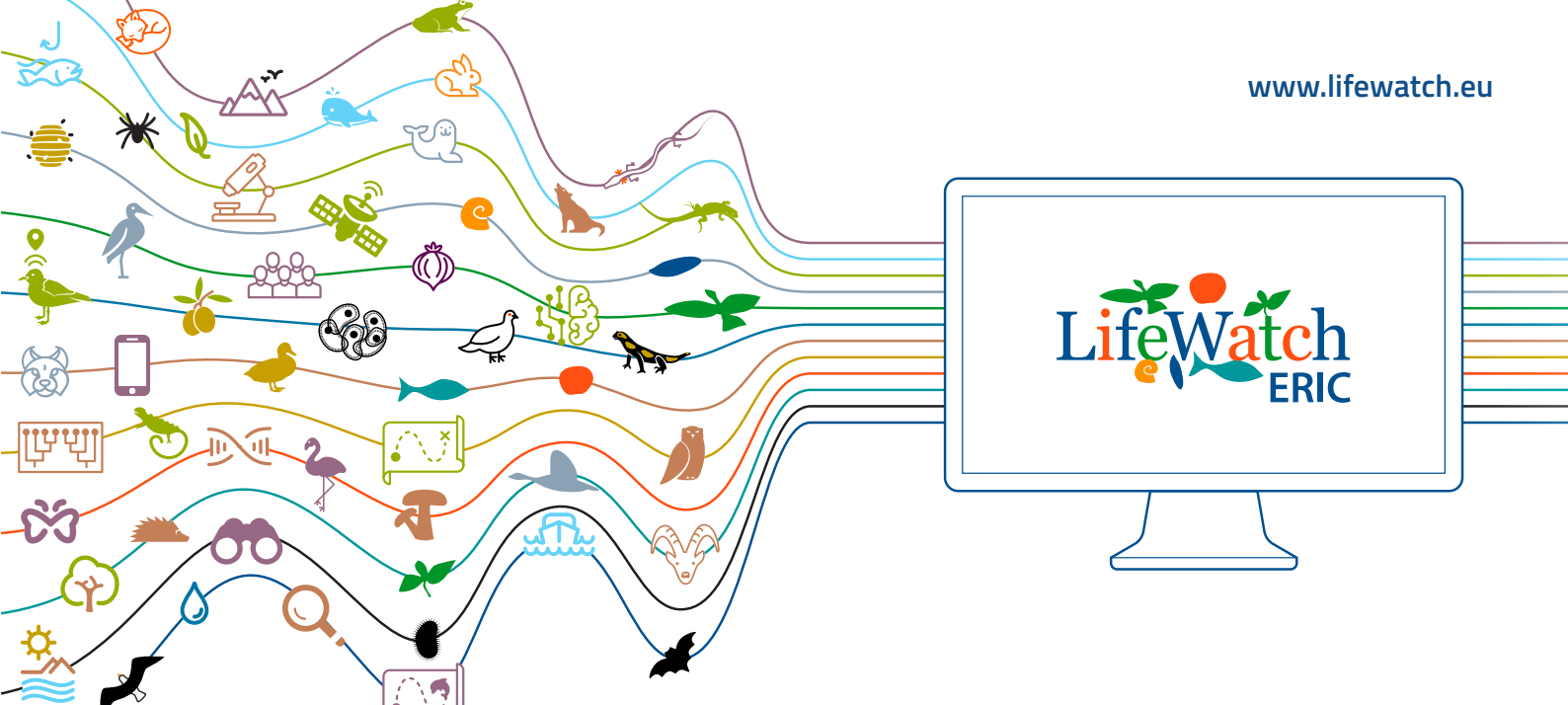




PORTFOLIO

The e-Science Infrastructure for Biodiversity & Ecosystem Research

LifeWatch ERIC provides scientists and researchers access to biodiversity and ecosystem data, services and research products to derive evidence-based knowledge for scientific and policy purposes.

LifeWatch ERIC is composed of **3 Common Facilities**, hosted in Spain, Italy and the Netherlands. Each of the **8 Member States** hosts a Distributed Centre which contributes with expertise and resources to LifeWatch ERIC, enabling its operations at national, European, and global levels, as a single Research Infrastructure. LifeWatch ERIC membership consists of Belgium, Bulgaria, Greece, Italy, Netherlands, Portugal, Slovenia and Spain.



