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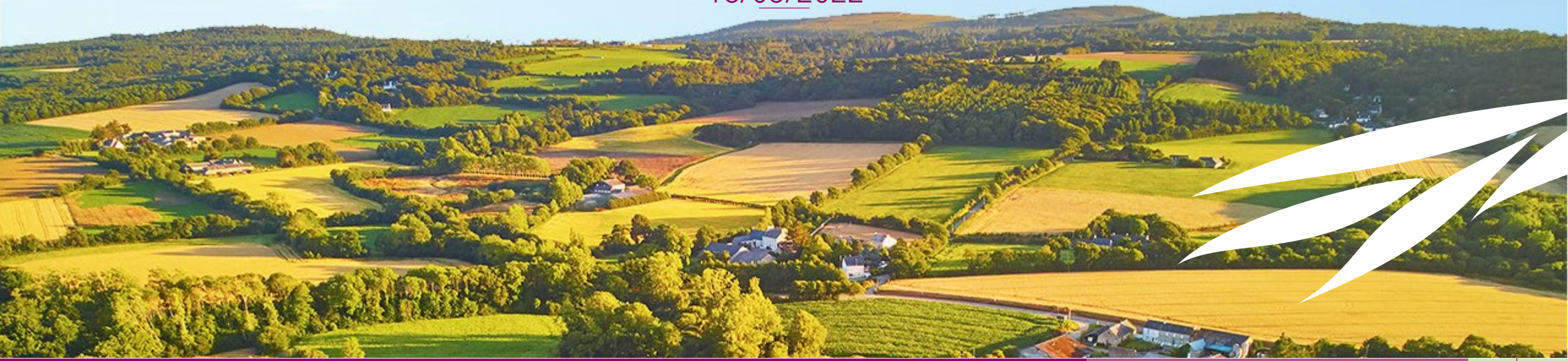
Innovation Vision in the Candidate European partnership "Accelerating farming systems transition: Agroecology living labs and research infrastructures"

