

AtlantECO

Atlantic Ecosystems Assessment, Forecasting & Sustainability



36 partners from ,
Brazil, South Africa and
Europe

THREE research pillars

Our research focuses on 3 pillars that underpin marine ecosystem services



Microbiomes

The ocean microbiome includes all microscopic life in the ocean. Every litre of seawater contains billions of microorganisms, their composition and activity indicate the health of the marine ecosystem in which they live.



Plastics and the plastisphere

Plastic is an established part of the marine ecosystem, its increased quantities raise concerns as it interacts with marine life. Plastic fragments are like drifting rafts that are colonised by microorganisms, forming what is called the Plastisphere.



Seascape and ocean connectivity

Compared to the continental landscape, the ocean seascape is in constant motion, with cold and warm fronts, currents and cyclones, as in the atmosphere. This plays a crucial role in transporting heat, nutrients, microbiomes and pollutants, such as plastic, across marine regions.

FOUR activity streams

Activities in 4 activity streams to assess and forecast the sustainability of Atlantic ecosystems



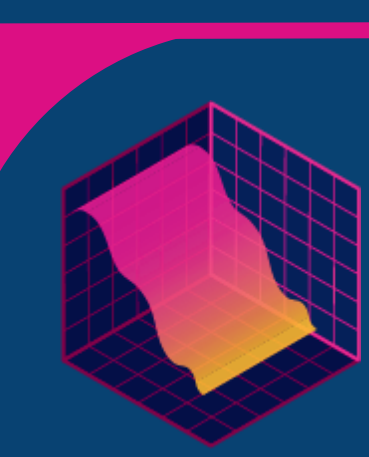
Map the current state

of marine ecosystem's composition, functioning, health and services using high quality data at the basin scale.



Generate new digital knowledge

from scientific expeditions and citizen science, using innovative numerical models.



Forecast the impacts

of human and climate pressures on complex ecosystems using eco-socio-economic models.

