

Caminho da Inovação

nós temos **Água +**

Fábrica de Água de Alcântara

Lisboa 4 de Outubro 2022

Luisa Prista

Water Europe, Advisory Board Member, Bruxelas



O caminho da
INOVAÇÃO
6ª EDIÇÃO

NÓS TEMOS
água+

04 DE OUTUBRO

FÁBRICA DE ÁGUA DE ALCÂNTARA





Water Europe

The voice and promoter
of water-related innovation and RTD in Europe

Water Europe

Mission:

- ✓ Improve **coordination and collaboration** in the water ecosystem in the EU and beyond;
- ✓ Enhance **performance and competitiveness** of the water ecosystem;
- ✓ Contribute to solving **global water challenges** through RTD&I.

European Strategy:

- ✓ **Multistakeholder** association representing the whole water value-chain
- ✓ **Value-based Organisation: Water Vision**

Values and members



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

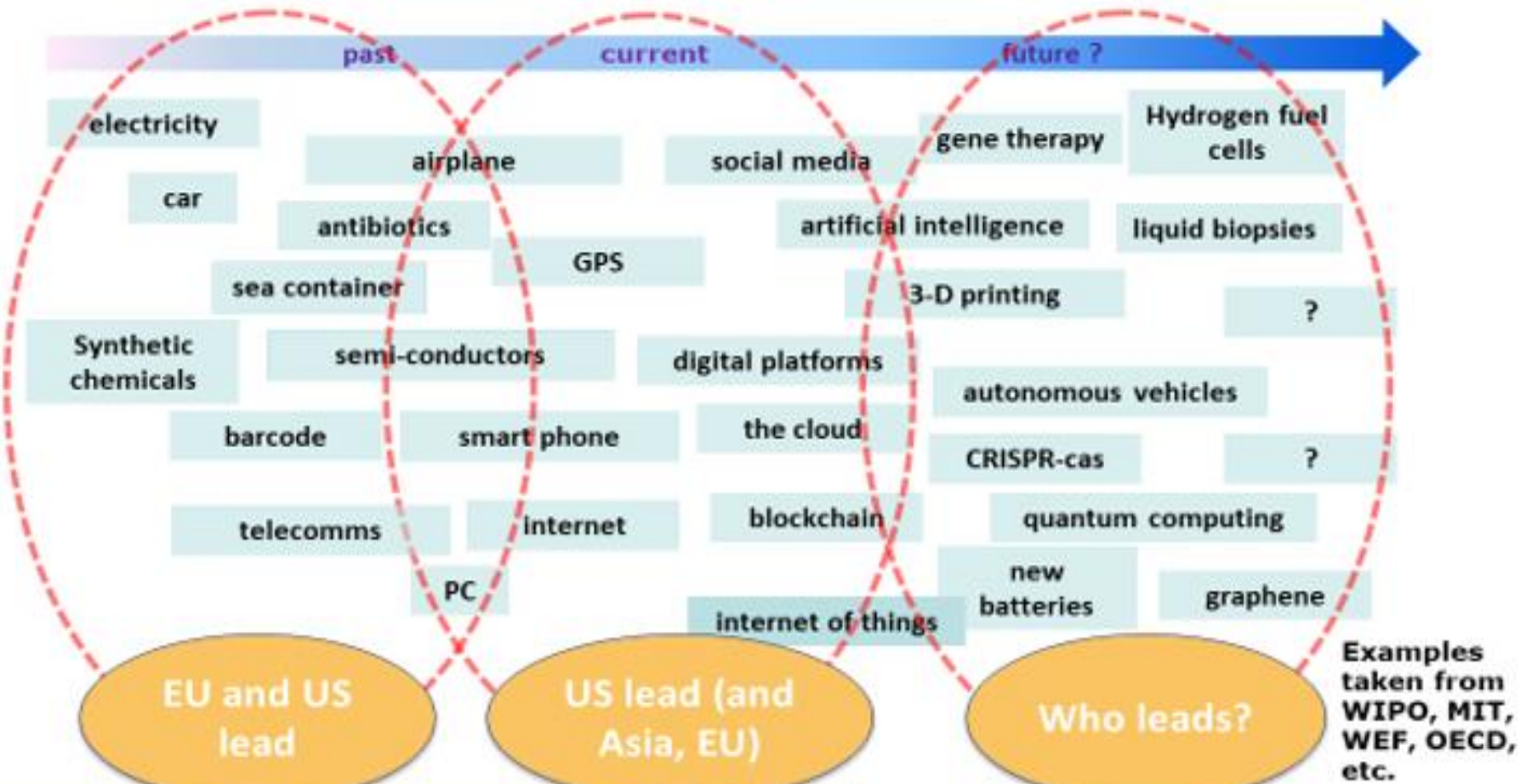
250+ members from 28 countries representing 1 million employees and a turnover of €232bn turnover



