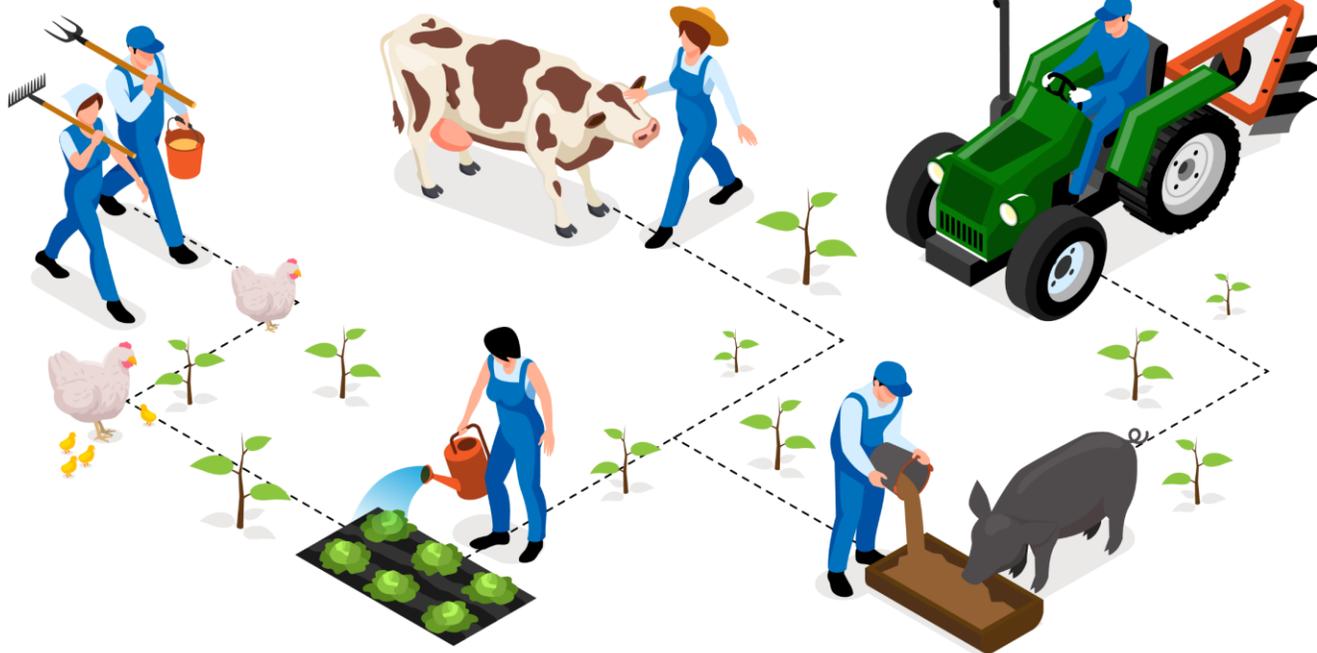


13th ATF Seminar

'Sustainable livestock systems' – what does this mean?



'SUSTAINABLE LIVESTOCK SYSTEMS' – what does this mean?



STEP UP: *Sustainable Livestock Systems Transition and Evidence Platform for Upgrading Policies*

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HORIZON-CL6-2023-FARM2FORK:

Towards sustainable livestock systems: European platform for evidence building and transitioning policy