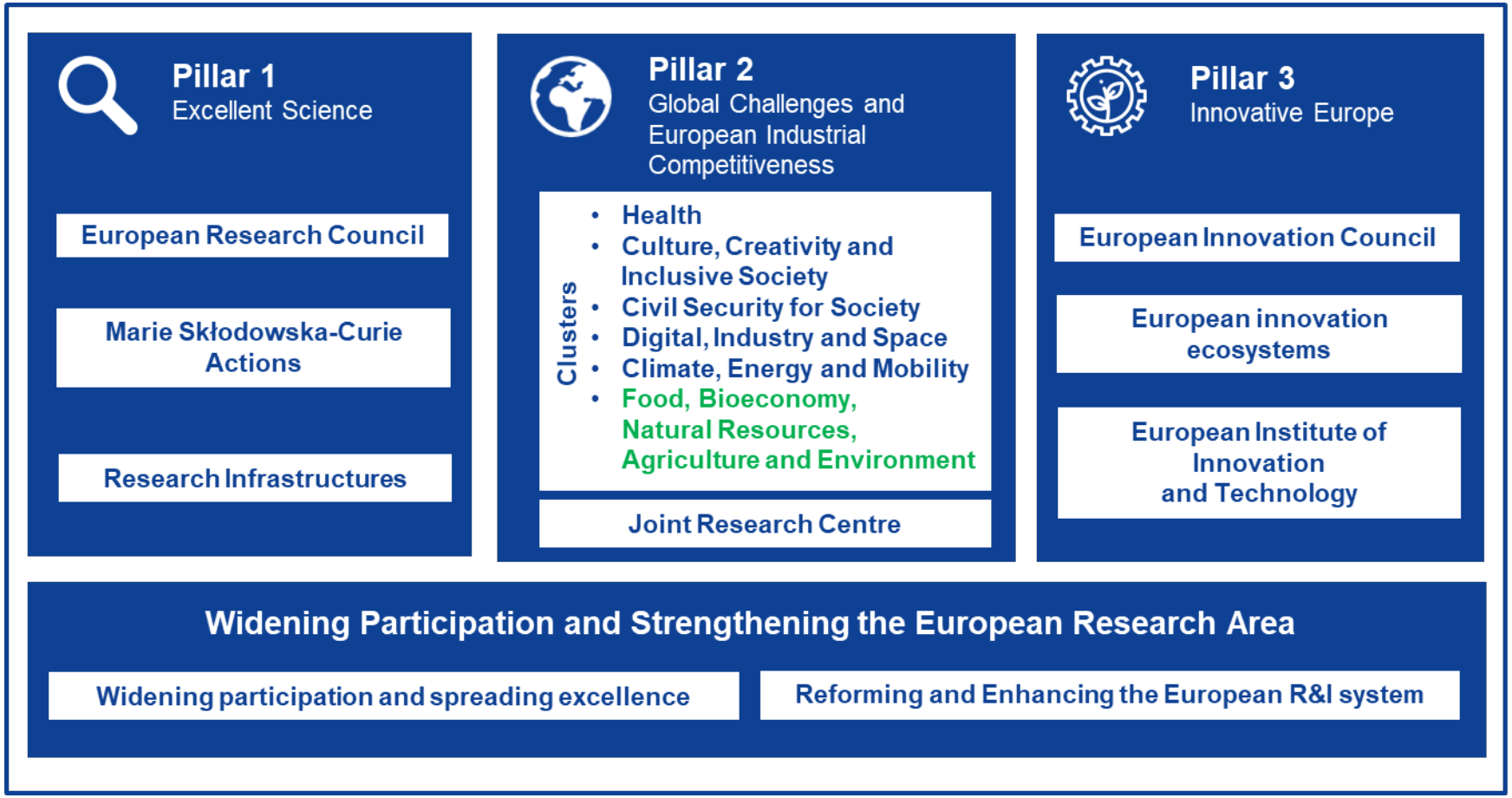
Nicolas Tinois, SCAR-AE co-chair

CORE Organic Cofund Final Research Seminar

18/05/2022



Horizon Europe (2021 – 2027)



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New approach to European R&I Partnerships

- Partnerships pool resources of a wide range of public and/or private partners and overcome fragmentation of research efforts.
- Introduced already in 2002, but new approach under Horizon Europe:
- More strategic, more coherent, more impact-driven
- Three forms of implementation (co-fund, co-programmed, institutional)

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Partnerships in Cluster 6 (2021-2024)

Agriculture, Forestry and Rural Areas

Accelerating farming systems transition: agroecology living labs and research infrastructures

Agriculture of data

Animals health & welfare

Others related to biodiversity, Blue Economy, food systems, circular bio-based sector, water

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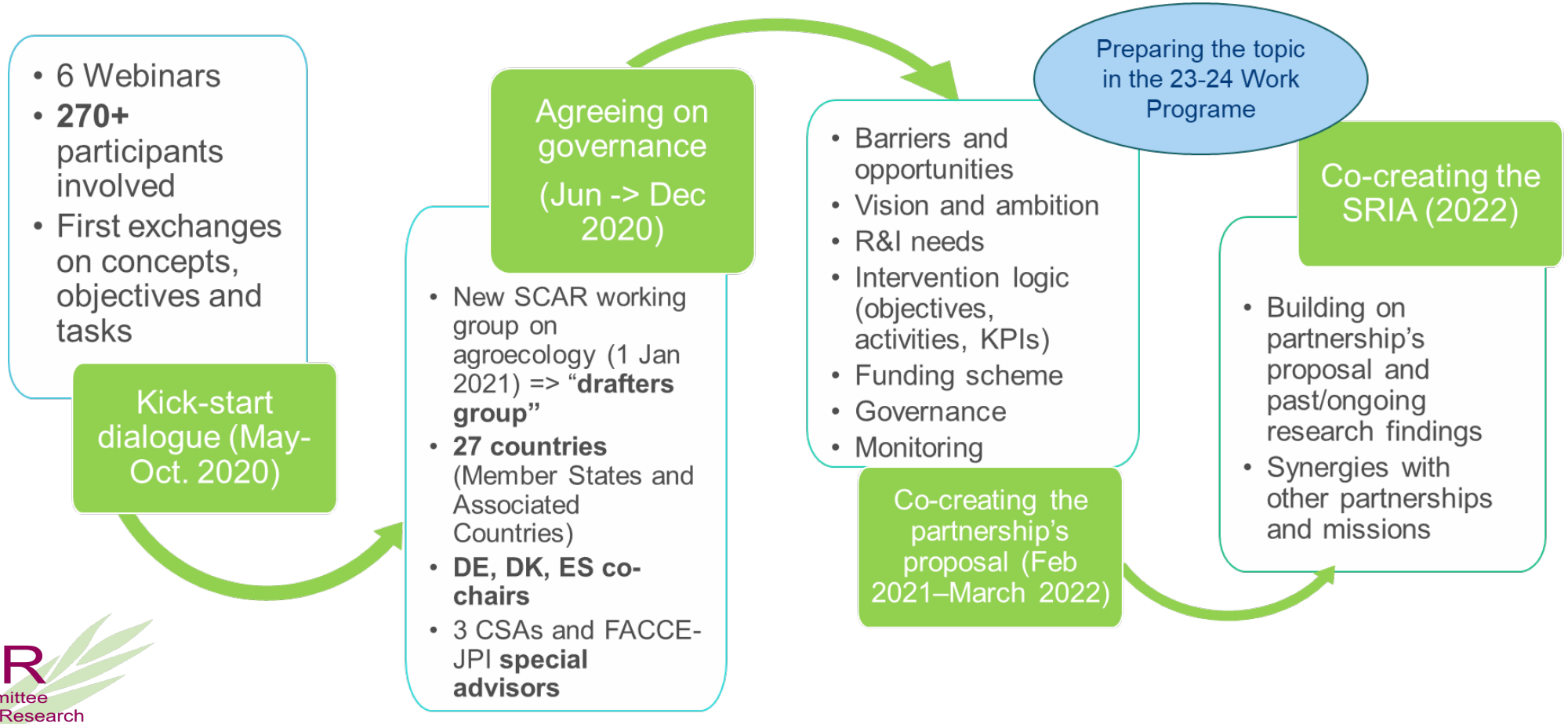
The process



