



BEEs

The LifeWatch ERIC Biodiversity & Ecosystem
eScience Conference



Heraklion, 30 June - 3 July 2025

2 July 2025 | 9:00



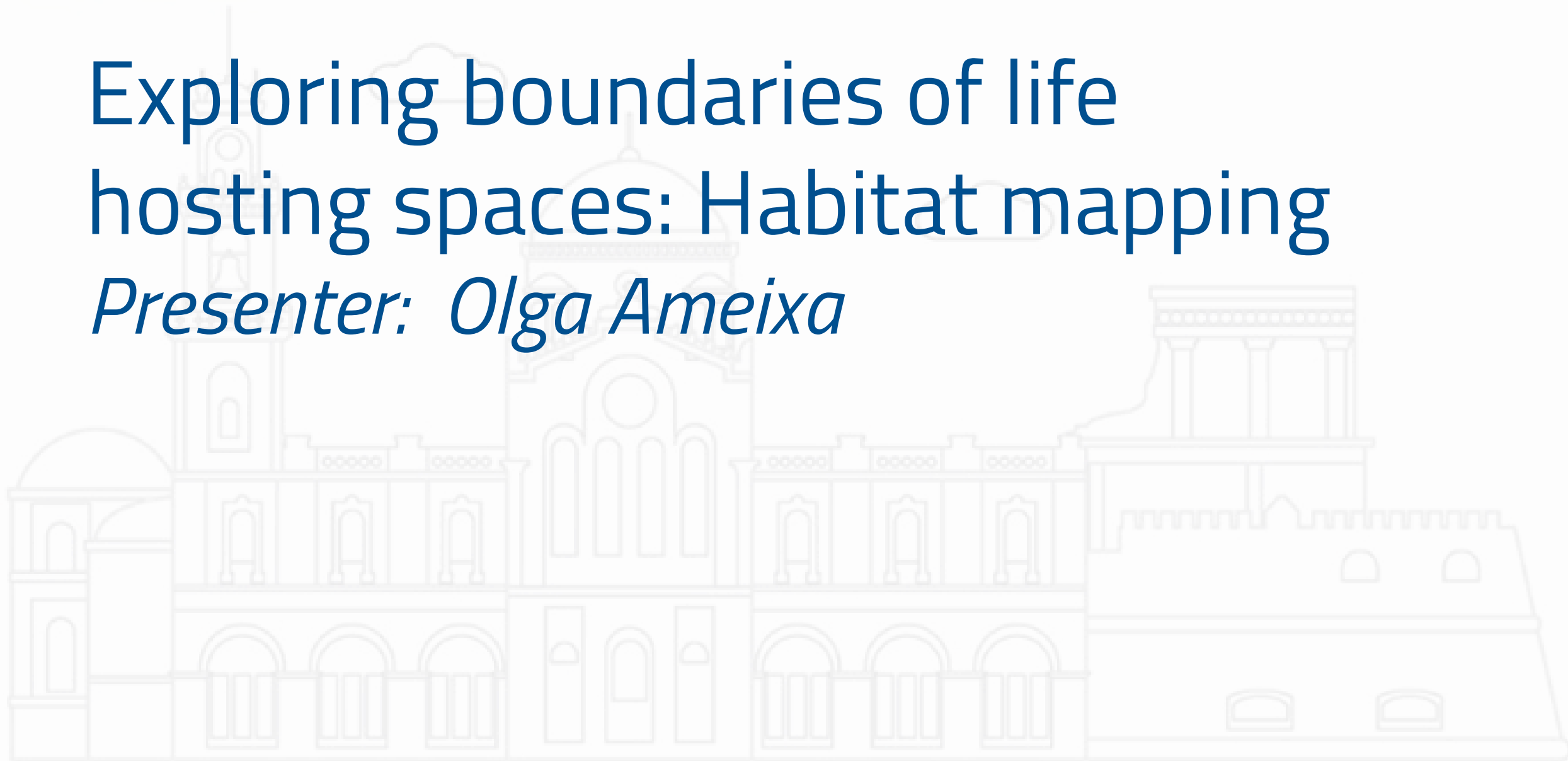
Session: Exploring boundaries of life hosting spaces: Habitat mapping

2 July 2025 | 08:30-10:30



Exploring boundaries of life hosting spaces: Habitat mapping

Presenter: Olga Ameixa



The LifeWatch ERIC Thematic Working Group (WG) on Habitat Mapping of Ecosystem Services

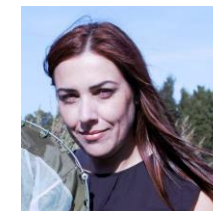


University of Aveiro CESAM

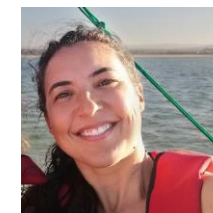
- Ana Lillebø
WG coord.



