EU Water Research and Innovation

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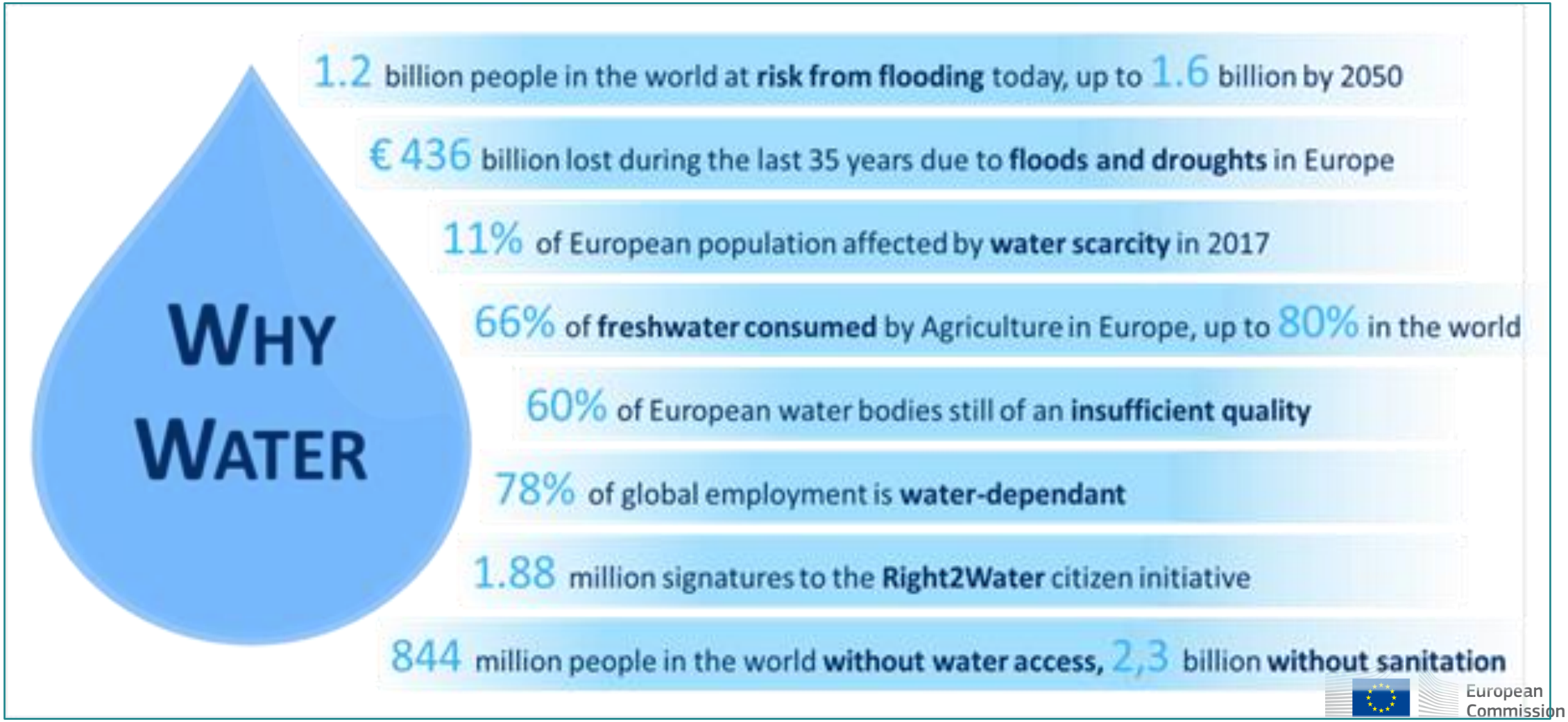
Water Challenges

(as identified EU, EEA, UN, WB, WEF)



EC water policy objectives

- Water related policies (WFD, Flood Directive, Groundwater Directive, Urban Wastewater Treatment, etc.)
- Other EU sectoral policies (CAP, Marine strategy and Common Fisheries Policy, Energy and Climate, Industrial strategy)
- Achieving UN SDGs targets
- Water is central to all EGD components


CLIMATE
PACT AND CLIMATE
LAW
INVESTING IN
SMARTER, MORE
SUSTAINABLE
TRANSPORT
STRIVING
FOR GREENER
INDUSTRY
ELIMINATING
POLLUTION
ENSURING
A JUST TRANSITION
FOR ALL
FINANCING
GREEN
PROJECTS
MAKING
HOMES ENERGY
EFFICIENT
LEADING THE
GREEN CHANGE
GLOBALLY
FROM FARM
TO FORK
PROTECTING NATURE
PROMOTING
CLEAN
ENERGY
The European
Green Deal