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Timeline (tentative)

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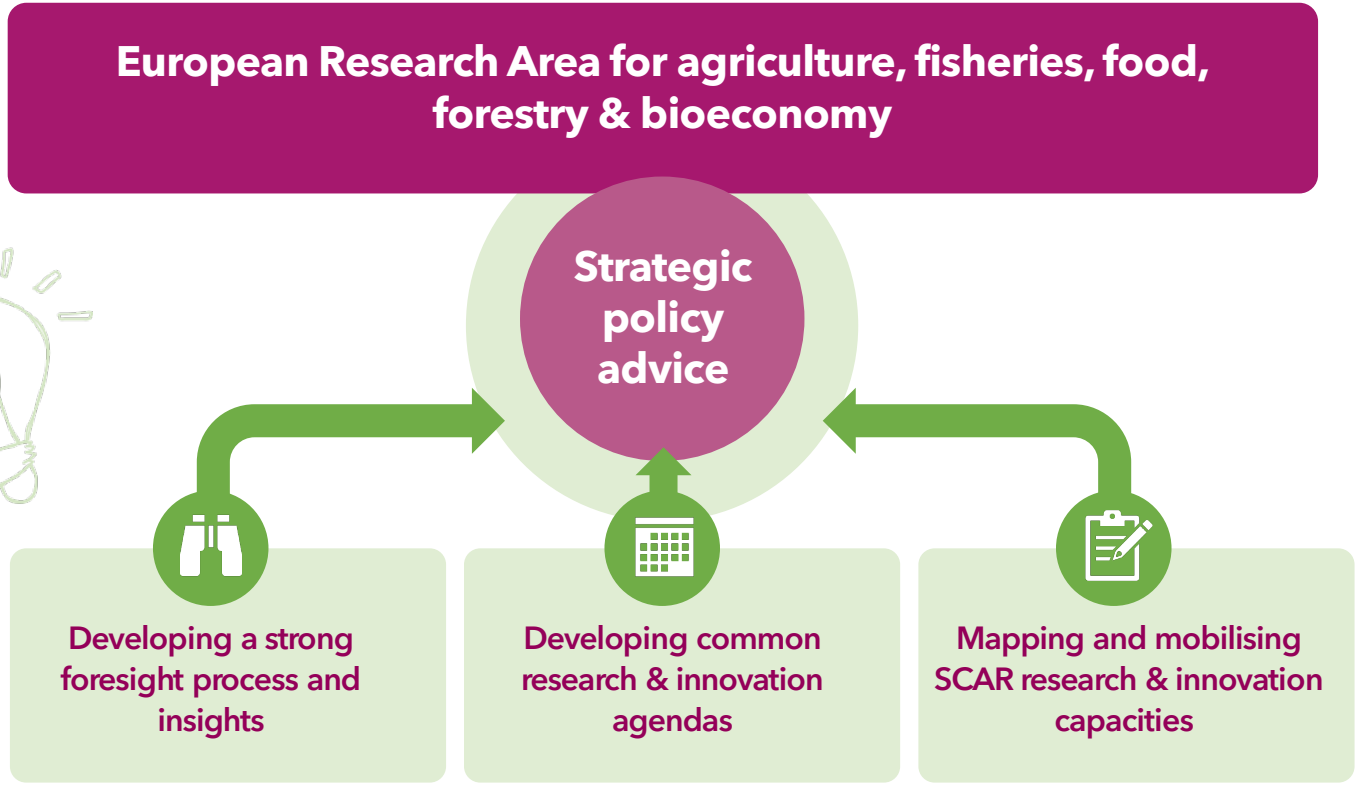
Main tasks of the SCAR



