

Joint Programming Initiative  
on Agriculture, Food Security  
and Climate Change

FACCEJPI.NET

# EUROPEAN COOPERATION FOR A SUSTAINABLE FUTURE



FACCE-JPI  
In brief



FACCEJPI

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FACCE-JPI Strategic Research Agenda 2020.  
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# INTRODUCTION

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The Joint Programming Initiative on Agriculture, Food Security and Climate Change (FACCE-JPI) was launched in 2010, and currently brings together 24 member countries<sup>1</sup>. Its aim is to build the European Research Area (ERA) tackling the challenges at the intersection of agriculture, food security and climate change that cannot be addressed solely at the national level. This is being realised through the alignment and integration of national and European research programmes, the funding of new research programmes, and through exploring innovative approaches for the member countries to work together to address the challenge of ensuring a secure food supply to an ever-increasing global population in the context of climate change.

**In the last years, climate change and food and nutrition security have become high-level priorities in the policy agenda both at national and global levels.**

The lessons learned during the first decade of FACCE-JPI and the new scientific evidence gathered in this period constitute a solid background for the new Strategic Research Agenda (SRA) in order to best respond to these challenges as well as to current policy needs.

<sup>1</sup> Austria, Belgium, Czech Republic, Cyprus, Denmark, Estonia, Finland, France, Germany, Hungary, Ireland, Italy, Latvia, Lithuania, The Netherlands, Norway, Poland, Romania, Spain, Sweden, Switzerland, Turkey and the United Kingdom. New Zealand joined as an Associate Member in 2016.



## INTRODUCTION

This FACCE-JPI In Brief is an executive summary of the [FACCE-JPI Strategic Research Agenda](#) and provides information on achievements so far.



### **FACCE-JPI Vision**

A European Research Area addressing sustainable and resilient agricultural production systems to provide adequate and nutritious food and to contribute to a climate neutral Europe by 2050.

### **FACCE-JPI Mission**

Aligning and co-designing research, and delivering knowledge for addressing the challenges of sustainable and resilient agricultural production systems integrating the climate system, the food system and the ecosystem.

# The FACCE-JPI member countries

Austria  
Belgium  
Cyprus  
Czech Republic  
Denmark  
Estonia  
Finland  
France

Germany  
Hungary  
Ireland  
Italy  
Latvia  
Lithuania  
The Netherlands  
Norway

Poland  
Romania  
Spain  
Sweden  
Switzerland  
Turkey  
United Kingdom

New Zealand



# AMBITIONS AND OPPORTUNITIES

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The 2020-2027 Strategic Research Agenda takes stock of FACCE-JPI's history and the current urgent research needs and policy context, both European and international. The FACCE-JPI mission implies that research activities and resources will be concentrated on agricultural production systems but with a strong consideration of interactions with

- i) the food system,
- ii) the climate system and
- iii) the ecosystem and possible system shocks.

A systems approach will include a strong link between production and the climate system. Agriculture is one of the components of food and nutrition security and its role will be to produce safe, nutritious, culturally acceptable agricultural products without exceeding planetary boundaries. FACCE-JPI research will consider developments in food and material processing, retailing strategies, standards and related feedbacks

for the design, organisation and management of agricultural production systems at farming, landscape, country and global levels.