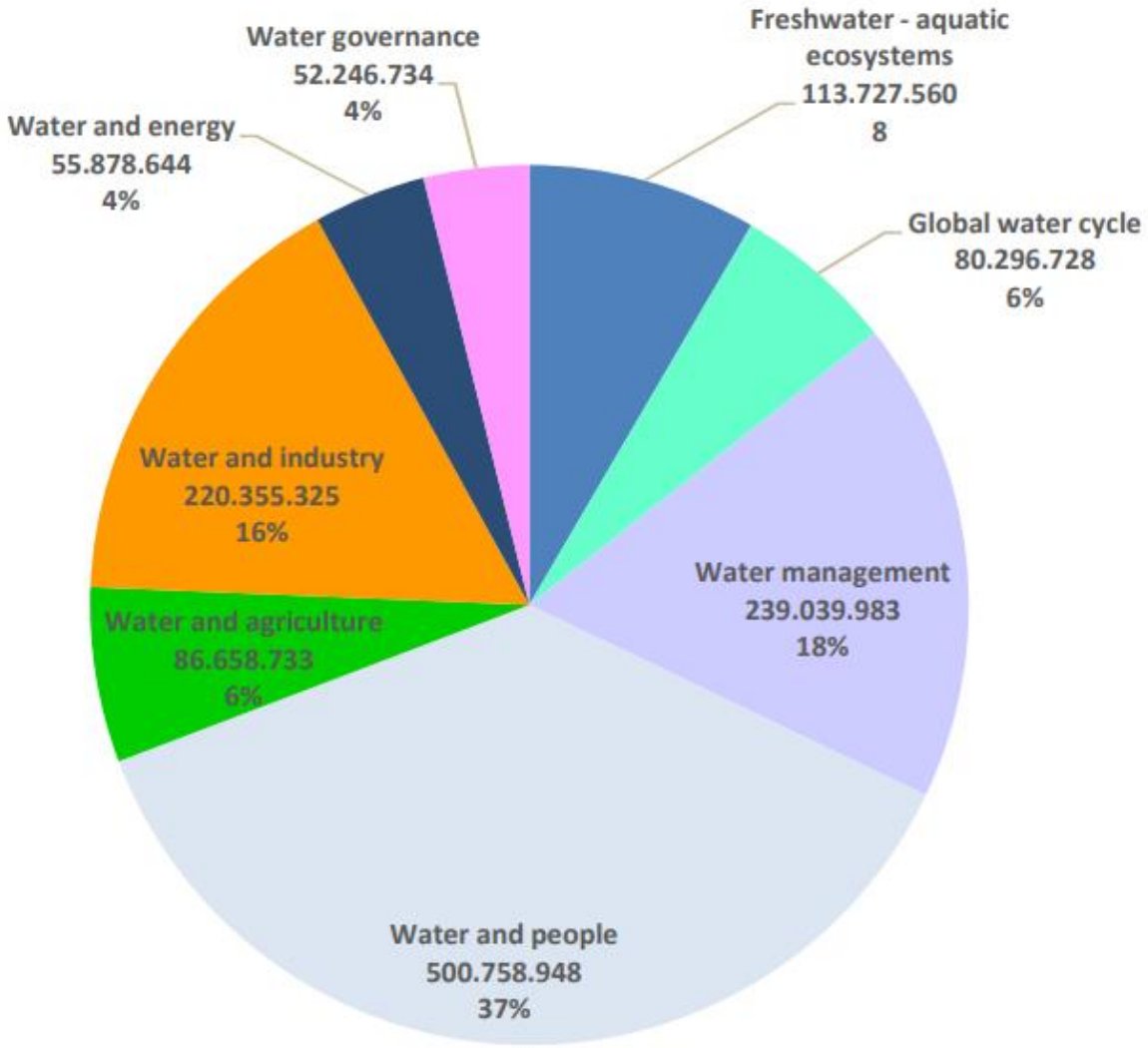
UN 2023 Water Conference – outcomes

Adoption of **a Water Action Agenda** of around 700 commitments (EU commitments)

Proposals for follow-up by the UN Secretariat General and the President of the UN General Assembly (e.g. the consideration of appointing a UN Special Envoy on Water)

A summary of outcomes by the President of the General Assembly, building on the interventions at the conference and the summaries of the five Interactive Dialogues.

