



#InvestEUresearch

Horizon 2020 Work Programme for Research & Innovation 2018-2020

€1,3 billion

**Food security, sustainable agriculture and
forestry, marine, maritime and inland
water research and the bioeconomy**

Marc DUPONCEL, B-2
European Commission – DG AGRI
Prague, 18 October 2017

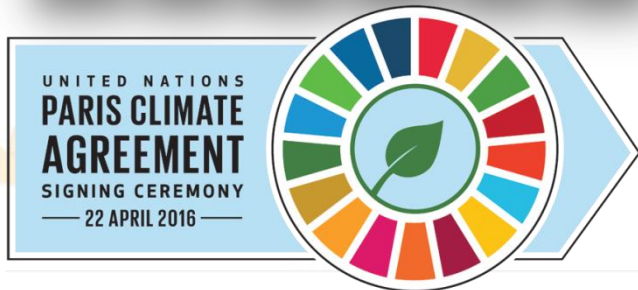
Horizon
2020

Contents

- **Work programme 2018-2020 for Societal Challenge 2 at a glance**
 - Challenges & policy context
 - Five priorities, missions, calls and impacts
 - Topic and budget contributions
 - Open innovation, science, open to the world
 - Cross-cutting dimensions
- **Three Societal Challenge 2 calls**
 - Sustainable food security
 - Blue growth
 - Rural renaissance
- **EIP-AGRI & multi-actor approach**
- **SC2 other activities**
- **Societal Challenge 2 in other calls**
- **Evaluation criteria + tips + resources for applicants**

The policy context

- Global commitments

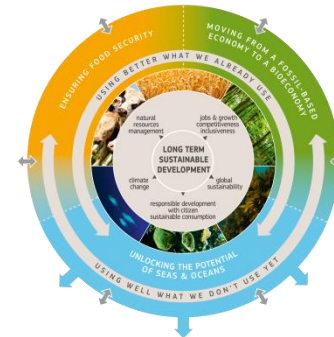


United Nations
Framework Convention on
Climate Change

- European policies



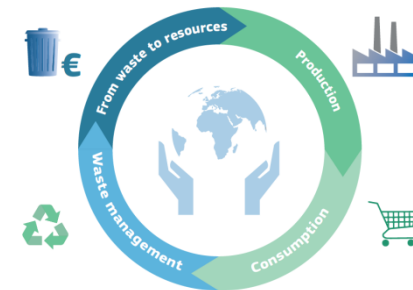
CAP & EIP-AGRI



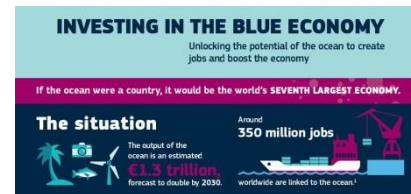
Bioeconomy strategy



Climate & energy



Circular economy



Integrated Maritime and common fisheries policies



Digital single market

The work programme at a glance: five priorities

- Address **climate change and resilience** on land and sea
- Make the transition towards a **circular bioeconomy**
- Foster **functional ecosystems, sustainable food systems, and healthy lifestyles**
- Boost major innovations on land and at sea leading to **new products, value chains and markets**
- Develop **smart, connected territories and value chains** in rural and coastal areas

What we aim to achieve: three missions



Manage our resources wisely to nourish people sustainably



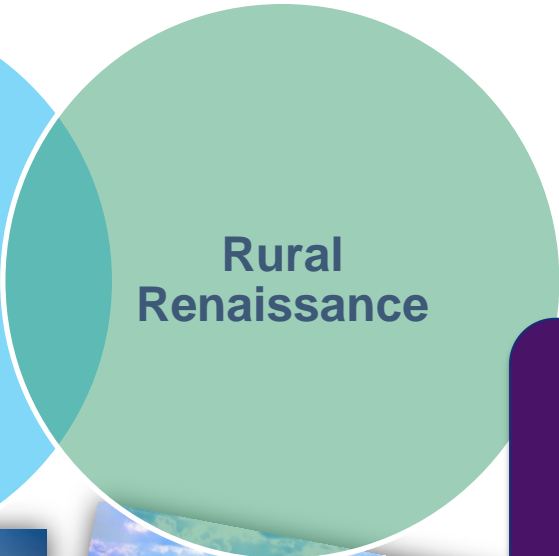
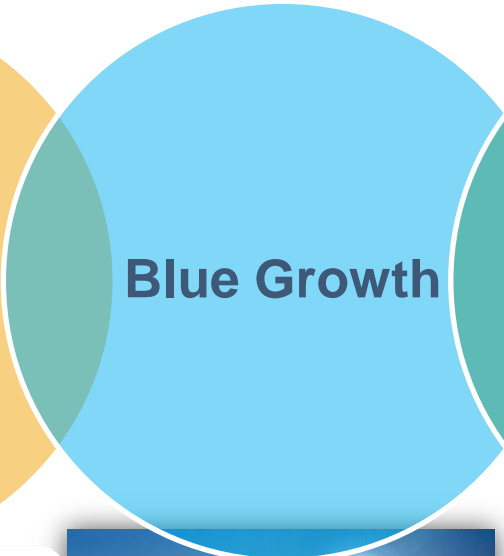
Understand, preserve and valorise oceans



