

An aerial, wide-angle photograph of a city skyline, likely Chicago, featuring a dense cluster of skyscrapers and a large river (the Chicago River) winding through the city. The image is taken from a high vantage point, showing the city's layout and the river's path.

Working together to face the challenges

15TH MAI 2017 BUCHAREST



inspiring change

CHALLENGE 1: WATER IS A HUMAN RIGHT



CHALLENGE 2: SDG's NOT JUST FOR DEVELOPPING COUNTRIES

THE GLOBAL GOALS For Sustainable Development

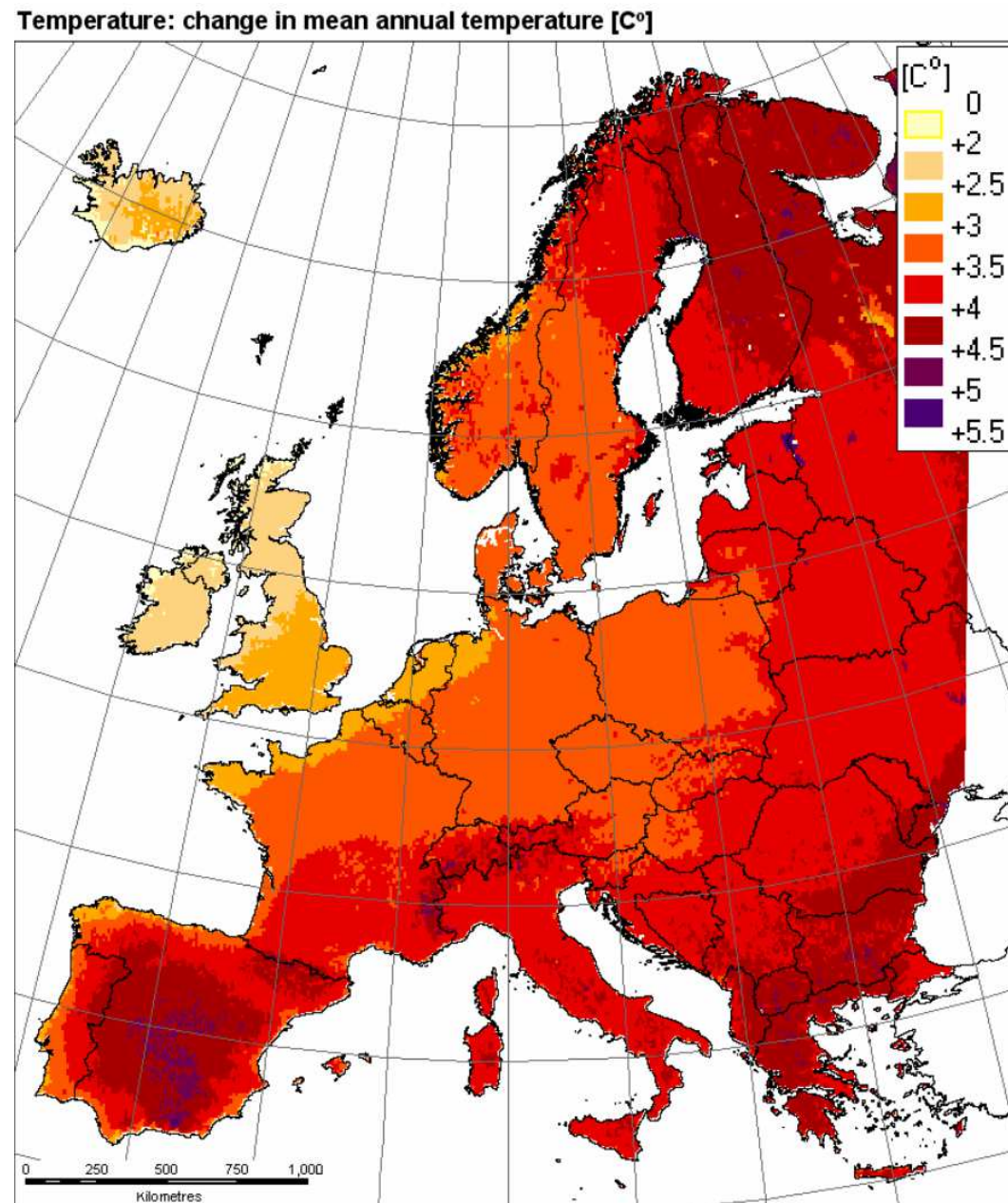


CHALLENGE 3: CLIMATE CHANGE

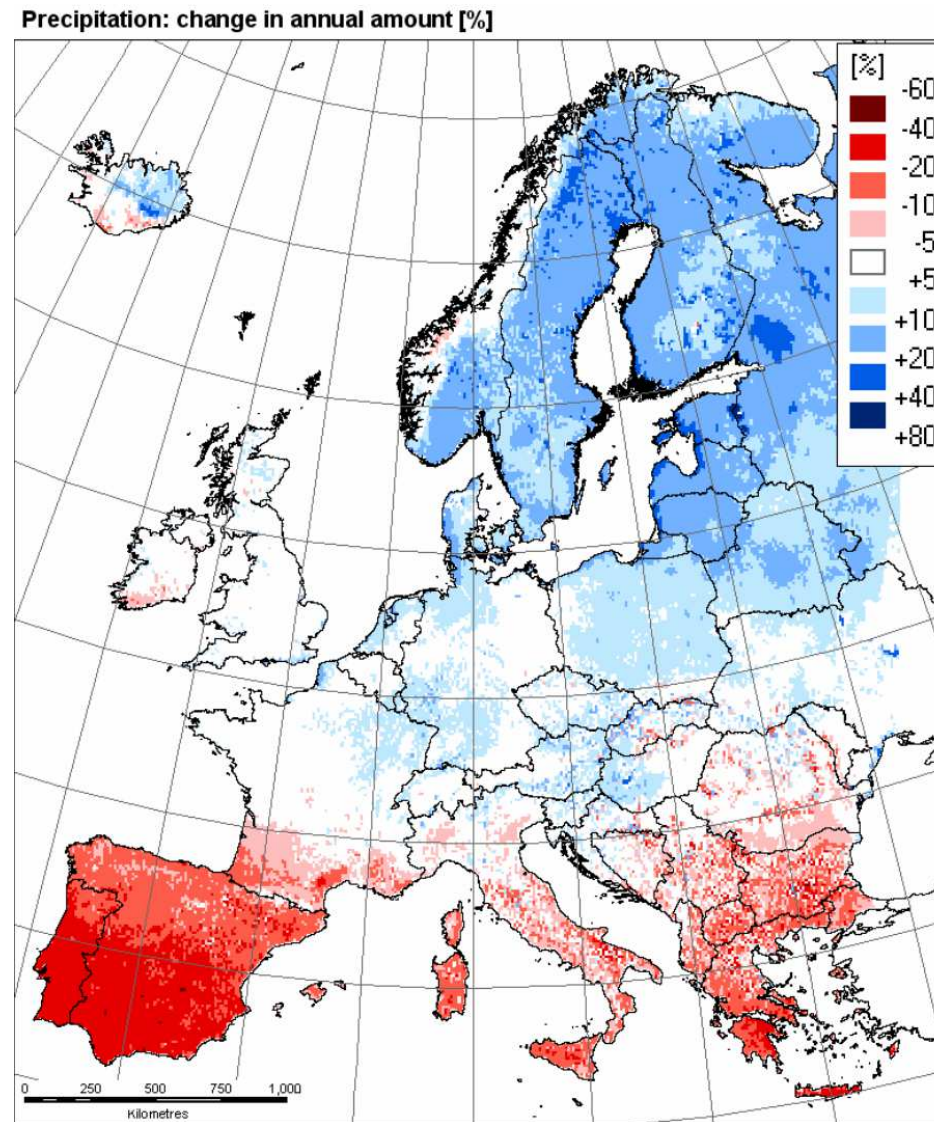


An abandoned ship in the former [Aral Sea](#), near [Aral, Kazakhstan](#)

- Climate change impact : what we know



- Climate change: what we do not know so well





Inspiring changes



inspiring change

INSPIRING CHANGE



17 Principles for Water-Wise Cities

1 Regenerative Water Services

- Replenish Waterbodies and their Ecosystems
- Reduce the Amount of Water and Energy Used
- Reuse and Use Diverse Sources of Water
- Apply a Systems Approach for Integration with Other Services
- Increase the Modularity of Systems for Multiple Options

2 Water Sensitive Urban Design

- Enable Regenerative Water Services
- Design Urban Space to Reduce Flood Risk
- Enhance Livability with Visible Water
- Modify and Adapt Urban Materials to Minimise Environmental Impact

3 Basin Connected Cities

- Secure Water Resources and Plan for Drought Mitigation
- Protect the Quality of Water Resources
- Plan for Extreme Events

4 Water Wise Communities

- Empowered Citizens
- Incentivized Professionals
- Transdisciplinary Planning Teams
- Progressive Policy Makers
- Leaders that Engage and Engender Trust