- Olga Ameixa
Co-coord.



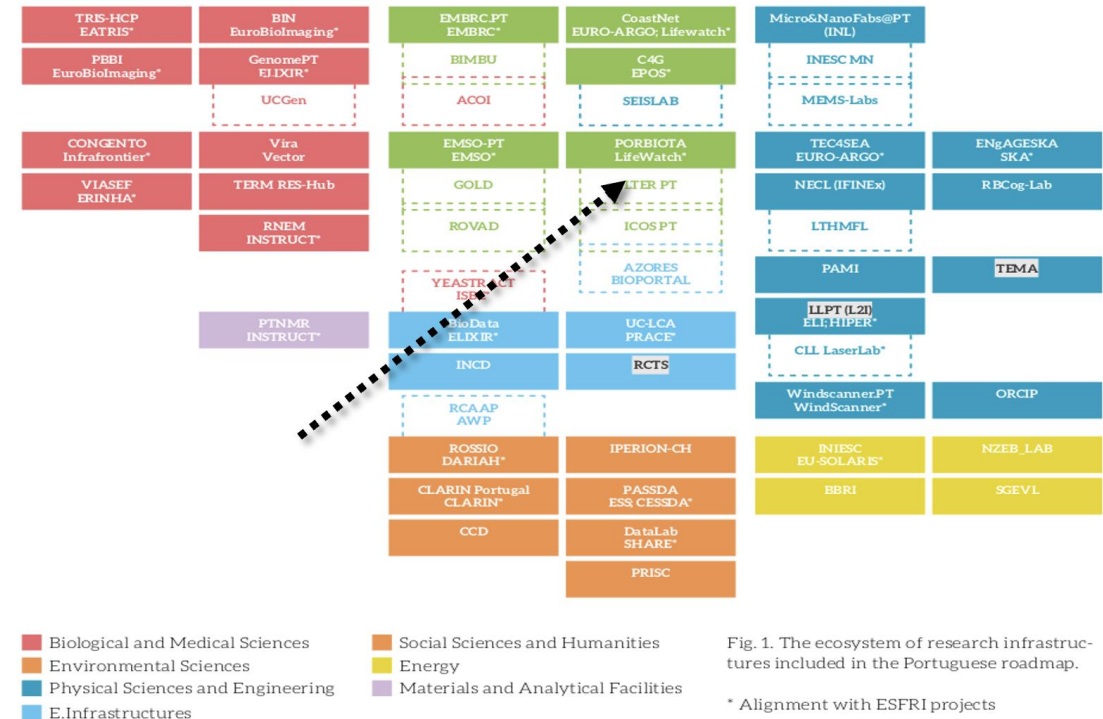
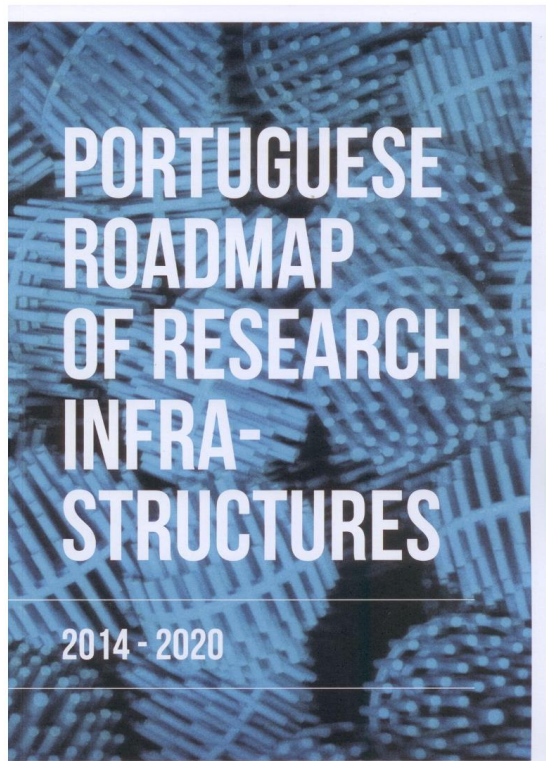
- Heliana Teixeira
Co-coord.



