



# FACCE-JPI: towards Sustainable Agriculture in a Changing Climate



Joint Programming  
Initiative on  
Agriculture, Food Security  
and Climate  
Change

**FACCEJPI**

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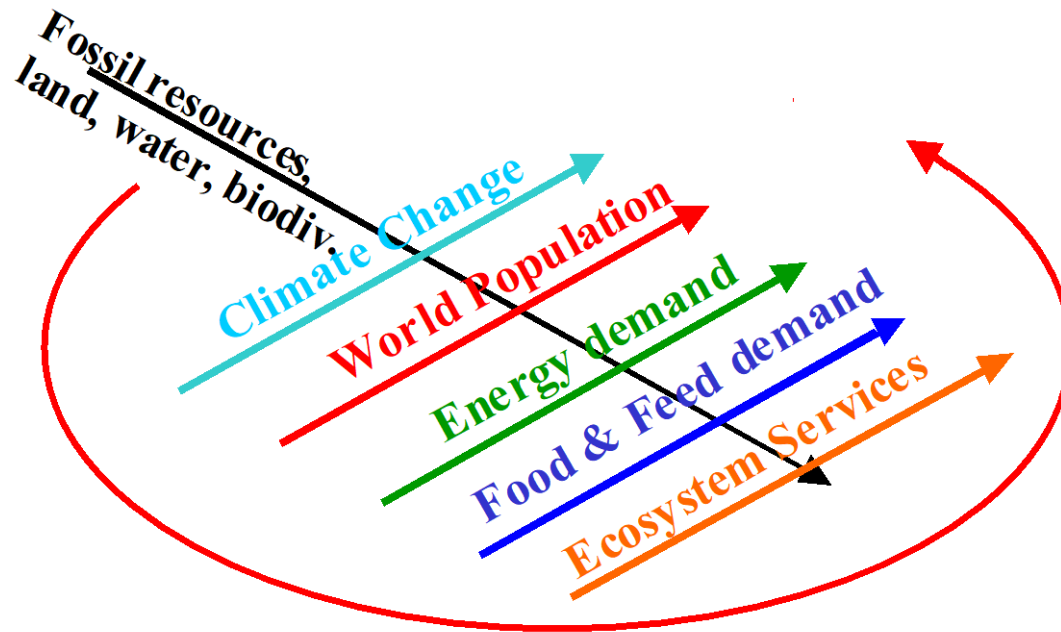
CropBooster meeting, June 9, 2021





# The Context

# A perfect storm

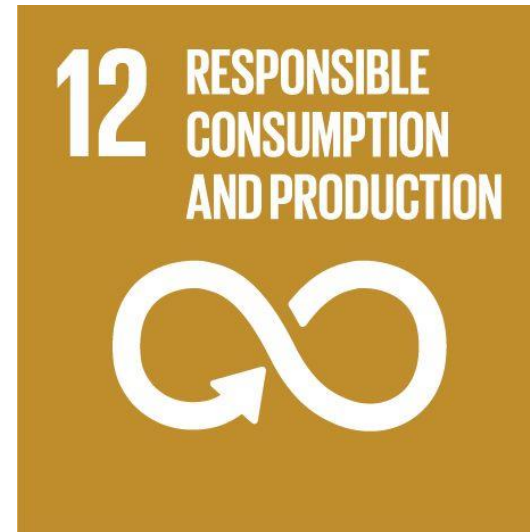


A "perfect storm" of food shortages, scarce water and insufficient energy resources threaten to unleash public unrest, cross-border conflicts and mass migration as people flee from the worst-affected regions.

**Prof. John Beddington, former UK Chief Scientific Adviser, 2009**



# Four Sustainable Development Goals







# From Farm to Fork

The European Green Deal

December 2019  
#EUGreenDeal

European food must remain safe, nutritious and of high quality. It must be produced with minimum impact on nature.

