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Developing protocol-based storylines of future European agriculture to support climate change impact and adaptation research

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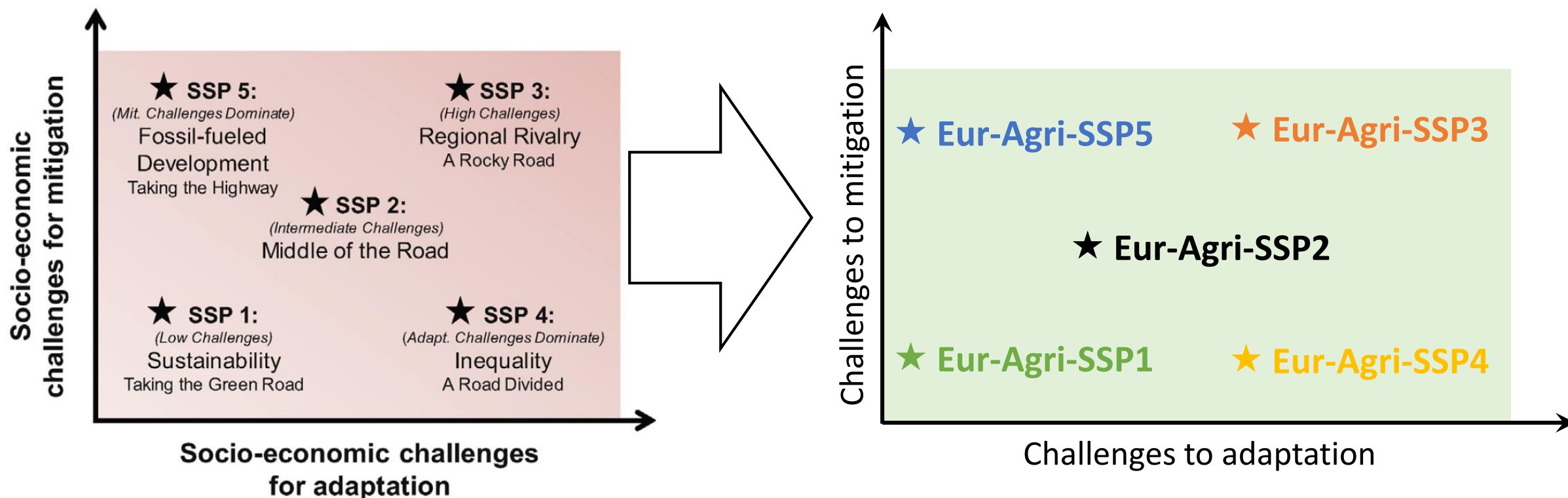


Overview

- Motivation
- Objectives and research questions
- Methodology for developing a shared protocol
- Results
 - Key characteristics & quality criteria of new storylines
 - Shared protocol for developing new storylines
 - Example of operationalizing the shared protocol
- Methodological challenges
- Conclusions

Motivation

- Storylines and scenarios at **global** scales: RCPs, SSPs, Eur-SSPs
- Advancement for **continental** and **sectoral** applications: **Eur-Agri-SSPs**



Objectives & research questions

- Determining quality criteria for Eur-Agri-SSPs
- Developing a shared protocol for building Eur-Agri-SSPs
- Operationalizing and implementing the shared protocol

- How should Eur-Agri-SSPs look like?
- How can an ideal-typical development process look like to obtain consistent storylines that are relevant to scientists and stakeholders?

