



BEEs

The LifeWatch ERIC Biodiversity & Ecosystem eScience Conference

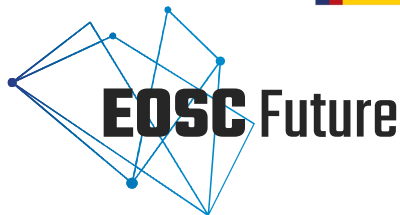
Seville
22-24/05/23



Threats and challenges to biodiversity and ecosystem conservation from an eScience perspective



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A cross-domain VRE to accelerate research on Non-Indigenous Invasive Species (NIS)

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(Science Clusters: ENVRI FAIR and EOSC-Life)



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Seville, 22-24 May 2023

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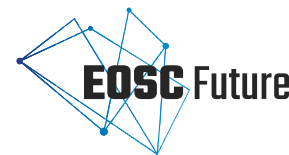
What?

The Science project (SP) contributes to the estimation of the impacts of the non-indigenous invasive species (NIS) on the European Biodiversity and Ecosystems. This topic is important for European Green Deal and the new European Biodiversity Strategy.



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Why?

Users will be able to:

- Discover Non-Indigenous Invasive Taxa
- Analyse distribution patterns of invasive species from different sources of data
- Compare the above patterns
- Provide managerial suggestions to relevant authorities
- Build on the existing infrastructure to address more complex questions (e.g. future scenarios)

Why?

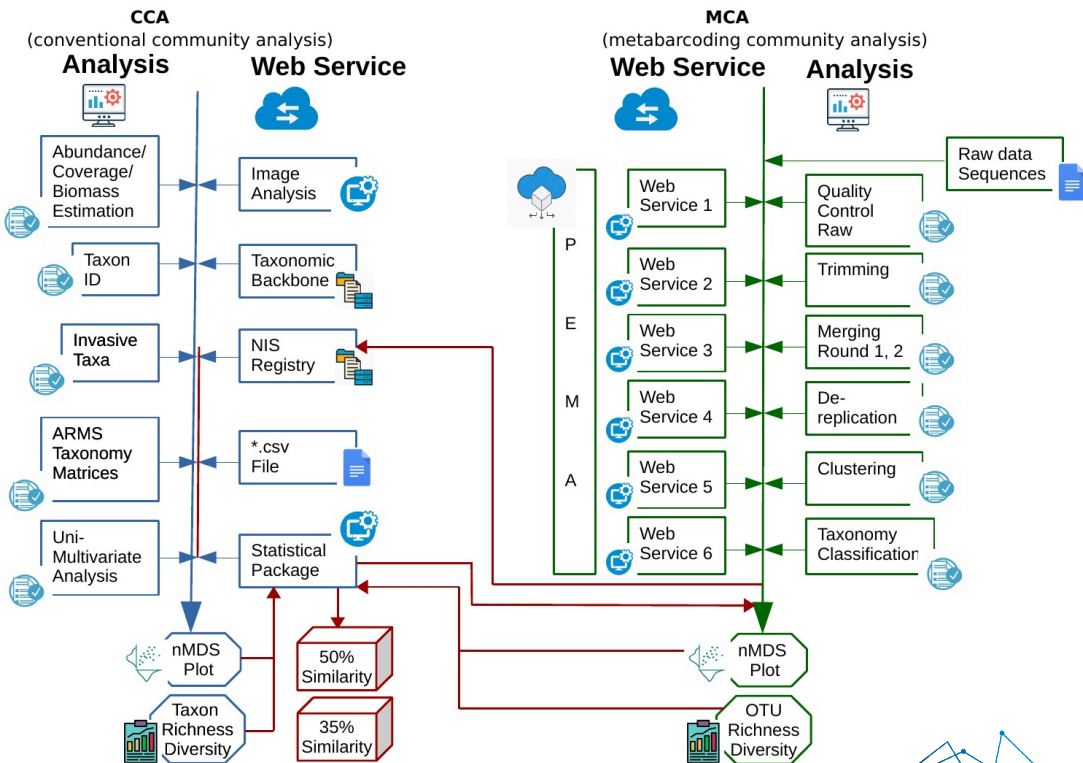
This SP will solve:

- The problem of early discovery of NIS and the alert of the management authorities to take measures.
- The potential of the alterations of the European native ecosystem by the NIS.
- The SP is also linked with the socio-economic issues because of the NIS implications to the local ecosystems and their services, and their societal goods and services.
- Since many of the above impacts may be of local scale, they may alter common practices in circular economies.

How did we start?

