

**Seas, Oceans & Public
Health in Europe**

Linking oceans and health research

Setting a strategic research agenda for oceans and human health in Europe



SOPHIE is funded by the European Union's Horizon 2020 research and innovation programme, grant agreement No 774567.



Find out more at
www.sophie2020.eu



International multi-partner initiative





Strategic research agenda

- 🌊 Produced by SOPHIE (Seas, Oceans and Public Health in Europe)
- 🌊 Calls for international and interdisciplinary research funding
- 🌊 **3 cross-cutting ocean and human health action areas:**
 1. Marine biodiversity, biotechnology and medicine
 2. Sustainable seafood and healthy people
 3. Blue spaces, tourism, wellbeing
- 🌊 Addresses short term agenda until 2030
- 🌊 But doesn't define Oceans and Human Health (OHH)



Consultation process

- Spans marine and health communities
- Transdisciplinary collaboration
- Workshops and topic mapping
 - Challenges
 - Opportunities
- Informed by SOPHIE activities





Marine biodiversity, biotechnology and medicine



Our vision

- Targeted approach to benefit biotechnology, medicine and disease prevention
- Demonstrate how marine biodiversity and protection are crucial





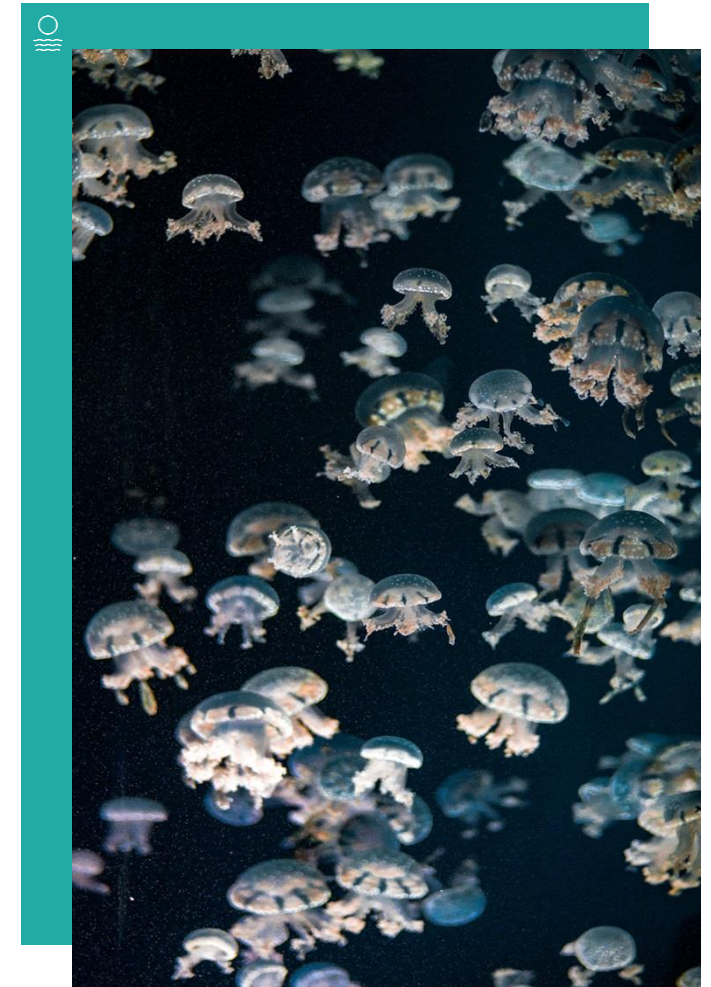
Why biodiversity, biotechnology and medicine?

- 🌊 Unprecedented species extinction
- 🌊 2/3rds marine species still undiscovered
 - New compounds, biotechnical products and bioinspired applications
- 🌊 New products needed
 - e.g. resistance to antibiotics (AMR)
- 🌊 Expensive and time-consuming biodiscovery pipelines



What do we need to know?

