



Presentation title: European Water Innovation

Speaker: Dr Céline Hervé-Bazin



- Mission, Key Facts & Expertise
- Deliver a vision
- Boost European Water Innovation

Mission, Key Facts & Expertise

Mission of WssTP as ETP

- Promote research and technology in the water sector
- Shape the future priorities for research and innovation
- Deliver a **common vision for water innovation**
- Promote water in the political agenda
- Address grand societal challenges of today and tomorrow

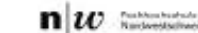
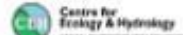


A growing organisation

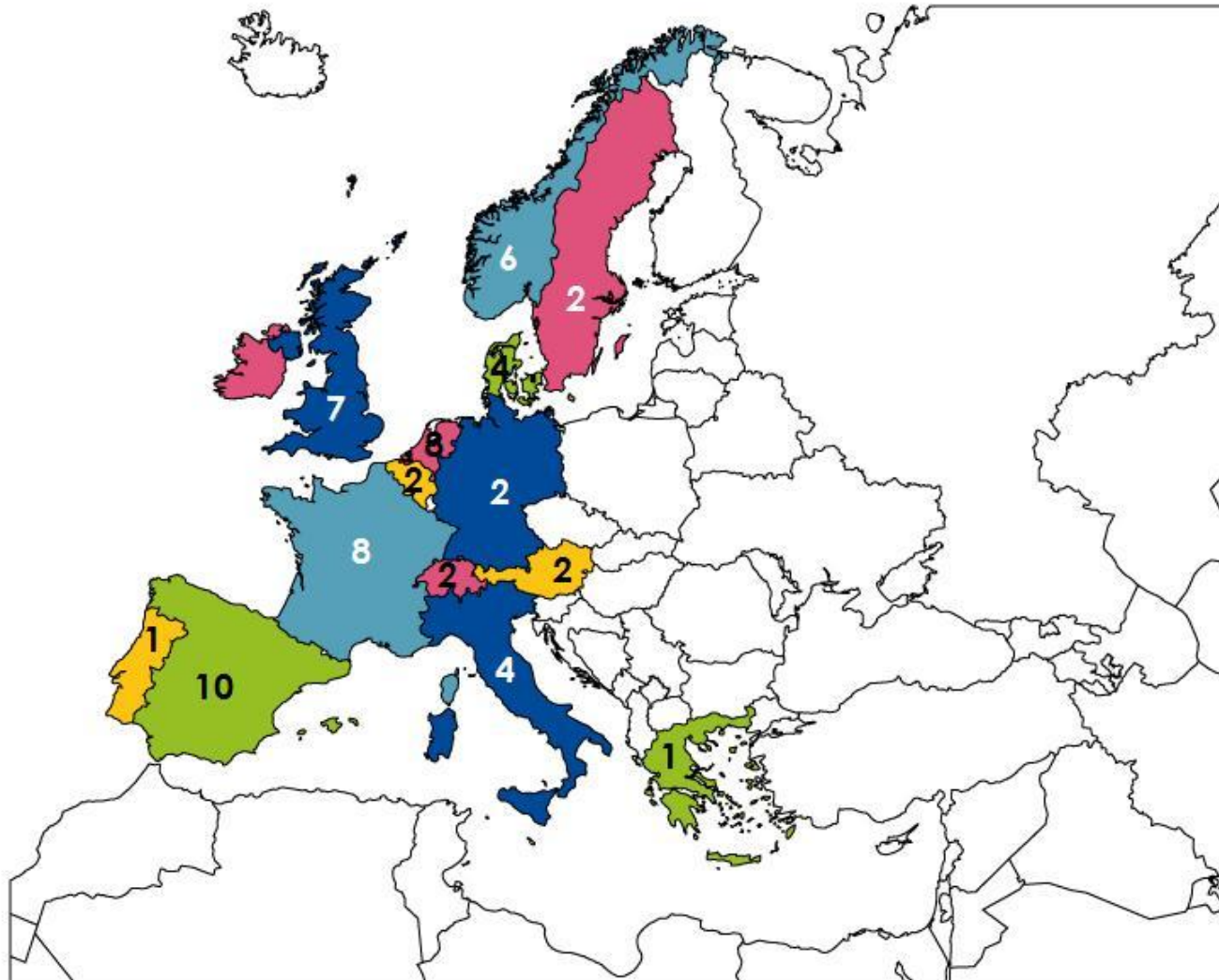
- From 11 to 61 members from 2007 to 2010, 210 contributing organisation, a network of more than 700 persons.



