

SCIENCE-DRIVEN BUSINESS SOLUTIONS FOR A STRONGER BLUE ECONOMY



**NOC
Innovations**

WHY WORK WITH US?

NOC Innovations delivers science-driven solutions that power a resilient and sustainable blue economy.

As the trading subsidiary of the National Oceanography Centre, we provide world-class expertise, independent data and cutting-edge technology to help organisations tackle complex maritime challenges.



With more than 75 years of research excellence and a team of over 400 scientists and engineers, we bridge the gap between science and industry to support safer operations, smarter decision-making and long-term environmental stewardship.

Our commercial services span autonomous vehicle operations, high-resolution ocean modelling, tidal prediction software, environmental monitoring, geotechnical laboratory testing, blue carbon consultancy and strategic advisory support.

From offshore energy and marine infrastructure to climate resilience and ocean technology development, NOC Innovations is your trusted partner for robust insights, tailored solutions and sustainable impact.

“By collaborating with us, you’ll gain knowledge and insights beyond compare, allowing you to make better decisions and fully understand the environment in which your organisation operates”

Huw Gullick

Director of Applied Science, National Oceanography Centre
Managing Director, NOC Innovations







AUTONOMOUS VEHICLES AND TESTING SERVICES

The innovative and versatile NOC Autosub has been successfully operated for ocean research and commercial projects in all types of waters, including deep ocean and under ice, where endurance, reliability and the ability to operate independently with little or no vessel support are essential requirements.

NOC Autosub is capable of high endurance missions for several weeks and can be equipped with flexible packages including chemical sensors, advanced sonars and camera systems.

It can be ship or shore launched creating significantly reduced operating costs and environmental impact making the vehicle suitable for both ocean research and a wide range of commercial applications, such as surveying offshore pipelines, wind farms, Carbon Capture and Storage (CCS) and Marine Protected Areas (MPA).

Our glider service encompasses sourcing, deploying, managing and maintaining gliders for oceanographic data collection. Working with us ensures the seamless operation of gliders, facilitating reliable and high-quality data collection to support your scientific research and decision-making.

“Over the next 3 years NOC gliders will collect an unprecedented amount of data from the North Sea that will feed into Met Office forecasting. The data captured gives us greater insight into vital aspects that form the weather systems that affect us every day.”

Jim Trice
Observations Network Manager
Met Office

WHAT DO WE OFFER?

- NOC Autosub vehicles are now available to purchase by other research institutions built to their bespoke requirements and capabilities for operating depths of up to 6000 metres.
- We run Teledyne's Glider Service Centre for Europe.
- We can source, deploy, operate, maintain and manage glider fleets for you.
- We run training courses covering technical and operational fundamentals of glider operation with practical exercises in our dock.

WHY UTILISE OUR GLIDER SERVICES?

Our world-class, multidisciplinary expertise is unrivalled and covers servicing incorporating our own in-house Calibration Laboratory and Pressure Testing Facility, warranty work and piloting. We offer fast turnaround times at reduced shipping costs and reduce the risk to your sensors caused by additional transport and handling.

DATA, SOFTWARE AND DIGITAL OCEAN

Our cutting-edge data, software and digital ocean services empower marine industries with precise insights.

From tide and current predictions to high-resolution marine simulations and data mining, we deliver the data you need when and where you need it.

Whether you are planning a mission in a remote location, or assessing existing marine data before deployment, we can quickly search for available datasets tailored to your specific requirements.

We provide end-to-end data management, handling everything from data acquisition - whether through remote sensing, in-situ measurements, or third-party sources - to processing and analysis. Our expertise ensures that raw data is transformed into high-quality, validated datasets, ready for use in advanced modelling, forecasting and digital twin applications.

We are specialists at delivering actionable insights that drive smarter decision-making for marine operations, research and environmental management.