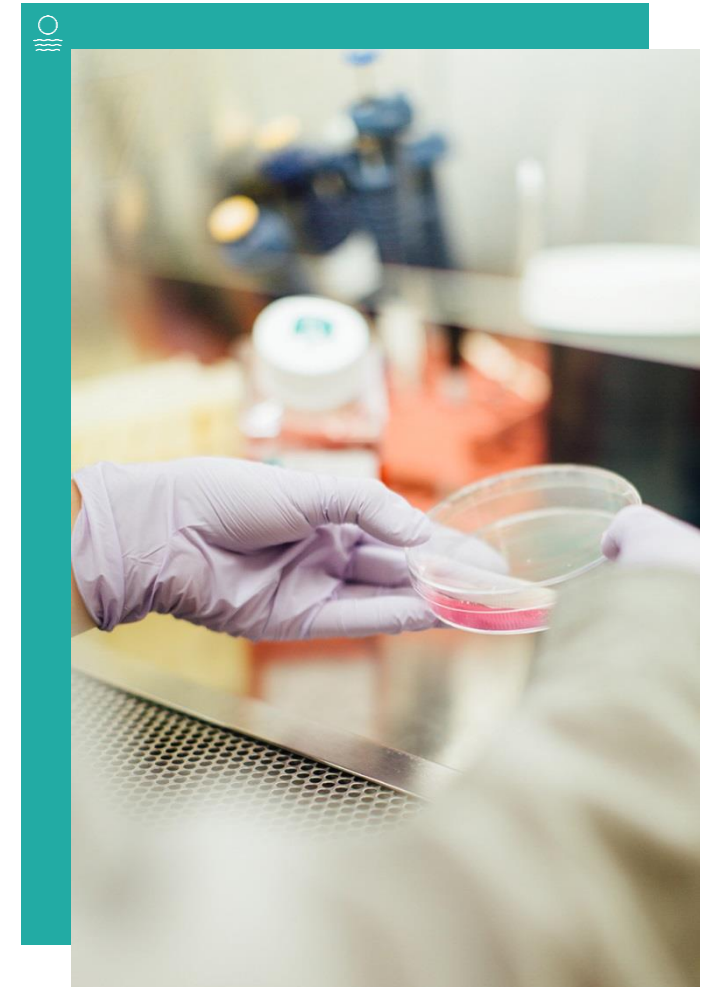
- 🌊 How can marine ecosystems help target approaches to biodiscovery?
- 🌊 What are the fundamental unique characteristics of marine species?
- 🌊 How do we ensure safety, sustainability and avoid disruptions to the marine biodiscovery pipeline?





What needs to happen?

- 🌊 Collaboration and communication along the full bio-discovery pipeline
- 🌊 Review existing marine policies linked to human products and applications
- 🌊 Protection for marine biotechnology products and applications