## In EU budget 2021-2027

➤ **40%** of Common Agriculture Policy should contribute to climate action

➤ **30%** of the maritime fisheries fund should contribute to climate objectives



## In spring 2020, the Commission will present a Farm to Fork Strategy to:



make sure Europeans get affordable and sustainable food



tackle climate change



protect the environment



preserve biodiversity



increase organic farming



# Bringing nature back into our lives

EU 2030 Biodiversity strategy

May 2020  
#EUGreenDeal



*"Making nature healthy again is key to our physical and mental wellbeing and is an ally in the fight against climate change and disease outbreaks. It is at the heart of our growth strategy, the European Green Deal, and is part of a European recovery that gives more back to the planet than it takes away."*

Ursula von der Leyen, President of the European Commission



Climate change, the unprecedented loss of biodiversity, and the spread of devastating pandemics are sending a clear message: it is time to fix our broken relationship with nature.

The Biodiversity Strategy will put Europe's biodiversity on the path to recovery by 2030, for the benefit of people, climate and the planet.



## Why do we need to protect biodiversity?

➤ Biodiversity is **essential** for life. Our planet and the economy depend on it. When nature is healthy, it protects and provides.

Biodiversity and ecosystems provide us with food, health and medicines, materials, recreation, and wellbeing. They filter our air and water, help keep the climate in balance, convert waste back into resources, pollinate and fertilise crops and much more.

