FutureFoodS

FutureFoodS

European partnership for a sustainable Future of Food Systems

2024 - 2034

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Coord: ANR, the French National Research Agency

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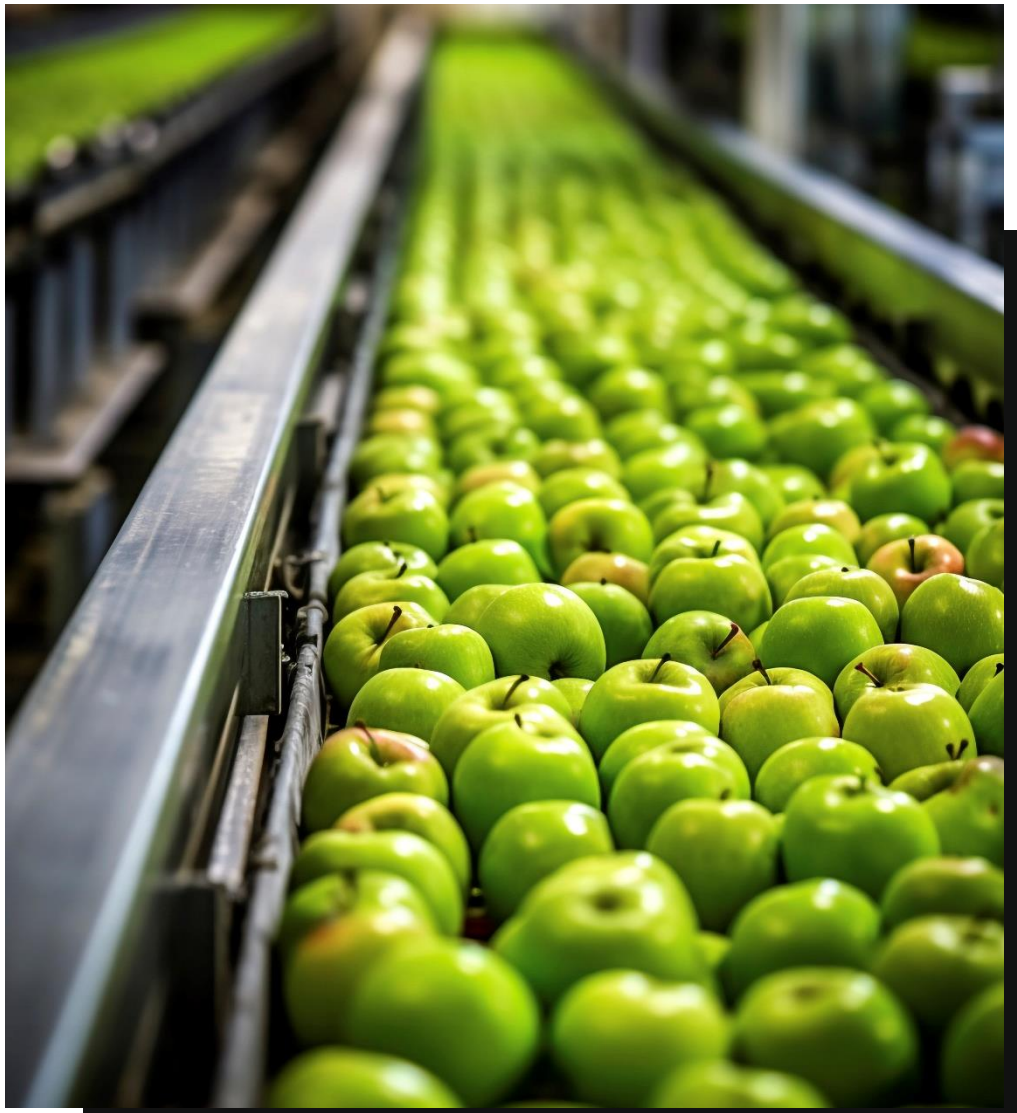
anr agence nationale de la recherche

Co-coord: BLE, the German Federal Office for Agriculture and Food

Bundesanstalt für Landwirtschaft und Ernährung



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Sustainable Food Systems Partnership: a long-term network

2011 - 2014

SUSFOOD

2017 - 2022

SUSFOOD2

CORE organic

FOSC
ERA-NET Cofund on Food Systems and Climate

2024 - 2034

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FP 7 (2007 – 2013) **Horizon 2020 (2014 – 2020)** **Horizon Europe (2021 – 2027)** **FP 10 (2028 – 2034)**

SUSFOOD

2013

Topic 1: Improving input, waste and side flow strategies to increase resource efficiency and provide added value in food products and food processing, manufacture, reducing input (energy, water etc.) in the food chain.

CEREAL - Improved and resource efficiency throughout the post-harvest chain of fresh-cut fruits and vegetables
Sunniva - Sustainable food production through quality optimized raw material production and processing technologies for premium quality vegetable products and generated by-products
BioSuck - Decision support system on optimized waste collection by vacuum technology with simultaneous production of bioenergy from wastes

Topic 2: Innovation in food processing technologies and food products to support a sustainable food chain.

CIBUS-FOOD - Computational-design and Innovative Building of Uniquely Structured Food
Sustainable&Healthy - Development of sustainable processing technologies for converting by-products into healthy, added value ingredients and food products
BIOPROT - Novel multifunctional plant protein ingredients with bioprocessing

Topic 3: Understanding consumer behaviour to encourage a (more) sustainable food choice

FOCAS - Food, Convenience and Sustainability
COSUS - Consumers in a sustainable food supply chain: understanding barriers and facilitators for acceptance of visually suboptimal foods
SUSDIET - Implementing sustainable diets in Europe

SUSFOOD

2014

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Topic 1: Innovation in food processing technologies and food products to support a sustainable food chain.

FREEZEWAVE - Innovative and low energy microwave assisted freezing process for high quality foods
RF-cooking of Ham - Rapid industrial scale cooking of boiled ham using radio frequency electric fields
ProRef - Gentle and resource-efficient refining of vegetable oils for preservation of valuable components and simplified reprocessing of by-products

Topic 2: Improving input, waste and side flow strategies to increase resource efficiency and provide added value in food products and food processing, manufacture, reducing input (energy, water etc.) in the food chain.

BerryPom - Adding value to fruit processing waste: innovative ways to incorporate fibres from berry pomace in baked and extruded cereal-based foods

Topic 3: Interdisciplinary research approach to innovative food products and use of new raw materials for food products.

