OUR VISION FOR THE NEXT DECADE

STRATEGY 2025-2035

National Oceanography Centre

NOW IS A CRITICAL TIME FOR MARINE RESEARCH

The role of the ocean and seas in mediating our climate and supporting all life on Earth, including our own, is increasingly recognised not only by scientists but by wider society. This brings a significant opportunity to the marine research community but also brings the challenge: to provide the science and evidence to meet global demands for knowledge. It is, therefore, our responsibility to demonstrate that NOC science is focused on societal needs, is relevant, robust, and provides value for all.

As a maritime nation, ocean knowledge is critical to the UK, not just to protect from extreme weather events and rising sea levels, but increasingly to protect our waters and enable prosperity and growth. Understanding the ocean brings a wealth of opportunities to all. It was proclaimed by the United Nations General Assembly in 2017 that 'the ocean holds the keys to an equitable and sustainable planet. As the global population is set to reach more than 9 billion people by 2050, impacts on the ocean associated with human activities will only escalate. Understanding the variability of the ocean and the related impacts on our society will be of vital importance, if we want both nature and humankind to thrive.'

As we reach the midpoint of the UN Ocean Decade, we can see how far we have come, and yet how far we still have to go. To achieve an equitable and sustainable existence for all on planet Earth, we must keep advancing the frontiers of research and innovation. It is time for science to provide us with the knowledge required to tackle these global issues collectively, as we explore, inform and inspire.

Professor John Siddorn
Chief Executive Officer

ABOUT US

The National Oceanography Centre (NOC) is one of the world's top oceanographic institutions and has been in existence, in its various forms, for over six decades. NOC has an annual turnover of £80 million, employs over 700 staff, and is one of few research organisations globally that has the equipment and expertise to operate down to 6,000m.

We undertake world-leading research from coastal seas to deep water, to enhance understanding of the ocean to address critical environmental challenges. We lead in developing innovative technologies to support that research. NOC is one of very few institutions globally that can bring together leading scientists, technologists, engineers and digital experts, allowing us and our partners to provide critical scientific knowledge efficiently and effectively.

We work with government and business and are the UK lead centre for UKRI-NERC marine research, providing value by supporting evidence-based decision making.

OUR OCEAN

THE OCEAN'S VITAL ROLE

The ocean is central to both planetary health and human prosperity.

The global ocean mitigates the effects of climate change, absorbing 30% of the excess carbon and 90% of the excess heat, dramatically limiting the impact of anthropogenic carbon emissions.

The UK economy is underpinned by sea borne trade — 95% of trade and 50% of food — and the flow of information over a network of undersea cables, which carry 95% of internet traffic and financial trades. Each day, trillions of pounds worth of financial transactions and other vital communications take place via submarine cables.

The ocean (blue) economy is valued at US$3 trillion per year globally (UK £47 billion) and is growing quickly. The value of the ocean to society extends beyond the economy, to solving health crises and enabling sustainability for humankind.

THE OCEAN IS UNDER THREAT

Despite its important role, the ocean is under increasing pressure.

Climate change, pollution, overfishing and biodiversity loss are not only harming marine ecosystems but eroding the health of the ocean. The rate at which the ocean can buffer anthropogenic emissions is uncertain as the environment changes, and 60% of the world's major marine ecosystems have been degraded or are being used unsustainably.

Without significant change in our actions towards the ocean: 30–35% of the global extent of critical marine habitats will be destroyed by 2100, more than half the world's marine species may face extinction, and warmer oceans and melting ice will continue to lead to altered weather patterns and an increase in frequency of extreme events and coastal hazards.

THE NEED FOR SCIENCE, GOVERNANCE AND UK LEADERSHIP

We are at a pivotal moment in global ocean governance.

Enhancing our understanding and knowledge of the marine environment is critical in providing the evidence needed to shape marine policy and inform decisions around sustainable adaptation. We are in an era of rapid planetary change, expanding global population, resource exploitation and new climate mitigation strategies. But our current knowledge of the ocean is insufficient to fully understand the implications of the climate emergency we are facing, to sustainably manage our ocean, and to conserve its biodiversity.

