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Updates from the SWG Agroecology activities

Nicolas Tinois, SCAR-AE co-chair

SCAR SWG AKIS meeting

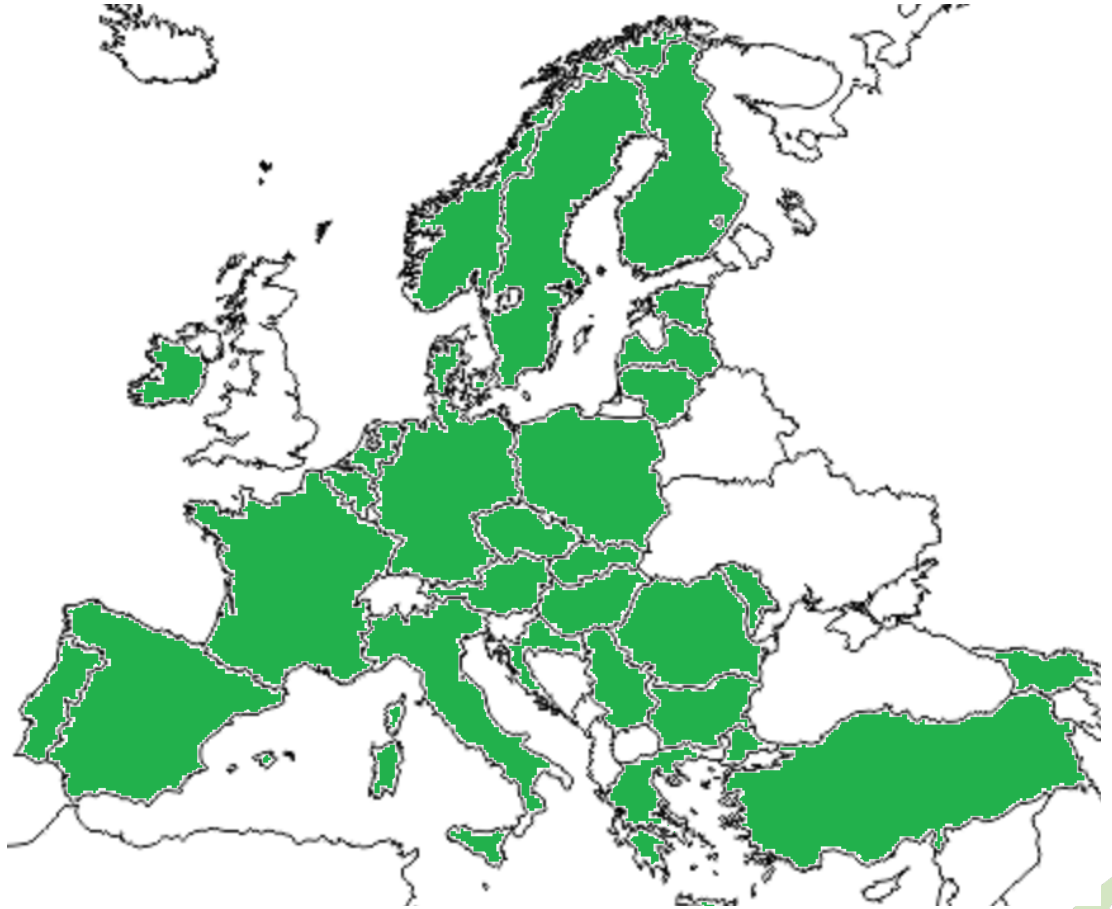
25/10/2022

SCAR Strategic Working Group on Agroecology (SCAR AE)

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

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

Members
- 28 countries + EC and key advisors (FACCE-JPI, ALL-Ready, AE4EU, SMS)



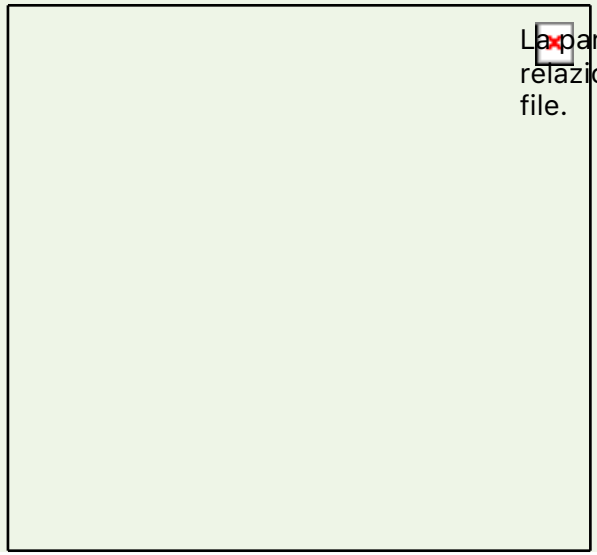
Overview members SCAR AE – update July 2022

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

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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Agroecology in EU Policies