SUSMEATPRO - Sustainable plant ingredients for healthier meat products - proof of concepts
OATPRO - Engineering of oat proteins: Consumer driven sustainable food development process

SUSFOOD2

2017

Topic 1: Innovation in food processing technologies and products

BIOCARB-4-FOOD - Extraction and characterization of BIOactives and CARBohydrates from seaweeds and seagrasses FOR FOOD-related applications

InProVe - Innovative Processing of Vegetables and Potato

FUNBREW - Biotransformation of brewers' spent grain: increased functionality for novel food applications

MEFPROC - Improving Sustainability in Food Processing using Moderate Electric Fields (MEF) for Process Intensification and Smart Processing

DISCOVERY - Disaggregation of conventional vegetable press cakes by novel techniques to receive new products and to increase the yield

ProSeaFood - Innovative processing of seaweed for novel, healthy food products and ingredients

Topic 2: Providing added value, increased resource efficiency and reduction of waste in sustainable food systems

AVARE - Adding value in resource effective food systems

SPAREC - Sustainable Processing of Agrofood Residues to Elicitors and Chemicals

ImPrOVE - Innovative (pre)POmace Valorization process

SUSPUFA - Sustainable production of health-promoting n-3 LCPUFA using agro food industry by-products through microalgae

Topic 3: Understanding consumer behaviour and food choices

SUSCHOICE - Towards Sustainable Food and Drink Choices among European Young Adults: Drivers, Barriers and Strategical Implications

PLATEFORMS - Sustainable Food Platforms: Enabling sustainable food practices through socio-technical innovation

Why a Sustainable Food **Systems** Partnership?

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The current agriculture and food production are unsustainable at the global level. The future health of Europe's people and the planet lies on the plate: the way that food is farmed, fished, processed, distributed, valued, consumed, prepared and wasted must change. ***Food is one of the central issues for the transition.***

UNITED NATIONS

SUSTAINABLE DEVELOPMENT GOALS

UNITED NATIONS FOOD SYSTEMS SUMMIT 2021

European Commission

Green Deal goals

- Become climate-neutral by 2050.
- Protect human life, animals and plants, by cutting pollution.
- Help companies become world leaders in clean products and technologies.
- Help ensure a just and inclusive transition.

FOOD 2030 (NUTRITION, CLIMATE, CIRCULARITY, INNOVATION)

EC Green Deal - **Farm2Fork Strategy**

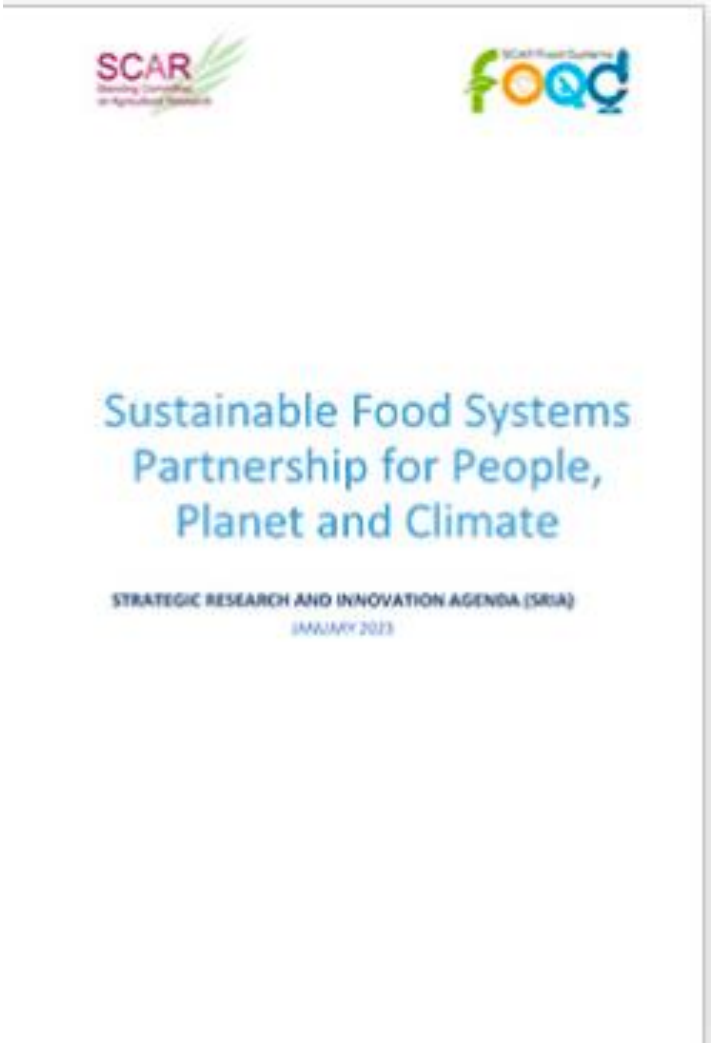
EC **FOOD 2030** R&I Policy Framework and Pathways to Action

INRAE involved in the process : Monique AXELOS Chair du SCAR Food Systems Strategic Working Group

Experts INRAE (Hugo DE VRIES, Beatrice MORIO, Allison Marie LOCONTO)

Step 1: 2018-2020	Step 2: Jan-Juin 2021	Step 3: Juin-Dec 2021	Step 4: Jan2022-Jan2023	SRIA
Reflection on Food Systems Partnership Workshops to identify the main challenges to be addressed by the Partnership ; survey; exchanges with Stakeholders	**Develop the Narrative « Why What & How » Factsheet**	**Write the Template** Draft proposal of the partnership Core team & experts	**Development of the Strategic Research Agenda (SRIA)** Taskforce Public consultation	