UAveiro/CESAM | some context



LifeWatch Portugal | some context



PORBIOTA was one of the 40 Research Infrastructures in Environmental Sciences to integrate the Portuguese Roadmap of Research Infrastructures of strategic interest.

Aligned with LifeWatch-ERIC

LifeWatch Portugal | some context



NETWORK | Ecological DATA
Biodiversity Ecosystems Environment



B PORBIOTA
INTEROPERABILITY



Rede LTER - Portugal
Long Term Ecological Research

LifeWatch Portugal | some context



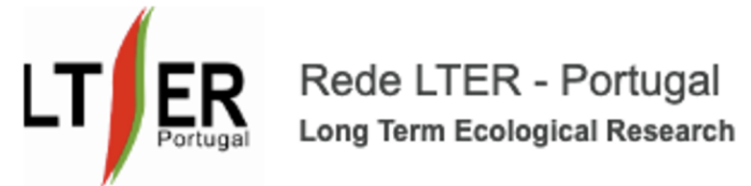
LifeWatch ERIC was established as a European Research Infrastructure Consortium in March 2017. LifeWatch ERIC seeks to understand the complex interactions between species and the environment, taking advantage of High-Performance, Grid and Big Data computing systems, and the development of advanced modelling tools to implement management measures aimed at preserving life on Earth.



Integrated Carbon Observation System (ICOS) is a pan-European research infrastructure founded in 2008, which provides harmonised and high-precision scientific data on carbon cycle and greenhouse gas budget and perturbations. ICOS European Research Infrastructure Consortium (ERIC) was established in 2015.



GBIF—the Global Biodiversity Information Facility—is an international network and research infrastructure funded by the world's governments and aimed at providing anyone, anywhere, open access to data about all types of life on Earth. GBIF was officially established in 2001. <http://www.gbif.pt>



This organized network of LTER sites first appeared in the USA in the 1980's. In 1993 an international network was developed (ILTER) and, more recently, the European network of LTER sites was created, with the main objectives of monitoring and storing relevant data in ecology, establishing links among institutions and researchers and promote the exchange of data and knowledge.

<https://www.lterportugal.net>

The LifeWatch ERIC Thematic Working Group (WG) on Habitat Mapping of Ecosystem Services

Objectives

- Bringing together *researchers, practitioners, and policymakers* to advance habitat-based approaches for *assessing and visualising ecosystem services*.
- Mapping ecosystem services to illustrate their *supply, demand, spatial distribution, trends, and pressures*, providing vital insights for *sustainable management and policy support*.

Key objectives – Line of activities #1

Mapping Requirements and Gap Analysis

#1 Mapping Requirements and Gap Analysis

- Identify supply and demand for ecosystem services most relevant for targeted actions (e.g., biodiversity conservation, restoration planning, climate change response), and assess current mapping coverage within LifeWatch ERIC.



#1 Mapping Requirements and Gap Analysis

- Ensure mapped services and associated data are accessible via the LifeWatch ERIC Marketplace.

