

FESTIVAL DELL'ACQUA VENEZIA 10-11 OTTOBRE 2019



## Water Europe

A common vision for water, research & Innovation

**COME L'EVOLUZIONE SCIENTIFICA E TECNOLOGICA PUÓ INFLUIRE NELLA GESTIONE DELLE ACQUE REFLUE A LIVELLO UE** Andrea Rubini Director of Operations



- ion in Europe.
- Water Europe is the voice and promotor of water-related RTD and innovation in Europe.
- recognized by the EC as the European Technology Platform for Water

#### Mission:

- Improve coordination and collaboration in the water sector and water using sectors in the EU and beyond;
- Enhance performance and competitiveness of the European water sector and water using sectors;
- ✓ Contribute to solving **global challenges** through RTD&I.
- Water Europe Strategy:
  - Whole value chain of water
  - ✓ WE Water Vision
  - Services to members





## WE Membership

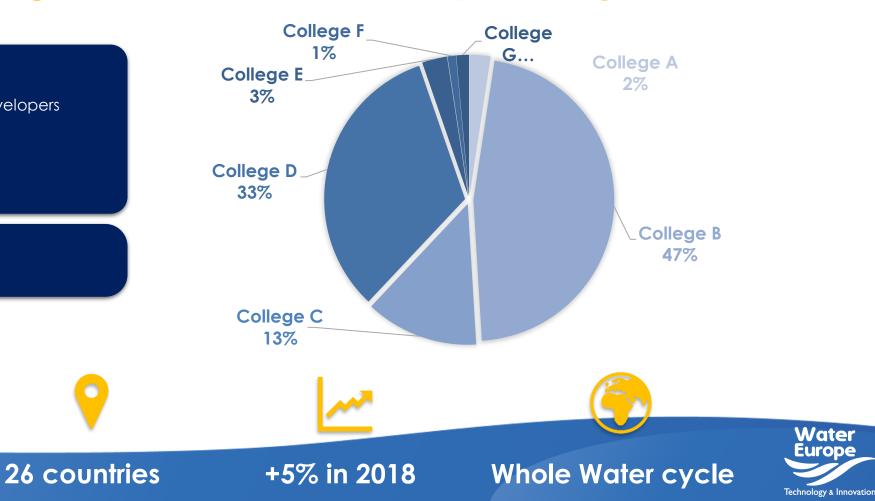
#### Water Europe Colleges

College A: Multinational corporations College B: Research & Technology developers College C: Utilities College D: Suppliers & SMEs College E: Large water users

College F: Public Authorities College G: Civil Society Organisations

218 members

#### Members per college



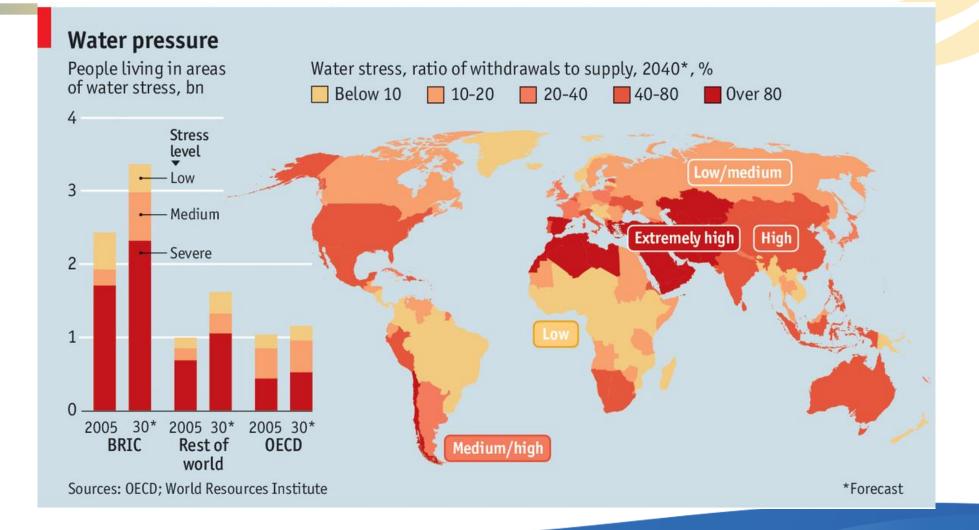
## **INCREASING PRESSURE ON RESOURCES**

In the last 50 years the world has seen a continuous and unprecedented increase of material demand (IRP 2019). In this period, the global production of goods has doubled, the extraction of materials has tripled and economic development, as measured by GDP, has quadrupled. This expansion of activity has been responsible for more than 90 % of biodiversity loss and water stress and for approximately half the drivers of climate change.