Vision

To be the European research infrastructure providing seamless access to biodiversity content, services, and communities: where any user can create science-based and reliable answers to global ecosystem challenges.



Mission

To accelerate scientific discovery and policy impact by integrating biodiversity and ecosystem data, services, and other research products into interoperable digital environments: enabling open science, interdisciplinary and cross-domain collaboration, and AI-driven innovation.



Core Business

The core business of LifeWatch ERIC is the construction of virtual "workbenches" with e-services that allow its user communities to analyse patterns and trends in biodiversity in space and time, its (natural or man-made) drivers and the impacts on ecosystems.



Value proposition

LifeWatch ERIC provides researchers, policymakers, and stakeholders with access to biodiversity and ecosystem data, services and other research products by using and contributing to its advanced infrastructure to derive evidence-based knowledge for scientific and policy purposes.

European Research Infrastructure Consortium (ERIC)

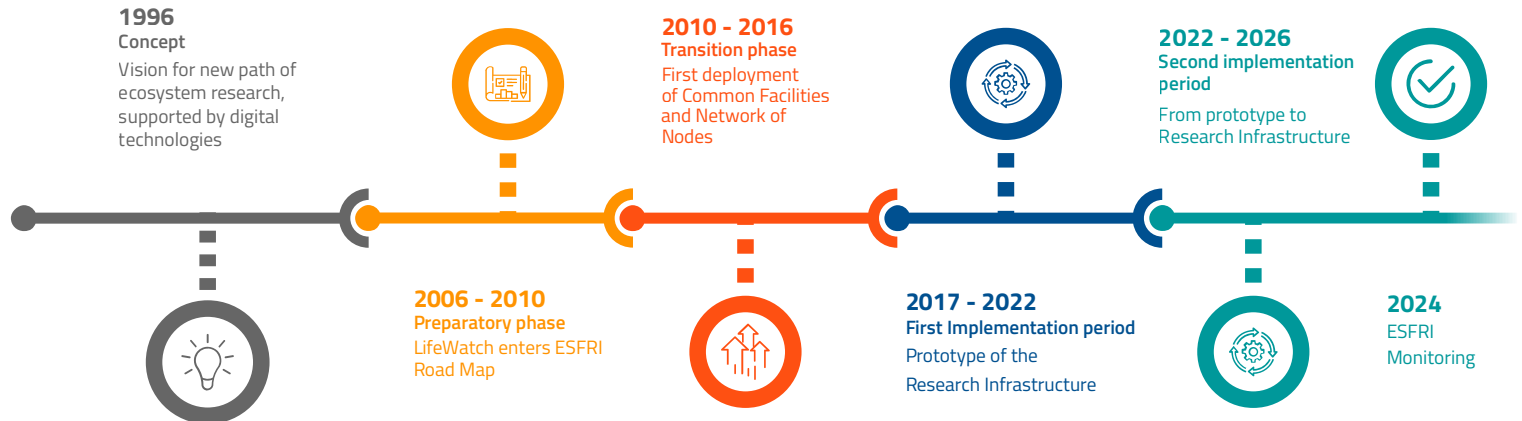
The European Research Infrastructure Consortium (ERIC) is a specific legal form that facilitates the establishment and operation of Research Infrastructures with European interest. ERIC has a legal capacity recognised in all EU countries; it provides the necessary flexibility to adapt to specific requirements of each infrastructure, it ensures a faster process than creating an international organisation, and ultimately grants exemptions from VAT and excise duty.

Research infrastructures are organisations that enable the research community to use specific facilities, resources and services in order to **accelerate scientific achievements** and **promote sustainable research**.

From vision to action

In 1996, a group of pioneering European scientists and ICT experts envisioned a new path forward for biodiversity and ecosystem research. They recognised that **digital technologies could do more than store data**: they could empower researchers to simulate, analyse, and understand the complex living systems of our planet. This vision evolved into LifeWatch ERIC, Europe's e-Science Infrastructure for Biodiversity and Ecosystem Research.

Today, LifeWatch ERIC embodies that ambition: to **connect scientists, data, and services** under a single digital ecosystem that makes knowledge actionable: from genes to ecosystems, and from local habitats to global biosphere trends.