Develop smarter, younger, greener, circular rural economies



Three Societal Challenge 2 Calls

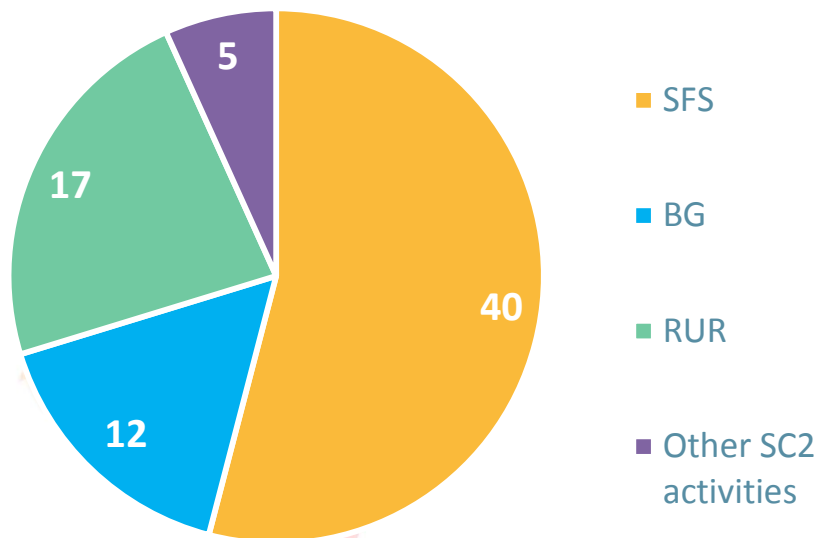


Circular Bioeconomy investment platform

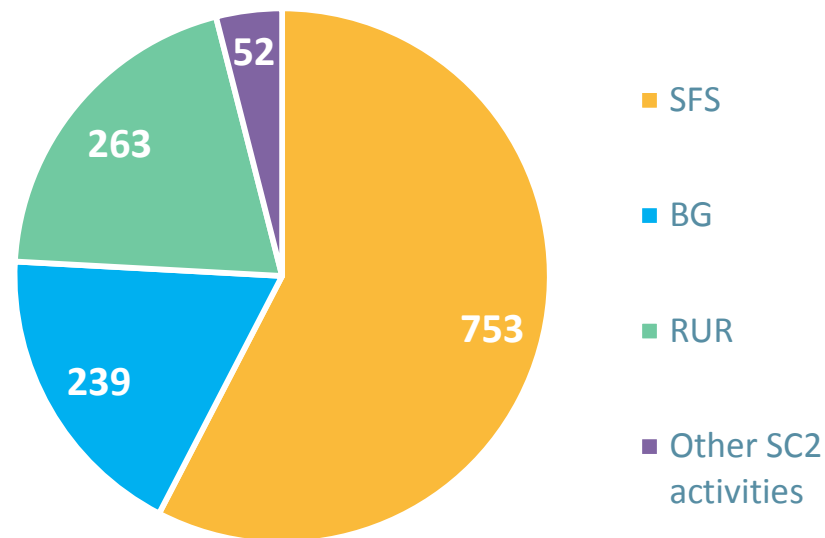


Topic distribution & budget distribution between calls

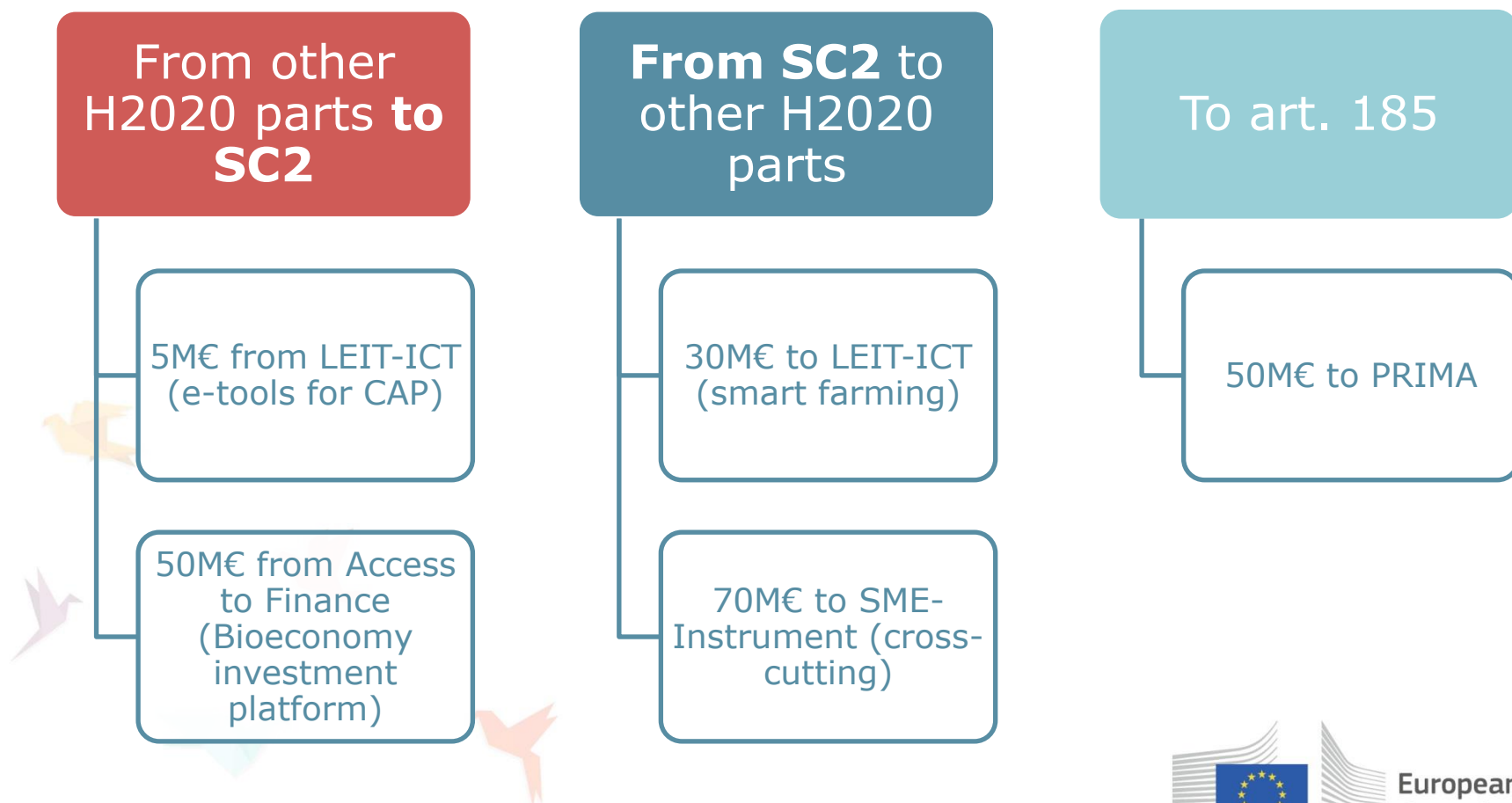
Topics - 2018-2020
(SC2 calls and other activities)



Budget - 2018-2020 (M€) - Total €1,3 Bn
(SC2 calls and other activities)



Budget contributions to and from other Horizon 2020 parts or R&I initiatives



Societal challenge 2 contributions to focus areas

Building a **low-carbon**, climate resilient future

203 M€

Plants, proteins, climate-smart farming, soils, food systems, marine resources, wood value chains

Digitising and transforming European industry and services

82 M€

Personalised nutrition, Blue and food clouds, Aquaculture 4.0, Digital innovation hubs