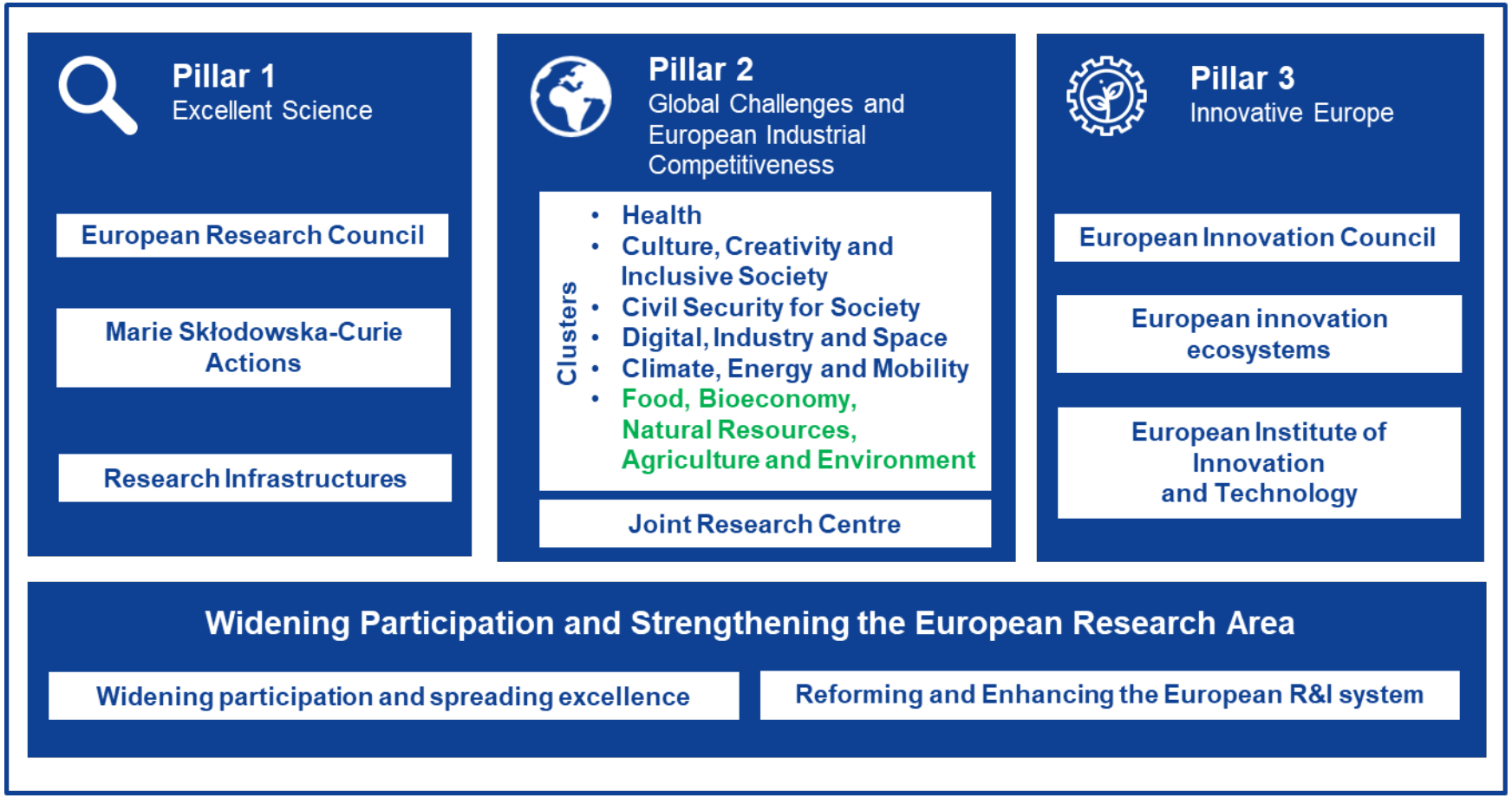
Organic Action Plan

Brussels, 23.3.2022
COM(2022) 133 final

COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT, THE EUROPEAN COUNCIL, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE AND THE COMMITTEE OF THE REGIONS

Safeguarding food security and reinforcing the resilience of food systems

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

- 6 Webinars
- **270+** participants involved
- First exchanges on concepts, objectives and tasks

Kick-start dialogue (May-Oct. 2020)

Agreeing on governance (Jun -> Dec 2020)

- New SCAR working group on agroecology (1 Jan 2021) => "**drafters group"**
- **27 countries** (Member States and Associated Countries)
- **DE, DK, ES co-chairs**
- 3 CSAs and FACCE-JPI **special advisors**

Preparing the topic in the 23-24 Work Programe

- Barriers and opportunities
- Vision and ambition
- R&I needs
- Intervention logic (objectives, activities, KPIs)
- Funding scheme
- Governance
- Monitoring

Co-creating the partnership's proposal (Feb 2021–March 2022)

Co-creating the SRIA (2022)

- Building on partnership's proposal and past/ongoing research findings
- Synergies with other partnerships and missions

Timeline (tentative)