Innovation

Innovation waves – EU leading the deep-tech wave?

Who will lead the next wave of breakthrough and disruptive innovation?



Innovation Types

- From Incremental to breakthrough to disruptive
- Beyond one technology: combination of physical & digital, product & service, technologies & business models ...
- Systemic Innovation
- Hard and Soft
- Inclusive

HORIZON EUROPE

SPECIFIC PROGRAMME IMPLEMENTING HORIZON EUROPE & EIT*

Exclusive focus on civil applications



Pillar I EXCELLENT SCIENCE

European Research Council

Marie Skłodowska-Curie

Research Infrastructures



Pillar II GLOBAL CHALLENGES & EUROPEAN INDUSTRIAL COMPETITIVENESS

Clusters

- Health
- Culture, Creativity & Inclusive Society
- Civil Security for Society
- Digital, Industry & Space
- Climate, Energy & Mobility
- Food, Bioeconomy, Natural Resources, Agriculture & Environment

Joint Research Centre



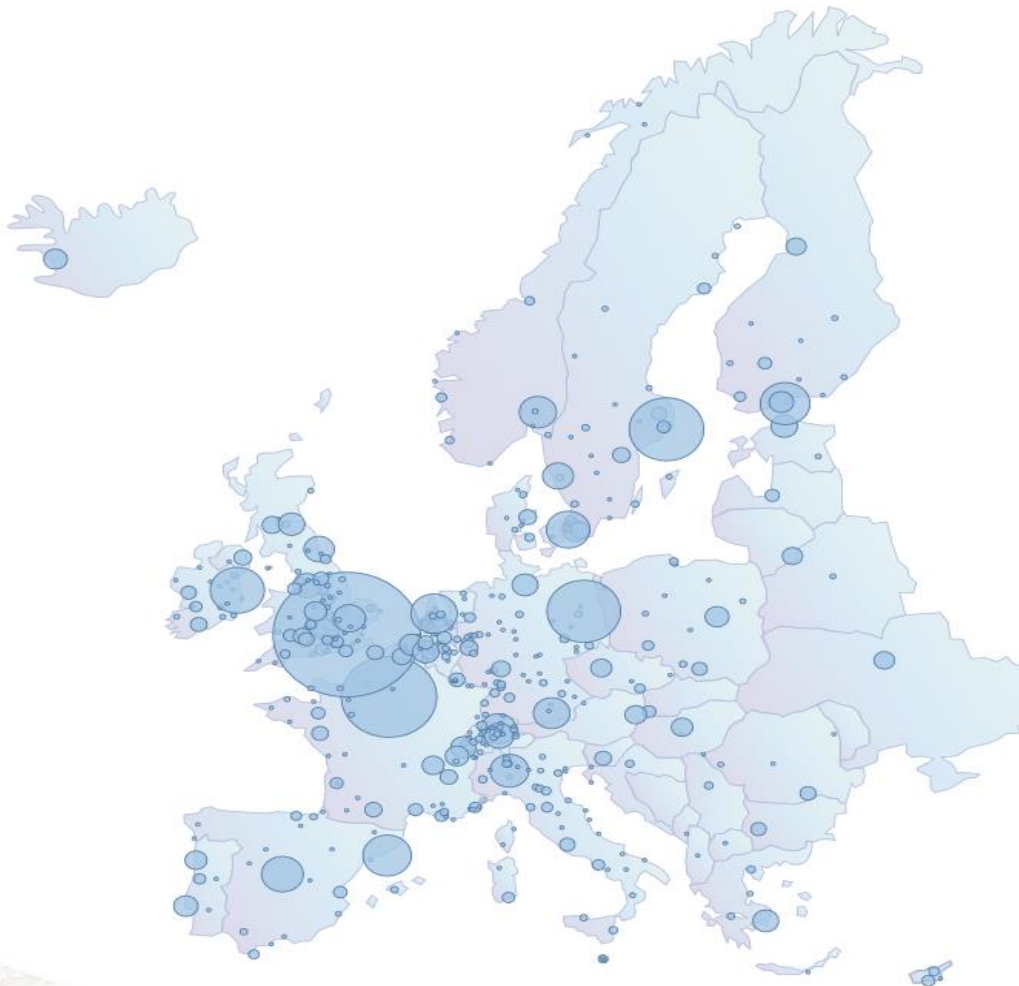
Pillar III INNOVATIVE EUROPE

European Innovation
Council

European innovation
ecosystems

European Institute of
Innovation & Technology*

Innovation Ecosystems



EU tech ecosystems are rich but can only reach their full potential if better interconnected

The Commission has published the 2022 edition of the [European Innovation Scoreboard](#), which reveals that the EU's innovation performance has grown by about 10% since 2015. Compared to 2021, innovation performance in 2022 has improved for 19 Member States, and declined for 8



Brussels, 5.7.2022
COM(2022) 332 final

COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE AND THE COMMITTEE OF THE REGIONS

A New European Innovation Agenda

{SWD(2022) 187 final}

EN

EN



Water +



Seca A água que se perde em mais de 100 mil quilômetros de redes públicas para abastecimento humano é de 1,9 mil milhões de litros por ano. Falta de manutenção nos ramais é um problema

Desperdício dá para abastecer um milhão de pessoas

da Beira ou Macedo de Cavaleiros...
perdas superiores a 370 litros...
de Lameira e Oliveira, Anadia...
Algodô (400 litros)...