TIDE PREDICTION SOFTWARE

With a rich heritage of tidal prediction stretching back over 100 years we are world leaders in tide prediction software, with our software suite making marine tidal data easily available to customers for the past 30 years.

We offer software to make highly accurate predictions both at ports and offshore. Our Polpred offshore software predicts both tidal elevations as well as current speed and direction and is seen as an essential planning tool by many for offshore survey and operational work. For those requiring the most accurate tidal predictions at UK ports and harbours, Poltips produces highly accurate tide tables and charts for over 700 UK ports.

We work with a wide range of organisations including the Environment Agency, the UK Hydrographic Office, the Met

Office, academic research organisations, ports and harbours, offshore renewable companies, oil and gas suppliers and offshore survey companies.

Whether you are looking for tide information, consultancy, a report with specific data or easy to use reliable software we have solutions and tide calculations that can provide you with unrivalled accuracy for understanding and predicting ocean currents both offshore and in coastal regions.


Our software and services are designed to be highly flexible and to be configured to meet your specific requirements.

WE ARE CURRENTLY DEVELOPING A SUITE OF INNOVATIVE COASTAL MONITORING PRODUCTS AND SERVICES

GNSS-IR tide gauge technology offers a next-generation, cost-effective solution for tide and wave monitoring, requiring no in-water hardware. It eliminates biofouling and the risk of vessel damage while enabling fast and simple installation. Its significantly lower cost allows for widespread deployment across coastal and inland locations, providing broader coverage and higher-quality data compared to traditional tide gauges.

Satellite inter-tidal mapping is a new service that tracks month-by-month changes in sandbanks and channels in shallow coastal areas. It provides clear insights into coastal movement over large areas, supporting port dredging planning and operations, and helping authorities assess impacts on coastal resilience and flood defence infrastructure.

TideMorph is a patented software solution that combines satellite data with existing tidal observations to detect faulty tide gauges and generate highly accurate tide data where no gauges exist. Designed for challenging environments such as estuaries, TideMorph delivers reliable tidal insights in situations where traditional prediction models often struggle.



“NOC have been supporting the Peel Ports Group for a number of years, through the Poltips application and supplying specialist bespoke tidal analysis. We work closely together to ensure accurate tidal data can be relied upon as one of the central pillars of marine safety within our ports”

Russell Bird

HM Cert, Deputy Group Harbour Master
(Hydrographic and Dredging)
Peel Ports Group



ENVIRONMENTAL MODELLING, MAPPING AND MONITORING

We provide a comprehensive suite of solutions designed to support environmental monitoring, climate change adaptation and resource management.

We offer expert advice and strategic planning to help clients navigate complex environmental challenges and make informed decisions for a sustainable future.

GEOHAZARD ASSESSMENTS

Our geohazard assessment services are designed to provide a full spectrum of risk evaluation and mitigation strategies. We conduct integrated desktop studies and hazard assessments, develop survey designs with precise technical specifications and leverage existing data to model geohazard predictions. These models help forecast the impact of hazards on critical infrastructures, while our detailed recommendations on monitoring and mitigation strategies empower clients to proactively manage risk.

BESPOKE MODELLING SERVICES

Recognising that every client's needs are unique, we offer highly specific, bespoke modelling solutions tailored to your exact requirements. Whether you are an insurance company, a financial service organisation or an energy consultancy, our custom regional models are designed for specialist tasks, delivering actionable insights that support precise decision-making and targeted risk management.

CLIMATE SERVICES AND IMPACT ASSESSMENT CONSULTANCY

Our climate services deliver regional climate model projections that cover a wide array of environmental variables—including sea levels, tides, waves, currents, temperature, salinity, biogeochemistry and ecosystem dynamics. These detailed projections, alongside our advice on climate impact assessments and mitigation strategies, assist clients such as insurance companies and governmental agencies in planning for future climate scenarios and ensuring resilient operations.