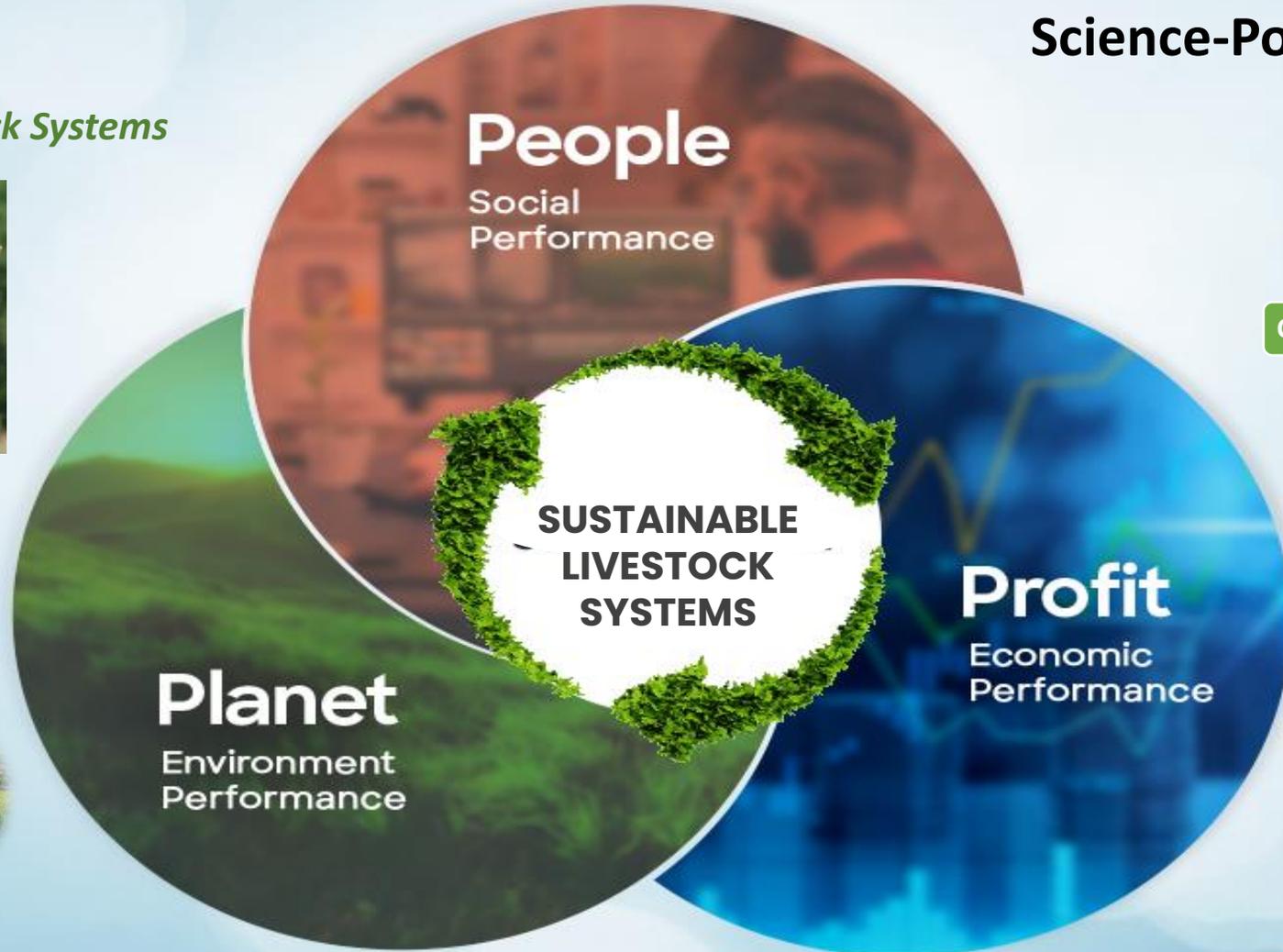
To *measure* the impacts and externalities of *livestock* farming as part of the food system and wider *ecosystem*.

DATA

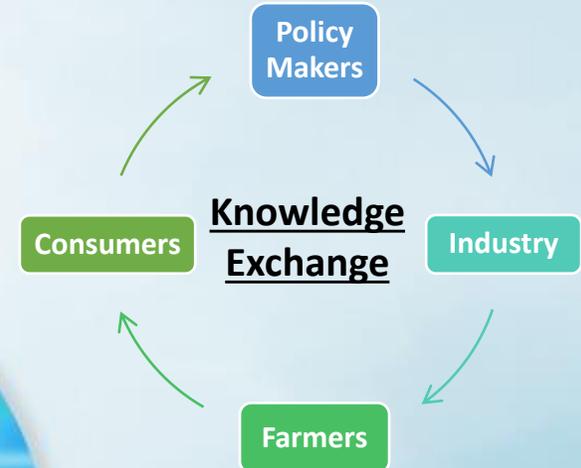
Co-benefits of Livestock Systems



Nature Positive



Science-Policy Interface



Farm Resilience





Background



- STEP UP is a Research and Innovation Action
- Funded under **HORIZON-CL6-2023-FARM2FORK: *Towards sustainable livestock systems: European platform for evidence building and transitioning policy***
- 16 partners representing 10 RPOs and 6 industry representative bodies across 10 European countries
- Total budget ca. €5m
- 4 year project (2024 – 2027)

