



## TOPIC SYNTHESIS SESSION DESCRIPTION FORM

### 10<sup>TH</sup> WORLD WATER FORUM

Draft v03

**Session Code and Title:**

Topic Synthesis Session 6D - Upscaling of water information systems

**Topic Coordinators (Name, Position, Organization, email, mobile number):**

Paul Haener - Head of international projects on water information systems

International Office for Water (OiEau) [p.haener@oieau.fr](mailto:p.haener@oieau.fr)

**Session Description (300 words):**

**Efficient water resource management requires a data driven approach** that involves generating, integrating, processing, interpreting, and using data. This approach is indispensable for informed decision-making and public dissemination of information since effective management necessitates continuous monitoring. However, the availability and accessibility of data pose significant challenges.

Data serves as the foundational material for digitalization, yet it often remains deficient, fragmented, inaccessible or difficult to reuse. Indeed, water management requires to integrate data from multiple topics including hydrology, groundwater, water uses, infrastructure management, risk management... and whatever the country or basin, the existing datasets on these topics are always produced by multiples actors having their own objectives and internal procedures.

The 3 sessions developed in the frame of the 6D topic have shown that:

- New **data production** processes leveraging remote sensing, Internet of Things (IoT), and crowd-sourcing offer cost-effective alternatives, particularly beneficial in data-scarce regions, and artificial intelligence (AI) can also be considered to generate new simulated datasets.
- **The data sharing** should be reinforced relying on existing resources, establishing frameworks for cooperation in data sharing answering needs and respecting the roles of each partner, promoting the use of common language and procedures, allowing shared and integrated data management based on subsidiarity and FAIR (findable, Accessible, Interoperable, reusable) datasets principles.
- Availability of data is fundamental to feed **decision making and operational processes** in many water management sectors (some of these processes including modelling, IA and/or other tools) as well as for **public information and scientific mediation**.

After a reminding of the key messages of the 3 sessions, this synthesis session will underline the importance and benefits to reinforce data production and shared data management. It will also give a new opportunity to exchange on how to reinforce the strategies and the framework for cooperation /collaboration between the various levels of actors (local, basin national regional..) in order to **mutualize efforts and optimize the use of the new processes such as remote sensing products and of the new technologies related to data management and information production**.

**Key messages (2 maximum)**

1. Implementing innovative methods can lower the costs of data production, streamline data sharing processes, and enhance collaborative data management, thereby strengthening the foundation of a data-driven approach crucial for guiding decision-making processes, operational efficiency, and effective communication of public information and scientific findings.

2. Cooperation between institutions of various levels could contribute to optimize the use of new resources such as remote sensing products and develop new approach such as the Digital Twin Environment on water resource management, this reinforcing the already existing positive return on investment generated by upscaling water information systems.

### Concrete outcomes (2 maximum)

1. Raising the attention of deciders at each level (basin, national, transboundary, regional, global) on the benefits to develop data production and a data driven management relying on strategies integrating new technologies, sustainable governance and financing frameworks, common procedures and capacity building.

2. Promoting working groups involving representatives of various level of action in order to mutualize efforts and optimize the use of the new processes such as remote sensing products and of the new technologies such as the development of Digital Twin Environment on water resource management

### Detailed Session plan:

ESTIMATED TIMING	ITEM DESCRIPTION / ROLE	SPEAKERS	SPEAKERS STATUS (OK OR TBC)
10	Introduction/ setting the scene for this	P.Haener, Head of international projects on Water information systems, International Office for Water (OiEau), p.haener@oieau.fr	OK
10	Key message of 6D1 - Innovating in data production	Eunjeung Shim, Principal Researcher, Korea Institute of Hydrological Survey (KIHS), ejshim@kihs.re.kr	OK
10	Key message of 6D2 - Boosting Data Sharing and Governance	Bjorn Kaare Jensen, Water4All	OK
10	Key message of 6D3 - Transforming and upscaling data into information for science and digital based decision	Patricia Mejias-Moreno, AQUASTAT Coordinator, Food and Agriculture Organization of the United Nations (FAO)	Tbc
40	Round table including representatives of various levels :	Global <ul style="list-style-type: none"> <li>- Dominique Berod (WMO) <ul style="list-style-type: none"> <li>o ? Stephan?</li> </ul> </li> <li>- Ms Selma Sherchali (CNES)</li> <li>- INBO Representative - Irene Felix, Deputy director of AELB</li> <li>- FAO representative (SG?)</li> </ul> Regional: Franz Rojas- Head of Water and Sanitation Division at CAF  National : Mr. Mohammad Irfan Saleh (Bappenas/ID)  Transboundary : Ms. Edith Paredes - Amazon Co-operation Treaty Organization representative	OK Tbc OK Tbc  OK  Tbc  Tbc
10	Debrief	OIEau or global organization representative	OK