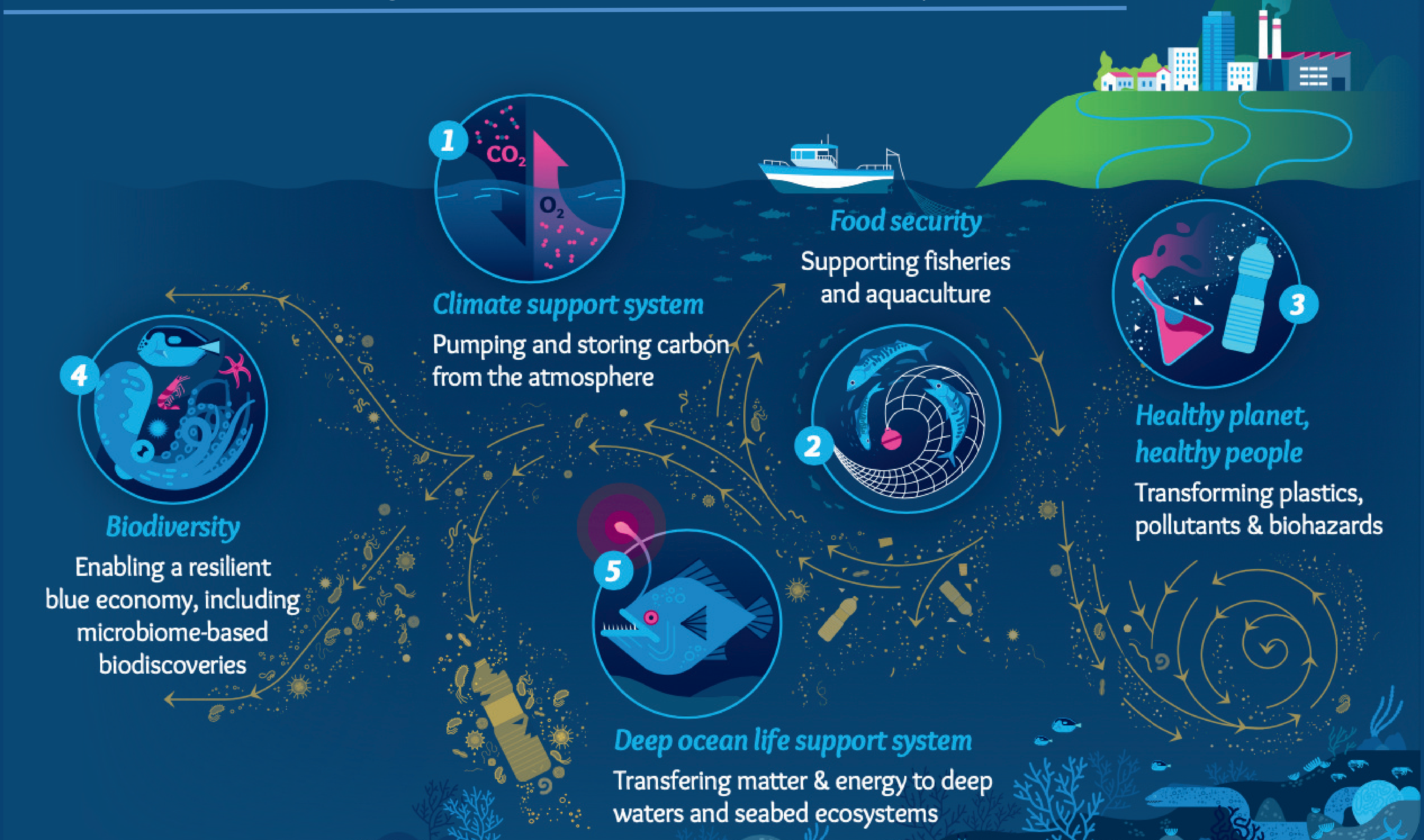


Share and use knowledge

among scientists, industry, policy-makers and citizens. Making all data available via open databases.

FIVE ecosystem services

The ocean is a key part of the Earth's system. AtlantECO focuses on five ecosystem services that contribute to the well-being and health of all forms of life on the planet.