municípios em...
Chaves

ano) não são faturados aos utilizadores...
final, segundo dados da ERSAR...
Alto Rio, o que ao longo do tempo...
do Estado para este tipo de infraestruturas...
necessárias para "garantir...
os buracos" ao longo da rede controlada...
de utilização, segundo o diretor

Tarifa encarece para grande consumo

que estava...
Marcelo Vieira de Sá...
Ministro de Infraestrutura sobre...
a obra do túnel.

PRÊMIO FALTA DE NOÇÃO II
"Se considerarmos a severidade meteorológica, os algoritmos e dados dizem que a área árida deveria ser 30% superior"

Prêmio Gagarin
"Espero que haja não haja dúvidas que a gestão da TAP está a fazer um bom trabalho"

Prêmio Fontes Secas
"Não pense que as empresas são vacas leiteiras"

Prêmio Guerra, 500 Meses Repostos
"Estamos unidos contra a propagação controlada por russo, que a história..."

Prêmio Guerra, 500 Meses Repostos
"Estamos unidos contra a propagação controlada por russo, que a história..."



Eau de la plus grande réutilisée pour les espaces

ère à Toulouse (Haute-Garonne). La mairie a décidé de pomper...
res d'eau de la piscine Alfred-Nakache, la plus grande de la ville, afin...
pour l'arrosage et le nettoyage de la voirie.

Alfred-Nakache, l'un des plus grands

ONATI

nte pioggia... glio. Nuovo... 0% alle



de anche l'aumento dei rilasci dai grandi laghi e

otto luglio prima di vedere una goccia...
loni, ad iniziare da quelle



Courrier international

N° 1860 du...
courrier international...
France : 4,50 €



L'EAU QUI NOUS MANQUE

Les pénuries d'eau s'intensifient partout dans le monde. Avons-nous atteint le point de non-retour ? La presse étrangère s'inquiète.

M 03183 - 1960 - F - 4,50 €



This June 6, 2018, the photo, PFAS foam washes up on the shoreline of Van Etten Lake in Okcoda Township, Michigan, US. Copyright: Jake May/The Flint Journal via AP, File

By Rosie Frost - Updated: 19/08/2022
Scientists recently discovered unsafe levels of toxic forever chemicals in rainwater - even in remote locations like the Tibetan Plateau and Antarctica.