**Nature provides for businesses:** half of global GDP, €40 trillion, depends on nature.

➤ We are **losing nature** like never before because of unsustainable human activities.



The global population of wild species has fallen by **60% over the last 40 years.**

**1 million species are at risk of extinction.**

# Agriculture and food production are impacted by climate change; yet at the same time they also contribute to climate change...

- Weather extremes, droughts and floods are negatively affecting crop and livestock production in Europe and beyond, hence impacting food availability/security
- At the same time, the agricultural sector is directly accountable for 14-15% of global GHG emissions and has put pressure on natural resources
- If nothing changes, these negative effects are likely to increase further due to increasing food demand in the future (9.7 bn people to feed by 2030!)
- The agricultural sector can help mitigate climate change (e.g., via soil carbon storage, climate smart agricultural practices)



**Joint efforts needed to examine how agricultural production, food security and CC mitigation and adaptation can be achieved**



A photograph of a dry, cracked earth surface. The ground is light brown and has formed a network of irregular, polygonal cracks. Small green plants are growing in the cracks, particularly on the right side of the image. The text "What is Joint Programming" is overlaid in the center in a white, bold, sans-serif font.

# What is Joint Programming



# Joint Programming



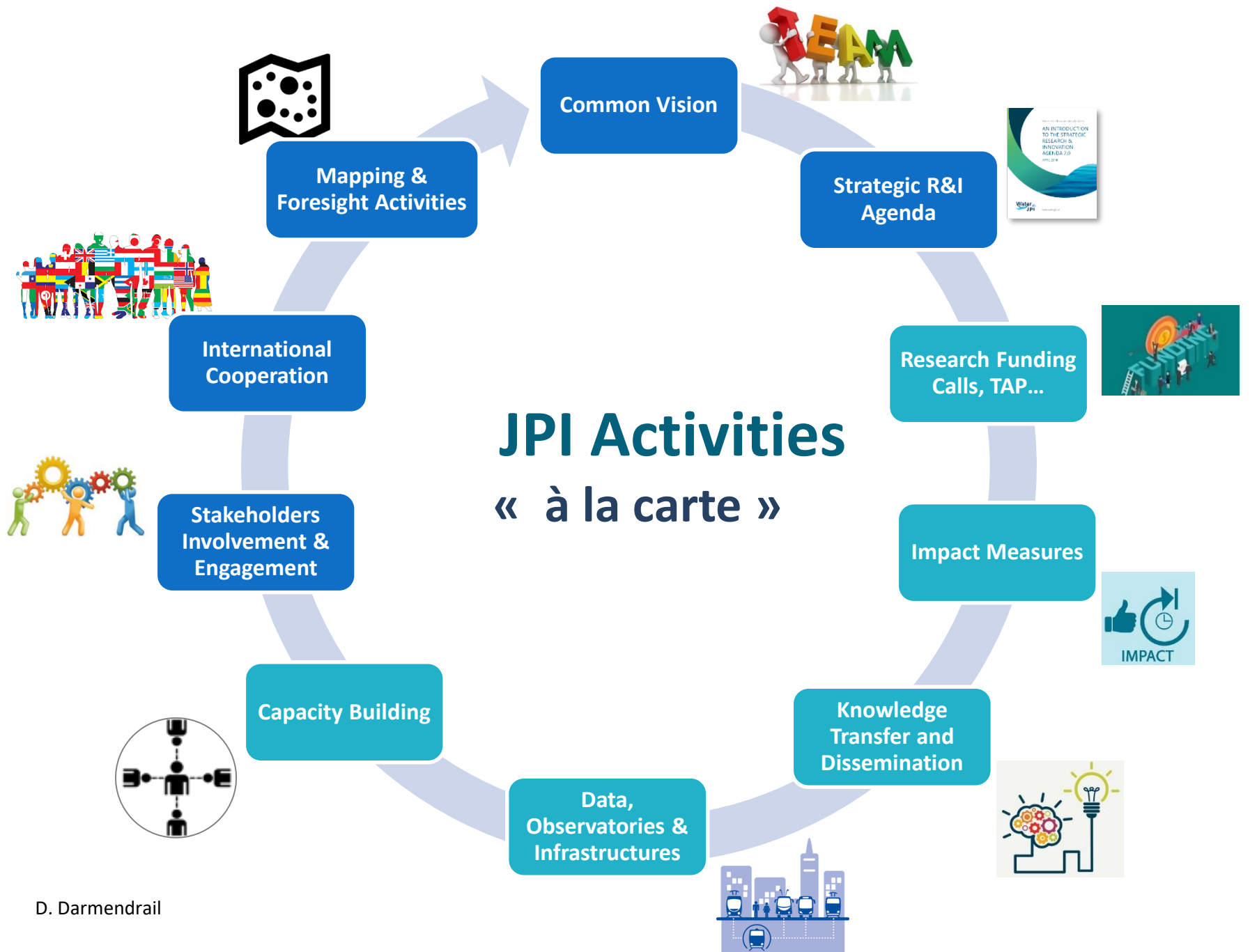
## Tackling Grand Challenges through (at least) European cooperation in a structured way:


- coordinating national / regional, public research, development and innovation programmes in Europe and beyond (members)
- developing joint multilateral activities
- aligning national research programmes in an effective manner
- making better use of limited public RDI funding
- extending links to various international initiatives
- contributing to a European Research Area.

## Implementation principles:

- Variable geometry
- Flexibility
- Everything in Common, except the funding  
(Each country pays for its researchers / contributors to joint activities)







**Joint Programming Initiative  
on Agriculture, Food Security  
and Climate Change (FACCE-JPI)**



# FACCE-JPI: Key Facts

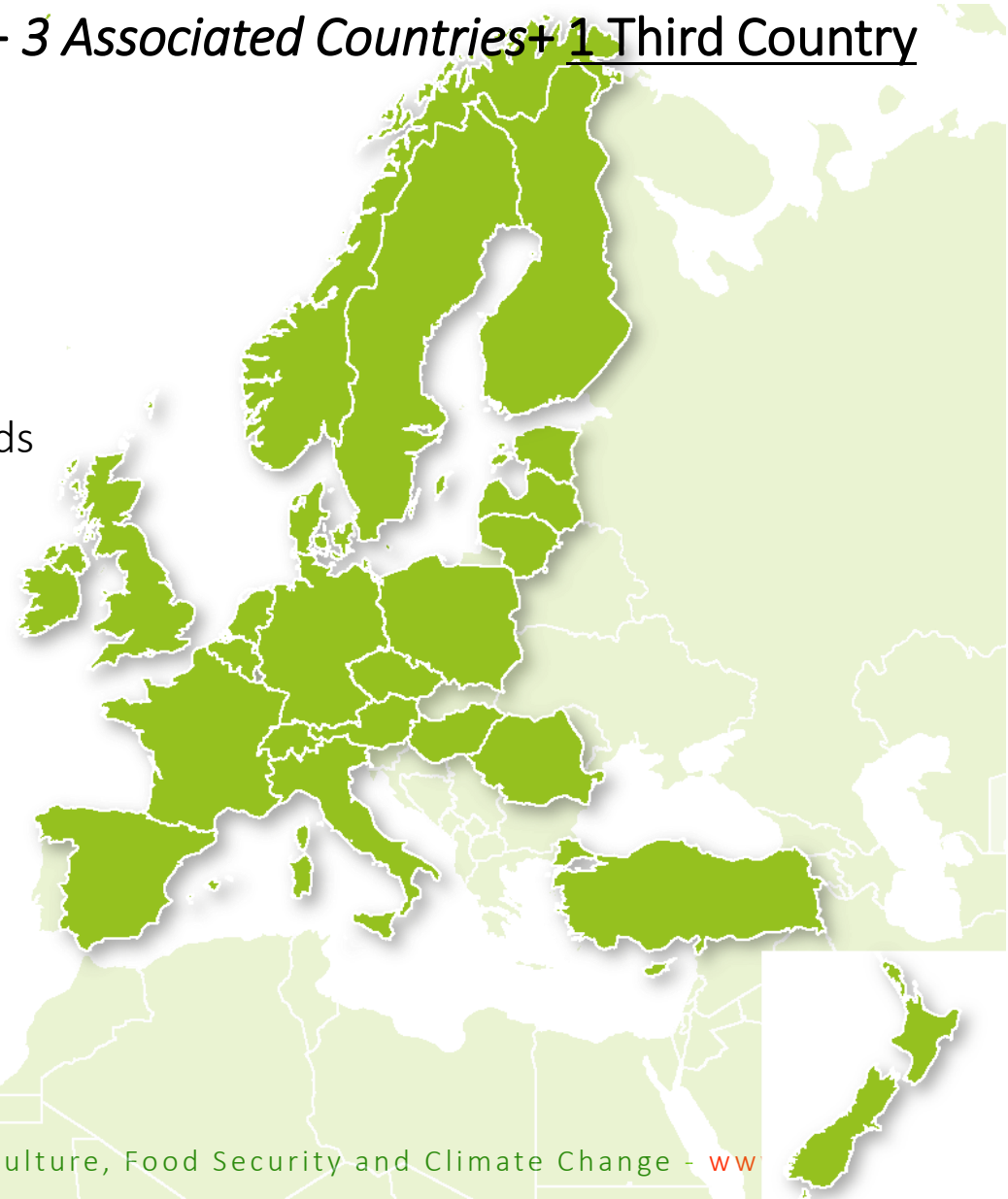
- Launched by European Council of the EU in 2010
- 24 Member-Countries (of which New Zealand as Associate Member); 2 observers (EC, EU Standing Committee on Agricultural Research)
- Managed by 1 Governing Board ; 2 Advisory Boards (independent scientists and stakeholder organisations)
- Secretariat coordinated by France and financially supported by the members
- Alignment of national research programmes at the intersection of agriculture-food security-climate change
- Mobilised resources so far: €250 M
- Link with H2020 Societal Challenge 2 (Food Security, Sustainable Agriculture, Water, Bio-economy) and Societal Challenge 5 (Climate Action); Horizon Europe Cluster 6



# FACCE-JPI Global Partnership

20 EU Member States + 3 *Associated Countries* + 1 Third Country

Austria	Lithuania
Belgium	<u>New Zealand</u>
Cyprus	Italy
Czech Republic	The Netherlands
Denmark	<i>Norway</i>
Estonia	Poland
Finland	Romania
France	Spain
Germany	Sweden
Hungary	<i>Switzerland</i>
Ireland	<i>Turkey</i>
Latvia	UK





# FACCE-JPI Vision and Mission

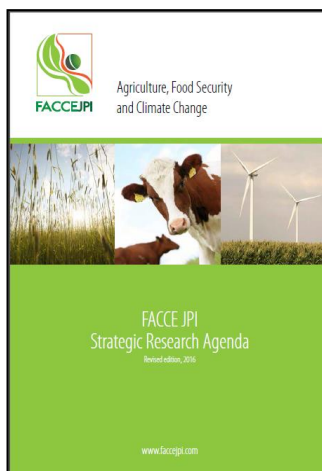
## FACCE-JPI Vision

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.