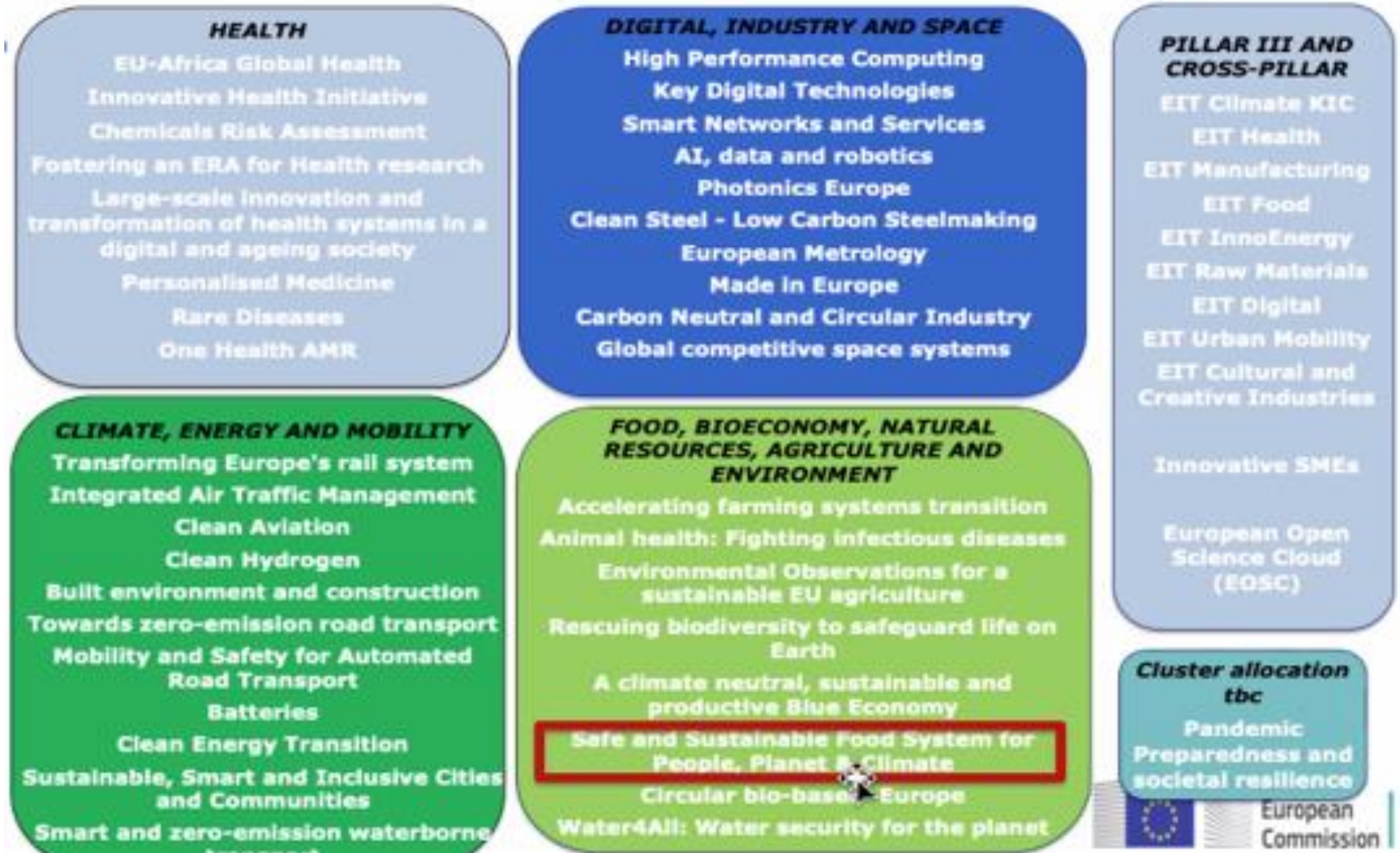
SRIA



4 aeras R & I:

- Change the way we eat
- Change the way we process and supply food
- Change the way we connect to FS
- Change the way we govern FS

Portfolio of candidates for European Partnerships (49)



FutureFoodS: Sustainable Food Systems Partnership for People, Planet and Climate 2024-2034

FutureFoodS: respond to UN-SDG

building interdisciplinary science
building multi stakeholders partnership
developing implementation/solution science

The mission is mobilize R& I to accelerate the transition towards SFS, i.e towards healthy diets that are safe and sustainably produced and consumed in resilient EU and global food systems.

UN-SDG United Nation Sustainable Development Goal
R & I Research & Innovation

Sustainability of food systems

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A food system that delivers **food security** and **nutrition** for all in such a way that the economic, social and environmental bases to generate food security and nutrition for future generations are not compromised" (FAO, 2018).

The economic sustainability covers **profitability** and **affordability** throughout the system.

Social sustainability means wide-scale benefits including **health**, **cultural drivers**, **just and fair outcomes** (SAPEA, 2020).

Environmental sustainability means **food systems**, which have neutral or positive environmental climate and biodiversity footprint (EC, 2022b.).

Food lies at the heart of our lives. It is vital for our survival, but our current food system is unsustainable. We need to transform our food system. → FutureFoodS partnership

AGROECOLOGY PARTNERSHIP

Figure 1: The food system (although it is not that linear) (source: FOOD 2030)

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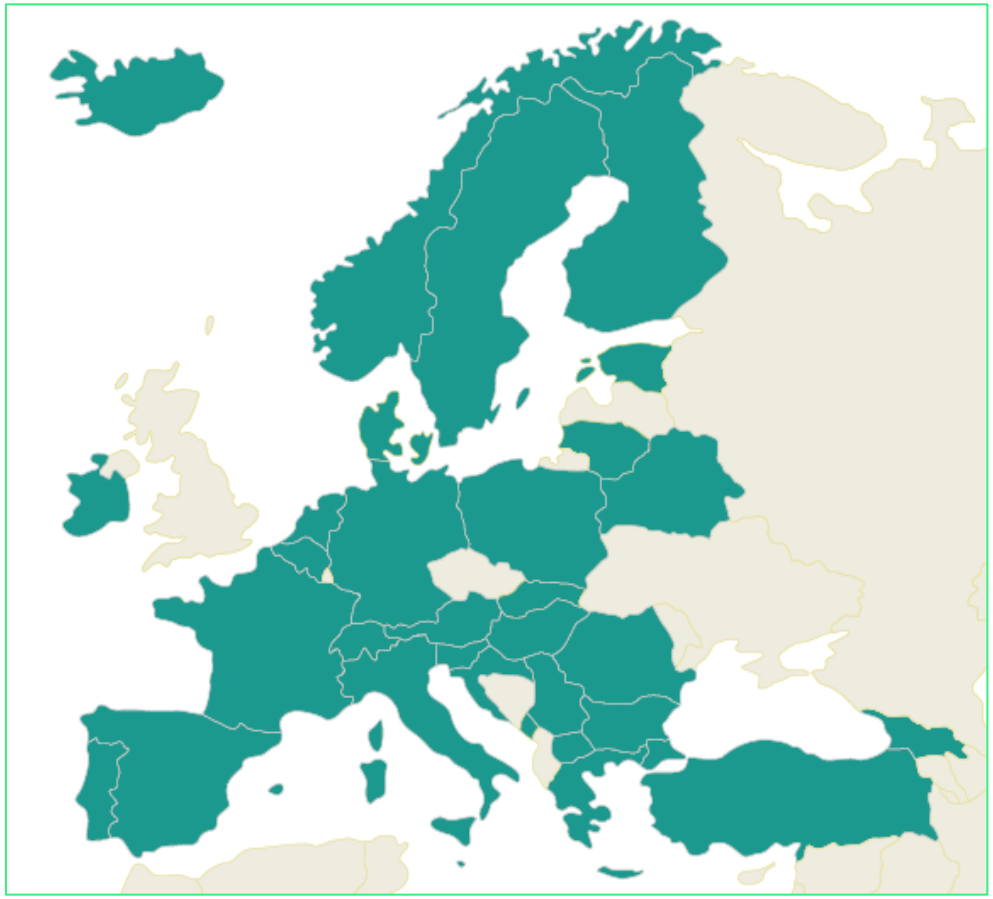
It brings together

Today, 86 partners from 29 countries

- National and regional authorities
- Funding agencies
- Research institutes, Universities
- Competitiveness clusters & Foundations
- Food innovation hubs and networks