100 que estava
Marina Vieira da Silva
Ministra de Finanças sobre
a nova reforma.

PRÊMIO FALTA DE NOÇÃO II
"Se considerarmos
a severidade
meteorológica,
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Seca A água que se perde em mais de 100 mil quilômetros
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Desperdício dá pa
um milhão de pes

Sécheresse : l'eau de la plus grande piscine de Toulouse réutilisée pour les espaces verts

C'est une première à Toulouse (Haute-Garonne). La mairie a décidé de pomper les 6 millions de litres d'eau de la piscine Alfred-Nakache, la plus grande de la ville, afin de la réutiliser pour l'arrosage et le nettoyage de la voirie.

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Algodred (400 gramas)
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A Toulouse, deux pompes récupèrent l'eau devenue verdâtre de la piscine Alfred-Nakache, l'un des plus grands bassins d'Europe afin de la recycler. LP/Julie Rimbart

ONATI

pioggia
Nuovo
alle



de anche l'aumento dei rilasci dai grandi laghi e c

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what are PFAS and can we solve
pollution problem?



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M 03183 - 1600 - F - 4,50 €

Water challenges

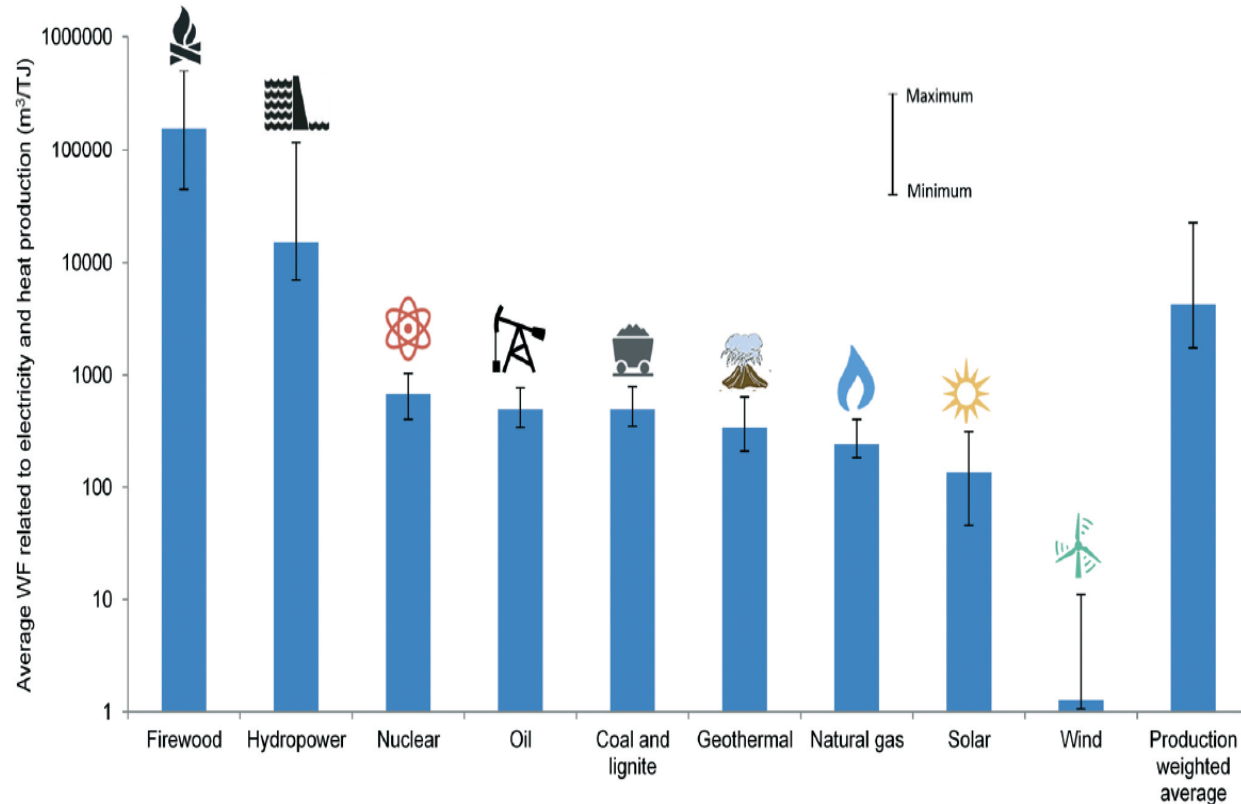
- 90% of climate disasters are water related
- 90% of our economy depends on water
- 75% jobs depend on water
- Water crises among the 5 top global risks
- World Resources Institute foresees a gap between water supply and demand of 56% in 2030

