

# FreshMon

## High Resolution Freshwater Monitoring: FreshMon GMES Downstream Services

### PROTECTING INLAND WATERS

Europe is home to thousands of rivers and lakes, yet across the continent, these rich ecosystems are under significant pressure from agriculture, economical development and climate change. The project FreshMon is set to deliver new tools that authorities need to protect our inland waters.

The EU is dedicated to protecting the quality of Europe's water. Most importantly, the EU Water Framework Directive obliges regional and national authorities to implement monitoring programmes in order to obtain a coherent and comprehensive overview of the state of each lake and river in order to sustain these aquatic ecosystems.

The FreshMon project will implement and provide water quality services for rivers and lakes based on the integration of Earth Observation, in-situ measurements of biological parameters and hydrodynamic modelling components.

In this respect, the project will respond to the demand from authorities for reliable information about water constituents and water depth in Europe's fresh water system.

Adding space data to in-situ measurements facilitates the establishment in Europe of a coherent and comprehensive overview of the state of each river and lake, thereby facilitating comparisons and the exchange of best practices amongst authorities responsible for the protection of these ecosystems.

Further to the development and marketing of services, FreshMon also intends to establish a European business network of European water service providers and end-users. A long-term self-sustainability of the GMES downstream service may only be achieved by a clear and precise separation of public-funded services and customer-driven downstream services. In this context, FreshMon will develop an operational business model for value-adding SMEs and provide stimuli to the economic exploitation of GMES technology worldwide.



**CLAUDIUS MOTT**  
IS PROJECT COORDINATOR

### QUESTIONS & ANSWERS

#### What do you want to achieve with this project?

FRESHMON will establish a network of service providers for satellite based monitoring of water quality and bathymetry in inland waters, rivers and coastal zones. As a GMES downstream service, the demands of both, industry and public sector, are taken into account.

#### Why is this project important for Europe?

FRESHMON will enlarge the European User community and improve the acceptance of Earth Observation products by integrating modelling and in-situ components. Further, the efficient exploitation of the upcoming European satellite programme Sentinel will be prepared.

#### How does your work benefit European citizens?

By providing operational up-to-date monitoring, the implementation of European environmental legislation will be promoted. On the long-term this will provide stimuli to the economic exploitation of GMES technology worldwide and strengthen European competitiveness.



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**FreshMon will offer Earth Observation (EO) based water quality services to support national and European authorities responsible for inland water quality in rivers and lakes.**

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## LIST OF PARTNERS

- Brockmann Consult GmbH, Germany
- Water Insight BV, The Netherlands
- Suomen ympäristökeskus (SYKE), Finland
- Eidgenössische Anstalt für Wasserversorgung, Abwasserreinigung und Gewässerschutz (EAWAG), Switzerland

## COORDINATOR

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## PROJECT INFORMATION

High Resolution Freshwater Monitoring: FreshMon GMES  
Downstream Services (FreshMon)  
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Estimated total cost: € 2.714.300