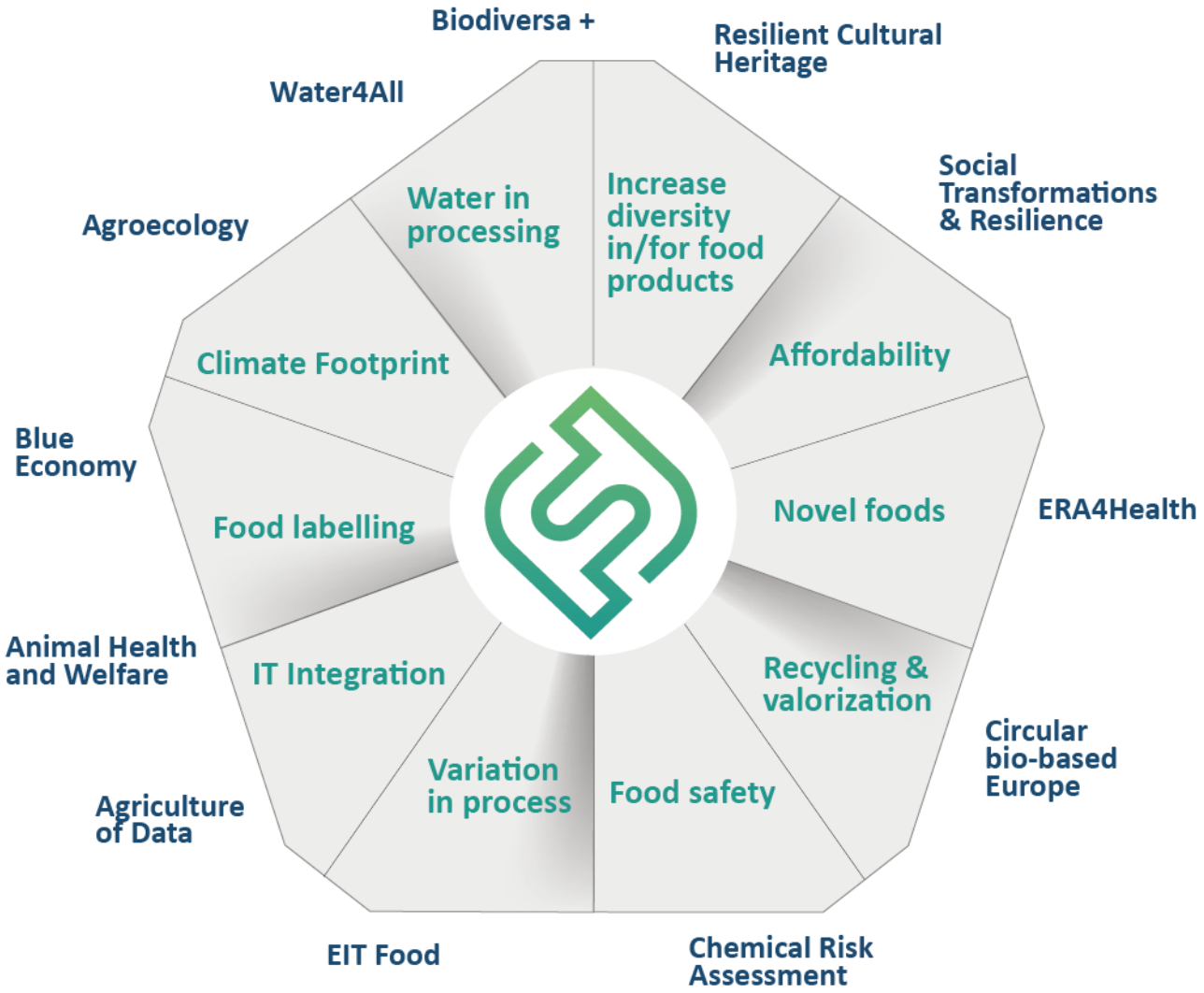


Vision • Mission

Towards environmentally friendly, socially secure, fair, economically viable, healthy & safe food systems for Europe

To mobilize research & innovation to accelerate the transition towards Sustainable Food Systems with a wide range of actors, who are joining forces

FutureFoodS landscape



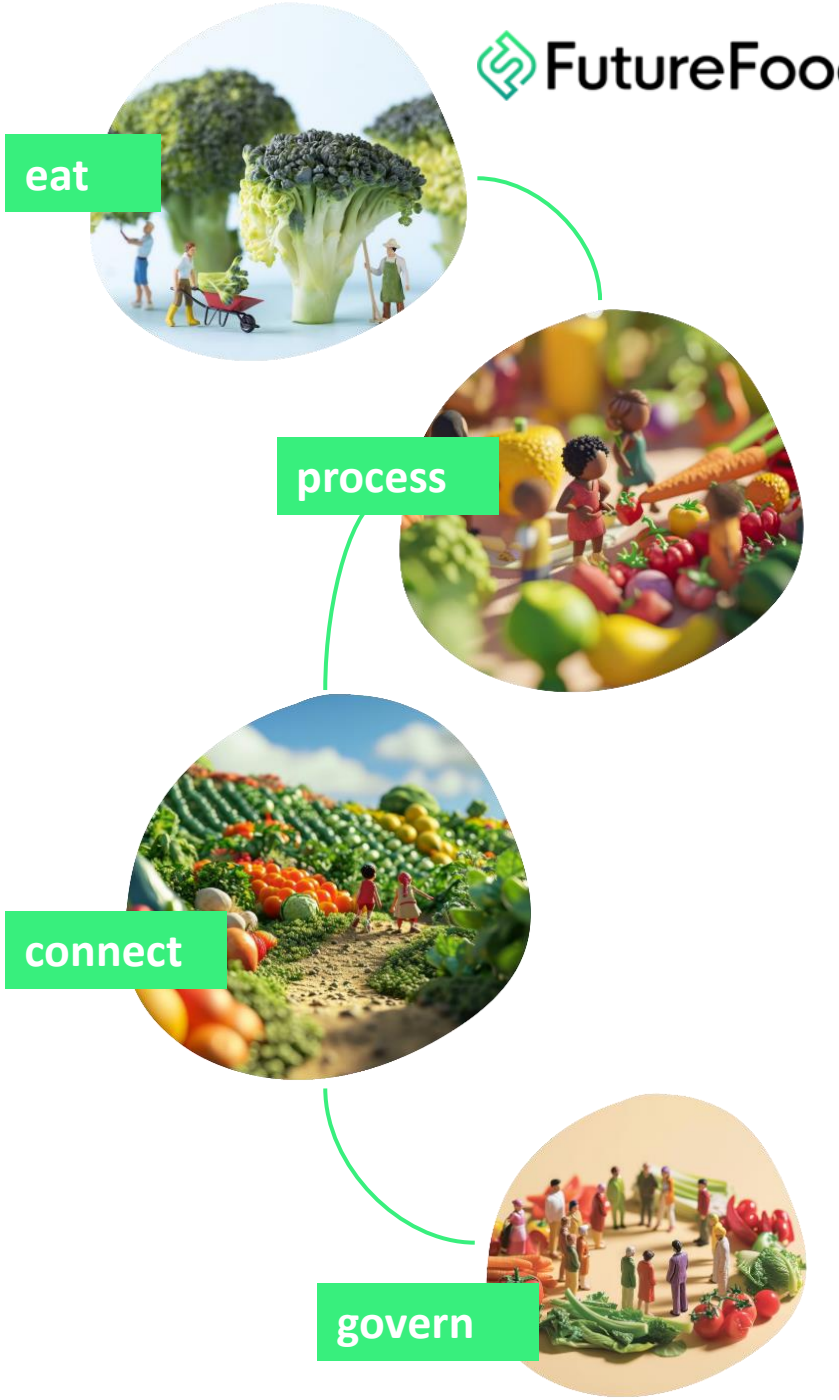
What is within our scope?