->Valuing water is key to solving water challenges

Water-Energy Nexus

Environmental Science: Water Research & Technology

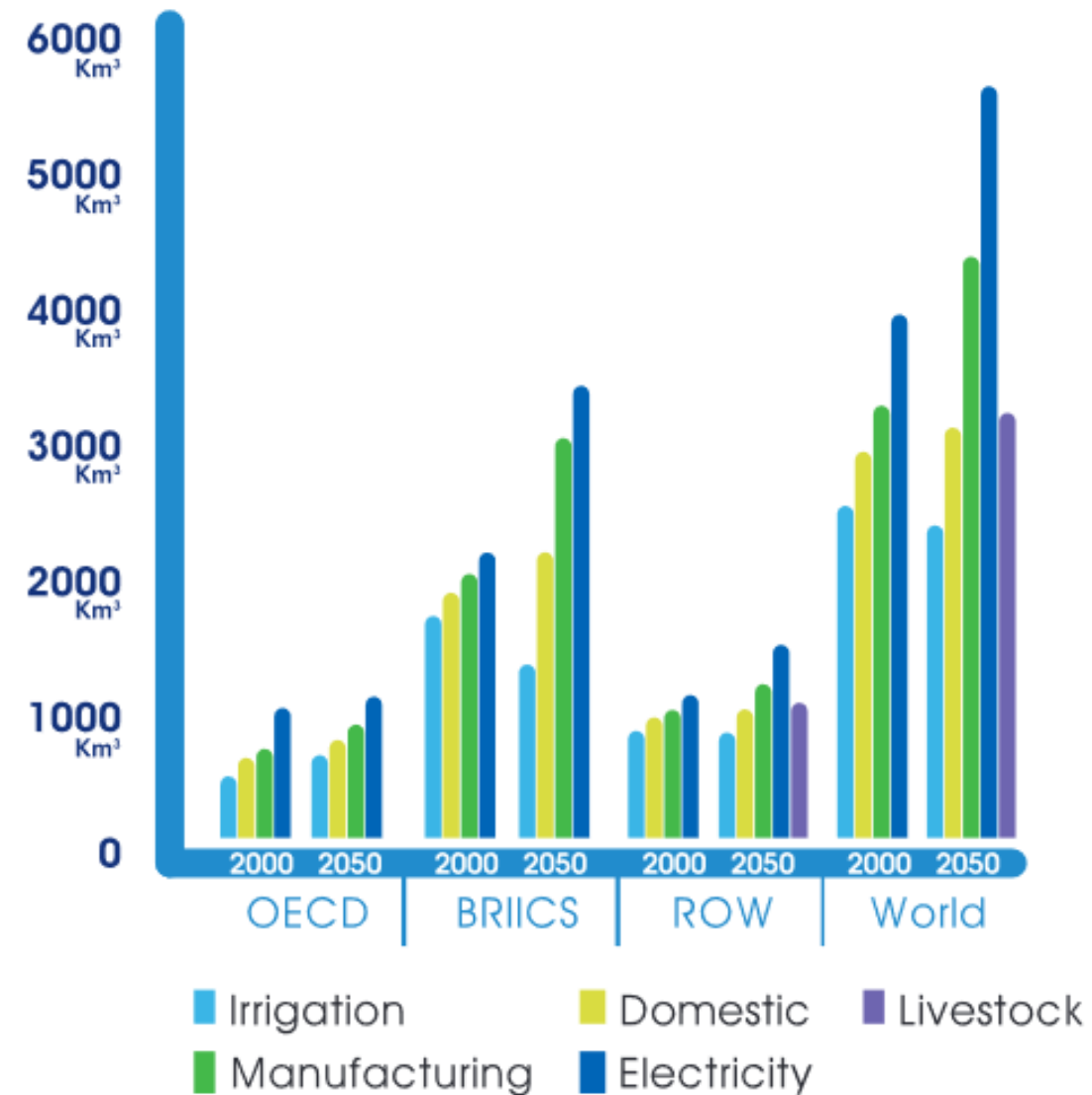
Paper



| | | | | | | | | | | |
|--------------|--------|-------|-----|-----|-----|-----|-----|----|-----|------|
| Operation | 400 | 15100 | 610 | 440 | 440 | 340 | 240 | 50 | 0.2 | 2410 |
| Construction | 0.4 | 0.3 | 0.3 | 1.1 | 1.1 | 2.1 | 1.1 | 90 | 1.1 | 1.0 |
| Fuel supply | 156000 | 0 | 68 | 55 | 54 | 0 | 6 | 0 | 0 | 1830 |

