

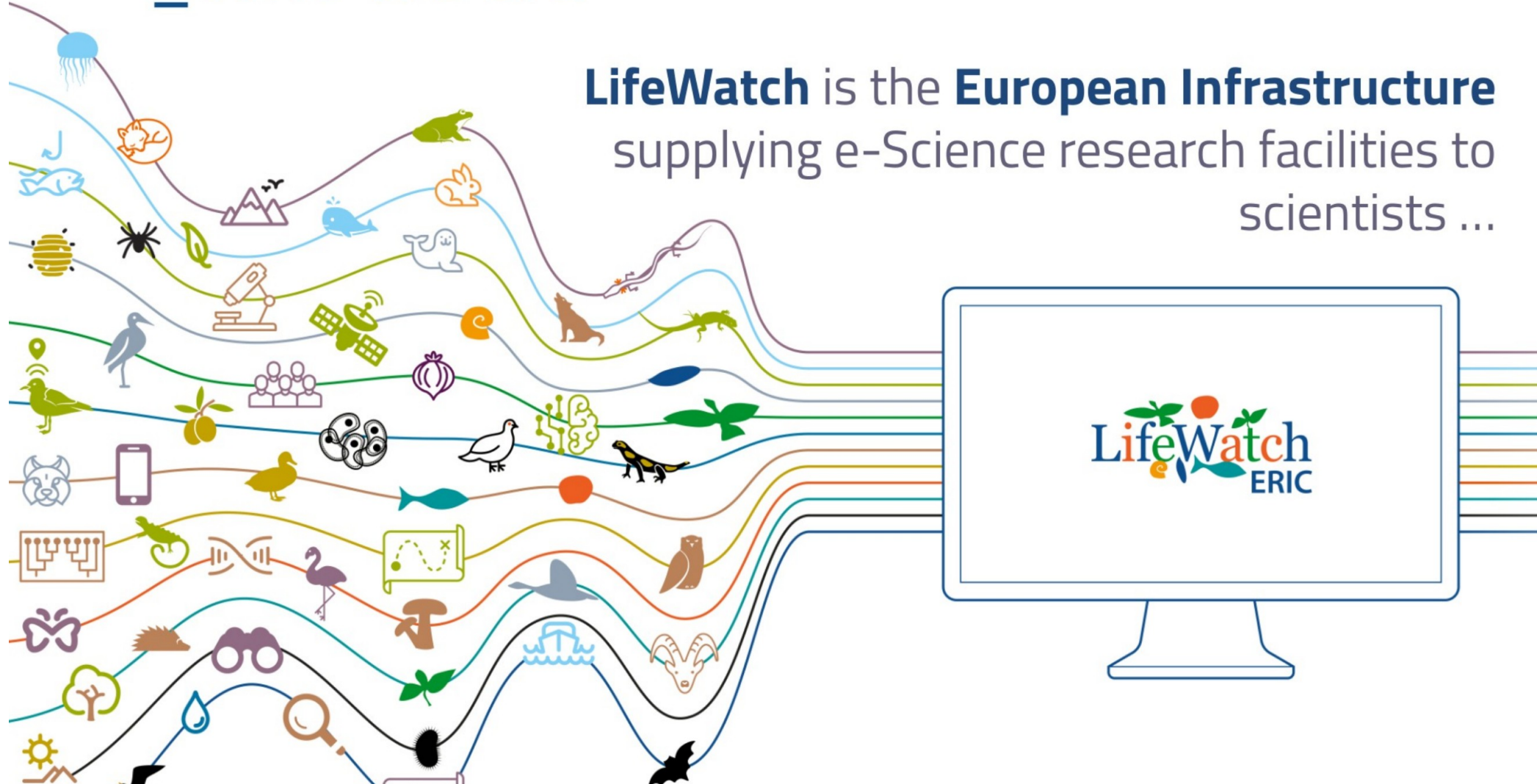
LifeWatch ERIC in the times of COVID-19: adaptations and lessons learned



