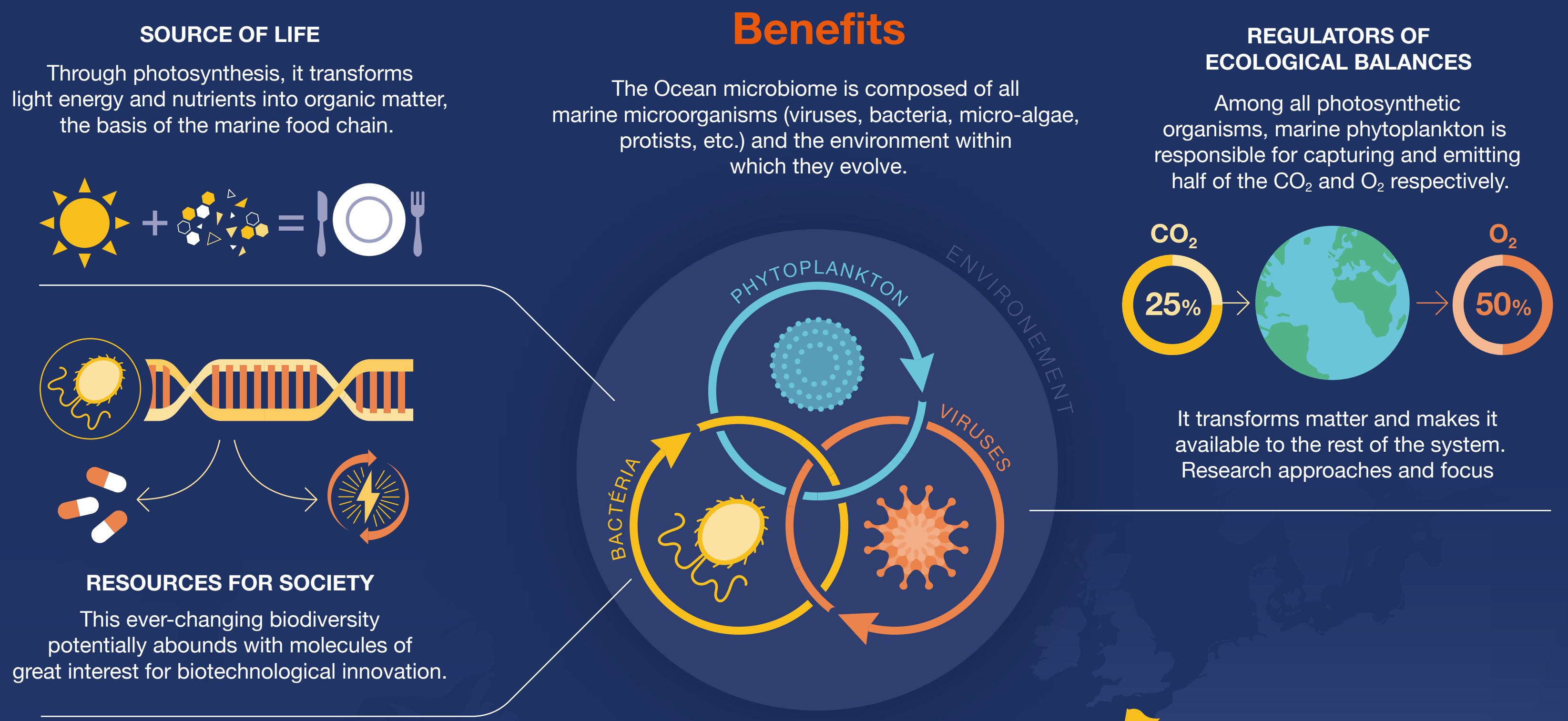


MISSION MICROBIOMES

Marine microorganisms play a fundamental role in oceanic ecosystems. These microbiomes are key actors in regulating our planet's health. Mission Microbiomes is driven by the need to understand how this invisible population of the ocean functions and to study its vulnerability in a changing climate and increased pollution.