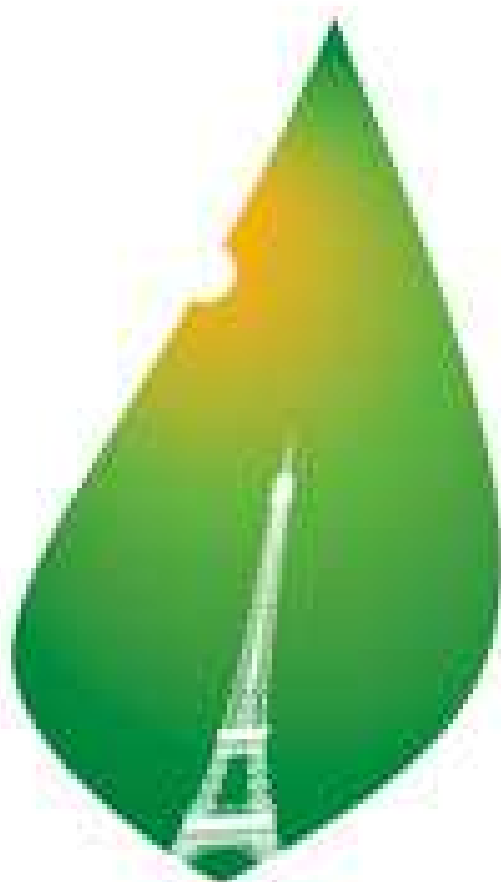
4 Levels of Action

5 Building Blocks

- Vision
- Governance
- Knowledge & Capacity
- Planning Tools
- Implementation Tools

The “Principles for Water Wise Cities” Framework: four *Levels of Action* and five *Building Blocks* for urban stakeholders to deliver “Sustainable Urban Water” in their cities