Key objectives

Food system approach centred around post-harvest activities

- Change the way we **eat**
- Change the way we **process** and supply food
- Change the way we **connect** with food systems
- Change the way we **govern** food systems

Complementary to other partnerships



Our objectives

FutureFoodS

MISSION

to mobilize Research and Innovation (R&I) to accelerate the transition towards Sustainable Food Systems with a wide range of actors, who are joining forces

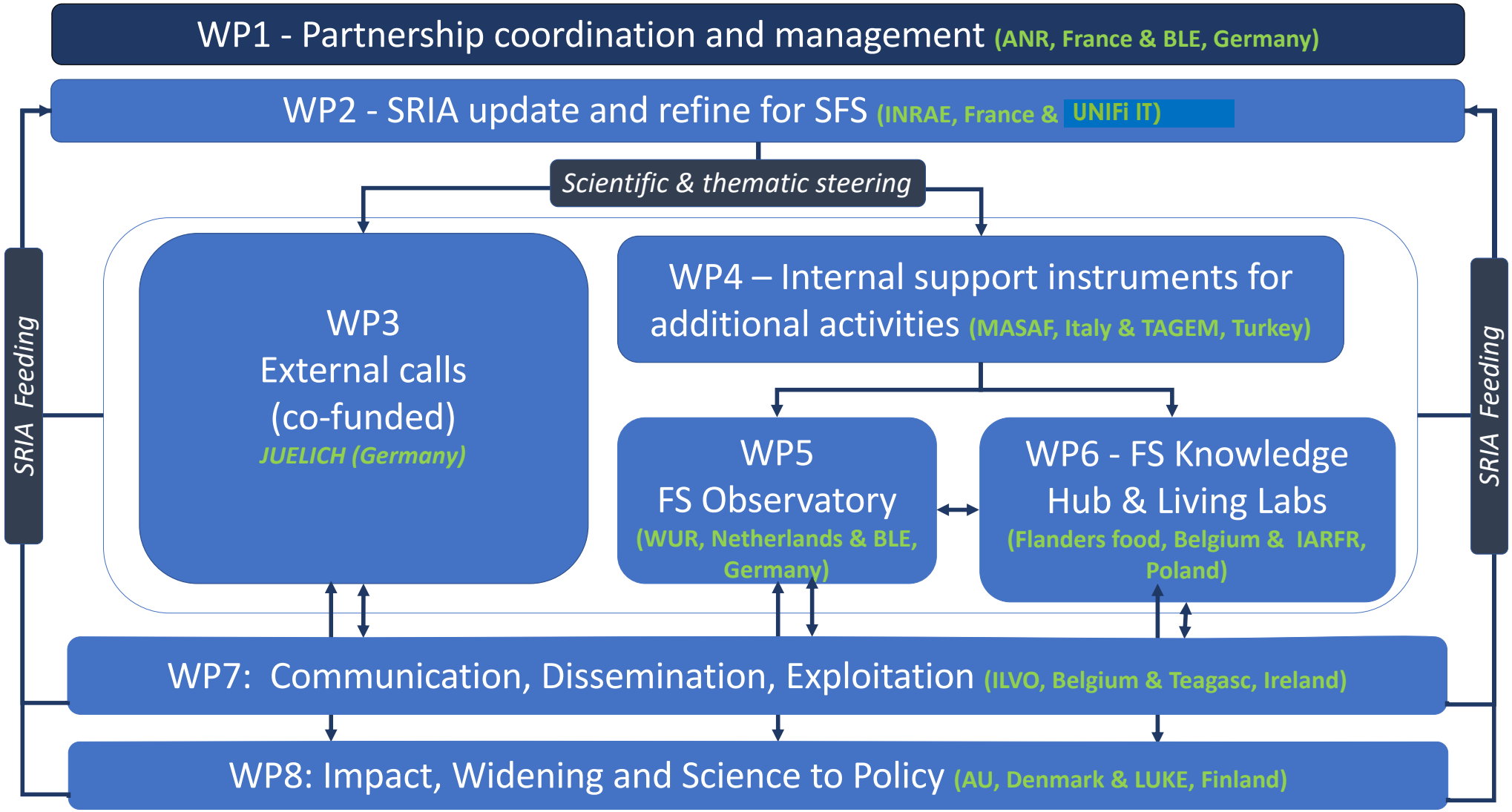
Specific Objectives	Operational Objectives	General Objectives
SO1 Change the way we eat	OO1 Pooling R&I resources	GO1 Functioning of FS
SO2 Change the way we process and supply food	OO2 Launching a FS observatory Platform	GO2 System approaches
SO3 Change the way we connect in food systems	OO3 Establishing a FS Knowledge Hub for complex FS	GO3 Inclusive government
SO4 Change the way we govern food systems	OO4 Knowledge sharing, and scaling	GO4 Co-creation cases
	OO5 Revisiting SRIA	
	OO6 Promoting, supporting & widening the FS community	

VISION

to collectively achieve environmentally-friendly, socially secure and fair, economically viable, healthy and safe food systems in Europe

FutureFoodS main activities – operational objectives – are based on the needs identified in the strategic R&I agenda. All these activities are targeting the 4 R&I fields of the SRIA – the specific objectives of the partnership.