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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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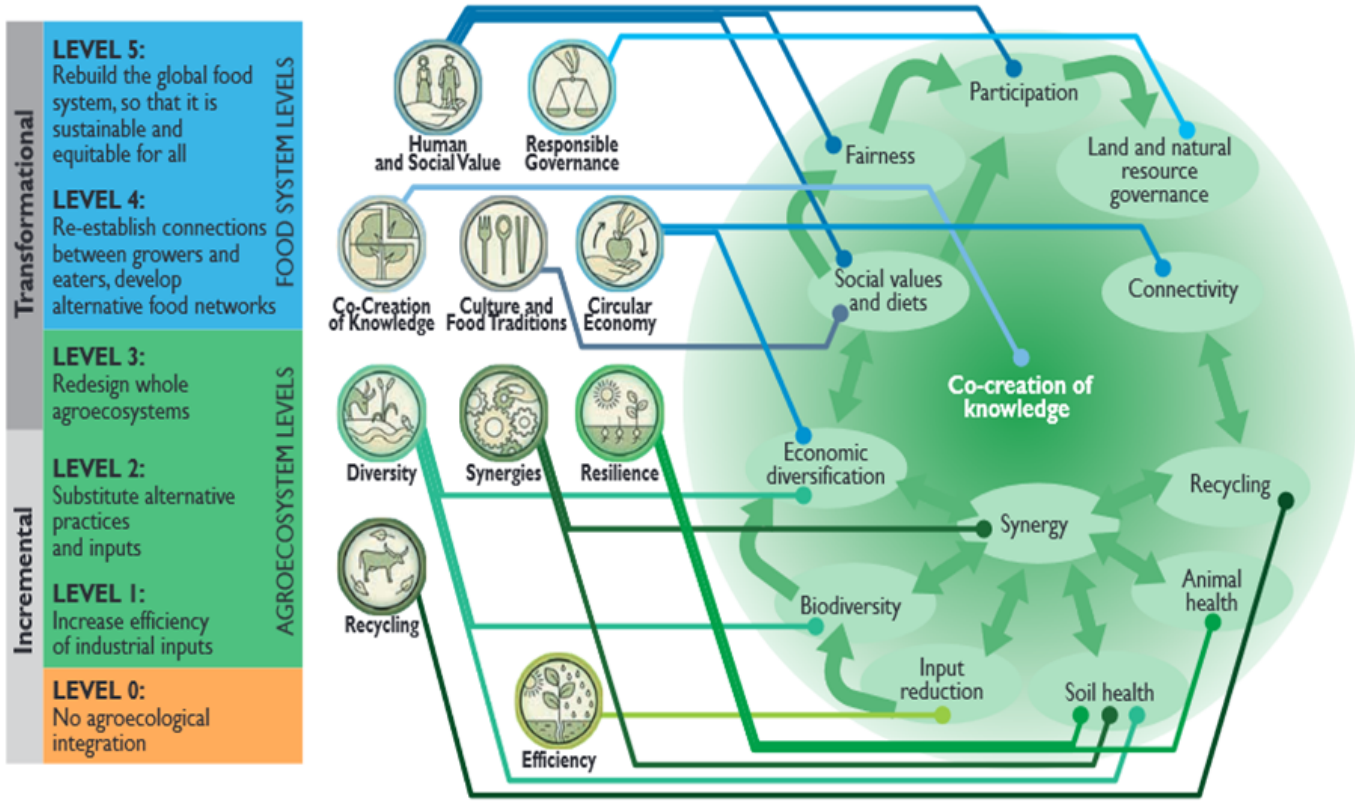
EU Policy framework demands an acceleration of agricultural transition (1/4)

- **AGROECOLOGY** is perceived as an effective tool to accelerate transition to sustainable agriculture.
  - Holistic approach to **transform** agricultural systems,
  - Enhance sustainability performance of agri-food chains (social, economic, environmental, climate, healthier diets)
- **Reliance on nature and ecosystem services:** redesign of farming systems -> increased complexity



▲ *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.*

- **Context-specific**
- **Scale** matters: farm, landscape, territorial levels
- Strong potential for **innovation**, including digitalization and social innovation

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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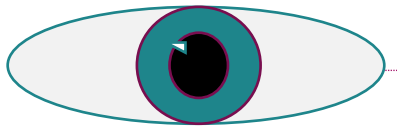
Vision



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

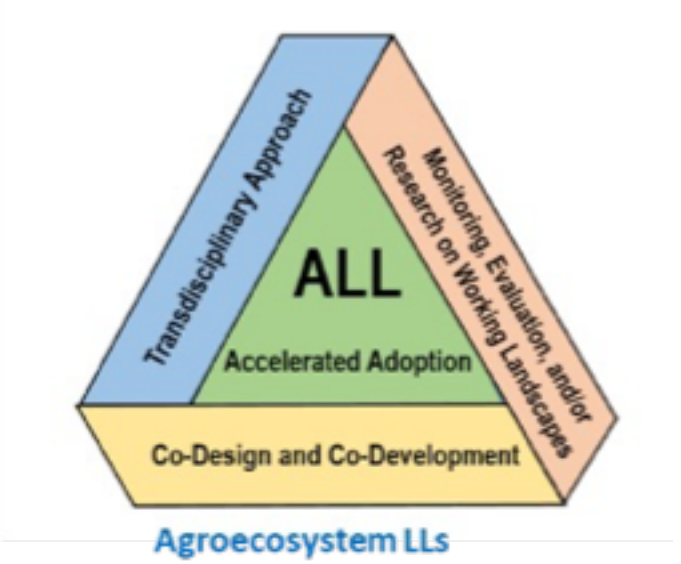
SO5. Exchange with policy makers (research and sectoral) and stakeholders on AE transition and mainstreaming of AE practices to contribute to improved governance, policies, and institutions