Context

- The livestock sector contributes substantially to the European economy – 2022 the value of livestock production and livestock products in the EU-27 was equal to €207 billion, representing 40% of the total agricultural activity.
- By 2050 the global demand for livestock derived food products is projected to increase by 60% to 70%.
- Sustainable livestock based food systems contribute to food security, economic and environmental stewardship, and sociocultural needs and are vital for achieving most of the United Nation’s Sustainable Development Goals.
- Increasing sustainability, viability and resilience of climate friendly agricultural production are key objectives of the EU Farm to Fork strategy and is wholly consistent with the Four Betters viz. as better production; better nutrition; a better environment; and a better life and leaving no one behind conceptualised by FAO
- However, several challenges face the development of a sustainable pan-European livestock production system (ELPS).
- The global trend for greater demand for livestock derived food products, is currently being challenged because of (i) its impact on the environment and intensive use of resources; (ii) ethical issues and (iii) perceived human health considerations
- A central problem is that many of these costs and benefits are externalised, i.e., not reflected in the market prices and therefore not in decision making of actors in food value - could be up to double the market value of food
- **Monetisation of the externalities** is needed to estimate the “true” costs of animal based products in Europe.



Overall objectives of STEP UP



In order to address the many challenges facing European livestock production systems (ELPS), the overall objective of STEP UP is to provide policy makers with a robust evidence based on:

- (i) the impacts and externalities and*
- (ii) their monetised values of livestock farming as part of the food system and wider ecosystem.*



Research Approach



- Existing knowledge on the positive and negative impacts and externalities of ELPS will be collated following a comprehensive science-based analysis of published research and policy literature (WP1)
- Data gaps towards improving the sustainability of ELPS across diverse social and environmental contexts will be identified. In-depth case-study analysis to harmonise existing data, identify deficits in, and opportunities for, new data collection and systems development will be carried out (WP2)
- New indicators for assessing the externalities of sustainable ELPS, considering all relevant value-chain factors will be developed (WP3).
- The multi-actor approach (MAA) will be invoked to ensure “real-life” contextual reference points and testbeds for these new indicators including evaluation and impact, followed by a comprehensive impact assessment and cost-benefit quantification of current and innovative ELPS under various socio-ecological economic contexts, using best quantitative data modelling methods. (WP3 & 4)
- Transition pathways for more sustainable and diverse ELPS, forecast scenarios including monetizing impacts, will be identified (WP5)
- Evidence-based STEP UP knowledge of ELPS as part of the food system and wider ecosystem will be disseminated using MAA (WP6)
- Finally, STEP UP will provide a unique and warranted platform to support the development of informed and objective policy measures to optimise the central role of livestock in meeting the nutritional and societal needs of the European and global population (WP 7)

STEP UP

Roadmap for Evidence-based and sustainable Livestock Production Systems

Stepping up European Livestock Production Systems

The Necessity for Change within European Livestock Production Systems

1

Mapping the Data Gaps



2

Establishing Current and Innovative Livestock Production Systems



Detailed assessment of the current landscape

- 1 data repository with quantified impacts/externalities per 20+ pan-European Livestock Production Systems (ELPS)
- 1 analysis report of current national/regional visions and strategies
- 3+ archetypes of future livestock scenarios

4

Holistic Methodology for Quantifying Impacts



3

Indicating & Measuring Impact for Livestock Systems



Demonstrating a change

- 15+ Innovative Livestock Production Systems (ILPS), using improved methodologies;
- 10+ new indicators for the measurement of negative, positive impacts and externalities of different types of ELPS
- 3+ livestock species analysed;
- 7+ ILPS assessed
- 5+ methods for capturing environmental and social aspects of livestock systems