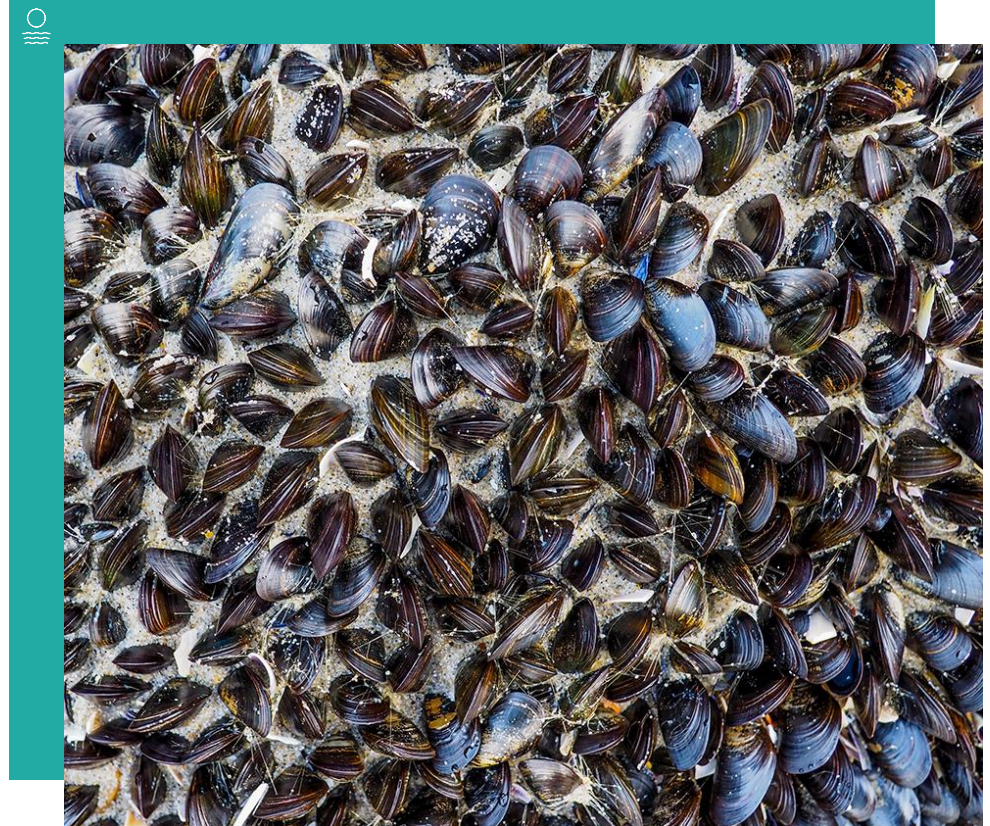




Sustainable seafood and healthy people

Our vision

- Fish and seafood can be healthy, nutritious, safe and accessible to all
- Sustainable fisheries and aquaculture





Why sustainable seafood and healthy people?

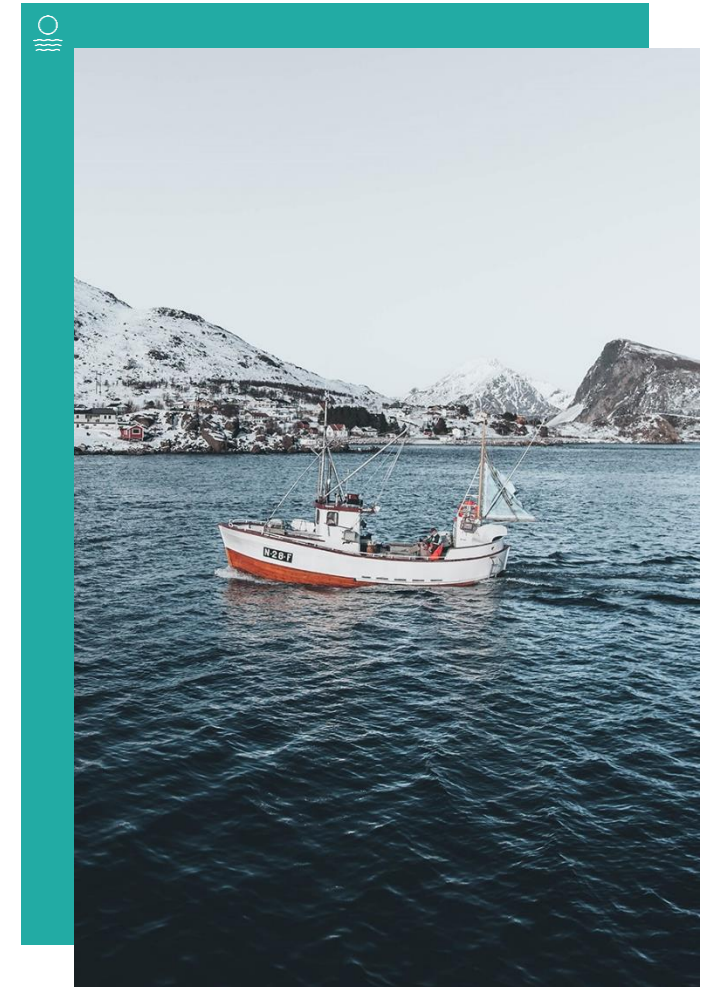
- 🌊 Populations rising and pressures on food security

- 🌊 Ocean food may provide a solution
 - Fish and seafood are nutritious
 - Healthy and equitable diets prevent disease
 - Food provision sustainably managed for safety and access



What do we need to know?

