

# Highlighting Bottlenecks in Enabling Environment for Private Sector Participation in RRR

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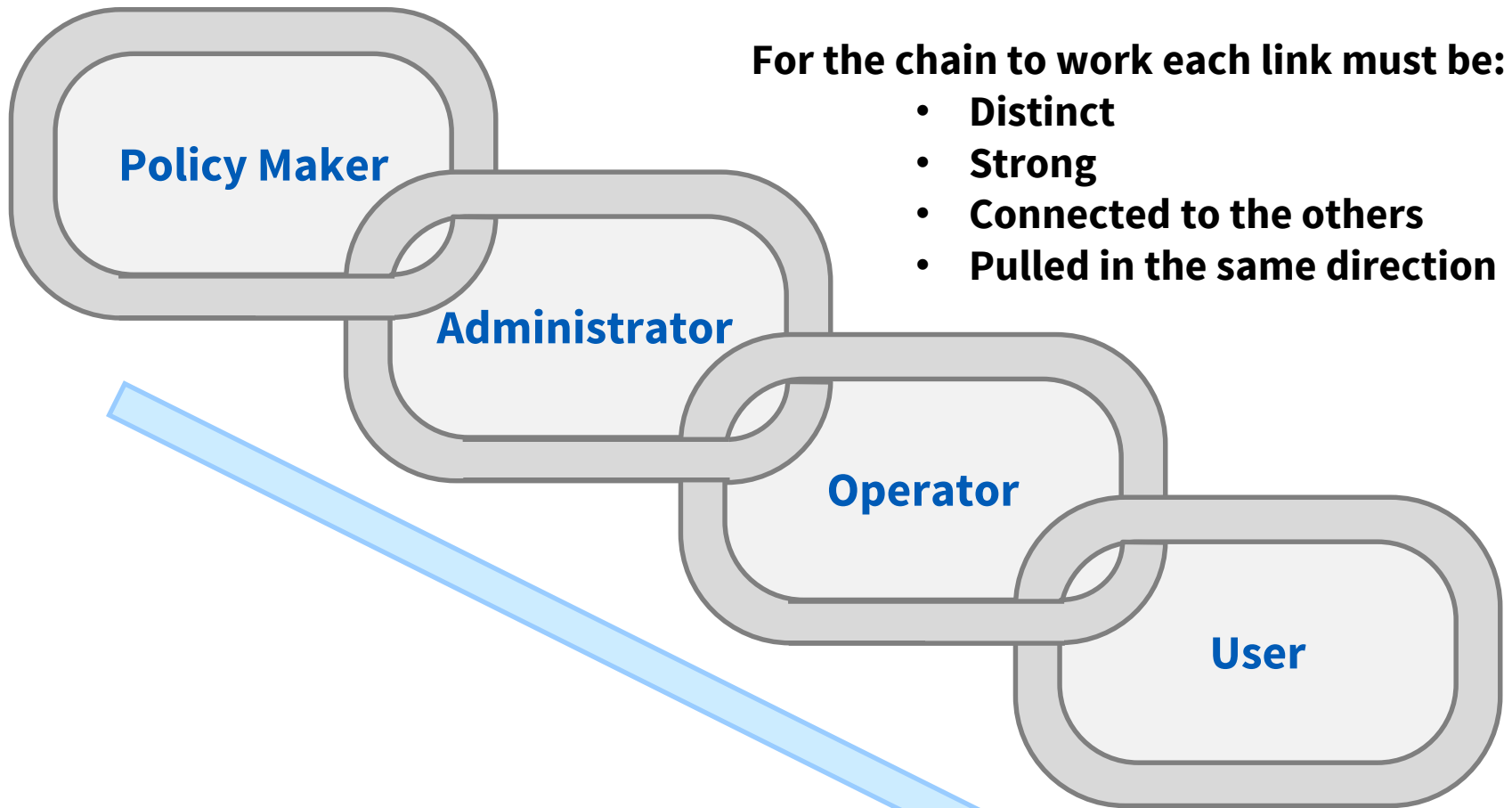
**THE INTERNATIONAL FEDERATION OF  
PRIVATE WATER OPERATORS**

# (Bottlenecks in) 'Enabling Environment' for RRR

Perspectives of Private Sector Service Operators are similar for all operators

- Politico-economic value chain
- Public perception
- Political perception
- Pollution prevention
- Principle of precaution (a pervasive challenge)
- (Financing)
- Materials market

# Links in the Water Services Value Chain



# RRR - Public Perception

- Getting people to understand the problem and their responsibilities
  - 'Flush & forget'
  - Many are unaware
  - Hidden 'vices' in products
  - Some have no choice
  - For many it is too much trouble
- Getting people and others to act
  - Education is increasing awareness

# RRR - Political Perception

- Political responsibility
  - Government hierarchy
    - International
    - National
    - Local
    - Regional
  - Where are the votes
  - Long time horizons
  - Expensive investments
  - Need to demonstrate the benefits of the circular economy in terms political decision makers can appreciate
- Co-ordination:** Which level is responsible for what?
- Resources:** Does that level have the resources it needs?