5

Optimal Scenario Modelling



6

EU Livestock Systems Foresight



New Sustainable EU Livestock Production Systems

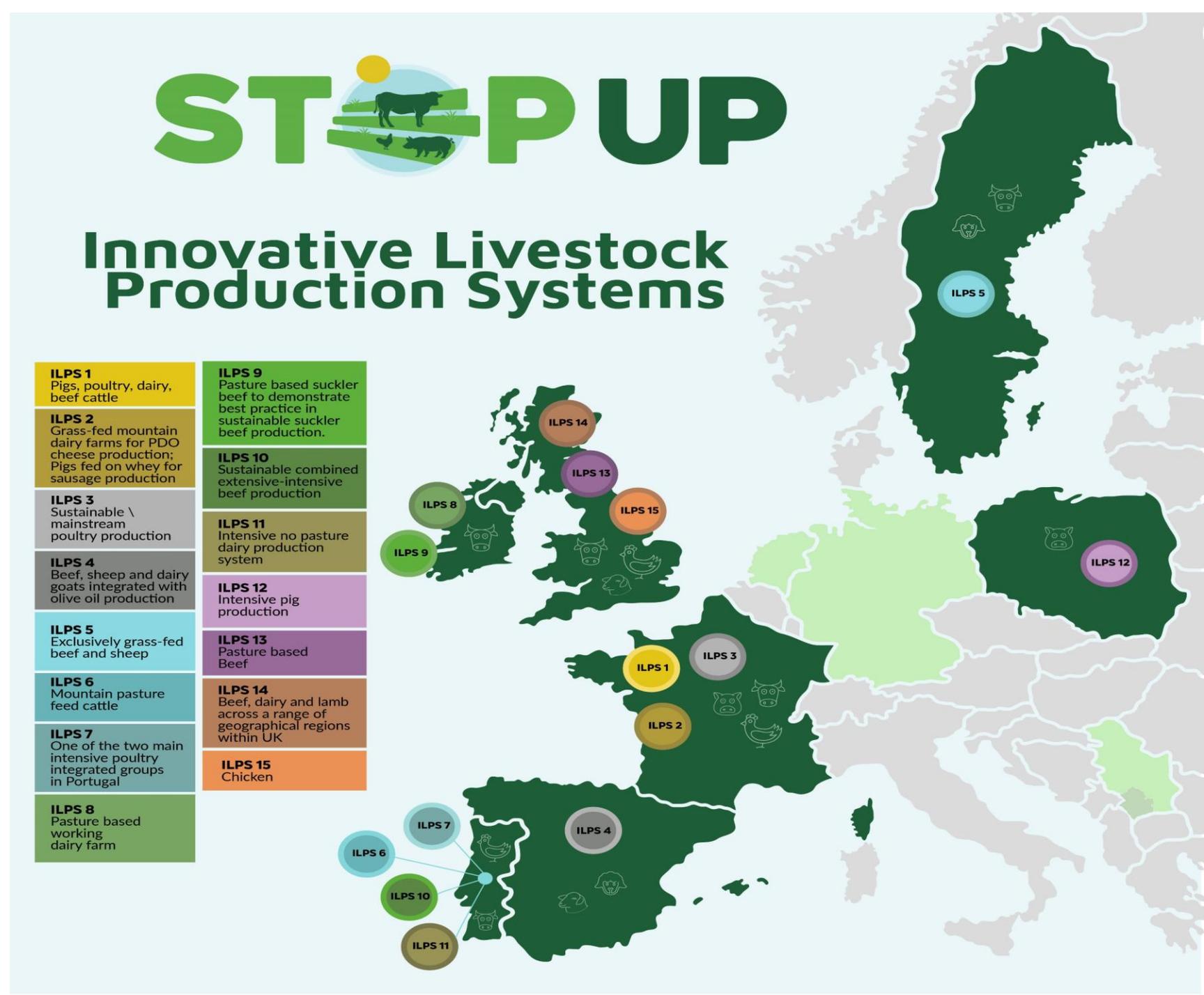
Livestock Landscape Up Hence

- 2+ models enhanced (AGMEMOD, MAFSEU)
- 1 Safe and Just Operating Space defined (SJOS)
- 1 easy-to-use assessment tool
- 1 Report on the improvement/enhancement of indicators (20+ indicators reported)

