



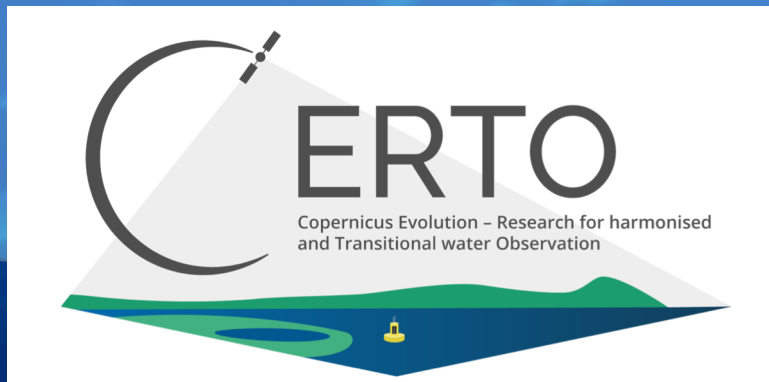
SHAREMED

First Capitalisation Workshop

*Designing the future system of observing systems to assess and address threats to the Mediterranean marine ecosystem
- State-of-the-art, needs and future direction*

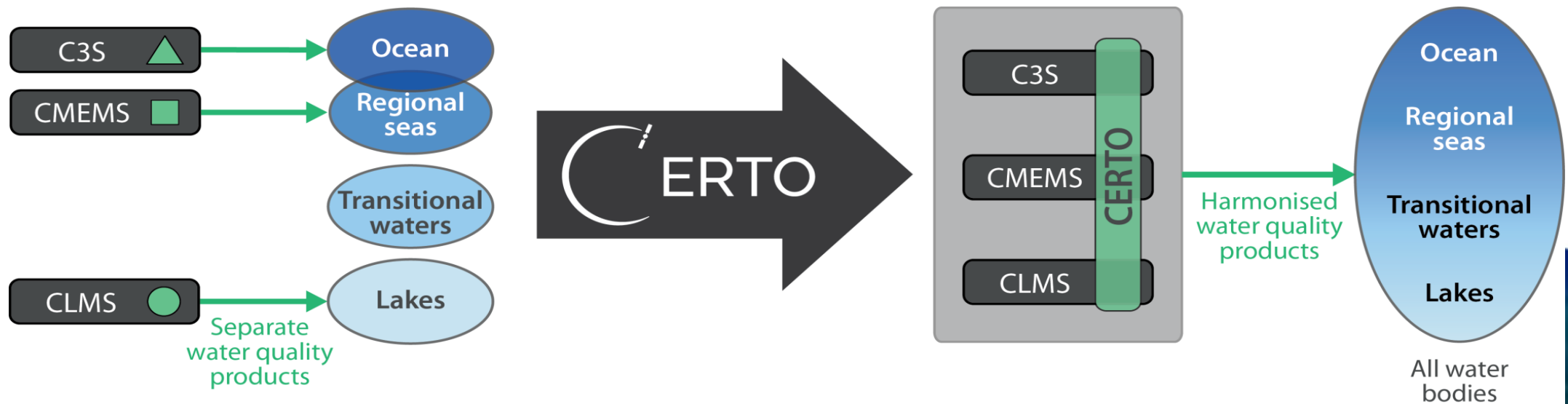
Webinar: 14-15th December, 2020

Steve Groom, Plymouth Marine Laboratory
Copernicus Evolution – Research for harmonised and Transitional-water Observation (CERTO)



