

OBSERVATION OF THE WORLD OCEAN



together for understanding and preserving it

The REFINE scientific project hinges on the development of cutting-edge technology, which opens up a wide field of perspectives, for understanding, discovery as well as education.

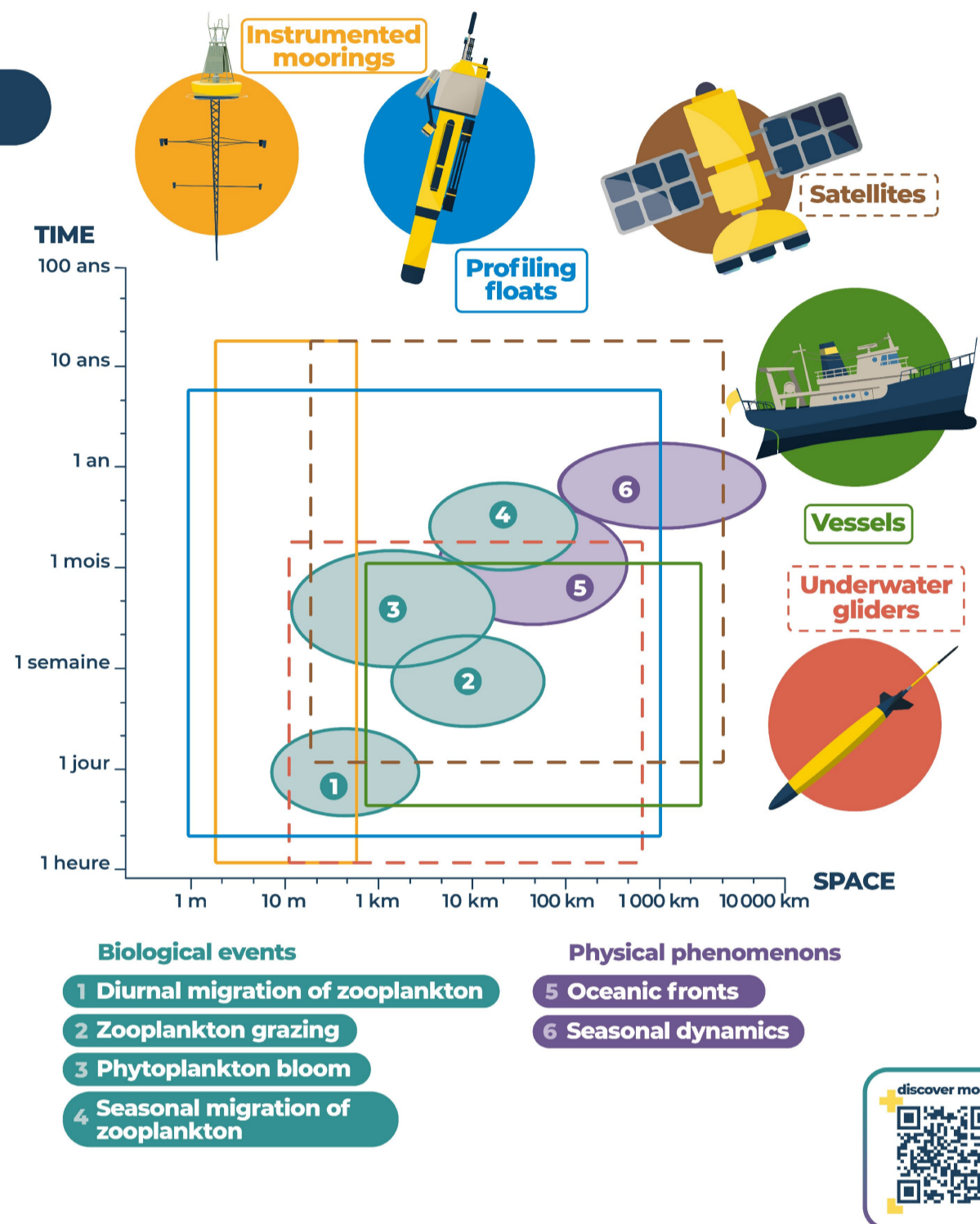
Observing to understand

Oceanographic research is global, multidisciplinary and collaborative.

Every scientific study starts off with a query. To find answers, it is now primordial to set up an efficient network for observing the World Ocean.

The invention and recent development of numerous observation tools and systems, integrated through an international coordination effort, will enable unprecedented observation of the Ocean's properties. Profiling floats like those used in the REFINE project, and the data they collect, offer to enhance the measurements of other observation systems.

The complementarity of these different tools offers a more global, more accurate vision of the Ocean's evolutions as well as its biological and physical processes.



Observing to discover

While making observations to answer a query and gain better understanding, we sometimes uncover unknown or unexpected properties or processes. **We thus make discoveries, which are what make the researcher's profession tick.**

These new observation tools are a strength. They allow us to **explore and venture across the borders of the unknown**, and as a result, to formulate new queries.

In this respect, REFINE is both a culmination, and potentially, a new starting point.

Observing to educate

Profiling floats are also tools that boost the appeal of discovering the Ocean and the ocean sciences. For example, through the adoption of one of these robots, the educational programme **adopt a float** invites young people from all over the world to discover the World Ocean and the importance of studying it to better understand and protect it.

The Ocean is crucial to the lives of humans. The Twilight Zone, for example, abounds in mineral and food resources which are still little exploited. **Its preservation and moderate exploitation are being played out today as we raise the awareness of our youngest fellow citizens who will be making the decisions of tomorrow.**

The United Nations has proclaimed the period 2021-2030 as the **United Nations Decade of Ocean Science for Sustainable Development**. Its objectives include: raising citizen awareness and education about the Ocean's importance and its sound management. The REFINE project's scientific outreach initiatives are in line with this ambition. Primarily targeting a non-scientific public, the REFINE team designs activities and special resources useful for reinforcing "Ocean Culture" in educational contexts.