EU Policy framework demands an acceleration of agricultural transition (2/4)

- **R&I** needed to:
  - Develop and test innovations
  - Develop and test policy instruments and governance models
  - Develop indicators of agroecological transitions in different locations/regions

- **Living Labs** as instruments to favor the uptake of those innovations

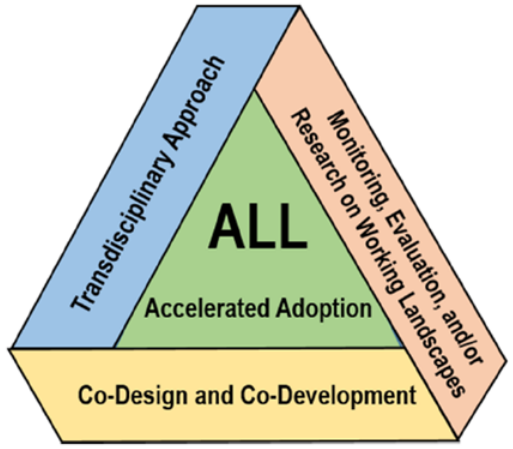
  Co-design, co-development, test, demonstrate, learn



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)

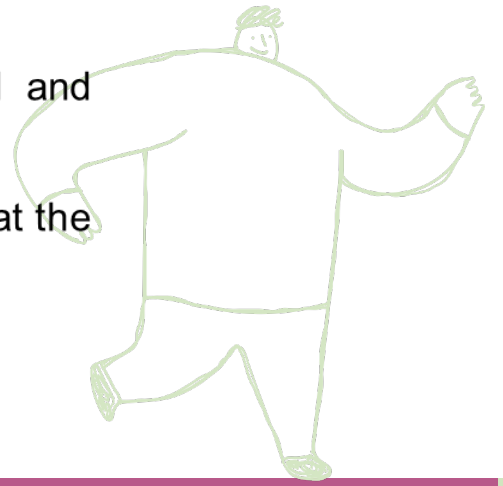


Agroecosystem LLs

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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Research Infrastructures

Could e.g. support the assessment of:

- Various degrees of agriculture and agri-food redesign
- Sustainability assessment
- Vulnerability - Adaptability - Resilience assessment
- Dynamics of AE transition

Provide science-based evidence about the effect of measures in agriculture

Complementarity of LLs and RIs + Networking & Supporting access to RIs

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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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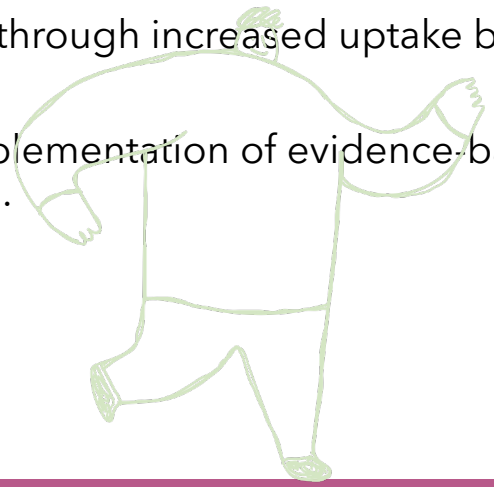
Operational Objectives (incl. activities & KPIs)