COP 21 : FOCUSING ON MITIGATION



PARIS2015
UN CLIMATE CHANGE CONFERENCE
COP21 • CMP11

Mitigation of climate change: we have a role to play ... **but**

**Germany Energy Consumption : 7500 Kwh/p/y
(Koweit: 15000, Portugal 4700)**

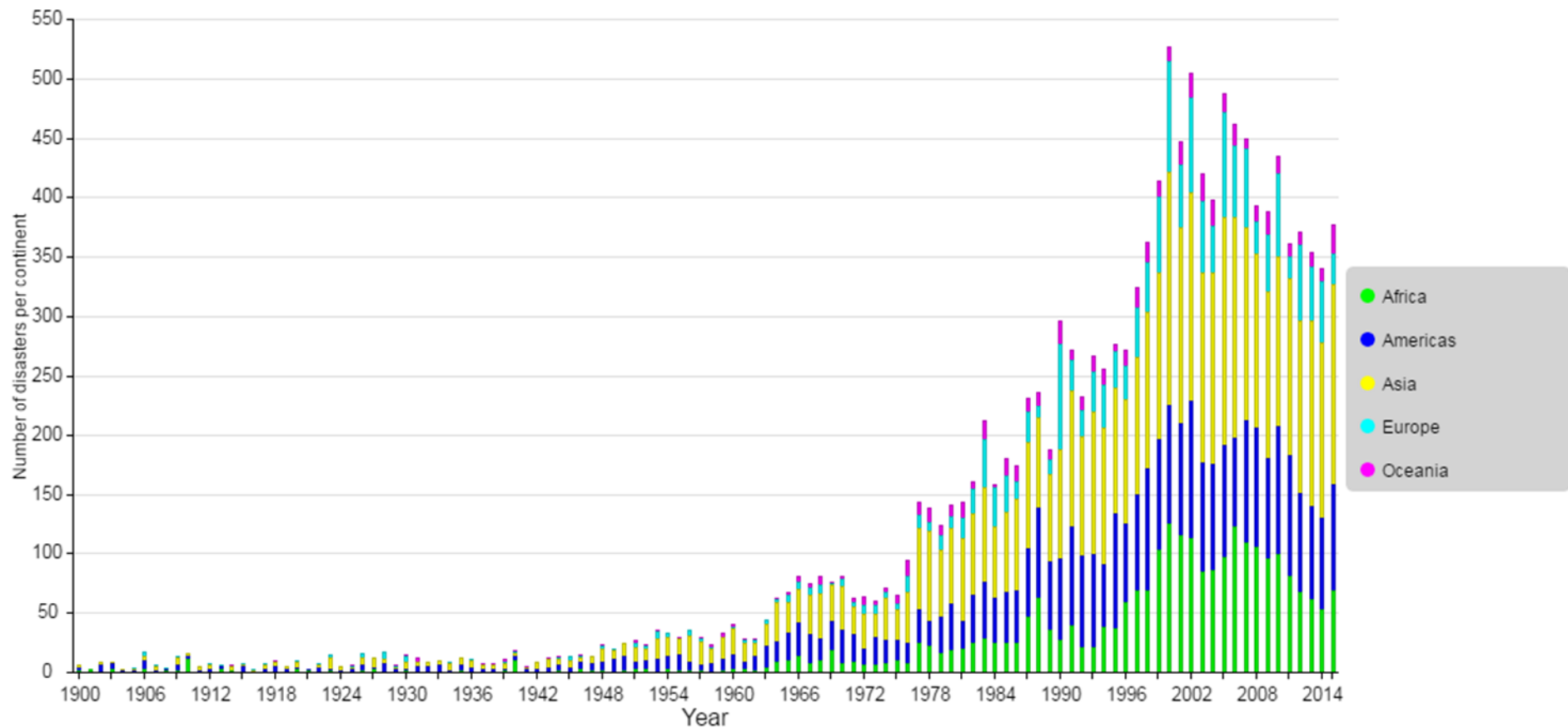
Water production: 30 Kwh for 70 m³/y

Water distribution: 35 Kwh for 70 m³/y

W. Water treatment: 30 Kwh for 70 m³/y

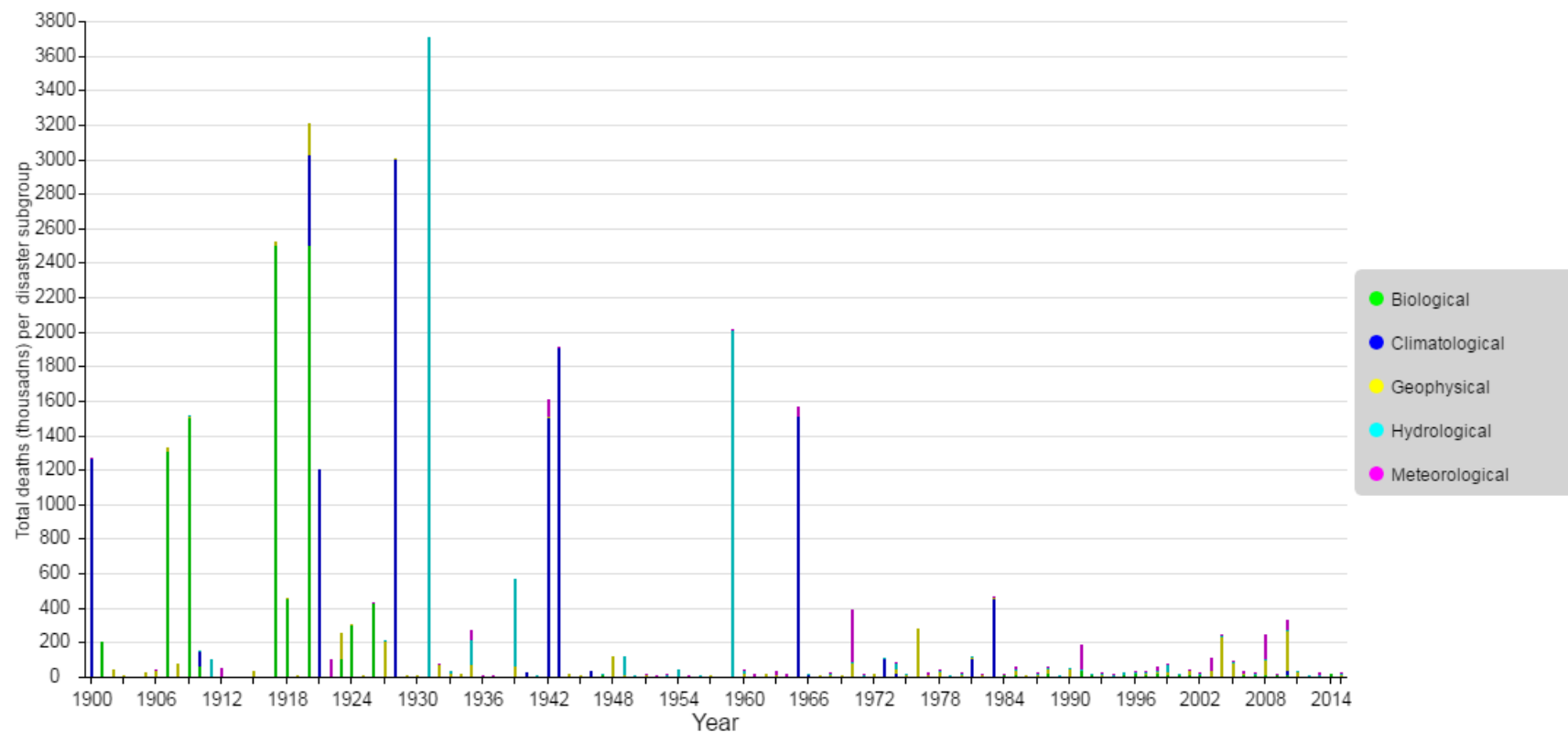
Energy for home hot water : 600 Kwh/y for 18 m³/y

NUMBER OF DISASTER PER CONTINENT



EM-DAT: The OFDA/CRED International Disaster Database - www.emdat.be - Universite Catholique de Louvain, Brussels - Belgium

DEATH (1000) PER TYPE: ANTICIPATION AND ADAPTATION IS KEY



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MARRAKECH COP22|CMP12
UN CLIMATE CHANGE CONFERENCE 2016

- COP 22: first time adaptation is well presented
- a need for mobilisation on water issues !