- 🌊 How will pollution and climate change impact food sources?
- 🌊 How should we adapt to changes to the distribution of fish and seafood?
- 🌊 How willing are people to eat more or different seafood?
- 🌊 How do we ensure equal and sustainable access?





What needs to happen?

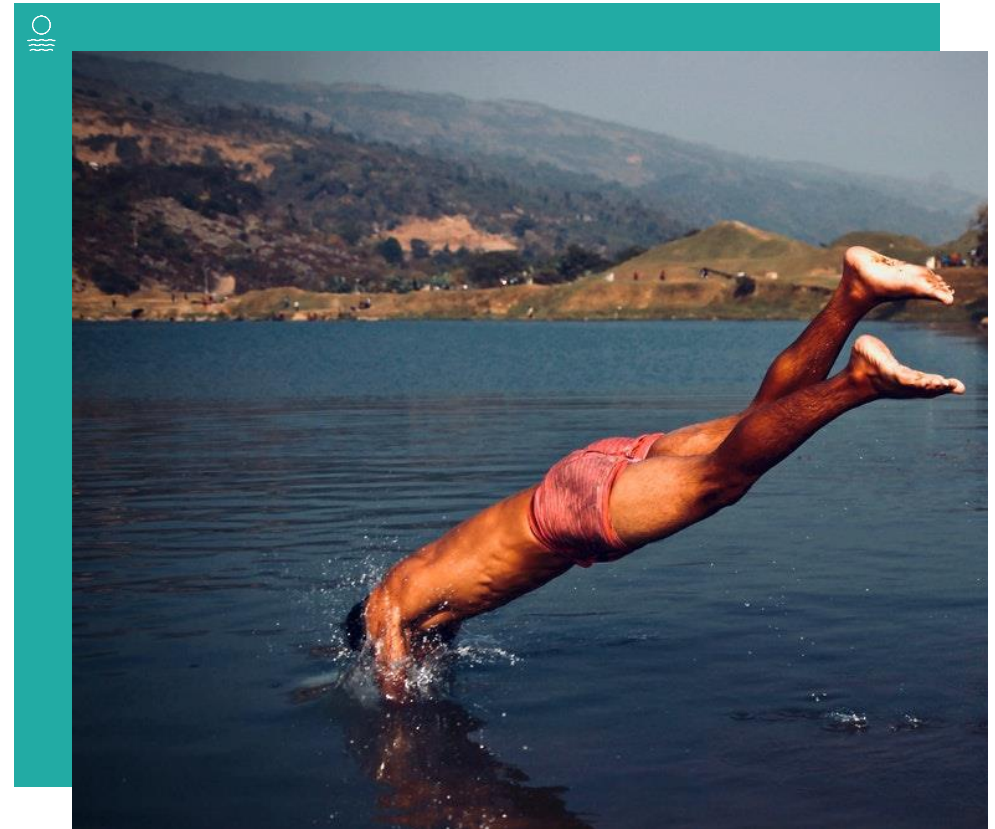
- 🌊 Global change in policies managing fisheries and aquaculture
- 🌊 Link policies between fisheries, food security and health
- 🌊 Understand impact of environmental change on food safety
- 🌊 Transdisciplinary training opportunities