- 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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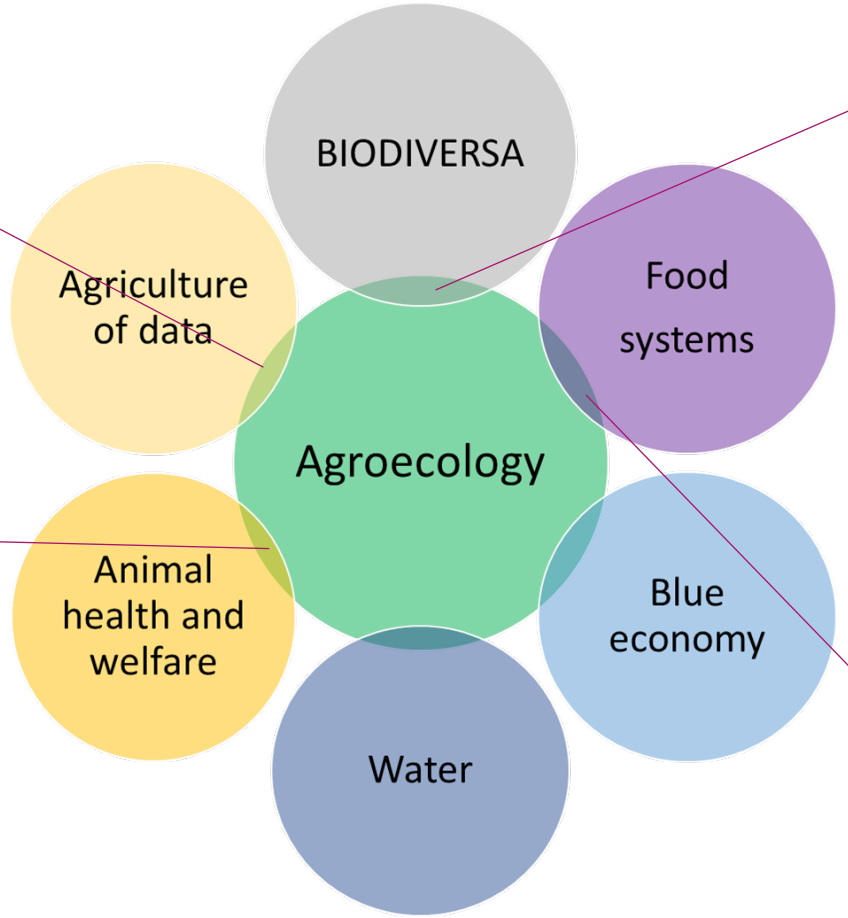
A „partnership landscape“ (cluster 6)

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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State-of-the-art (and next steps)

- Partnership proposal (framework for the future partnership) delivered to DG RTD in December 2021
- Positive review + comments mid-February 2022;fine-tuning proposal until end March 2022