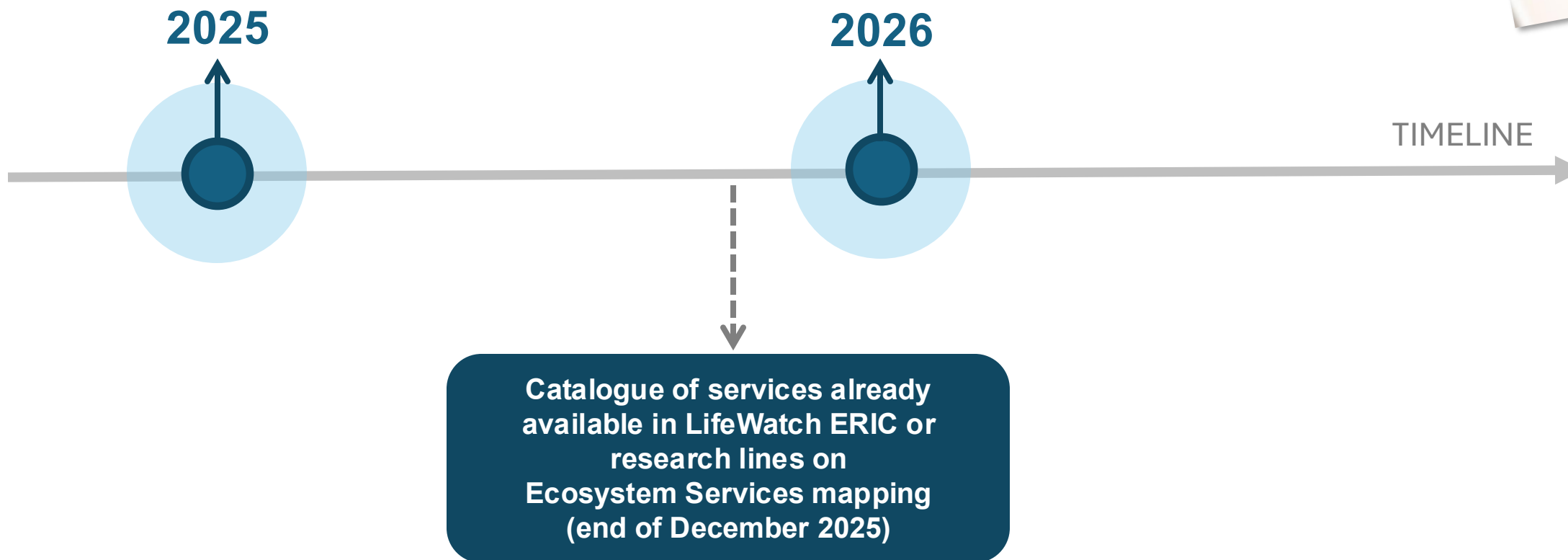
The screenshot shows the LifeWatch ERIC website homepage. On the left is a vertical navigation menu with the following items: HOME, ABOUT US, RESOURCES & SERVICES (expanded to show sub-items: Metadata Catalogue, My LifeWatch, Thematic Services, LifeBlock, EcoPortal, Community Platform, Help Desk), INITIATIVES, NEWS & MEDIA, TRAINING & EDUCATION, CONTACT US, USERS ACCESS, and BEES CONFERENCE 2025. The main content area features the LifeWatch ERIC logo, a heading 'LifeWatch ERIC, the e-Science Infrastructure for Biodiversity and Ecosystem Research', a 'Find out more' button, and a 'Play the video' button. To the right is a map of Europe with numerous colored icons representing data points. Below the map are three circular icons for 'Researchers' (microscope), 'Policy Makers' (document with checkmark), and 'Students' (graduation cap). At the bottom, the text 'Metadata Catalogue of Resources & Services' is displayed, followed by a line of small text: 'Access and use the resources and services for biodiversity and ecosystem researchers made available through our catalogues.'

#1 Mapping Requirements and Gap Analysis

- Collect mapping needs from WG members and stakeholders to guide the expansion of datasets and prioritise efforts to fill spatial and thematic gaps.