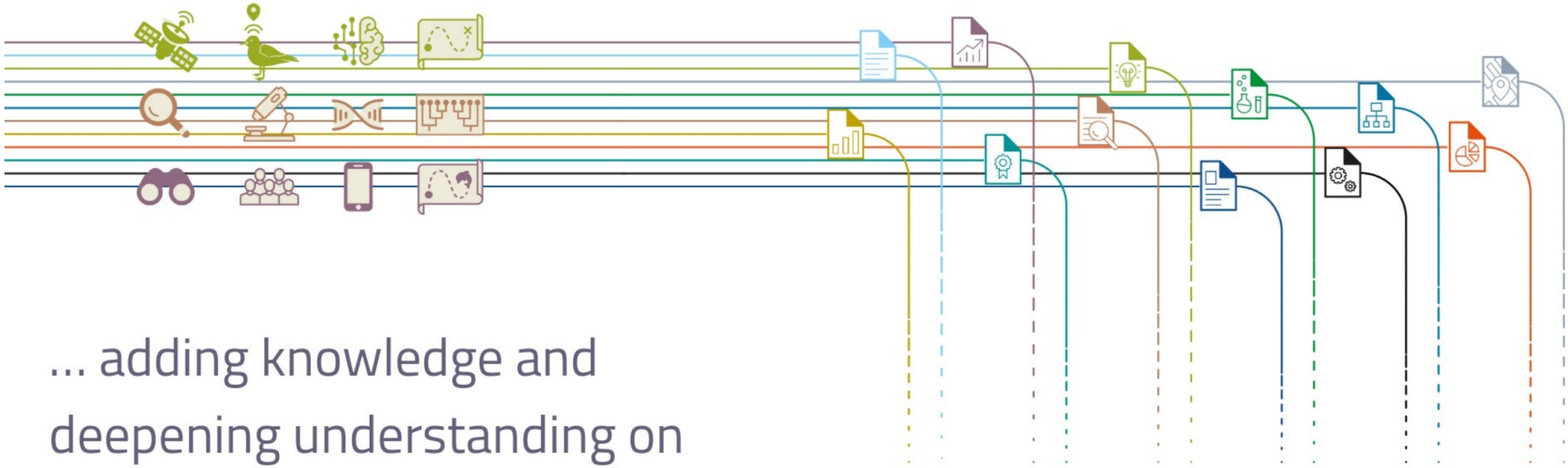
Christos Arvanitidis, Juan Miguel González-Aranda, Alberto Basset, Peter Van Tienderen and Lucas de Moncuit de Boiscuillé

_ Who we are

LifeWatch is the **European Infrastructure** supplying e-Science research facilities to scientists ...



_ Who we are



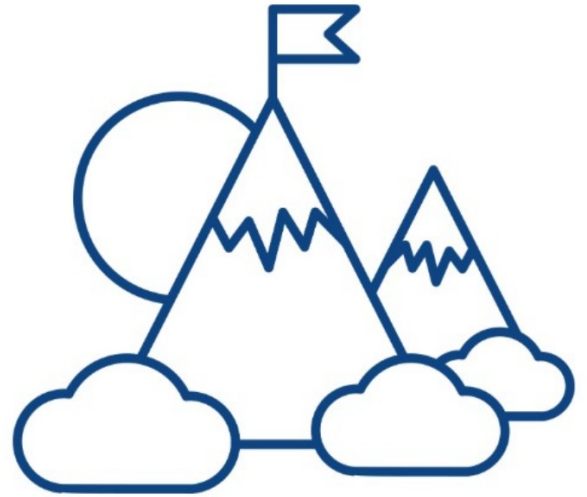
... adding knowledge and
deepening understanding on

Biodiversity organisation and **Ecosystem**

functions and services ...

_Mission

LifeWatch ERIC's mission is to be a worldwide provider of content and services for the Biodiversity research community by:

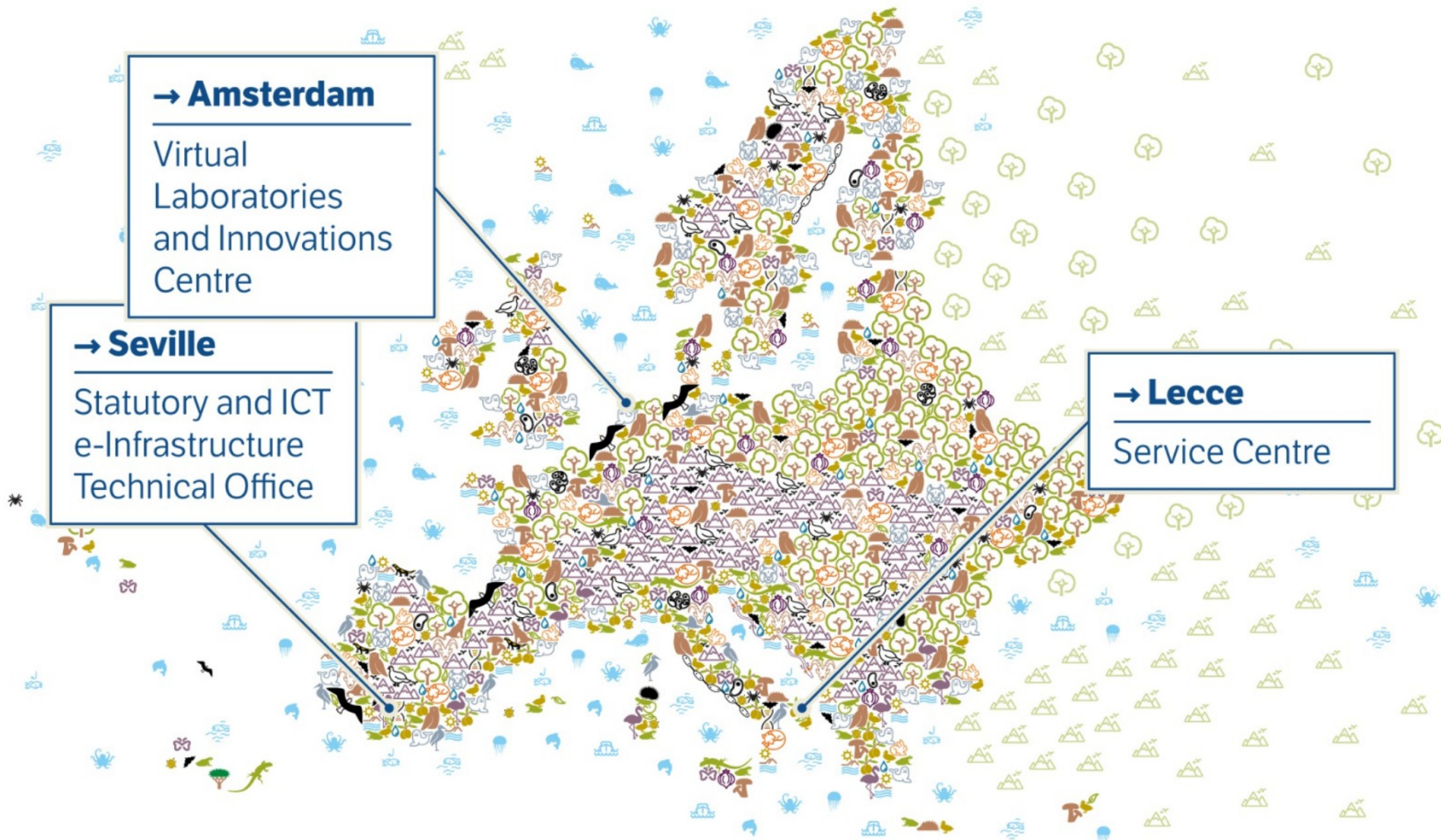


— Mission

- Offering new opportunities for large-scale scientific development;
- Enabling accelerated data capture with innovative technologies;
- Supporting knowledge-based decision-making for biodiversity and ecosystem management;
- Providing training, dissemination and awareness programmes.