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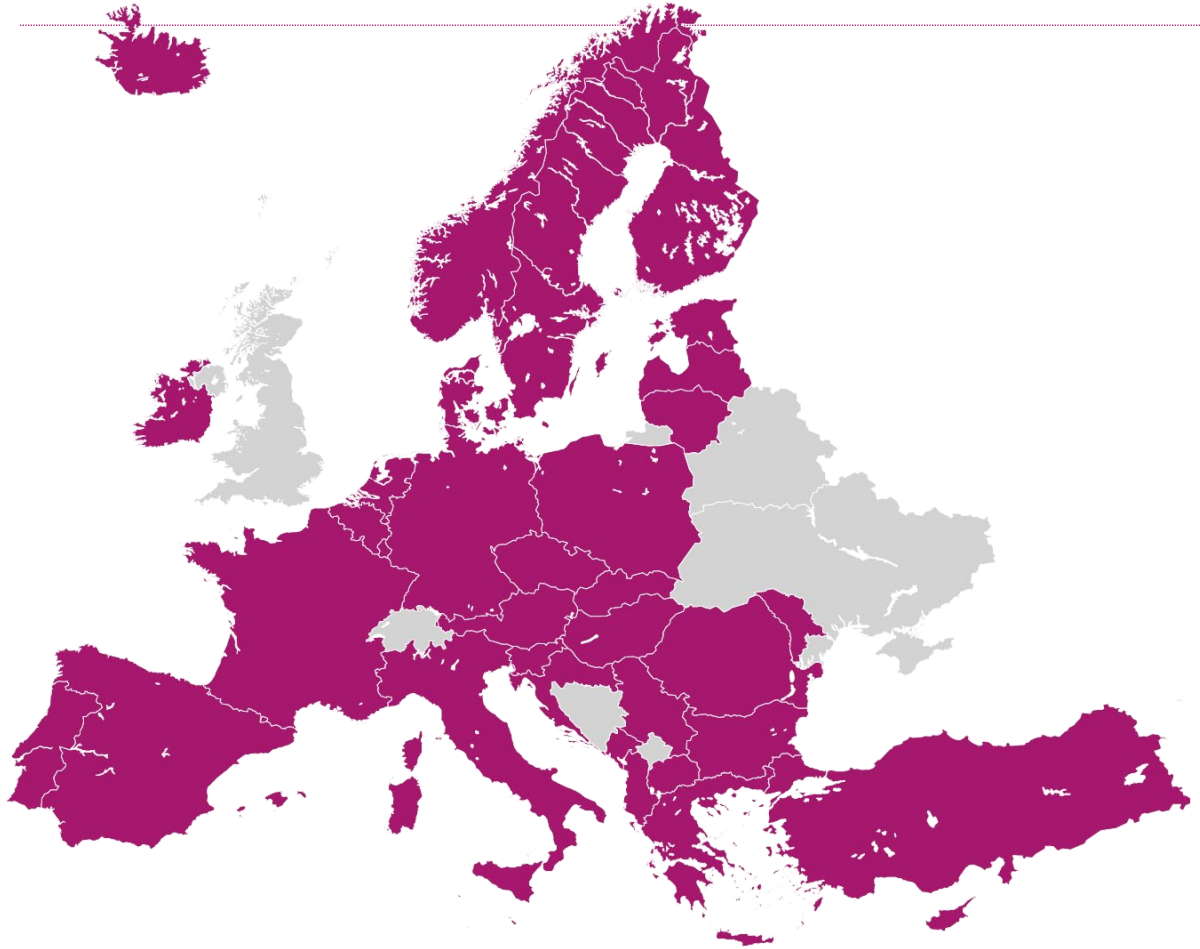
Who is SCAR?



Overview SCAR members – update March 2022

More than 35 countries:

- EU Member States
  - Delegates of ministries (mainly ministries of agriculture)
  - Organisations such as research councils, research institutes and universities
- Observers
  - Candidate countries
  - Associated countries

