

## Future Ocean Institute

The '**Future Ocean Institute**' is a bold ambition to position the UK at the heart of the future blue economy projected to be worth \$3 trillion by 2030. Playing to the South West and UK strength in smart robotics and clean energy this network will develop tomorrow's marine technology with a focus on **autonomous** and **digital** systems, **clean propulsion** and future **cyber-secure smart ports**.

This is the region's contribution to the UK's digitally focused tech led recovery. It is a vital part of the post COVID recovery plan to build back better and create over 4000 jobs – some immediate with capital construction programmes and high-value engineering, design and R&D jobs over the next 5-years and beyond.

The South West UK is a natural location for maritime and marine business and innovation. The Maritime UK SW and the Great South West initiatives highlight this national strength across Dorset, Somerset, Devon and Cornwall. The Future Ocean Institute (FOI) has been jointly developed by Maritime UK SW, industry, academia, regional and local government.

The Future Ocean Institute seeks collaboration with senior influential officials to fully develop and deliver a short term implementation of key ready to start projects and a longer term plan for logical evolution and UK competitive positioning – with funding coming from future CSR and budgets. Officials and experts from departments and bodies including the Department for Transport (DfT), Ministry of Defence (MoD), the Department for International Trade (DIT), the Department for Business, Energy and Industrial Strategy (BEIS) and the UK Hydrographic Office (UKHO), that all have digitisation, digital security, autonomy and data at the heart of their maritime activities. FOI is featured in Heart of the South West LEP and Maritime UK Decarbonisation CSR submissions – so naturally we will include them and others in the co-design.

This concerted initiative will help shape the region's offer for the UK as have the Northern Powerhouse/ Midlands Engine, with a clear focus of placing the UK as a world-leader in advanced maritime technology. It will allow the UK to equal similar Ocean and Marine technology investments made by other leading maritime nations. A triple helix innovation model with academia, industry and Catapults/Government departments focused on the future of the ocean will drive this ambition.

Carbon Zero is also driving rapid roll out of Floating Offshore Wind and alternative propulsion for shipping against targets in the Government's Clean Maritime Plan, and the new technology required for Smart Ports, as we move towards integrating smart ships with digital rail and road are providing further opportunities.

The South West has a key role to play in the development of solutions for these pressing drivers, and the areas of focus for the Future Ocean Institute include:

1. Marine Autonomy, Seabed Mapping and Geospatial Data
2. Marine Clean Propulsion
3. Smart Marine Technology to support Offshore Renewable Energy
4. Marine Science and Aquaculture - sustainable ocean economy
5. Smart Ports and Intermodal Connectivity

This will position the UK as a global leader in advanced maritime technologies and will be a key pillar of the country's ambition to be a science and innovation superpower. This ambition is supported by international centres in Canada, Australia, the Kingdom of Saudi Arabia, France, Germany and the United States (letters of support attached). Our ambition is to accelerate the work already underway in the South West region, with three High Potential Opportunities lead by Department for International Trade around Marine Autonomy, Aquaculture and Photonics, and to use 2021 period to super-charge this growth.

The Future Ocean Institute will act to provide an engine to deliver the **levelling up agenda** in the South West and will enable cross Government and regional collaboration to develop and attract high value jobs, increase productivity and economic activity. In an international context, it will boost collaboration with other leading Marine and Maritime Clusters around the world, allowing the UK to more effectively **attract inward investment** and **economic growth**.

The Future Ocean Initiative extends an already established Marine Business Technology Centre partnership between key academic and government organisations of the University of Plymouth, University of Exeter, Plymouth Marine Laboratory, Marine Biological Association, and Plymouth City Council to now include key marine industry players of Babcock, Thales, BMT and Maritime UK SW. The FOI will also strengthen established links and joint projects with the UK Hydrographic Office and the Met Office (letters of support attached). It is a key part of the Heart of the South West LEP's wider economic plan to restart the economy post-COVID.

We are now seeking to work with Government via Ministry for Homes Communities and Local Government (MHCLG) to co-design a significant multi-million pound programme that boosts and raises the profile of the innovation work already underway in the South West. The marine and maritime sector has the potential to enable cross-Government and regional collaboration to develop and attract high value jobs, increase productivity and economic activity. The ability to leverage research and development to develop clusters will be vital to support the levelling-up agenda across the whole of the UK.