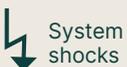
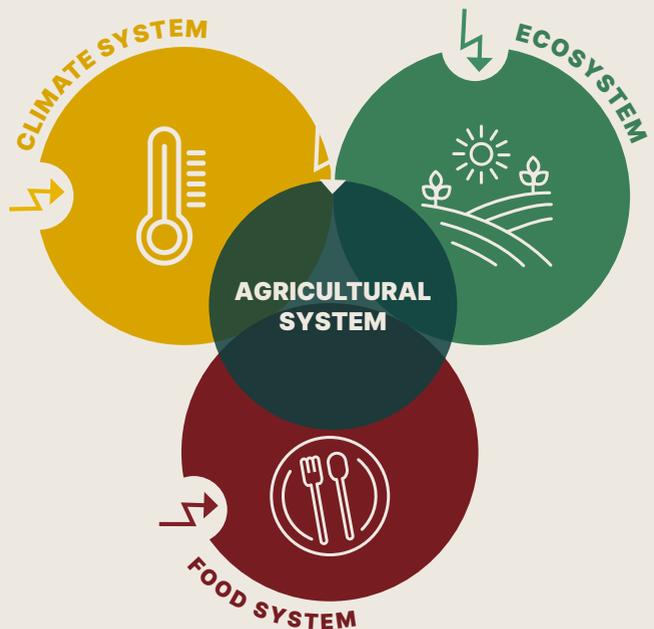
FACCE-JPI will continue its activities to better understand, manage and change agricultural production systems to anticipate climate adaptation and mitigation targets.

**The pledge to climate neutrality requires a clear identification of agricultural systems that have the potential to meet this standard.**

Progress in agroecological research will be central to the development of sustainable production systems. Therefore, interactions between agricultural production and the surrounding ecosystem in response to alerts from international panels regarding biodiversity losses, degrading natural resources and environmental pollution will receive particular attention by FACCE-JPI.

Sustainability concerns the assessment of ecological, economic, social, health and ethical considerations, with the related trade-offs. Hence, FACCE-JPI will also explicitly support research activities to better understand and optimise synergies and trade-offs among multiple sustainability goals to guide the management and design of new agricultural production systems. And it will do so comprising the Responsible Research and Innovation (RRI) approach.

## FACCE-JPI systems approach



# POLICY CONTEXT

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The challenges that FACCE-JPI aims to address are complex, and increasingly so, on the European and global policy agendas. These policies must orient future FACCE-JPI research and in turn be informed by the results coming from FACCE-JPI actions.

Many of the seventeen United Nations Sustainable Development Goals (SDGs) are relevant to the food system. These range from ending hunger and improving nutrition (SDG2), ensuring sustainable consumption and production patterns (SDG12), taking urgent action to combat climate change and its impacts (SDG13) to stopping land degradation and loss of biodiversity (SDG15).

The Paris Agreement, 2015, aims to combat climate change and to accelerate and intensify the actions and investments needed for a sustainable low carbon future. It recognises the fundamental priority of safeguarding food security and the specific vulnerability of food production to the adverse impacts of climate change.

The European Union engagement to reduce emissions by 40% is framed in the 2030 climate and energy framework. The 2020 European Green Deal sets an ambitious target to make the EU carbon-neutral by 2050. The Green Deal is a roadmap with specific actions that include the Farm to Fork strategy and the Biodiversity Strategy.

**FACCE-JPI plays a role in the Horizon Europe missions “Soil health and food” and “Adaptation to climate change including societal transformation” and the partnerships “Towards more sustainable farming: agro-ecology living labs and research infrastructures” and “Safe and Sustainable Food System for People, Planet and Climate”.**

The Farm to Fork strategy, especially relevant to FACCE-JPI, specifies that food must remain safe, nutritious and of high quality and be produced with minimum impact on climate, the environment and natural ecosystems.

The new Common Agricultural Policy (CAP) proposal emphasises Agricultural Knowledge and Innovation Systems (AKIS) and thereby promotes science-practice-policy interfaces.

Other EU policies relevant to FACCE-JPI are the Water Framework Directive, including the Nitrates Directive and the Habitats Directive; the Sustainable Use of Pesticides Directive and the European Protein Plan.

Horizon Europe, a robust and ambitious framework programme for research and innovation, aims to increase the effectiveness of funding by pursuing defined targets.



# CORE THEMES

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In four core themes, the [FACCE-JPI Strategic Research Agenda](#) outlines a path towards an agricultural sector that respects planetary boundaries, preserves and encourages biodiversity, reduces emissions and inputs, embraces new approaches such as agroecology, and at the same time provides a sufficient and healthy diet as well as fair economic return for the producers.



