

## Roadmap

### 1. Introduction

- a. Overview of Copernicus services for Water *[existing service provision]*
- b. Issues raised by the H2020 Space call *[Overview - setting the scene for priorities and challenges raised]*

To include:

- Core services and innovation services
- Duplication
- Global water cycle / continuum (compartmentalisation)
- Better support to policy development and implementation
- SDGs support
- Improving service portfolio
- Higher level biogeochemical products
- Better mix of remote sensing/model/in situ methods
- Better Definition of the Innovation Opportunity
- Links with other relevant Roadmaps and developments
- Objectives of Roadmap

### 2. User Defined Needs and Requirements (D1.1-D1.6 and D5.1)

- a. The water community
- b. User needs, requirements, and priorities for:
  - i. regulation
  - ii. business (EO services)
  - iii. industry (water sector, aquaculture, agriculture, energy)
  - iv. monitoring
  - v. innovation
  - vi. tackling societal and global challenges
  - vii. science [modelling (D5.1)]
- c. The Copernicus value for water (T1.4; T5.2)

### 3. Copernicus for Water

- a. Current state-of-the-art (D2.2; D2.3; D3.2; D3.4; D5.3)  
*[Including Modelling to produce higher level products and services]*
- b. The in-situ component (D4.2; T4.1)

### 4. Overlaps, Gaps and Opportunities

- a. Evaluating/mapping existing Copernicus capability / opportunities vs user needs and priorities (across different deliverables)
- b. Gaps & Links with Copernicus
  - i. Water Quality
  - ii. Water quantity
  - iii. In situ
  - iv. Modelling / data assimilation

- c. Bottlenecks & Barriers [*what is slowing down/stopping the implementation*]
- d. Opportunities

5. Priorities & Recommendations (Copernicus evolution)

- a. New developments and products
  - i. Water quality (D4.5)
  - ii. Water Quantity
  - iii. Hydrology
- b. Technical requirements (sensors & platforms, CEOS document)
  - i. Water quality (D4.5; 5.3)
  - ii. Water Quantity (D5.3)
  - iii. Hydrology (D5.3)
- c. In-situ component
  - i. Validation (D4.2; D4.3; D4.4 incl. automated and no-automated measurements)
  - ii. Other platforms [*e.g. Drones, planes, gliders....*]
  - iii. Data sharing (open data) (D4.6)
- d. Data sharing, assimilation, and modelling (D4.3)
- e. Core services and downstream services [*Innovation and achieving market potential*] (e.g. all medium and coarse resolution in Copernicus (global) as a core and the high spatial/temporal in downstream?)
- f. Capacity building
- g. Delivering on SDGs and climate
- h. Regional priorities
- i. Scenarios and benefits based on the analysis of all above mentioned topics (e.g. keeping status quo; adding a WATER portal to the current six; combining all water services under one of the current six, creating a new WATER service), other options)