# Public Administration and Regulation

- Pollution prevention
  - Principle of precaution
  - Categorising potential pollutants
  - Balancing benefits vs harms of products
  - Permitting or 'red listing' products/compounds
- Licensing & Control of Pollution
  - Principle of precaution
  - Pollution prevention & pollution management
  - Ensuring safe use application of products
  - Resources & skills required
  - Cost of 'policing'
  - Applying fines & penalties
  - Being even handed

# Nosedo WTP & Reuse Milan

- Milan no WWT until 2003
- Emergency Programme initiated 2003
- Special Powers granted by Prime Minister
- 1.25 Million Population Equivalent
- 3,700 Ha irrigated farmland
- Corn 45% - Rice – 15% - Grass & Grain 45%
- 150 M€

# Milan - Treated water quality: contractual, legal and actual values

Parameter	U.M.	Contractual value	Legal Limits Leg. Dec. 152/06	Legal limits for irrigation Min. Dec. 185/2003	Average value since 2004
pH		5.5 – 9.5	5.5 – 9.5	6 – 9.5	7.5
Sed. solids	ml/l	None	None	None	None
Suspended solids SS	mg/l	10	35	10	3
COD	mg/l	100	125	100	15
BOD	mg/l	10	25	20	< 5
Total N	mg/l	10	10	15	7
Total P	mg/l	1	1	2	< 1
Escherichia Coli	CFU/100 ml	10	5,000	10	< 10

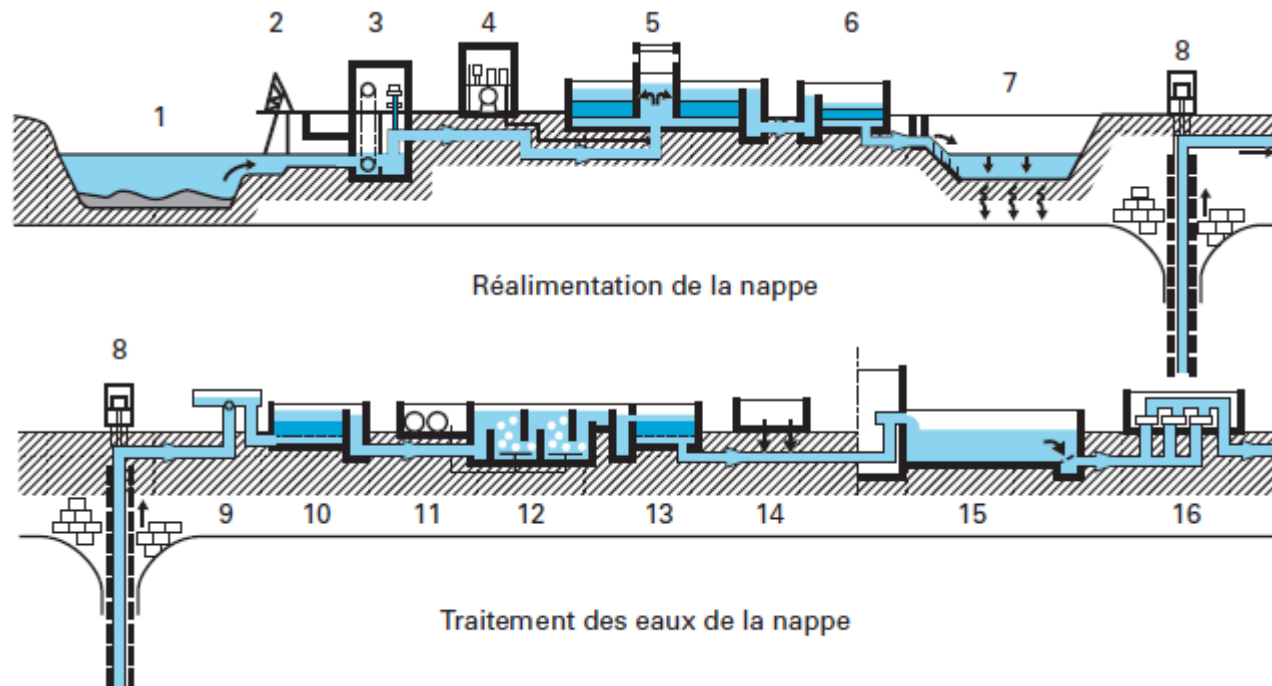


# Public Administration and Regulation

- Licensing & Control of Circular economy
  - Principle of precaution
  - What is 'safe'?
  - Ownership & rights
  - Measuring & reporting performance
- Investment & cost control
  - Up-front capital investment
  - Operating costs
  - Public budgeting constraints
- Public procurement
  - Can be too rigid to allow innovation

# About 50 years – Croissy le Pecq

- **Protection of the aquifer**
- **Reliability of supply**
- **Alternative storage**
- **20 M m<sup>3</sup> per year recharged to the aquifer**
- **52 M m<sup>3</sup> par year extracted**
- **Value of water recharged is paid as a ‘negative’ abstraction charge**



# Materials Market

- Saleability of recovered materials
- Timing & Demand
- Perceptions of quality
- Competition
- Materials markets fluctuations

# Private Sector

- Private sector
  - Pioneers in innovating & providing solutions
  - Commercial incentives
  - Risk management
  - Critical scale
- Public policy integration
  - Private sector is 'part of' not 'apart from' society
  - Policy formation & review
  - Policy implementation & feed-back