Blue spaces, tourism and wellbeing

Our vision

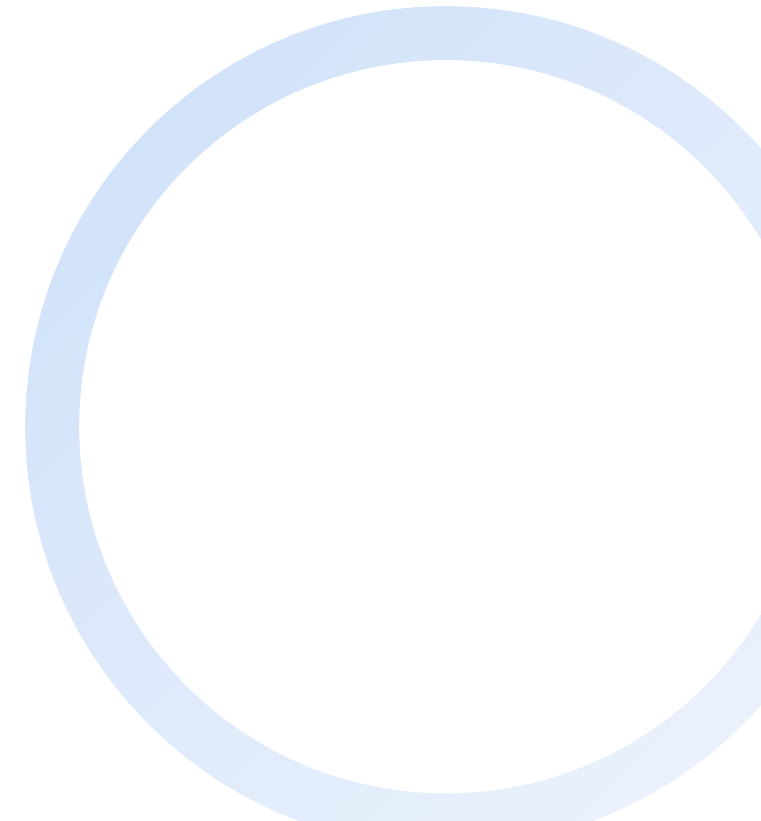
- Improved physical and mental health
- Enhanced and sustainable interactions with blue spaces





Why blue spaces, tourism, health and wellbeing?

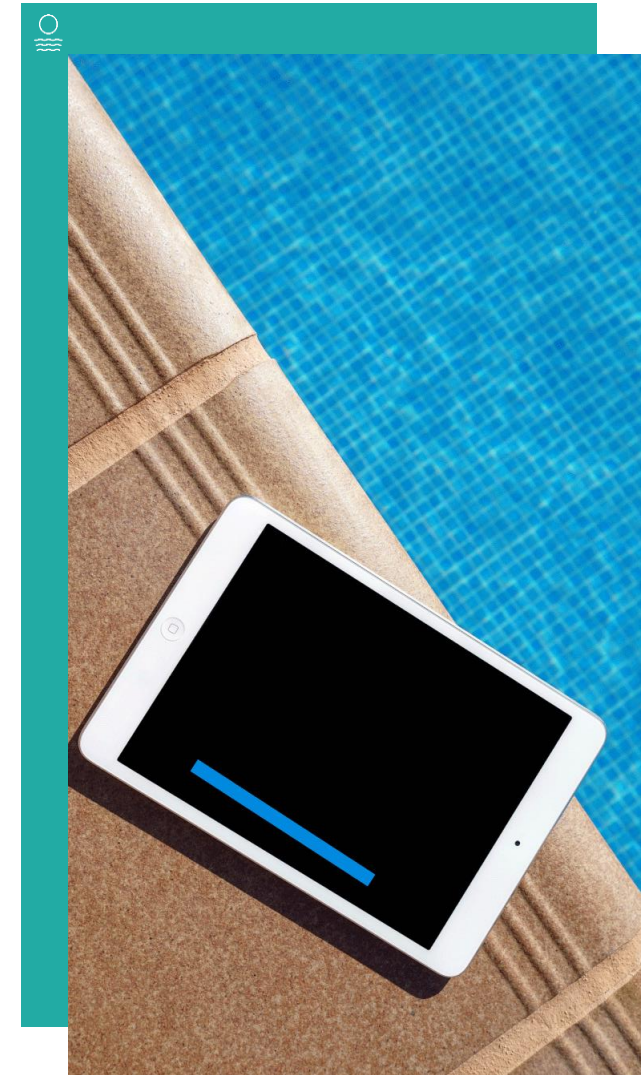
- Deteriorating health across Europe
- Blue spaces linked to improving public health
 - Decrease health costs
- Avoid environmental damage
- Inconsistent awareness of risks and benefits
 - e.g. tourism





What do we need to know?

