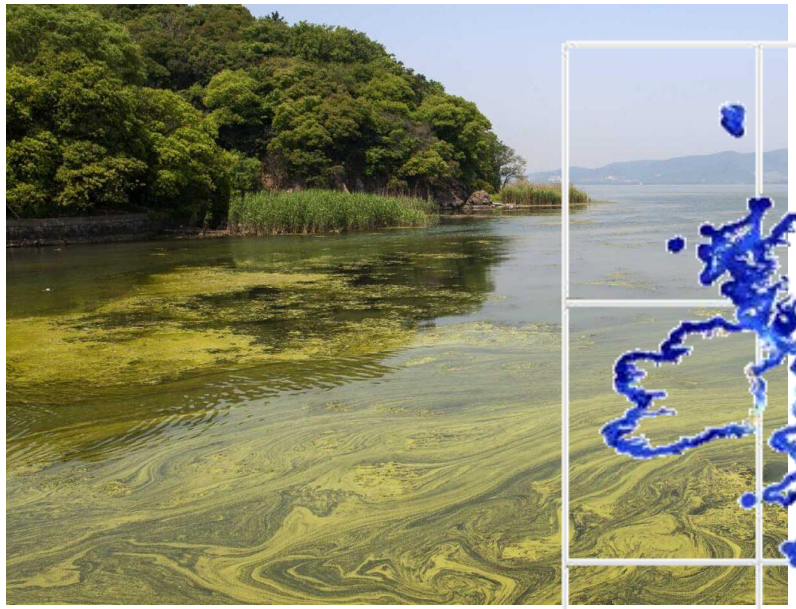

Brockmann Consult
Environmental Informatics • Geoinformation Services
Turning Data into Knowledge
Carsten Brockmann, Managing Director
Water Quality Compliance Assurance

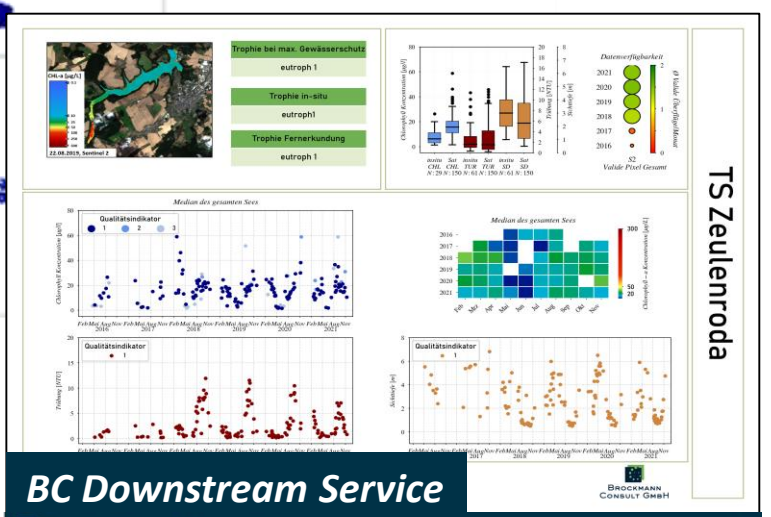
Water Framework Directive ♦ Marine Strategy Framework Directive ♦ Downstream Services



