

**Preliminary agenda for the ISSI GALENE workshop
Berne-Switzerland (July 10-12, 2023)**

(May 16, 2023)

The objective of this workshop is to discuss the requirements and main components of a future satellite mission that will be dedicated to the observation of coastal and inland aquatic ecosystems.

The time period of GALENE workshop is as follows:

Start: July 10, 2023 at 9h00 am

End: July 12, 2023 at 2h pm.

This document provides a preliminary list of the various topics that need to be discussed during the workshop. Note, the names mentioned in brackets are suggestions and they could be changed/adjusted.

Please note that presentations in a 1 hour slot should be max 30 min to allow 30min for Q&A.

Day 1 – 10 July 2023

A. Setting the scene and expected outcome

- 9:00 – 9:15 Welcome introduction by ISSI director (M. Rast)
- 9:15 – 9:30 Aim of workshop and definition of outcomes (A. Damm, D. Odermatt)
- 9:30-10:00 Scientific issues related to future satellite missions (M. Chami, A. Damm)
- 10:-10:30 Coffee break

B. Review of state of the art

- 10:30-11:30 Atmospheric correction and estimates of aerosol optical properties (**X. Briottet**, N. Pahlevan, S. Sterckx)
- 11:30-12:00 Shallow water bottom variables: bottom substrate types and bathymetry in shallow waters (**M. Costa**, A. Dekker, N. Pinnel, T. Kutser)
- 12:00-13:30 Lunch
- 13:30-14:30 Biogenic and carbon cycle related variables - coastal and inland waters (A. Bracher, C. Giardino, D. Odermatt, **T. Kutser**, A. Dekker)
- 14:30-15:30 Suspended matter related variables from hyperspectral and polarimetric data (**S. Garaba**, N. Pahlevan, S. Sterckx, K. Turpie)
- 15:30-16:00 Coffee break
- 16:00-17:00 Wetland: mapping and monitoring (**R. Lucas**, C. Giardino)
- 17:00-18:00 Innovative water surface variables (e.g. plastic litter, oil spill, night observations) (**M. Chami**, S. Garaba, S. Sterckx)
- 18:00-18:15 Summary (A. Damm, D. Odermatt)
- 19:00-21:00 Dinner

Day 2 – 11 July 2023

C. Towards competitive future satellite missions

- 8:45-9:00 Aim for day 2 (A. Damm, D. Odermatt)
9:00-10:30 Discussion about a prioritized list of scientific developments to mature products for future satellite missions (all)
10:30-11:00 Coffee break
11:00-12:30 Discussion on scientific challenges in view of future satellite missions (e.g. to respond to ESA Earth Explorers calls) (all)
12:30-14:00 Lunch

D. Review of mission elements

- 14:00-15:00 On-board calibration concept (**G. Otter**, K. Turpie)
15:00-16:00 Polarimetric measurement requirements (M. Chami, **N. Pahlevan**, K. Turpie)
16:00-16:30 Coffee break
16:30-17:30 Experimental data and validation strategy (in situ infrastructure, L1-L2 product validation (X. Briottet, M. Costa, P. Gege, N. Pahlevan, **S. Sterckx**, K. Turpie, **C. Giardino**)
16:30-17:45 GALENE synergy and mutual benefits with current/planned aquatic and land missions (A. Bracher, A. Damm, C. Giardino, N. Pinnel, N. Pahlevan, **K. Turpie**)
17:45-18:00 Summary
19:00-21:00 Dinner

Day 3 – 12 July 2023

- 8:45-9:00 Welcome and aims of day 3 (A. Damm, D. Odermatt)
9:00-10:00 Hyperspectral bands and Signal to Noise Ratio (SNR) requirements (**P. Gege**)
10:00-11:00 End to End simulator for coastal and inland waters (**P. Gege**)
11:00-11:30 Coffee break
11:30-12:30 Discussion of paper projects, ISSI book chapter and writing assignments (all)
12:30-13:30 Lunch
13:30-14:00 Workshop summary and next steps (A. Damm, D. Odermatt)
14:00 Adjourn