## **INCREASING PRESSURE ON WATER**





## WATER SCARCITY.... WHEN WATER IS



too little too polluted

#### too much



# too much 💦





- Water is a business imperative, a strategic resource that enables growth, profitability and competitiveness of European economy, societies and competitiveness.
- The rate of growth of water-related risks is far outpacing the efforts being made to mitigate those risks. This ever widening disparity is attracting the attention of investors, shareholders and regulators.
- Superimposed on the macro trends is the **growing inability to withstand local events**, whether droughts or more frequent catastrophic storms that disrupt water supplies.
- Sense of urgency for taking action. If we do not solve the water challenges now, the very basis for growth in Europe is at risk - with global implications.



# **Obstacles to Progress**

- Similar to barriers to progressing the circular economy driving waste from throughout the value chain
  - Reduction in materials, energy etc
  - Lack of reuse opportunities and seeing waste as a resource
  - Locked into a linear model ("take, make, consume and dispose")
- Adequate valuation of key resources: <u>Value versus price of water</u>
- Lack of data/information to make the correct trade-offs in specific cases.
- Lack of independently identified and defined catchment goals
- Lack of information, confidence and capacity to implement circular economy solutions
- Disconnect between policy and SME's (key drivers of change)

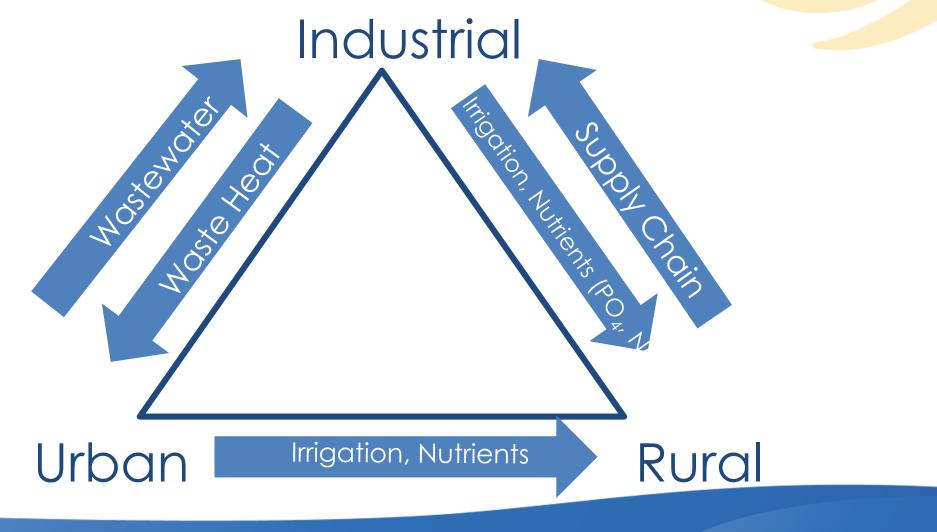


# **Obstacles to Progress**

- Currently more leaning to towards understanding at impacts rather than framing solutions. "Need nexus ecosystems of stakeholders = living labs"
- Adopting a variety of strategies to drive economic development, business growth, and social well-being despite the nexus stress
- Many reasons, understanding disconnects between high level goals and local implementation
- Engaging planners, financial institutions and the public



