



# BEeS

The LifeWatch ERIC Biodiversity & Ecosystem  
eScience Conference



Heraklion, 30 June - 3 July 2025

2 July 2025 | 13:05



# Session: Biodiversity Observatory: Smart Systems for a Living Planet Revolutionising Biodiversity Monitoring with Automation

2 July 2025 | 11:30-13:00



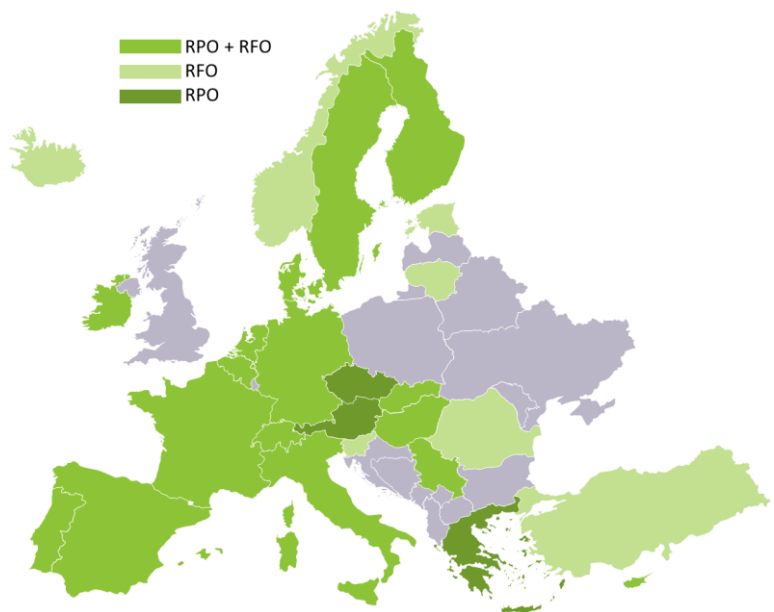
# **Towards a Monitoring System for Agroecology in Europe: Results from Expert Consultations**

***Presenter: Salvador Fernández (LifeWatch ERIC)***

***Authors: Iria Soto, Ana Mellado, Amy Worten, Sinead O'Keeffe, Marc Caulfield, Anne Vandoorn, JM Ávila***

# Agroecology in a nutshell

*Team-up and unlock the transition to agroecology so that farming systems are resilient, productive and prosperous, place-sensitive, as well as climate, environment, ecosystem, biodiversity and people-friendly by 2050*



**Jan 2024 to Dec 2033**

Horizon Europe co-funded partnership in Cluster 6  
Phase 2 for AGROECOLOGY is approaching (see WP2025)



**Pool resources of EU and states/regions**

Mobilisation of 300 Mio € (50% co-funded)

In-kind: research and networking activities

In-cash: up to 7 transnational calls for proposals



**72 partners from 26 states/regions**

RFOs: National/Regional Authorities, ministries,  
Funding agencies

RPOs: Research performing organisations



**Visit us: <https://www.agroecologypartnership.eu/>**

Coordination: Project Management Juelich (DE)

[ptj-agroecology-secretariat@fz-juelich.de](mailto:ptj-agroecology-secretariat@fz-juelich.de)

Co-coordination: ANR (FR)