ENVIRONMENTAL MONITORING

We specialise in environmental monitoring in challenging and hard-to-reach areas such as deep waters and remote locations. We can offer end-to-end services from initial stakeholder engagement and desktop studies, through survey design, parameter mapping, measuring and modelling to advising on policy integration, natural capital, biodiversity or specific risk mitigations.

TIDE GAUGE SERVICES

Our expertise here includes installing and maintaining tide gauge networks globally. We are world leaders when it comes to accurately measuring sea levels and that comes down to our vast coastal engineering experience and ability to design bespoke installations tailored to any site.

GEOTECHNICAL LABORATORY SERVICES

NOC offers its state-of-the-art laboratory facilities, advanced equipment and expert staff for hire to meet your needs.

Whether you are part of the marine science community or a commercial organisation, you can access our various laboratories, workshops and testing facilities.

GEOLOGICAL CORE TESTING

The British Ocean Sediment Core Research Facility (BOSCORF) provides commercial customers with geological core testing and scanning for sediment, soil and coral, alongside specialist consultancy services, offering both destructive and non-destructive testing.

RESERVOIR CHARACTERISATION

Our rock physics laboratory allows us to test the hydromechanical changes of reservoir rocks when exposed to different fluids. State-of-the-art tools for data analysis allow for the characterisation of reservoirs for the growing carbon capture









PROFESSIONAL ADVISORY SERVICES

As the UK's go-to source of ocean science, we offer an enormous range of relevant skills, first-class facilities and expert services to supplement your in-house expertise.

Our professional advisory service can shape your evolution by providing advice and guidance underpinned by world-leading science.

Our areas of expertise span a wide range of marine and environmental disciplines, including energy transition and sustainability, blue carbon initiatives and environmental assessment to support responsible ocean stewardship.

We contribute to tackling global challenges through our climate services and impact assessment, while our advanced tidal analysis capabilities provide critical insights for coastal and offshore operations. Through technology Research and Development (R&D), we drive innovation in marine data solutions and our training and delivery programmes ensure that organisations have the knowledge and tools to maximise the value of ocean intelligence.

Our advisory services extend to policy guidance, helping to shape informed and effective marine and environmental policies whilst also supporting stakeholders working within this policy landscape.

BLUE CARBON SOLUTIONS

Our blue carbon services can support your entire project lifecycle. We provide expert consultancy support at every stage, from initial planning and technical reporting to ongoing monitoring, natural capital assessment, and stakeholder engagement.

These services are complemented by our field analysis and mapping capabilities ensuring we can support you at any stage of the project lifecycle.

More widely, NOC is at the cutting edge of marine carbon research, active in fields such as Carbon Capture and Storage (CCS) and Marine Carbon Dioxide Removal (mCDR). We have led and been part of research programmes and have also worked with industry, from consulting to advice and design of specialist sensing or field capabilities.

We are keen to engage broadly to ensure these important and emergent topics are supported by robust scientific understanding.









STRATEGIC PARTNERSHIPS

We partner with industry, government and NGOs to maximise the impact of both their and our considerable expertise.

We're an independent mediator and enabler, helping you gather objective information on the global ocean. Our data, advice and services are always impartial and of the highest quality.

For example, our BORA Blue Ocean Research Alliance® is an innovative partnership between us and Subsea7 which brings science and industry together to enable greater global access to scientific research and help advance global knowledge for the benefit of society.

Through strategic partnerships, we focus on innovative solutions across key marine and environmental challenges. Our carbon services and digital twins support climate action by enhancing data-driven decision-making and predictive modelling.

We drive the offshore energy transition, enabling sustainable marine energy solutions, while our biodiversity services and coastal resilience initiatives help protect and restore fragile ecosystems. Through advanced intelligence and protection services, we enhance maritime security and environmental monitoring.