#1 Mapping Requirements and Gap Analysis

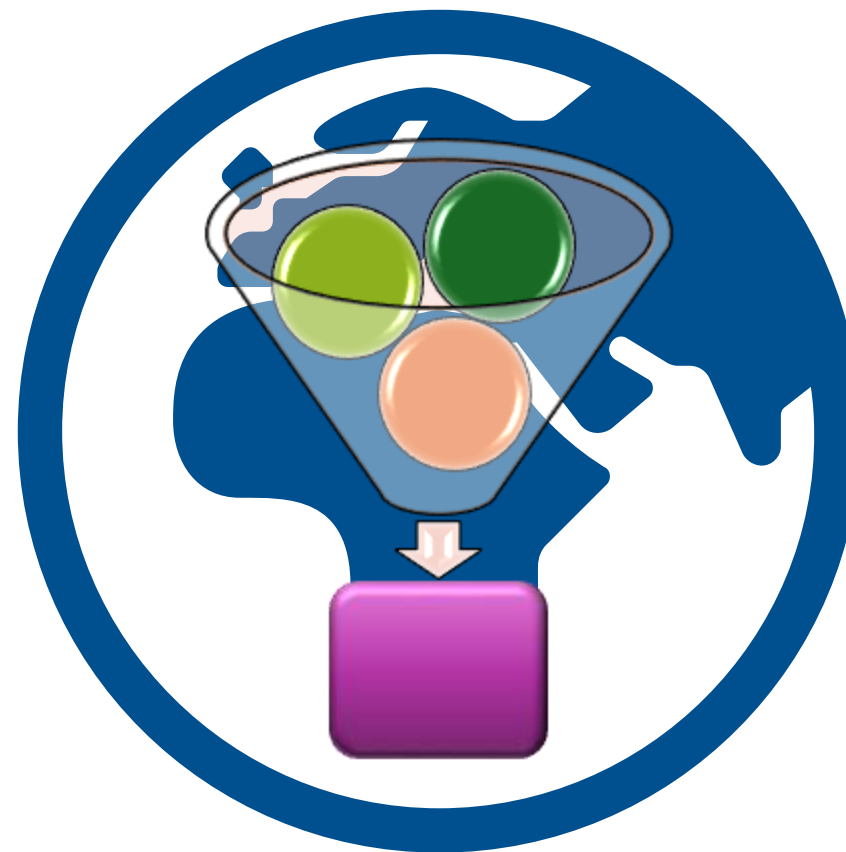


Key objectives – Line of activities #2

Methodological Alignment and Innovation

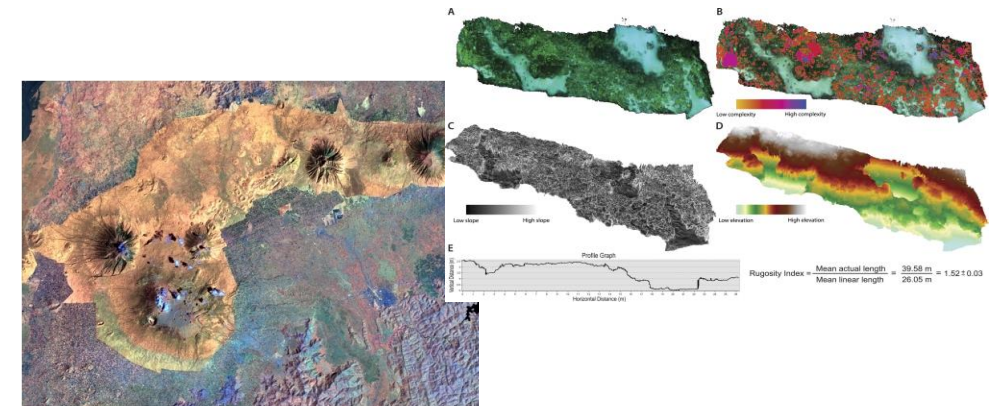
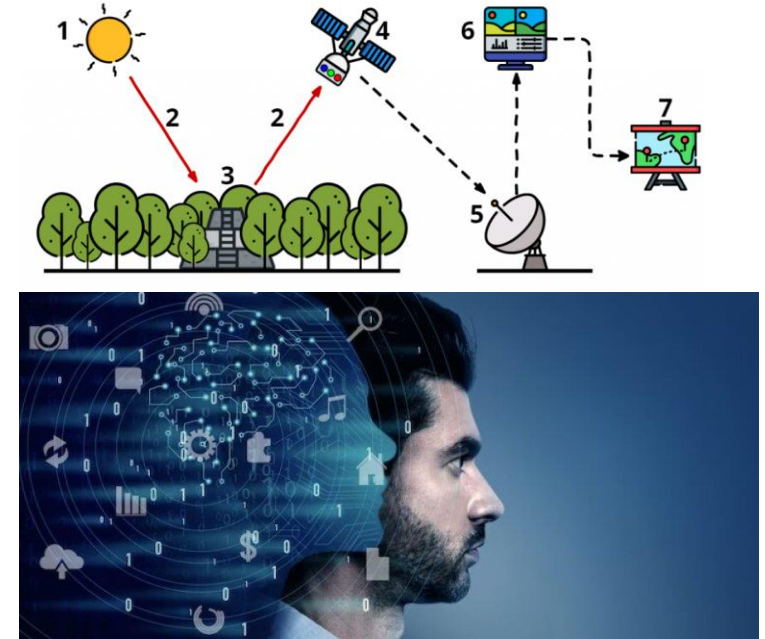
#2 Methodological Alignment and Innovation

- Promote harmonisation of methodologies by reviewing and aligning mapping standards, classification systems, and indicators across members.



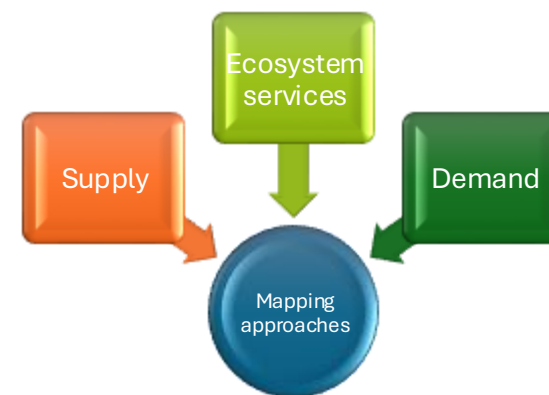
#2 Methodological Alignment and Innovation

- Encourage the integration of advanced techniques such as remote sensing, GIS modelling, and machine learning for scalable, habitat-based ecosystem service mapping.