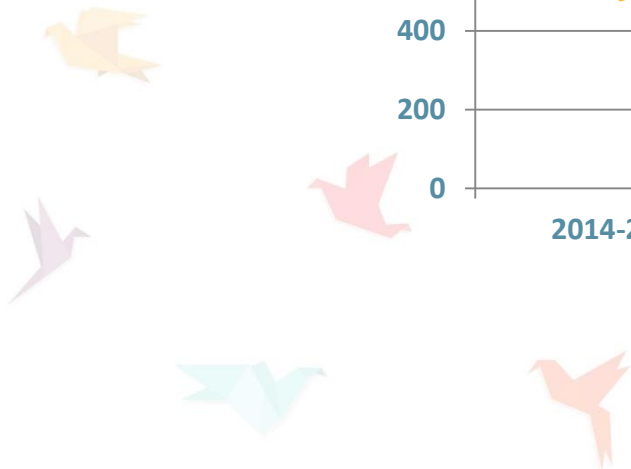
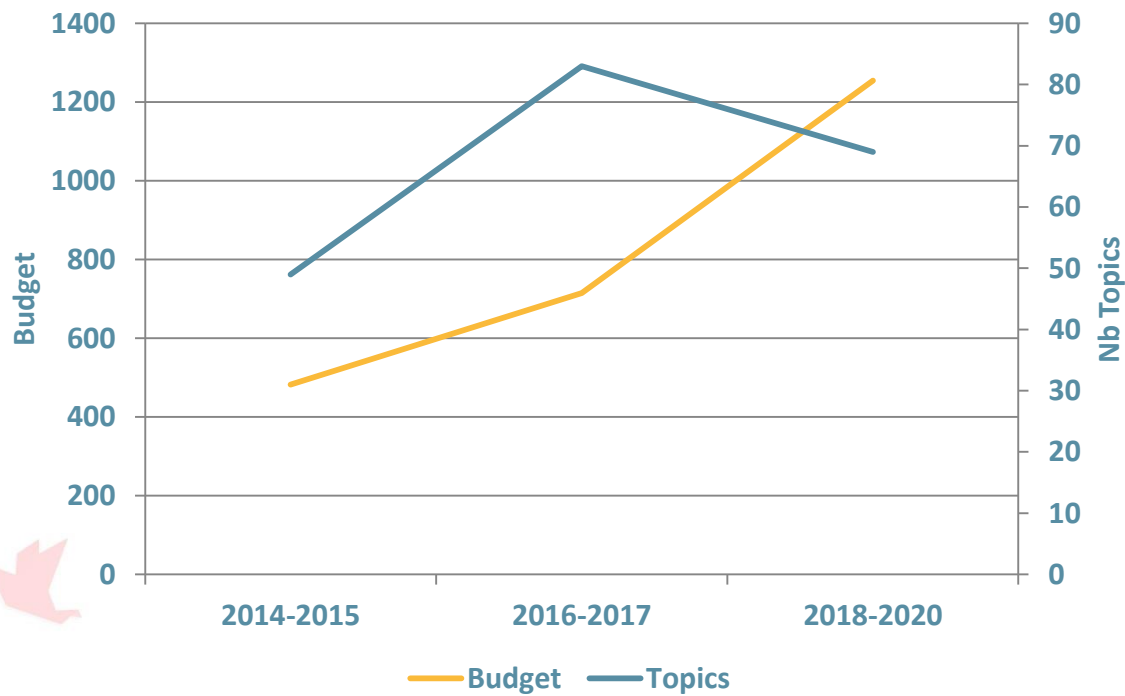
Connecting economic and environmental gains – the **Circular Economy**

253 M€

Urban food systems, biowaste valorisation, bio-based plastics and fertilisers, bio-based models for rural communities

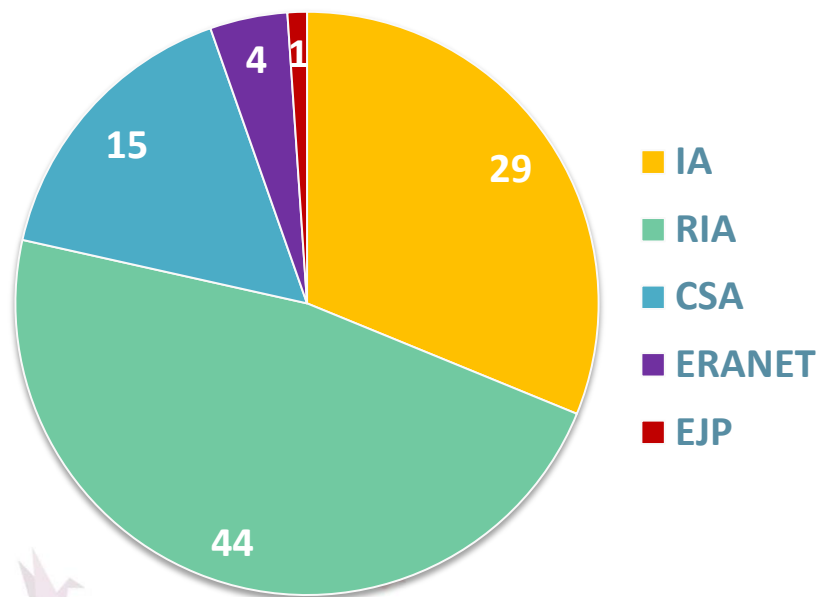
A more strategic and focused approach

Evolution of SC2 calls budget and topic counts

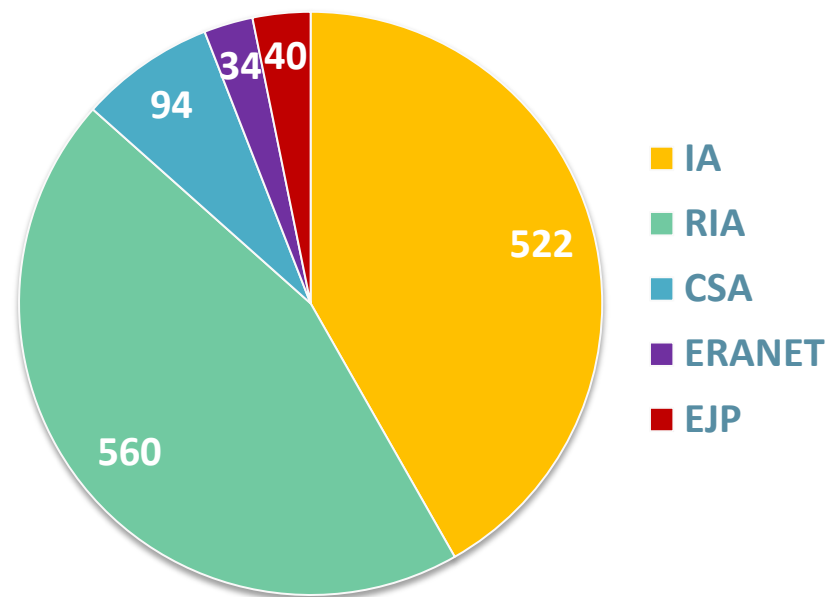


Instruments: balancing close to market actions with investment in new knowledge

Number of actions by type of action



Budget by type of action (M€)



Open innovation, open science, open to the world

- **Open innovation**

- **€500 mio for multi-actor projects** (interactive innovation linked to EIP-AGRI)



- **Open science**

- Research data sharing **by default**
- **Open science clouds**: Food cloud demonstrators (10M€) & Blue cloud services (6M€)



- **Open to the world**

- **89M€** on **EU-AFRICA** partnership on Food and Nutrition Security and Sustainable Agriculture (11 projects): food systems, sustainable intensification and income diversification
- **23M€** on **EU-CHINA** (5 projects): food safety, soil management and bio-based fertilisers
- **64M€** on **"All Atlantic Ocean Research Alliance"** (8 projects): coordination, marine ecosystems and new value chains
- **PRIMA**



