

# DTO-BioFlow

Integration of biodiversity monitoring data into the Digital Twin Ocean

## Revolutionising Access to Ocean Biodiversity Data and Driving Sustainable Integration

DTO-BioFlow facilitates the access to "sleeping" marine biodiversity data and enables **the sustained flow of these and new data via primary integrators and EMODnet into the EU Digital Twin Ocean (DTO).**

It will create a **digital replica of marine biological processes transforming new and existing data flows into evidence-based knowledge.** The project aligns with the EU's Biodiversity Strategy and Nature Restoration Law and with the mission "Restore our oceans and waters by 2030", both of which advocate for the protection and restoration of land and sea regions.

## From data source to user application DTO-Bioflow Concept

1

### Identifying, prioritising & increasing the flow of relevant biodiversity

The first step will be to identify existing, but unavailable, data sources and enable their ingestion into primary and secondary integrators that will connect to the DTO data repositories being developed in other projects.

2

### Developing and integrating the biodiversity digital component of the DTO

This work will consolidate standards, quality control, communication protocols, harmonisation pipelines, data products, data models, ingestion methods, and sustainable connection incentives to improve biodiversity data interoperability and digitization.

3

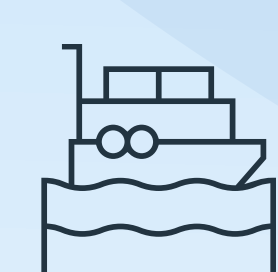
### Demonstrate the end-to-end approach and user application in the DTO

Several demonstrator use cases will be developed to utilise new data flows in the DTO, by integrating and assimilating them in existing models using the harmonised protocols. Examples are use cases on invasive species management, assessing pelagic biodiversity, marine spatial planning, etc.

DTO-BioFlow contributions to the Mission  
**Restore our oceans and waters by 2030**



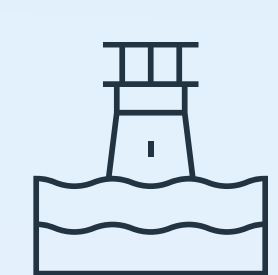
Significant progress towards an operational and fully functional EU DTO marine biodiversity component.



Advanced biodiversity and ecosystem monitoring capacity and infrastructure enabling comprehensive biodiversity mapping and monitoring.



Mobilised and empowered biodiversity monitoring community.

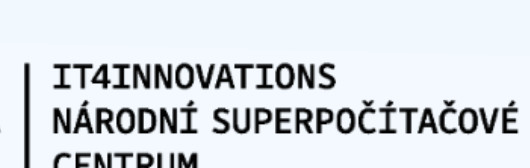
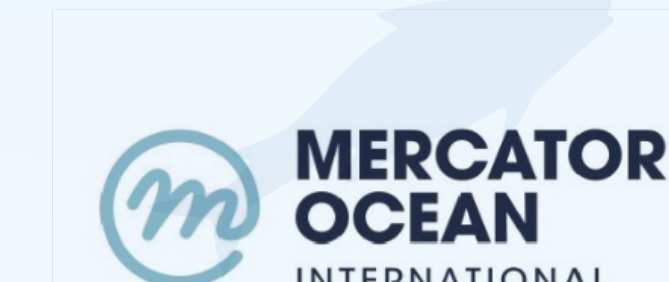


Increased knowledge of biodiversity understanding, monitoring, and prediction skills to analyse and assess the performance of EU ocean policy.

## Our Consortium



COORDINATOR



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