# Introduction & Objective

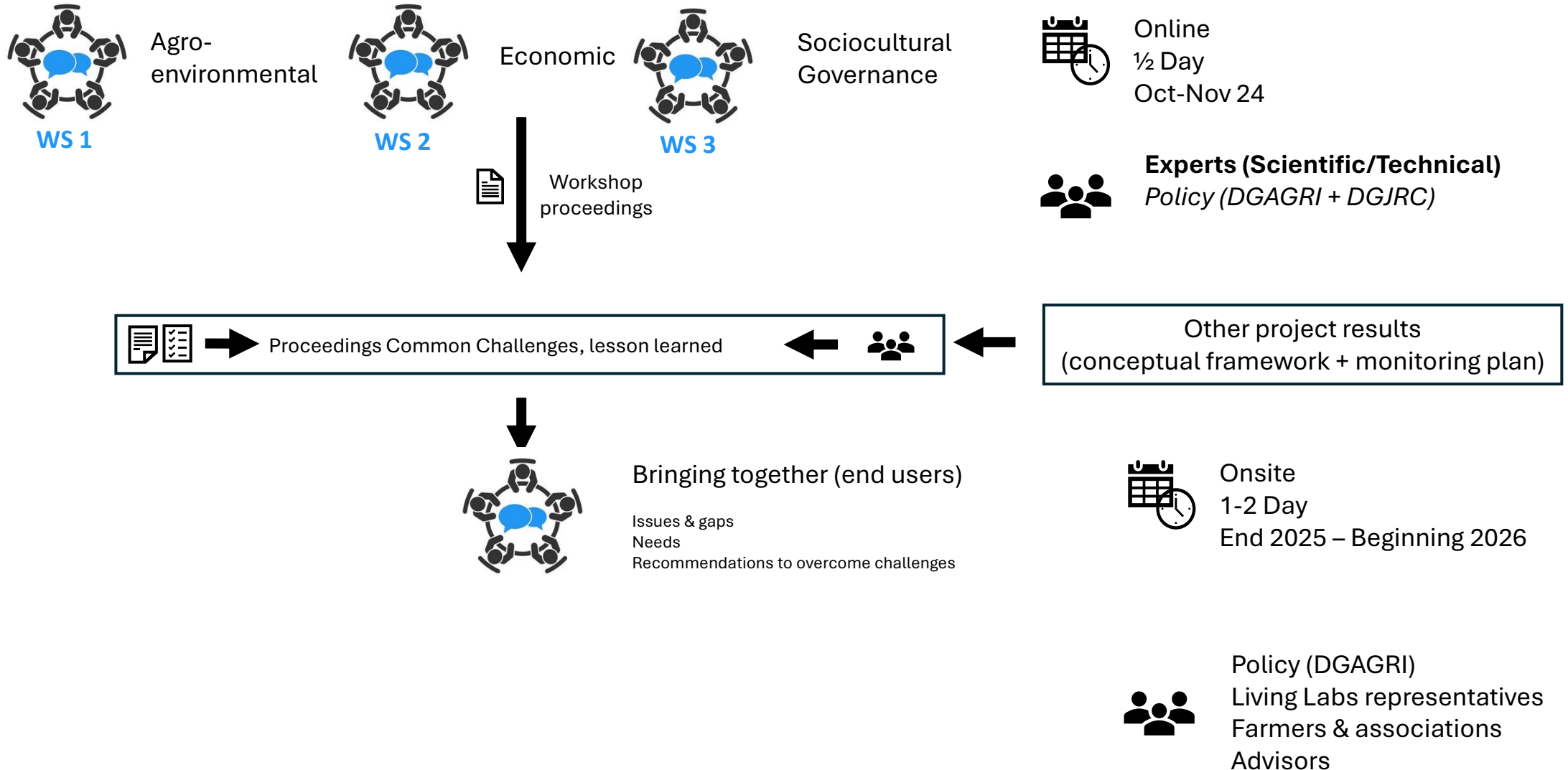
## Objective:

- Capitalize on the **expert knowledge** that has been generated by previous experiences monitoring agroecology across various scales and domains
- Identify **lessons learned, challenges, limitations and opportunities** encountered by experts in previous efforts to monitor agroecology across various scales and domains.