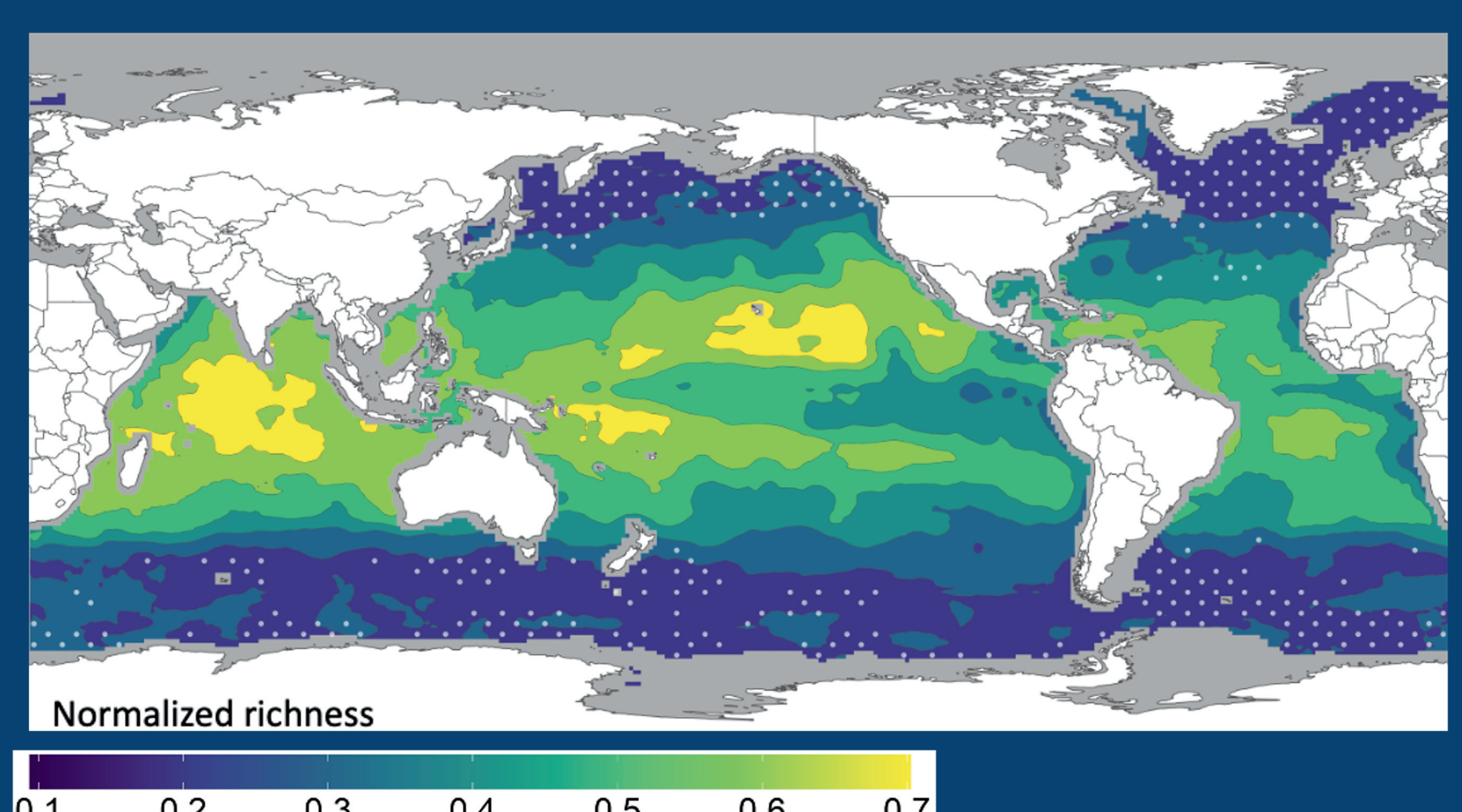
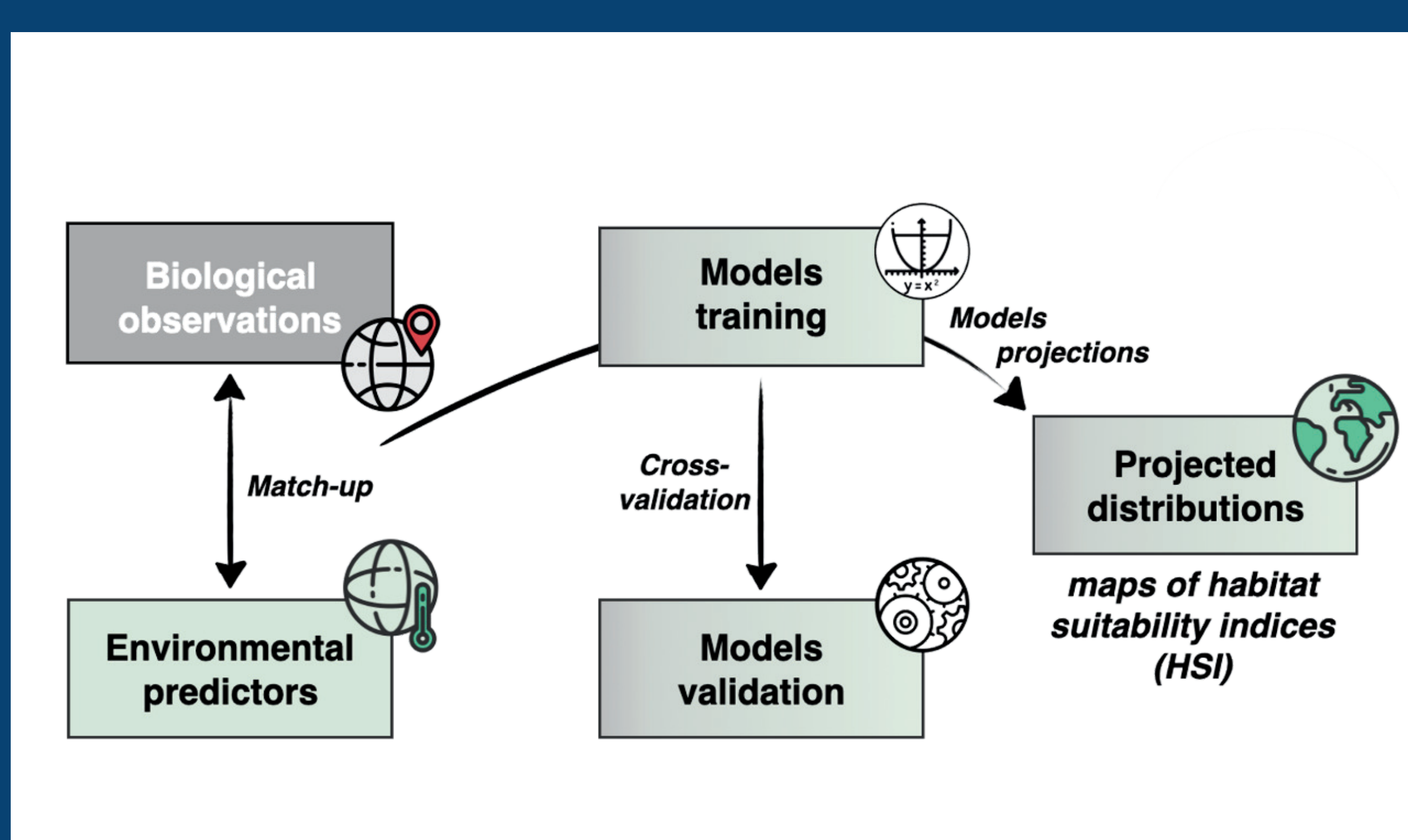
Examples of key project outputs

METHOD

Species distribution modelling

OUTPUT

Richness of Nitrogen fixers in the global ocean



Both figures are from Eriksson et al. Nitrogen fixation rates increase with diazotroph richness in the global ocean. (Submitted to PNAS Nexus, October 23)



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.



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SCAN ME