

A close-up, black and white photograph of water dripping from a faucet. The water is captured in mid-air, forming a series of droplets and a central stream. The background is a plain, light-colored surface.

**ISO 24500 standards as  
a support tool to  
manage assets**

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**INSTITUTO  
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DE VALENCIA**

# The goal

- ❑ Improve management in water services. How?
- ❑ Developing countries
  - Accessibility of the services
  - Conditions of the service
  - Continuity
- ❑ Developed countries
  - Quality of water
  - Quality of the service
  - Excellence



## The tools

- ❑ ISO 24500 series
  - 24512 Drinking water (64 pages)
  - 24511 Wastewater (72 pages)
  - 24510 Service to users (70 pages)
- ❑ International Standards (service, not process!)
- ❑ To be published by the end of 2007
- ❑ Voluntary
- ❑ Non certifiable
- ❑ English, French, Spanish



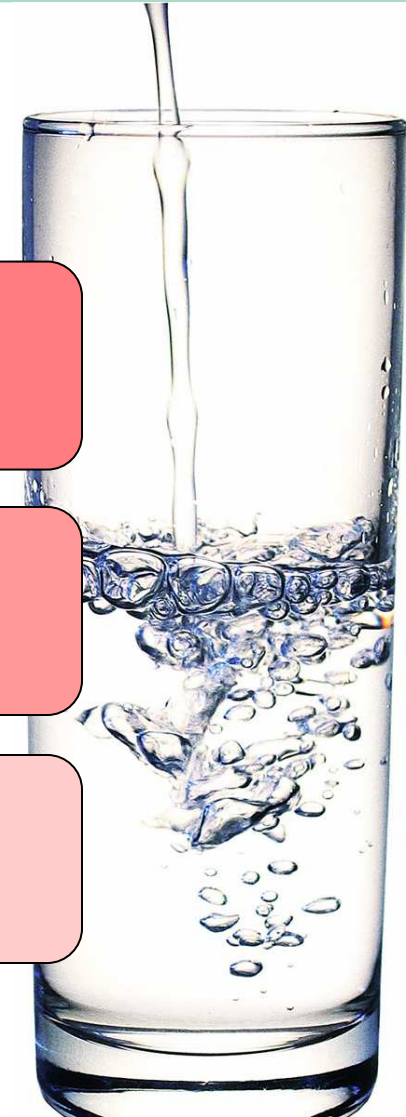
# The framework

- The standards as a technical tool: the framework

**Terminology**

**Objectives**

**Assessment**





International  
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Standardization

# Terminology

- ❑ During the development of the standards, the need for **common vocabulary** was made evident
  
- ❑ 53 terms
  - **Asset / Asset management**
  - **Infrastructure**
  - **Maintenance**
  - **Rate of return**
  - **Rehabilitation**
  - **Reliability...**
  
- ❑ Clear terms can help to improve the **communication** between stakeholders





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## Objectives

- ❑ 24511 and 24512 provide **objectives** for a **good management** of water services
- ❑ 24510 includes **users' expectations** from the service
- ❑ The standards can be used to **set the necessary priorities** and constraints which are necessary for the **management of assets**
- ❑ Additionally, all three standards include **guidelines** that can be used to achieve those objectives