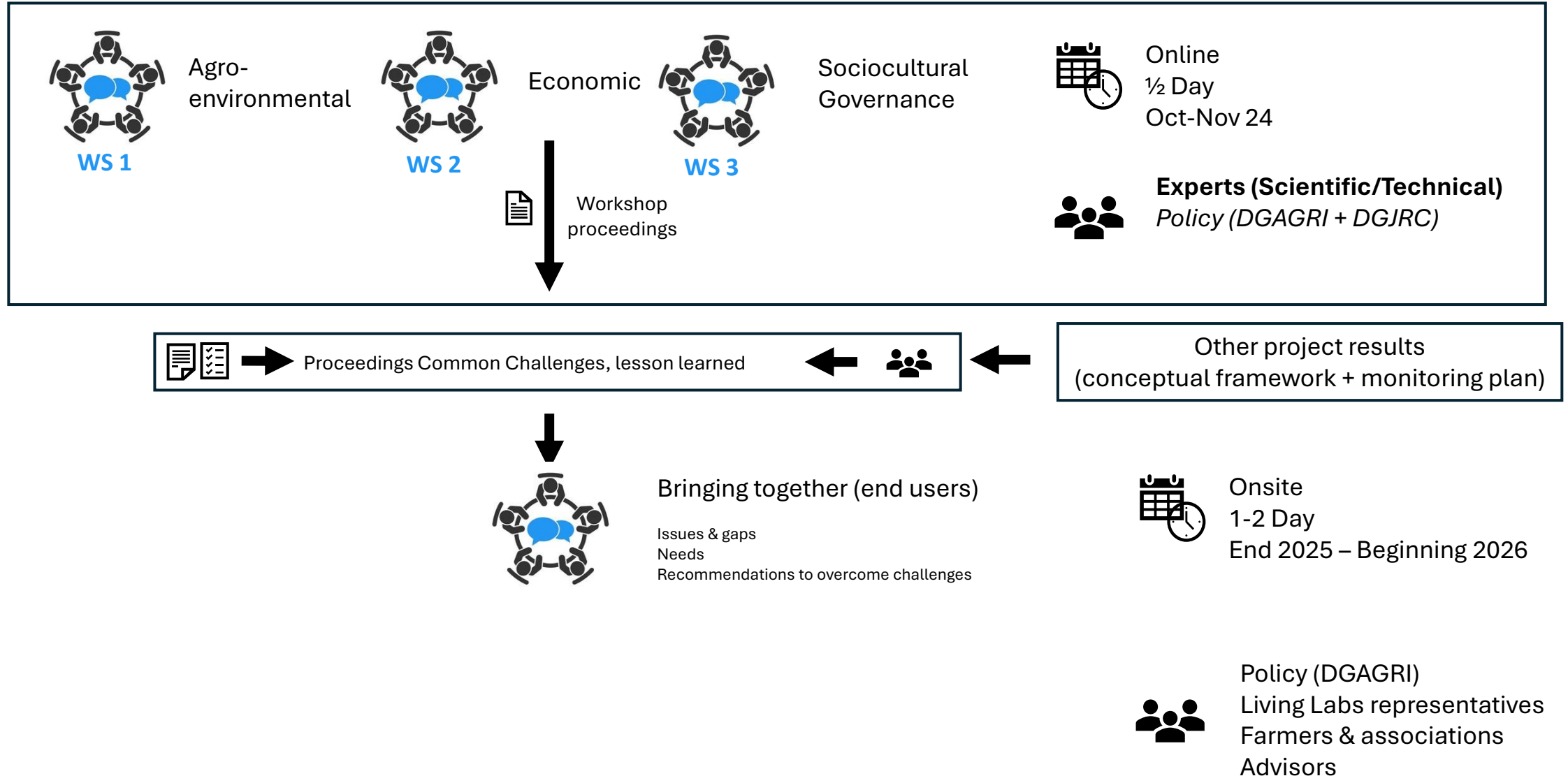
## Outputs:

- Challenges and opportunities
- Recommendations

# Methodology



# Methodology



# Methodology



# Methodology

## Literature review



# Methodology

## Literature review



## Identification of experts



# Methodology

**Six Thinking Hats** (de Bono, 1985) framework for structured thinking and group discussion.

# Methodology



## BLACK **CHALLENGES**

Difficulties & Dangers

**Six Thinking Hats** (de Bono, 1985) framework for structured thinking and group discussion.

# Methodology



BLACK  
**CHALLENGES**  
Difficulties & Dangers



YELLOW  
**OPPORTUNITIES**  
Potential & Uses

**Six Thinking Hats** (de Bono, 1985) framework for structured thinking and group discussion.

# Methodology



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BLUE  
**PROCESS**  
Planning & Action

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# Methodology



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Planning & Action



WHITE  
**DATA & FACTS**  
Information & Data

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WHITE  
**DATA & FACTS**  
Information & Data



GREEN  
**CREATIVITY**  
Possibility & Alternatives



















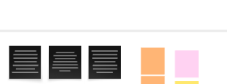





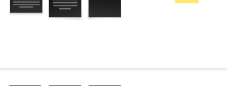
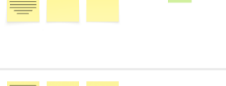
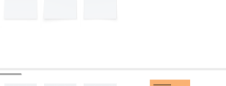
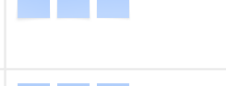