#CLIMATE 
IS WATER

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IS WATER

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- Resilient cities to extreme events



RESILIENCE IS PREDICTIVE ANALYSIS AND ANTICIPATION

Assessment of the situation

UNDERSTAND
the local context
& the working of
your wastewater
system

Predictive tools & alert systems

**ANTICIPATE,
MEASURE, ALERT**

Optimization of existing facilities

IMPROVE the
efficiency of your
current
infrastructures

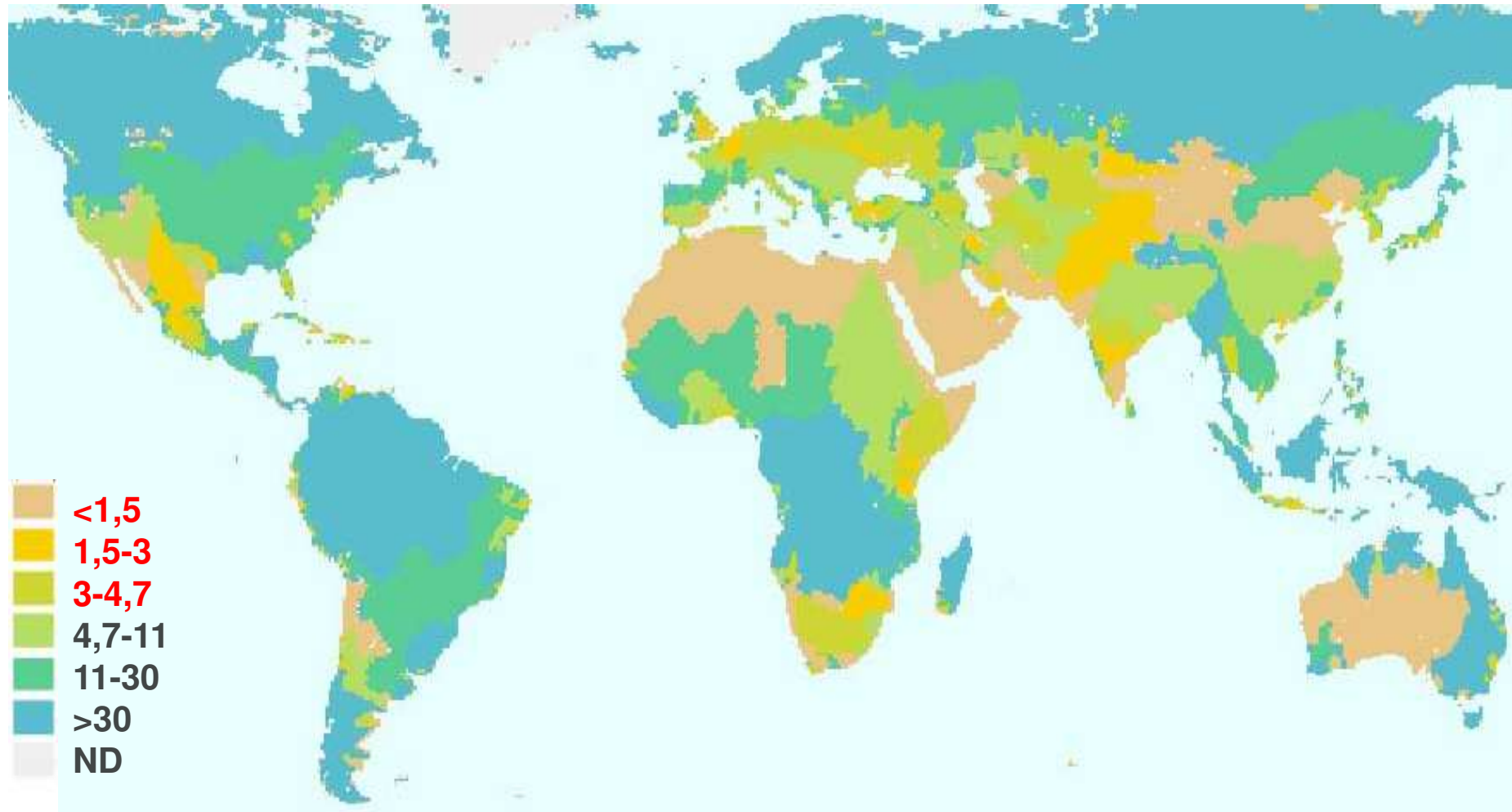
Planning

DEFINE
together an action
plan meeting your
objectives

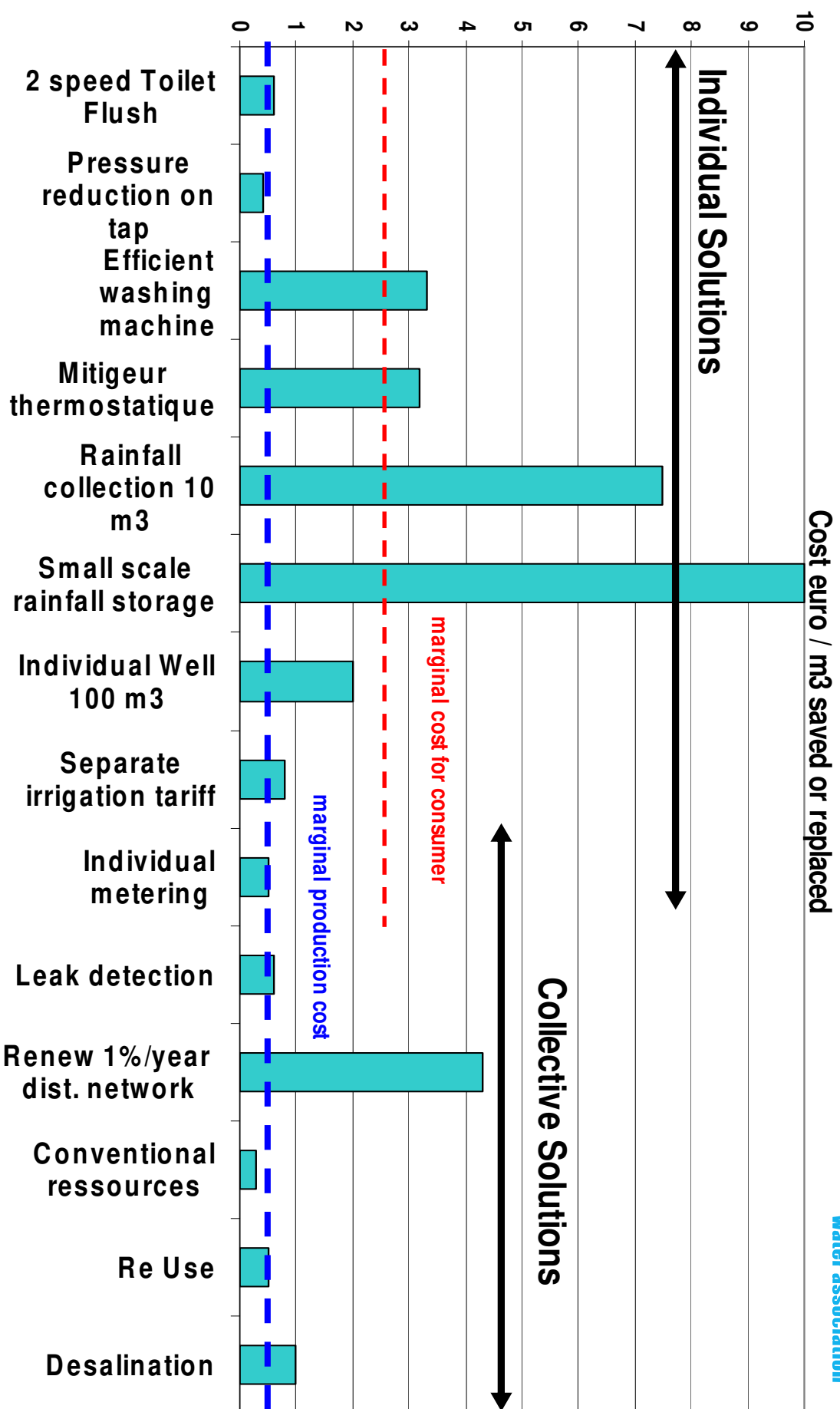
New installations

**DESIGN, BUILD,
OPERATE**
new suitable
stormwater
infrastructures

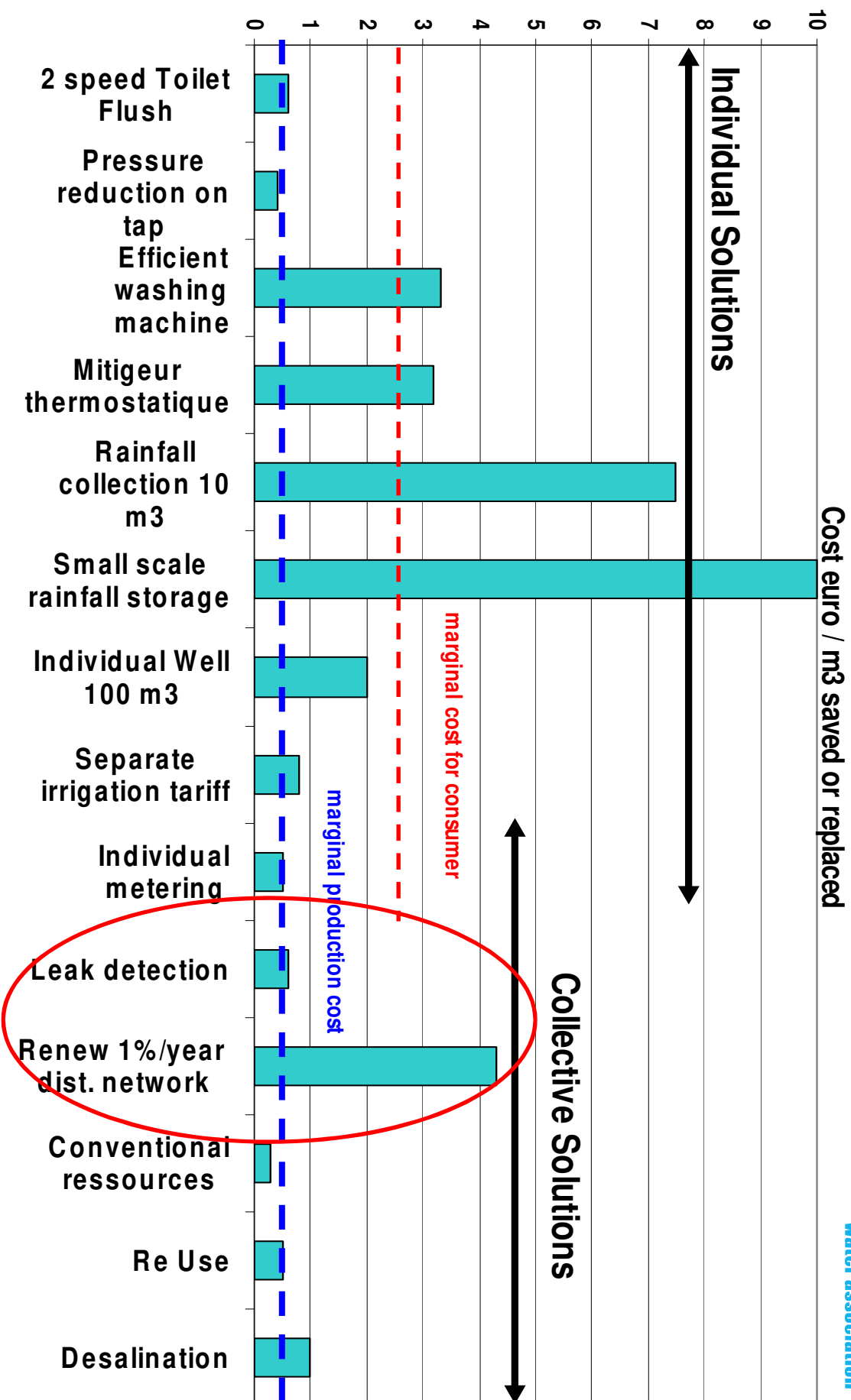
LACK OF RENEWABLE RESOURCES (M3/CAP/D) SAVING WATER IS A NECESSITY TO-DAY



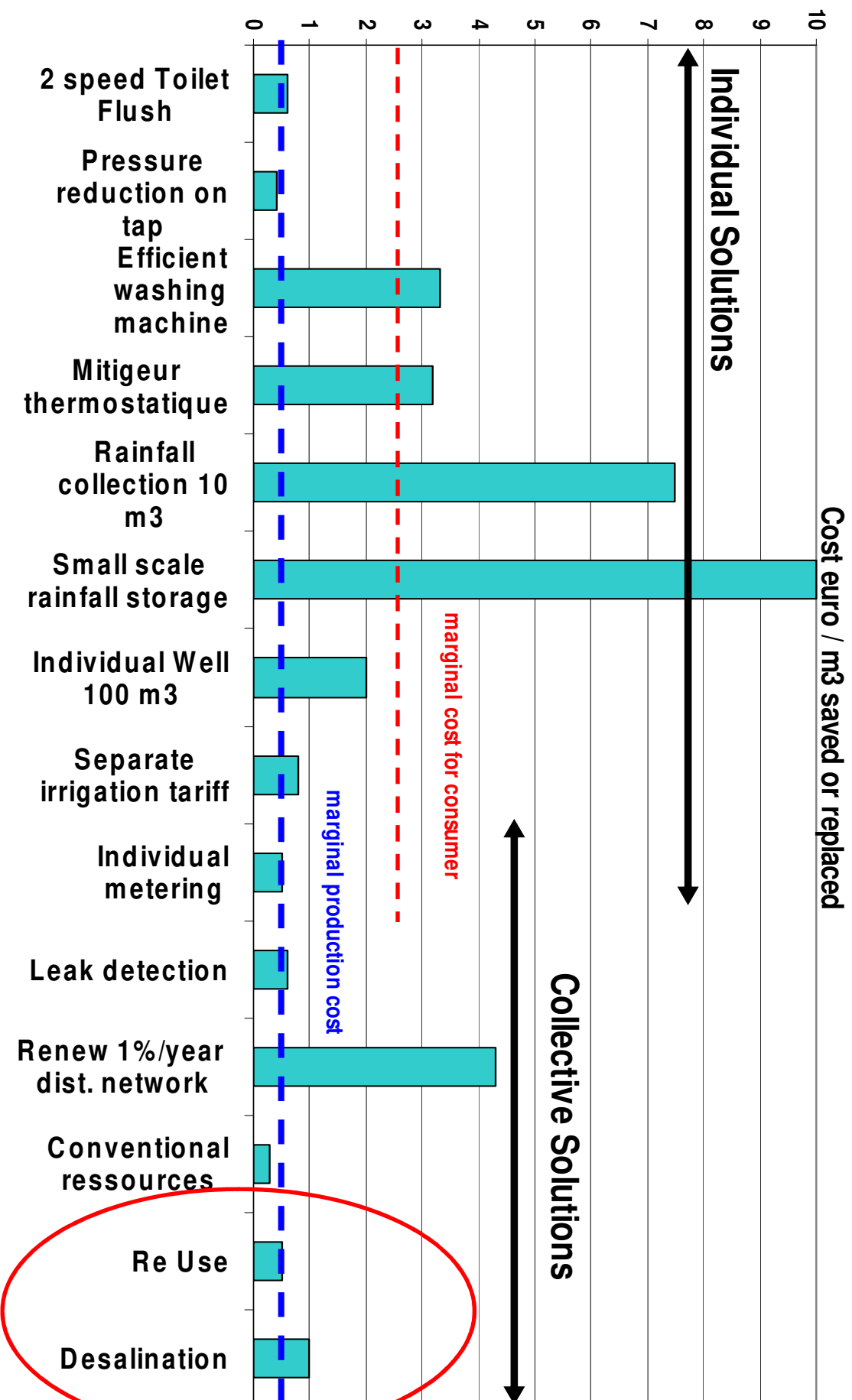