Methodology for developing a shared protocol

Development process

Team

Literature review

Established standards for
storyline development

Adopt to the needs

Define target groups, key
characteristics, quality criteria

Protocol: Draft 1

Protocol: Draft 2

Operationalization & implementation

Protocol: Final draft

Review

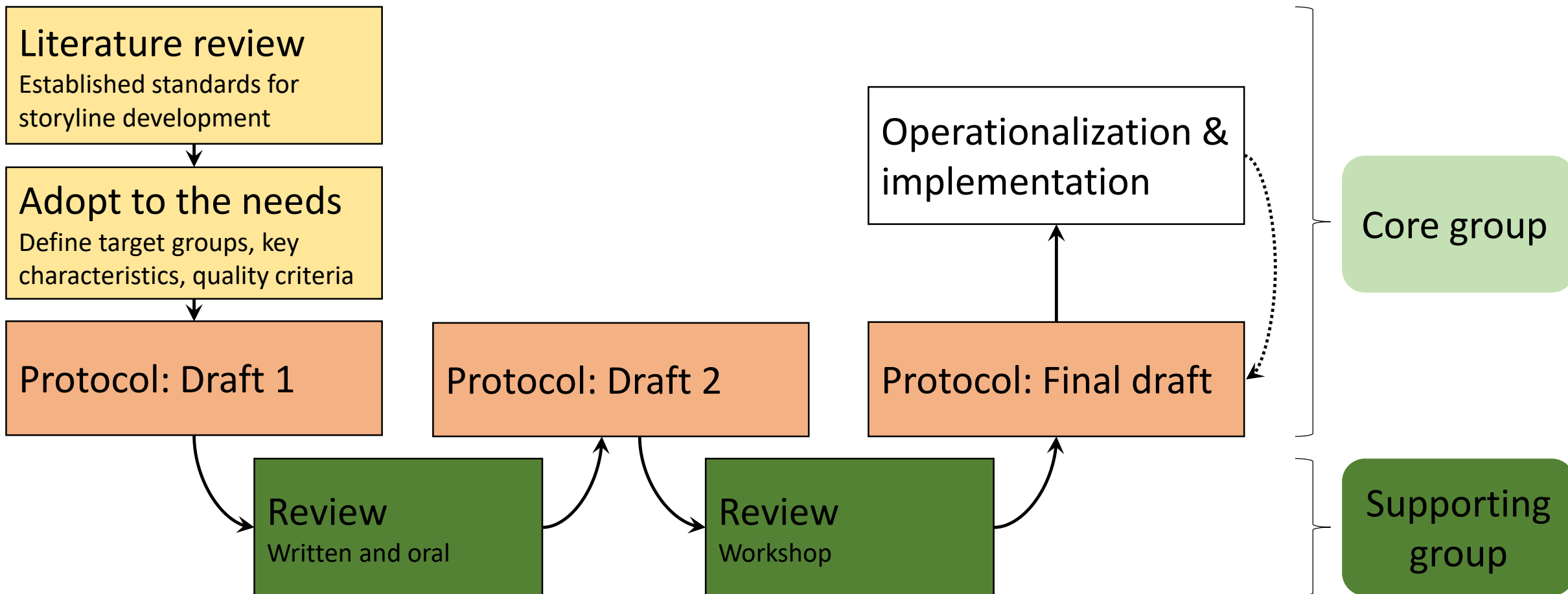
Written and oral

Review

Workshop

Core group

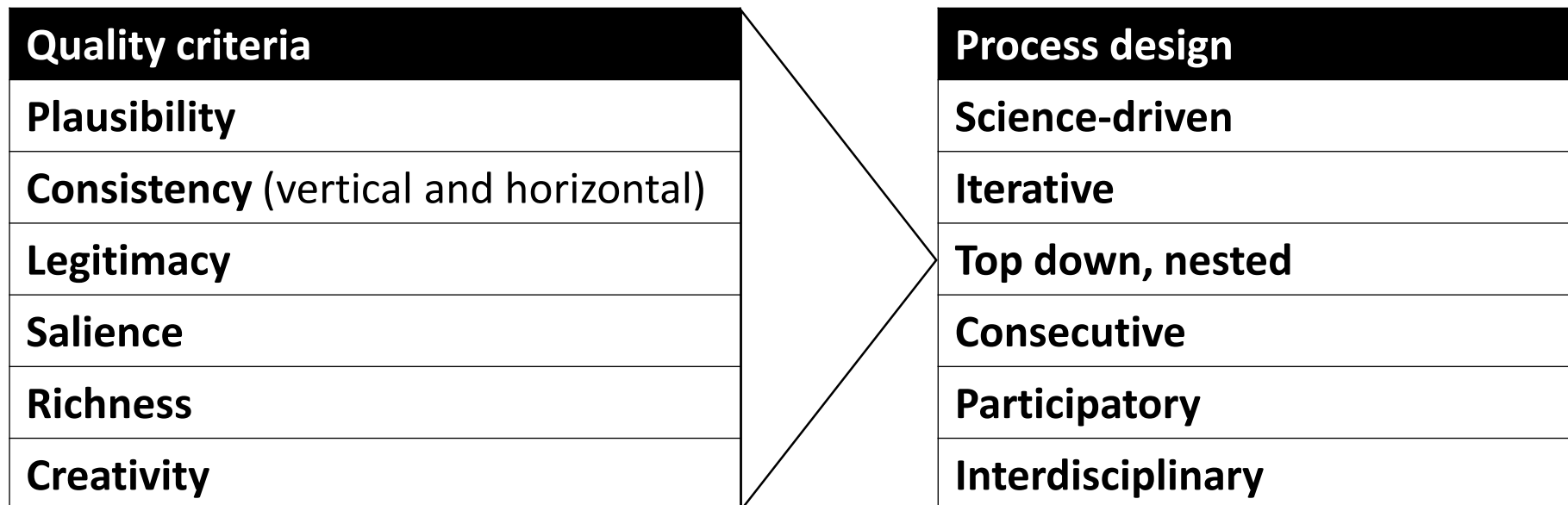
Supporting
group



Eur-Agri-SSPs: Key characteristics

- Qualitative, problem-focused storylines
- Focusing on European agriculture until 2050
- Extending and enriching global SSPs
- Basis for integrated assessments
- Consistent and comparable across sectors and spatial scales
- Relevant for science and ‘practice’

