# Navigating the Future VI: Ocean Science for Earth Challenges

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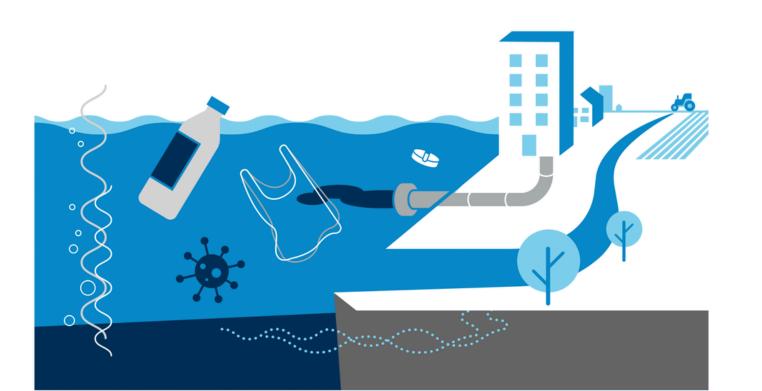
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Navigating the Future VI is a flagship foresight European Marine Board Position Paper that explores the role of the Ocean in the wider Earth system and promotes collaboration between disciplines to tackle global issues.

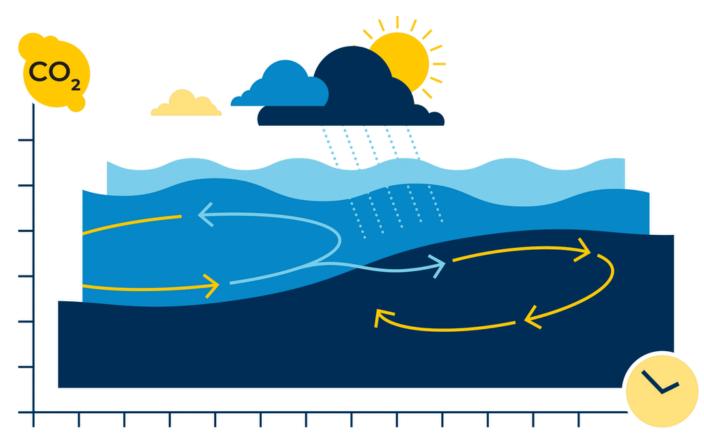
It provides research and policy recommendations on four key themes: Ocean and People, Ocean and Fresh Water, Ocean and Climate, and Ocean and Biodiversity.



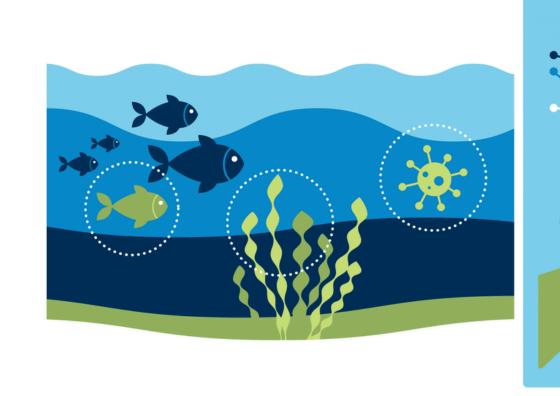
Working together to manage our Ocean interactions



Clean and safe waters available to all communities



An Ocean that is no longer impacted by climate change



A biodiverse Ocean that continues to provide ecosystem services

Include all contaminants and

assessments and EU Directives

Monitor deteriorating coastal

freshwater reserves and

submarine discharges

discharge pathways in risk

## Ocean & People

Working together to manage our Ocean interactions



of the Blue Economy and the potential for future developments

Strengthen our understanding

Explore the many different Ocean values, and better understand the interconnections between humans and the Ocean

Reform Ocean governance to ensure equitable community participation and consideration of values and knowledge

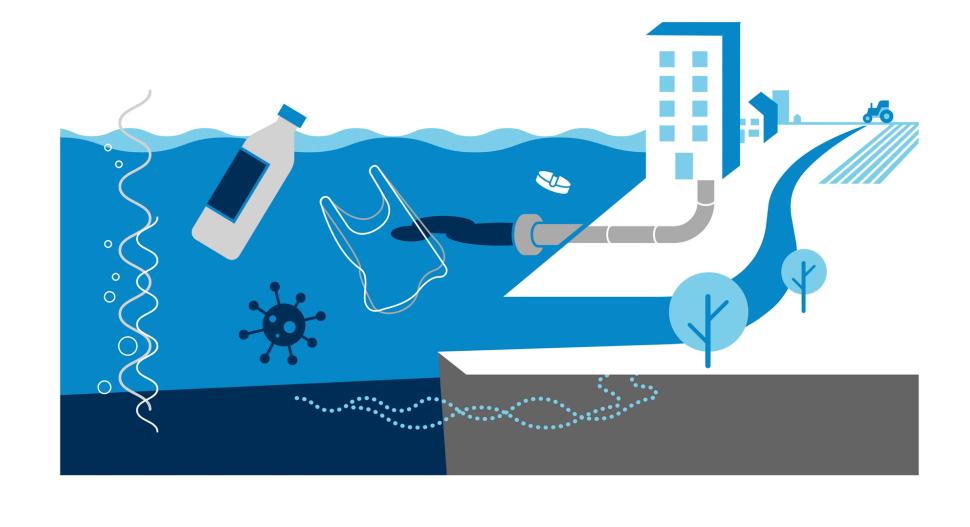
Recognise the need for structural change in Ocean policy, research and management