Members



Map of Members



Expertise role

- **3 reference documents:** SRA, Vision document, Implementation document **Updated SRA in 2010**

- **11 reports** sent to DG Research:

- “Research and Technology Development Needs for Coastal Zones” - Report 12-10-2009
- “Managing rain-related events and flooding in urban areas” - Report 03-14-2008
- “Asset management for sustainable urban water” - Report 06-05-2008
- “Supply Demand Balance & Public Participation in urban areas” - Report 01-11-2008
- “Sustainable Sludge Management in Urban Areas” - Report 09-01-2008
- “Alternative Water Resources in urban areas” - Report 11-13-2008
- “Irrigation Techniques for agriculture” – Report 12-10-1009
- “State of the Arts and Research Needs for Manage Aquifer Recharge” – Report 8-09-2010
- “Incorporating Climate Challenge” – Report 1-06-2010
- “Project proposals and Research needs for Sensors and Monitoring” – Report 14-07-2010
- “Recommendation Report on FP7 Env” – Report 1-06-2010, final release in October 2010

- **Scientific Publication**

- Water management in urban areas, Sept. 2009 & Irrigated Agriculture, Sept. 2010
- Managed Aquifer Recharge, Coastal Zones & Climate Change, Dec. 2010

WssTP organisation

Implementation Cases Consortium

PP 1
Coastal Zones

PP 2
Urban Areas

PP 3
Agriculture

PP 4
Industry

PP 5
Degraded Zones

PP 6
Hydro Climatic

TF Climate Change

TF MAR

TF Monitoring & Sensor

TF Water & Energy

TF Membrane Technologies

ETPs

Pilot Coordination Committee

Financial Engineering
Group

National Platform

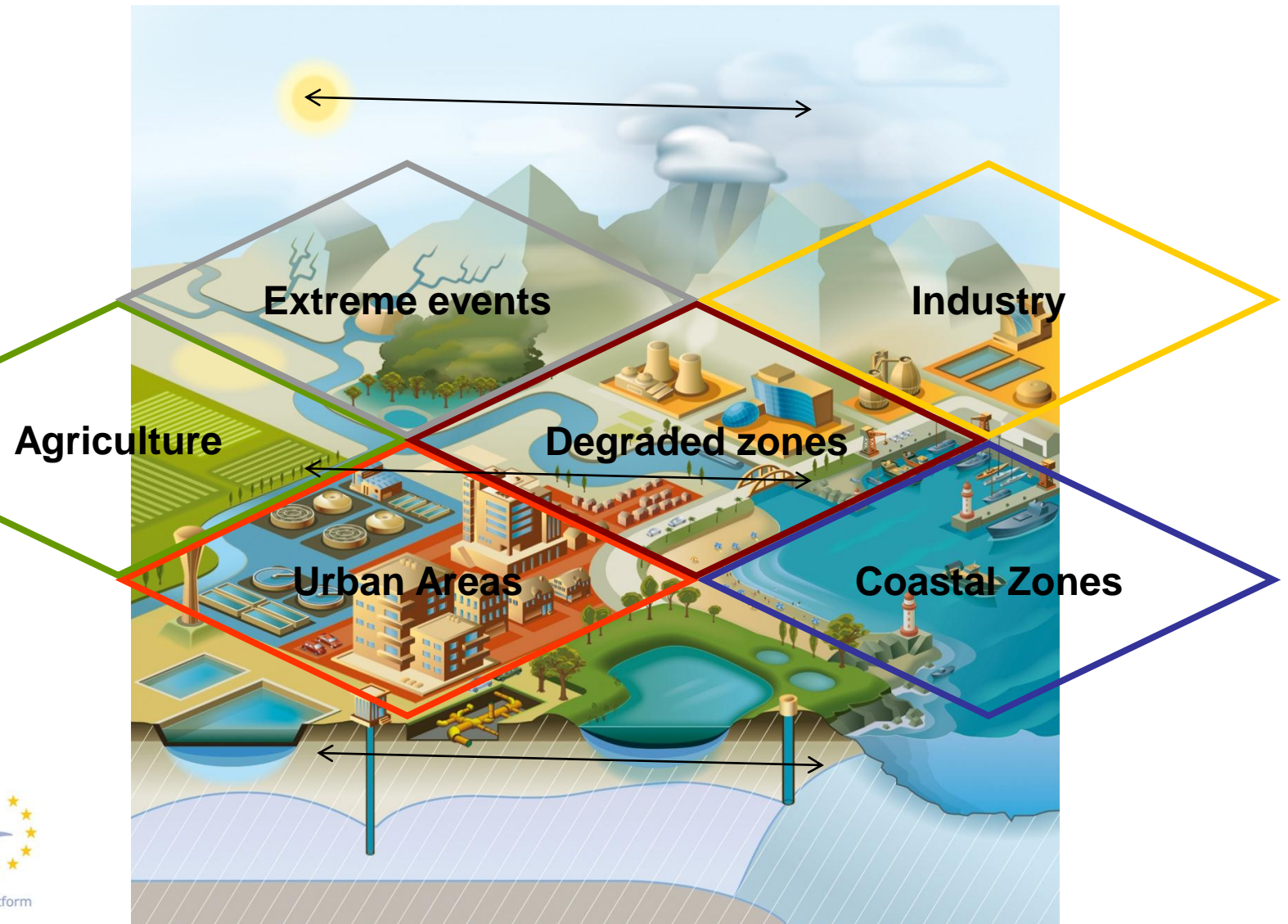
Liaison
Office

Board

MSMG

General Assembly

Address research and innovation based on the water cycle



Deliver a vision



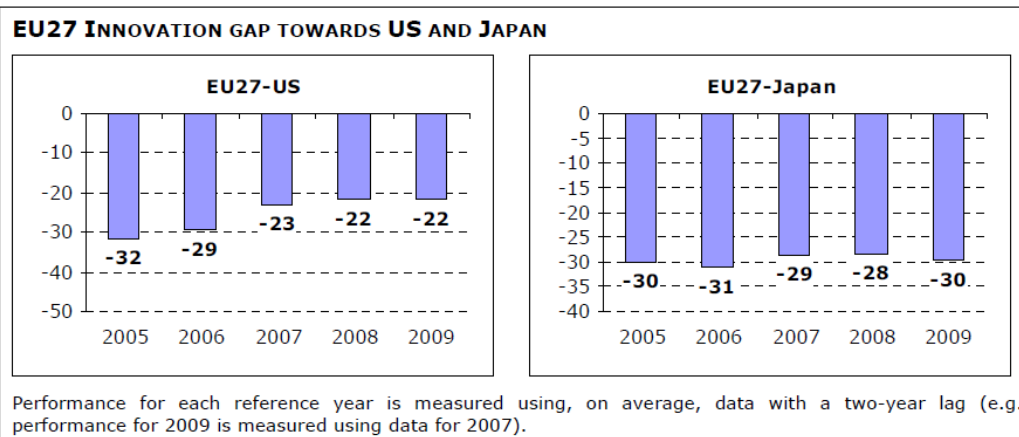
Key Message

- **MORE COORDINATION, INTEGRATION AND INNOVATION**
- Importance of innovation to develop new market opportunities and technologies in the field of water management
- Support coordination activities between all the stakeholders from the water community
- Promote cross cutting research topics to address grand challenges as they need integrated approaches and solutions
- *According to Peter Wilderer (TUM- IAS), “this document is by far more informative and up-to-date, and by far less emotional than the old SRA. Thank you for an excellent guideline into the future.”*