FutureFoodS Workplan structure



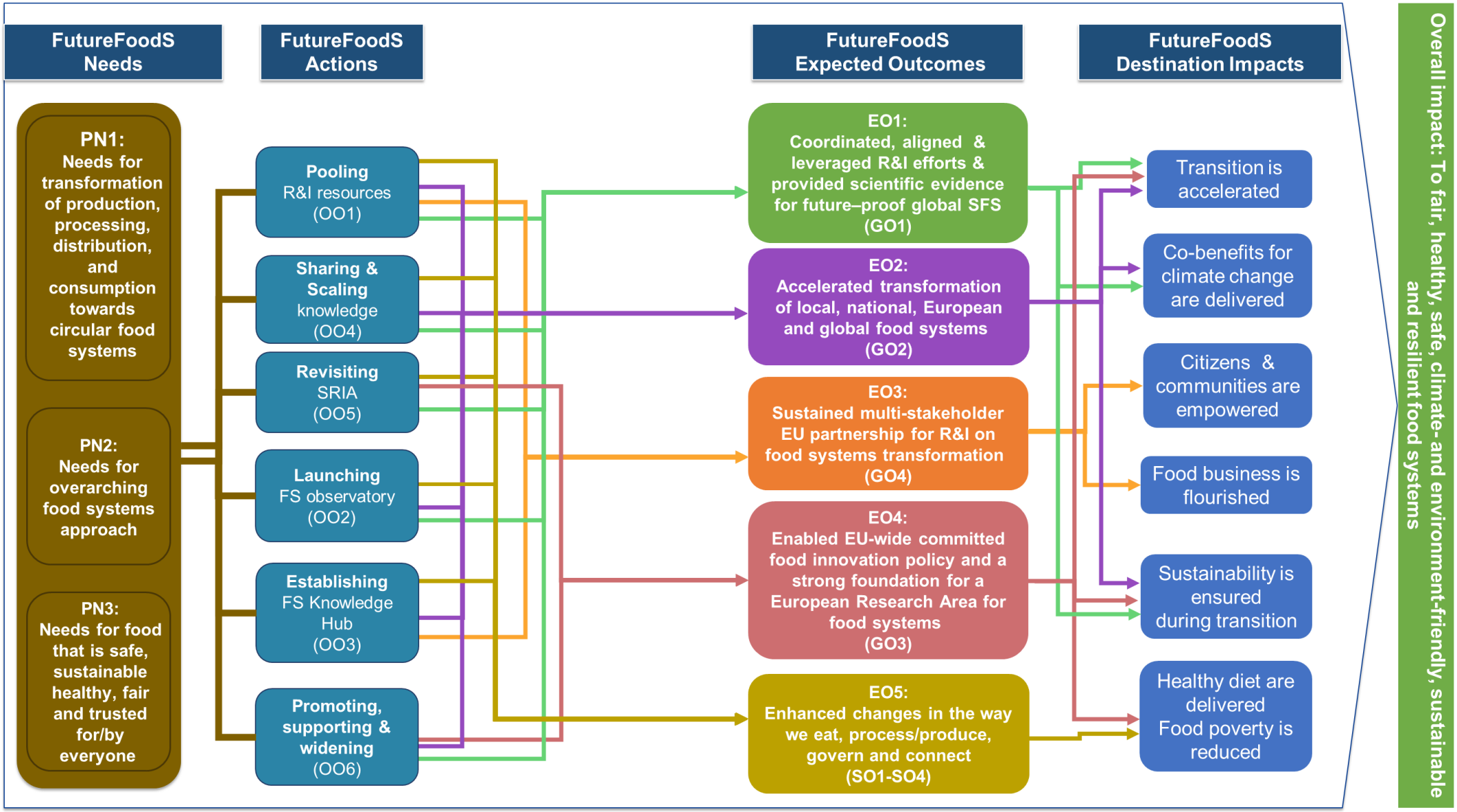
FutureFoodS specific impact pathways

Main objective → Main Impact ⇒ Impact pathways

Starting point: 3 priority needs

- **Priority need 1**: Needs for transformation of production, processing, distribution, and consumption towards circular food systems
- **Priority need 2**: Needs for overarching food systems approach
- **Priority need 3**: Needs for food that is safe, sustainable, healthy, fair and trusted for/by everyone

FutureFoodS specific impact pathways



WP2 – SRIA update and refine for sustainable food systems (Lead: INRAE and UNIFI)

Refining the SRIA to give recommendations and updates for the state of art of each R&I area and provide an analysis of how each of the four R&I areas should be udpated in terms of research priorities and trajectory.

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Strategic Research and Innovation Agenda Thematic Areas

CHANGE THE WAY WE EAT (EAT)

- Transition to healthy & sustainable diets: shifting food environments and consumer behavior to promote sustainable consumption of safe, healthy, nutritious, affordable, accessible, equitable and culturally acceptable tasteful foods while tackling malnutrition and promoting health

CHANGE THE WAY WE GOVERN FS (GOVERN)

- Ensure effective and inclusive governance of the transition towards safe and sustainable EU food systems
- Support the use of evidence-based levers, incentives and steering mechanisms for local, national, EU and global transition pathways

Thematic Areas

CHANGE THE WAY WE PROCESS AND SUPPLY (SUPPLY)

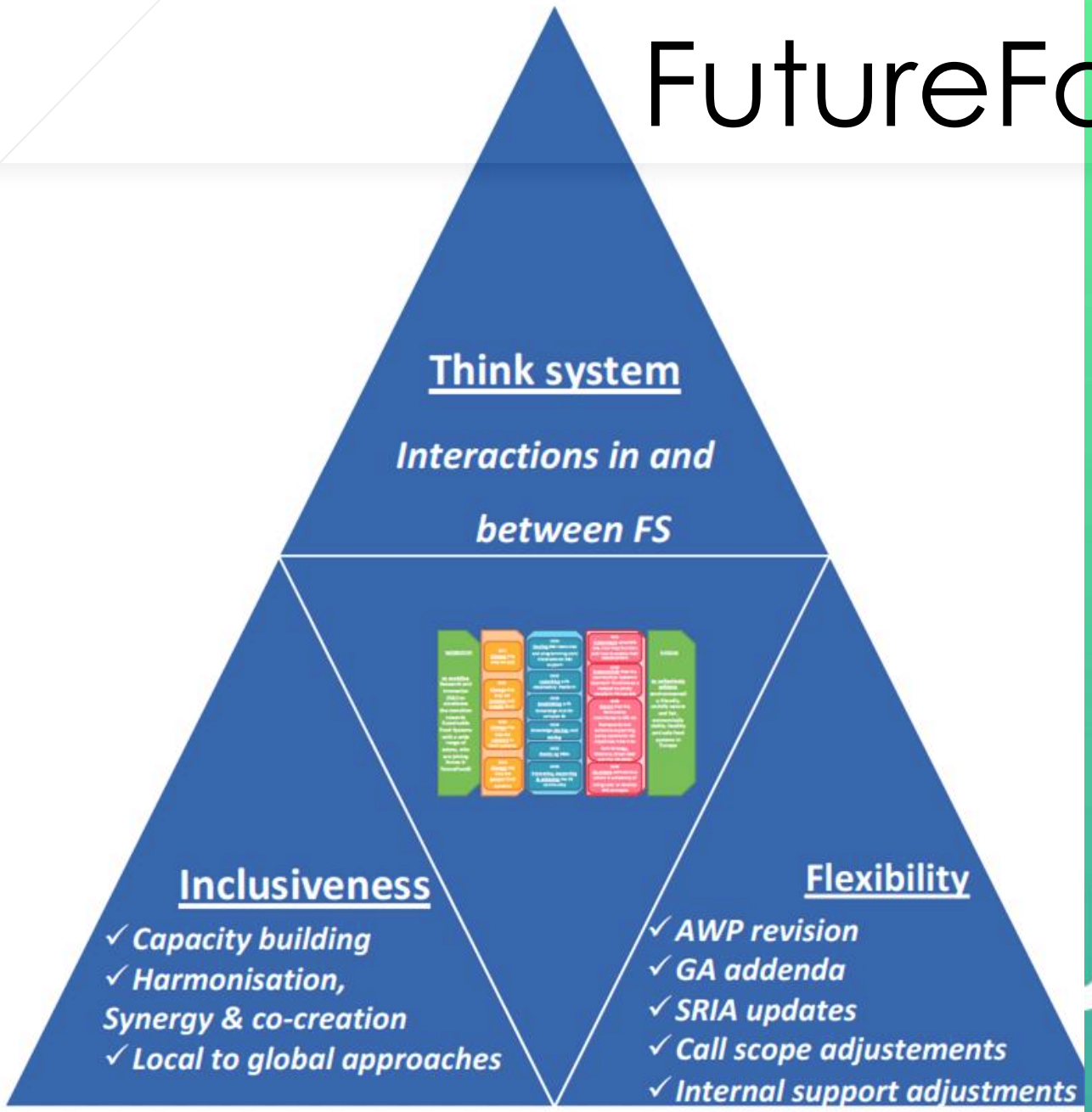
- Supply-side innovation towards carbon neutrality and circularity, reorienting the food environment to support healthy and sustainable diets

