

## FACT SHEET FOR THE SCIENTIFIC COMMUNITY

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. As of 2024, LifeWatch ERIC membership consists of Belgium, Bulgaria, Greece, Italy, Netherlands, Portugal, Slovenia and Spain.



### Vision

To become the Research Infrastructure that offers one-click access to the world's biodiversity content, services, and scientific communities.



### Mission

To accelerate scientific discovery by providing a state-of-the-art European Research Infrastructure for biodiversity and ecosystems.



### 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.



more than  
**2,400**  
registered  
users



more than  
**4,650**  
workflows  
executed



more than  
**1,600**  
datasets  
(98.46% FAIR compliant)



more than  
**190**  
web services



more than  
**530**  
scientific  
publications



**32**  
active  
EU projects

Data collected up to 2024

# Scientific Excellence

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

- Data discovery, analysis, and modelling within a single integrated research infrastructure, accelerating time-to-results
- FAIR-compliant data, analytical workflows, simulation tools, and other research products
- Services for multidisciplinary and cross-domain research, from molecular biology to ecosystem services
- Advanced Virtual Research Environments for hypothesis testing and predictive modelling
- Large-scale computing and storage resources openly accessible to individual research groups.

To align its services with evolving scientific and policy needs, LifeWatch ERIC launched six 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**

# Impact



## 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

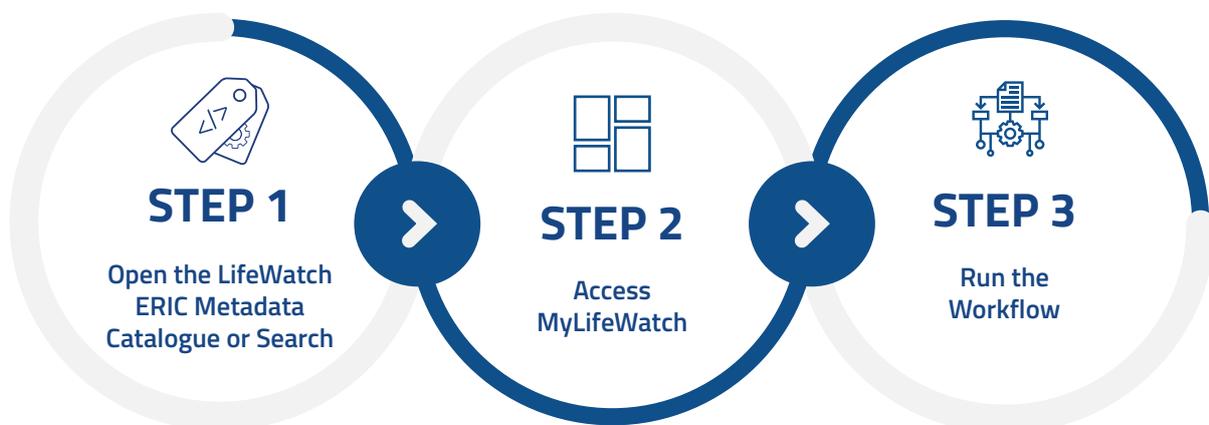
Improve efficiency and significantly lower the energy footprint of resource-intensive workflows, achieving up to 10x performance gains over initial standalone implementations, with cost savings of €10k-€50k per medium-scale project.



## 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.

# Getting started



*I am a researcher and I want to investigate about potential services on invasion biogeography to study the spatial distribution of invasive species, combining principles of geography and invasion biology to understand where and why species become invasive. To do so, I decide to query and browse the LifeWatch ERIC Metadata Catalogue to search for adequate services and workflows. By searching "Invasion biogeography" I find the [Crustaceans Workflow](#) and I can read all details related to the workflow with the possibility to read its informative page and run the workflow in MyLifeWatch.*

*And if I have questions? The [Help Desk](#) is just a click away.*

# 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.

# 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. This work enabled standardized, automated analysis of complex metabarcoding datasets for detecting non-indigenous marine species across European monitoring sites. The infrastructure developed directly contributed to multiple ARMS-MBON datapapers, making critical biodiversity data openly accessible to the research community. 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.*



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