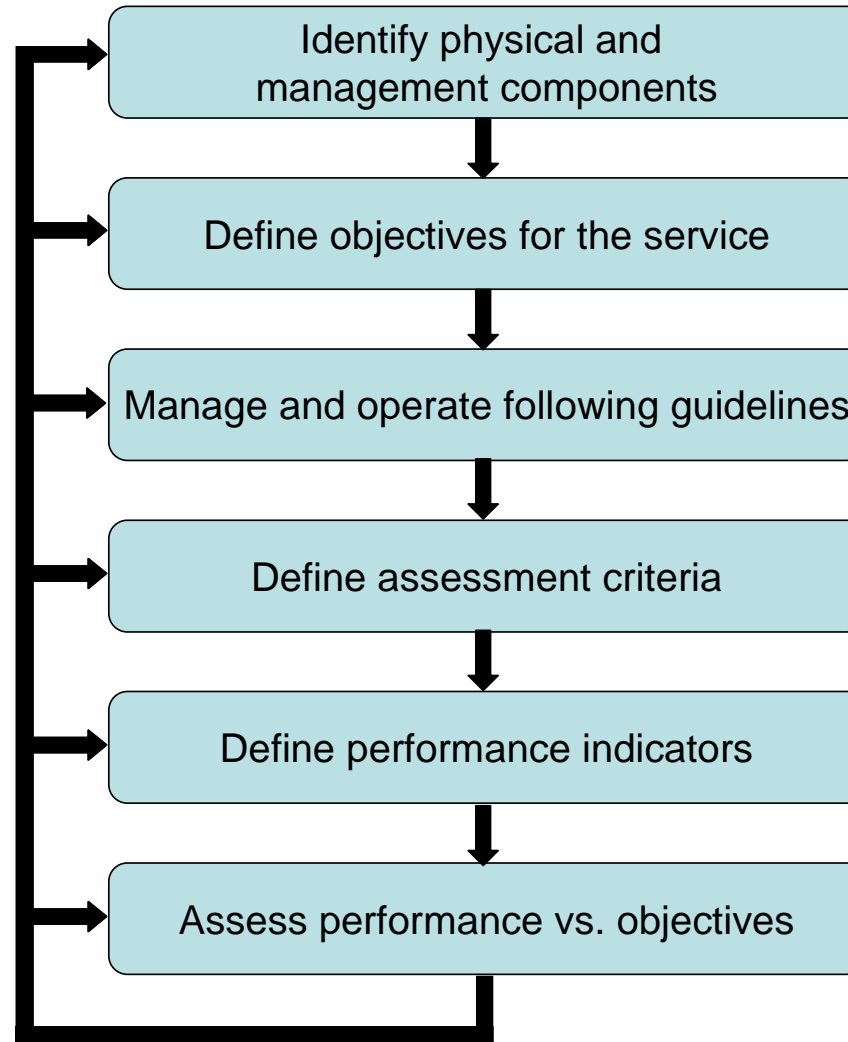
# Assessment

- ❑ The standards include **assessment criteria** to check whether the objectives have been achieved
- ❑ Performance indicators are the recommended tool to assess performance. Examples are provided in **informative** annexes to all standards
- ❑ The standards set the necessary **structure** for the implementation of performance indicators systems, following the **IWA** recommendations.



# The ISO 24500 Framework

PDCA





# Asset management: the art of compromise

- ❑ Resources are always limited. Assets can always be improved. How to prioritize?
- ❑ ISO 24510 can help to identify users' priorities and help to communicate the utility's approach to asset management
- ❑ Additionally, the needs and constraints of other stakeholders in the utility also need to be addressed



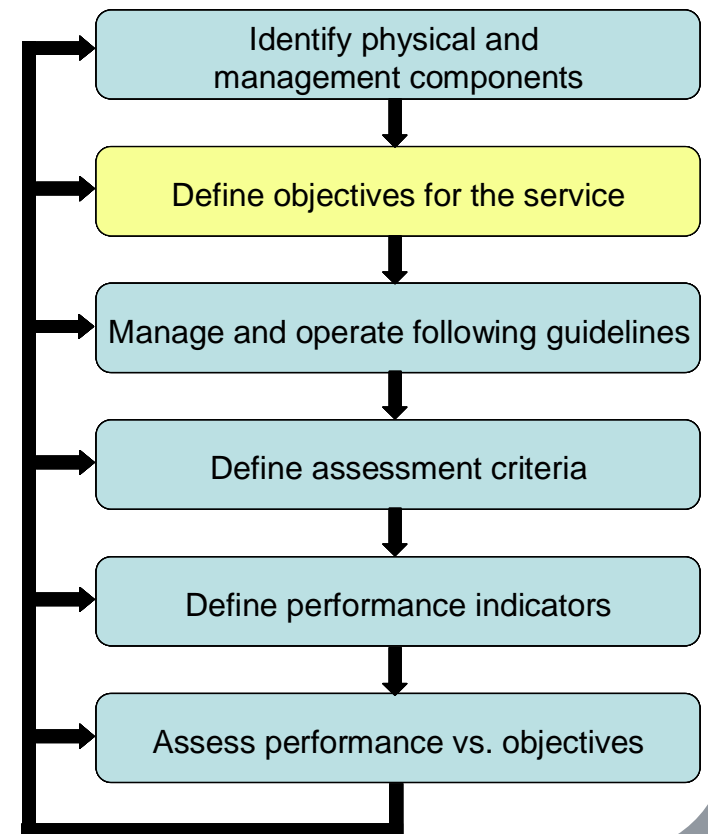
# What customers want!