CHANGE THE WAY WE CONNECT (CONNECT)

- Citizen engagement and consumer trust in reorienting food systems

Our elaboration on SRIA model

FutureFoodS principles



SubTasks coordinators and SRIA content

Focus Area (F.A)	Title All topics considered from a systems approach	Key Issues	Sub-Task leaders
R&I 1	**Change the way *we eat***	Safe, healthy and sustainable food are standard in the food environment, enabling dietary shifts	**Beatrice Morio**
R&I 2	**Change the way *we process and supply food***	supply-side innovation towards carbon neutrality and circularity, reorienting the food environment	**Giis Kleter**
R&I 3	**Change the way *we connect with food systems***	Citizen engagement and consumer trust in reoriented food systems	**Annick Vignes**
R&I 4	**Change the way *we govern food systems***	Leverage points for local, national, EU and global transition pathways - incentives and co-creation	**Stephane Lemarié**

CO-DESIGNING A SRIA REFINEMENT METHODOLOGY

Basis for the ACTIVITY comes from the **SRIA 2022**

1. Elaborating a simplified version of the 4 R&I areas:
    - Simplifying the focus areas narratives
2. Understanding remaining needs and gaps:
    - Portfolio analysis
    - Literature review
3. Elaborating a revised draft of the **4** R&I **Areas**
4. Public consultations (MS; other stakeholders networks) on the first draft
5. **Final version for WP3**

Summary

1st step

September 2024 – November 2024

Conceptual alignment: Food system approach and SRIA pillars

Methodological alignment

2nd step

December 2024 – February 2025

Narrative 1st draft for internal discussion

3rd step

March 2025 – June 2025

SRIA refinement for presentation of 1st draft for open discussion

Meeting in presence with participatory discussion

4th step

July 2025 –September 2025

Open consultation with MS (SCAR FS SWG)

5th step

October – November 2025

Final draft to be handed to WP3

Will provide a framework for topics and joint activities/define the actions to be undertaken

Will serve as a basis for an annual work plan for the open calls of the partnership

Public consultation

- *Funders board*
- SCAR FS SWG
- *Futurefoods Scientific Stakeholders Advisory Board*
- *CLEVERFOOD*

Time Line – Consultation process

Consultations with WP3

Consultations with WP3

Internal and Open consultations with other experts

Consultations with MS/ SCAR FS SWG

June 2024	**August – September**	**October**	**November**	**Dec 2024 – Feb 2025**	**February 2025**	**March-May**	**June**	**July- Sept**	**Oct – Nov 2025**
Kick off meeting	establishing Sub tasks teams	Conceptual alignment of sub-tasks teams	Methodological alignment of sub-tasks teams	**Literature review** **Portfolio analysis**	First draft of the narrative due by each team	Alignment of the SRIA narrative	1st meeting in presence 1st draft of the SRIA	MS Consultation	2nd version of the SRIA

Consultations with Funders' Board and SSAB
+
diverse stakeholder networks: i.e. CLEVERFOOD

Consultations to reach consensus about final SRIA

Portfolio analysis methodology

Portfolio analysis - Projects Mapping

Keywords

- Food systems
- Food systems approach
- Food systems transition
- Food systems resilience
- Food systems innovation
- Food systems sustainability
- Food systems governance

Databases

- **CORDIS (https://cordis.europa.eu/en)**

- KEEP.EU (https://keep.eu/)
- EIP– AGRI (https://ec.europa.eu/eip/agriculture/en/eip-agri-projects)
- ERASMUS + (https://erasmus-plus.ec.europa.eu/it/projects)
- SUSFOOD ERA-NET (https://susfood-db-era.net/main/)
- ERA LERN (https://www.era-learn.eu/)
- LEAP4FNSSA project database (https://library.wur.nl/WebQuery/leap4fnssa-projects?record-status=complete&wq_srt_desc=leap4fnssa/@isn)
- FOSC ERA-NET Cofund Food Systems and Climate (https://www.foscera.net/en/foscera/Projects.htm)
- ICT-AGRI-FOOD (https://ictagrifood.eu/)

Projects Mapping: selection criteria

Temporal criteria
End date: from 01-01-2022

Project typology
EU funded (H2020 and beyond)

Geographical criteria
Multi-regional projects (particular involving Eastern countries or non-member states)

Obligatory thematic criterion

- Adoption of a **FS approach** (either implicit or explicit)

Priority thematic criteria

- Targeting of the **post-harvest phase**
- Considering representative and illustrative **case studies**
- Considering various **building blocks (>1)** of the food systems
- Based on **interdisciplinary** research strategies
- Adopting **multi-stakeholder approach** and participatory methods of research

Excellence thematic criteria

- Providing **novelties** (theoretical, methodological, technical)
- Providing new **indicators of impact, sustainability, and resilience**
- Developing **scenario analyses**
- Creating new **datasets or inventories**
- Availability and **accessibility of results** (at present)