- Published on EC website: https://ec.europa.eu/info/files/european-partnership-accelerating-farming-systems-transition-agro-ecology-living-labs-and-research-infrastructures_en

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AELLRI SRIA

Nicolas Tinois, SCAR-AE co-chair

SCAR SWG AKIS meeting

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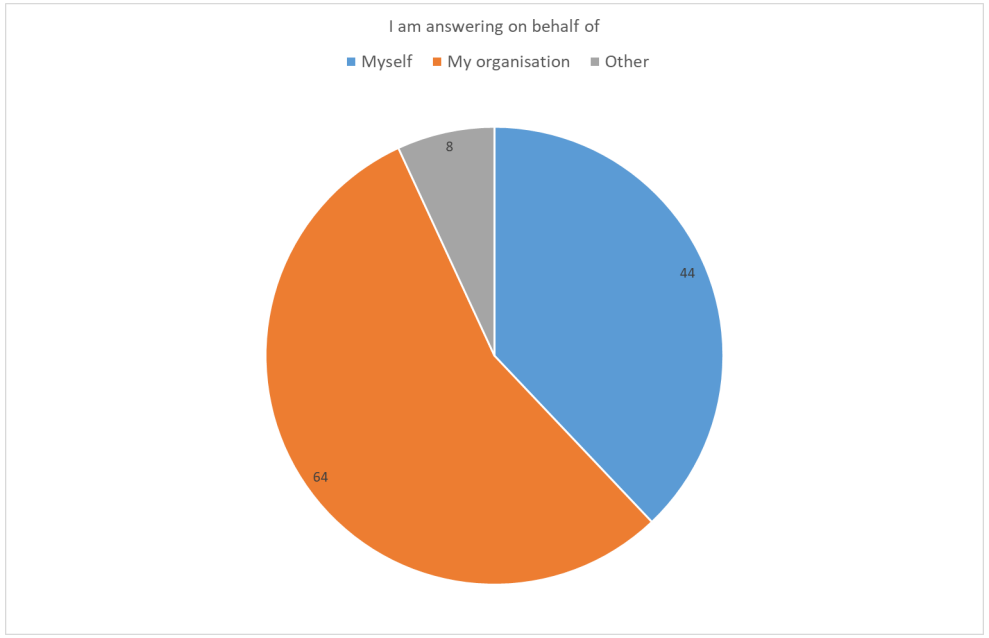
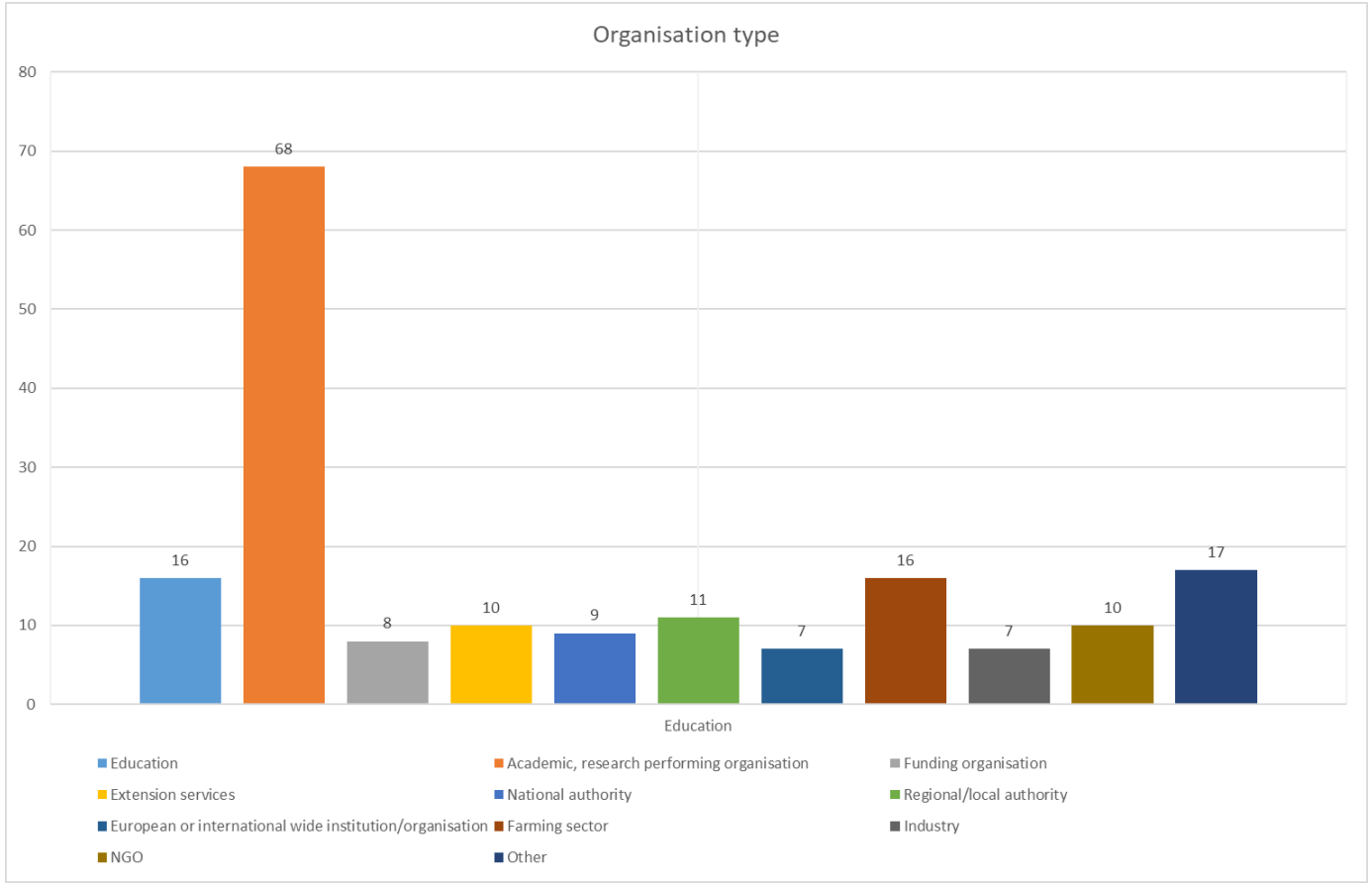
State of the art