Cross-cutting approaches

- **A strong commitment to Responsible research and innovation**
 - 31 topics under multi-actor approach (500M€ - over 80 grants)
 - Several topics with strong public engagement requirement
 - Gender dimension
- **A wide space for Social sciences and humanities integration**
- **Key contributions to global goals (Rio-markers)**
 - Climate
 - Sustainable development
 - Biodiversity





#InvestEUresearch



Horizon 2020 Work Programme for Research & Innovation 2018-2020

Three Societal challenge 2 calls



Sustainable Food Security:
**€ 753 million to use our resources more wisely
and nourish people more sustainably**



**Produce more diverse and healthier food
from well-managed functional ecosystems**



**Increase resource efficiency and
environmental performance of food systems**

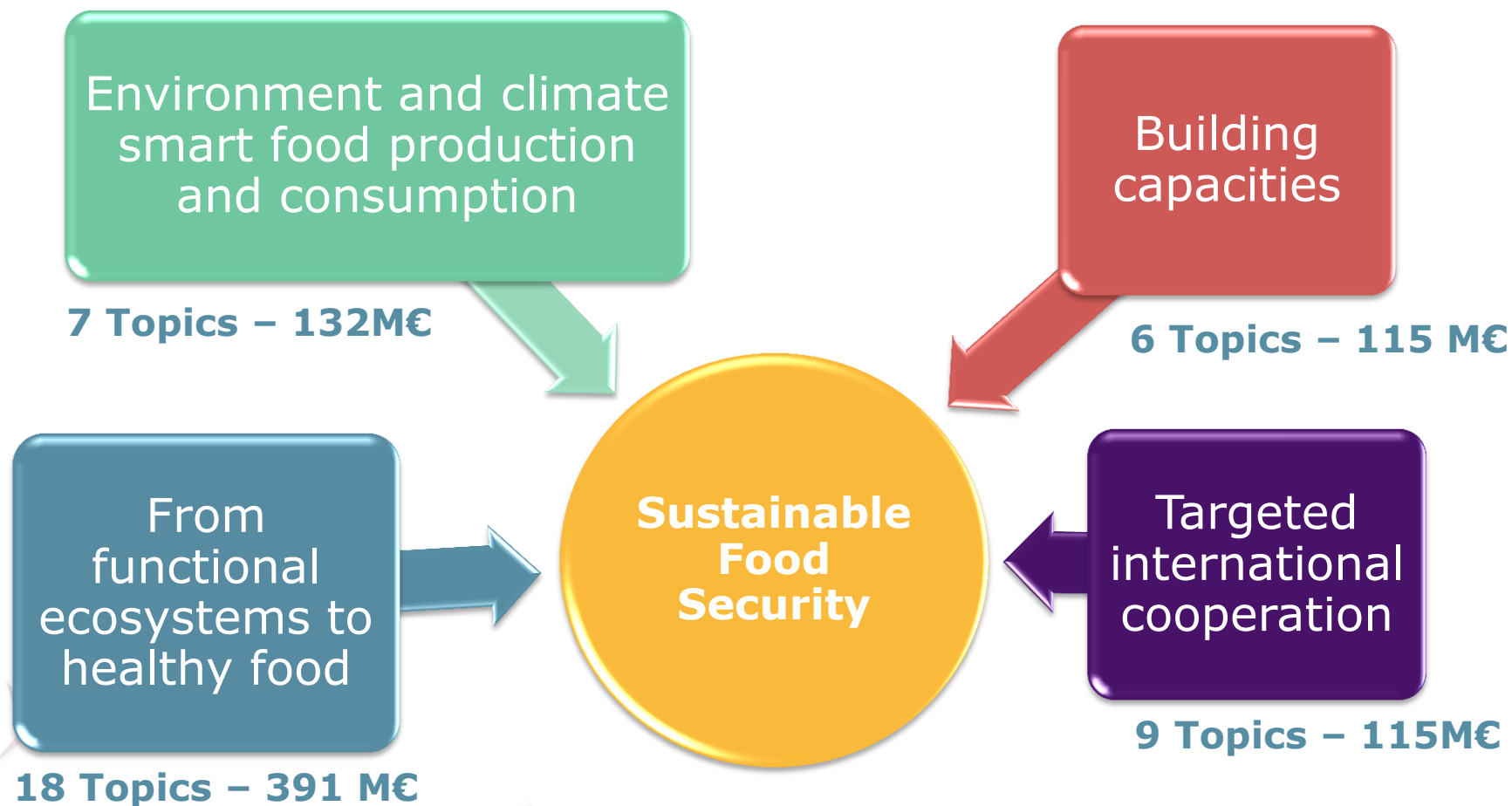


**Understand the impact of climate change
and design adaptation strategies**



**Going global: 112 M€ for joint actions with
Africa and China**

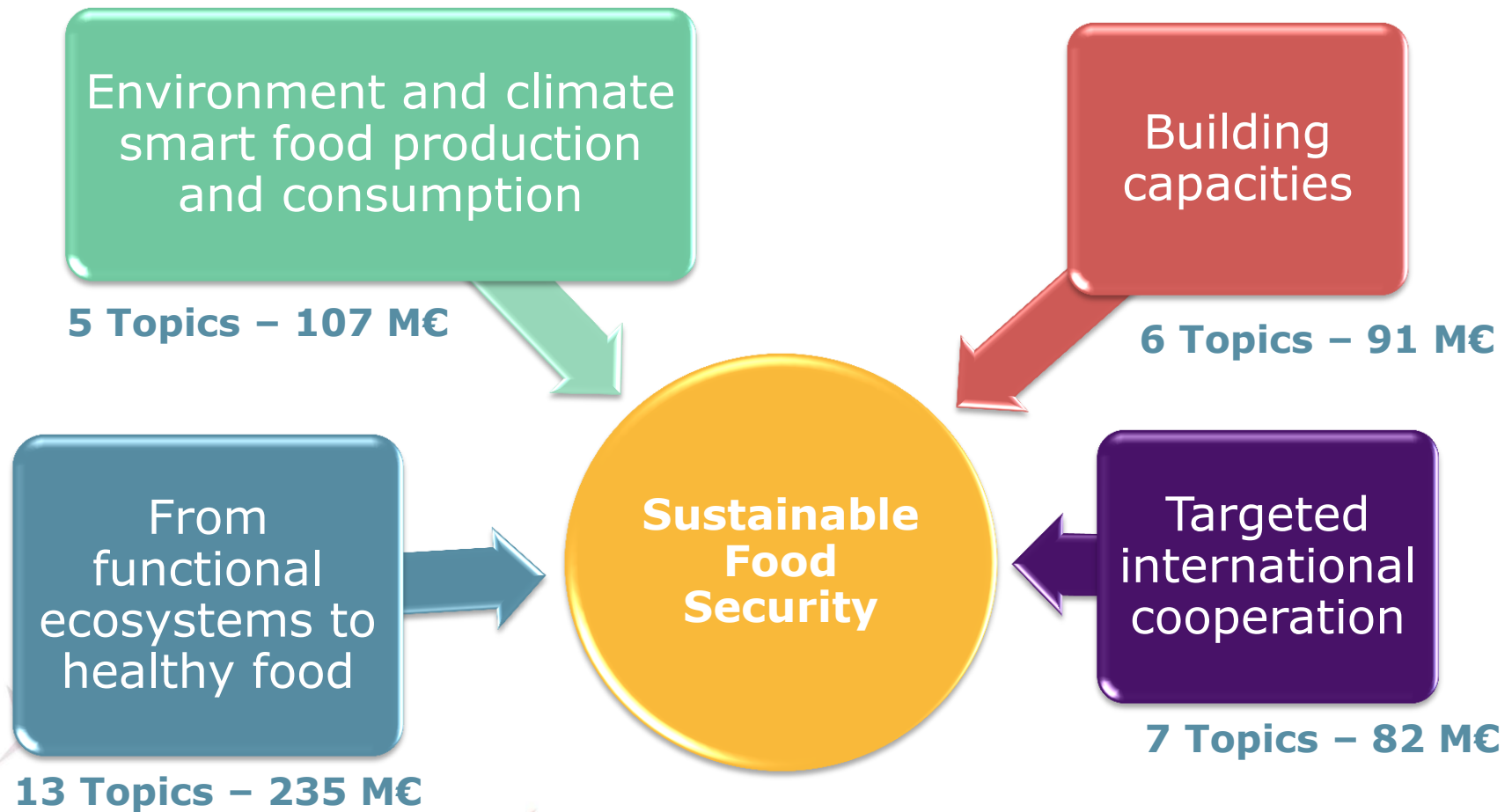
Sustainable food security – 753M€ (2018-2020)



