

WORKSHOP PROGRAMME: 17th May 2021, 13:00 - 16:00 CEST

In situ calibration and validation of satellite products of water quality and hydrology

Session 1: Data availability, Accessibility and quality gaps		
12:50	13:00	Join Meeting: https://us02web.zoom.us/j/83309744622?pwd=SGlqbVRKM0pPcERzaFRyciRzeStsUT09 Meeting ID: 833 0974 4622 Passcode: 735253
13:00	13:10	Introduction to Water-ForCE (Tiit Kutser, Tartu University)
13:10	13:15	Workshop aims / housekeeping (Stefan Simis, Plymouth Marine Laboratory)
13:15	13:25	Input from Copernicus In Situ: Hydrology monitoring requirements (Matthew Fry, CEH)
13:25	13:35	Input from Copernicus In Situ: Water quality monitoring requirements (Kerstin Stelzer, Ana Ruescas, Brockmann Consult)
13:35	13:50	Input from Expert Survey "Key variables availability and quality" Nicola Horsburgh (University of Stirling), Stefan Simis (Plymouth Marine Laboratory)
13:50	14:00	Introduction to breakout sessions
14:00	14:15	(Virtual) Stretching Break and networking opportunity Wonder.me room: https://tinyurl.com/waterforce
Moderated Breakout Sessions		
14:15	15:00	Breakout sessions (0:45h) along three themes
		1: Addressing current gaps in hydrological measurands for satellite cal/val using currently available solutions
		2: Addressing current gaps in water quality measurands for satellite cal/val using currently available solutions
		3: Addressing a common approach to data quality procedures, documentation, harmonisation and evolution
		Instructions: Discuss which gaps in variables are critical/essential/useful/additional to address? How should the associated R&D need, effort, cost, training requirement be organised and monitored?
		Expected Outputs: <ul style="list-style-type: none"> - Summarize the main gaps: spatial vs temporal, collection vs access, quality vs cost vs technology? - (2-3) recommendations towards the in situ community to resolve gaps with present capabilities - (2-3) recommendations towards the remote sensing community to resolve gaps - (2-3) recommendations on international networking, funding to resolve gaps
Discussion		
15:00	15:40	Debrief from Breakout Groups - report back on recommendations
15:40	15:50	Brief Summary, Next Steps (PML)



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Session 2: Emerging technologies to address current gaps		
12:50	13:00	Join meeting: https://us02web.zoom.us/j/89504000808?pwd=blg5ZGV1b2d3b3RLNG1hN3NrRmlOZz09 Meeting ID: 895 0400 0808 Passcode: 548212
Welcome		
13:00	13:10	Welcome (Igor Ogashawara, IGB)
13:10	13:20	Input to workshop: Advancing aquatic science and EO cal/val using optical measurements by an automated profiler (Daniel Odermatt, Camille Minaudo, Abolfazl Irani Rahaghi and Alfred Johny Wüest, EAWAG/EPFL)
13:20	13:30	Input to workshop: Cost-effective soil moisture CAL/VAL based on neutron counting along a wet-to-dry gradient in West Africa (Nick van de Giesen, Delft University of Technology)
13:30	13:40	Input to workshop: State of the art and future developments on remote sensing for water quantity estimation (María José Escorihuela, IsardSAT)
13:40	13:50	Input to workshop: Radiometric measurements: requirement, solution offered and recommendations (Kevin Ruddick, HYPERNETS)
13:50	14:00	Input to workshop: Alternative technologies for calibration and validation of water quality EO (Stefan Simis, H2020 MONOCLE)
14:00	14:20	(Virtual) Coffee Break and networking opportunity Wonder.me room: https://tinyurl.com/waterforce
Moderated Breakout Sessions		
14:20	14:30	Introduction to breakout session “Technical capabilities - the state-of-the-art, horizon scanning” (report from survey) (Igor Ogashawara, IGB)
14:30	15:15	Breakout sessions (0:45h) along the following themes
		<ul style="list-style-type: none"> Breakout 1: Define recommendations for hydrological monitoring technologies Breakout 2: Define recommendations for water quality monitoring technologies
		<p>Instructions: Discuss which gaps and limitations of current technology for CAL/VAL? Can innovative technology help to fill these gaps and limitations? How should the associated R&D need, effort, cost, training requirement be organised and monitored?</p> <p>Expected Outputs:</p> <ul style="list-style-type: none"> - Make (2-3) recommendations on what technology should be used in existing moored platforms which can help with EO CAL/VAL (What type of sensors are needed? Expensive, affordable or DIY sensors?) - Make (2-3) recommendations on which alternative technologies (citizen science, UAV, apps) should (or can) be adopted for EO CAL/VAL - Make (2-3) recommendations, what should be the outcome of R&D in terms of technologies? What should be developed in 5 years time? - Make (2-3) recommendations for capacity building and funding (i.e. to install new equipments on existing platforms)
Discussion		
15:15	15:45	Debrief from each Breakout Group - report back on recommendations
15:45	16:00	Summary and Next Steps (Igor Ogashawara, IGB)



WORKSHOP PROGRAMME: 20th May 2021, 13:00 - 15:40 CEST

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Session 3: Data sharing, harmonisation, quality monitoring		
12:50	13:00	Join Meeting: https://us02web.zoom.us/j/83524808856?pwd=K05iOTloZU1mdGI0VGhxZk4yamtjZz09 Meeting ID: 835 2480 8856 Passcode: 025207
Welcome		
13:00	13:10	Welcome, objectives (Peter Walker, Stefan Simis, Plymouth Marine Laboratory)
13:10	13:20	Input to workshop: Recommendations from Global Terrestrial Hydrology Network (Stephan Dietrich)
13:20	13:30	Input to workshop: Recommendations from GEMStat (Philipp Saile)
13:30	13:40	Input to workshop: FAIR data (Peter Thijsse - ENVRI-FAIR)
13:40	13:50	Input to workshop: Recommendations from OGC (Marie-Françoise Voidrot - OGC)
13:50	14:00	Input from Expert Survey "Data harmonization and sharing" - Peter Walker (Plymouth Marine Laboratory)
14:00	14:15	(Virtual) Stretching Break and networking opportunity Wonder.me session: https://tinyurl.com/waterforce
Moderated Breakout Sessions		
14:15	15:00	Breakout sessions (0:45h) along the following themes
		Breakout 1: Define recommendations for hydrological in situ data networks
		Breakout 2: Define recommendations for water quality in situ networks
		Discuss at least the following: <ul style="list-style-type: none"> - Are existing network(s) fit for purpose, what should be improved? - Which stakeholders can/should be activated to improve data availability - Which actions should be taken to improve data harmonization - Which actions should be taken to improve data sharing
		Expected Outputs: <ul style="list-style-type: none"> - Which proposed practises should be more widely adopted? Which are priority actions? - Formulate (2-3) community data sharing principles to address current shortcomings - Make (2-3) recommendations to remote sensing and in situ data services / networks on how synergies can be improved
Discussion		
15:00	15:30	Debrief from each Breakout Group - report back on recommendations
15:30	15:40	Summary and Next Steps (Peter and Stefan PML)