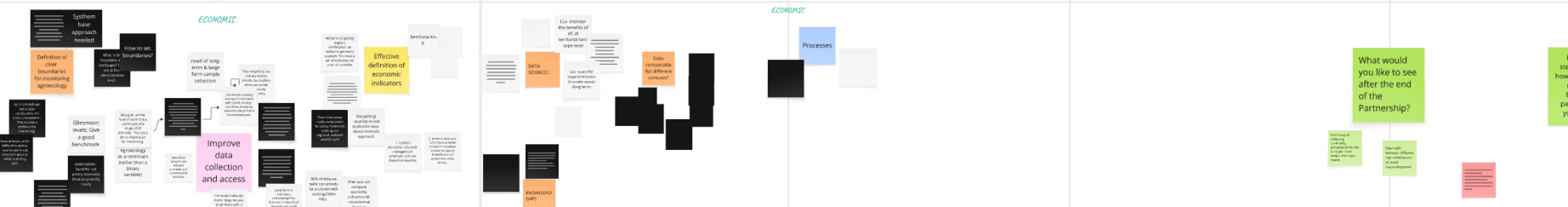


RED  
**FEELINGS**  
Intuition & Gut Instinct





















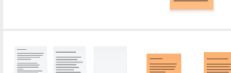




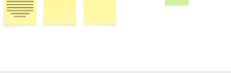
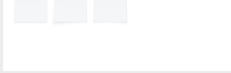
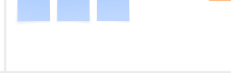



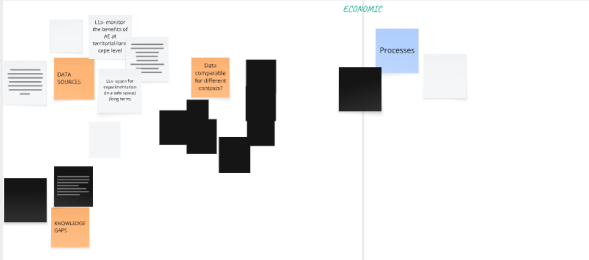
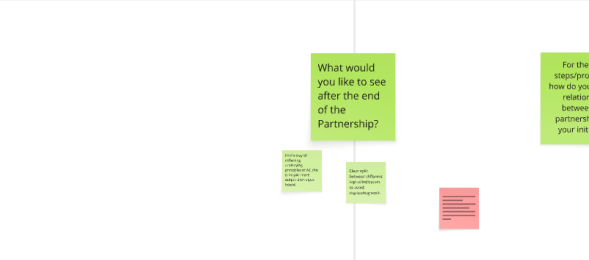
Only if time allowed

**Six Thinking Hats** (de Bono, 1985) framework for structured thinking and group discussion.





















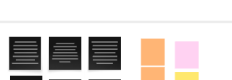






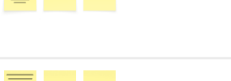




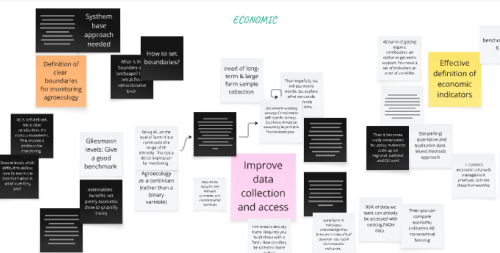
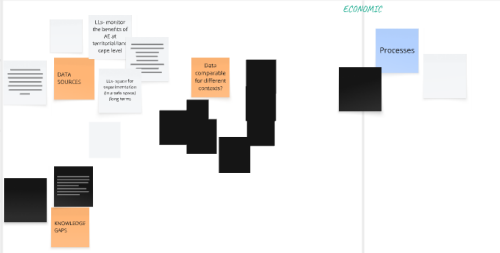
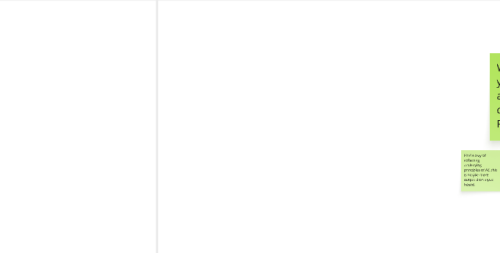
Task	CHALLENGES 	OPPORTUNITIES 	DATA & FACTS 	PROCESSES 	CREATIVE HAT 	FEELINGS 
	RISKS & ISSUES TO CONSIDER WHEN MONITORING AGROECOCLOGY	POSITIVE ASPECTS TO BE INTEGRATED WHEN MONITORING AGROECOCLOGY	KEY DATA, FACTS & KNOWLEDGE FOR MONITORING AGROECOCLOGY IN EU	NEXT ACTIONS, STEPS FOR ADVANCING ON AGROECOCLOGY MONITORING	CREATIVE, SURPRISE & OUT OF THE BOX IDEAS	EMOTIONS AND FEELINGS
Instructions	<ul style="list-style-type: none"> <li>Which major challenges to consider when monitoring tracking &amp; measuring the social, economic, environmental performances and impacts of the agroecological transition in Europe?</li> <li>Which specific aspects of monitoring agroecology require improvement? Please, specifically address the challenges in monitoring agroecology across different spatial and temporal scales</li> </ul>	<ul style="list-style-type: none"> <li>Major successful aspects to be considered when monitoring tracking and measuring the social, economic, environmental performances and impacts of the agroecological transition in Europe?</li> <li>What aspects of monitoring agroecology in Europe are currently effective and should be considered in our monitoring efforts?</li> </ul>	<ul style="list-style-type: none"> <li>Which are the major data sources &amp; knowledge gaps to be considered for the meaningful monitoring of agroecological impacts, performance and transitions at EU level?</li> <li>Please mention the most important data sources that you consider should be considered in our monitoring efforts</li> </ul>	<ul style="list-style-type: none"> <li>What actions should we implement to effectively monitor and measure the social, economic, and environmental performance and impacts of the agroecological transition in Europe?</li> </ul>	<ul style="list-style-type: none"> <li>Share any imaginative or groundbreaking ideas that could contribute to developing a robust monitoring framework for agroecology in the EU. This includes insights on transition strategies, performance metrics, and impact assessments. Feel free to think outside the box—there are no limits or judgments here</li> </ul>	<ul style="list-style-type: none"> <li>Express any feeling, hunches or intuitions such as fears, likes, dislikes, loves and hates related to current approaches to monitor the agroecological transition, including social, economic, environmental performances and impacts</li> </ul>
Timing	30 min (10.30 - 11.00)	30 min (11.00 - 11.30)	From 11.40 to 12.20			
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# Methodology