Boosting European Water Innovation

Situation in Europe

- More investments are needed
- Today "Green investments" represent:
 - EU: 25 \$ billions
 - US: 118 \$ billions (~ 5x EU !!!)
 - China: 218 \$ billions (~ 9x EU !!!)*
- Need for stronger push in eco-innovation



Water, be ready for innovation

- Many possibilities for innovation and green growth in the water sector
- **Huge market:** 250 to 350 Billion € turnover /year
(drinking and waste water)
- **Considerable assets:** > 3.5 Million Km water distribution pipes
> 2.5 Million Km waste water sewers
- **Large social impact:** > 600,000 direct jobs in Europe

Eco-Innovation in the water sector, now!

- *WssTP, SRA June 2010: 6 Pilot Programmes, 6 Task-Forces*
- *ACQUEAU, Blue Book, April 2010: 11 water components, 5 major programmes*
- RTD to ensure growth and sustainability with outstanding environmental, societal and economical potential
- Build Major Research Technology Developments Projects to contribute to environmental resources protection and to facilitate the implementation of the Environmental legislation
- **Combine WssTP and ACQUEAU efforts: encouraging the emergence of environmental technologies**

5 Major Programmes to drive eco-innovations

Protect water bodies, Ecohydrology



- Enhancing the capacity of water systems with natural processes (climate change mitigation).
- Included in the context of the WFD.
- Focus on uses of water.

WssTP:

Pilot 'Degraded zones', 'Agriculture'
Task Forces 'Climate Change', 'MAR'

ACQUEAU:

Water component: 'Water resources', 'Agriculture'

Sustainable City for water



- City as “a catchment”
- Integration of water cycle management into urban planning and design

WssTP:

Pilot ‘Urban areas’ and ‘Coastal Zones’ Task Force
‘Water and Energy’

ACQUEAU:

Water component ‘Water distribution’, ‘Customer’
Major programme ‘Material for pipes and coating’,
‘Low energy waste water treatment’

Eco-efficient processes



- Low energy (use of resource)
- Energy recovery
- Many technologies (wastewater treatment, reuse, drinking water, desalination, industrial processes etc.)

WssTP:

Pilot 'Industry', 'Urban areas'

Task-Force 'Water and Energy'

ACQUEAU:

Water component: 'Industry', 'Urban drainage and wastewater collection', 'Wastewater treatment'

Major Programmes: 'Low energy waste water treatment', 'Membrane Technologies', 'Low energy processes for disinfection & oxidation'

Renewable energy from water



- “Blue energy” (osmosis power, wave and tidal power, geothermic etc.)
- From wastewater treatment plant
- From algae (3rd generation biofuel)
- From household (i.e. energy recovery of hot water)

WssTP:

Pilot ‘Industry’, Task-Force ‘Water and Energy’