- SRIA development process in preparation -> end 2022
- SRIA Core Team -> Drafting group -> SCAR-AE -> SRIA Core Team…
- Workshop to launch development of the SRIA (29. April): approx. 100 participants; presentation of LF
- First draft May/June (pres. SCAR-AE & SCAR Plenary)
- Workshop with partnerships & missions planned for July -> alignment
- In parallel short feedback rounds with SCAR-AE
- Online public consultation of 1st cons. draft from July to October
- WS for SCAR-AE + respondents on 22.11; SCAR-AE meeting on 06.12 (+Plenary)
- "Formal adoption" by the consortium (Governing Board)

Public consultation





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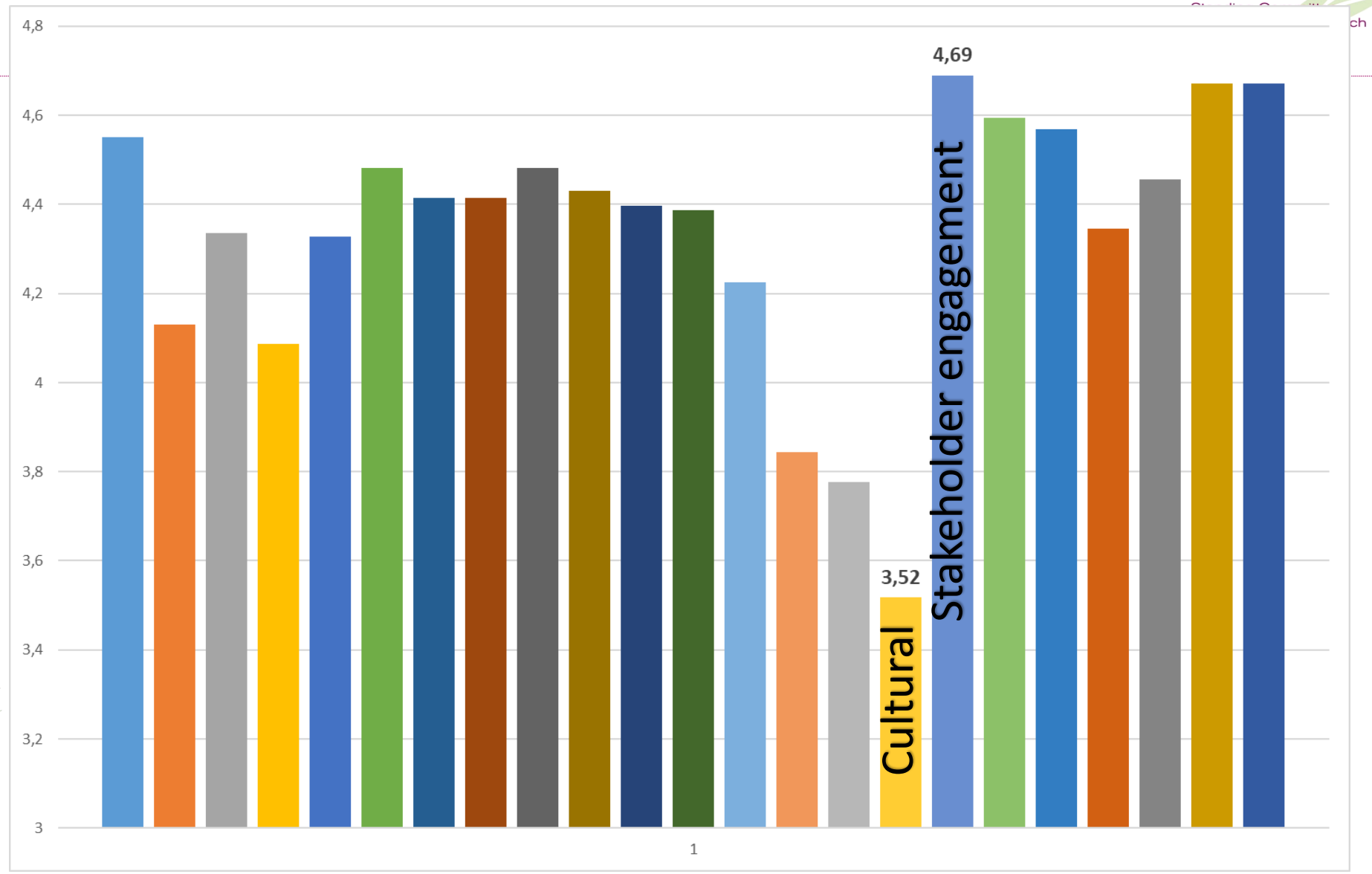

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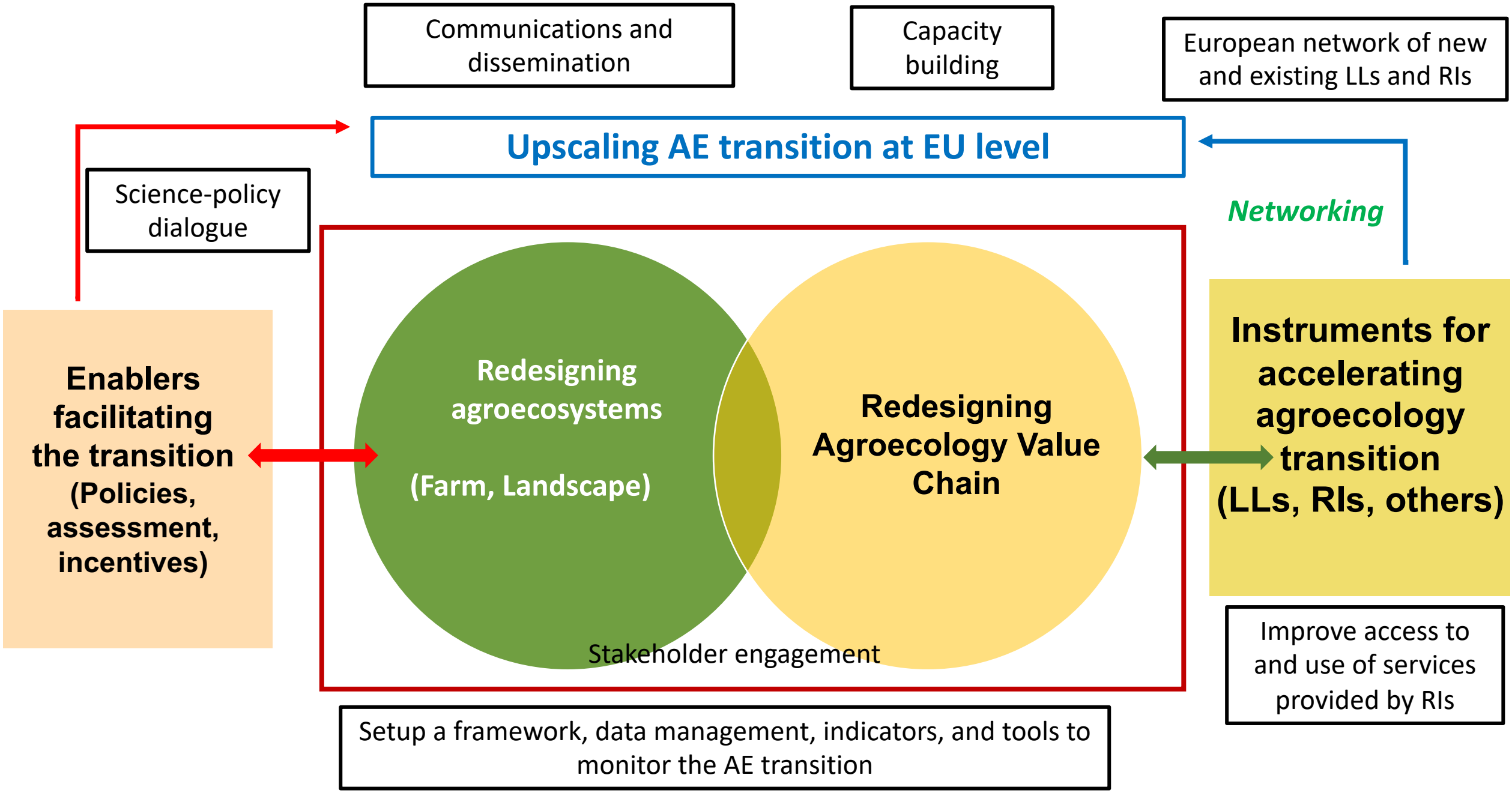
Communications and dissemination
Capacity building
European network of new and existing LLs and RIs
Upscaling AE transition at EU level
Science-policy dialogue
Networking
Enablers facilitating the transition (Policies, assessment, incentives)
Redesigning agroecosystems
(Farm, Landscape)
Redesigning Agroecology Value Chain
Instruments for accelerating agroecology transition (LLs, RIs, others)
Stakeholder engagement
Improve access to and use of services provided by RIs
Setup a framework, data management, indicators, and tools to monitor the AE transition

