

Innovation

# Water in Horizon Europe 1<sup>st</sup> draft WP 2021-22

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#### #HorizonEU

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#### **Horizon Europe - Structure**



**European Research Council** 

Marie Skłodowska-Curie Actions

Research Infrastructures

#### Pillar 2

Global Challenges and **European Industrial** Competitiveness

- Health
- · Culture, Creativity and Inclusive Society

- Civil Security for Society
   Digital, Industry and Space
   Climate, Energy and Mobility
  - · Food, Bioeconomy. Natural Resources. Agriculture and Environment

Joint Research Centre

#### Pillar 3

Innovative Europe

**European Innovation Council** 

**European innovation** ecosystems

**European Institute of** Innovation and Technology

Widening Participation and Strengthening the European Research Area

Widening participation and spreading excellence

Reforming and Enhancing the European R&I system



# HORIZON EUROPE STRATEGIC PLAN 'a Europe that leads the global transitions'

Key	policy	questions:	Where	should	the	EU	invest	in	R&I	to
achi	eve its	political pri	orities?	What sh	oula	be	our targ	gets	<b>5</b> ?	

- □ identify the **orientations** for future EU R&I investments in line with the political priorities of the Commission
- define which **impacts** to target in the long term

Strategic planning response: key strategic orientations and expected impacts to guide the programming of Horizon Europe towards a green, digital and resilient Europe – focusing on:

- □ European Green Deal
- Digital Transition and Industrial Transformation
- Development of a more Resilient, Healthy and Just Society



#### GLOSSARY – Horizon Europe key concepts & intervention logic

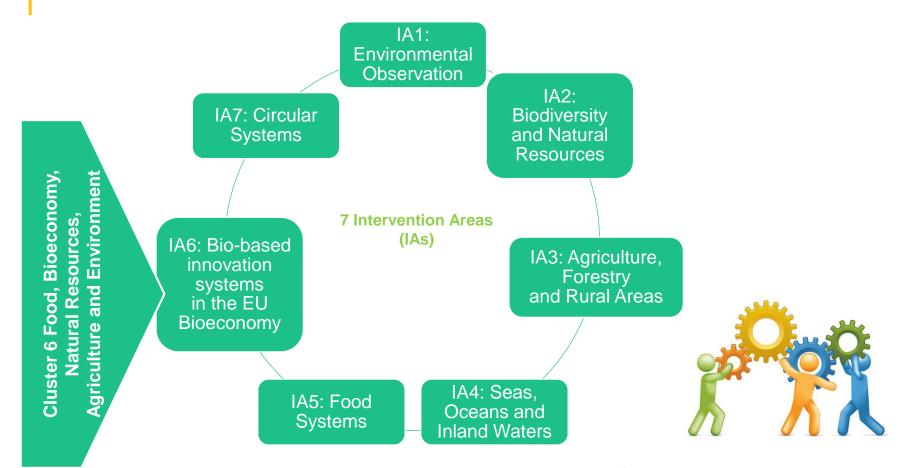
	DEF	INITION				
EC POLICY PRIORITY	Based on the Political Guidelines for the European Commission 2019-2024 with a focus on three key priorities: Green Deal, Europe fit for a digital age, Economy that works for people  Set of strategic objectives within the EC policy priorities where R&I investments are expected to make a difference  Wider effects on society (incl. the environment), the economy and science enabled by the outcomes of R&I investments (long term)					
KEY STRATEGIC ORIENTATIONS FOR R&I						
EXPECTED IMPACTS  ⇒ DESTINATIONS						
= General objectives	EXAMPLE	Strategic Plan & Work Programme: R&I contribution to seamless, smart, inclusive and sustainable mobility services	Project 's impact: contribution to increased maximum passenger capacity and passenger average throughput, while reducing airport infrastructure expansion costs			
=>TOPICS = Specific objectives	Consequential effects of project's outputs such as uptake, diffusion, use and/or deployment of the Horizon Europe project's outputs by direct target groups (medium term)					
	EXAMPLE	Work Programme : Innovative accessibility and logistics solutions applied by the European Transport sector	Project's outcome: Advanced forecasting system for proactive airport passenger flow management deployed in European airports			
EXPECTED OUTPUTS		[18] [18] [18] [18] [18] [18] [18] [18]	pe project during its implementation,			
= Operational objectives	such as innovative solutions, algorithms, new business models, guidelines, policy recommendations, methodologies, publications, database, prototypes, trained researchers, new infrastructures, proof of feasibility, networks, etc.					