## Core theme 1

### **An agricultural sector that contributes to climate neutrality**

Investigates the changes needed to reduce the agricultural contributions to climate change. This includes the reduction of greenhouse gas (GHG) emissions, and the improvement and conservation of carbon storage, driven by technology development and changes in agricultural practices and dietary habits.



## Core theme 2

### **Sustainable and resilient agriculture**

Focuses on the need to transition to more resilient farming practices, better adapted to the impacts of climate change. For this, major changes to adapt to societal and economic developments are needed and the value of ecosystem services has to be recognised. The associated risks require careful management in order to establish successful resilient farming enterprises fulfilling all dimensions of sustainability.

**FACCE-JPI will continue its activities to better understand, manage and change agricultural production systems to anticipate climate adaptation and mitigation targets.**



### Core theme 3

#### **Nutrition-sensitive agricultural production for food security**

Addresses the need to provide sufficient, healthy and nutritious food for all. It highlights the changes necessary to get away from a diet mainly based on available calories and to go towards diverse diets based on nutritional quality. Dietary diversification and a focus on nutritional quality will not only help to increase the diversification of production systems but also support attempts to tackle serious issues such as malnutrition and obesity.



### Core theme 4

#### **Trade-offs and synergies between food production, ecosystems and climate**

Will enhance our understanding of the trade-offs and synergies between food security, biodiversity, ecosystems and climate and create decision support for end users. For this, better attention to ethical issues is needed as well as closer connection between science and policy, and the improvement of methodologies to establish the economic value of ecosystem services.

# GOVERNANCE

FACCE-JPI consists of 23 European members and New Zealand as an associated member, with a governing structure that not only connects relevant national ministries, policy makers and funding organisations but also has access to and is guided by the latest scientific expertise and stakeholder advice.



## Governing Board (GB)

- Representatives of the 24 participating countries
- Decision making body



## Scientific Advisory Board (SAB)

- 14 independent scientists with high-level expertise
- Advises on research priorities
- Participates in scoping and evaluation of FACCE-JPI actions



## Preparatory Working Group (Prep WG)

- GB Chair, Vice-Chairs and other GB members
- Contributes to the preparation of meetings and decision taking



## Stakeholder Advisory Board (StAB)

- 28 stakeholder organisations
- Advises on how to increase relevance, enhance dissemination and societal impact of FACCE-JPI actions



## Executive Secretariat

- With staff of a consortium of organisations: BBSRC-UKRI, JÜLICH, WUR, INRAE (coordinator)
- Supports the three Boards and is responsible for the day-to-day operations of FACCE-JPI