Type of actions :
RIA, IA, CSA, EJP, ERANET



Sustainable food security – 515M€ (2018-2019)



Type of actions :
RIA, IA, CSA, EJP, ERANET



Sustainable food security topics (2018-2019)

From functional ecosystems to healthy food

- Biodiversity in action
- Microbiome
- Integrated health approaches
- IPM
- Healthy beekeeping
- Animal welfare
- Anti-microbials and animal production
- African Swine fever
- Personalised nutrition
- Plant breeding
- Healthy sust. food
- Alternative proteins

13 topics – 235 M€

Environment/ Climate-smart Food production and consumption

- Climate-smart farming
- EJP soils
- Integrated water management
- Citizen-driven food system approaches in cities
- Valorising urban biowaste

5 topics – 107 M€

Building capacities

- Food cloud
- Monitoring R&I investments
- GenRes & pre-breeding
- Plant-variety testing
- Agri-Aqua labs
- ERANETs

6 topics – 91 M€

Targeted international cooperation

- Microbiome coordination and IBF
- EU-Africa
 - ✓ Support FNSSA implementation
 - ✓ Food systems
 - ✓ Sustainable intensification
- EU-China
 - ✓ Food safety controls
 - ✓ Soils management
 - ✓ Fertilisers from biogas digestate

7 topics – 82 M€

Sustainable food security topics (2018)

From functional ecosystems to healthy food

- Biodiversity in action
- Microbiome
- IPM
- Healthy beekeeping
- Animal welfare
- Anti-microbials and animal production
- Personalised nutrition
- Plant breeding
- Healthy sust. food

10 topics – 143 M€

Environment/ Climate-smart Food production and consumption

- Climate-smart farming
- Valorising urban biowaste

2 topics – 27 M€

Building capacities

- Monitoring R&I investments
- GenRes & pre-breeding
- Plant-variety testing
- Agri-Aqua labs

4 topics – 36 M€

Targeted international cooperation

- Microbiome coordination and IBF
- EU-Africa
 - ✓ Support FNSSA implementation
- EU-China
 - ✓ Soils management

3 topics – 13 M€

From functional ecosystems to healthy food

- **Biodiversity in action:** across farmland and value chain (RIA-30M€)
- **Microbiome** applications for sustainable food systems (IA-42M€)
- **Integrated health approaches** and alternatives to pesticide use (RIA-15M€)
- **New and emerging risks in plant health** (RIA-14M€)
- **Stepping-up integrated pest management** (RIA-5M€)
- **Making european beekeeping** healthy and sustainable (RIA-8M€)
- **Improving animal welfare** (RIA+IA -10+6M€)
- **Antimicrobials** in animal production (RIA-18M€)
- **A vaccine against Africa swine fever** (IA-10M€)
- **Personnalised nutrition** (IA-28M€)
- **Future proofing our plants** (CSA-3M€)
- **Towards healthier and sustainable food** (RIA-14M€)
- **Alternative proteins** for food and feed (IA-32M€)

13 topics – 235 M€ (2018-2019)



Environment/ Climate-smart Food production and consumption

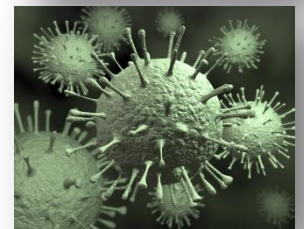
- **Climate-smart and resilient farming** (RIA - 21M€)
- **EJP on agricultural soil management** (COFUND EJP - 40M€)
- **Integrated water management in small agricultural catchments** (RIA - 14M€)
- **Innovative and citizen-driven food system approaches in cities** (IA - 12M€)
- **Integrated system innovation in valorising urban biowaste** (IA - 20M€)



5 topics – 107 M€ (2018-2019)

Building capacities

- **Food cloud demonstrators** (IA – 10M€)
- **Monitoring food R&I investments and impacts** (RIA – 7M€)
- **Genetic resources and pre-breeding communities** (CSA & RIA – 17M€)
- **Innovations in plant variety testing** (RIA – 8M€)
- **Agri-aqua Labs** (RIA – 28M€)
- **ERANETs in agri-food** (ERA-NET-Cofund – 21M€)



6 topics – 91 M€ (2018-2019)

Targeted international cooperation

- **Supporting microbiome coordination and the international bioeconomy forum** (CSA – 2,75M€)
- **EU-Africa Partnership on FNSSA**
 - Support to implementation (CSA – 5M€)
 - Food systems Africa (RIA - 21M€)
 - Sustainable intensification in Africa (RIA - 35M€)
- **EU-China FAB Flagship initiative**
 - Integrated approaches to food safety controls across the food chain (RIA - 8M€)
 - Highly efficient management of soil quality and land resources (RIA - 5M€)
 - High-quality organic fertilisers from biogas digestate (IA - 5M€)

7 topics – 82 M€ (2018-2019)





#InvestEUresearch



Horizon 2020 Work Programme for Research & Innovation 2018-2020

Rural renaissance



Horizon
2020

Rural renaissance: our territories

€ 263 million for rural territories to become smarter, younger, greener more circular and better connected



