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Aims

The European Space Agency Ocean Colour Climate Change Initiative project aims to:

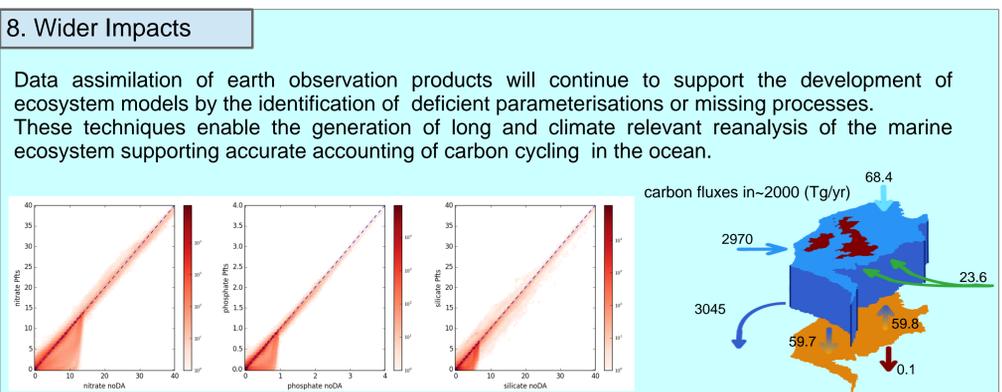
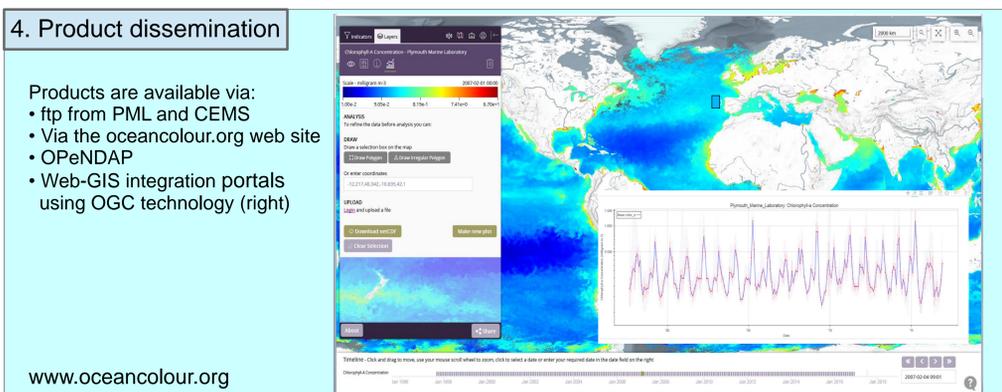
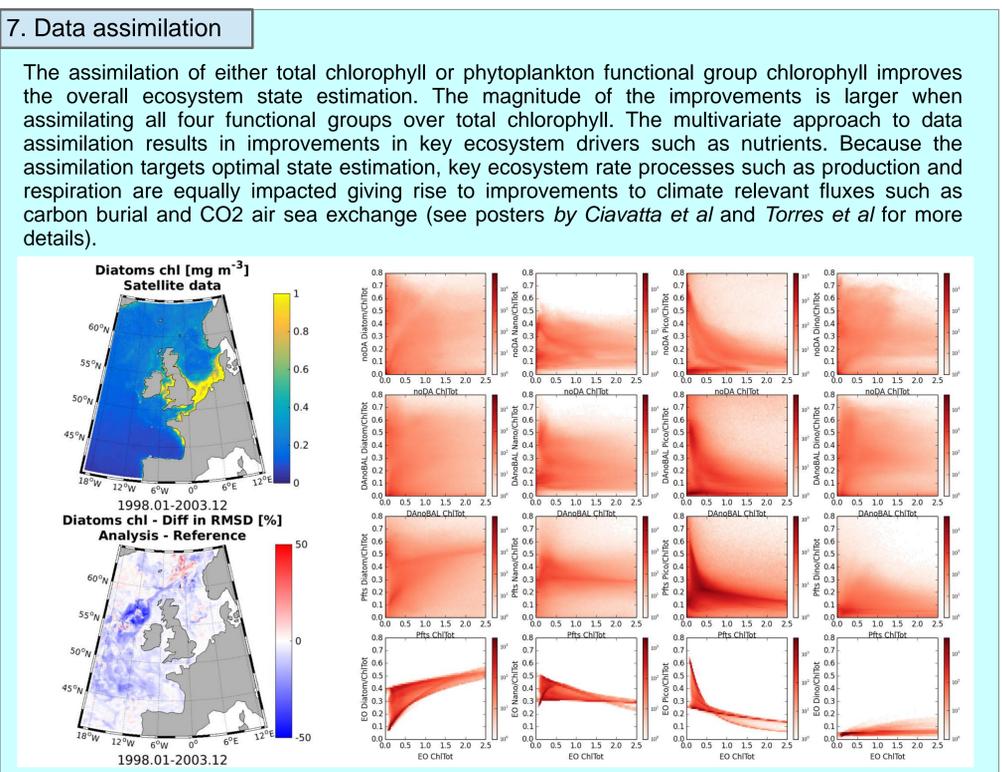
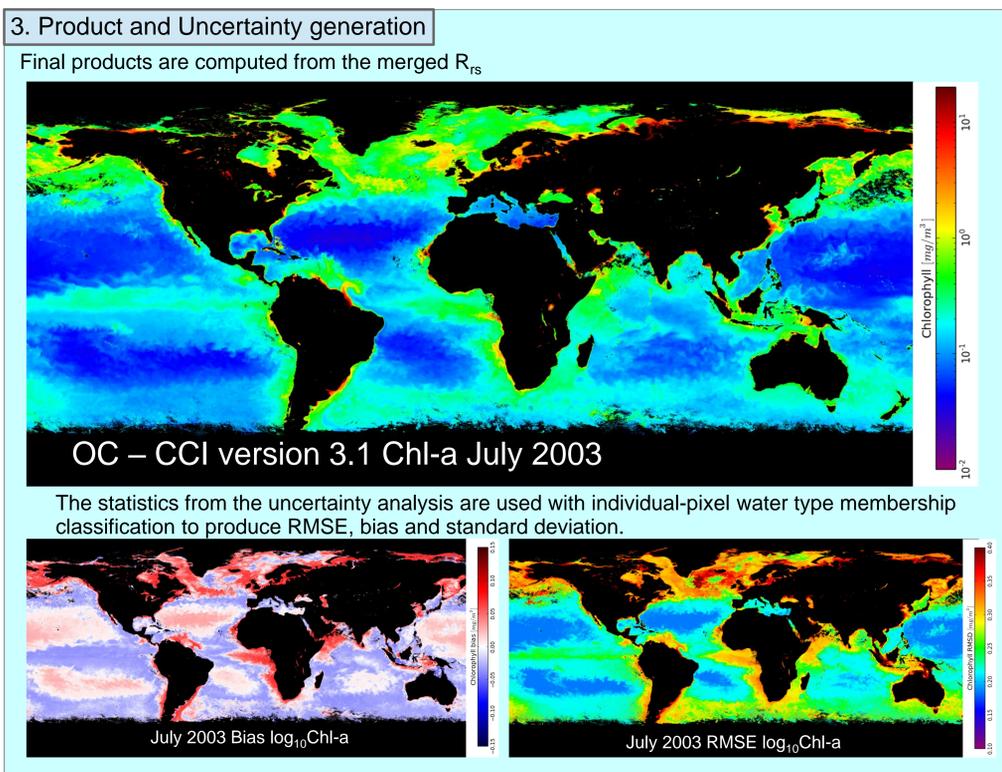
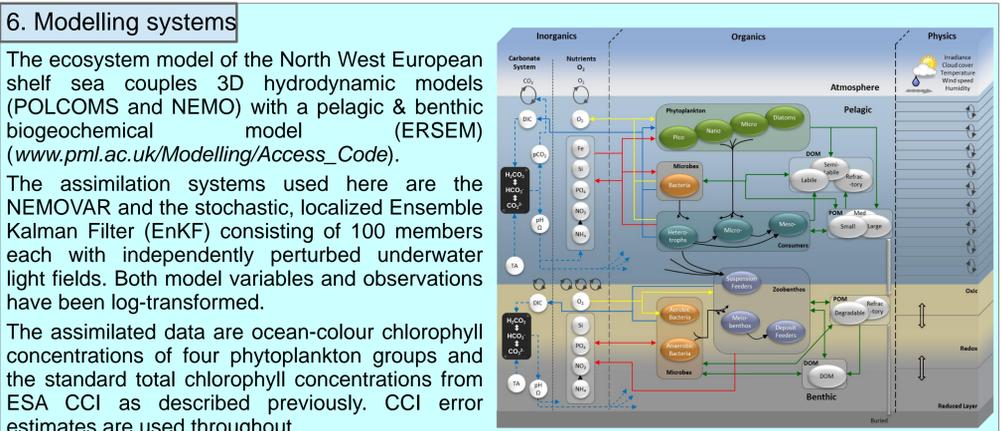
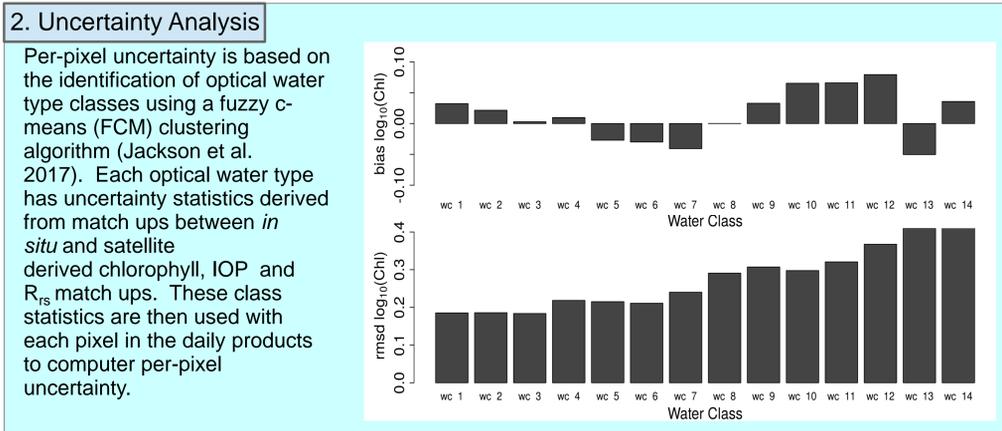
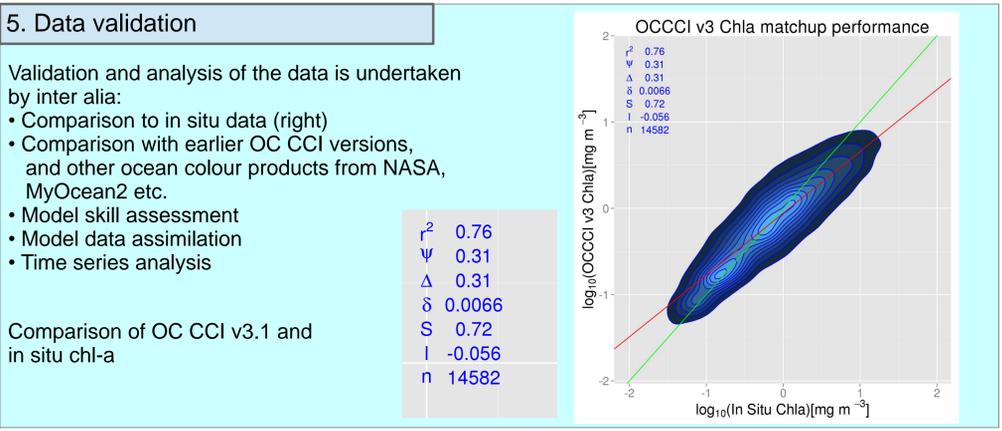
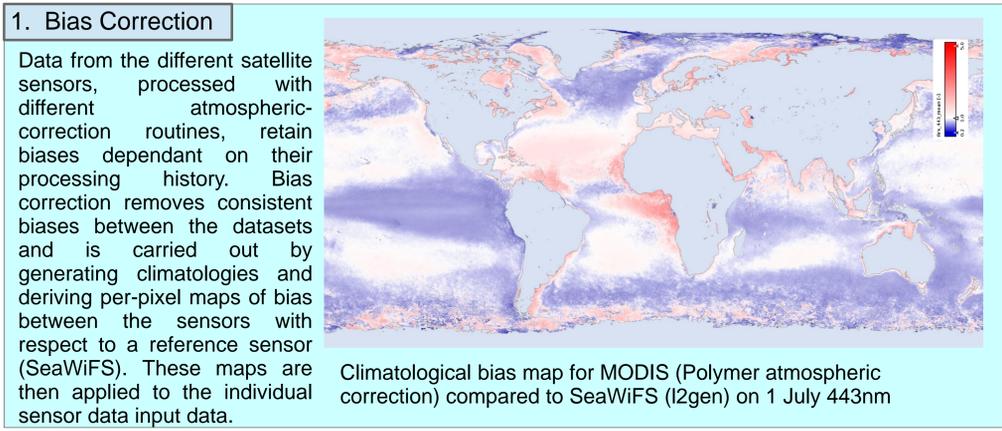
- To develop & validate algorithms to meet the Ocean Colour GCOS ECV requirements for consistent, stable, **error-characterized** global satellite data products from multi-sensor data archives;
- To produce and validate, within an R&D context, the most complete and consistent possible time series of multi-sensor global satellite data products for climate research and modelling;
- To strengthen inter-disciplinary, international cooperation on Earth observation, climate research and modelling, in pursuit of scientific excellence.

Methods

OC-CCI undertakes regular re-processing, typically annually, to extend the time series in time and to use on-going research and developments in atmospheric correction, in-water algorithms, data merging techniques and bias correction. This requires flexibility and rapid turn-around of processing of extensive ocean colour datasets from a number of ESA and NASA missions to both trial new algorithms and methods and undertake the complete data set production.

Processing steps relevant to the use by ecosystem modelling are shown below focussing on bias correction between sensors and uncertainty analysis.

Version 3.1 of the data set was made available to the scientific community in May 2017 covering the period 1997-2016.



References
Jackson, T., Sathyendranath, S., Mélin, F., (2017) An improved optical classification scheme for the Ocean Colour Essential Climate Variable and its applications, Remote Sensing of Environment, Available online