European Commission

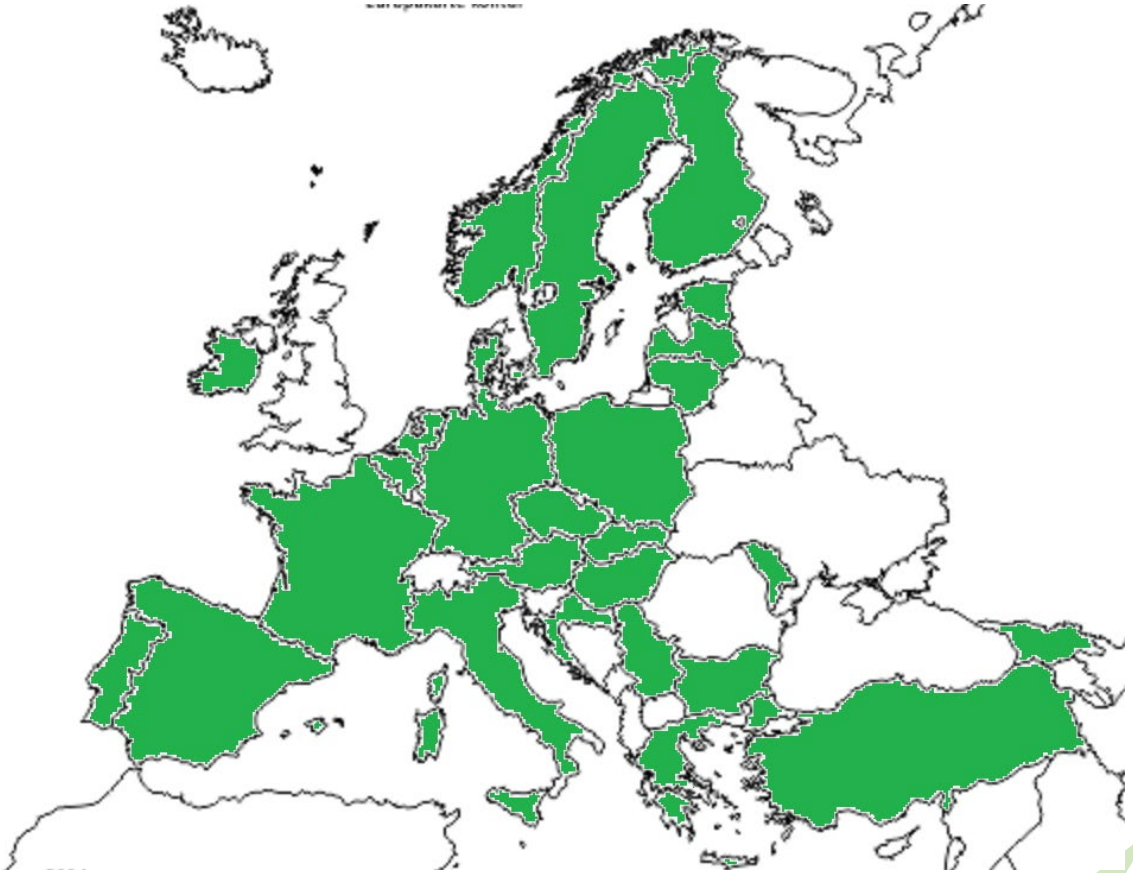
- Secretariat
- DG RTD – Research and Innovation
- DG AGRI – Agriculture and Rural Development

SCAR Agroecology SWG
SCAR AE

Co-chairs
Nicolas Tinois (DE), Torsten Rødel Berg (DK) and Benjamin Sanchez (ES)

Mandate period
1/1/2020 - 31/12/2023

Members
- 27 countries + EC and key advisors (FACCE-JPI…)



+ Observers:
SCAR WGs
ETPs
ERIAFF
ERA-NETs
COPA-COGECA
Other Partnerships
La Via Campesina
EEB
Animal Task Force
IBMA
EuroCoop
EnoLL
IFOAM
BIOEAST
Birdlife
Agroecology Europe
in progress…

Overview members SCAR AE – update March 2022

Mission of the SCAR AE

- **Support research and innovation policy development for agroecology (AE) at national, EU and international levels by**

  - Providing conceptual, methodological and practical frameworks on AE, AE Living Labs (LLs) and Research Infrastructures (RIs).
  - Offering a platform for continuous strategic discussion between the EC, MS and AC as well as stakeholders on priorities in AE R&I.

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Objectives of the SCAR AE

- **Preparing** the concept of the candidate partnership on agroecology living labs and research infrastructures proposed under Horizon Europe (provisional title "Accelerating Farming Systems Transition: Agroecology Living Labs and Research Infrastructures"), that will serve as a basis for the EC to
  - **Request** Member States and Associated Countries' financial commitments to the partnership.
  - **Prepare** the partnership call in the work programme 2023-2024.
- **Developing** the Strategic Research and Innovation Agenda (SRIA) for the partnership.

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SCAR-AE Process for preparing the partnership proposal template

Benefiting from previous work

- EC input paper into the partnership preparation
- Series of webinars organised by EC in 2020
- Incorporating the work of three CSAs (ALL-Ready, AE4EU, SMS) & FACCE-JPI

Involving and preparing the scientific community

- National SCAR-AE delegates and CCPs involved and informed
- TFs involving relevant national actors and designated members of the 3 CSAs
- National mirror groups already in place or being set up in some countries
- Ensuring synergies with other initiatives (partnerships, soil mission) and with other SCAR WGs

