



SESSION DESCRIPTION FORM 2.

10TH WORLD WATER FORUM

This Session Description Form 2 is for the specified program of the session. Please complete this form no later than 28th of February 2024.

**The session description 1 (online form) is separately requested for the session coordinators to deliver a concise session outline with the contact info and the logistical requests.*

Session Code and Title:

6D1: Innovating in data production

Session Coordinators (Name, Position, Organization, email, mobile number):

- Coordinator : Eunjeung Shim, Principal Researcher, Korea Institute of Hydrological Survey (KIHS), ejshim@kihs.re.kr +82-10-8470-7901
- Co coordination: P.Haener, Head of international projects on Water information systems, International Office for Water (OiEau), p.haener@oieau.fr

Session Description including objectives and expected outcomes (500 words maximum):

Efficient water resource management requires a data driven approach that involves generating, integrating, processing, interpreting, and using data. This is crucial, especially for decision-making and for providing information to the public.

Objective:

The session will aim to 1) Presenting innovative and cost-effective solutions for producing new data useful for water resource management. 2) Exchanging on how these new cost-efficient data production processes may be integrated to support an efficient data-driven water resource management including adequate governance and cross-cutting data management policies

Key take-away messages for participants

- Efficient water resource management requires a data driven approach that involves generating, integrating, processing, interpreting, and using data. This is crucial, especially for decision-making and for providing information to the public: we cannot manage something that we cannot monitor!
- New data production processes such as the ones linked to remote sensing, and also to Internet of Things (IoT), artificial intelligence (AI), and crowd sourcing can significantly contribute to cost-effective data production. They are useful to complete efficiently the traditional data production processes particularly in low data density areas.

Structure of the session

The introduction will set the scene about innovation in data production, introducing part I & part II.

Part 1 will focus on spatial altimetry and others innovations in hydrological data production processes, due to the importance of this topic for all water resource management, and due to the new and very important new potentialities offered by SWOT water resource management.

Part 2 will present innovation on data production related to other topics such as surface water quality, evapotranspiration, water uses ...

Each part will be composed of:

- 2 presentations for introducing the topic (20min)
- Panel expert discussion (20 min) with questions from the animator and from the public

The conclusion will highlight the main key point of the discussion underlining the importance of innovation in data production.

The expected outcomes are:

- 1/ Enhanced understanding and knowledge of new and advanced technologies to produce cost-efficient water data for effective water resource management.
- 2/ Enhanced understanding on how these new data production processes can be integrated to upscale their water information system for decision-making and for providing water information to the public.

Especially the session will set the scene about innovation in data production with participants and the public. Furthermore, It can envision opportunities for water producers and users to appropriately apply and introduce new water production technologies and form water networks.

Detailed Session plan:

| ESTIMATED TIMING | ITEM DESCRIPTION / ROLE | SPEAKERS | SPEAKERS STATUS (OK OR TBC) |
|------------------|--|---|-----------------------------|
| 5 min | Introduction to the session | Ms. Eunjeung Shim(kihs) / Mr. P. Haener (OiEau) | OK |
| 10 min | Part I : Pres 1 Innovations on spatial altimetry with a focus on the potentialities offered by the new satellite SWOT for the surface water budget assessment | Ms Alice Andral or Mr. Jean-Philippe LUC CLS (EOI 13) + Ms Selma Sherchali (CNES) | OK |
| 10 min | Part I : Pres 2 Example of integration and use of SWOT satellite products for transboundary water resource management in Africa | Mr. C Brachet (Eol 5) | OK |
| 20 min | Part I : expert panel | Ms Alice Andral or Mr. Jean-Philippe LUC (CLS) | TBC |

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| | Exchanges about the implementation of new spatial altimetry processes and other innovations in terms of hydrological data production in the water resources management sector | Ms Selma Sherchali (CNES) Dr Ababakar MBAYE (OMVS) Mr. Dominique Berod (WMO-OMM) Mr. Mohammad Irfan Saleh (Bappenas/ID) | |
| 10 min | Part II : Pres 1 Exploitation of satellites to monitor the quality of surface waters and the impact of urban waste water discharge (MARU project) | Mr. Sergio Razera + IRD representative (Fundação Agência das Bacias dos Rios Piracicaba, Capivari e Jundiá) + IRD representative (tbc) | TBC |
| 10 min | Part II : Pres 1 Introduces the spatially expanded application of evapotranspiration and soil moisture observations using cutting-edge technology | Mr. Kiyong Kim (EOI 8) (KIHS) | OK |
| 20 min | Part II : expert panel Fast Track towards improving data density; opportunities related to new technological opportunities, how optimize the innovation in surface water quality data, water use, evapotranspiration ... / how to promote new tech and networks for sharing experiences eg LinkedIn networks / youtube channels in relation to innovation in data production | Mr. Sergio Razera (EOI 3) + IRD representative/ Ms. JIAN PU UNU-IAS (EOI 7) Mr. Sanguk Cho (EOI 10) (Korea Institute of Hydrological Survey in Korea) Mr. Mohammad Irfan Saleh (EOI 12)/ Ms Simone Benassi (Itaipu/BR) | TBC |
| 5 mn | Conclusion | Mr. P. Haener/ Ms. Eunjeung Shim | OK |