Governance

LifeWatch is a legal entity of **eight European Union Member States** that form a distributed research infrastructure consortium, an ERIC: Belgium, Bulgaria, Greece, Italy, the Netherlands, Portugal, Slovenia, and Spain. Its members operate from national entities known as Distributed Centres, while its Common Facilities are located in three Member States: Spain (Statutory Seat Office and ICT core), Italy (Service Centre), and the Netherlands (Virtual Laboratories and Innovation Centre - VLIC).

Statutory bodies

The General Assembly is the highest governing body of LifeWatch ERIC. Composed of representatives from all member states, it is responsible for the overall direction and supervision of infrastructure activities. The General Assembly recommends the policies and internal rules necessary for the smooth functioning of LifeWatch ERIC.

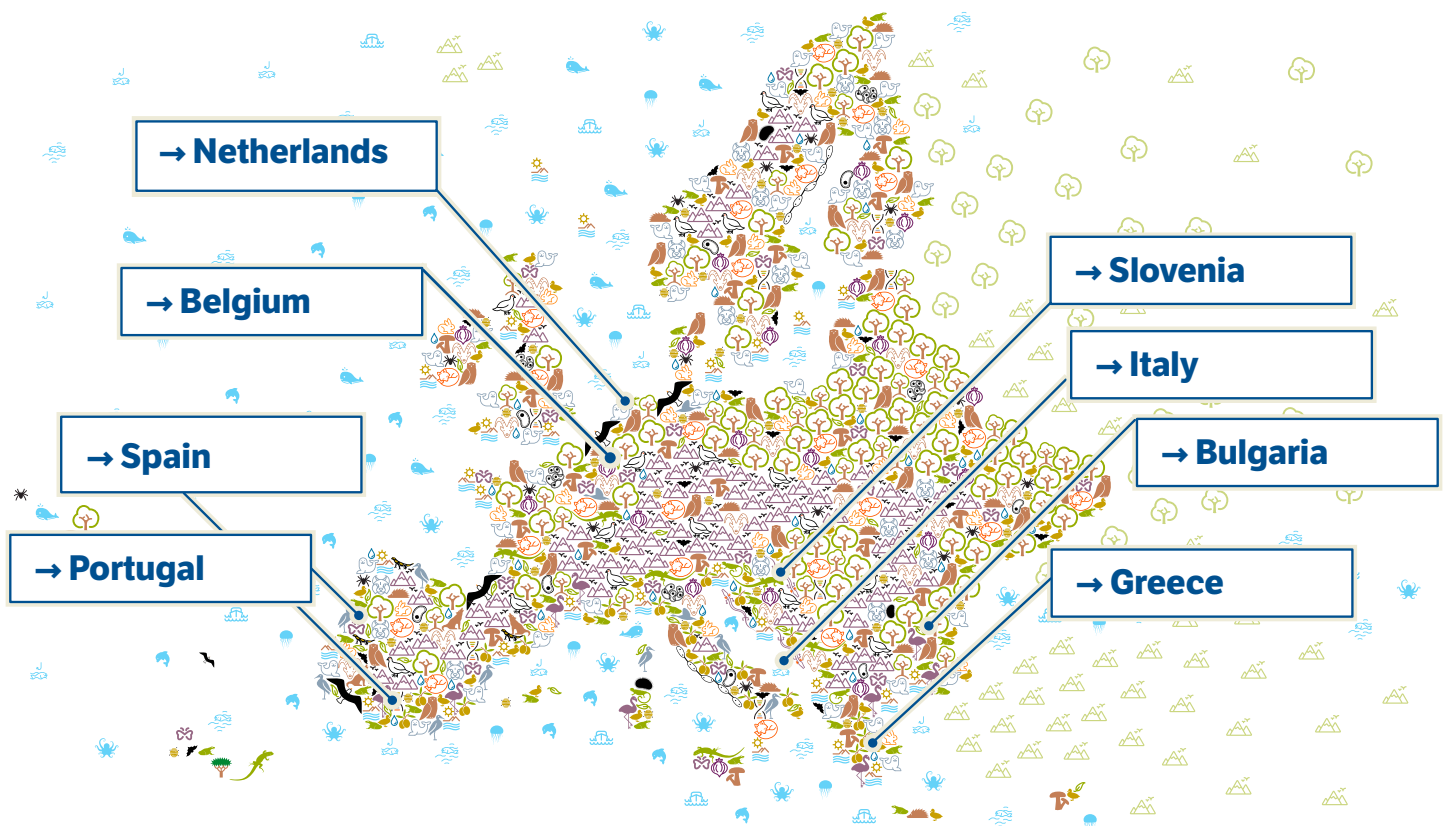
The Executive Board is responsible for the day-to-day management of the infrastructure and ensures its consistency, coherence, and stability. The Board also coordinates the Common Facilities and Distributed Centres.