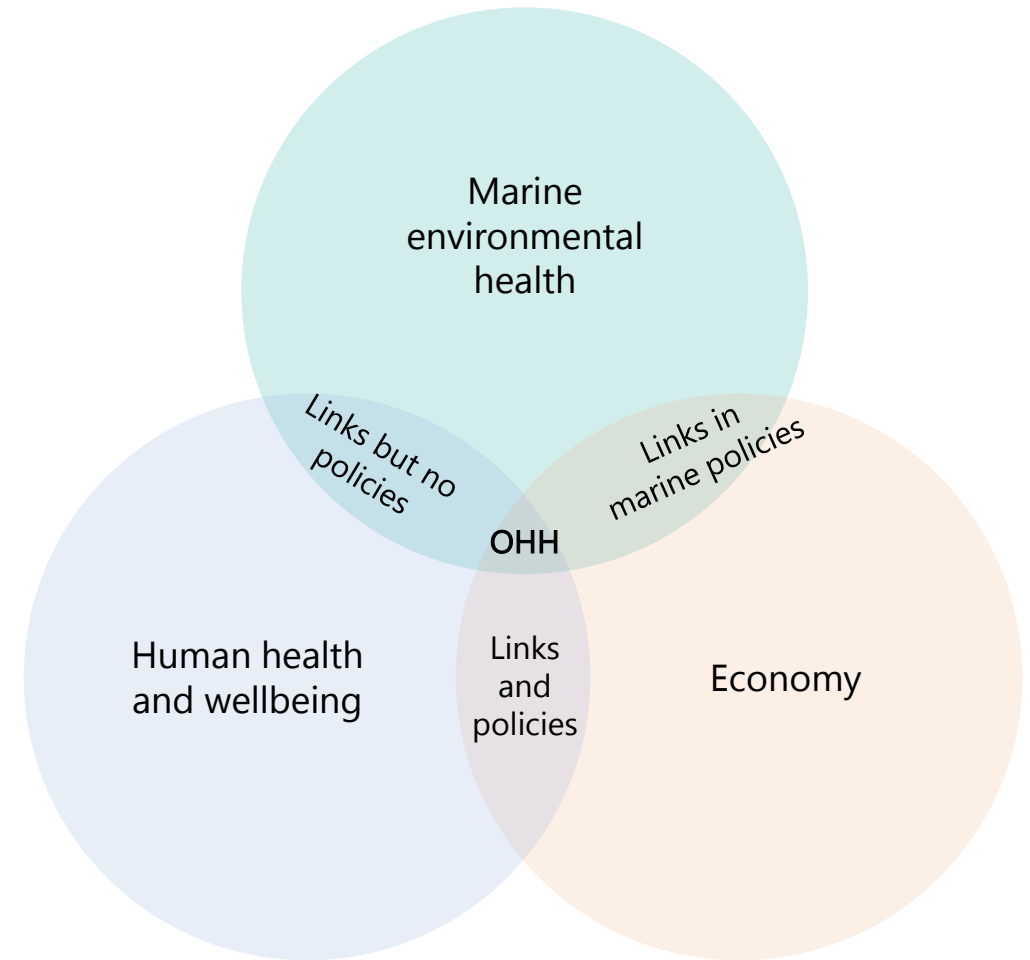
- What are the positive impacts of blue spaces on health and wellbeing?
- How do we maximise benefits while mitigating environmental impact?
- How do we make health-based blue space interactions sustainable?





What needs to happen?