How we work | Common Facilities



→ **Amsterdam**

Virtual
Laboratories
and Innovations
Centre

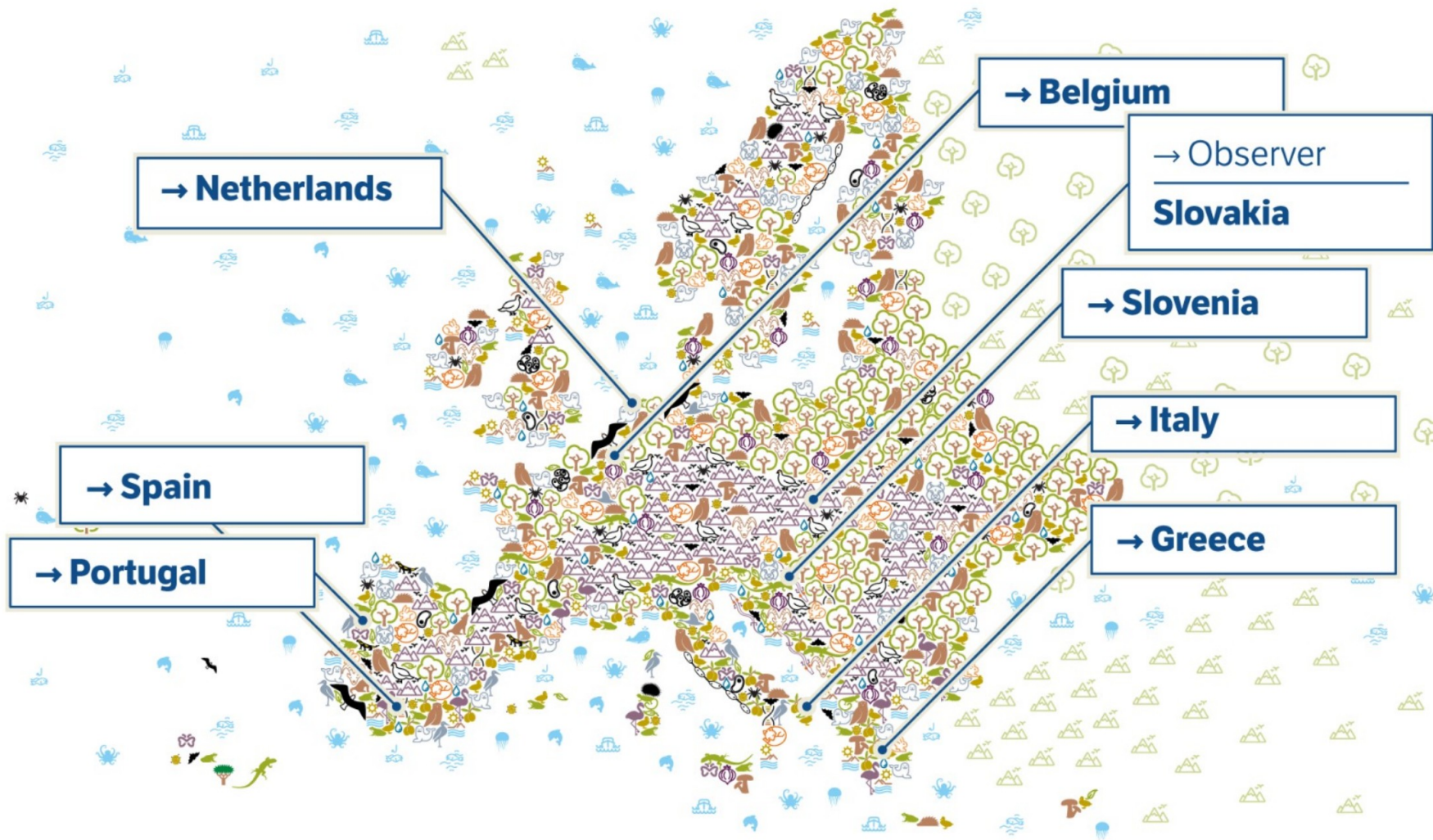
→ **Seville**

Statutory and ICT
e-Infrastructure
Technical Office

→ **Lecce**

Service Centre

_How we work | National Nodes



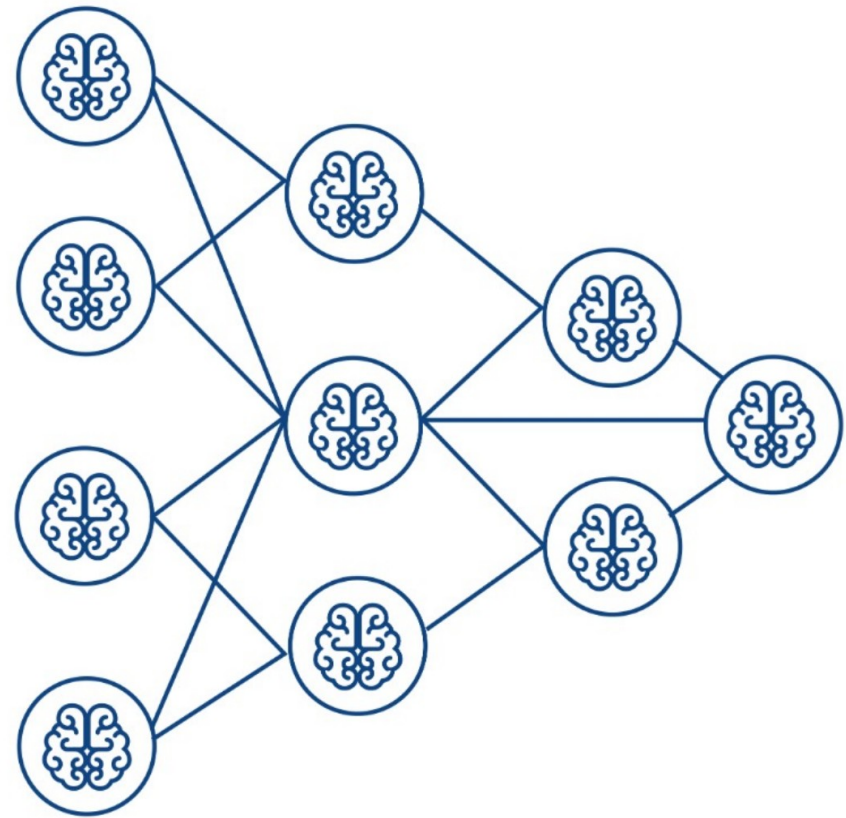


LifeWatch ERIC in a nutshell:

<https://www.youtube.com/watch?v=m4n-cAcgpl0&feature=youtu.be>

_ Cultural challenge

“This change would direct most of the scientific effort from a single-core (SCBs) operation, or **brain-etics**



to high performance brain network synthesis (HPBNs) or **brain-omics**”



LifeWatch ERIC in the times of COVID-19: adaptations in management and operations

LifeWatch ERIC is an e-Infrastructure; therefore:

- 95% of the management online (e.g. administrative, financial, etc., in LwOS)
- 99% of the operations online (e.g. meetings, workshops, conferences, training, education)
- Response to emergency cases: incoming information (phone, apps, email) – initial dialogue – set up emergency meetings (GtM rooms) – develop response actions – online execution (e.g. decision making, payments, signing and sealing of papers, etc.)



LifeWatch ERIC in the times of COVID-19: adaptations in management and operations

LifeWatch ERIC Organisational System (LwOS): an intra-communication and management platform, based on Zoho

The screenshot displays the user interface of the LifeWatch ERIC Organisational System (LwOS). At the top left is the LifeWatch ERIC logo, and at the top right is the user profile "ceo@lifewatch.eu". The main dashboard features a grid of application tiles: Mail, WorkDrive, Projects, Books, Analytics, and People in the first row; Desk, Sign, and Tesseract BETA in the second row. Below this grid is a section titled "EXECUTIVE BOARD COLLABORATION AREA" containing two items: "Agenda" (represented by a document icon) and "Previous meetings" (represented by a folder icon).