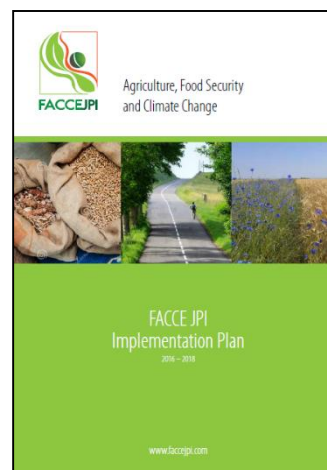
**Vision:** Global Challenge & Strategic Research Areas

**Strategic Research Agenda**  
(2013, 2016, 2020)

**Implementation Plan**  
Multi-year Work Plan

**Joint Actions**

**Dissemination & Valorisation**





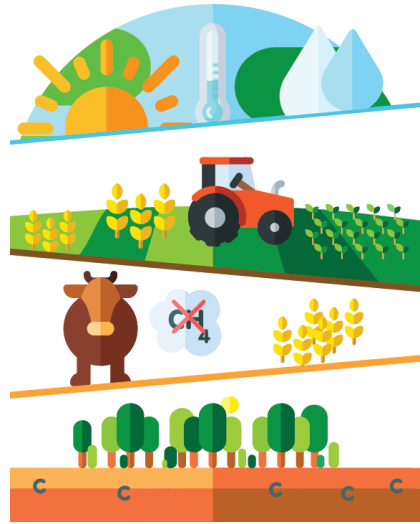
# Updated SRA 2020 – Systems approach



# FACCE-JPI new SRA – 4 Core Themes

## Core Theme 1

An agricultural sector that contributes to climate neutrality



## Core Theme 2

Sustainable & resilient agriculture



## Core Theme 3

Nutrition-sensitive agricultural production for food security



## Core Theme 4

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





# FACCE-JPI Joint Actions

2 CSAs to support secretariat

## ALIGNMENT

Knowledge Hubs: MACSUR 1 + 2, Sci-Pol Hub, Food and Nutrition Knowledge Hub  
Knowledge Network on Sustainable Intensification  
Thematic Annual Programming Network on Soil

## CALLS

Multi-partner call (with GRA countries)  
Call with Belmont Forum  
Call with BiodivERsA  
Call with Water JPI (WaterWorks 2015)  
5 FACCE ERA-NETs

FACCE ERA-NET Plus – 1 call  
FACCE SURPLUS – 3 calls  
FACCE ERA-GAS – 1 « own » call, 2 joint calls  
SusCrop– 2 calls, 1 joint call, 1 upcoming  
FOSC – 1 call, 1 call open

## OTHER

EJP Soil  
ALL-Ready – CSA to prepare Agroecology partnership  
Exploratory and mapping workshops –ca. 25