- ☞ Review pollutants and pathogens in recreational blue spaces
- ☞ Explore integrating ocean literacy with tourism and citizen science
- ☞ Create a forum and platform for co-created solutions





Conclusions and recommendations

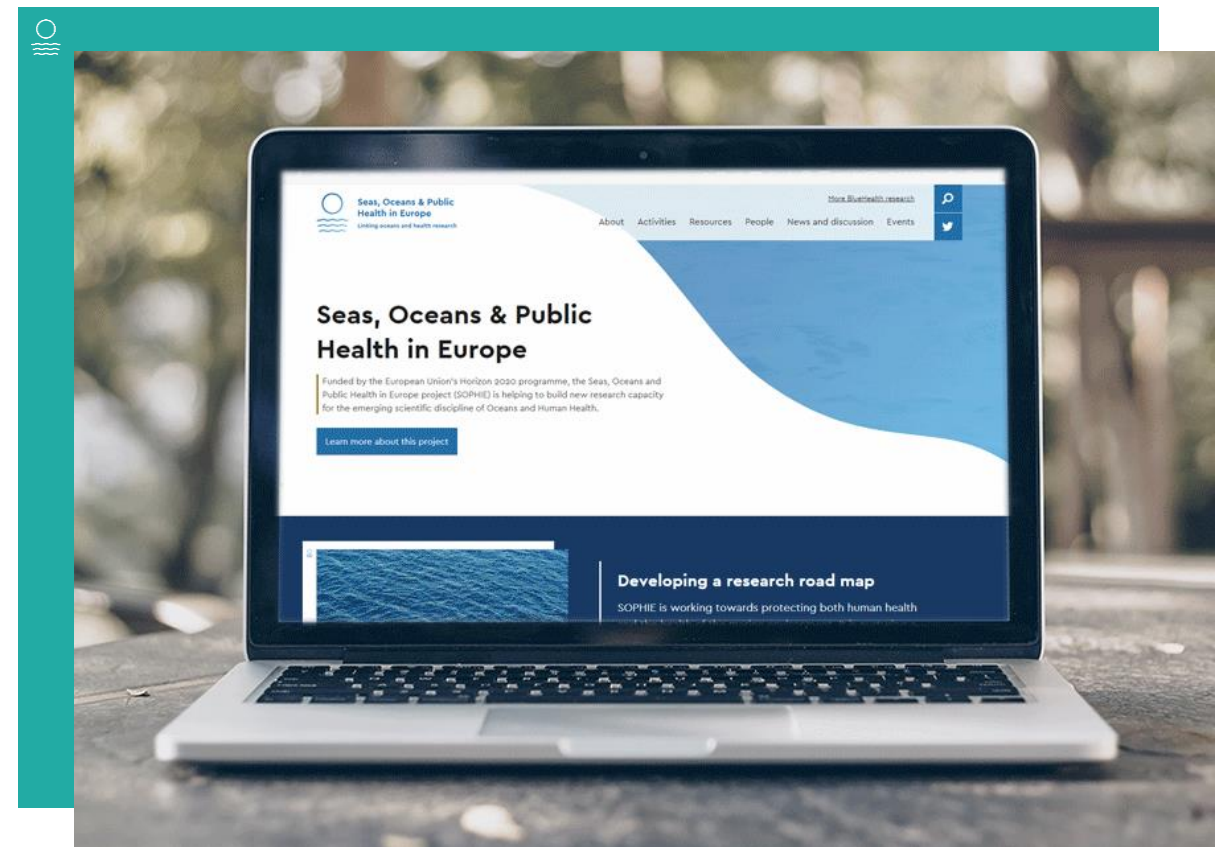
- 🌊 Interdisciplinary and international funding needed
- 🌊 Medical, public health, marine, environmental science communities need to work together
- 🌊 Transdisciplinary training must be offered
- 🌊 Co-creation and engagement with communities, business, NGOs and governments essential

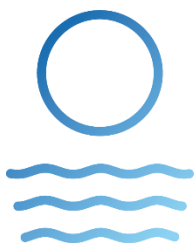


Discover more online

The SRA will be available in full on the SOPHIE website

sophie2020.eu/SRA





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Thank you for listening.



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