SRIA Core Themes: Redesigning Agroecosystems

Supporting the change of practice

- Genetics and breeding for Agroecology
- Managing pests through innovative agronomic practices
- Increasing input use suitability and efficiency
- Reducing fossil-fuel inputs
- Provision of ecosystem services
- Restoration of biodiversity and nature

Landscape agroecology & territorial planning

- Participatory landscape planning
- Closing of nutrients and energy flows
- Functional integration of different land and livestock uses

Decision support tools for agroecology farmers

Analysing social aspects related to agroecology transition

- Farmer's motivations and obstacles
- Inclusion dimensions (age, gender)
- Role of common goods for engagement in AE transition

SRIA Core Themes: Redesign Agroecology Value Chains

Redesigning Agroecology Value Chains

Coupling agricultural practices and value chain perspectives

- Quality of AE products across the AE value chain
- Adaptation of farming practices
- Provision of technological innovations to cope with the heterogeneity of AE products and co-products

Traceability of products

- Technologies & labelling
- Validation of traceability tools

Developing and evaluating adapted business models

- New circular, sustainable and resilient business models associated to shorter and fairer value chains.
- Adapted and alternative logistics and infrastructures
- New or adapted machinery to reduce labour-intensive activities
- Synergies of AE-based value chain with others co-existing in the same territory

SRIA Core Themes: Living Labs (LLs) & Research Infrastructures (RIs)

Instruments for accelerating agroecology transition (LLs, RIs, others)

Identifying LLs features and methodologies triggering AE transition

- Organisational models, methodologies and tools ensuring multistakeholder trust and involvement
- Governance and coherent planning
- Linkages of LLs with Research Infrastructures accelerating transition
- RIs role in supporting innovations and testing multidimensional scenarios related to AE transition

Assessing the impacts of Agroecology LLs and RIs (indicators & monitoring)

- Identify indicators for technological innovations enhancement and implementation
- Evaluation instruments adapted to spatial variations, level of maturity of LLs and RIs, and time span under evaluation

Assessing the individual performance of AE LLs & RIs

Finding incentives to engage all actors in AE transition

SRIA Core Themes: Enablers of Agroecology transition

Enablers facilitating the transition (Policies, assessment, incentives)

Enhancing coherence between agricultural, environmental and other sectoral policies

- Identify factors helping to improve coherence
- Explore new institutional designs
- Overarching evaluation of policies and research needs
- Common Agricultural Policy related research needs

Developing decision-support tools for risk assessment, policy making and landscape planning

- Building and testing scenarios
- Building, adaptation and combination of validated models to assess the three-dimensional sustainability of different options

Identification and testing of appropriate incentives

Cross-cutting issues to scale-up transitions at the EU level

Networking of LL & RIs to accelerate the transfer of locally adopted AE innovations

- **Validate criteria to set a European network of LLs and RIs with wide coverage of local conditions and diversity of territories**
- **Methodologies to enhance the uptake of innovations and their integration of value chains at larger geographical scales**

Measuring effectiveness and progress of changes at the EU level

- **Indicators related to economic, social and environmental dimensions**
- **Monitoring and evaluation framework and tools**

Thank you for your attention

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