"Earth Observation from Space to support aquaculture industry and planning".
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A number of case studies have been carried out in the past and recently to support aquaculture deployment and sustainability in a changing marine environment. A FP7 European Project (SAFI : Support to Aquaculture and Fisheries Industries) is underway to analyse, validate and deploy at large scale the best practices in terms of use of Earth Observation for the aquaculture. This ranges from optimization of farming sites selection (wrt environmental constraints for operation and natural potential for production ; i.e. temperature variation, phytoplankton availability…), environmental monitoring of unexpected events (storms, algal blooms, eutrophication, …) to impact studies (effects of farming on the natural environment. To this initiative, two new elements have been added, the emerging capability of retrieving POC (Particulate Organic Carbon) on top of other key constituent of the water mass from remotely sensed imagery and the increased and stabilized availability of Earth Observation data for the next two decades in the frame of the EU-Copernicus program. Availability of POC allows to progress a step further in the support to aquaculture in the sense that it could be directly connected to modelling of biomass production and also to effects of farming to the environment. This step is now supported and promoted by the European Space Agency through a DUE Innovators project call SMART. In the light of these two projects (SAFI and SMART) and thanks to their first outcomes, we propose to present how Earth Observation is becoming to play a stabilized and growing role to support the aquaculture sector.