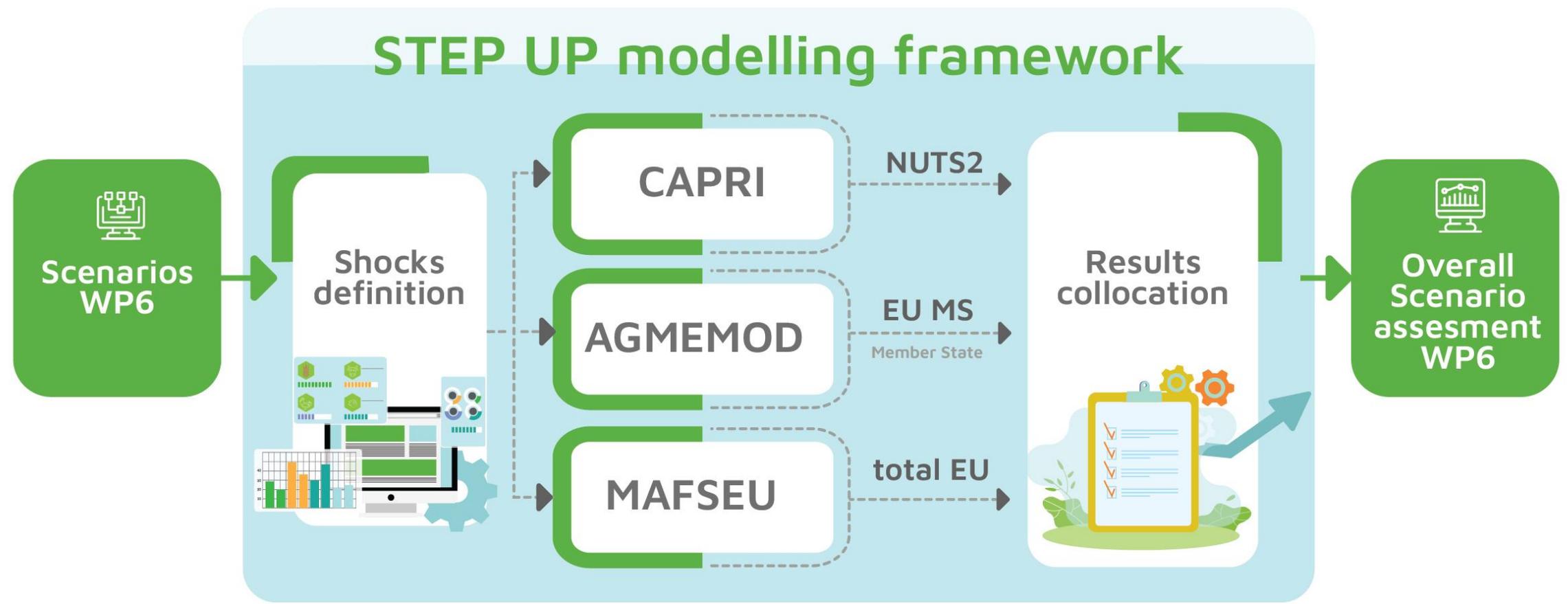


Case Studies

- Innovative livestock production systems representing different species, production systems, geographical regions and level of production intensity will be studied in detail
- Identify gaps and opportunities for new data collection and systems development, through invoking a multi-actor approach to ensure “real-life” contextual reference points and testbeds for new sustainability indicators, evaluation and impact methods



