

WP4 - Aligning in situ and satellite Earth observation activities

Project Identification	
Project Full Title	Water scenarios for Copernicus Exploitation
Project Acronym	Water-ForCE
Grant Agreement	101004186
Starting date	01.01.2021
Duration	36 months

Document Identification	
Deliverable number	D4.1
Deliverable Title	An international "live" working group for in situ and satellite EO monitoring
Type of Deliverable	Other
Dissemination Level	Public (PU)
Work Package	WP4
Lead Partner	EMU

History of Changes		
Date	Version	Comments
24.05.2021	V0	First Draft
26.05.2021	V1	Edited by Stefan Simis
01.03.2022	V2	Edited according to the Review Report 1



List of Acronyms

EO	Earth Observation
GDPR	General Data Protection Regulation
RS	Remote Sensing
WG	Working Group
WP	Work Package

Table of Contents

1.- Establishing the list of experts	2
2.- An international “live” working group for <i>in situ</i> and satellite EO monitoring	5
3.- Future planned involvement of the established WG in Water-ForCE activities	5

1.- Establishing the list of experts

The overall objective of WP4 is to establish clear links between *in situ* and satellite observation networks to ensure that they can mutually benefit from data collection and sharing. It is essential that *in situ* and satellite data are comparable at absolute levels, which requires a coordinated strategy for sampling and deployment *in situ* and access to the same planning tools and historical records. WP4 will give advice on how to ensure that interoperable data from *in situ* measurements can be made available for operational calibration and validation of space-based sensors across different systems and sites in the inland water domain, meanwhile securing principles of data ownership for long-term sustainability of observation networks. This will ultimately lead to recommendations on the inclusion of optical-biogeochemical water quality and water quantity in the Copernicus In Situ Component framework.

To establish WP4 objectives, we needed to identify experts in both domains: Aquatic Remote Sensing (RS) and *in situ* (IS) monitoring networks all around the globe, who would be willing to share their expertise and experienced opinion. As a first step, aquatic RS experts and members of *in situ* monitoring networks were invited to the first Water-ForCE WP2-WP4 Workshop on *in situ* cal/val of satellite products of water quality and hydrology (17/5, 18/5 and 20/5/2021). The programme, presentations and the outcomes of the workshop are shared through the project web site:

<https://waterforce.eu/workshops/in-situ-calibration-and-validation-of-satellite-products-of-water-quality-and-hydrology>



During the registration phase to this workshop, all the experts were asked to give their explicit consent to be part of the public Water-ForCE List of Experts (GDPR compliant) and to express their interest to contribute formally to the Water-ForCE project.

Table 1.- RS and/or *in situ* (IS) experts in water quality and quantity agreeing to contribute as experts to Water-ForCE project (Highlighted names correspond to Water-ForCE Consortium Members)

First name	Last name	Organisation	Expert area
Abolfazl	Irani Rahaghi	Eawag - Swiss Federal Institute of Aquatic Science and Technology	RS
Alo	Laas	Estonian University of Life Sciences	IS
Ana Belen	Ruescas	Brockmann Consult	RS
Ann	van Griensven	Vrije Universiteit Brussel	RS/IS
Antoine	Mangin	ACRI-ST	RS
Arnold	Dekker	SatDek - CSIRO	RS
Bas	Ibelings	University of Geneva	IS
Björn	Baschek	Federal Institute of Hydrology	RS
Blaize	Denfeld	SITES - Swedish Infrastructure for Ecosystem Science/ SLU	IS
Blake	Schaeffer	US EPA	RS
Bringfried	Pflug	German Aerospace Center	RS
Camille	Minaudo	EPFL Swiss Institute of Technology	IS/RS
Carmen	Cillero Castro	3edata	IS/RS
Chris	Mannaerts	Department Water Resources - ITC - University of Twente	RS
Daniel	Vázquez	ITAIPU – CIH	RS
Daniel	Odermatt	Eawag - Swiss Federal Institute for Aquatic Science and Technology	IS/RS
David	Hamilton	Griffith University	IS
Diana	Vaiciute	Marine Research Institute, Klaipeda University	IS/RS
Dimosthenis	Traganos	German Aerospace Center (DLR)	RS
Eleanor	Jennings	Dundalk Institute of Technology	IS
Evangelos	Spyrakos	University of Stirling	RS
Frank	Annor	Trans-African Hydro-Meteorological Observatory (TAHMO)	RS
Gerardo	Perillo	Instituto Argentino de Oceanografia	IS
Hans	van der Kwast	IHE Delft Institute for Water Education	RS