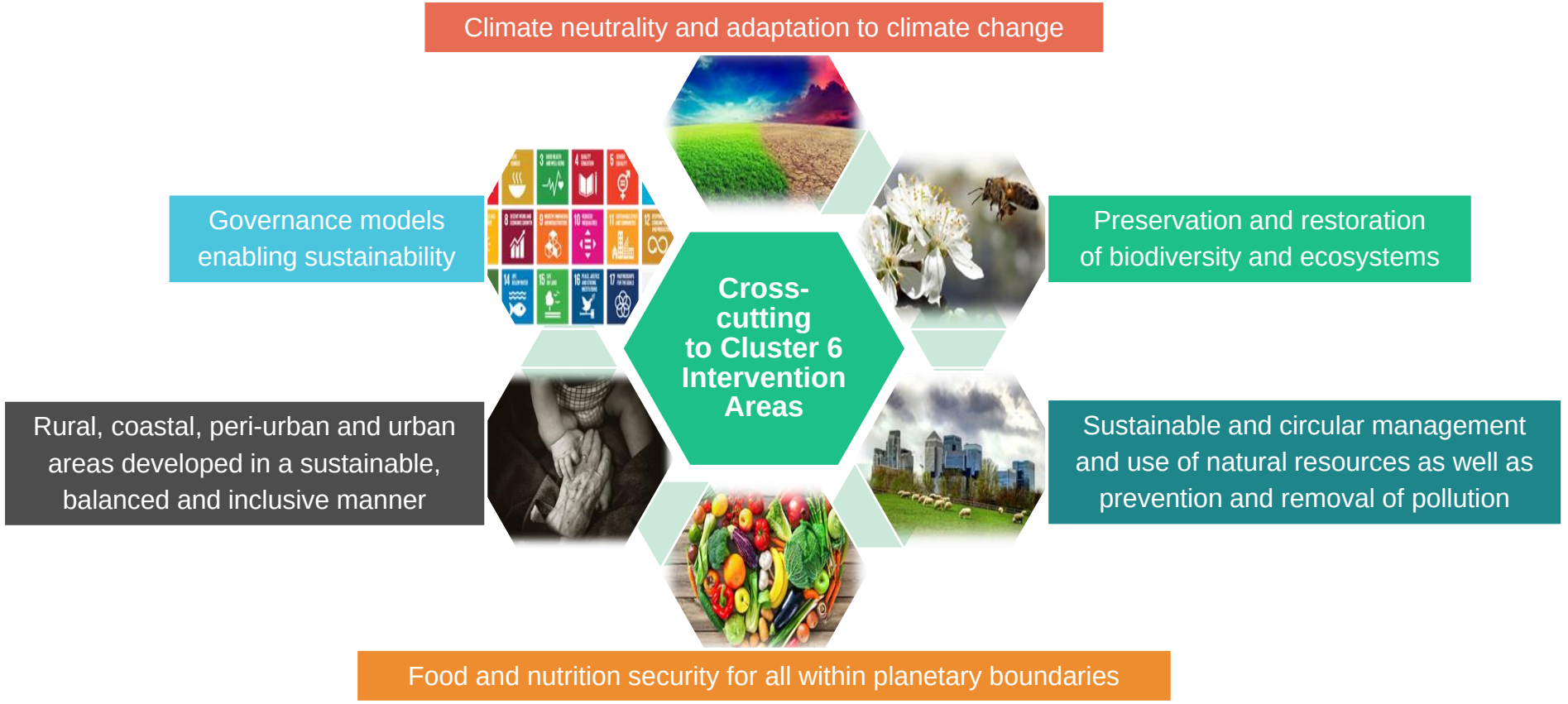
Water – A major component of successive EU R&I Framework Programmes



Horizon 2020 – EU Contribution

European Commission

CLUSTER 6 - Six targeted long-term impacts



European Commission

Water in the context of Horizon Europe – Cluster 6

- **Water Quantity and Availability**: water scarcity, overexploitation of groundwater aquifers, environmental flows, inefficient use in agriculture and industry, inefficient allocation, ineffective economic tools/pricing
- **Water Quality and Pollution:** ~30,000 new chemicals every year, pollution loads from diffuse agriculture and urban sources, contaminants of emerging concerns (e.g. microplastics, pharmaceuticals or antimicrobial resistant bacteria), drinking water quality
- **Aquatic ecosystem protection and restoration:** degradation due to barriers and other morphological changes, loss of wetlands and floodplains, over abstraction, land management
- **Water management, governance of water systems and circular use of water:** addressing multiple water challenges, governance and institutional issues, minimise wastewater and maximise resources recovery to realise greater value from water systems