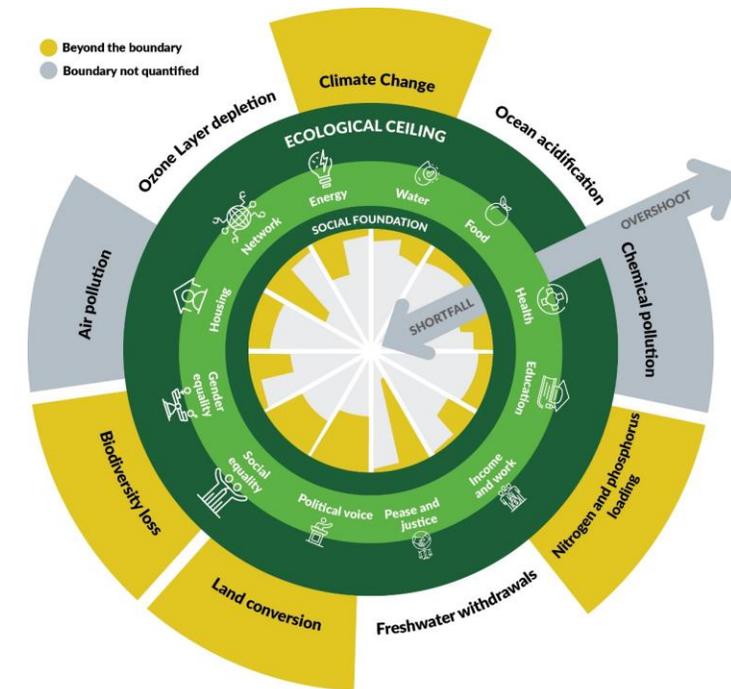
STEP UP Data Modelling Framework



Model enhancement based on information from WP1

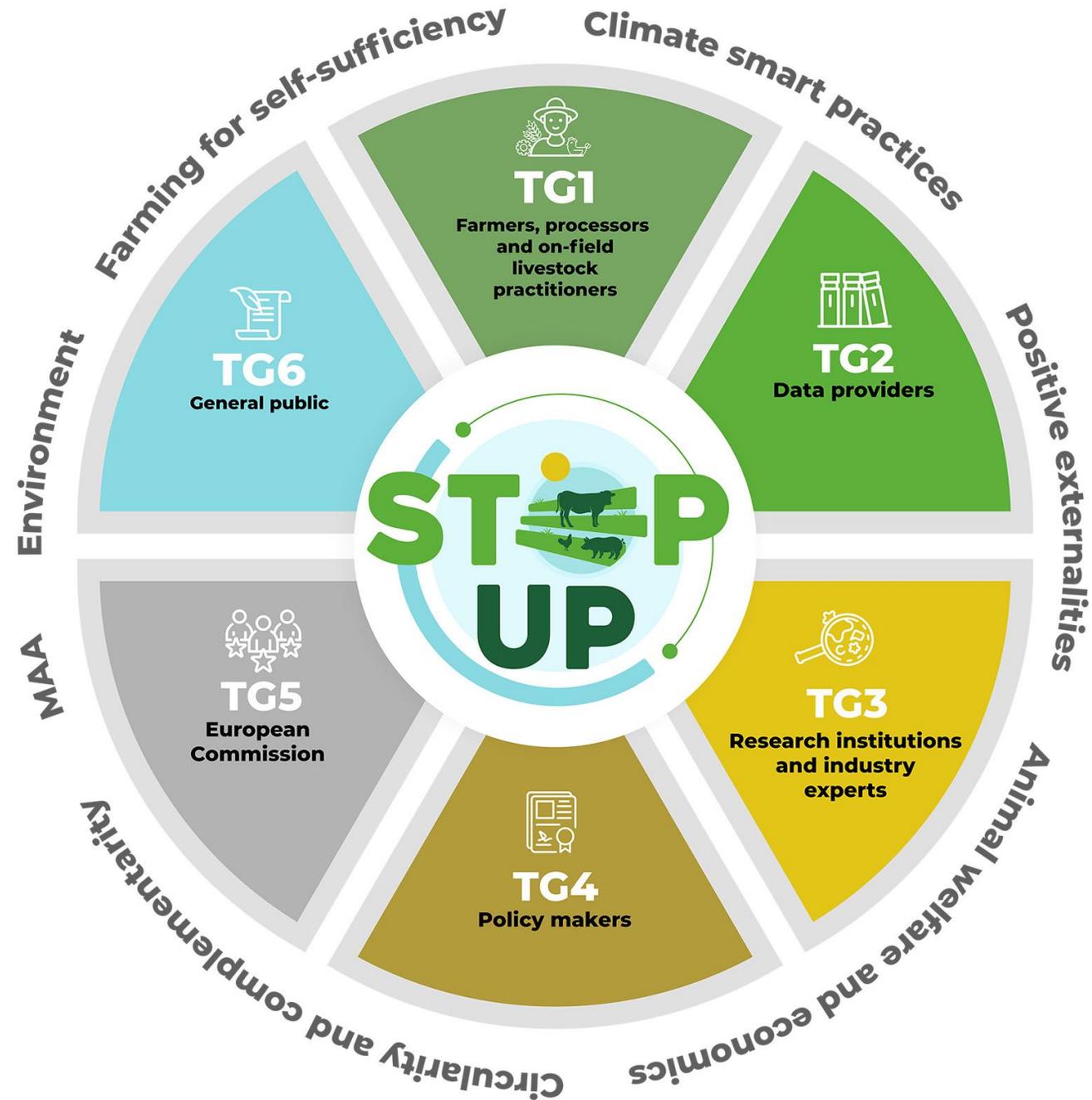
Conceptualization framework of Safe and Just Operating Space (SJOS)

