



A Strategic Research Agenda for Oceans and Human Health

Identifying priority research areas needed to establish an Oceans and Human Health research capacity in Europe from 2020 to 2030.



Oceans and Human Health is an overarching discipline exploring the links between marine and public health. It is interdisciplinary and requires collaboration across science and society.



The SOPHIE Strategic Research Agenda outlines research questions to be addressed for three critical topics within Oceans and Human Health:

Sustainable seafood and healthy people

Blue spaces, tourism and well-being

Biodiversity, biotechnology and medicine



The research agenda also makes several recommendations to help increase the impact of Oceans and Human Health research:

- Encourage collaboration through formalised events
- Develop best practice guidance for cooperation
- Identify and prioritise gaps in understanding
- Investigate the potential health benefits of marine protected areas
- Design training and education programmes across disciplines
- Enable youth contribution and engagement
- Provide advice to policy makers on data and monitoring needs





Sustainable seafood and healthy people

We must provide access to healthy, nutritious, safe and sustainable fish and seafood for all.



Overview

Focus on the ocean as a source of food is increasing, especially given the attention on food security and population dietary health.

However any food produced from the ocean needs to be nutritious, sustainably harvested, safe and available to everyone.



Key research needs

- Improved understanding of how pollution and climate change will impact marine food sources.
- Development of management measures that adapt to changes in fish and seafood distribution and other properties.
- Research into social licence for new marine food sources, and means for ensuring quality and sustainable access for consumers.





Blue spaces, tourism and well-being

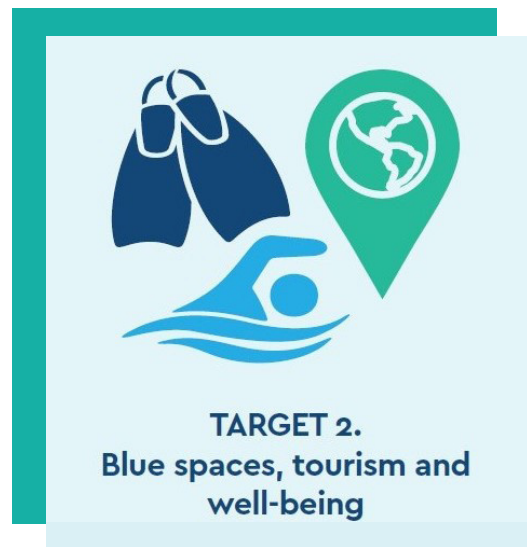
How do we improve mental and physical health through interactions with high quality blue spaces?



Overview

There is concern about the deterioration of physical health and mental well-being across European countries.

Time spent in blue spaces is linked to improved health, however the risks and benefits need to be identified and balanced.



Key research needs

- Develop further evidence to demonstrate and quantify positive health impacts of interaction with blue spaces across Europe.
- Understand in greater detail the pathways and mechanisms which lead to positive health outcomes.
- Explore the environmental impacts of increased human use of blue spaces and balance benefits with sustainability.





Marine biodiversity, biotechnology and medicine

We need a strategic approach to marine *biodiscovery* coupled with protection of marine *biodiversity*.



Overview

Around 2/3^{rds} of marine species remain undiscovered, yet we are in a period of unprecedented extinction.

Marine species could contribute new compounds, biotechnology products and applications. Current discovery pipelines are expensive and time-consuming.



Key research needs

- Better understanding of marine ecosystems and greater collaboration to enable more strategic approaches to biodiscovery.
- Development of new technologies to overcome bottlenecks in the biodiscovery pipeline.
- Improved knowledge on the unique characteristics of marine species and their use in biomedical research and applications.