Hongtao	Duan	Nanjing Institute of Geography and Limnology, Chinese Academy of Sciences (NIGLAS)	IS/RS
Igor	Ogashawara	Leibniz Institute of Freshwater Ecology and Inland Fisheries	RS/IS
Ils	Reusen	VITO Remote Sensing	RS
Janet	Anstee	CSIRO	RS
Jean-Francois	Cretaux	Centre National D'études Spatiales (CNES)	RS
Jens	Nejstgaard	Leibniz-Institut für Gewässerökologie und Binnenfischerei (IGB)	IS
Kathleen	Weathers	Cary Institute of Ecosystem Studies	IS
Kerstin	Stelzer	Brockmann Consult	RS
Laurence	Carvalho	UK Centre for Ecology & Hydrology	IS
Lauri	Arvola	University of Helsinki	IS
Liesbeth	De Keukelaere	VITO Remote Sensing	RS
Mariano	Bresciani	CNR-IREA	IS/RS
Martin	Ligi	University of Tartu	IS/RS
Matt	Fry	UK Centre for Ecology and Hydrology	IS
Nick	van de Giesen	Delft University of Technology	RS
Nicole	Pinnel	German Aerospace Center (DLR)	RS
Nima	Pahlevan	SSAI / NASA Goddard Space Flight Center	RS
Olivier	Burggraaff	Leiden University	IS
Paul	Hanson	University of Wisconsin-Madison, Center for Limnology	IS
Peter	Gege	German Aerospace Center (DLR)	RS
Philipp	Saile	International Centre for Water Resources and Global Change, German Federal Institute of Hydrology	IS
Raquel	de los Reyes	German Aerospace Center (DLR)	RS
Sajid	Pareeth	IHE Delft Institute for Water Education	RS
Sindy	Sterckx	VITO Remote Sensing	RS
Steeff	Peters	Water Insight BV	RS
Stefan	Simis	Plymouth Marine Laboratory	IS/RS
Stephan	Dietrich	International Centre for Water Resources and Global Change,	IS



		German Federal Institute of Hydrology	
Stephanie	Hampton	Washington State University	IS/RS
Steven	Greb	GEO AquaWatch	RS
Suhyb	Salama	University of Twente	RS
Thomas	Hein	University of Natural Resources and Life Sciences, Vienna	IS
Tiit	Kutser	University of Tartu	RS
Tim	Malthus	CSIRO	RS
Ulf	Mallast	Helmholtz-Centre for Environmental Research - UFZ / eLTER	IS
Valerie	McCarthy	Dundalk Institute of Technology	IS
Valery	Vuglinsky	State Hydrological Institute	RS
Vittorio	Brando	CNR-ISMAR	RS
Yannick	Huot	Université de Sherbrooke	RS

2.- An international “live” working group for *in situ* and satellite EO monitoring

The Water-ForCE project partners collaborating in WP4 and all the international experts who have accepted to share their expert opinion, will form “An international “live” working group for *in situ* and satellite EO monitoring”. It is expected to have more experts joining this working group (WG) during the whole life of the Action.

The current list of active members of this WG is publicly available in the Water-ForCE project webpage (www.waterforce.eu).

3.- Future planned involvement of the established WG in Water-ForCE activities

The leading partner of WP4 and WP4 task leaders will put in place different activities and communication channels to effectively gather the opinion and knowledge of the members of this established WG. This gathered information will be part of WP4 deliverables (D4.2-D4.6).

The planned activities will include the invitation to some of the WP4 future meetings and the organization of smaller workshops. WG members opinion and recommendations will be collected through surveys and online or face-to-face dedicated meetings.



WG members will be also asked to look over and give their expert opinion to the WP4 milestone 4.2 (M4.2): In situ data collection, calibration and validation recommendations for the Water-ForCE Roadmap.