(short term)

Project's outputs (by the end of its implementation): Demonstration in a large-scale trial with 3 airports of an advanced forecasting system for proactive airport passenger flow management

#### CLUSTER 6 - we work together...



#### ...and across clusters



#### What? Six targeted long-term impacts



Governance models enabling sustainability

Cross-cutting to Cluster 6 Intervention Areas

Preservation and restoration of biodiversity and ecosystems

Rural, coastal, peri-urban and urban areas developed in a sustainable, balanced and inclusive manner



Sustainable and circular management and use of natural resources as well as prevention and removal of pollution

Food and nutrition security for all within planetary boundaries



#### Cluster 6 - European Green Deal





### 1<sup>st</sup> draft WP 2021-22 of Cluster 6 Water related aspects

- ✓ Biodiversity and ecosystems services
  - ✓ Water ecosystem restoration.
  - ✓ Assessing the interlinkages (nexus) among biodiversity, water, food and health in the context of climate change
  - ✓ Observing and mapping biodiversity and ecosystems
- ✓ Fair healthy and environmental friendly food systems
  - ✓ Primary production and nutrients
  - ✓ Nature-based solutions for nutrient management
  - ✓ Integrated and sustainable freshwater bioeconomy
- ✓ Circular economy and bio-based systems
  - ✓ Circular Cities and Regions Initiative circular systemic solutions
  - ✓ Marginal lands and climate-resilient crops



## 1<sup>st</sup> draft WP 2021-22 of Cluster 6 Water related aspects

#### ✓ Clean environment and zero pollution

- ✓ Preventing groundwater contamination
- ✓ Regional nitrogen and phosphorus load reduction approach within safe ecological boundaries and innovative governance solutions to limit N/P emissions
- ✓ Preventing and managing diffuse pollution in urban water runoff
- ✓ Securing drinking water quality, innovative monitoring and treatment solutions and ensuring safe distribution.
- ✓ Environmental sustainability criteria for biological feedstock production and trade in bio-based systems
- ✓ Achieving zero polluted seas and oceans
- ✓ Improved bioremediation and revitalization strategies for soil and water
- ✓ Biosensors and user-friendly diagnostic tools for environmental services
- ✓ Assessment of environmental impacts and trade-offs of alternative fertilising products

### 1<sup>st</sup> draft WP 2021-22 of Cluster 6 Water related aspects

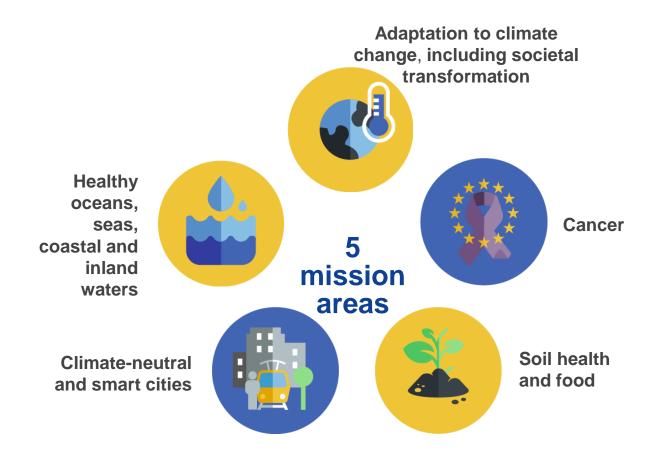
- ✓ Land, ocean and water for climate action
  - ✓ Improved understanding, observation and monitoring of water resources availability.
  - ✓ Climate sensitive water allocation systems and economic instruments.
  - ✓ Agroforestry to meet climate, biodiversity and farming sustainability goals
- ✓ Innovative governance, environmental observation, digital solutions
  - ✓ Water governance, economic and financial sustainability of water systems.
  - ✓ EU wide interactive knowledge reservoir to support knowledge exchange between all AKIS actors in MS

## 1<sup>st</sup> draft WP 2021-22 of Cluster 6 European Partnerships

- ✓ Rescuing Biodiversity to Safeguard Life on Earth (co-funded, 2021)
- ✓ A climate neutral, sustainable and productive Blue Economy (co-funded, 2022)
- ✓ Water4All Water Security for the Planet (cofunded, 2021)



#### **Five Mission Areas**





#### Horizon Europe Implementation Initiatives

Short Title	Planned Adoption Date	Type of Act
Strategic Plan of Horizon Europe	4 <sup>th</sup> quarter 2020	Commission Implementing Decision
Adoption of the Horizon Europe Work Programme for 2021-2022		Commission Implementing Decision
Adoption of the ERC Work Programme 2021	4 <sup>th</sup> quarter 2020	Commission Implementing Decision

... and many other: JUs, Missions, Infrastructures, International arrangements, Executive Agencies, ...



## Thank you



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