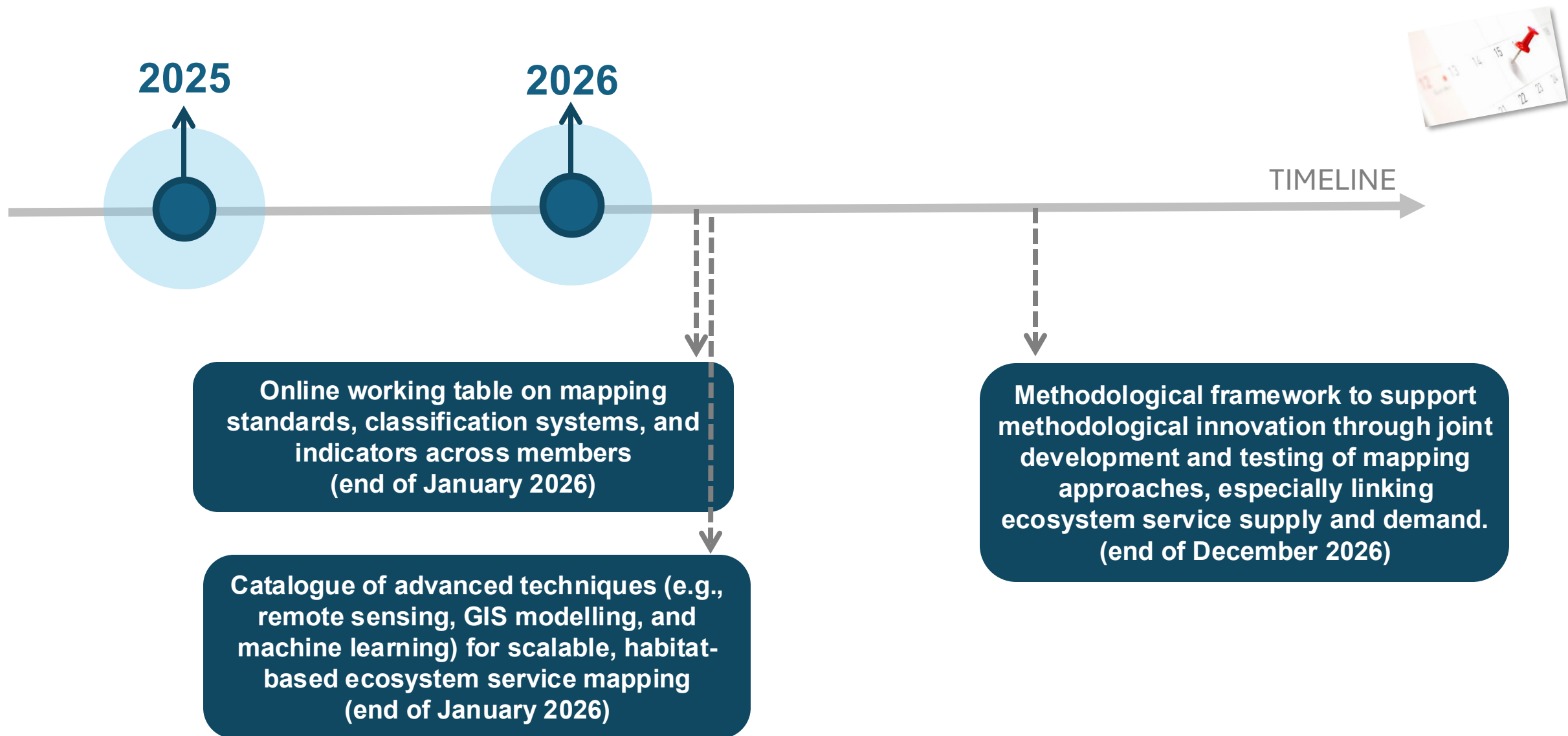


#2 Methodological Alignment and Innovation

- Support methodological innovation through joint development and testing of mapping approaches, especially linking ecosystem service supply and demand.