Invest in businesses:

125 M€ for developing small scale refineries, boosting regional bioeconomy and innovative supply chains



Invest in people:

41 M€ to boost innovation, co-creation and exploitation of knowledge by improving skills and innovation systems



Invest in policies fit for the future:

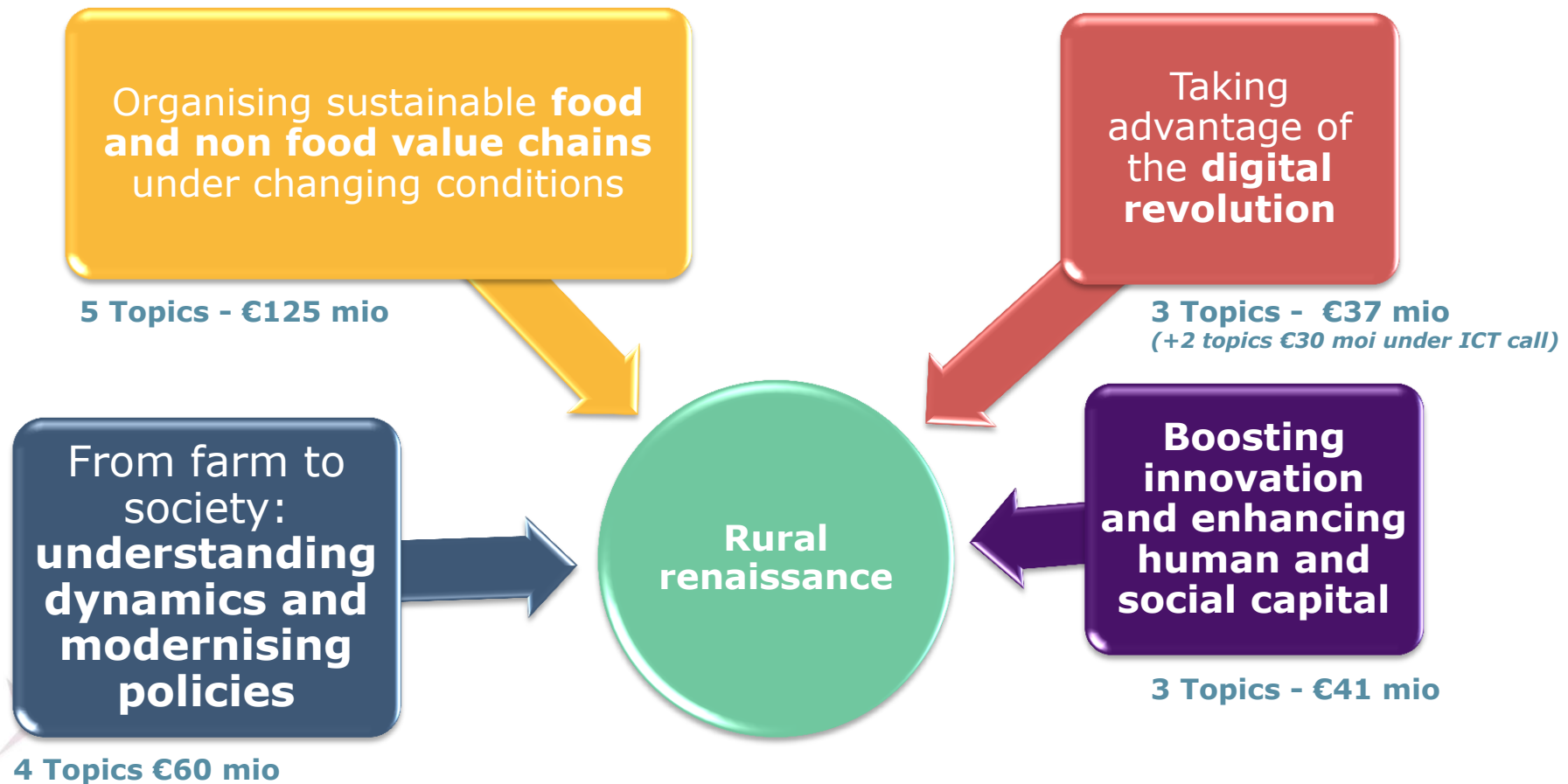
60 M€ to modernize policies to favour generation renewal and greater resilience and public goods delivery



Go digital:

37 M€ to take make the promises of the digital revolution come true for farmers and rural people

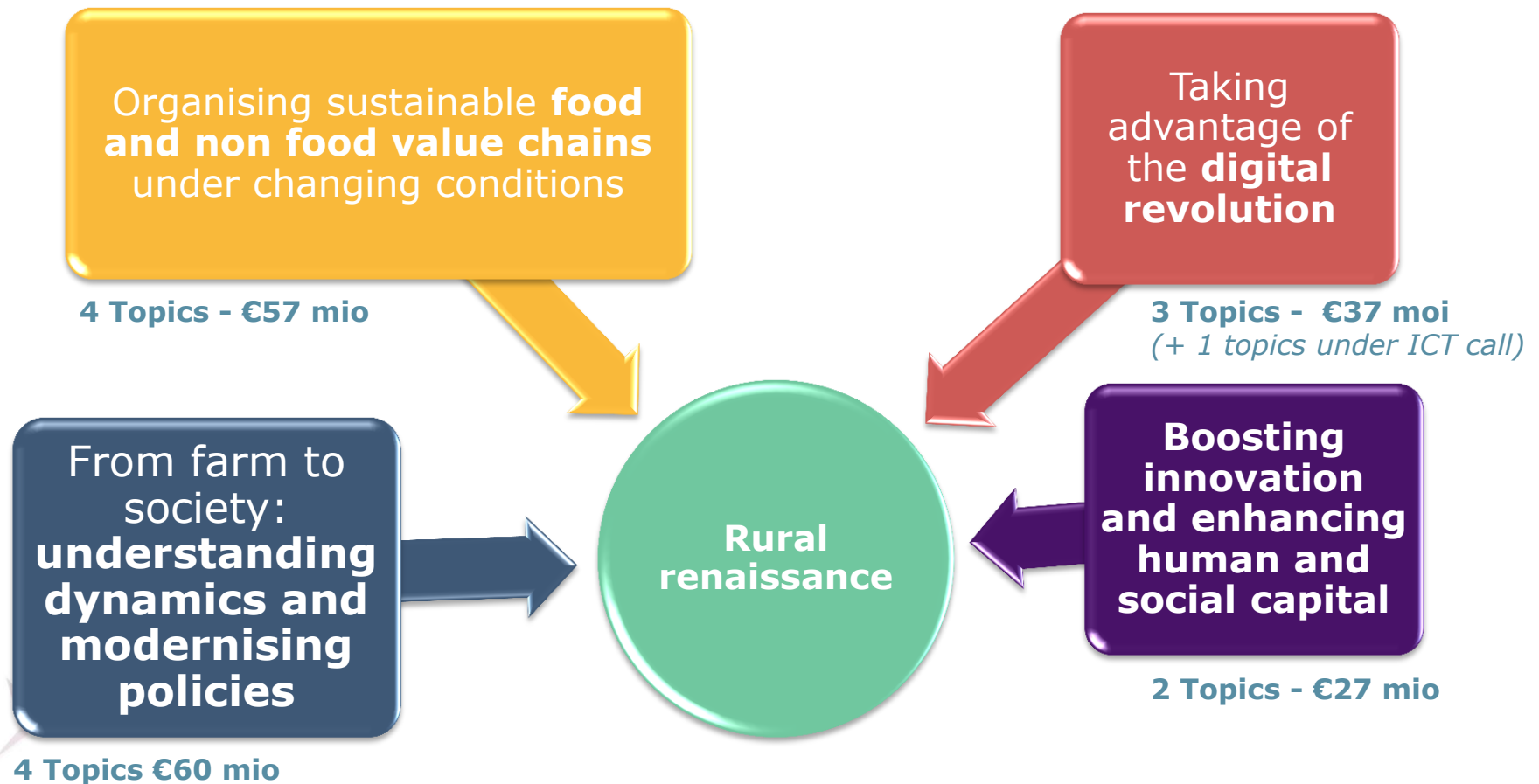
Rural renaissance – 263M€ (2018-2020)