Methodology: a co-designed portfolio analysis + literature review

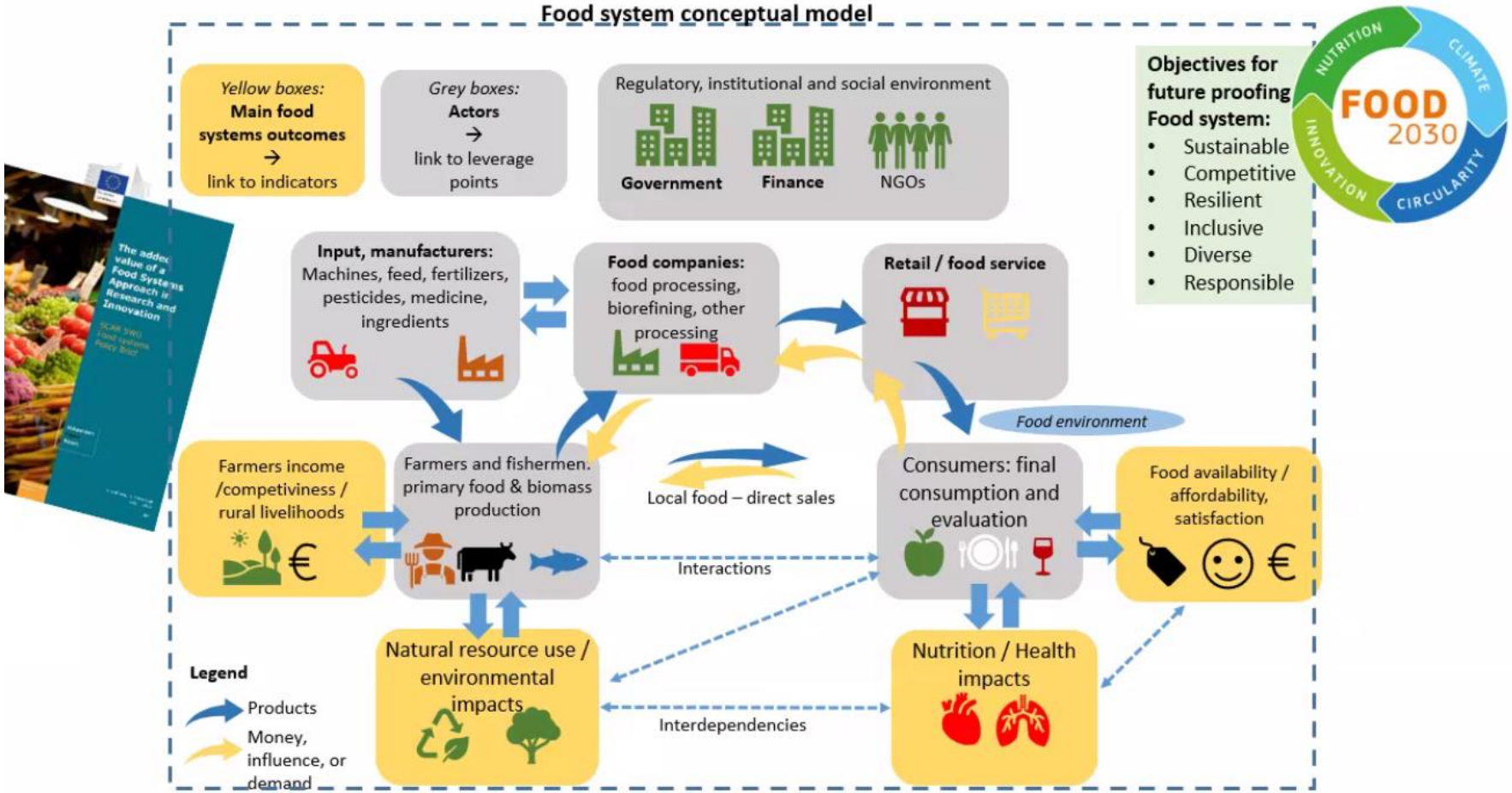
- **Co-design of the portfolio methodology** and **participatory results discussion and validation** with FS SWG competent experts

- Participatory research steps:
  1. **Projects Mapping *(purposeful sampling)***: inventorying **EU funded R&I projects** that apply a **FS approach** based on a review of projects published in the public domain

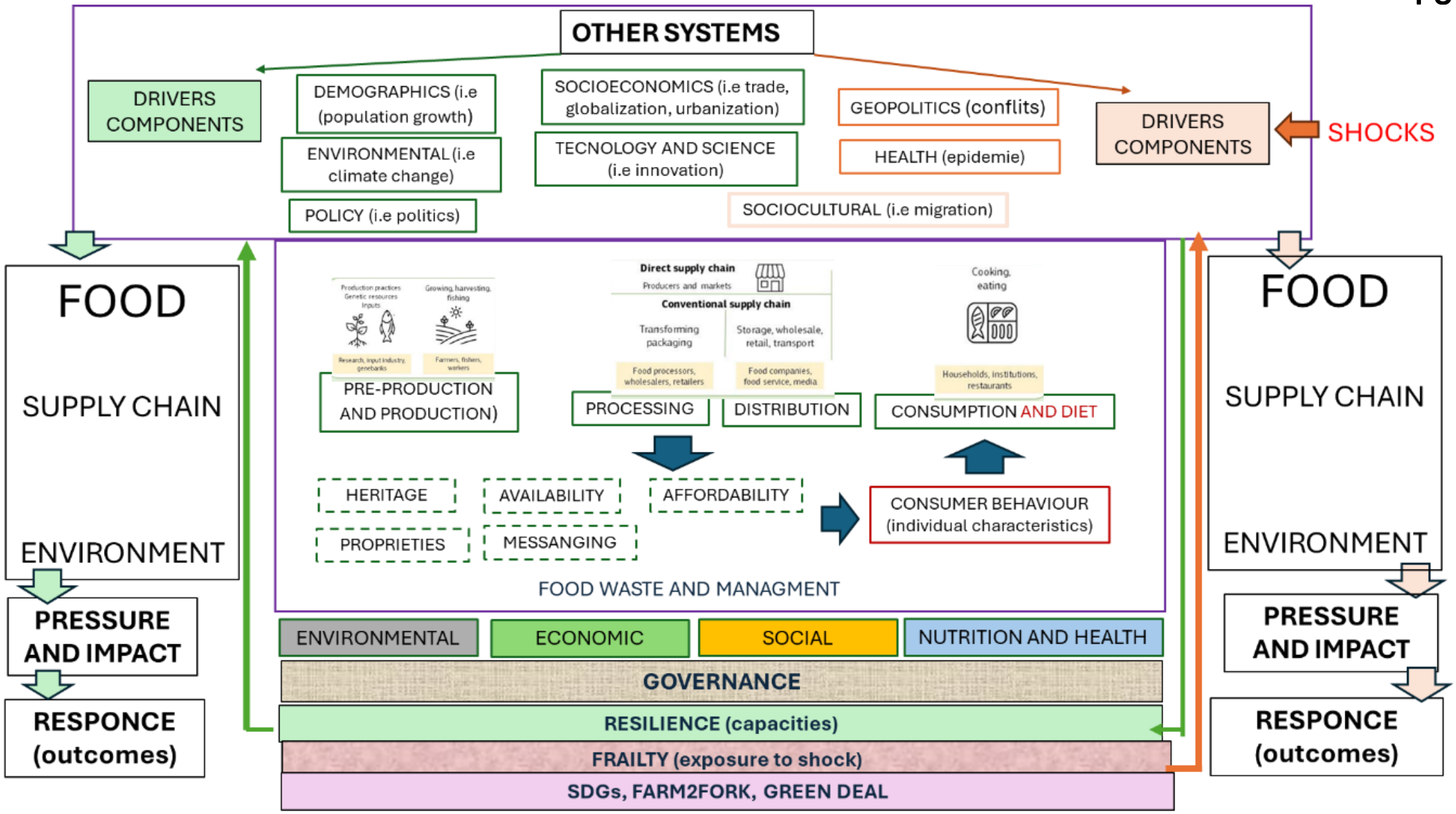
  2. **Projects overview analysis and synthesis *(quali-quantitative methods):*** identification of **R&I actions relevant characteristics, achievements, and gaps** with reference to a list of **co-identified descriptors**
  3. **Data gathering, elaboration and narrative synthesis** towards the identification of relevant **R&I needs** contributing to the **SRIA development and implementation**

A Food Systems approach towards R&I

- A **food systems-based approach towards R&I** that puts **actors, their activities and interactions among them in a central position**
- **understand the interdependencies in terms of how actions towards one actor's objectives may create a feedback reaction from other parts** of the FS, which again influences future actions and outcomes
- help **identifying effective levers for change**



(Halberg and Westhoek, 2019)



CREA (2025) – Contribution to the Futurefoods Food Systems Observatory Position Paper

2nd instalment : june 2025

New comers are welcome

Join our activities & get in touch!

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WEBSITE

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