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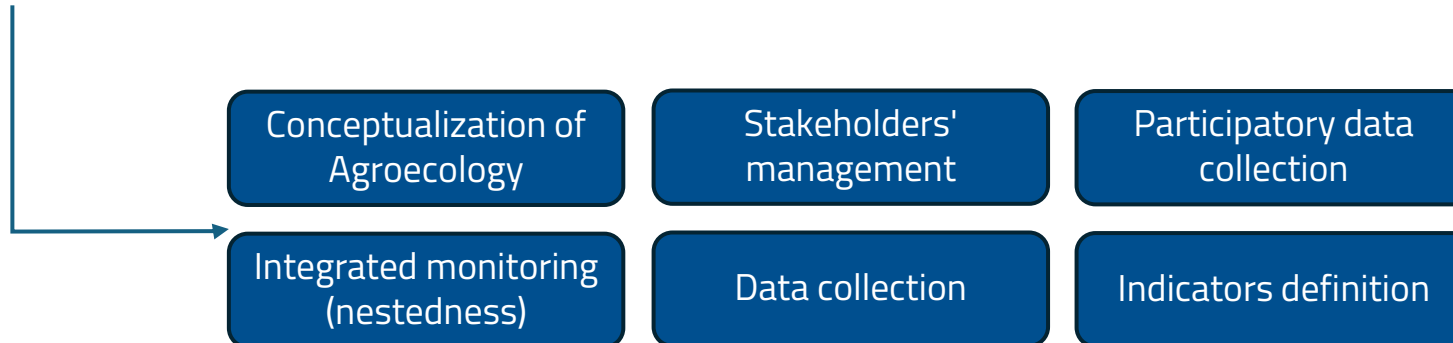
Cluster  
(facilitators)

Discussion prompts

# Methodology

## Data analysis:

-  Session's transcripts
-  Notes captured in experts ppts and Miro Board
-  Written observation (note-takers)
-  Organized by discussion prompts



# Results: main challenges & opportunities

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- **Indicators:** Traditional farm-level economic indicators can be **derived from existing** EU administrative databases at different scales (FSDN)

# Results: recommendations

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- **Generate recommendations for the Farm Sustainable Data Network (FSDN)/Statistical inclusion.** Identify how best agroecology data can be included in statistical databases such as **FSDN**.
- **Avoid rigid definitions of Agroecology or any Agroecology framework that forces the agroecological transition to demonstrate very specific outcomes.**

# Take home messages

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Effective workshops require **socio-economic science approaches** that prioritize context and participation.

**Qualitative data** is not complementary—it's foundational to understanding and knowledge creation.

# Thank you!



## BEEs

The LifeWatch ERIC Biodiversity & Ecosystem  
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Heraklion, 30 June - 3 July 2025



*Questions?*  
*[salvador.fernandez@lifewatch.eu](mailto:salvador.fernandez@lifewatch.eu)*