**FACCE-JPI addresses global  
issues through coordinated  
national efforts.**



# FACCE-JPI

From 2010 to our future

**+150**  
past and current  
projects

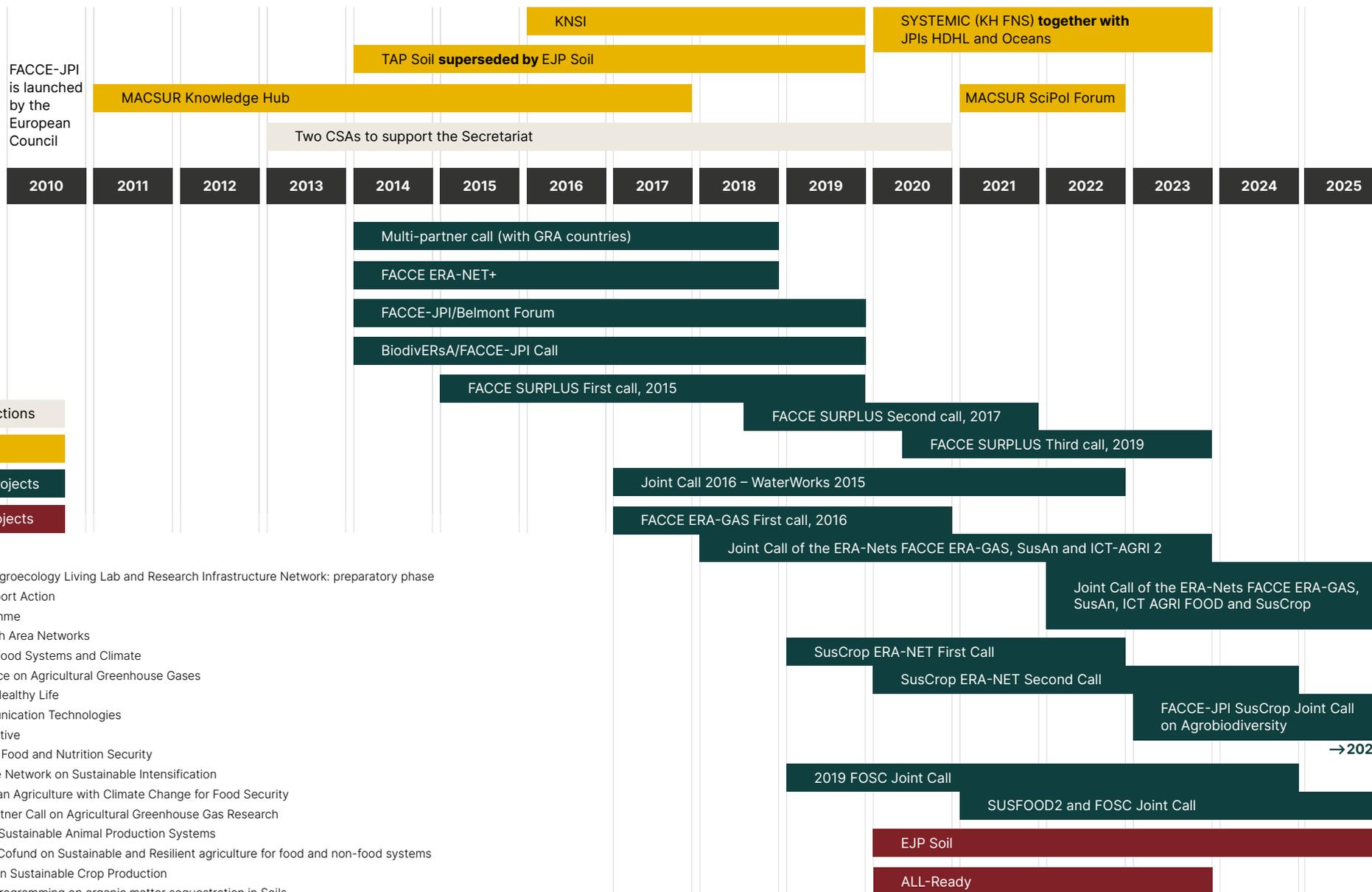
**+260M€**  
mobilised

**+600**  
organisations  
involved

**+1800**  
scientists doing  
cutting edge research

**+1000**  
peer-reviewed  
articles

## KEY ACTIVITIES



**ALL-Ready:** The European Agroecology Living Lab and Research Infrastructure Network: preparatory phase

**CSA:** Coordination and Support Action

**EJP:** European Joint Programme

**ERA-Net:** European Research Area Networks

**FOSC:** ERA-Net Cofund on Food Systems and Climate

**GRA:** Global Research Alliance on Agricultural Greenhouse Gases

**HDHL:** A Healthy Diet for a Healthy Life

**ICT:** Information and Communication Technologies

**JPI:** Joint Programming Initiative

**KH FNS:** Knowledge Hub on Food and Nutrition Security

**KNSI:** FACCE-JPI Knowledge Network on Sustainable Intensification

**MACSUR:** Modelling European Agriculture with Climate Change for Food Security

**Multi-partner Call:** Multi-partner Call on Agricultural Greenhouse Gas Research

**SusAn:** ERA-Net Cofund on Sustainable Animal Production Systems

**FACCE SURPLUS:** ERA-Net Cofund on Sustainable and Resilient agriculture for food and non-food systems

**SusCrop:** ERA-Net Cofund on Sustainable Crop Production

**TAP Soil:** Thematic Annual Programming on organic matter sequestration in Soils

# COOPERATION

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The [FACCE-JPI Strategic Research Agenda](#) is delivered through Implementation Plans (IPs) that cover 2-3 year periods. Research priorities are identified through an iterative process, involving the Governing Board, the Scientific Advisory Board and the Stakeholder Advisory Board.

