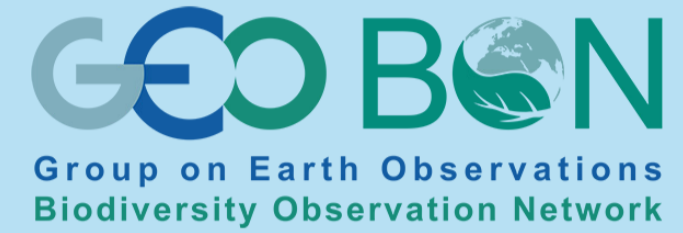
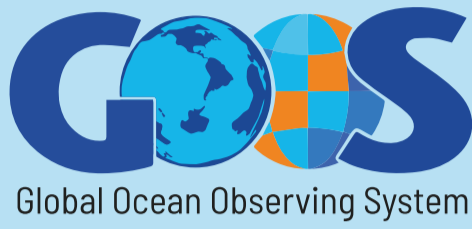


# Essential Ocean Variables (EOVs) & Essential Biodiversity Variables (EBVs)

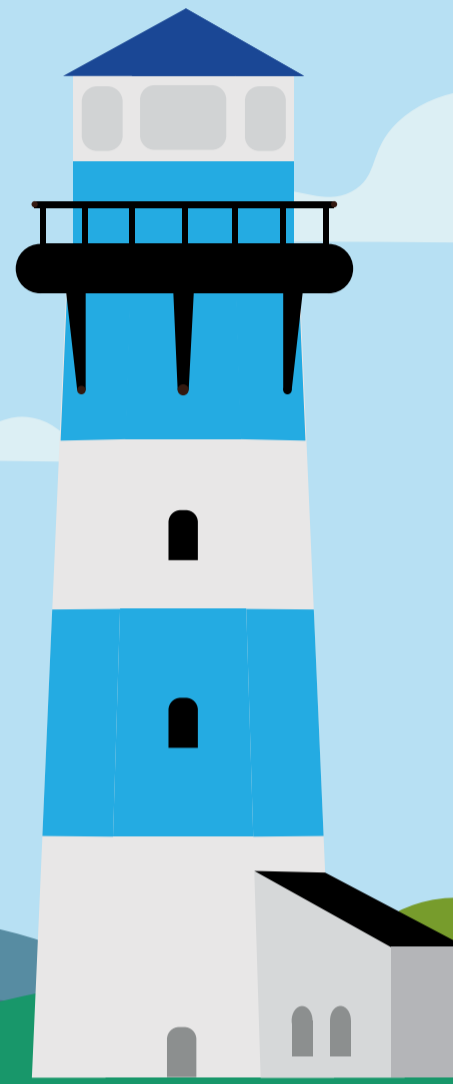
## Coordinating monitoring frameworks for marine biodiversity data

Coordinating biodiversity observations through standardised frameworks is essential to making data comparable and useful at different scales and worldwide. The **Global Ocean Observing System (GOOS)** and the **Group on Earth Observations Biodiversity Observation Network (GEO BON)** are strengthening their collaboration, enabling more standardisation in marine biodiversity data so that the resulting information can be shared and used more widely.

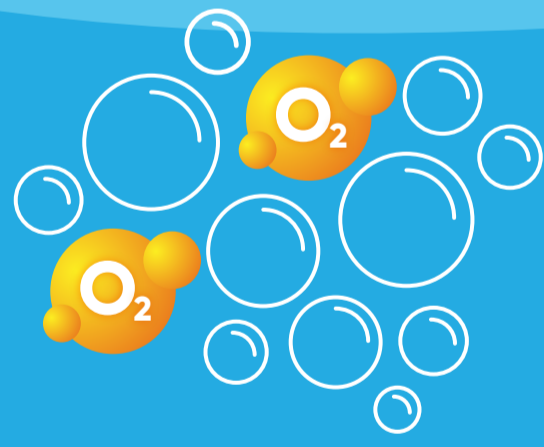


International scientists on the **GOOS** Expert Panels develop **EOV** guidelines, based on user needs, to ensure consistent and comparable global observations across **physics & climate**, **biogeochemistry**, and **biology & ecosystems**. The Biology & Ecosystems Panel develops the **EOV** guidelines that support marine biodiversity monitoring.

**GEO BON** supports data sharing and guides conservation and policy decisions globally by developing **EBVs** to monitor changes in biodiversity across **terrestrial**, **marine** and **freshwater** ecosystems.



**PHYSICS & CLIMATE EOVS**



**BIOGEO-CHEMISTRY EOVS**

### BIO-ECO DATA

Observations can be combined into **EOVs** and/or integrated across space and time and with other biodiversity data to form **EBVs**.

**Both frameworks help translate raw data into policy-relevant indicators that address societal needs.**

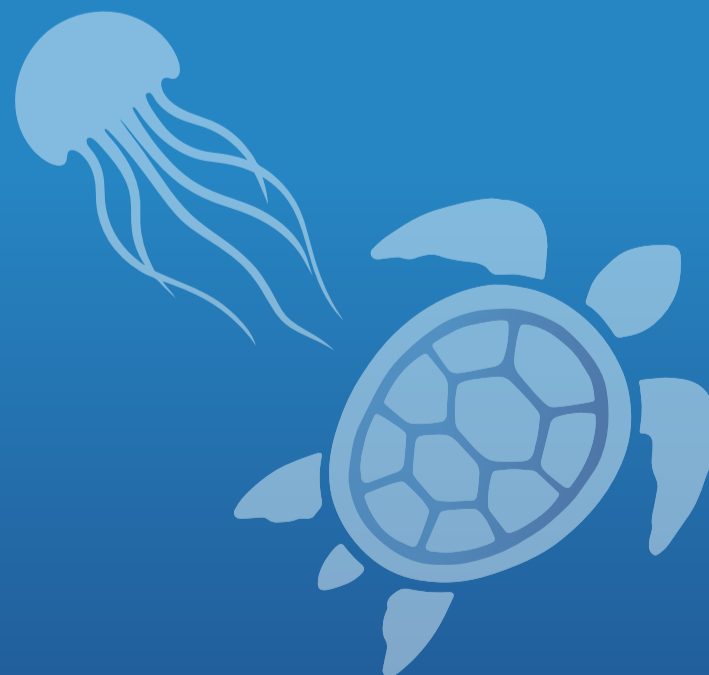
**TERRESTRIAL EBVs**

**FRESHWATER EBVs**

**BIOLOGY & ECOSYSTEMS EOVS**

**MARINE EBVs**

**EOVs** are the minimum set of variables (e.g., **water temperature**, **dissolved oxygen**, and **species abundance and composition**) needed to assess ocean state and variability. Standardisation makes these observations comparable and globally scalable.



**EBVs** are created by turning diverse biodiversity observations into standardised, modelled and repeatable variables that capture aspects of biodiversity change across space and time.

Developed and designed by



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**UK Research and Innovation**

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