



Breakout Workshop:

## **Merged, long-term ocean-colour products**

### **Co-Chairs:**

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### **Scope and Goals**

This breakout session aims to engage the broader ocean colour user and producer community in the activities of the newly established IOCCG Task Force on *Harmonizing Global Ocean Colour for Long-Term Climate and Ecosystem Monitoring*. The goal is to solicit community input that will help shape the task force's priorities and activities, ensuring that the resulting multi-sensor, long-term ocean-colour products are scientifically robust, practically useful, and widely adopted. By convening this session as a town hall, the task force seeks to foster an inclusive, international dialogue around the challenges and requirements for creating long-term, blended ocean-colour time series, with particular relevance for climate research, operational monitoring, and ecosystem applications.

The session will begin with a short presentation by members of the IOCCG Task Force, outlining its mandate, membership, scope, and current plans. This will be followed by brief lightning presentations (3-5 minutes each) from selected participants who are not members of the task force, intended to showcase user needs, relevant experiences and perspectives, and recent work related to long-term merged ocean-colour products. The majority of the session will then be devoted to open discussion. This interactive portion will provide attendees with the opportunity to share input, voice concerns, and raise priorities directly with task force members. Interventions from both experienced practitioners and new users are encouraged to ensure broad representation across scientific, operational, and applied domains. Outcomes of the session will be used to inform the task force's future recommendations and work plan.

### **Key Questions (3)**

1. What are the most pressing user needs for long-term, multi-mission ocean-colour products (e.g., for climate trend analysis, ecosystem monitoring, fisheries management, or disaster response)?
2. What are the critical gaps in current merged ocean-colour products in terms of spatial/temporal resolution, uncertainty quantification, sensor continuity, or product accessibility?

3. What criteria should define a “climate-quality” or “application-ready” long-term product?
4. What are the key methodological challenges in harmonizing and blending across sensors, including calibration, atmospheric correction, and algorithm consistency?
5. How can the community support efforts to sustain and improve merged data records (e.g., through shared tools, in situ observations, or collaborative validation activities)?
6. What do users envision as essential future capabilities or product features (e.g., uncertainty characterization, region-specific products, spectral harmonization)?