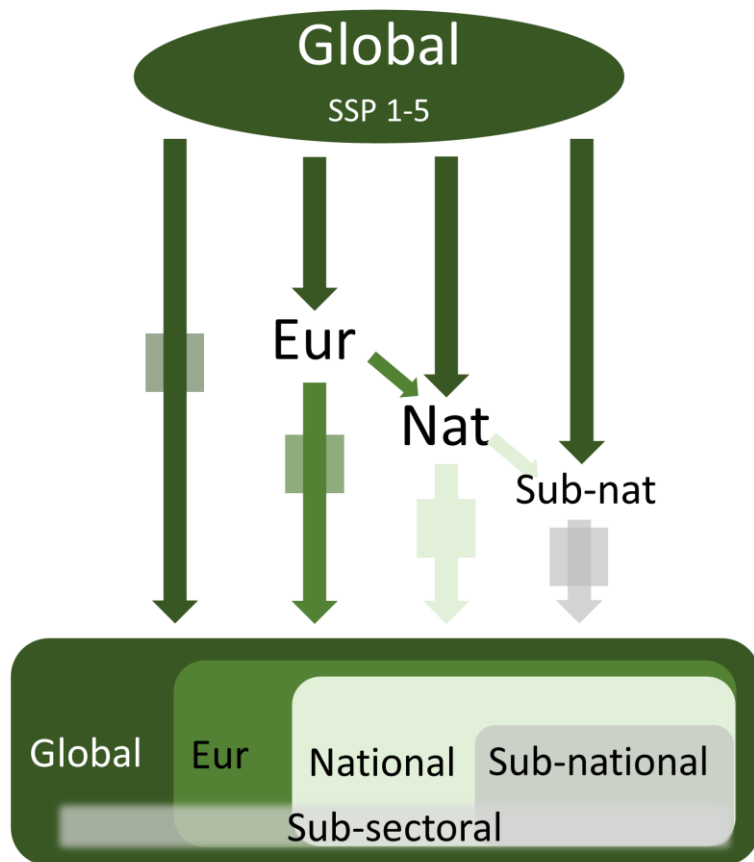
Eur-Agri-SSPs: Quality criteria



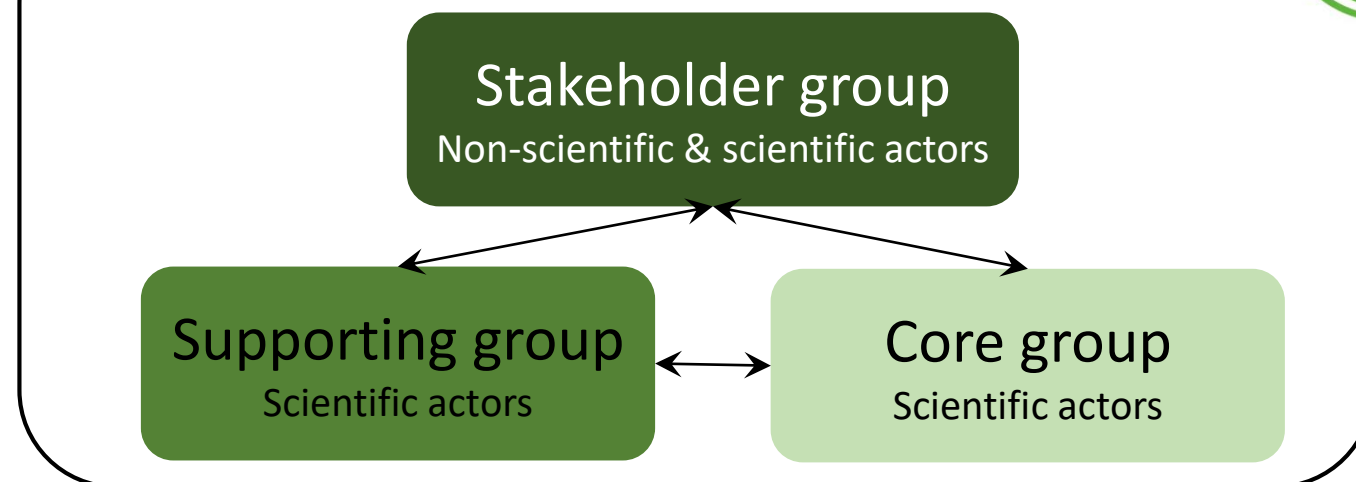
- Quality criteria affect process design.
 - Quality criteria are tightly coupled. There can be **trade-offs** between criteria.
- **Shared protocol** for systematic and transparent process design, considering quality criteria.