Subsidiary bodies

The **Scientific and Technical Advisory Board (STAB)** makes recommendations regarding the scientific, technical, and ethical quality of LifeWatch ERIC activities.

The **In-Kind Contribution Committee (IKCC)** addresses in-kind contribution-related matters and carries out in-kind contribution evaluation.

The **Financial Committee (FINCOM)** makes recommendations to the General Assembly regarding LifeWatch ERIC's financial management and adherence to the Financial Rules.



Common Facilities

LifeWatch ERIC is composed of **3 Common Facilities**, hosted in Spain, Italy and the Netherlands. Each of the **8 Member States** hosts a Distributed Centre which contributes with expertise and resources to LifeWatch ERIC, enabling its operations at national, European, and global levels, as a single Research Infrastructure. LifeWatch ERIC membership consists of Belgium, Bulgaria, Greece, Italy, Netherlands, Portugal, Slovenia and Spain.

Statutory Seat & ICT-Core

📍 Seville, Spain

The Statutory Seat and the ICT e-Infrastructure Technical Offices jointly assist the functioning of the infrastructure, the former being the coordinator of all legal, administrative and institutional activities, and the latter responsible for managing the distributed ICT e-Infrastructure operations and implementation.

Service Centre

📍 Lecce, Italy

The Service Centre provides the infrastructure's interface with its user communities, identifying their needs and making available the relevant services. It is also responsible for energising the active involvement of the European scientific community, for training and for LifeWatch ERIC's communication activities.

vLab & Innovations Centre

📍 Amsterdam, the Netherlands

The Virtual Laboratory and Innovations Centre coordinates and manages the requirements and needs analysis, the design and implementation of the scientific case studies and the products of the LifeWatch ERIC Virtual Laboratories.

Technical services



Find data **Metadata Catalogue**

One-click discovery of 2,000+ FAIR resources, integrated with EOSC.



Standardise meaning **EcoPortal**

Shared vocabularies and ontologies for ecology and related domains.



Analyse **Virtual Research Environments**

Build and run reusable workflows with Workflow Studio or NaaVRE - no local setup needed.



Map & observe **Sensor-to-cloud service**

Connect your sensors through LifeWatch ERIC dataloggers - we get the data to the cloud, standardise it, and let you map and monitor your environment in real time.



Connect

Single sign-on and EOSC federation, interoperable with GBIF, OBIS, DiSSCo and eLTER.

Training

LifeWatch ERIC fosters training and education opportunities, particularly for young researchers, to ensure user-friendly access to all the data, services and resources available within the LifeWatch ERIC infrastructure consortium, building skills in the bio-informatics domain and involving citizens in biodiversity and ecosystem research. The LifeWatch Training Centre include a [Training Platform](#).

Help Desk

The LifeWatch ERIC [Help Desk](#) is at your disposal to support you in the use of our platforms and services. It applies a ticket system to address all support requests. A unique number is assigned to each request, and you can refer to it to track its progress.

Scientific Excellence: a unique niche

LifeWatch ERIC is the only European Research Infrastructure focused exclusively on biodiversity and ecosystems, offering:

- Integration of **FAIR-compliant data**, **analytical workflows**, **simulation tools**, and other research products,
- Services for **multidisciplinary and cross-domain research**, from molecular biology to ecosystem services,
- Construction of advanced **Virtual Research Environments** for hypothesis testing and predictive modelling.

To align its services with evolving scientific and policy needs, LifeWatch ERIC launched the Thematic Services Working Groups **focused on priority areas of biodiversity and ecosystem research**.