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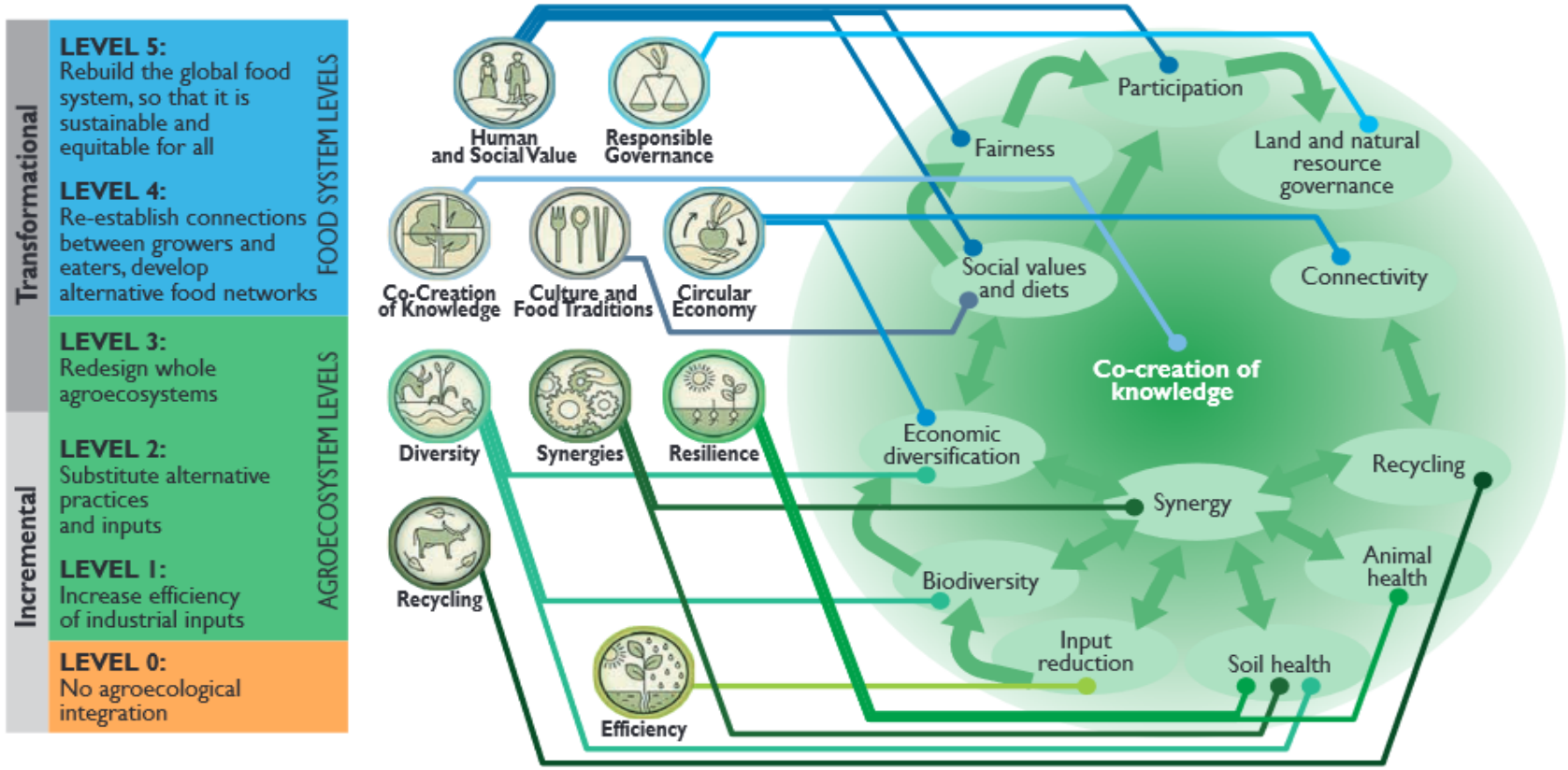
5 levels of FS transformation/13 AE principles



▲ *Linking FAO's 10 elements, Gliesmann's 5 levels of food system transformation and the 13 HLPE principles*
Correspondence based on Wezel et al., *2020. Agroecological principles and elements and their implications for transitioning to sustainable food systems. A review.* **Agronomy for Sustainable Development**, *(2020) 40: 40.*

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Common guidelines for AE

- Reduction of GHG
- Conserving resources (water, nutrients…)
- Water retention
- Resilience of agricultural systems to adapt to climate change
- Adapt cropping patterns and field structures to landscape
- Ecosystem services, biodiversity and beneficial biological interactions
- Soil health and quality
- Food competition between humans and livestock
- Animal welfare and dual-purpose livestock
- Social standards and sustainable value chains
- Communication between producers and consumers

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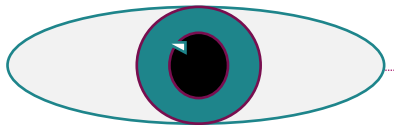
Vision



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

Links with other Partnerships and Missions
To be further developed with the SRIA

General Objectives

GO1. **Mainstream the principles** of AE to redesign farming systems across a diverse Europe

GO2. Build-up and expand **collaborations to co-create and share** knowledge and solutions that empower all actors (producers, consumers, policy makers, civil society) to engage in the AE transition

