




# eLTER'S CONTRIBUTIONS TO BIODIVERSITY MONITORING

## eLTER Standard Observations

-  Largely automated biodiversity Standard Observations at ~250 long-term research Sites and socio-ecological Platforms
-  Standardised methods & FAIR data
-  Harmonisation with reference standards (EuropaBON, Essential Biodiversity Variables (EBV),...; ongoing consultation process




## Mobilisation and curation of legacy data

-  Covering decades (partly > 100yrs) of distributed biodiversity monitoring
  - ➔ terrestrial, freshwater, transitional waters





## Methods and feasibility

### *In-situ*

-  Methods testing and development with related communities working on applicable EBVs
-  Methods roll-out; operational feasibility at larger scales
-  Potential role in revision of existing monitoring schemes

## Calibration/Validation and ground truthing

-  Standard Observations consider variables of high relevance for Cal/Val
-  Connections to ESA and EEA expert groups established



Standard Observations



Sites and Platforms



Data Catalogue (DAR)



# eLTER WHOLE SYSTEM RESEARCH AS ADDED VALUE

## Novel, integrated data sets to anchor biodiversity data and trends

- 🌿 Environmental Standard Observations as explanatory variables for biodiversity change
  - ➔ Attribution of trends, support for management options
- 🌿 High potential for a nested design linking research with spatially representative, area-wide monitoring

## Nodes for collaboration and integration across stakeholders (communities, domains...)

- 🌿 Data integration and creation of Information Clusters
  - ➔ Hotspots of seamlessly accessible data on long-term sites (global earth observation systems, e.g. GEOSS)
  - ➔ Own *in-situ* data plus data drawn from a wide range of other sources



🌿 **Example:** e-shape Showcase on Ecosystems

## Collation of high quality datasets beyond eLTER and statistical analyses

🌿 **Example:** Haase, P., Bowler, D.E., Baker, N.J. et al. The recovery of European freshwater biodiversity has come to a halt. *Nature* 620, 582–588 (2023). <https://doi.org/10.1038/s41586-023-06400-1>

## Shared infrastructure

🌿 IT, portals, analytical tools and virtual research environments



e-shape Ecosystems  
Showcase



Haase et al. (2023)  
*Nature*