Biodiversity and Ecosystem Responses to Climate Change



Biodiversity Observatory Automation



Taxonomy



Biogeography



Animal movement, Behaviour and Biologging



Habitat Mapping



Modelling & Workflows



Metagenomics in Biodiversity and Ecosystems

LifeWatch ERIC in the EU Research Area

LifeWatch ERIC plays a pivotal role in strengthening the ERA through:

- Active participation in **31 EU project consortia**, among which in ENVRI Community and EOSC Clusters,
- Integration with **global aggregators** (e.g. GBIF, OBIS) and **open data partners** (e.g. PLAZI, Species 2000) through its one-stop-over service of LifeWatch ERIC Search,
- Development of the **Biodiversity Knowledge Hub**, a single point of access for taxonomy and biodiversity information,
- Creation of a **Science Knowledge Graph** to federate and organise data from multiple sources,
- **Collaboration with other ERICs** and **research infrastructures** (eLTER, DiSS-Co, ELIXIR, EMSO, EMBRC, etc.).



more than
4,300
registered
users



more than
16,400
workflows
executed



more than
1,800
datasets
(90.36% FAIR compliant)



more than
230
web services



more than
890
scientific
publications



31
active
EU projects

Data collected up to 2025



Impact in action

Invasive Species Management

LifeWatch ERIC tools help forecast invasive species spread and guide policies for containment, changing biodiversity loss and economic damage.

Ecosystem Health Monitoring

Integrated data allow stakeholders to assess and model ecosystem responses to stressors like pollution and climate change, guiding targeted conservation actions.

Climate Resilience Planning

Simulations of ecosystem responses to climate scenarios support adaptive strategies like coastal protection and sustainable agriculture.



Value for governments

Strategic Advantage

Contribute to and benefit from cutting-edge infrastructure and tools to address diverse national biodiversity priorities, enabling the integration and composition of national services with those available within the infrastructure.

Policy Relevance

Gain access to evidence-based insights for environmental planning, conservation, and sustainable development.

Global Positioning

Be part of an integrated European effort tackling global ecological challenges.



90-95% reduction in data discovery time

Reduce dataset discovery and access time by up to 90-95% by enabling joint search and access to biodiversity data federated from 18+ distributed providers, avoiding fragmented manual data harvesting.



50-90% lower computational costs

Reduce computational costs per project by 50-90% through the reuse of optimised workflows, shared Virtual Research Environments, and centrally operated analytical services, compared to local or ad-hoc implementations.



Up to 10x performance gains

Improve efficiency and significantly lower the energy footprint of resource-intensive workflows, achieving up to 10x performance gains over initial standalone implementations, with cost savings of €10k-€50k per medium-scale project.



Community of 400+ active users

Connect researchers to a growing community of 400+ active users, facilitating collaboration, reuse of workflows, and exchange of expertise across disciplines and countries.

User stories



Justine Pagnier

PhD Candidate in Marine Biology
Gothenburg University, Sweden

I collaborated with LifeWatch ERIC to develop and refine the ARMS workflow for processing ARMS-MBON data using the PEMA pipeline. Beyond the technical outcomes, this collaboration strengthened my expertise in bioinformatics workflows and connected me with international research networks, significantly advancing both my doctoral research and professional development in marine biodiversity monitoring.