SAVING WATER (OR RENEWING WATER): A LOT OF ACTIONS ARE POSSIBLE



EX: LEAK DETECTION & ASSET MANAGEMENT

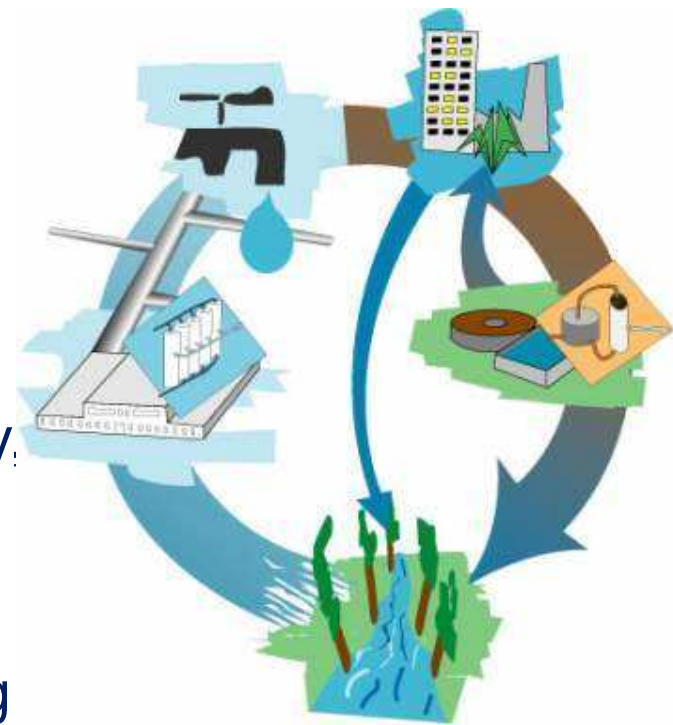


CREATING NEW RESSOURCES



MAJOR CHALLENGES FOR SUSTAINABLE GROWTH OF WATER REUSE

- New policy: Converge regulatory frameworks, provide institutional incentives and reform water rights
- Public Perception: Improve communication and public education
- Innovative technology: Improve efficiency, reliability and water quality
- Economic viability: Establish appropriate water pricing, provide adequate financing and subsidies
- Frame best management practice



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STAKEHOLDERS AND INSTITUTIONAL DRIVERS



Carta de Lisboa

Orientando as Políticas Públicas e Regulação do
Abastecimento de Água Potável, Saneamento e
Serviços de Gestão de Águas Residuais



WAREG
European Water Regulators

“Knowledge and Regulation for Quality Services”