GO3. Contribute to fulfilling the **Sustainable Development Goals and the Green Deal** targets by 2030 and climate neutrality in Europe by 2050 by supporting the implementation of key EU strategies and policies

Specific Objectives

SO1. Increase **research-based knowledge** on the benefits and challenges of AE and its potential for farming, food, climate, ecosystem services and environmental footprint reduction as well as resource use and societal impacts

SO2. **Develop and co-create innovations** to reduce and share the risks of transition for both individuals and collectives

SO3. Improve the **sharing and access to knowledge** on AE as well as reinforce the **agricultural knowledge and innovation systems** for AE across Europe, considering culture, gender, and youth aspects

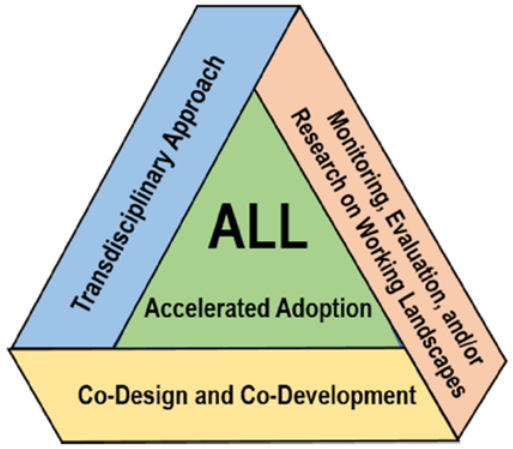
SO4. Build a **monitoring and data framework** to measure progress of the AE transition and improve data valorisation and sharing

SO5. Exchange with policy makers (research and sectoral) and stakeholders on AE transition and mainstreaming of AE practices to contribute to improved governance, policies, and institutions

Instruments – Living Labs

ENoLL's five key elements of LLs:

1) Active user involvement,
2) Real-life setting,
3) Multi-stakeholder,
4) Multi-method approach,
5) Co-creation (i.e. iterations of design cycles with different sets of stakeholders)



Agroecosystem LLs

AE LLs features:

i) Very strong local embeddedness,
ii) Large diversity of their origins, from farms to networks or communities,
iii) Heterogeneity and intensity of knowledge and innovations needed and produced (from practice to policies).

Different scales: **farm** and its immediate surroundings (network of farms), at the **landscape** or at the **regional level**.

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R&I opportunities (SRIA in prep.)

R&I related

- education, data and knowledge on agroecosystems, AE farming practices and the benefits and costs of AE transition measures
- research and innovation system (e.g. lack of incentives for researchers in systems thinking approaches…)
- diversity of local conditions

Related to policy

- common understanding and ownership of the concept of AE
- strategic and long-term thinking
- policy 'drivers' such as regulatory instruments

Linked to deployment, business models, systemic challenges

- more holistic, systemic approaches – need to involve all actors!
- value chains and business models for products from AE – opportunities for business!
- consumption and demand for products coming from AE

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Potential R&I topics

- Tools/indicators of AE impacts
- Digital -> increase knowledge, understanding, uptake
- Recovery of soil functions
- Set of practices for circularity and less dependence on ext.
- On-farm applications of energy
- Adaptation of digital technologies and tools to small-mid scale
- Practical knowledge from agriculture
- Participatory breeding programs/nutrient quality
- Adapted small-scale renewable resources, short input chains
- Efficient agro-industrial processing
- Packaging methods/circularity, waste
- Business-type opportunities
- Agroecological logistics
- Collection of global, integrated, harmonized and structured data

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Operational Objectives (incl. activities & KPIs)

- OO1 Support transnational research and innovation activities on the challenges and potential of AE in addressing biophysical, environmental, climate, social and economic dimensions of sustainability, at farming, local environment and broader societal levels.
- OO2. Support research in and on LLs across Europe to support AE transition.
- OO3. Build and organise a European network of new and existing LLs and RIs for knowledge sharing and co-creation on AE innovations at various scales.
- OO4. Build capacities of various actors at the levels of networking, AE and LLs to foster AE transition.
- OO5. Improve access to and use of services provided by RIs and other relevant initiatives for long-term measurement, observation and experimentation in support of AE.
- OO6. Setup a framework, data management, indicators, and tools to monitor the AE transition, its impacts and social, economic, environmental and climate performance, for a variety of actors, contexts and scales.
- OO7. Design and implement communication and dissemination activities to support AE transition through increased uptake by practitioners and to improve stakeholder engagement, including the wider public.
- OO8. Put in place mechanisms for science-policy dialogue in support of the establishment and implementation of evidence-based policies (research and sectoral), that supports AE transition, including long-term funding for AE R&I.

