Earth Observation and the global water challenges

IWA's Perspective

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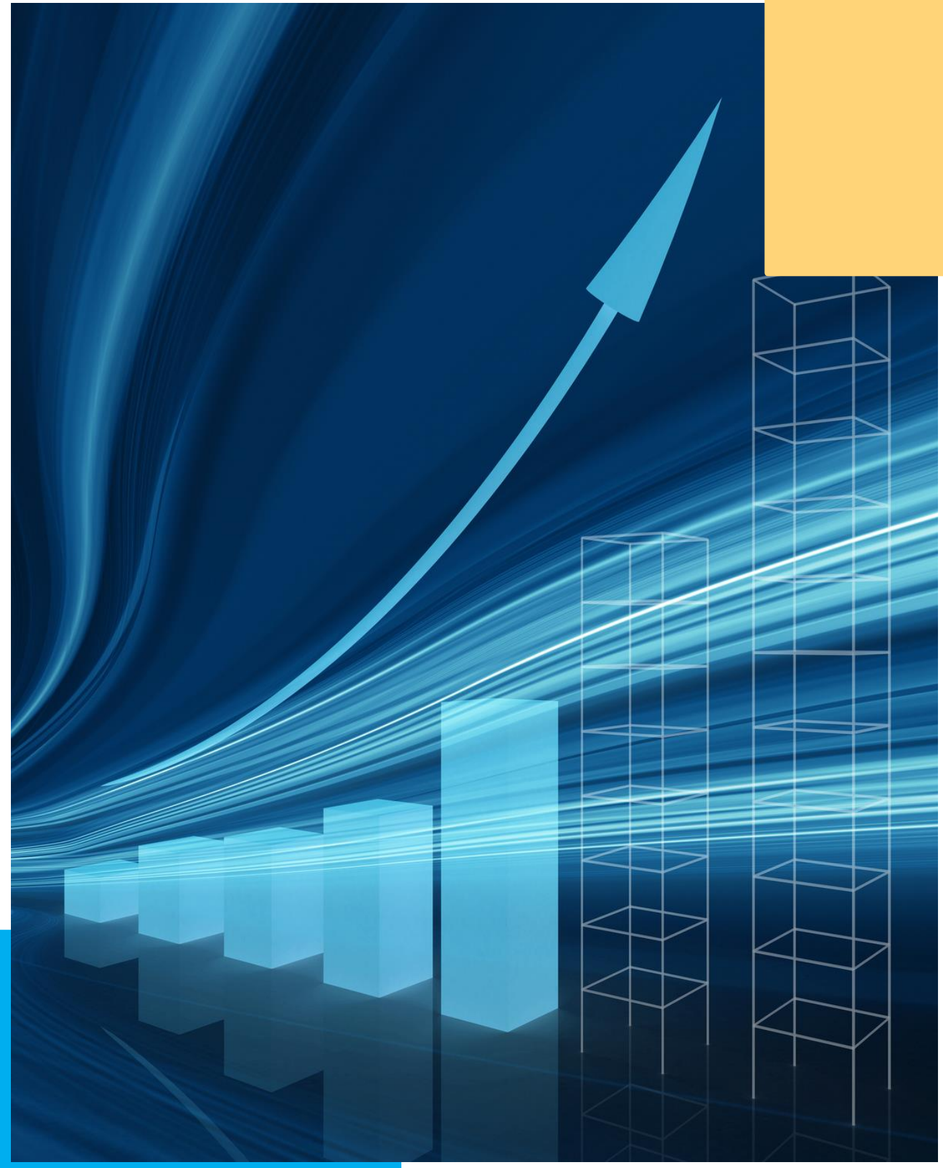

A BRIEF OVERVIEW OF THE IWA

Our Strategy

Pioneering Science: We contribute to water science and technology by stimulating leading edge science and inventions, and helping scientists connect to their peers, publish their latest findings and help others learn with them.

Innovating Technology: We offer support and recognition to innovators in the world of water as technological innovations are key to changing the future of water.

Our Values

- Inclusivity
- Science- & Practice-Based
- Service Oriented
- Excellence

IWA'S DIGITAL JOURNEY

IWA Digital Water Programme

The IWA Digital Water Programme helps facilitate the journey of the water industry towards digital uptake and integration into water services. It is a gateway for water utilities to access knowledge on the application of digital approaches to improve capacity and performance.

PrimeWater

PrimeWater was designed to impact (a) research in the fields of EOs, and hydrological and ecological modelling, (b) innovation in the water sector and the downstream sector of the European space market, (c) specific societal and environmental challenges, and (d) policy implementation.

Community of Practice

The Earth Observation (EO) for water management subgroup brings together experts from different sectors of the water industry interested in the use of Earth observation technologies for improved water quality and quantity management.

EO Insights

Through PrimeWater, we had the opportunity to hear from EO practitioners and experts about their experiences.

BARRIERS, EFFECTS, AND SOLUTIONS

Causes	Effects	Solutions
Lack of reliable data/monitoring	• Inconsistent/decreased service provision • Hesitance to uptake by utilities and policymakers • Loss of aquaculture/stock/produce	• Coupling EO services with other methodologies (climate models, machine learning, local knowledge) • End-user capacity building specific to region/sector • Data and experience sharing
Low capacity (workers and stakeholders un-or misinformed about EO applications)		
Geopolitical hindrances		

POLICY RECOMMENDATIONS

- Digital water solutions, skills and collaboration need to be enhanced in the EU water sector. Investments in R&D and capacity building in the fields of Earth Observation and digital water solutions should be prioritised to build a water-smart society.
- A holistic approach is necessary for integrated water resources management, which should include harmonisation and guidance on technologies and digital applications.
- A dedicated initiative on Digital Water in the EU can improve water management in an era of digitalisation and ensure coherent integration with relevant programmes, policies and strategies of the European Union.
- As part of the twin green & digital transition, policymakers should drive innovation and sustainability in the European water sector through targeted investments and initiatives

In Summary...

- Earth observation technologies are crucial for improved water management.
- As the International Water Association, we support the continued innovation and improvement of digital technologies to address the global water challenges.

Thanks for your attention!

Erin Jordan

Contact:

Join the IWA E04WAT Community of Practice