Process design

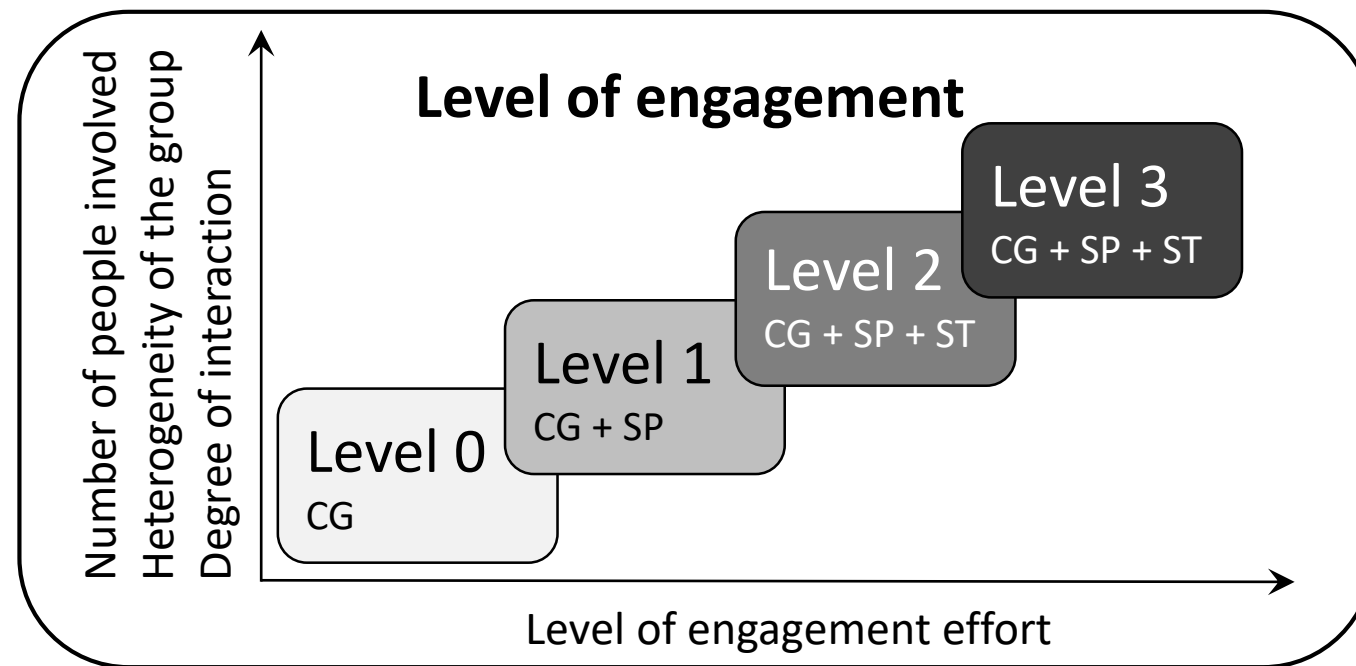
Top-down, nested



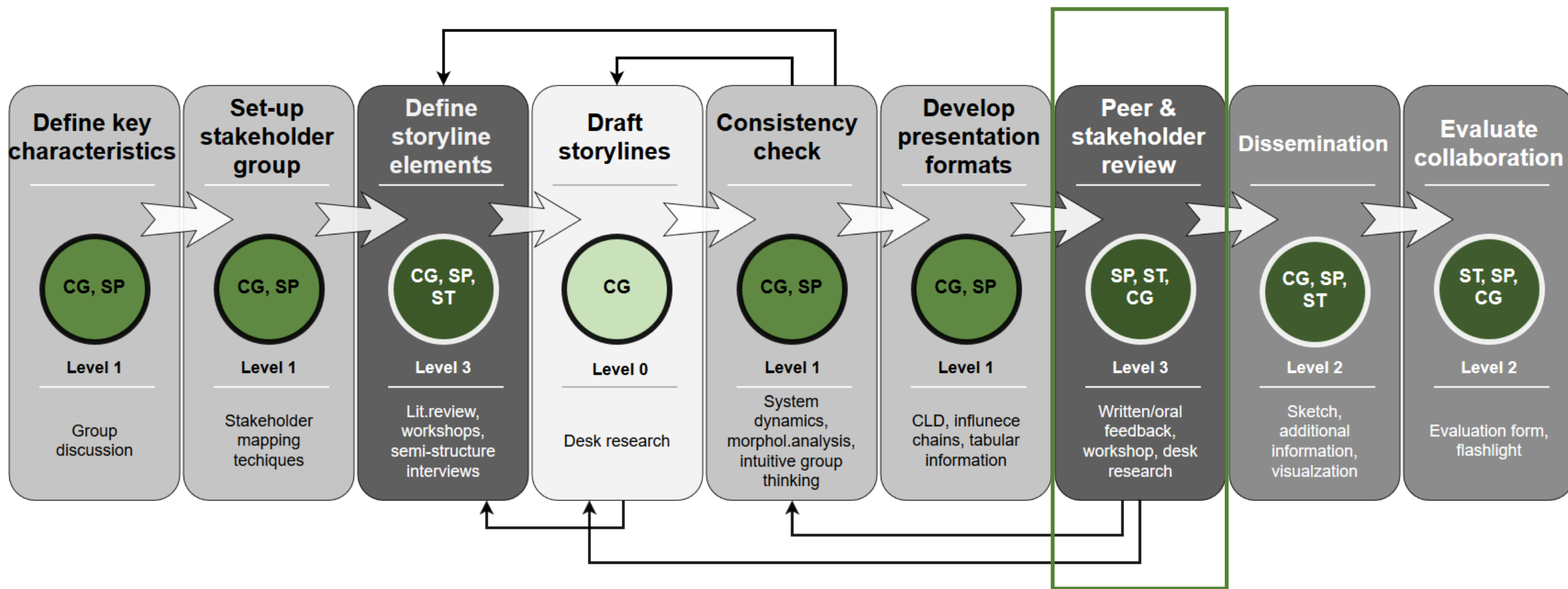
Team



Level of engagement

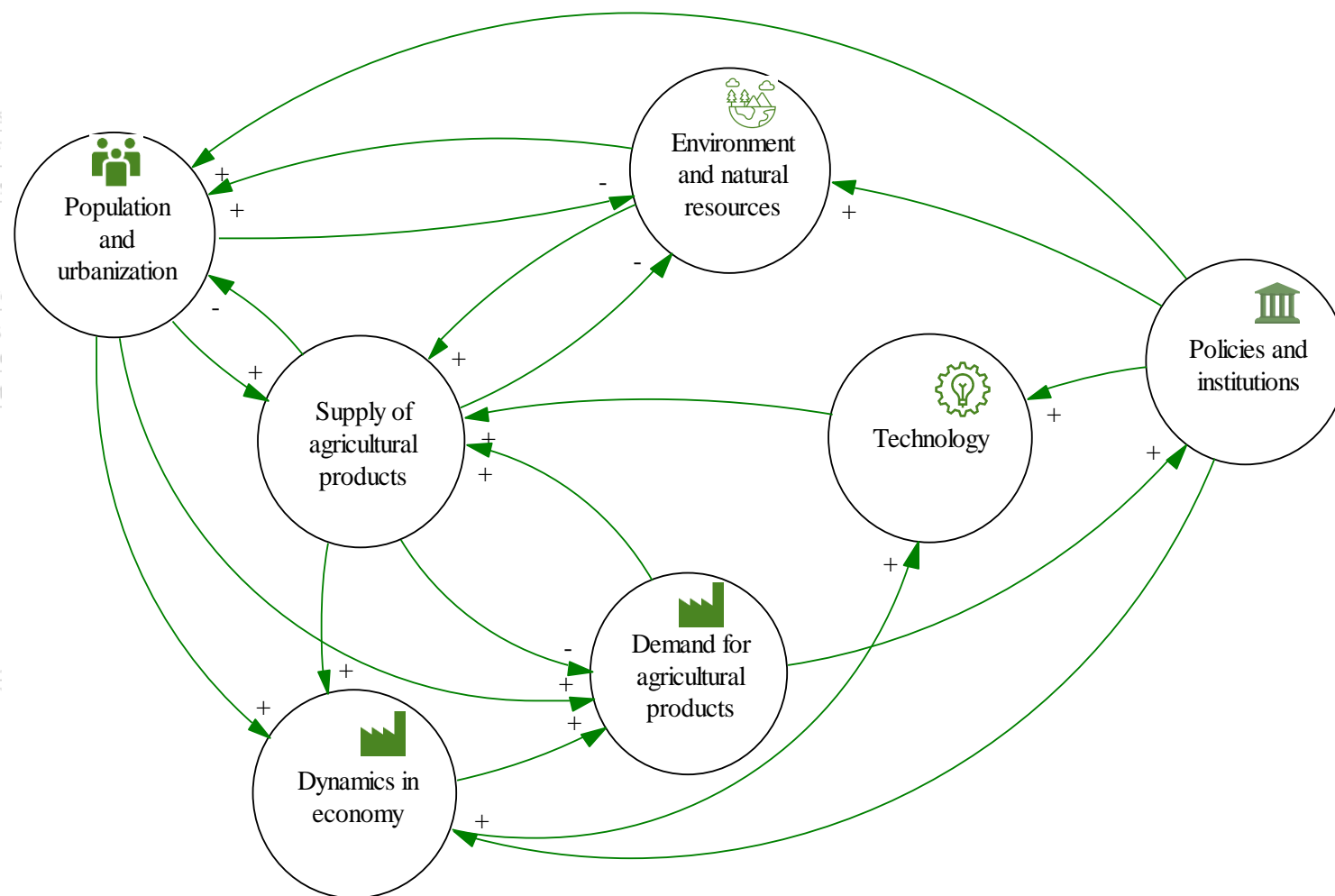


Shared protocol for developing Eur-Agri-SSPs



Systematic identification of storyline elements

- 2 international workshops
- Literature review
- 44 semi-structured interviews with European stakeholders



Peer and stakeholder review

- Written feedback by members of the supporting group
- International workshop: evaluation sheets, based on quality criteria

Plausibility and consistency

- Does the storyline present a plausible view of the future?
- Is the storyline internally consistent?

Richness and creativity

- Does the storyline provide a comprehensive picture of potential future developments in European agriculture?
- Is the storyline visionary?

Salience

- Is the storyline clear and comprehensible?
- Are the Eur-Agri-SSPs useful to your area of responsibility?
If not, what needs to be changed?

Methodological challenges

- Effectively engaging key stakeholders
- Linking global storylines with continental and sectoral perspectives
- Maintaining and evaluating consistency
- Incorporating existing storylines and scenarios
- Encouraging out of the box thinking
- Preparing 'usable' results

Conclusions

- The shared protocol ...
 - increases conceptual and methodological **transparency**.
 - is **transferable** to other regions, sectors and scales.
 - helps to improve **comparability** of integrated assessments.
- Eur-Agri-SSPs ...
 - form the basis for national, sub-national and sub-sectoral storylines.
 - facilitate a structured and goal-oriented **dialogue**.
 - shall be **useful** for ‘research and practice’.



Thank you very much!

Eur-Agri-SSP Team

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