**50%** of joint actions have been developed in cooperation with other international/EU initiatives (2012-2017).

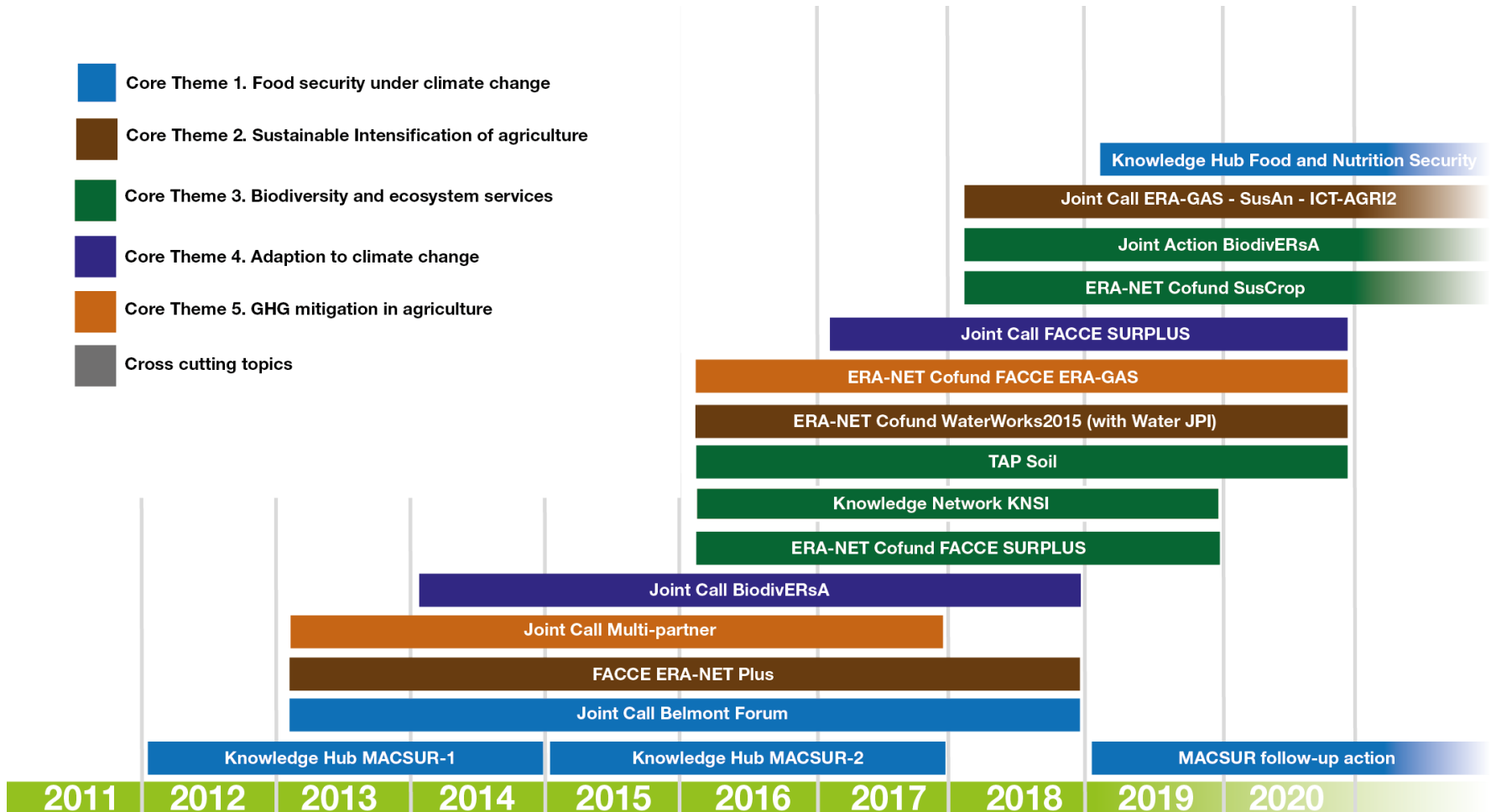
148 past and current projects

250M€ mobilised

<https://project-wheel.faccejpi.net/>

# Overview of activities

## Long running activities



→ Communication, dissemination and valorisation





# FACCE-JPI's ambitions for the future



# Europe can lead the way in transforming agricultural systems

Feeding the world will require a major transformation in the way that we produce, manage and consume food.

Sustainable and resilient agricultural production systems that can at the same time help mitigate GHG emissions and adapt to changing environmental conditions, while providing food and nutrition security.

Rethinking how we produce food, reducing waste and losses, and taking an agroecological approach that safeguards biodiversity and ecosystems services.



### Core Theme 1

An agricultural sector that contributes to climate neutrality

- Contribution to IRC/ EJP external call on soil carbon
- Possible call with JPI Climate on GHG Inventories



- MACSUR Sci-Pol Hub
- ERA-NET Cofund on Climate Change and Food Systems FOSC call 2 (system shocks)
- ERA-GAS/ SusAn/ ICT-Agri/SusCrop joint call *Circularity in combined crop and livestock farming systems*

Green ERA-Hub

### Core Theme 2

Sustainable & resilient agriculture

- SusCrop call 4
- Follow up/ scoping workshop on Urban Agriculture
- FOSC call 2



- ALL-Ready CSA (FNR-01-2020)
- Transnational call on agrobiodiversity

- Food and Nutrition Security Knowledge Hub
- Workshop on Policy coherence for food and nutrition security
- CSA SMS



- Scoping workshop with BioDivClim
- Think tank on integrated FS + transition/ transformation

### Core Theme 3

Nutrition-sensitive agricultural production for food security

### Core Theme 4

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

# FACCE-JPI Implementation Plan 2021-2022





# FACCE-JPI Project Wheel

- <https://project-wheel.faccejpi.net/>
- Objectives: Gather in one place, and make visible, the entire set of projects funded under the “FACCE-JPI umbrella”
- The FACCE-JPI project wheel is an interactive presentation of the research projects undertaken under the FACCE-JPI umbrella since 2010.
- Several entry point:
  - Actions/ Calls
  - Core themes
  - Countries
  - Organisations
  - Policies



## Project Wheel

FACCE-JPI Project Wheel

The FACCE-JPI Project Wheel is an interactive visualisation tool to valorise FACCE-JPI research on food, agriculture and climate change.

Thank you for  
your attention!



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