The FACCE-JPI IPs allow participating countries to find new ways to work together to achieve harmonisation and streamlining of national research. With the goal of achieving the common Strategic Research Agenda, FACCE-JPI promotes three main types of transnational activities: aligning already funded national projects and programmes; supporting new research; and exploring new avenues of research. It has combined these approaches to work towards the top-level aim of Joint Programming Initiatives which is to ensure that the European Research Area is achieved through national efforts in key societal challenges complementing European Union programmes.

With that goal, this Joint Programming Initiative uses a variety of instruments to implement its programmes including calls for research projects (in several cases through an ERA-Net action) but also more innovative alignment instruments developed by FACCE-JPI such as the Knowledge Hub or the Knowledge Network, Thematic Annual Programming and exploratory workshops.

In Horizon Europe, FACCE-JPI contributes to the development of European partnerships, mainly on agroecology and on food systems.

**FACCE-JPI has developed more than 50% of its actions in cooperation with other European and international initiatives.**

As described in the [FACCE-JPI European and International Strategy 2016–2020](#), collaboration with other European and international initiatives is explored and undertaken. FACCE-JPI has established links to an extensive range of other initiatives, including other JPIs (in particular JPI

Climate, JPI Water, JPI Healthy Diet for a Healthy Life, JPI Oceans), ERA-Nets, international initiatives (for example the Global Research Alliance on Agricultural Greenhouse Gases, the 4 per 1000 initiative etc.).



# COMMUNICATION AND IMPACT

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Effectively addressing our societal challenges means ensuring that results are relevant, available to various end users and of high quality. Each new action begins by a scoping activity bringing together the views of the Governing Board, representing national interests, the Scientific Advisory Board for scientific guidance and the Stakeholder Advisory Board for desired impacts and most often other relevant experts and policy makers.

A second step is stakeholders' involvement in the research projects from design to execution and completion in a multi-actor approach. This allows co-creation of knowledge and the development of solutions tailored to specific contexts and users.

A third step is making sure that the results are accessible. In addition to the scientific publications resulting from FACCE-JPI projects, [communication tools](#) addressing a broader audience are used.

Moreover, FACCE-JPI has dedicated significant efforts to making researchers aware of the need to provide results to policy makers and other end users. Certain actions are entirely dedicated to bridging science and policy such as the SciPol Knowledge Forum that is a follow up from the MACSUR Knowledge Hub. FACCE-JPI will continue these efforts, in particular through the FACCE-JPI Project Wheel, an interactive tool that allows all FACCE-JPI projects to be visualised according to specific criteria.

**Dialogue must be promoted between the scientific community, policymakers, stakeholders/end users and funders.**

Additionally, FACCE-JPI has adopted a [Monitoring and Evaluation framework](#) that defines three targets to ensure the high quality of the research:



## Target 1

**Improving the alignment** of national and European research programmes.



## Target 2

**Increasing high quality** transnational research activities within the areas of food security, agriculture and climate change.



## Target 3

**Improving the societal impact** of research on the challenge of food security, agriculture and climate change.

This goal-oriented monitoring and evaluation process can support the effective implementation of the initiative to achieve its objectives. Monitoring, evaluation and impact assessment will enable learning from past successes and challenges for future decision-making.

**Our work will help  
decision makers  
together with the  
scientific community  
to find solutions, which  
secure food for all  
and at the same time  
respect our planet's  
boundaries.**



Discover our FACCE-JPI Project Wheel  
[PROJECT-WHEEL.FACCEJPI.NET](http://PROJECT-WHEEL.FACCEJPI.NET)



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