LifeWatch ERIC in the times of COVID-19: adaptations in management and operations

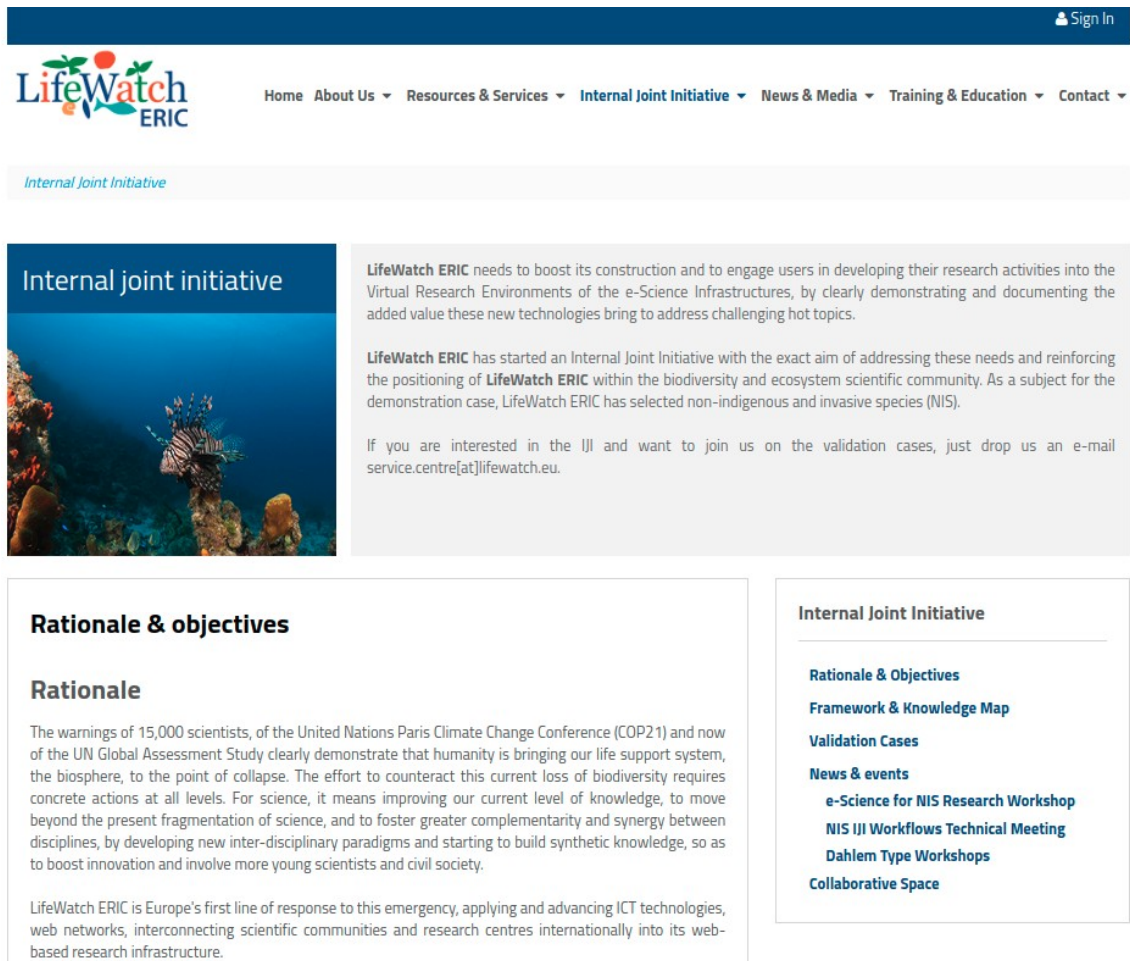
LifeWatch ERIC LwOS: advantages

- Collaborative environment
 - Security
 - Accuracy
 - Transparency
 - Versioning
 - Continuity

LifeWatch ERIC in the times of COVID-19: “in house” projects and “fast-track” access for high priority research

LifeWatch ERIC flagship Internal Joint Initiative:

- <https://www.lifewatch.eu/web/guest/internal-joint-initiative>



The screenshot shows the LifeWatch ERIC website. At the top right is a 'Sign In' button. The navigation menu includes: Home, About Us, Resources & Services, Internal Joint Initiative (highlighted), News & Media, Training & Education, and Contact. Below the navigation is a section titled 'Internal Joint Initiative' with a blue header and an image of a coral reef. The main content area contains three paragraphs of text. To the right of the main content is a sidebar with a list of links under the heading 'Internal Joint Initiative'.

Internal joint initiative

LifeWatch ERIC needs to boost its construction and to engage users in developing their research activities into the Virtual Research Environments of the e-Science Infrastructures, by clearly demonstrating and documenting the added value these new technologies bring to address challenging hot topics.

LifeWatch ERIC has started an Internal Joint Initiative with the exact aim of addressing these needs and reinforcing the positioning of LifeWatch ERIC within the biodiversity and ecosystem scientific community. As a subject for the demonstration case, LifeWatch ERIC has selected non-indigenous and invasive species (NIS).

If you are interested in the IJI and want to join us on the validation cases, just drop us an e-mail service.centre@lifewatch.eu.