Fig. 2 Average consumptive WF per unit of electricity and heat produced ($m^3 TJ_e^{-1}$) for the period 2008–2012. Note that the scale is logarithmic. The ranges shown reflect minimum and maximum values per energy source. The values in the table represent the WF ($m^3 TJ^{-1}$) for the three main stages of the electricity and heat production chain.

Global water demand in 2000 and 2050



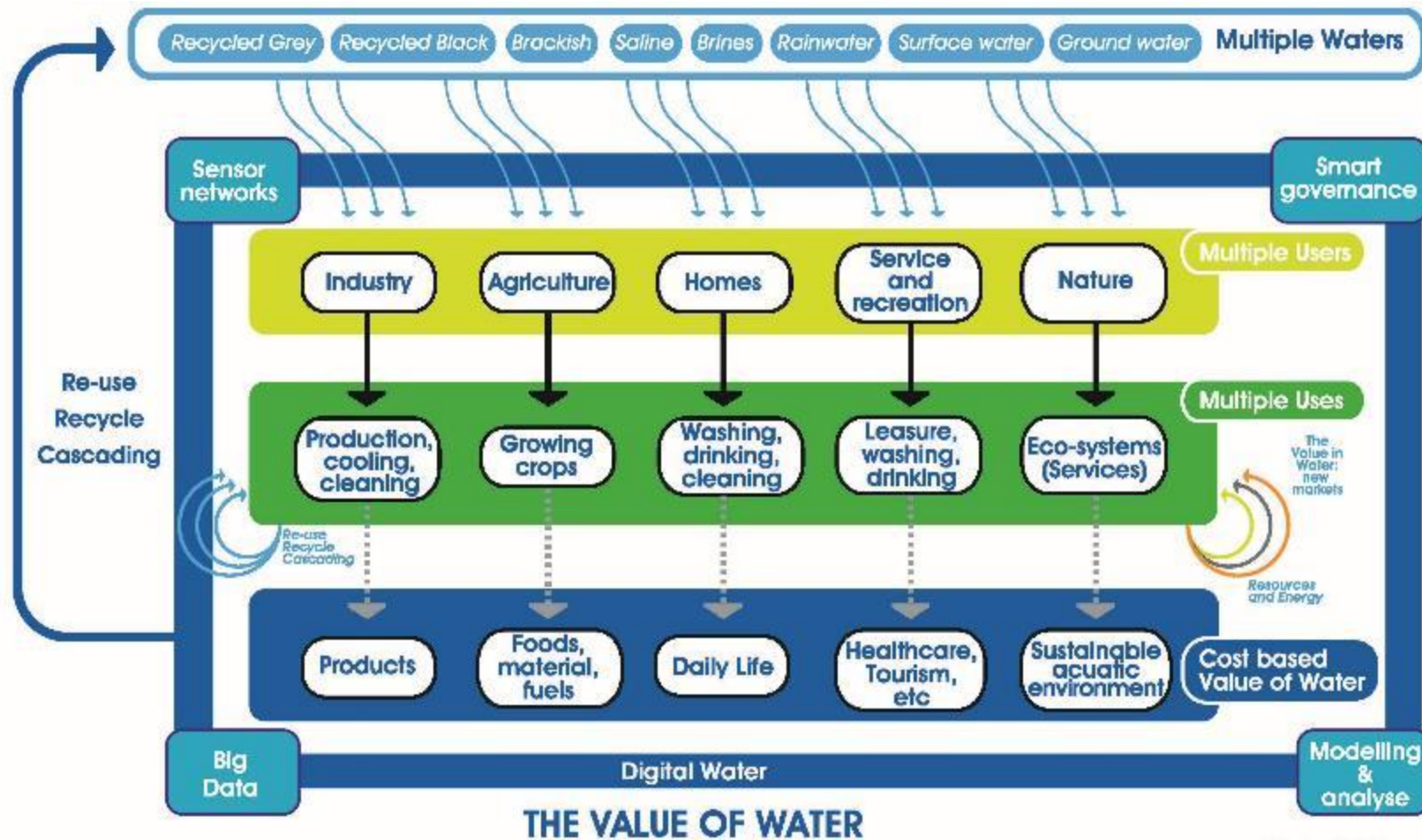
Source: adapted from OECD Environmental Outlook to 2050

