

End-to-end environmental intelligence services for the water sector



From survey design and field sampling to laboratory analysis, modelling and decision support across freshwater, estuarine and marine environments

Delivering the complete evidence chain

Plymouth Marine Laboratory (PML) and PML Applications Ltd combine scientific excellence, innovative technologies and applied environmental expertise to provide end-to-end support to organisations facing complex environmental challenges.

This integrated approach delivers the actionable insights needed to understand, forecast and manage environmental impacts while improving operational efficiency. By managing the process end-to-end, we take on the logistical burden so clients can focus on the insights, not the coordination.

With expertise across freshwater, estuarine and marine environments, we provide tailored services ranging from field surveys and autonomous monitoring, to precision laboratory analysis, advanced modelling and decision support. Where existing solutions fall short, we work across sectors to develop new science-based approaches and policy advice.

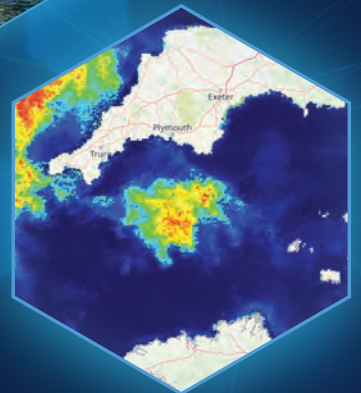


Surveys and monitoring

Delivering end-to-end survey and monitoring capabilities, from co-design through to field sampling, sensor deployment and environmental observation across marine, coastal and freshwater environments.

Expertise includes:

- Catchment-to-coast specialists, functional analysis of natural capital assets (coastal, estuarine, river and upstream)
- Survey design and stakeholder relations: adoption processes, economic sustainability, well-being, green financing
- Field sampling (water, sediment & atmosphere), profiling of water & current, tidal measurements
- Advanced sensor deployment, research vessels and autonomous systems, and remote sensing (satellites & drones)
- Citizen science
- Satellite observation of water quality

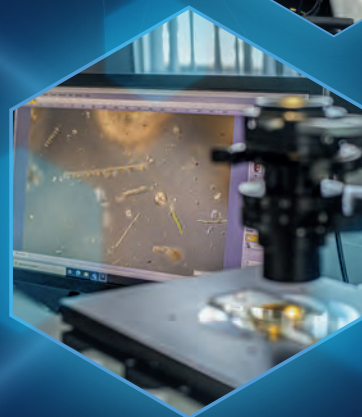


In situ water quality, nutrients and biodiversity

Providing a unique and integrated combination of freshwater and marine science, analytical capabilities and environmental expertise to assess water quality, nutrient dynamics, ecosystem health and potential effects on human health.

Services include:

- ⬡ Analytical laboratory services and methods development: marine and freshwater nutrients, carbon chemistry and greenhouse gases
- ⬡ Biodiversity assessments through cutting edge technology coupled with world-class expertise: eDNA, autonomous sampling, machine learning, hyperspectral methods and analysis systems
- ⬡ Expertise in harmful algal blooms, pathogens, seagrass, plankton, benthic fauna and fish communities (including early warning systems for harmful algal blooms and pathogens)
- ⬡ Water quality evidence reviews (for example in protected areas)
- ⬡ Early detection of invasive & non-native species in UK and overseas territories

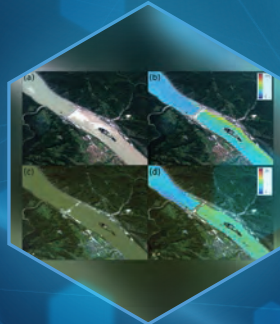


Environmental intelligence & decision-making support

Helping organisations move from data collection to confident action through integrated analytics, forecasting and decision-support tools that improve environmental outcomes while reducing operational risk and cost.

Solutions include:

- Cloud-based analytics
- Geospatial data visualisation & interoperability
- Net zero & environmental gain
- Climate-smart spatial planning
- Forecasting using hydro-biogeochemical and data-driven models
- Model-assisted management-to-impact decision support



Try CORDIAL, our cloud-based platform for integrating environmental data, visualisation, modelling and reporting to support water quality management, early warning systems and strategic planning.



Let's solve environmental challenges together

We provide end-to-end environmental intelligence that delivers actionable insight. Working with a diverse range of organisations across the UK and internationally, including water utilities and wastewater companies, regulators, government agencies, research institutions and technology providers, we help clients understand, manage and respond to complex environmental challenges.

Find out more



www.pml.ac.uk
forinfo@pml.ac.uk



www.pml-applications.co.uk
forinfo@pml-applications.co.uk

Get in touch to explore how we can support your goals.



Professor Stefan Simis
Catchment to Coast Portfolio Lead
& Earth Observation Scientist
Plymouth Marine Laboratory
stsi@pml.ac.uk



Michael Day
Applied Research Scientist
PML Applications Ltd
mda@pml.ac.uk



Plymouth Marine Laboratory & PML Applications Ltd Prospect Place, Plymouth, PL1 3DH, UK
+44 (0)1752 633 100 and you can find us on social media.