- In order to align challenges relating to the sustainability of future livestock systems with the challenges relating to the limitation of planetary boundaries, STEP UP will embrace the concept of Safe and Just Operating Space (SJOS) and align it to the scale of EU livestock systems.
- The SJOS concept includes biophysical tipping points with social science considerations of distributional equity and justice
- SJOS concept will be implemented for STEP UP through collaboration with the Horizon Europe funded BRIGHTSPACE project



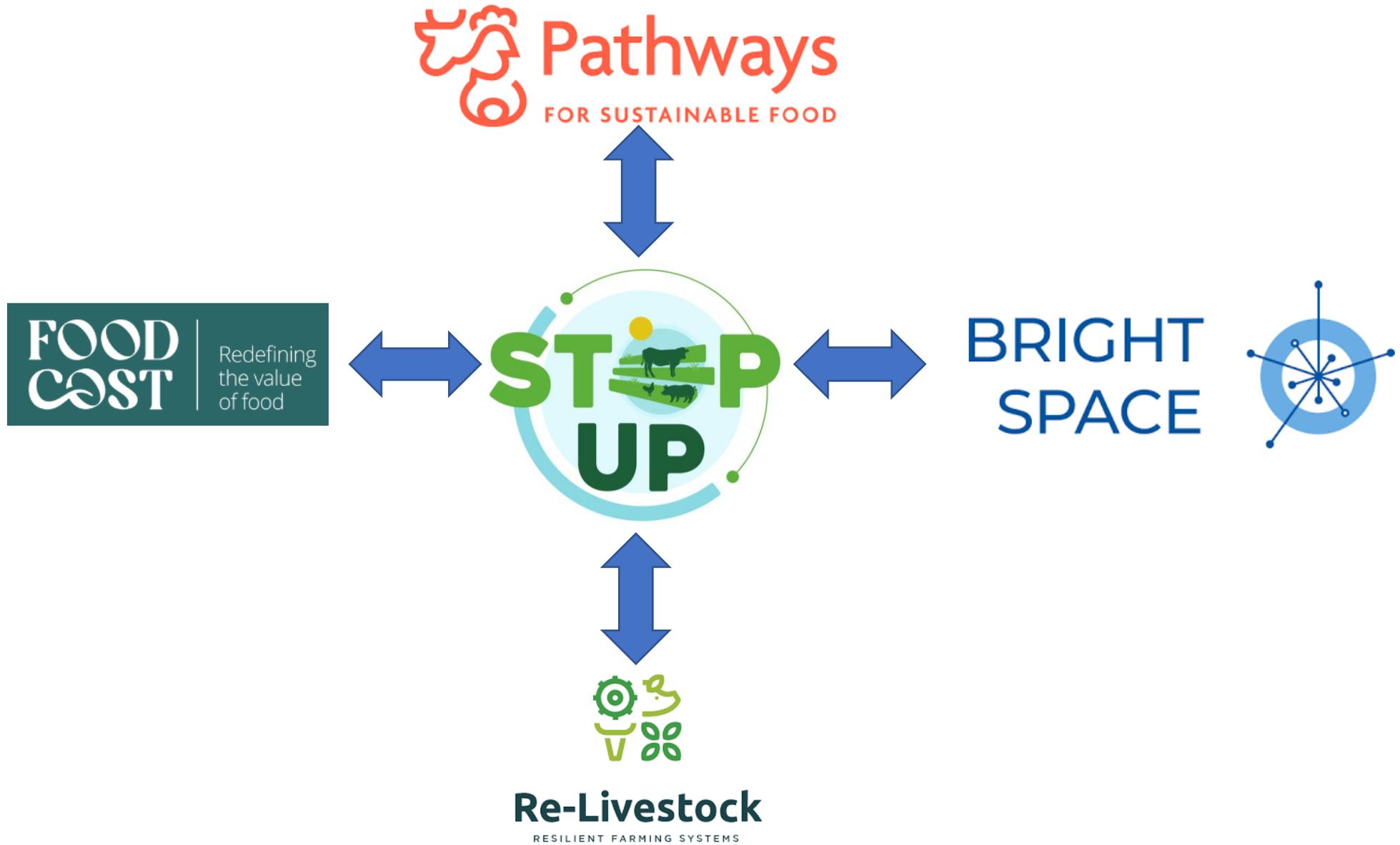


Target groups





Associated projects





Partners



Swedish University of Agricultural Sciences