The role of the ocean in climate change is poorly understood. This includes the extent to which the uptake of heat, carbon and energy impacts upon the ocean itself, how human interaction and exploitation affects biodiversity and the implications for extreme events and natural hazards - and hence people.

The need for science, and supporting observations of our natural environment, is understood and well-articulated in international agreements and obligations. The United Nations Framework Convention on Climate Change (UNFCCC) Paris Agreement obliges parties to collect ocean observations. The World Meteorological Organization (WMO) enshrines Essential Ocean and Climate Variables as mandated data agreed by convention. The Global Biodiversity Framework requires 30% of the world's ocean to be protected. Increasingly, statements from the UNFCCC Conference of the Parties (COP) process are identifying the importance of ocean understanding, underpinned by a strong observing infrastructure. Both moral and legal imperatives require us to evolve and improve the global to coastal ocean observation networks to give actionable evidence at global, basin, and regional scales.

Sea-level rise projections indicate that 800 million people will be at risk from coastal flooding and storm surges by 2050, with the global community facing annual costs of over US$1 trillion in coastal urban areas. Communities in developing countries and Small Island Developing States (SIDS) are the most threatened, with women and girls especially vulnerable.

In September 2025, the UK Government introduced the Biodiversity Beyond National Jurisdiction Bill to parliament — a major step forward to protect marine biodiversity in areas beyond national jurisdiction to enable the UK to meet its international commitments, reinforce UK leadership in global ocean governance, and support the sustainable use of marine resources. NOC was key in implementing several parts of the Agreement, in particular Area Based Management tools, including marine protected areas, as well as evidence in support of environmental impact assessments.

The UK has a unique opportunity to lead.

The waters of the UK — including overseas territories — comprise the fifth largest marine estate in the world. Our international relationships, scientific strengths and long maritime heritage mean we have an important role to play in creating a sustainable ocean future, and a responsibility to do so.

With a collaborative approach, this can also deliver jobs and growth in the UK and increase our resource security while preserving the marine environment and reducing poverty.

The UK Government recognises that ocean science and innovation have critical roles for society, and that the UK's contribution to international ocean research is one of a leading science nation which provides us with valuable soft power. We show leadership in ocean science for policy internationally, as demonstrated in the UK-led G7 2030 Nature Compact. The UK also leads the Global Ocean Alliance, a 77-country alliance which champions ambitious ocean action.

NOC LEADERSHIP

The National Oceanography Centre is a multi-disciplinary ocean science and technology institute with world-leading capabilities in ocean modelling, remote and in-situ sensors, marine autonomy and digital technologies.

Our leadership in science and technology naturally encourages partnerships and collaborations that will help us provide society with the knowledge and technology innovation needed to tackle challenges — helping society adapt and build resilience, prioritising the health and wellbeing of people, whilst driving sustainable growth of the economy, and safeguarding essential marine ecosystem services.

CHAMPION FOR THE OCEAN

Our role as a leading convenor in the marine science community supports informed decision-makers accessing the latest evidence and data.

We act as a champion for independent scientific advice for policy makers, society, and industry, identifying the emerging ocean issues and challenges, along with the potential opportunities. We contribute to consultations, committees, All Party Parliamentary Groups and independent briefings — bringing together the latest evidence and knowledge for the benefit of all.

NOC works with academic institutions from across the world to tackle global challenges, providing expertise and access to the National Marine Equipment Pool and the Royal Research Ships: the *Discovery* and *James Cook*.

THE BLUE OCEAN RESEARCH ALLIANCE®

Officially endorsed by the UN Decade of Ocean Science for Sustainable Development in 2023, and winner of the International Marine Contractors Association sustainability project of the year 2024.

The global offshore energy industry works in locations and depths of water where ocean observations are sparse. With science and industry collaborating closely, gathering data and developing scientific research, we are advancing global knowledge for universal benefit, via many projects in sediment sampling, habitat assessments and monitoring, acoustic monitoring and many other topics which are supporting the sector to deliver sustainable growth.

WORKING IN PARTNERSHIP

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

We bring together companies working across ocean industries to foster collaboration, growth and innovation. We support and advance commercial opportunities in the blue economy by creating connections between industry and science.