Rationale & objectives

Rationale

The warnings of 15,000 scientists, of the United Nations Paris Climate Change Conference (COP21) and now of the UN Global Assessment Study clearly demonstrate that humanity is bringing our life support system, the biosphere, to the point of collapse. The effort to counteract this current loss of biodiversity requires concrete actions at all levels. For science, it means improving our current level of knowledge, to move beyond the present fragmentation of science, and to foster greater complementarity and synergy between disciplines, by developing new inter-disciplinary paradigms and starting to build synthetic knowledge, so as to boost innovation and involve more young scientists and civil society.

LifeWatch ERIC is Europe's first line of response to this emergency, applying and advancing ICT technologies, web networks, interconnecting scientific communities and research centres internationally into its web-based research infrastructure.

Internal Joint Initiative

- Rationale & Objectives
- Framework & Knowledge Map
- Validation Cases
- News & events
 - e-Science for NIS Research Workshop
 - NIS IJI Workflows Technical Meeting
 - Dahlem Type Workshops
- Collaborative Space

LifeWatch ERIC in the times of COVID-19: adopt operation in a context of restricted physical access to RIs

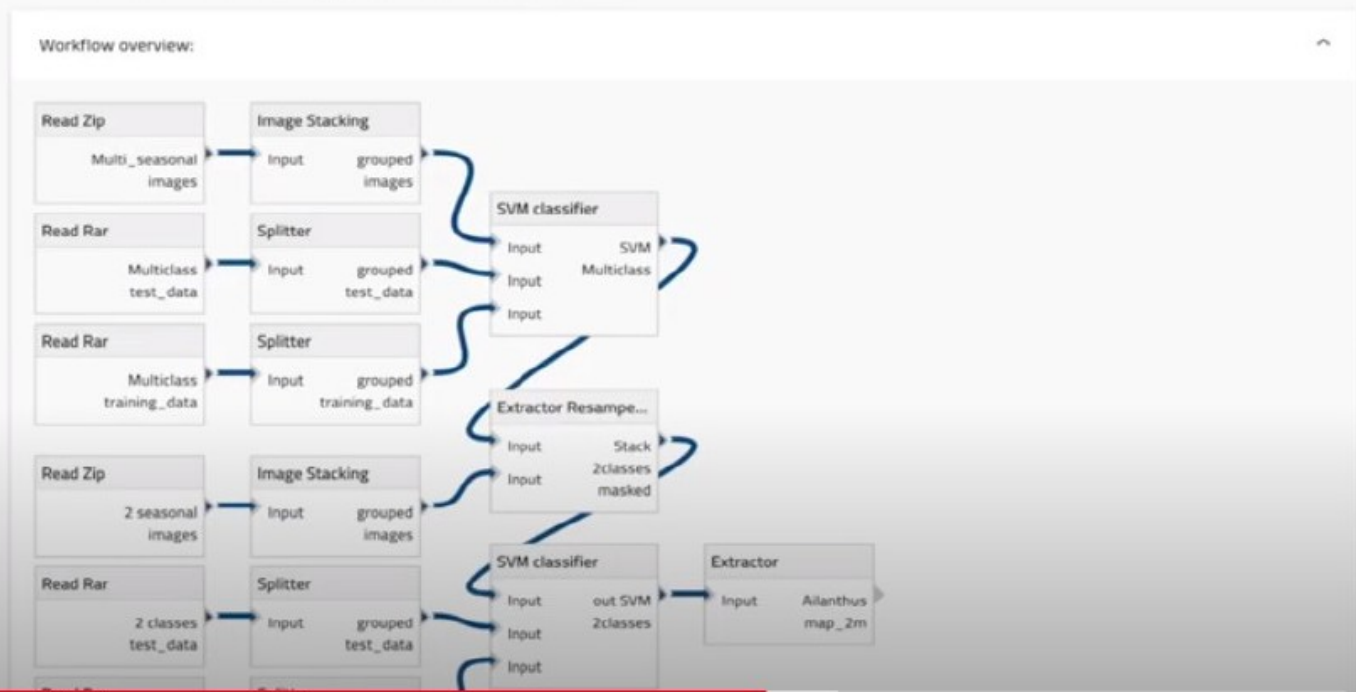
LifeWatch ERIC Tesseract

Internal Joint Initiative | Info & Numbers

IJI NIS Workflow Environment

Run an *Ailanthus Altissima* mapping, module 1 workflow

Workflow overview:



Workflow overview diagram showing a sequence of steps:

- Read Zip (Multi_seasonal images) → Image Stacking (Input: grouped images)
- Read Rar (Multiclass test_data) → Splitter (Input: grouped test_data)
- Read Rar (Multiclass training_data) → Splitter (Input: grouped training_data)
- Read Zip (2 seasonal images) → Image Stacking (Input: grouped images)
- Read Rar (2 classes test_data) → Splitter (Input: grouped test_data)
- SVM classifier (Input: SVM Multiclass)
- Extractor Resampe... (Input: Stack 2classes masked)
- SVM classifier (Input: out SVM 2classes)
- Extractor (Input: Ailanthus map_2m)