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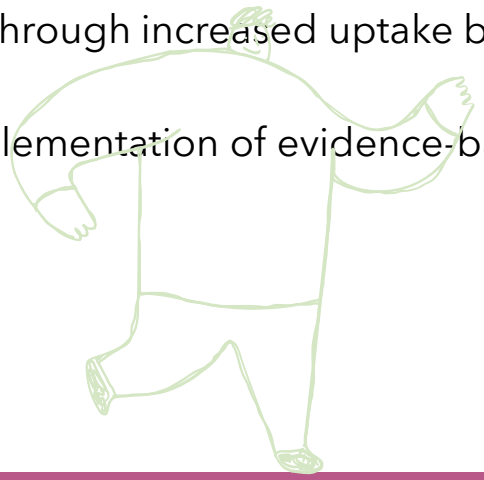
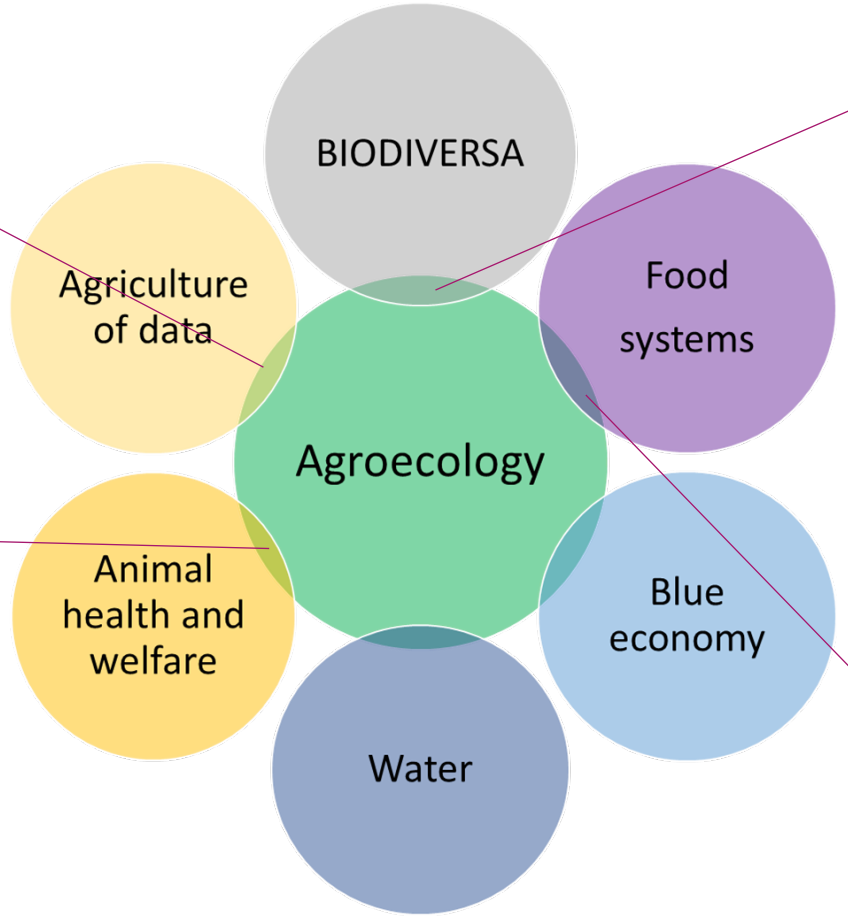


A „partnership landscape“ (cluster 6)

E.g. Data-based tools to enable the AE practices; Monitoring progress, impact of AE transition; LL and infrastructure as source of data



E.g. Farming <> biodiversity; Ecosystem protection and restoration; Multi-functional landscapes; Functional biodiversity; AE practices for the preservation of biodiversity

E.g. Benefits of agroecological systems for animal health and welfare (guiding principle); AE as tool for reduced use of antimicrobials; Safety of animal effluents used as fertilisers

E.g. Consumer pull for ecological products; Value chain/Business Models, Food processing for AE products (lock-ins); Drivers & incentives; Ensure an integrated approach to food systems from production to diets

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Stimulating innovation

- Innovation is tool to perform transition, in order to transform agricultural sector
- Science-policy dialogue to have an impact on funding mechanism/possibility
- LLs as appropriate instruments: co-creation, multi-stakeholder approach…
- Finding appropriate business models for AE & products
- Capacity building incl. green entrepreneurship/"agroeco-preneurship" programs

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(Potential) role of private sector

- In addition to „usual“ partners (/ERA-NETs), further partners are planned, e.g. regions.
- It is intended to have RPOs, LLs and RIs as beneficiaries; though still need to comply to EC rules/requirements (e.g. CoI, etc…); could perform tasks, e.g. monitoring the AE performance, capacity building…?
- Private sector can apply in frame of joint calls if national rules allow (as in ERA-NETs)
- SSAB incl. representatives of „Enlarged stakeholder board“ which might very well include „college(s)“ related to private sector. SSAB as observer/advisor in the GB

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Thank you for your attention

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