

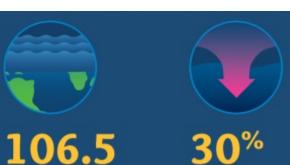
This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 862923. This output reflects only the author's view and the European Union cannot be held responsible for any use that may be made of the information contained therein





Atlantic Ecosystems Assessment, Forecasting & Sustainability





**MILLION SQUARE KM** 

The 2<sup>nd</sup> largest ocean

basin on Earth

**MORE THAN 30%** 

of the global ocean absorption of atmospheric CO,



**OCEAN-BASED ECONOMY** 

The ocean-based economy is expected to double in the next 20 years

France, Belgium, Switzerland, United Kingdom, Italy, Spain, Portugal, Norway, Hungary, Netherlands, Germany, South Africa & Brazil

Duration: 2020-2025+

Start date: 01.09.2020





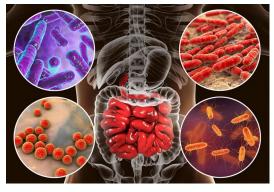






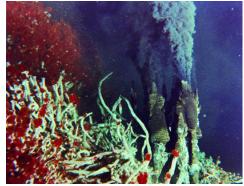


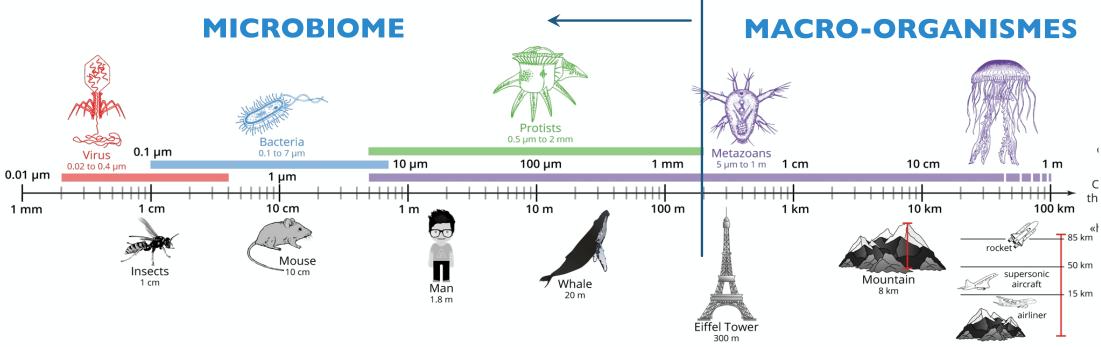
## The oceanic microbiome













#### **SOURCE OF LIFE**

Through photosynthesis, it transforms light energy and nutrients into organic matter, the basis of the marine food chain.



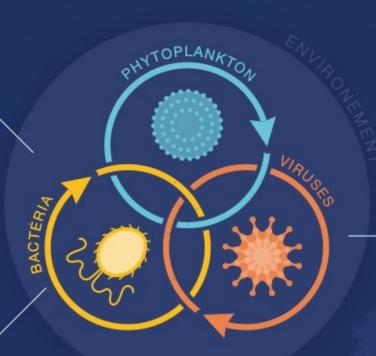


#### **RESOURCES FOR SOCIETY**

This ever-changing biodiversity potentially abounds with molecules of great interest for biotechnological innovation.

#### **Benefits**

The Ocean microbiome is composed of all marine microorganisms (viruses, bacteria, micro-algae, protists, etc.) and the environment within which they evolve.



## REGULATORS OF ECOLOGICAL BALANCES

Among all photosynthetic organisms, marine phytoplankton is responsible for capturing and emitting half of the CO<sub>2</sub> and O<sub>2</sub> respectively.



It transforms matter and makes it available to the rest of the system. Research approaches and focus







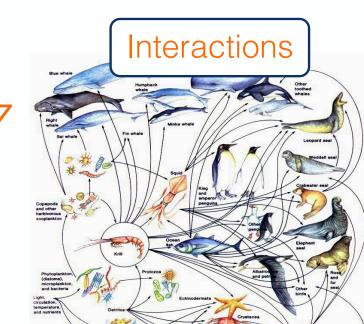




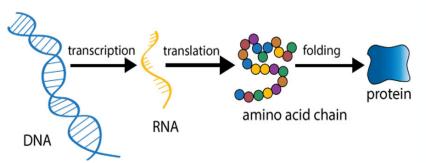
# The challenge













Microbiome vulnerability to climate change

Chaffron et al., Science Advances (2021)











Inclusive multidisciplinary training





Case studies – bridging toward applications Capebio





### **IMPACT**

Cooperative sampling, Connecting infrastructures



