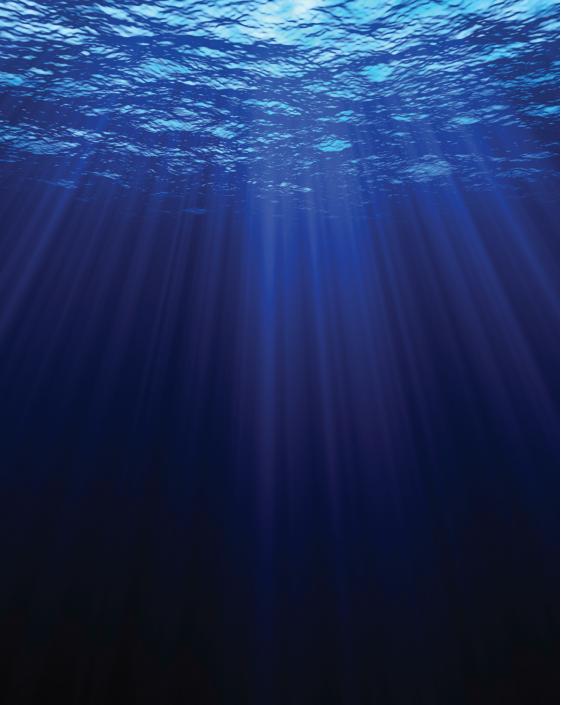


National Oceanography Centre

WORLD-CLASS SCIENCE AND TECHNOLOGY FOR YOUR BUSINESS









The National Oceanography Centre (NOC) is the UK's leading institute for integrated ocean research and technology development from the coast to the deep ocean. Working with our partners we provide large scale, long-term, marine science capability including: major facilities, sustained ocean observing and modelling, mapping and survey, data management, and scientific advice.

We are working in collaboration with the hydrocarbon, minerals and marine renewable energy industries to promote and enable the sustainable use of natural resources from the sea.

Our science is increasing the understanding of marine related risks and hazards, reducing the risks of deep ocean drilling and providing data into the insurance industry. This work also underpins seasonal and climate forecasts of the UK Met Office.

Our persistent presence in the oceans, alongside our world-class data modelling, capabilities provide monitoring of, and predicting variability and changes in, the natural environment.

All of this work is underpinned by our commitment to developing and working with advanced technologies for conducting ocean measurement and science.

Global Energy Needs







Marine Renewables

The NOC's science underpins environmental impact assessments for marine renewable energy installations and their energy resource assessment.

The NOC:

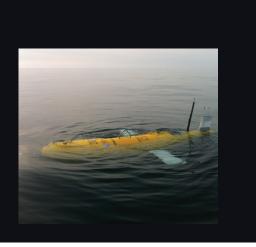
- hosts the NERC Marine Renewable Energy Knowledge Exchange Programme
- develops models used to map the UK tidal energy resource and tidal studies to assess the feasibility of a tidal barrage across the Mersey Estuary
- creates innovative marine radar and satellite altimetry applications for wave energy resource assessment and investigate impacts of interactions between offshore wind farms and waves.

Hydrocarbons

The NOC is working in collaboration with the hydrocarbon industry to:

- promote and enable sustainable use of natural resources from the sea
- increase the understanding of marine related hazards and risks
- provide monitoring of, and predicting variability and changes in the natural environment
- developing and working with advanced technologies for conducting ocean measurement and science.







Deep Sea Mining

The NOC is working in collaboration with the deep sea mining industry to:

- promote and enable sustainable use of natural resources from the sea
- understand mineral deposit formation process
- develop new exploration techniques and strategies to identify and characterise ocean resources
- provide deep water environmental impact assessment and monitoring strategies
- interface between legal and technical aspects of marine policy making and implementation.



Infrastructure, Insurance & Re-Insurance

The NOC is working in collaboration with the insurance industry to:

- increase the understanding of marine related hazards and risks
- provide monitoring of, and predicting variability and changes in, the natural environment
- developing and working with advanced technologies for conducting ocean measurement and science
- incorporate NOC science and data into industry catastrophe models.

Defence

The NOC is working in collaboration with the defence industry to:

- develop new technologies to enable greater autonomy and remote sensing
- understand how to gain operational advantages through greater understanding of the marine and coastal environment
- enhance Mine Counter-Measure, Hydrography and Patrol capabilities.

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Shipping

The NOC is working in collaboration with the shipping industry to:

 collect critical scientific data to better understand, for example, the carbon dioxide exchange at the ocean – atmosphere interface via our Partnership and Ships of Opportunity Programmes

- inform policy and guidance at international, national and industry levels relating to, for example:-
 - global ocean circulation
 - predicted climate change
 - oil spill modelling
 - ship navigation
 - ice melting
 - the Arctic and Antartica
- enhance ship energy efficiency through the development of navigational tools incorporating our coastal and global ocean circulation models
- develop autonomous systems for ship hull inspection and cleaning
- develop automated sensors for ballast water monitoring.

Licensing opportunities

The NOC offers a variety of licensing opportunities of its proven technologies, software and data.

These technologies, often developed through Funding Opportunities, enable our partners to offer new and improved products, processes and services giving them a significant competitive advantage in the market.

Cutting across a wide range of sectors, our technologies can have a wide range of applications.



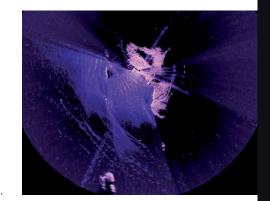
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Funded Support for Research and Development

The National Oceanography Centre engages with both individual companies, and groups of companies for collaborative research and development, leveraging supporting grant funding wherever possible from a variety of sources.

- work in collaboration with NOC on collaborative research projects funded by Innovate UK, the European Commission, NERC and a variety of other funders
- access leading scientific knowledge through Royal Society Industry
 Fellowships, Industrial Studentships and Knowledge Transfer Partnerships
- gain access to NOC's world-class people and facilities to support collaborative research and development.



Accessing NOC Knowledge and Expertise

The NOC is a world-leading Oceanographic institute and your business can access our leading scientific thinking in the following ways:

Consultancy

Our leading scientific and technical staff can advise, and are available to assist on matters important to your operations. Please contact us to discuss your specific requirements.

Supporting your R&D

NOC knowledge and expertise can support aspects of your R&D projects going forward, with or without access to supporting testing facilities, to support your internal R&D which may also be eligible for grant funded support.

Knowledge Transfer Partnerships

If you need to transfer and embed new thinking into your business, you might be eligible for a Knowledge Transfer Partnership grant from Innovate UK. This helps you tackle a strategically important project by placing a Graduate into your company, who is supported by a NOC Scientific expert for half a day per week. Projects are also supported by budgets for training, travel and consumables, and SMEs receive up to a 67% grant.