We have a long track record of consulting and advising the national security sector through our forecasting and prediction capabilities — to help understand the maritime environment. Our work also supports national security through our pioneering development of marine autonomous systems and novel sensing technology.

DRIVING PROSPERITY AND GROWTH

The best decisions are grounded in knowledge and understanding, and our commercial partnerships address some of the biggest challenges with the expertise of the world's leading marine scientists, engineers and technologists.

We actively look to drive regional and national economic growth, and job creation through the commercialisation of our technology and research. From helping create new business start-ups to partnerships with corporates from a range of sectors, we use a variety of creative commercialisation channels to bring our innovations to market.

Our commercial activities drive growth for the UK whilst supporting sustainable development for the blue economy, such as a roadmap for environmental monitoring of the offshore wind sector for Scottish Government and driving the Blue Ocean Research Alliance®.

The Blue Ocean Research Alliance® is a dynamic and innovative alliance between NOC, and Subsea7, a global leader in the delivery of offshore projects and services for the energy industry, to build knowledge and understanding of the world's ocean.

OUR VISION

By gaining a deeper knowledge of the ocean, we help every living thing on our planet flourish.

Our planet is a blue planet. Most of its expanse is covered by the ocean. This vast space is the lifeblood of our world, yet so much of the ocean is yet to be discovered and its value is so often overlooked and misunderstood.

The purpose of the National Oceanography Centre 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.

We focus on four ocean-related **missions**:

CLIMATE
Society can plan for, adapt to and mitigate against environmental change.

BIODIVERSITY
Marine biodiversity is protected and thriving.

HAZARDS AND POLLUTION
People, infrastructure and ecosystems are protected from hazards and pollution.

SUSTAINABLE MARINE ECONOMY
Ensure development of marine-based economic activity is sustainable, whilst protecting the ocean's future health.

MISSION

CLIMATE

SOCIETY CAN PLAN FOR, ADAPT TO AND MITIGATE AGAINST ENVIRONMENTAL CHANGE

The ocean plays a powerful role in regulating Earth's climate. It absorbs heat and carbon dioxide, drives weather patterns, and supports life on a planetary scale. But as the climate changes, the ocean is also changing: warming, acidifying, and behaving in new and less predictable ways.

Studying the ocean helps us understand what's happening to our climate, where tipping points may be reached, and how the impacts will unfold across the globe - from rising sea levels to shifting weather extremes.

MISSION

BIODIVERSITY

MARINE BIODIVERSITY IS PROTECTED AND THRIVING

Marine biodiversity spans the full spectrum of life in our ocean, from microscopic plankton to great whales, and includes the genetic variation within species and the diversity of habitats which they depend. This rich variety underpins healthy, functioning ecosystems, sustaining intricate food webs and vital chemical cycles.

Yet marine biodiversity is under threat as never before. Climate change, pollution, overexploitation and habitat loss are putting ocean ecosystems under severe pressure, contributing to a global biodiversity crisis.

NOC is building the knowledge and evidence society needs to understand and reduce biodiversity loss. Our work underpins national and international commitments, including the Environment Act, the UN Decade of Ocean Science for Sustainable Development, the Global Ocean Treaty, and the Global Biodiversity Framework.

