

Highlighting Bottlenecks in Enabling Environment for Private Sector Participation in RRR

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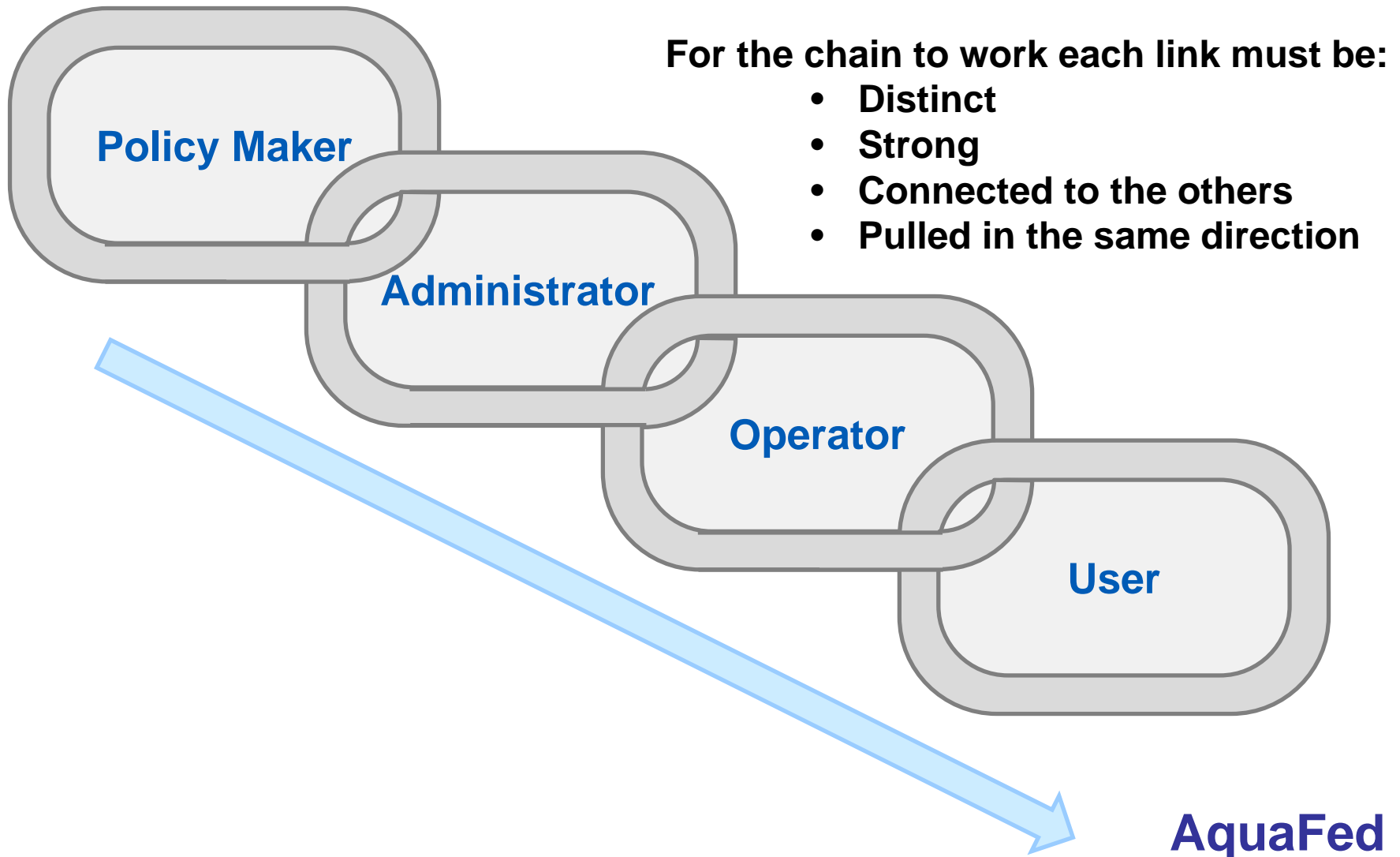
**THE INTERNATIONAL FEDERATION OF
PRIVATE WATER OPERATORS**

(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
- **Co-ordination:** Which level is responsible for what?
- **Resources:** Does that level have the resources it needs?
- 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

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

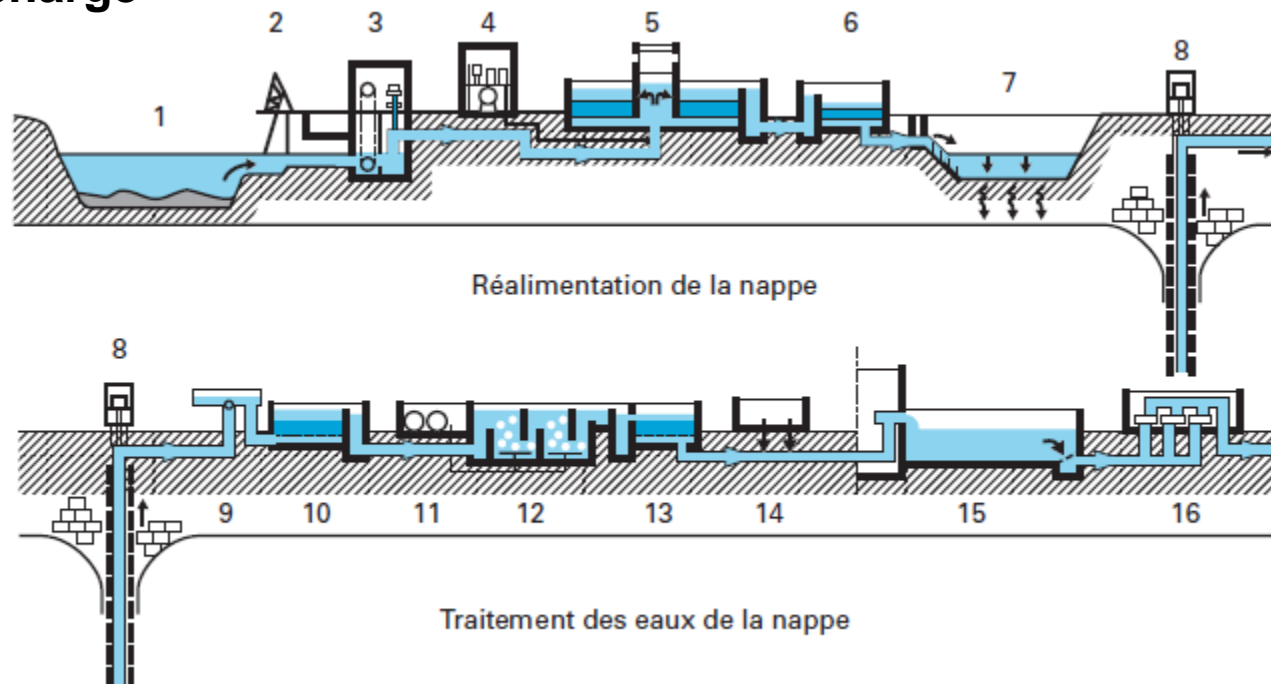
Parameter	U.M.	Contractual value	Legal Limits Leg. Dec. 152/06	Legal limits for irrigation Min. Dec. 185/2003	Average value since 2004
pH		5.5 – 9.5	5.5 – 9.5	6 – 9.5	7.5
Sed. solids	ml/l	None	None	None	None
Suspended solids SS	mg/l	10	35	10	3
COD	mg/l	100	125	100	15
BOD	mg/l	10	25	20	< 5
Total N	mg/l	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 m³ per year recharged to the aquifer
- 52 M m³ 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



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