#2 Methodological Alignment and Innovation



Key objectives – Line of activities #3

Knowledge Exchange and Capacity Building

#3 Knowledge Exchange and Capacity Building

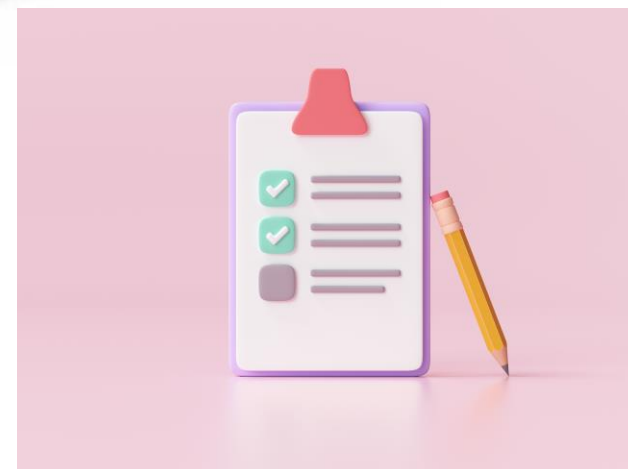
- Organise regular workshops, webinars, and training sessions to exchange know-how, share case studies, and build technical skills among members.



Thematic Service Workshop "Habitat Mapping: From Science and Policy Needs to Solutions". Aveiro, 3rd of May 2024

#3 Knowledge Exchange and Capacity Building

- Create a shared repository of guidance documents, tools, templates, and data resources accessible to WG members and broader communities.

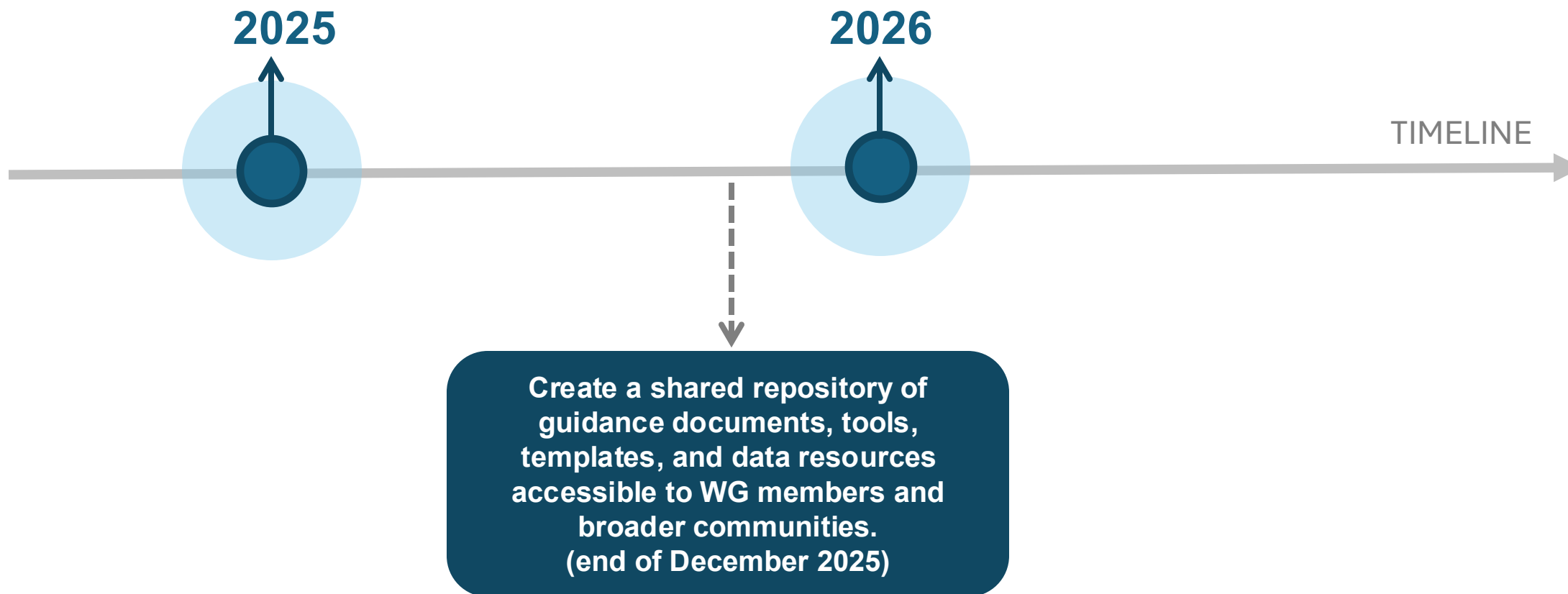


#3 Knowledge Exchange and Capacity Building

- Facilitate cross-sector learning and foster interdisciplinary collaboration among ecologists, data scientists, spatial planners, and policymakers.