Use appropriate criteria to monitor engagement in citizen science projects

Increase capacity in and appreciation of all forms of collaboration

## Ocean & Fresh Water

Clean and safe waters available to all communities



Broaden monitored parameters to understand salination impacts

Create nature-based costeffective technologies for emerging and legacy pollutants

Monitor biochemical and genetic markers to prevent the spread of diseases

Harmonise monitoring and reporting methods between freshwater and marine systems

## Strengthen our understanding of the Blue Economy and the potential for future developments

Explore the many different Ocean values, and better understand the interconnections between humans and the Ocean

Reform Ocean governance to ensure equitable community participation and consideration of values and knowledge

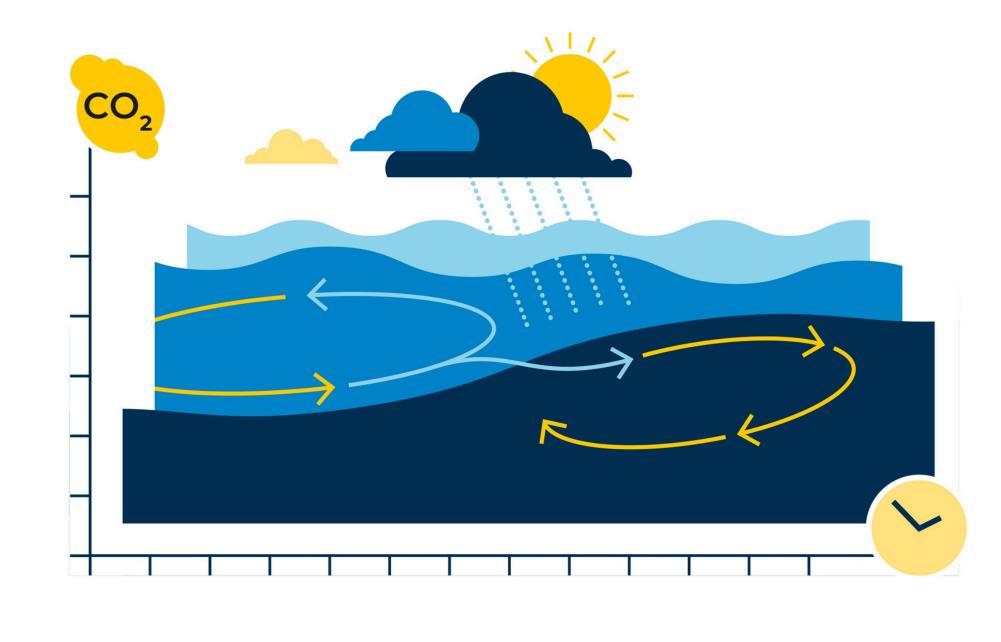
Recognise the need for structural change in Ocean policy, research and management

Use appropriate criteria to monitor engagement in citizen science projects

Increase capacity in and appreciation of all forms of collaboration

#### Ocean & Climate

An Ocean that is no longer impacted by climate change



Study and effectively manage the impacts of emerging and expanding human activities on marine biodiversity

Assess the impact of human activities on ecosystems using cost-benefit analysis of their conservation or restoration

Study and monitor the spatial-temporal distribution and adaptive potential of marine organisms

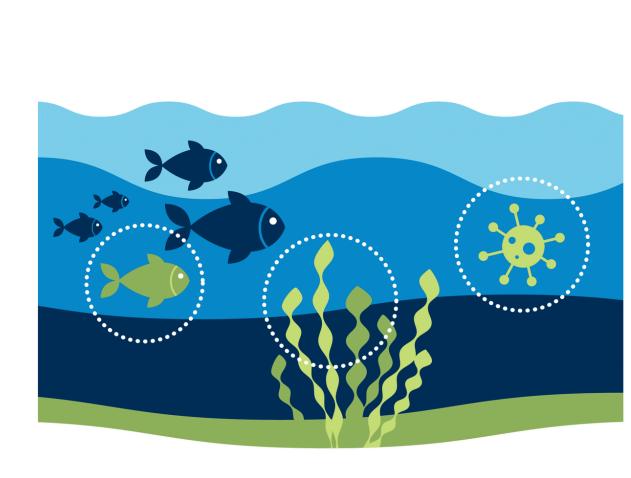
Evaluate the epidemiological, genetic, and ecological consequences of invasive species

Study the distribution of marine microorganisms to predict future epidemic risks from invasive microbes or resistance to antibiotics

Promote all initiatives to increase biodiversity knowledge and capacity building, including the European Digital Twin, citizen science, recovering lost knowledge, and using traditional and new tools

### Ocean & Biodiversity

A biodiverse Ocean that continues to provide ecosystem services











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