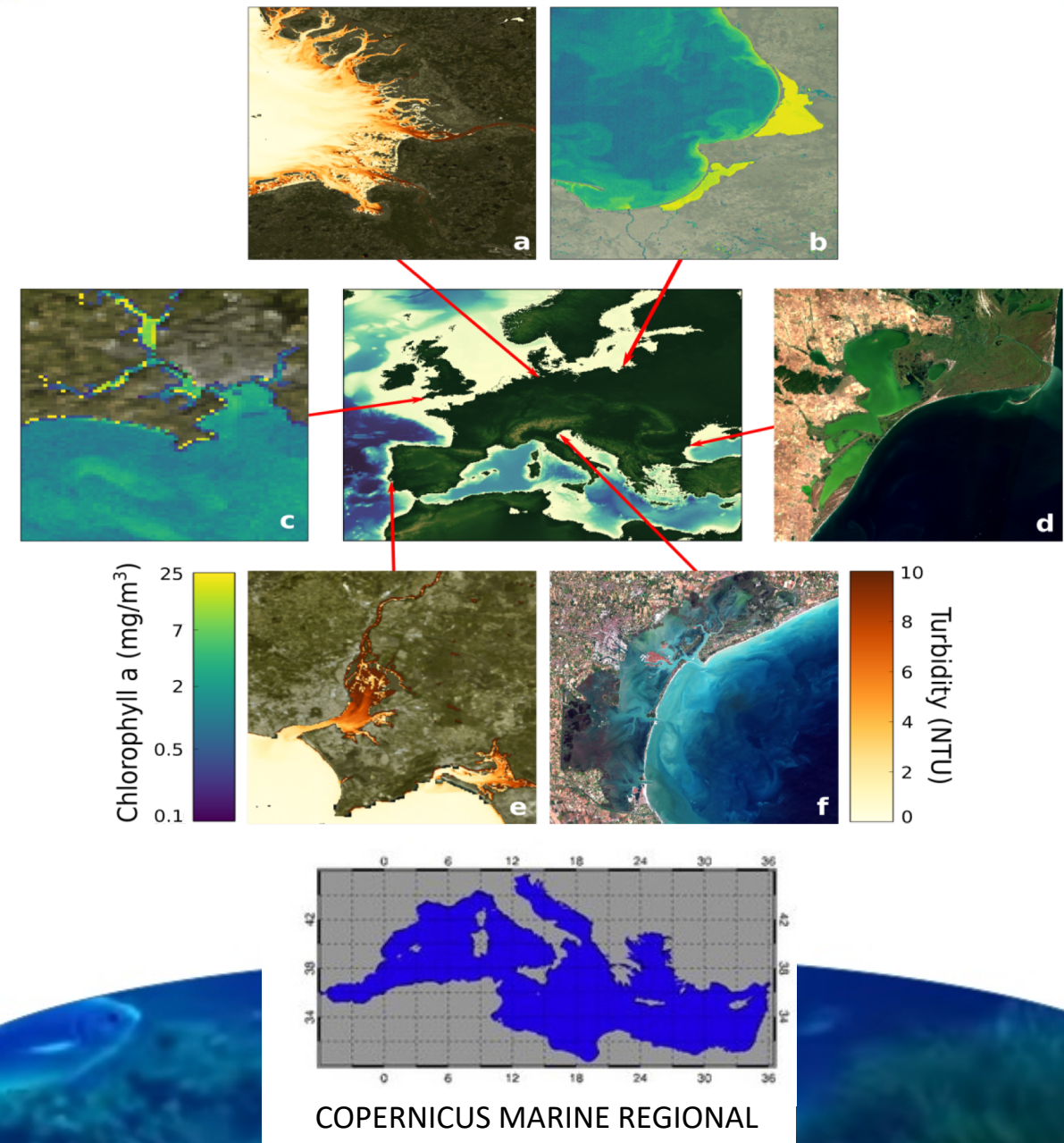
PML | Plymouth Marine
Laboratory

- EC H2020 “Copernicus Evolution – Research for harmonised and Transitional-water Observation” (CERTO) coordinated by Prof. Steve Groom, PML
- Focuses on harmonising satellite water-quality observations (algal blooms, suspended particulates) between Copernicus Services (Marine, Climate Change and Land) and adding support for transitional waters (lagoons, estuaries, rivers and near-coast)
- Jan 2020 – Dec 2022 (pending COVID-19 related extensions that have impacted in situ)