#3 Knowledge Exchange and Capacity Building



Key objectives – Line of activities #4

Policy Relevance and Uptake

#4 Policy Relevance and Uptake

- Develop policy-relevant use cases demonstrating the application of habitat-based mapping in supporting EU strategies (e.g. Biodiversity Strategy, Nature Restoration Law).



#4 Policy Relevance and Uptake

- Engage with policymakers and practitioners to co-design outputs that are directly usable in planning, reporting, and restoration initiatives.

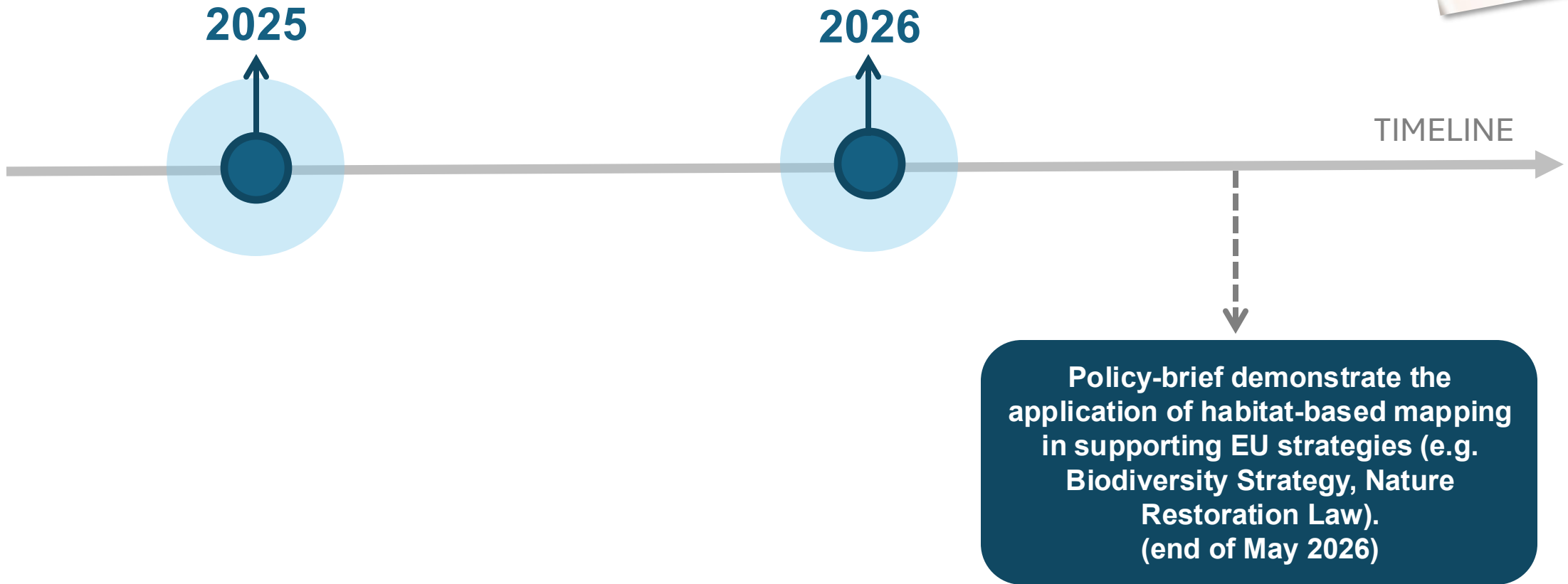


#4 Policy Relevance and Uptake

- Promote the WG's work as a model for ecosystem-based planning, reinforcing LifeWatch ERIC's role in supporting science-policy interfaces.



#4 Policy Relevance and Uptake





BEEs

The LifeWatch ERIC Biodiversity & Ecosystem
eScience Conference



Heraklion, 30 June - 3 July 2025

Thank you!



universidade
de aveiro



CENTRE FOR
ENVIRONMENTAL AND
MARINE STUDIES



LTER
RIA DE AVEIRO



PORBIOTA

PORTUGUESE E-INFRASTRUCTURE
FOR INFORMATION AND RESEARCH
ON BIODIVERSITY