

Britain's platform for innovative
marine technology development

www.smartsoundplymouth.co.uk
@SmartSoundPlym

Pioneering technology development

Smart Sound Plymouth is Britain's premier proving area for designing, testing and developing cutting edge products and services for the marine sector, and is ideally suited for building and supporting the next generation of advanced marine technologies.

Providing access to a unique combination of:

- State-of-the-art offshore and onshore facilities
- Some of the world's foremost marine science and technology organizations
- Nearly a 1,000 sq. kilometres of authorised, de-conflicted water space
- Funded support for eligible businesses

The area's impressive variety of water depth, sea states and weather conditions is perfectly suited for conducting sea trials, including sub-surface trials with access to offshore water depths of 75m, providing the ideal environment for multi-platform mission operations.

Co-ordinated through the Marine Business Technology Centre, Smart Sound Plymouth is a partnership between five organizations boasting considerable expertise in autonomous systems, environmental sensor technologies, alternative propulsion, advanced manufacturing and cyber security.



Pathways to innovation:

Nearly a 1,000 sq. kilometres of authorised and de-conflicted water space

Smart Sound facilitates trials, validation and proving of marine innovative technologies across a diverse environment. All missions will be facilitated by a dedicated team in compliance with MAS codes of conduct and de-conflicted with other water users. From trials in shallow benign environments to deeper hostile waters Smart Sound can facilitate a wide range of conditions to suit the user's particular requirements.

Remotely operated vehicles, unmanned and autonomous surface vessels

Exclusive use of an L3 ASV 'C-Worker' four metre survey class vessel dedicated to facilitating unmanned systems trials. Additional surface and underwater platforms are also available for the trials and development of technologies for unmanned platforms. A dedicated team of professionals are on-hand to facilitate planning, engineering and the safe operation of sea trials.

Platforms for technology testing, including data buoys & sensors

A variety of platforms provide the opportunity for trials and validation of basic prototypes through to commercial product development. Data buoys are equipped with a range of sensors to measure atmospheric and marine parameters, and will soon include an autonomous water column profiling buoy, a first for UK marine waters. High speed communications allow real-time remote sensor diagnostics enabling system monitoring and reconfiguration throughout the trial.

Research and support vessels

Capable of operating offshore (up to 60 miles) and in coastal regions, our fleet is specialised in the deployment of scientific apparatus, surveys, autonomous/unmanned platforms and sample collection whilst providing access to on-board wet and dry laboratories. A range of vessels, meeting specific requirements and manned by highly experienced crews with excellent local knowledge, are available.



Western Channel Observatory: putting the 'Smart' into Smart Sound

A unique time-series and biodiversity reference site providing detailed data records and insight of the marine environmental conditions over timescales of hours to centuries. In-water platforms are supported by world-leading environmental modelling and remote sensing. The observatory is a proven platform of opportunity for technological and scientific



development, supporting industry and advancing UK expertise.

Marine science and technology expertise

Smart Sound Plymouth provides access to world-renowned, award-winning marine science and technology expertise. Offshore testing is complemented by onshore facilities, including state-of-the-art laboratories and testing environments for small to large items of equipment. The team is experienced in working with commercial organizations and on confidential projects, whilst working to time and budget.