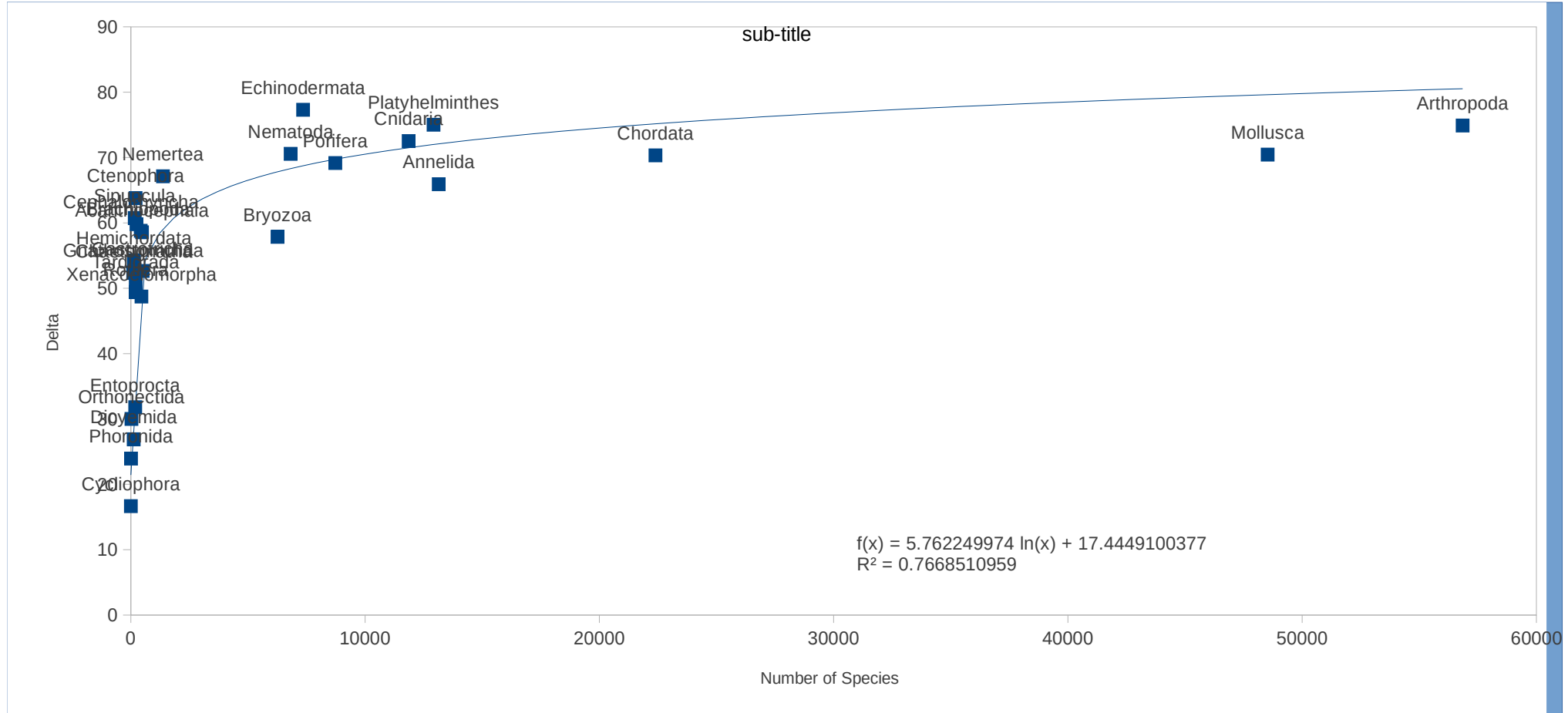
Dark theme false

8:10 / 12:34

CC



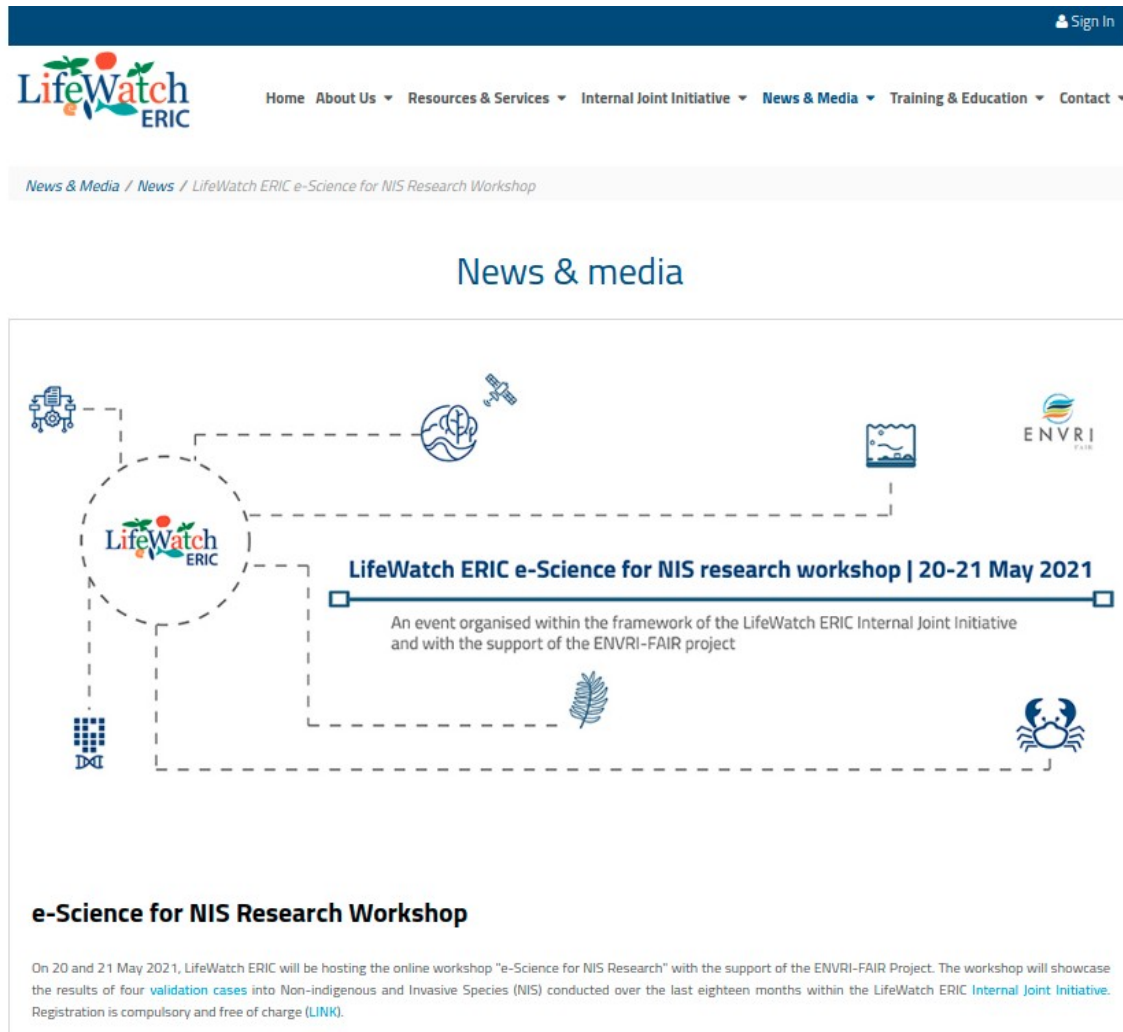
LifeWatch ERIC in the times of COVID-19: adopt operation in a context of restricted physical access to RIs



LifeWatch ERIC in the times of COVID-19: accelerate the diffusion of research results and data?

*LifeWatch ERIC
flagship Internal Joint
Initiative:*

- https://www.lifewatch.eu/all-news/-/asset_publisher/BU9HdfPGXPak/content/lifewatch-eric-e-science-for-nis-research-workshop/10181



The screenshot shows the LifeWatch ERIC website's 'News & media' section. At the top, there is a navigation bar with links for Home, About Us, Resources & Services, Internal Joint Initiative, News & Media, Training & Education, and Contact. Below the navigation bar, the breadcrumb trail reads 'News & Media / News / LifeWatch ERIC e-Science for NIS Research Workshop'. The main heading is 'News & media'. The featured article is titled 'LifeWatch ERIC e-Science for NIS research workshop | 20-21 May 2021'. The article text states: 'An event organised within the framework of the LifeWatch ERIC Internal Joint Initiative and with the support of the ENVRI-FAIR project'. The article is surrounded by various icons representing different scientific fields: a microscope, a satellite, a globe, a wave, a leaf, a crab, a grid, and a DNA helix. The ENVRI logo is also visible in the top right corner of the article area.