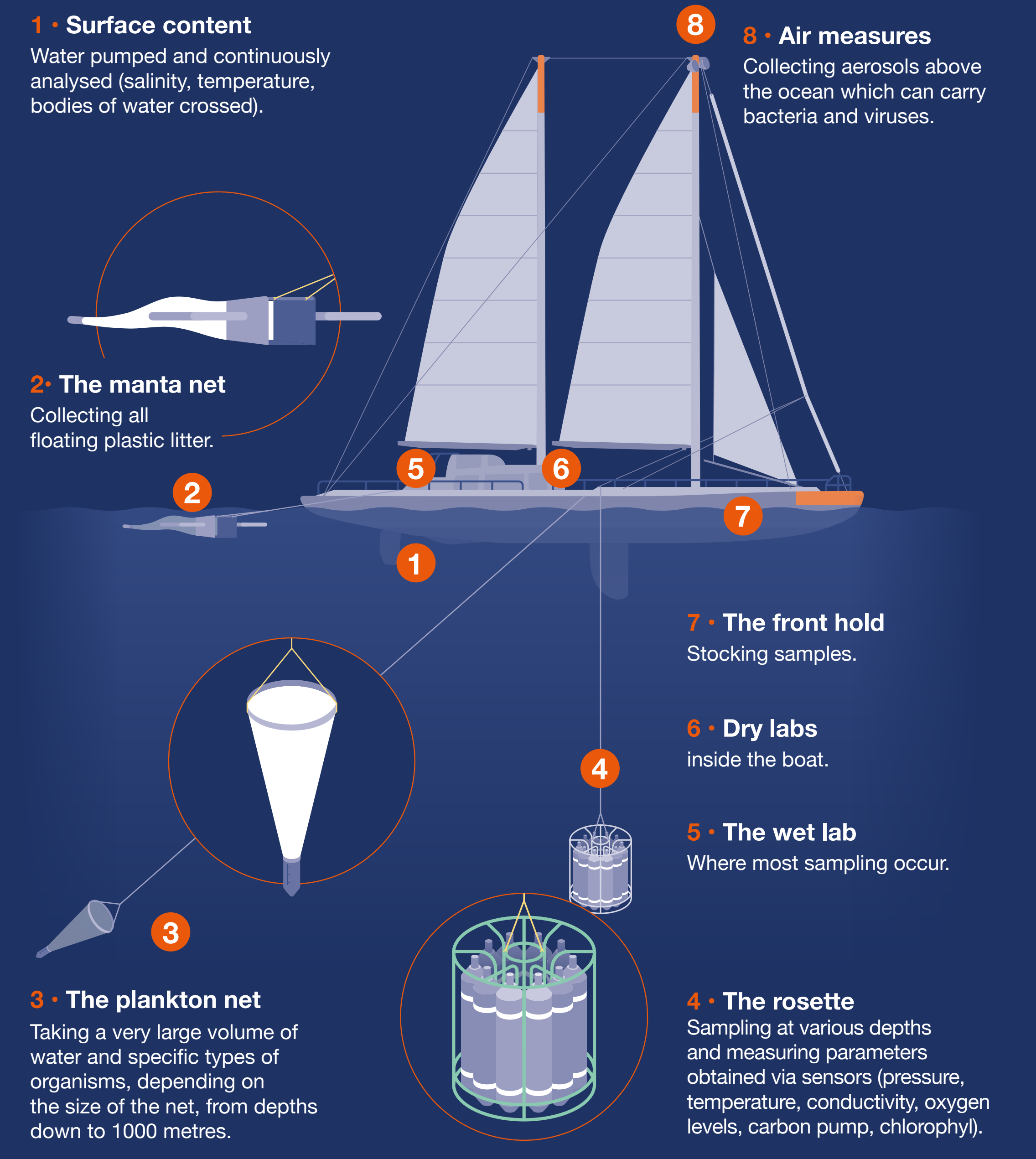


On-board lab

RESEARCH APPROACHES AND FOCUS

- OCEAN CURRENTS**
How is climate change impacting on ocean currents and microbiome distribution?
- 1 • **Chilean coasts:** Oxygen depleted areas
 - 2 • **Guyana – Amazonia:** connexion and exchanges between South and North Atlantic under the influence of the Amazon river
 - 3 • **Weddell sea:** a key ocean & climate area with a major drawdown of surface waters and carbon
 - 4 • **Chile and Africa:** regions of upwelling of rich deep ocean waters, with highly productive fisheries and a strong biological carbon pump
- FERTILISATION AND POLLUTION**
How do watersheds land use and pollution, including microplastics, alter the microbiomes structure and function?
- 5 • **Chilean coasts:** influence of melting glaciers on salinity and local microbiomes
 - 6 • **Great rivers:** (Amazon, Orange, Congo, Ogooué, Volta, Senegal) with an important influence on the Atlantic microbiome
- SMALL SCALE PHENOMENA**
How do small scale phenomena (e.g., eddies) have to be included in models for predicting the ocean microbiome future state?
- 7 • **Atlantic Ocean:** understanding the impact of small features (eddies, fronts) on the microbiome.

5 TYPES OF SAMPLING • 3 LABS • 1 STOCK ROOM



The expedition

Sailing for 21 months to sample the ocean microbiome and share with the public



The mission in numbers