Water in the Cluster 6 – WP 2021-2022 (€109,5 million)

- Assessing and consolidating recent scientific advances on freshwater ecosystem restoration
- Preventing and managing diffuse pollution in urban water runoff
- Improved understanding, observation and monitoring of water resources availability
- European Partnership Water Security for the Planet (Water4All)
- Climate sensitive water allocation systems and economic instruments.
- Water governance, economic and financial sustainability of water systems
- Preventing groundwater contamination and protecting its quality against harmful impacts of global and climate change
- Securing drinking water quality by protecting water sources against pollution, providing innovative monitoring and treatment solutions and ensuring safe distribution

Water in the Cluster 6 – WP 2023-2024 (€97 million)

- Harnessing the innovation potential and market uptake of successful circular economy water related projects
- Knowledge and innovative solutions in agriculture for water availability and quality
- European Partnership Water Security for the Planet - Water4All (Additional activities – 2nd installment)
- Improve the reliability and effectiveness of alternative water resources supply systems and technologies
- Holistic approaches for effective monitoring of water quality in urban areas **(HORIZON-CL6-2024-ZEROPOLLUTION-02-1-two-stage)**
- New circular solutions and decentralised approaches for water and wastewater management (**HORIZON-CL6-2024-CircBio-02-4-two-stage)**

European Commission

European Partnership Water Security for the Planet Water4All

- **Co-funded partnership** proposed under Horizon Europe Cluster 6 in WP 21-22 (Topic HORIZON-CL6-2021-CLIMATE-01-02)
  - National/regional research funders and policy makers
  - in association with other research and economic actors
- Building on the work of the **Water JPI, the EIP Water and the Water Europe Technology Platform**
- **Objective:** Enabling water security for all on the long term by boosting systemic transformations and changes across the entire water research and innovation pipeline, fostering the matchmaking between problem owners and solution providers
- **Launch: 01 June 2022 - Full operations until 2027 - Some activities may last until 2032**

European Commission

Partnership for Research and Innovation in the Mediterranean Area (PRIMA)

Member States: Croatia, Cyprus, Czech Republic, France, Greece, Italy, Luxembourg, Malta, Portugal, Slovenia and Spain
Third countries associated: Israel, Tunisia and Turkey
Third countries not associated: Algeria, Egypt, Jordan, Lebanon and Morocco

- 220 MEUR from EU budget (SC2 and SC5) + ~270 MEUR from the participating states
- Public-public partnership (Art 185 of Treaty)
- 10 years of duration across two programming periods (2018-2028), 7calls
- 19 participating states – EU Med countries, DE, LU, North Africa, Middle East
- EU members, H2020 associated countries and non-associated countries
- H2020 programming and management procedures
- Managed by an independent implementing structure (PRIMA Foundation)
- => EU – observer role

European Commission

EUROPEAN UNION

EU MISSIONS

Mission objectives and targets

Restore our Ocean and Waters by 2030

PROTECT AND RESTORE MARINE AND FRESHWATERS ECOSYSTEMS AND BIODIVERSITY	• Protect at least 30% and strictly protect 10% EU's sea areas • Restore 25.000 km free flowing rivers • Marine nature restoration targets (incl. degraded seabeds, coastal ecosystems)
PREVENT AND ELIMINATE POLLUTION OF OUR OCEANS, SEAS AND WATERS	• Reduce by at least 50% plastic litter • Reduce by at least 30% microplastics • Reduce by at least 50% nutrient losses, chemical pesticides
MAKE THE BLUE ECONOMY CARBON- NEUTRAL AND CIRCULAR	• Net zero maritime emissions • Zero carbon aquaculture, • Low carbon multipurpose use of marine space

ENABLERS

Digital Ocean and Waters Knowledge system

Public mobilization and engagement

EUROPEAN UNION

EU MISSIONS
ADAPTATION TO CLIMATE CHANGE

Mission objectives

To help at least 150 European regions and communities towards climate resilience by 2030

Future perspectives

- Large scale implementation of circular systems for water and water sludge reuse
- Resilience of water resources systems in the context of climate change and the emerging energy and food crisis
- Alternative water supply solutions
- Digital technologies/Artificial Intelligence and Machine Learning
- Knowledge and innovation on micropollutants in water systems

Thank you

European Commission