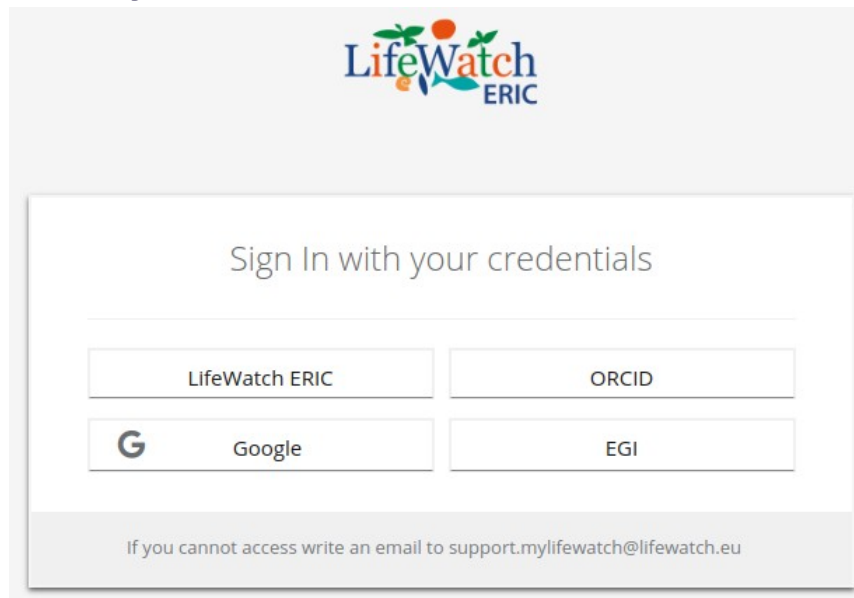
Workflows : Analyses & Services

Use case 4: ASSEMBLE+ ARMS



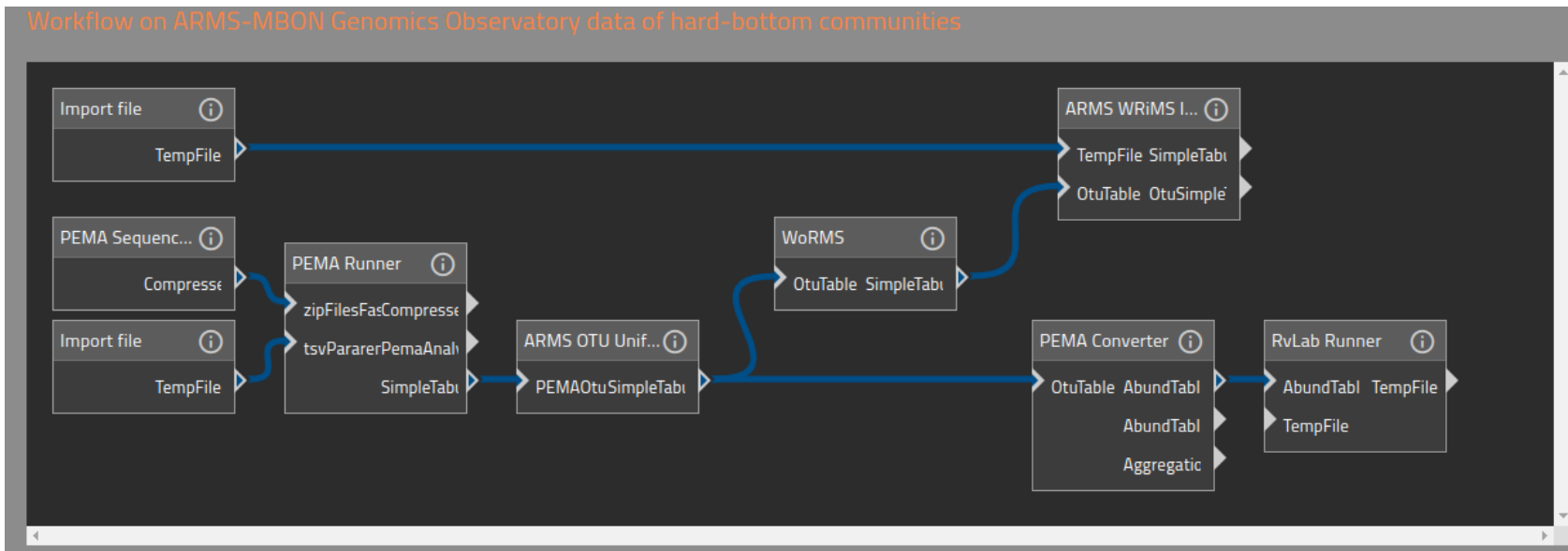
How it works?

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



How it works?