“We are extremely proud that the BORA Blue Ocean Research Alliance® recently received UN Decade of Ocean Science for Sustainable Development endorsement as recognition of the importance of the work that we are doing”

Liz James

Group Environmental Director Subsea7
BORA Blue Ocean Research Alliance® Lead

WHAT DOES A STRATEGIC PARTNERSHIP WITH US OFFER?

Partnering with us gives you access to our impartial, independent and world-class marine scientists and engineers to help you answer questions others can't. You can also take advantage of our unique position as a world leading ocean research institute, benefiting from exposure to and involvement with the front line of ocean science and technology development along with access to a pool of specialised equipment and testing facilities.

Collaborating with us will help you achieve your sustainability and environmental goals, contribute positively to your environmental, social and governance commitments and leverage access to funding opportunities.

OCEAN CATALYST ACCELERATOR

Our ability to act at pace to solve the critical challenges facing the ocean depends on harnessing the potential of science and technology.

Incredible developments are being made in the UK ocean technology sector, but barriers to market are delaying or preventing many solutions from being implemented. NOC is uniquely positioned to support the advancement of new technologies for sustainable ocean exploration and research and as such we have harnessed our expertise to develop the Ocean Catalyst accelerator programme.

The programme is aimed at early-stage start-ups with high growth potential and innovative projects in ocean science related technology and services. Ocean Catalyst will help to accelerate the growth of participants by providing critical training, resources, mentorship, networking opportunities and support with funding.

Scientific progress is made possible with the development of new, disruptive technologies. Our programme is built to ensure that the next generation of sustainable ocean technology is brought to life.







A person wearing a red jacket and an orange life vest is seen from the back, looking out at a vast, deep blue ocean. The water has a textured, wavy surface. The person is wearing a grey cap and sunglasses. The scene is brightly lit, suggesting a sunny day.

INNOVATION HUB

Our newly refurbished Innovation Hub is a dynamic centre for businesses driving the future of the ocean economy.

Based in Southampton, the NOC Innovation Hub brings together a diverse community of companies working across ocean industries, fostering collaboration, growth and innovation. Our mission is to support and advance commercial opportunities in the blue economy by creating connections between industry and science.

As a member of our Innovation Hub, your company will gain direct access to a network of experts, potential partners and cutting-edge research. You'll have opportunities to collaborate on industry-led projects, align with funded research initiatives and accelerate the development of new ocean-related solutions.

Whether you're looking to enhance your market presence, develop new technologies, or leverage our world-class facilities and expertise, the Innovation Hub provides the ideal environment to grow and thrive.

With a range of membership options to suit your needs, the Innovation Hub is the perfect place to connect, innovate and lead in the evolving ocean economy.

"We have been involved in the Innovation Hub for many years, since its very earliest days. It has proved to be an extremely valuable partnership, providing a unique opportunity to meet and collaborate with a wide range of innovative organisations within this dynamic, high growth sector."