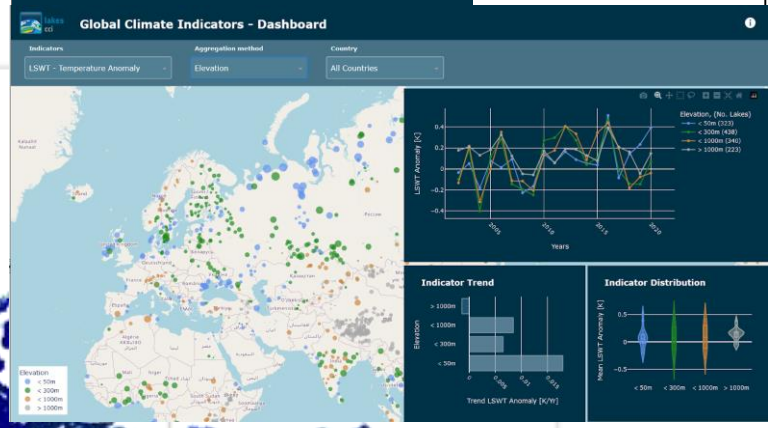
www.lgsonic.com/cyanobacterial-blooms



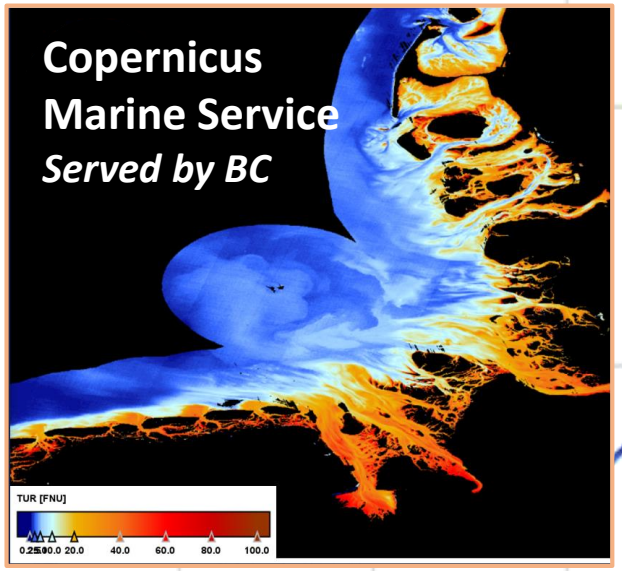
Copernicus Land Service
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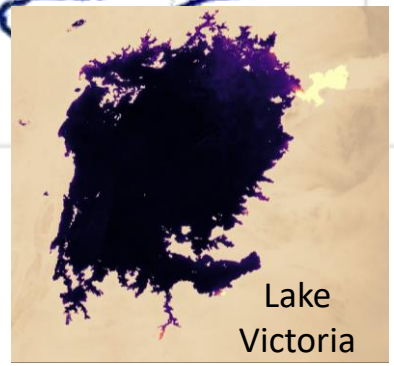


BC Downstream Service



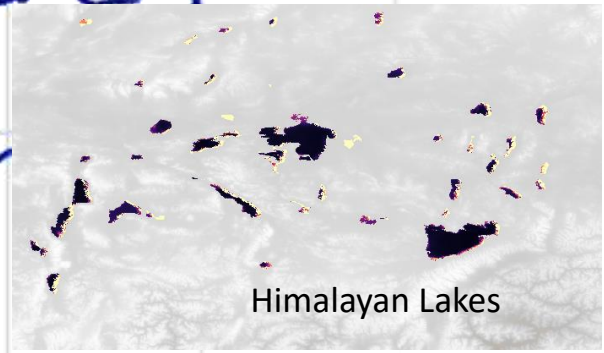
Copernicus Marine Service
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Water Framework Directive ♦ Marine Strategy Framework Directive ♦ Downstream Services

Water Quality

- **SDG 6.3** Improve water quality – Indicator 6.3.2 Proportion of bodies of water with good ambient water quality
- **Water Framework Directive** - Setting out rules to halt deterioration in the status of EU water bodies and achieve good status for Europe's rivers, lakes and groundwater.
- **Marine Strategy Framework Directive** - Protect the marine ecosystem and biodiversity upon which our health and marine-related economic and social activities depend.
- **Bathing Water Directive** - Protect the environment and the health of Europeans by attaining good bathing water quality throughout the EU

EO – Technical Readiness Level (stage of implementation)

- Operational capacity (algorithms, production chain) in place
- Validation limited due to still too few fiducial reference measurements, in particular for inland waters
- Consistent product quality for all European coastal and inland waters not yet achieved
- Unravelling the full potential of a unique and harmonised WQ assessment requires more R&D work on methods for AC, in-water algorithms and uncertainty characterisation
- Implementation of WFD and MSFD at national level still largely does not include EO
- Sentinel Expansion Missions LSTM and CHIME, Sentinel 2 and 3 Next Generation will significantly improve the data provision (more products, e.g. PFTs; more water bodies); preparation needed!

KCEO Deep Dive

- Gaps: (1) wetlands, rivers, coverage of Euopean inland waters at high resolution, (2) product harmonisation across inland water and coastal waters, product quality / uncertainty consistency, (3) EO in national implementation
- Evolution: (1) prepare uptake of Expansion missions & Next Gen, (2) exploit potential of VHR data (Contrib. Missions), (3) connect work done in Europe with policies and their implementation globally (Africa, US, Asia), UN / UNEP