Type of actions :
RIA, IA, CSA



Rural renaissance – 181M€ (2018-2019)



Type of actions :
RIA, IA, CSA



Rural renaissance topics (2018-2019)

Dynamics & policies

- **Modern policies from long-term visions & societal engagement:**
 - ✓ Science-policy-society hub
 - ✓ Generation renewal
 - ✓ Mountain value chains and climate change
- **Socio-economic impacts of digitisation**
- **Contracts for effective agro-environment delivery inc:**
 - Land tenure
 - Result-based policies
 - Collective delivery
- **Analytical tools and models**
 - ✓ New models for policy
 - ✓ Modelling trade

4 topics – 60 M€

Food & non-food Value chains

- **Closing nutrient cycles:**
 - ✓ Properties and impacts of biofertilisers
 - ✓ Bio-based fertilisers from manure
 - ✓ Bio-based fertilisers from other by products
- **Regional and local bio-based economies**
- **Circular bio-based business models for rural communities**
- **Sustainable wood value chains**
 - ✓ Building with wood
 - ✓ Resilient forest systems

4 topics – 57 M€

Taking advantage of the digital revolution

- **Digital innovation hubs for agriculture**
- **Preparing advisors for the digital age**
- **Digital solutions and e-tools to modernise the CAP**

3 topics – 37 M€

- + UNDER LEIT-ICT call
- **Agricultural cross-cutting integration platforms**

1 ICT topics – 15 M€

Innovation and human capital

- **Thematic networks compiling knowledge ready for practice**
- **Fuelling the potential of advisors for innovation**

2 topics – 27 M€

RUR+ICT:
4 topics – 52 M€



European Commission

Rural renaissance topics (2018)

Dynamics & policies

- **Modern policies from long-term visions & societal engagement:**
 - ✓ Science-policy-society hub
 - ✓ Generation renewal
 - ✓ Mountain value chains and climate change
- **Socio-economic impacts of digitisation**
- **Contracts for effective agro-environment delivery inc:**
 - Land tenure
 - Result-based policies
 - Collective delivery
- **Analytical tools and models**
 - ✓ New models for policy
 - ✓ Modelling trade

4 topics – 60 M€

Food & non-food Value chains

- **Closing nutrient cycles:**
 - ✓ Properties and impacts of biofertilisers
- **Regional and local bio-based economies**

2 topics – 9 M€

Taking advantage of the digital revolution

- **Digital innovation hubs for agriculture**
- **Preparing advisors for the digital age**
- **Digital solutions and e-tools to modernise the CAP**

3 topics – 37 M€

Innovation and human capital

- **Thematic networks compiling knowledge ready for practice**
- **Fuelling the potential of advisors for innovation**

2 topics – 12 M€

From farm to society: understanding dynamics and modernising policies

- Building modern rural policies on **long-term visions** and **societal engagement** (CSA+RIA – 17M€)
- Socio-economic **impacts of digitisation** of agriculture and rural areas (RIA – 5M€)
- **Contracts** for **effective and lasting delivery** of agri-environmental **public goods** (RIA – 15M€)
- Analytical tools and **models to support policies** related to agriculture and food (RIA – 12M€)



4 topics – 60 M€ (2018-2019)

Organising sustainable food and non food value chains under changing conditions

- **Closing nutrient cycles** (RIA+IA-14M€)
- Realising the potential of **regional and local bio-based economies** (CSA-3M€)
- Circular **bio-based business models for rural communities** (IA-20M€)
- **Sustainable wood** value chains (IA-20M€)



4 topics – 57 M€ (2018-2019)

Taking advantage of the digital revolution

- ICT innovation for agriculture – **Digital innovation hubs for agriculture** (IA-20M€)
- Enabling the **farm advisor** community to prepare farmers for the **digital age** (CSA-7M€)
- Digital **e-tools** to **modernise the CAP** (IA-10M€)



3 topics – 37 M€ (2018-2019)

Boosting innovation and enhancing human and social capital

- **Thematic networks** compiling knowledge ready for practice (CSA - 22 M€)
- Fuelling the potential of **advisors** for innovation (CSA - 5 M€)



2 topics – 27 M€ (2018-2019)



#InvestEUresearch



Horizon 2020 Work Programme for Research & Innovation 2018-2020

EIP-AGRI & The multi-actor approach



Horizon
2020

The multi-actor approach

- Introduced for the first time in Horizon 2020 with WP 2014/2015
- Aims at demand driven innovation and broad implementation
- Genuine involvement of all actors involved all along the project
- Adequate choice of actors with complementary knowledge
- Produces practical knowledge easily accessible, understandable and applicable
- Several paragraphs in the introductory part of the work programme
- 25 topics flagged "multi-actor" in WP 2018-2020



EIP-AGRI – Where are we?

- 27 Member States, **98 rural development programmes implementing the EIP**
- Around 3 200 OGs planned in 2014-2020. **Over 400 OGs already running**
- **61 H2020 multi-actor projects ongoing, including 17 thematic networks**
- **A growing and thriving Network**

An increasing volume of practice-oriented knowledge !

European Commission > EIP-AGRI > My EIP-AGRI

My EIP-AGRI

- Operational Groups
- Thematic Networks
- Multi-Actor Projects

My EIP-AGRI

Thematic Networks

Thematic networks are multi-actor projects which collect existing knowledge and best practices on a given theme to make it available in easily understandable formats for end-users such as farmers, foresters, and advisors. All Thematic Network information available here.