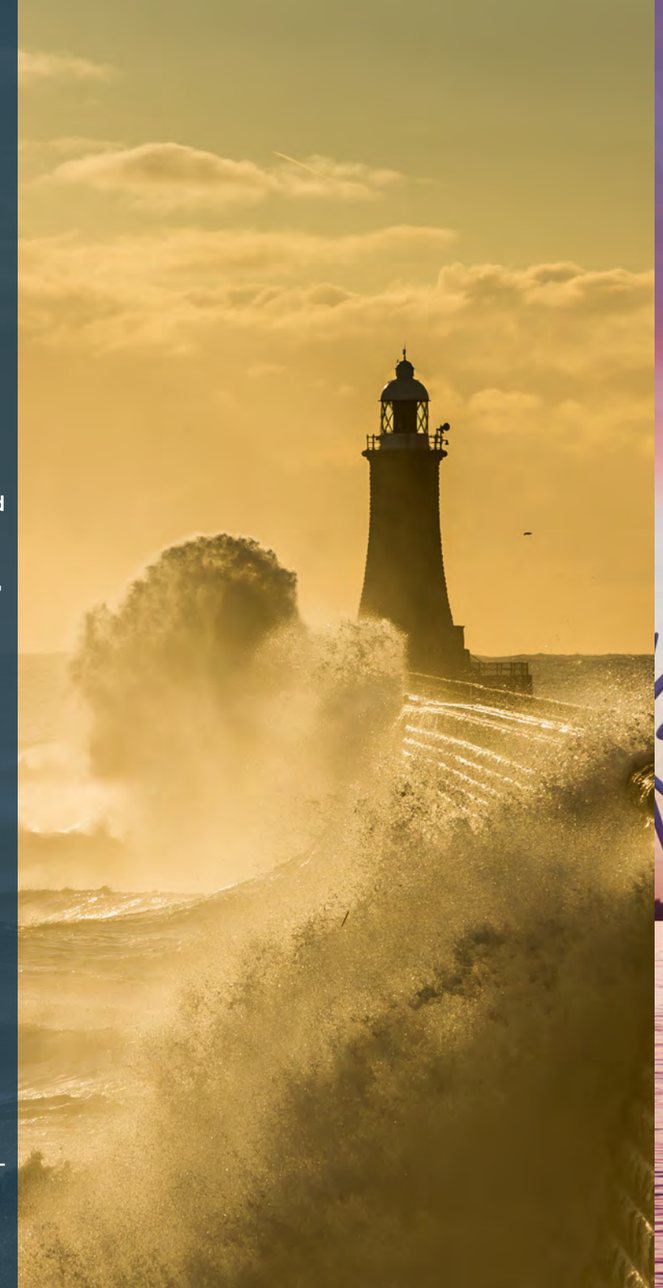
MISSION

HAZARDS & POLLUTION

PEOPLE, INFRASTRUCTURE AND ECOSYSTEMS ARE PROTECTED FROM HAZARDS & POLLUTION

Coastal zones are home to some of the world's most densely populated areas. These regions rely on the ocean not just for food and livelihoods, but also for essential offshore infrastructure that supports entire industries, global trade and communications.

Impacts of marine hazards and pollution can be devastating - damaging ecosystems, destroying infrastructure, and disrupting lives. Some effects may be irreversible. To better prepare for future disasters, we need an internationally connected community of researchers and decision-makers, supported by new tools and techniques to detect, understand and respond to these events.



MISSION

SUSTAINABLE MARINE ECONOMY

ENSURE DEVELOPMENT OF MARINE-BASED ECONOMIC ACTIVITY IS SUSTAINABLE, WHILST PROTECTING THE OCEAN'S FUTURE HEALTH

Human activity in the marine environment continues to grow, in scale, scope and extent. This activity is critical for food and energy security, but also our livelihoods and wellbeing. A sustainable marine economy is a system which balances economic, environmental, and social goals to enable the use of marine resources whilst also delivering equitable prosperity, protection and restoration of marine ecosystems.

NOC plays a key role in delivering the evidence, data and insight needed to make the marine economy genuinely sustainable. Our expertise supports evidence-based decision making, more resilient infrastructure, and greener growth for the marine industries shaping our future.

RESEARCH THEME

ARCTIC SCIENCE AND INNOVATION

FOR A CHANGING WORLD

In addition to our missions, we have identified priority research themes that are addressed by our experts, in collaboration with partners and stakeholders.

As one of the most rapidly changing environments on our planet, the Arctic is one of our priority research themes. The Arctic region presents opportunities and risks posed to climate, biodiversity, human wellbeing, marine economies and geopolitical stability which are global. It plays a fundamental role in the Earth's climate system and its unique sea ice environment and ecosystems provide resources and a way of life to local Arctic communities.

However, it is rapidly changing, moving towards potential tipping points that threaten our global climate, weather and biodiversity.

Warming in the Arctic is occurring up to four times faster than the global average, driving rapid losses of sea ice, glaciers and permafrost. These changes have profound implications, not only for the local ecosystem and the health and livelihoods of the communities that call the Arctic home, but for every living thing on our planet.