Water-Smart Society

“A society in which the **true value of water is recognised and realised, and all **available water sources** are managed in such a way that water scarcity and pollution of groundwater are avoided. Water and resource loops are largely closed to foster a **circular economy** and **optimal resource efficiency**, while the water system is **resilient** against the impact of climate change events”**

by 2030 the transition to this water-smart society should be in full swing

WE Innovation Areas – the value of water



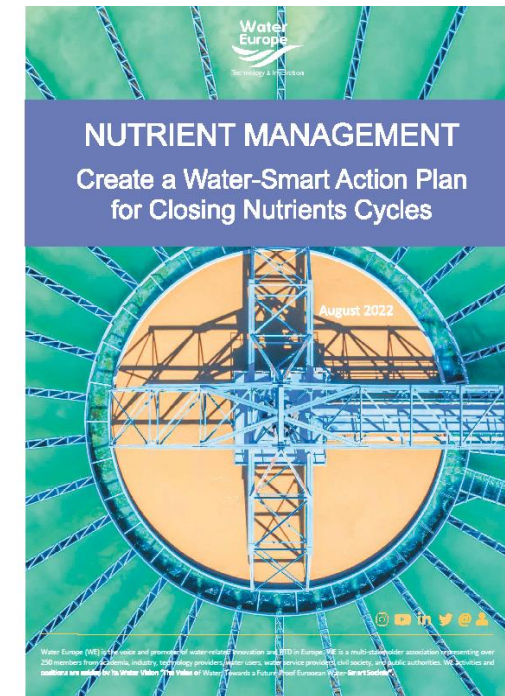
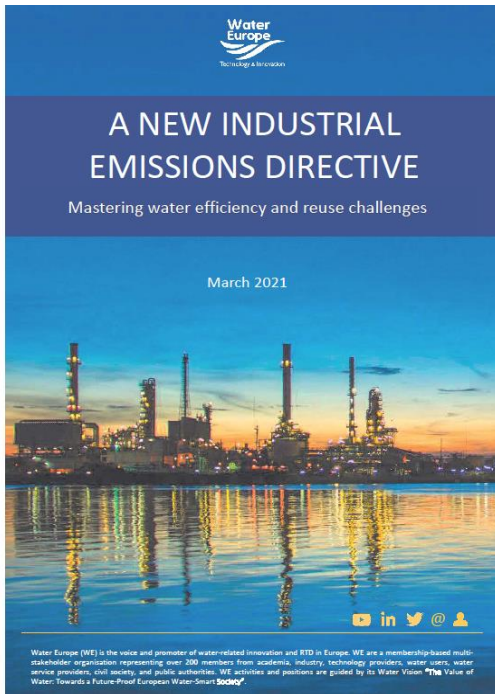
1. Multiple Waters
2. Value in Water
3. Digital Water
4. Hybrid Grey-Green Infrastructure
5. Inclusive Governance

Why innovation in water, now?