# **Key Opportunities**



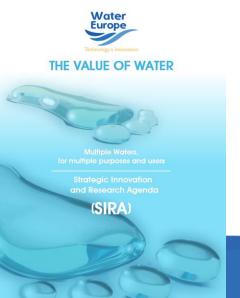


#### Water Europe Innovation Concepts **Multiple Waters** Recycled Grey **Recycled Black** Ground water Brackish Saline Brines Rainwate Surface water Smart Sensor aovernance networks GREEN AND GREY Service Industry Agriculture Homes Nature and recreation 4 Multiple Uses Re-use Washing, Production, Leasure, Un-Growing Eco-systems Recycle drinking, washing, Value In Water: cooling, crops (Services) drinking exploite cleaning new cleaning Cascading d 3 Re-use Recycle Cascading resourc ÷ es (B€) ÷ ÷ ÷ Resources and Energy Foods, Sustainable acuatic environment Healthcare, Cost based **Products** Daily Life material Tourism, Value of Water fuels etc Modelling Big **Digital Water** Data 2 analyse THE VALUE OF WATER 1000 Crucial for our economy, industry, society, nature and citizens Petabytes/yr globally

## Water Living Labs

- Water oriented Living Labs are demo-type and platform-type environments with a cross-sector nexus approach.
- They should have the involvement and commitment of multistakeholders (including water authorities) and an assured continuity, and provide a "field lab" to develop, test, and validate a combination of solutions.

These solutions have been defined in the WE SIRA, which include technologies, their integration as well as combination with new business models and innovative policies based on the value of water.





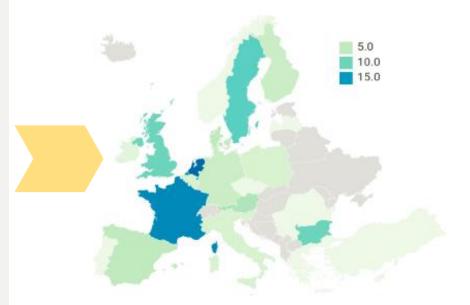
## Water Living Labs

1 Demo-type and platform-type research and innovation settings, with context specific needs and enabling conditions

2 Water-oriented interventions with a cross-sector nexus approach in realworld and/or realistic environments

Proactive learning and innovation ecosystem with R&D continuity and reproducibility

Open and local multi-stakeholder governance structure with democratic control systems



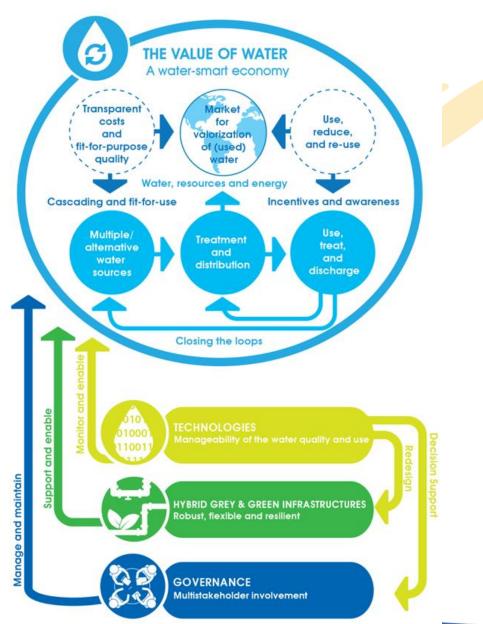


## Water Europe Vision Key Impact Parameters

KIP 1: Reduce impact of Europe's water Footprint

KIP 2: True value of water and boost water market

KIP 3: Resilience, stability and sustainability







- Securing long term resilience, stability and sustainability of (waste) water system and management provide the foundation for new sources of economic development derived from smart, novel investment and governance models as well as harvesting the value in water.
- A holistic systemic water strategy, centred on the connectivity between water management, water stewardship and innovation.
- Living labs as a potential form of collective catchment governance.
- Industrial/urban/rural engagement needs to be energised by promoting water strategies that support business strategies. This will ensure water quality and scarcity are factored into decisions that protect current operations and support business growth.
- Investment in R&I and infrastructures are needed and market outreach of reliable, affordable and efficient solutions is a must.



#### **ANNOUNCEMENT**



30 Oct 2019 - 31 Oct 2019 Brussels, Belgium **Water Knowledge Europe (WKE2019)** https://wke2019.b2match.io/





## "Water becomes a new oil as the World runs dry"



## Thank You