LifeWatch ERIC e-Science for NIS research workshop | 20-21 May 2021

An event organised within the framework of the LifeWatch ERIC Internal Joint Initiative and with the support of the ENVRI-FAIR project

e-Science for NIS Research Workshop

On 20 and 21 May 2021, LifeWatch ERIC will be hosting the online workshop "e-Science for NIS Research" with the support of the ENVRI-FAIR Project. The workshop will showcase the results of four [validation cases](#) into Non-indigenous and Invasive Species (NIS) conducted over the last eighteen months within the LifeWatch ERIC [Internal Joint Initiative](#). Registration is compulsory and free of charge ([LINK](#)).



LifeWatch ERIC in the times of COVID-19: policy actions required to enable RIs to mobilise effectively

- Co-design and co-development by the RIs: **EOSC Future** project, towards development of a EU platform for cross-domain research
- Access to resources by multiple research communities (e.g. **ENVRI FAIR, EOSC Life**, etc.)
- Building on the commonalities of the RIs: **ERIC Forum**
- Effective funding models to promote the sustainability of their operation: **ERIC Forum**
- Environment to promote RI collaboration: **EU Green Deal, Missions**

Thank you for your attention and questions

email: ceo@lifewatch.eu

Website: www.lifewatch.eu

Twitter: @LifeWatchERIC