Laurence Fadden
Sales Executive
Steatite

WHO WE WORK WITH

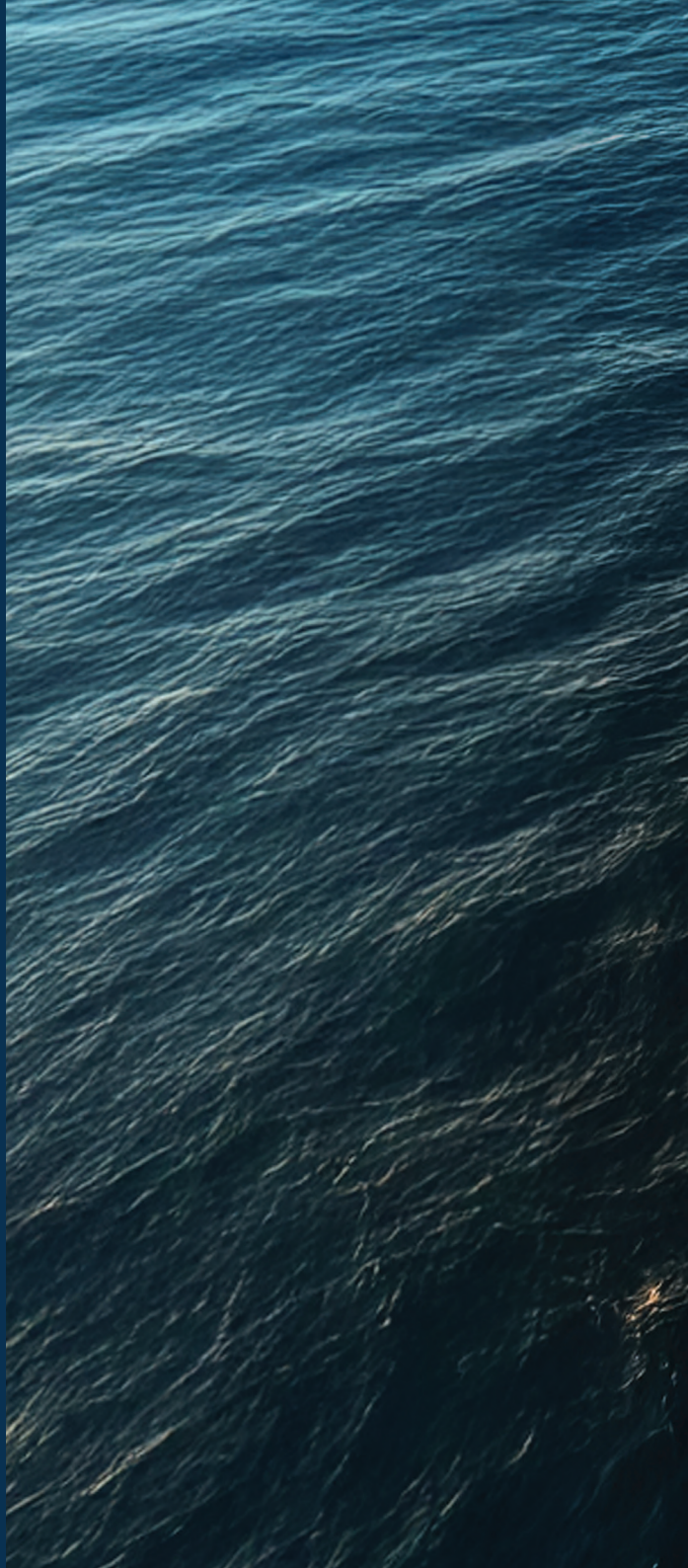
We empower organisations from all corners of the marine and environmental landscape with world-class scientific and technical expertise.

Our independent insights are built on rigorous research and advanced analysis, designed to spark innovation and drive sustainable progress.

We translate our deep understanding of ocean systems into practical solutions that support transformative projects and initiatives. By delivering impartial, actionable intelligence, we help our collaborators navigate complex challenges and unlock the full potential of our shared blue future.

CORE FOCUS AREAS

- Carbon Services
- Coastal Resilience
- Offshore Energy Transition
- Biodiversity Services
- Subsea Intelligence and Protection
- Digital Ocean





BUSINESS@NOC.AC.UK
+44 (0)300 131 2321
NOC-INNOVATIONS.COM



**National
Oceanography
Centre**

NOC Innovations Limited is a trading subsidiary of the National Oceanography Centre (NOC).

By working with us, you gain access to world-leading ocean science, engineering and technological innovation whilst directly supporting NOC's charitable mission to deepen global understanding of the ocean for the benefit of society and the natural world.

The purpose of NOC is to gain a deeper knowledge of the ocean to address major challenges facing society and the natural world. We are uniquely placed, working with partners from around the world, to turn research and technological innovation into trusted knowledge for real action and solutions.

Find out more at **NOC.AC.UK**

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Registered address: European Way, Southampton, SO14 3ZH, United Kingdom +44 (0)23 8059 6666

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