- Haskins (2006) described Seattle's asset management program as based on customer's wishes:
  - *Find out from customers what services are most important to them.*
  - *Set Service Levels and make investments needed to meet them – now and into the future*
  - *Establish and measure Performance Indicators*



# ISO can help!: Objectives

- *The user expects that the operator, responsible body and relevant authorities promote and apply a sustainable use of the water resources, as well as other natural resources.*

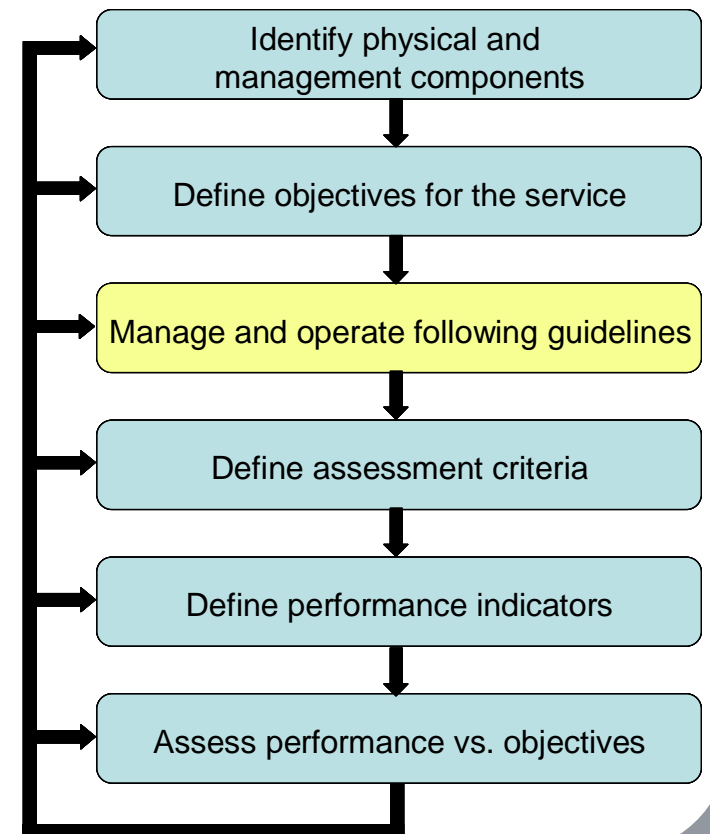


# ISO can help!: Guidelines

□ *The water utility should strive for efficiency and sustainability in the use of water and other resources (e.g. energy).*

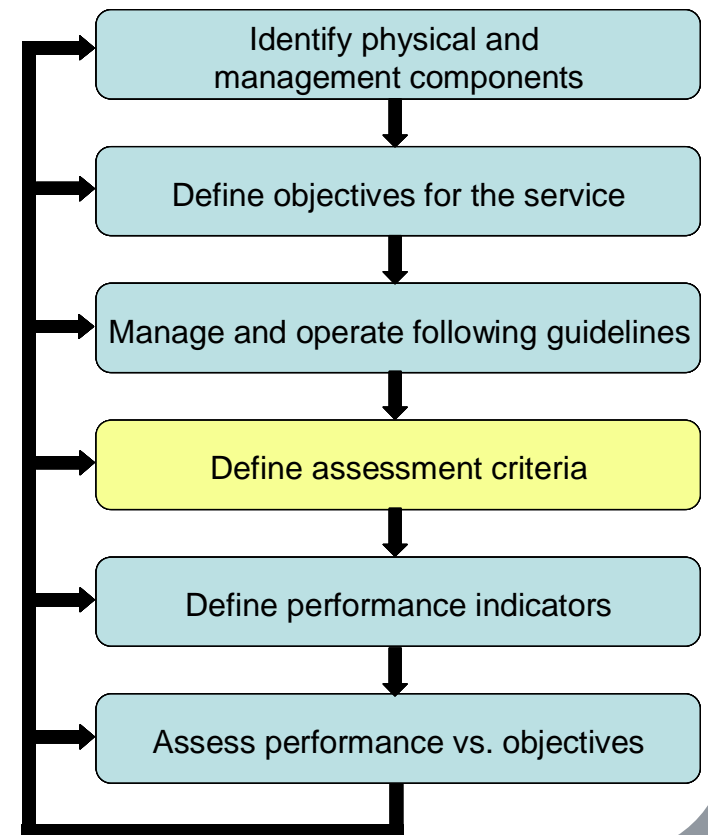
*The water utility should also undertake actions such as: (...)*

- ***providing education and general information to users about efficient use of water and other natural resources;***
- ***setting tariffs and/or taking measures which promote efficient water use.***



# ISO can help!: Assessment criteria

- ❑ *Water losses*
- ❑ *Efficiency in energy consumption*
- ❑ *Efficiency of use of water by domestic and non domestic users*



## Summary



- ❑ ISO 24500 are a common framework to manage and assess drinking water and wastewater services
- ❑ Due to the global nature of an International Standard, they do not provide detailed guidance. However, important tools and information relative to asset management can be found in them.
- ❑ Asset management policies consequently are more than appropriate and fully consistent with ISO 24500. These policies should be applied following a general plan-do-check-act approach.



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# International Conference on Performance Assessment of Urban Infrastructure Services

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