For collaborative opportunities, please contact
ARCTIC@NOC.AC.UK

THE NEXT DECADE

To gain a deeper knowledge of the ocean, we must deliver world-leading science and deliver the capacity (including engineering, digital and laboratory) for ourselves and others to do that science.

It is not sufficient just to gain knowledge—we must also ensure that it is trusted, purposeful, accessible, and used for the benefit of society and planetary health. To achieve this means partnering across an increasing range of sectors, including research organisations and charities, nationally and internationally, beyond the natural sciences.

We work with government to support policy needs and with industry to stimulate prosperity and growth. We work with partners to ensure our ocean knowledge supports civil society and is used to engage the public so they understand the ocean and its role in our lives. We also support other organisations through providing research facilities enabling high-quality science for public good.

We can only deliver this impact for society and planetary health if, as an organisation we are vibrant and healthy and financially resilient.

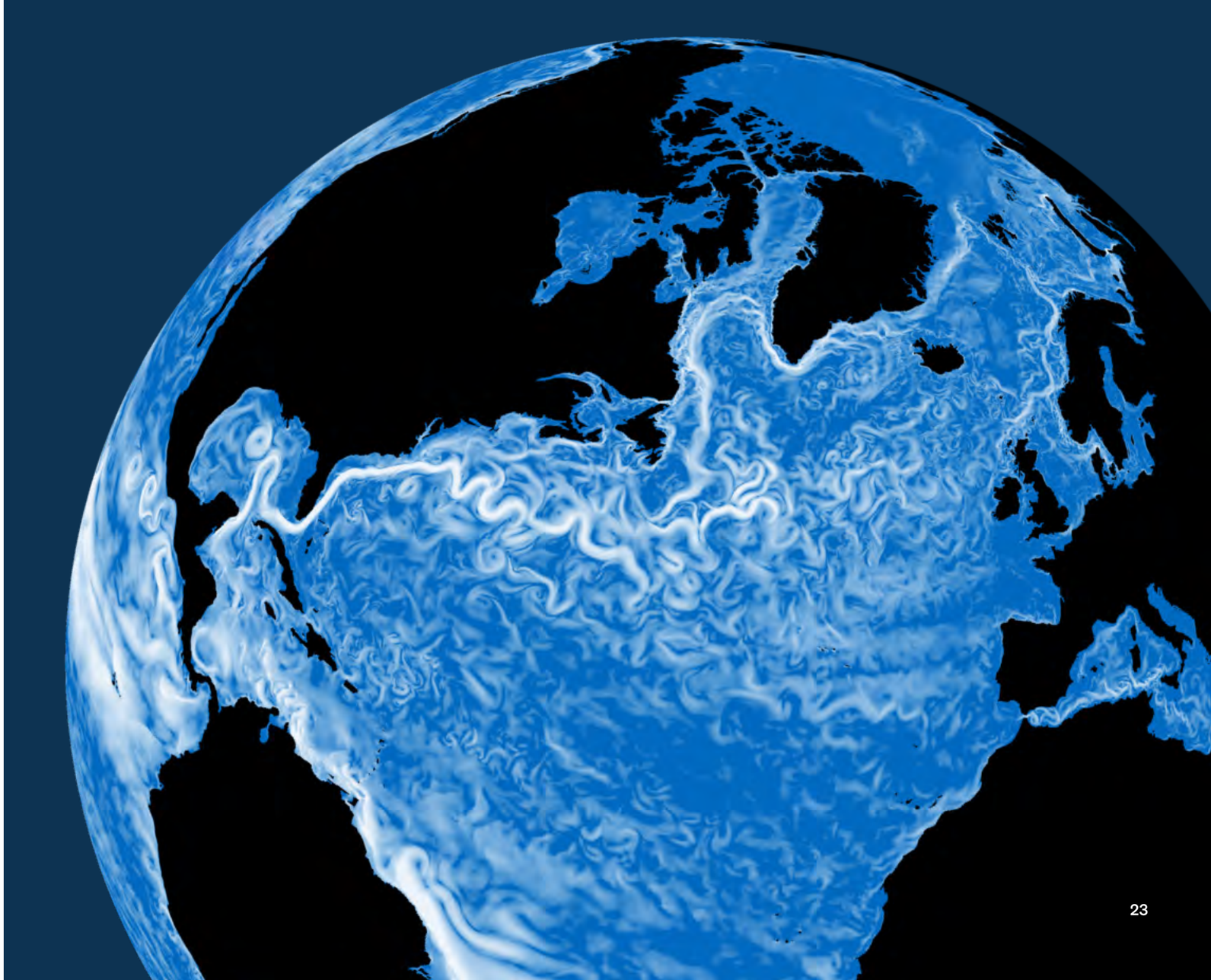
Therefore, to achieve our vision our strategy is formulated to deliver **four major outcomes**:

DEEPER KNOWLEDGE OF THE OCEAN

VALUE FOR SOCIETY

A VIBRANT AND HEALTHY ORGANISATION

A FINANCIALLY RESILIENT ORGANISATION



OUTCOME

DEEPER KNOWLEDGE OF THE OCEAN

We develop the capacity, for ourselves and for others, to deliver world-leading science that spans the spectrum from curiosity-driven to applied. We:

- Undertake **world-class research** into the global ocean and climate system, marine biodiversity and ecosystems, resources, and society's interaction.
- Innovate to create and provide **excellent technology** to advance the frontiers of ocean knowledge.
- Make and share the **highest quality global ocean observations, models and digital tools**.
- Deliver **state-of-the-art facilities and services** that are used nationally and internationally, and are essential for the UK to be a **world-leader in marine research**.

OUTCOME

VALUE FOR SOCIETY

We must ensure that the knowledge gained is used to the benefit of society and planetary health. We:

- **Inspire and inform** humankind to provide an understanding of the ocean's role in our lives and an awareness of ocean-related issues that present risk to life (human and wider) and livelihoods.
- Provide scientific **evidence** for national and international public policy development, risk assessment, ocean governance and regulation for sustainable development.
- **Convene** the marine science research community to enhance its influence on our key stakeholders.
- Provide knowledge of the ocean through co-designed **products** to businesses, foundations, nations and communities.

OUTCOME

A VIBRANT AND HEALTHY ORGANISATION

We expect excellence in our science and impact activities, which is only possible if we are a vibrant and healthy organisation. We:

- Manage our physical and digital environment to provide a working environment that encourages innovation and creativity and is **fit for the future**.
- Build a high-performing organisation of **skilled, effective people**, through a culture of **inclusivity**, recruiting **talent**, and providing **career development** for all.
- A working environment that supports the **health, safety** and **wellbeing** of our community, through a **proactive** culture.
- Work to high environmental and **ethical standards** in all aspects of NOC business.

OUTCOME

A FINANCIALLY RESILIENT ORGANISATION

To ensure we are robust to changes in the funding landscape, and to maximise the potential for our organisation, we must have a financially resilient organisation. We:

- Increase NOC's financial resilience through developing a **wider portfolio of income streams**.
- Increase revenue and profitability to ensure we maintain **strong financial reserves**.
- Encourage **efficiency**, gaining maximum value from effective, well-designed, working practices.
- Grow **capability and capacity** by investing in infrastructure and skills, capabilities and leadership excellence, to open new areas of research and innovation.

COLLABORATING FOR A DEEPER UNDERSTANDING OF THE OCEAN

As the UK's leading institution for large-scale ocean research, we deliver vital insight into our changing seas. Our long-term scientific capability provides a solid foundation that supports national priorities and informs policy with trusted, evidence-based knowledge.

We work closely with partners across academia, industry, and government, both in the UK and internationally, to enhance society's understanding of the ocean. By fostering inclusive, sustained engagement, NOC ensures marine science remains accessible, impartial, and aligned with the needs of both decision-makers and the public.

We will continue to push the boundaries of ocean science and innovation, and invite you to join us to help shape the future of our planet. Because by building ocean knowledge and understanding, we will help every living thing on our planet flourish.

IF YOU WOULD LIKE TO WORK WITH US IN DELIVERING THIS VISION, REACH OUT TO US TODAY

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