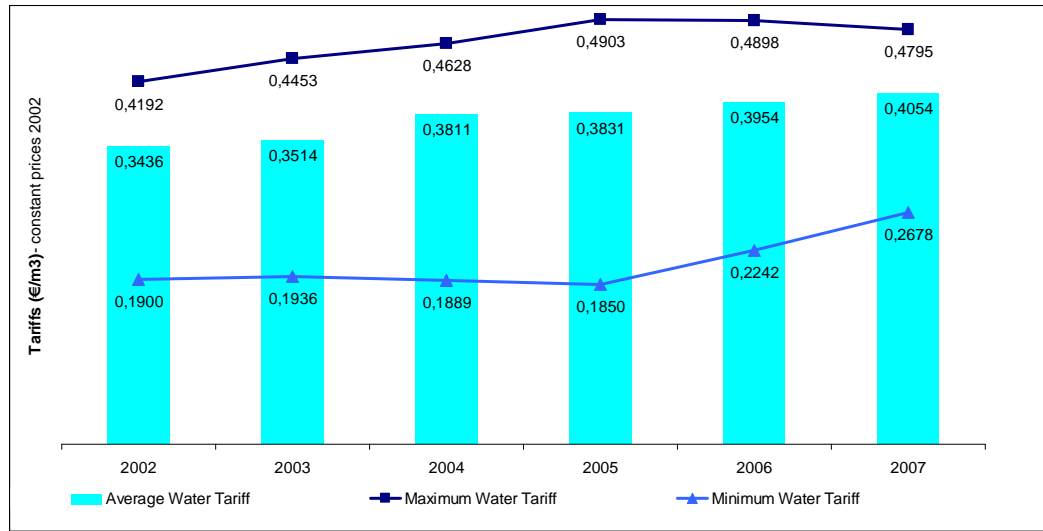


Water mains rehabilitation (%)



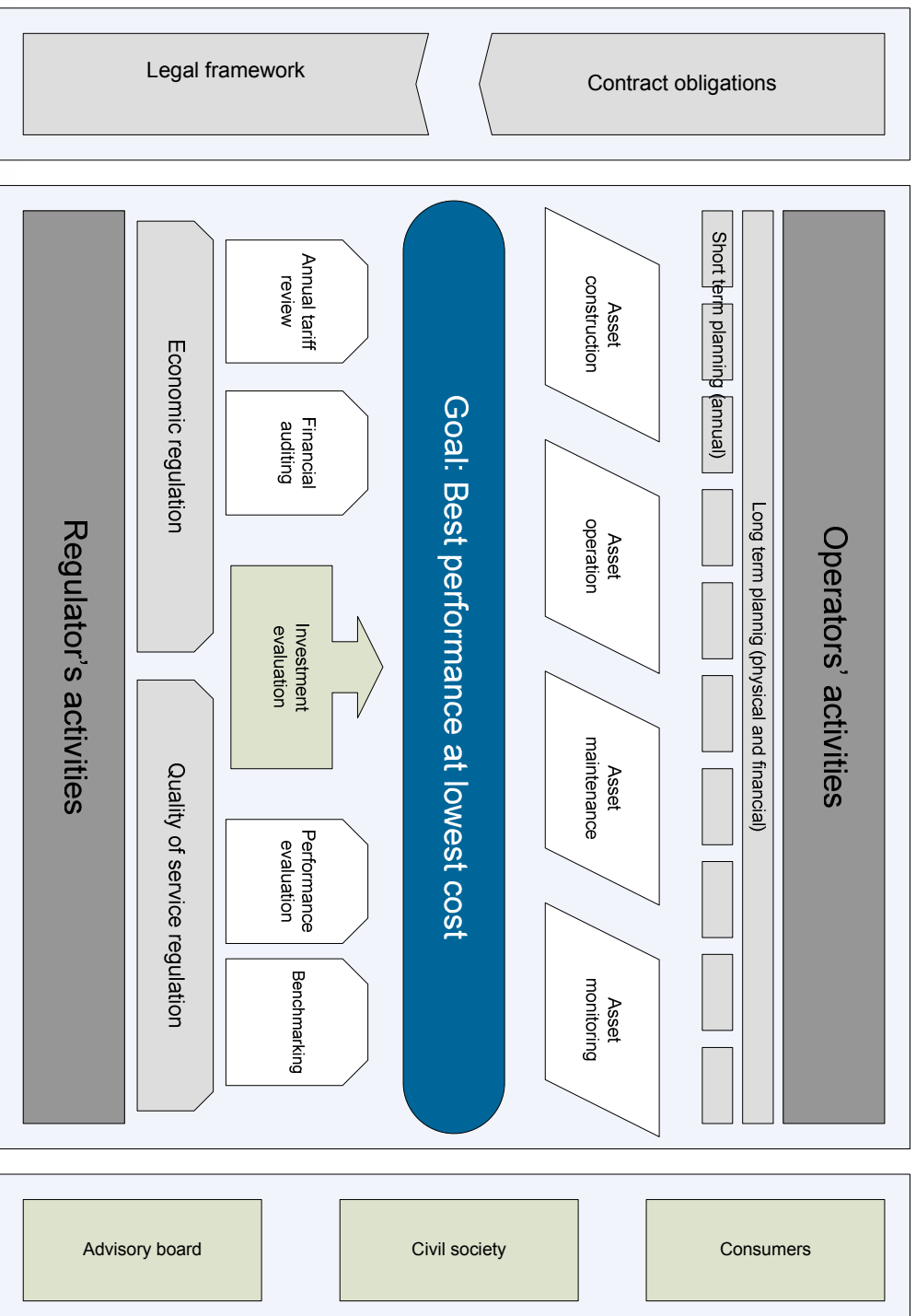
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Asset management in Portugal



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Asset management and regulation



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Conclusions

- Not all operators were prepared to deal with the necessity of collecting and reporting systematic information about their assets;
- As IRAR set out reference values for all the indicators, data analyses revealed there is still margin to optimise the management of water and wastewater assets;
- Regulatory requirements have placed additional efforts in the majority of operators, but we believe the benefits from these practices largely exceed the efforts on a long term basis;



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Conclusions

- Operators should embrace asset management practices has a tool that will allow them to better carry out their mission;
- IRAR has a role inducing operators to apply strategic asset management. Nevertheless each operator should define their system, taking into account the particular aspects of each company;
- The diversity in operator characteristics and circumstances are a major challenge to the generalisation of asset management practices in the water sector.



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Thank you

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