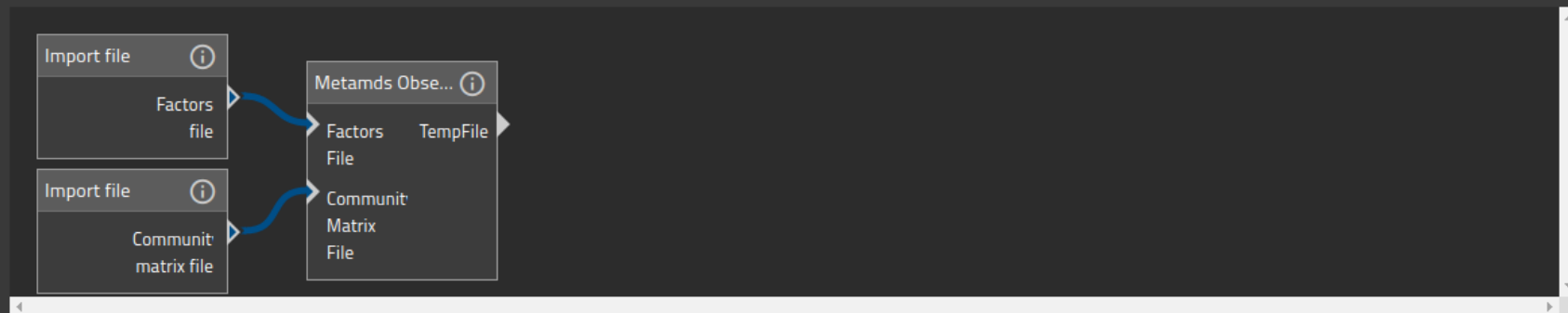
Workflow on ARMS-MBON Genomics Observatory data of hard-bottom communities



How it works?

1 Workflow overview

Each step in the workflow diagram has a function (the title), inputs (written on the left of each box) and outputs (written on the right)



Why in EOSC?

From EOSC:

- Access to scientific products (e.g. data and services) by communities from multiple disciplines and domains
- Potential to be accessed through the EOSC market place along with other similar products, and used in combination with the potential
- Collaboration with multiple domains, such as EOSCLife and SSHOC
- Production of synthetic knowledge

To EOSC:

- Eight web services
- Two interconnected workflows
- A unique identification system
- Full traceability of all information used and generated.
- Possibility of modifying the workflow in the future to generate new processing of information.
- Integration of local, external or workflow-generated data.

User groups and next steps

Target groups:

- Researchers/engineers on Invasive Alien Species (Scientific communities Internal Joint Initiative LifeWatch ERIC+ others)
- Academicians and students
- BON participants/managers
- Environmental Agencies
- Stakeholders (e.g. management authorities, tour operators, planners, developers, navy)
- Policy Makers
- Citizens

Next steps:

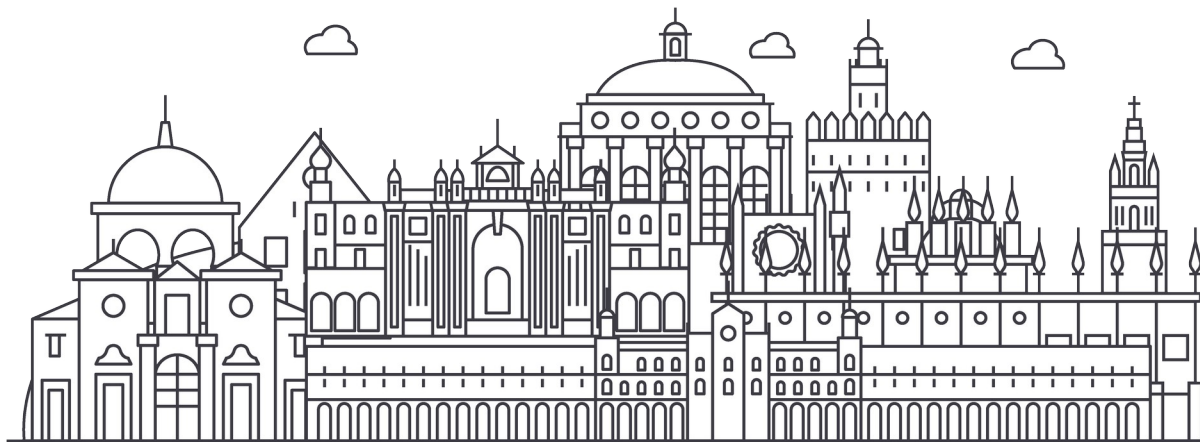
- Complete integration with EOSC core services
- Engage relevant communities, including those from other disciplines and domains
- Publish results in international peer-reviewed journals
- Repeat with other workflows



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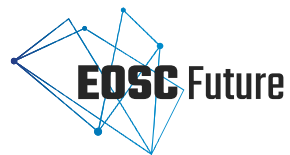
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Thank you! | www.lifewatch.eu/bees-2023