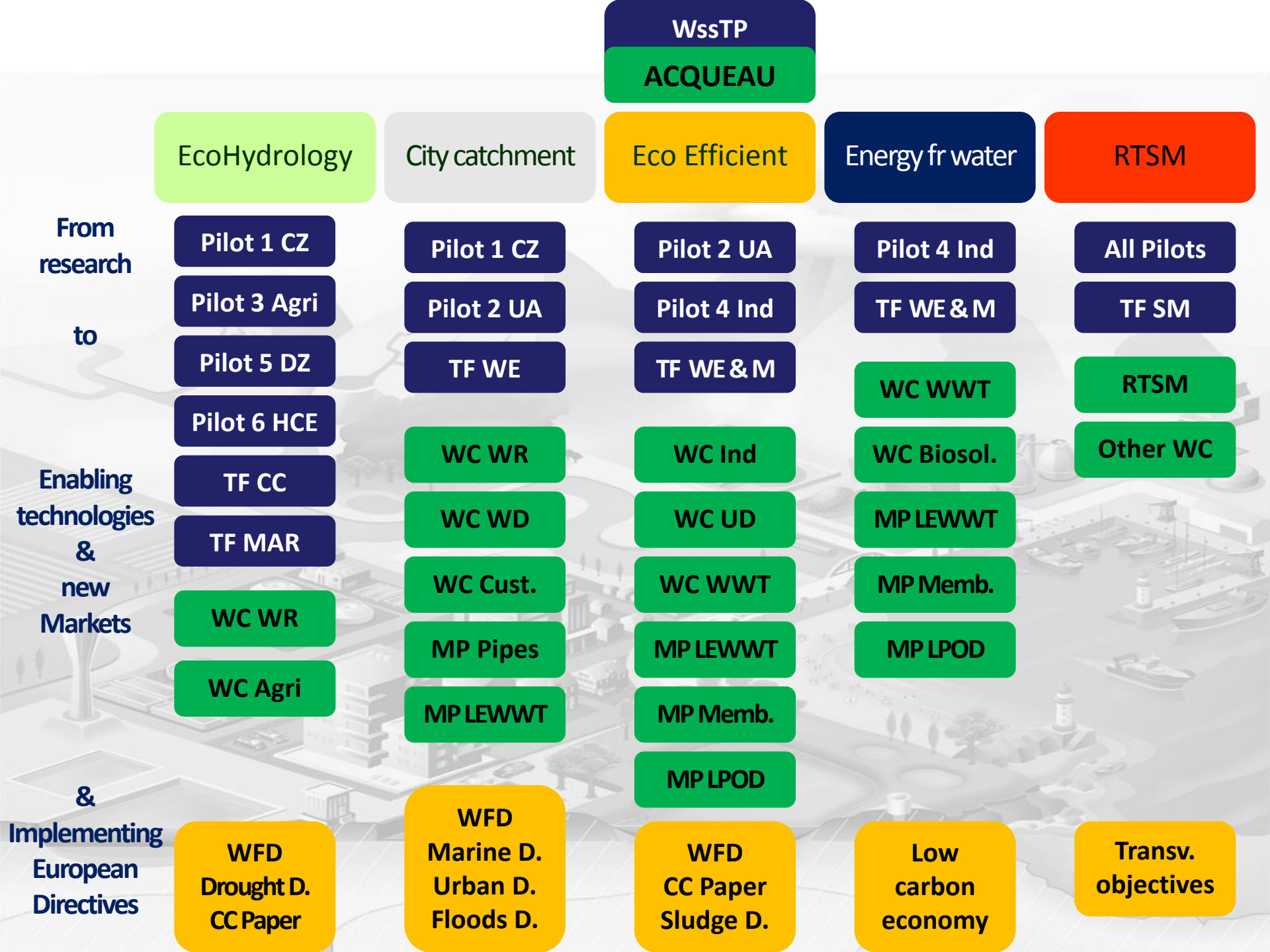
ACQUEAU:

Water component ‘Wastewater treatment’
‘Biosolids’

Real-Time Information Systems



- Wide spectrum of eco-technologies for the management complex environmental systems
- **WssTP**
 - All pilot programmes
 - Task Force 'Sensors and Monitoring'
- **ACQUEAU**
 - Water component 'Customer', all others
 - Major Programme 'Real Time System Management'



Link with other initiatives



- Work together with:
 - Political initiative: JPI on water, ERANET initiatives
 - Funding programmes: FP7, Life, COST, CIP...
 - Set up of ACQUEAU, the EUREKA Cluster for water
 - Support of the EIP "Water Efficient Europe"
- Align strategic vision and avoid duplication to boost the competitiveness of the water sector through the complementary approaches of each initiative
- **Support international collaboration led by the EC to boost growth & competitiveness**

COORDINATION, INTEGRATION & INNOVATION



***‘worldwide leadership
for the European
water industry’***



EIPs

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RESEARCH

DEVELOP

DEMONSTRATE

APPLY

Be ready for innovation, Yes we can (collaborate!)

WssTP

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Thank you for your attention!