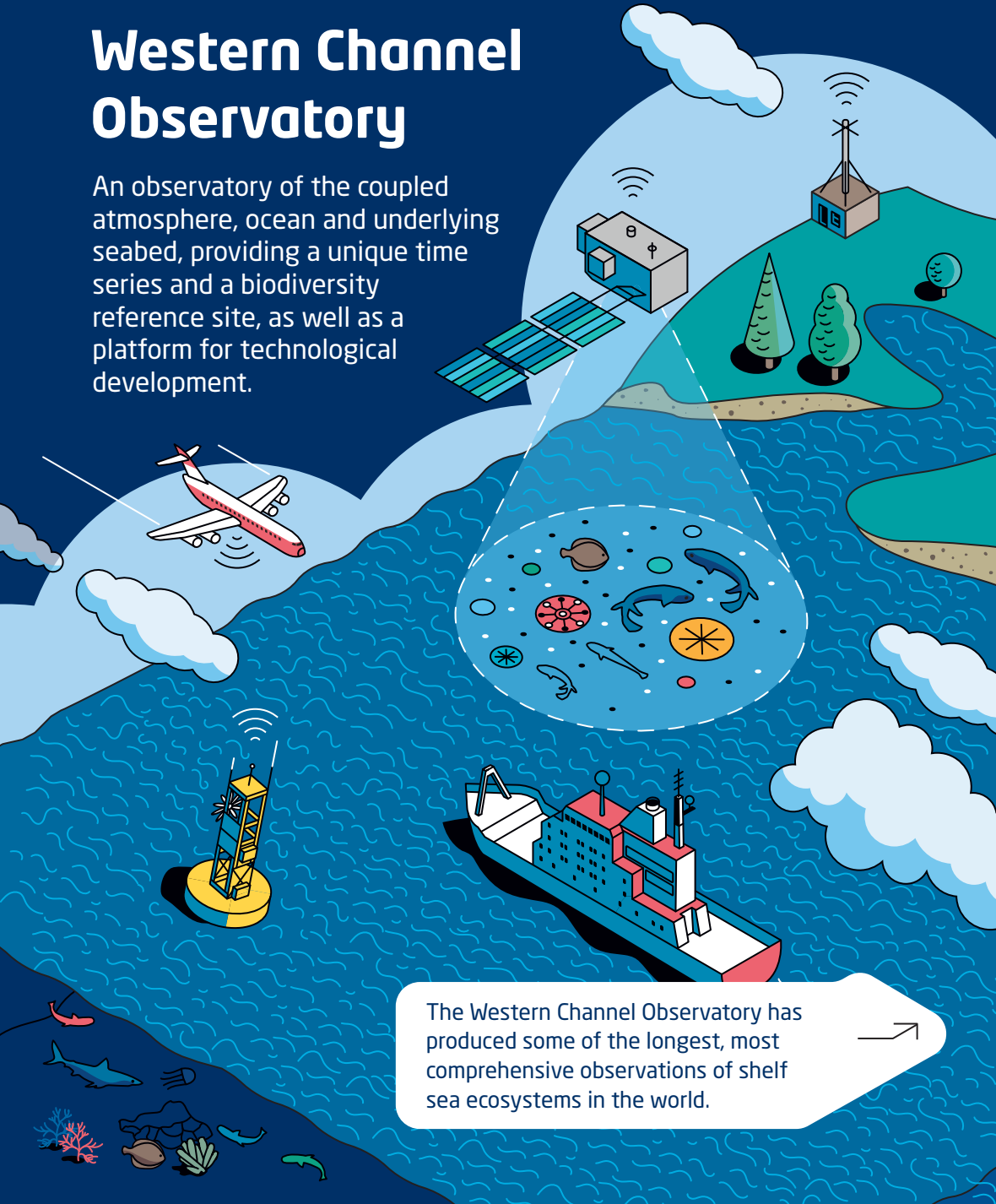


PML

Plymouth Marine
Laboratory

Western Channel Observatory

An observatory of the coupled atmosphere, ocean and underlying seabed, providing a unique time series and a biodiversity reference site, as well as a platform for technological development.



The Western Channel Observatory has produced some of the longest, most comprehensive observations of shelf sea ecosystems in the world.



Established in 1903, the Western Channel Observatory (WCO) is an oceanographic timeseries and marine biodiversity reference area south of Plymouth in the western English Channel. This has provided a wealth of data for scientific understanding of shelf-sea ecosystems.

Weekly ship-based sampling is augmented by autonomous data buoys at two locations in the western English Channel, as well as continuous measurements of atmospheric trace gases from a land station and satellite Earth observations of ocean properties. The WCO long time-series data delivers a unique record of marine environmental conditions over timescales of hours to centuries, and from microbes to fish.

WCO is a platform of opportunity for technological and scientific development, supporting industry and advancing UK expertise. WCO is already facilitating new developments as a testbed for novel techniques and instrumentation and will continue to underpin international scientific research projects by providing observational platforms in parallel to historical data.



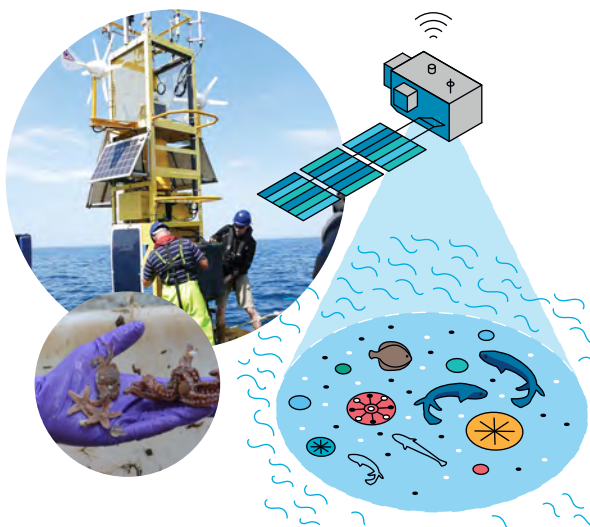
WCO observations are of global interest, providing evidence for tackling societal challenges, including the impacts of climate change on marine ecosystems.

WCO features:

- Pelagic, benthic and atmospheric time series data combined with satellite observations and computer modelling
- A sentinel monitoring site for the Marine Strategy Framework Directive and part of the ICES network of time series sites
- Accessible, cost effective, study site that stratifies in summer with a pronounced thermocline - an established biodiversity and process reference site
- Bespoke testing platform, enabling full and robust testing of future sensor technologies with access to world-leading environmental experts
- Support for operational oceanography in assessments of forecast skill
- Freely available NERC funded data and details of all data collected

WCO scientists are active in many high level committees including:

- Executive Board of the UK Integrated Marine Observing Network
- Head of Smart Sound Plymouth
- Chair FAST Cluster
- Chair of Maritime UK South West Autonomy Expert Panel
- Board member for Maritime UK South West



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