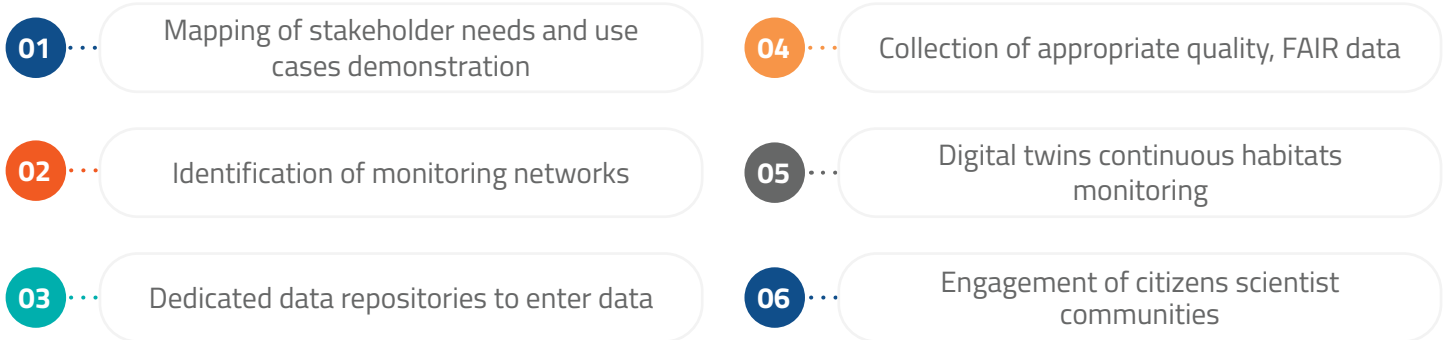
Mark John Costello

Contact person of MBON Europe
(Marine Biodiversity Monitoring for Europe)

<https://mbon-europe.lifewatch.eu>

LifeWatch ERIC has supported MBON Europe by (a) providing training and support to researchers to publish their data into OBIS and GBIF, and (b) creating a marine biodiversity monitoring dashboard that enables people to discover, with a map and a tabular view, where marine biodiversity monitoring sites are located across Europe, and access the associated metadata like geographic coverage, habitat, and taxonomic classification.

Benefits for stakeholders



How to join LifeWatch ERIC

Who can become a LifeWatch ERIC Member?

- Member States of the European Union;
- Associated Countries;
- Other Third Countries;
- Intergovernmental Organisations.

What are the benefits of joining LifeWatch ERIC?

- Be part of a highly specialised European Research Infrastructure Consortium;
- Aggregate and organise national scientific communities working on biodiversity and ecosystems, maximising their visibility and impact;
- Use the LifeWatch ERIC brand to promote national outcomes and initiatives;
- Be included in European and national roadmaps and Smart Specialisation Strategies;
- Have access to dedicated European, national and regional programmes and funding schemes;
- Have access to technology, innovation and knowledge through collaboration on the development and operation of the e-Infrastructure.

What are the rights of LifeWatch ERIC Members?

Members have the right to:

- Participate and vote in the General Assembly;
- Access information and services provided by LifeWatch ERIC;
- Benefit from any other rights mentioned in the Statutes or included in the Implementing Rules.

Observers have the right to:

- Attend the General Assembly without any voting
- Let their research communities participate in LifeWatch ERIC events, such as workshops, conferences, training courses at preferential rates, space permitting;
- Let their research communities have access to support from LifeWatch ERIC in developing relevant systems, processes and services.

What are the responsibilities of LifeWatch ERIC Members?

LifeWatch ERIC **full Members** must:

- Support and facilitate the objectives, tasks and governance of LifeWatch ERIC;
- Identify a representing entity and maintain a National LifeWatch Support Committee to promote adoption of relevant standards in national resources and tools creation projects;
- Promote the uptake of services among scientific communities and researchers of different biodiversity-related areas of knowledge, including ecosystem science and bioinformatics, and gather providers' and users' input and feedback;
- Commit financially towards a common budget: In Cash Contribution (15%) and In Kind Contribution (85%);
- Support any other activity agreed within the framework of LifeWatch ERIC resulting from the Statutes or Implementing Rules;
- Maintain their membership until the end of the five-year period in force at the moment of their accession.

Observers do not have any financial commitment.

What is the procedure for joining LifeWatch ERIC

To apply for membership a letter must be written to the Chair of the General Assembly, with a copy to the Chief Executive Officer.

 ceo@lifewatch.eu

This letter should be supported by an Annex in which the applying Member State, Associated Country, Other Third Country or Intergovernmental Organisation must state clearly what they can offer to LifeWatch ERIC and what they expect from it, based on each of its three essential components (open access data, reproducible analytics and mobilised communities).

Useful resources

- Fact Sheet for Governments and Policy Makers
- Fact Sheet for the Scientific Community
- Last Activity Report



The Northern White-breasted Hedgehog (*Erinaceus roumanicus*). Picture taken in summer in the vineyards of Drankovec in Slovenske gorice in north-eastern Slovenia. Photo by Tomi Trilar, Slovenian Museum of Natural History (LifeWatch Slovenia).



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