□ Case studies are across Europe and Copernicus Marine regional areas inc. Mediterranean; methods will be applicable pan-Europe/global

- Satellite observations 10m -1km; daily to 3 day
- In situ observations of bio-optical constituents for validation of EO data and regional characterisation
- Water quality data users in industry, monitoring (e.g. MSFD, WFD), academics, downstream service providers /value-adders



- ❑ In situ data will be made available via the open database LIMNADES (limnades.stir.ac.uk)
- ❑ EO data will be produced through Copernicus Services; also via downstream data providers or by end-users via an open-source data processing package (e.g. SNAP)
- ❑ Addressing MSFD, WFD, also downstream applications in industry
- ❑ Water quality variables and indicators harmonised across the water continuum from lakes, rivers, estuaries, lagoons, coastal waters and the oceans




LIMNADES
Lake Bio-optical Measurements and Matchup Data for Remote Sensing data

Welcome to the LIMNADES

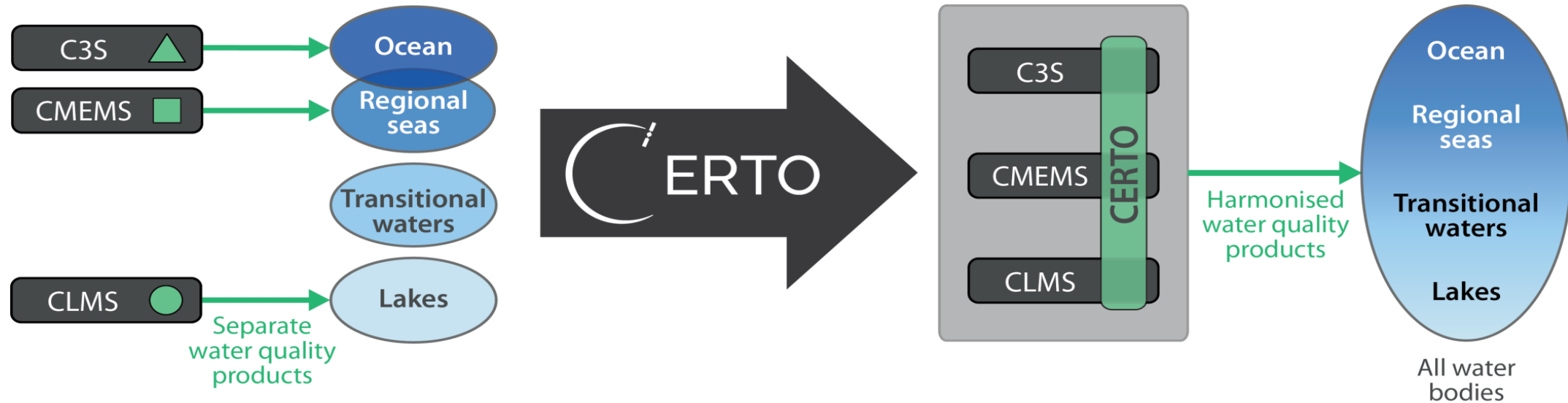
The aim of LIMNADES (Lake Bio-optical Measurements and Matchup Data for Remote Sensing) is to provide a centralised database for in situ bio-optical measurements and satellite match-up data from lakes and coastal waters worldwide. The database is held in trust and maintained by the University of Stirling.



Climate Change Marine Land

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- ❑ Water quality is relevant to environmental threats or risks in the Mediterranean including harmful algal blooms and aquaculture , WFD/MSFD, coastal erosion, bathing waters etc
 - ❑ CERTO addresses a gap in the Copernicus services by extending observations to transitional waters
 - ❑ CERTO is not currently engaged with the European Ocean Observing System (EOOS)
 - ❑ Improved water classification approaches, improved atmospheric corrections, improved spatial resolution of observations

- ❑ CERTO aims to harmonise EO water quality data production across three relevant Copernicus Services
- ❑ CERTO will add observations to critical transitional water



- ❑ <https://certo-project.org/Home>
- ❑ sbg@pml.ac.uk