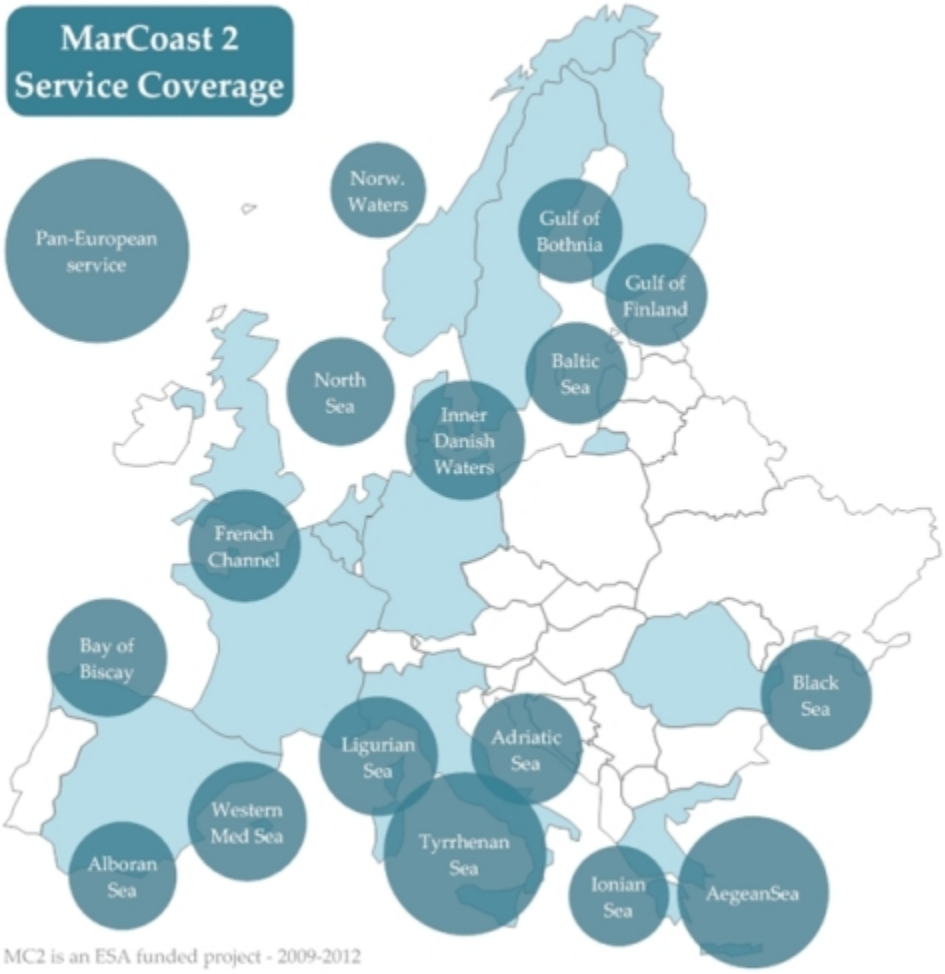
Water quality

Application details page.
Water quality

Satellite remote sensing provides large-scale and temporal information which can be used to assess biogeochemical cycles in the marine environment. Key parameters for monitoring water quality are sea surface temperatures, chlorophyll, suspended particles and coloured dissolved organic material.

To improve European water quality, the European Union has developed various directives such as the Water Framework Directive (WFD), Bathing Water Directive, Marine Strategy Framework Directive (MSFD) and a few regional conventions like OSPAR and HELCOM. The European Commission and the European Space Agency are cooperating and coordinating various programmes to meet the objectives as outlined in the directives and to promote development of operational services that make use of satellite data. One of the projects funded by ESA-ESRIN is MarCoast. Part of the European Global Global Monitoring for Environment and Security (GMES) initiative, this project aims to improve the water quality network, providing operational and experimental services. Currently there are 14 service providers involved, distributed over 16 European countries.



Credit: MarCoast

AquaMar, the R&D branche of MarCoast, provides a web based platform, tools and training material to support service providers and end-users. In addition it addresses five service lines:

- Support to Water Framework Directive (WFD)
- Detection of Harmful Algal Blooms (HAB)
- Compliance monitoring for large infrastructure projects
- Bathing water monitoring
- Precision Farming Aquaculture