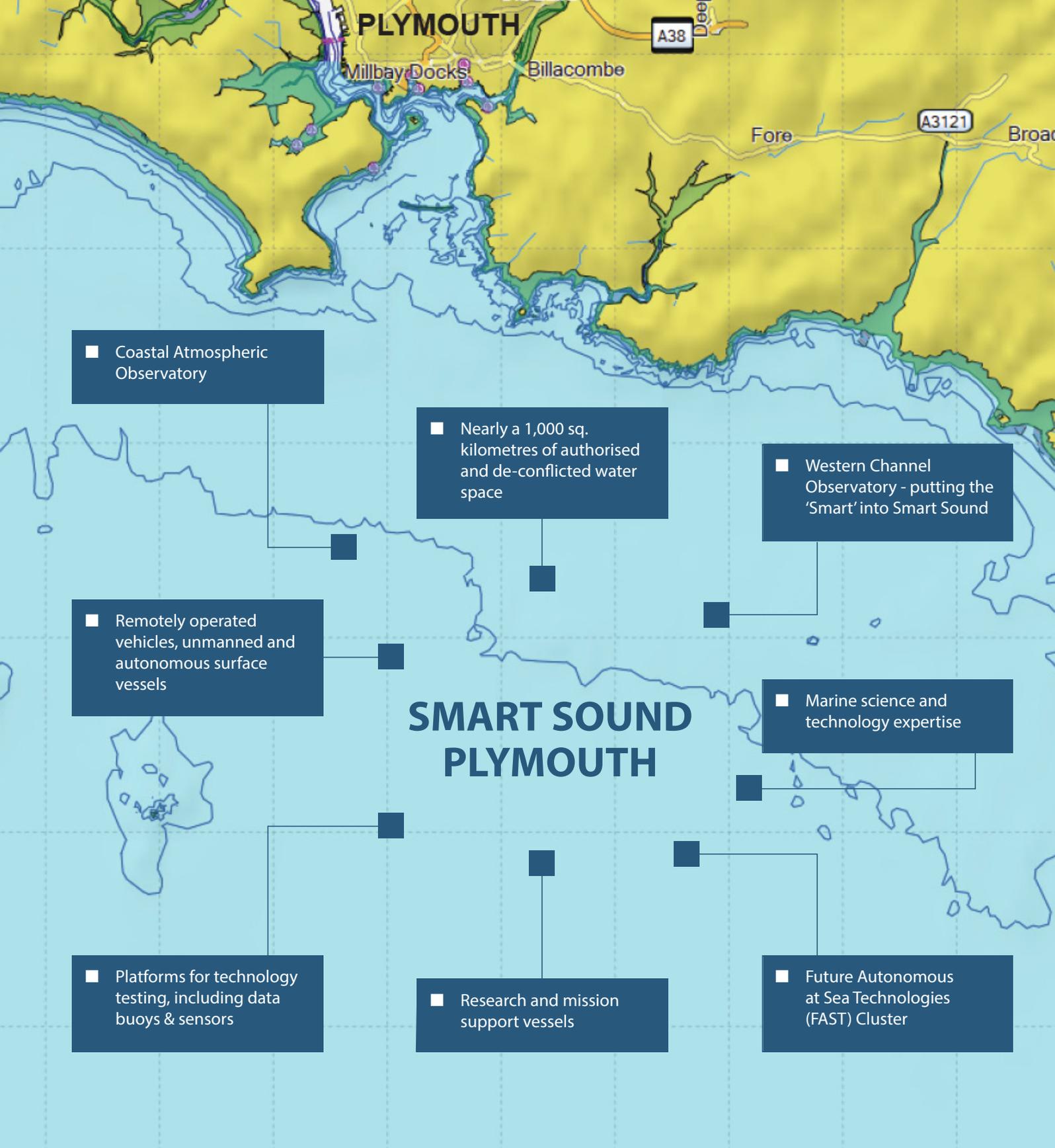
Coastal Atmospheric Observatory

UK's first long-term coastal atmospheric observatory, designed to study air-sea interaction. The observatory is specialised in long-term monitoring and analysing of pollutants, greenhouse and more reactive gases, coastal aerosols and rainwater. The facility is extensively used for sensor trials and the inter-comparison of instruments measuring fluxes of carbon dioxide and methane.



Future Autonomous at Sea Technologies (FAST) Cluster

Access to collaborate with leading industrial and academic partners specialising in the delivery of innovative marine autonomous solutions, such as: surface and sub-surface autonomous systems, advanced manufacturing, smart ports and cyber security. The FAST infrastructure includes platforms, sensors, advanced power systems and communication networks to the Smart Sound.



PLYMOUTH

Millbay Docks

Billacombe

Fore

Broad

A38

A3121

SMART SOUND PLYMOUTH

■ Coastal Atmospheric Observatory

■ Nearly a 1,000 sq. kilometres of authorised and de-conflicted water space

■ Western Channel Observatory - putting the 'Smart' into Smart Sound

■ Remotely operated vehicles, unmanned and autonomous surface vessels

■ Marine science and technology expertise

■ Platforms for technology testing, including data buoys & sensors

■ Research and mission support vessels

■ Future Autonomous at Sea Technologies (FAST) Cluster

Explore your pathways to innovation

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@SmartSoundPlym



PML | Plymouth Marine Laboratory



Est. 1884
Incorporated by
Royal Charter

UNIVERSITY OF
EXETER

UNIVERSITY OF
PLYMOUTH



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The critical role Plymouth Marine Laboratory are playing, providing us with these excellent testing facilities at sea, is a uniquely invaluable service to UK industry, which we have no other way of duplicating.

Dr Nick Webb, Delta-T Devices Ltd

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University of Plymouth experts helped AutoNaut make the crucial step from workshops and test tanks to open water. From the Marine Station, AutoNaut proved their capability to perform unmanned passive acoustic monitoring trials in the Plymouth Smart Sound.

Phil Johnston, AutoNaut

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We've made developments to our genomics data processing pipeline with the assistance of Data Science experts from the Marine Biological Association. Applied Genomics now have enhanced processing ability to support our genomics based environmental biodiversity assessments.

Seb Mynott, Applied Genomics

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European Union

European Regional
Development Fund