- 56% water gap between demand and supply in 2030 (WRI, 2020)
- 80% wastewater in not treated before released in the environment (globally)
- The cost of inaction is 5 times higher that the investment needed to tackle water risks though innovation (CDP, 2020)
- Europe is +90% dependent from imports of CRM (EC, 2014)

->Need for an innovative holistic solution, including legislation and inclusive governance

Legislation



Industrial Emissions Directive
**Pollution reduction into water,
water reuse and efficiency**

Urban Wastewater Treatment
Directive
Circular processes

Nutrient Management Action Plan
Value in water

Water-Oriented Living Labs for a **Water-Smart Society**



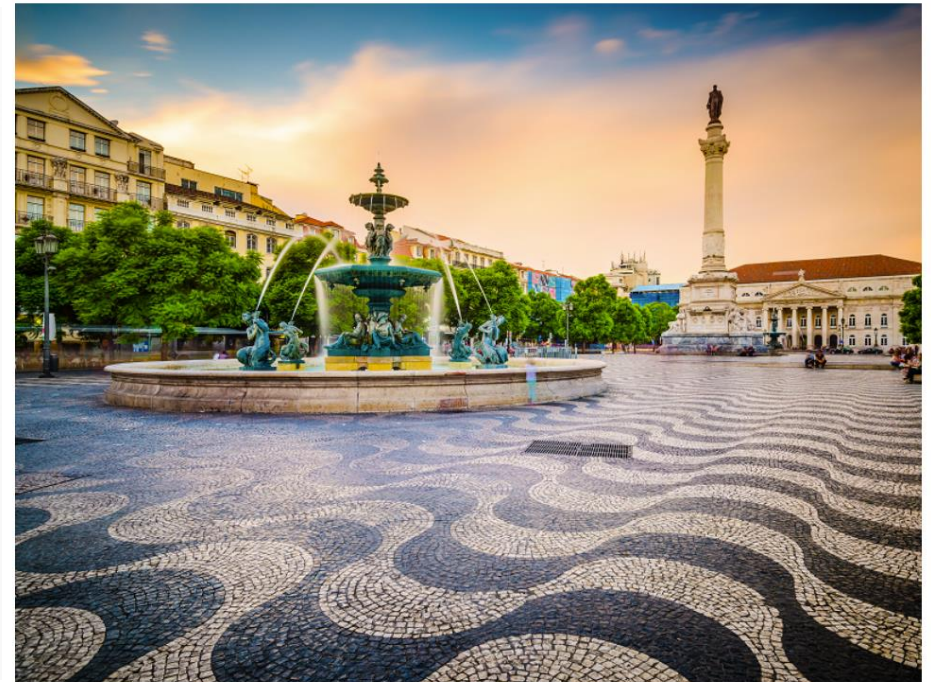
Water-Oriented Living Labs have been defined by Water Europe as follows:

- 💧 **real-life** demonstration and implementation instruments
- 💧 **bring together** public and private institutions, government, civil society, and academia
- 💧 **jointly build structured grounds** to develop, validate, and scale-up innovations
- 💧 embrace new **technologies, governance, business models, innovative policies**



Foco especial

- Desenvolvimento de ferramentas e processos para facilitar a reutilização segura de água;
- Melhorar a eficiência no uso da água-energia-fósforo para usos municipais não potáveis de água;
- Contribuir para melhorar a adaptação climática (climate readiness) das habitações e dos edifícios no que diz respeito à água e à energia com uma ferramenta de avaliação/certificação desenvolvida localmente, mas com ambição de adoção nacional/europeia.



REGISTER NOW

WATER
KNOWLEDGE
EUROPE 2022

18-19 OCTOBER 2022
BRUSSELS

HORIZON EUROPE
WORK PROGRAMMES
2023-2024

Water Knowledge Europe 2022 event is coming up in Brussels on October 18-19 to help you build your consortium to respond to the upcoming water-related calls for proposals for the new Work Programmes 2023-2024 of Horizon Europe.

Thank You

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 www.watereurope.eu

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