Welcome to My EIP-AGRI

This is an on-line resource developed to support your information/guidance needs. Simply select the type of project you are involved or interested in to access your portal to all the information you need.

<https://ec.europa.eu/eip/agriculture/en/my-eip-agri>
<https://ec.europa.eu/eip/agriculture/en/my-eip-agri/operational-groups>

Operational groups: what are they working on?

Operational Groups



Growing protein crops to optimise livestock farms' profits

Operational Group SOS Protein-TERUnic in the west of France is increasing the protein in their animal feed, while remaining profitable

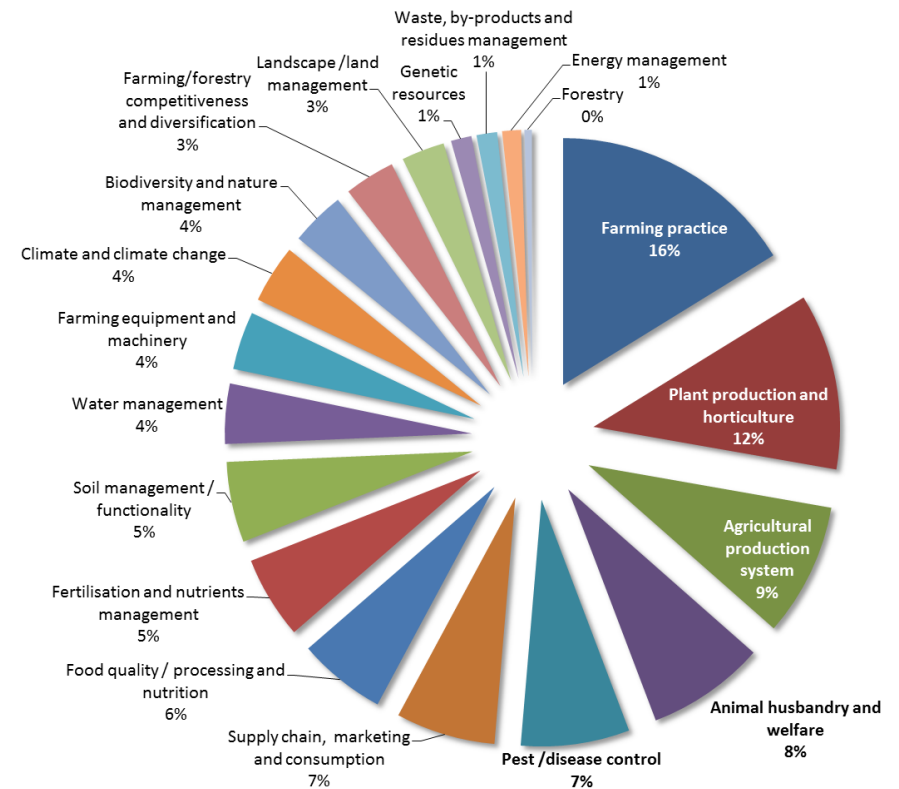
[Read more](#)

FEATURE NEWS

READ ALL NEWS

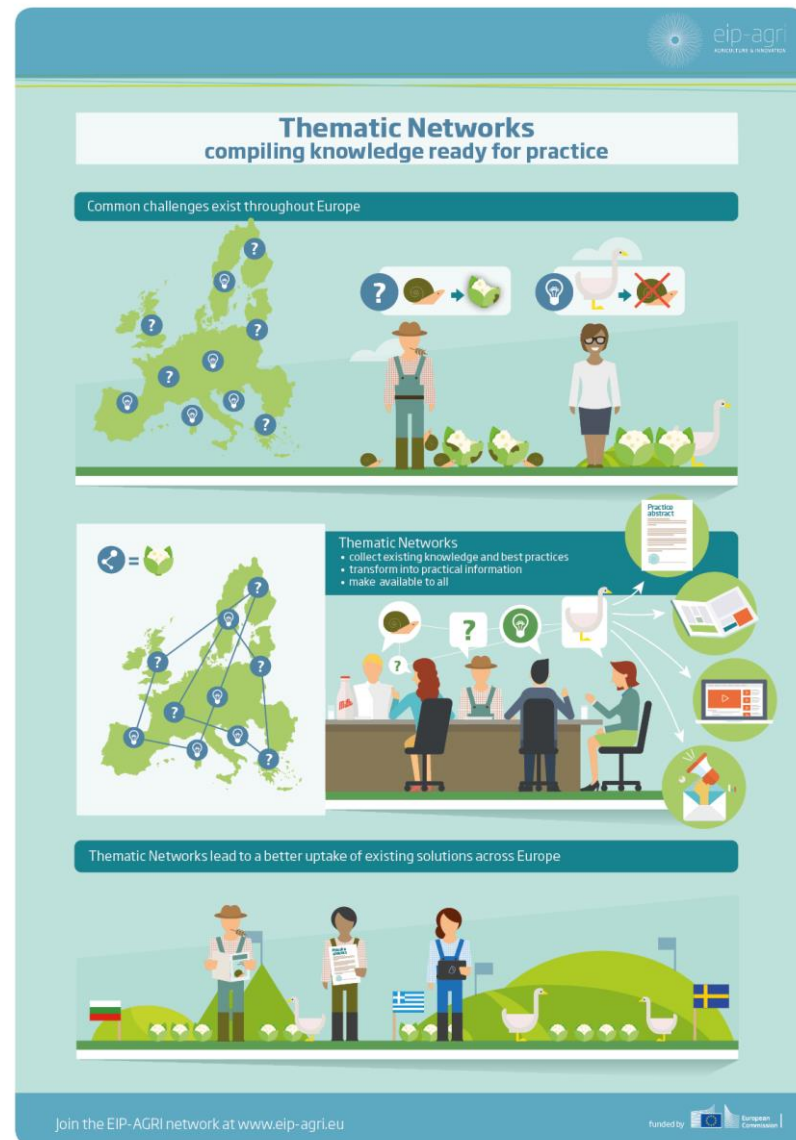
Latest projects	
SPAIN - 08 MAY 2017 Control of <i>Monilinia</i> spp. in stone fruit: use of prediction models and cultural practices	Read more
GERMANY - 02 MAY 2017 A new approach to fertilization and weed control in organic rapeseed production	Read more
GERMANY - 02 MAY 2017 Development of a learning network to enhance awareness and willingness to improve health management in pig production to reduce the use of antibiotics	Read more
GERMANY - 02 MAY 2017 Marketing of laying hens at the end of the laying period and males in innovative product lines	Read more
ITALY - 02 MAY 2017 Broadening and improving biodiversity for a more	

Key questions & information	
EIP-AGRI Concept	
Links to existing Operational Groups	
What is innovation?	
EIP-AGRI Operational Groups – basic principles	
Innovation support services (including advisors with a focus on innovation)	
EIP-AGRI networking	
Links to other policies	
EIP-AGRI common format	
VIDEO: Operational Groups - First Experiences	
Managing Authorities Contact Details	
Pooling funding streams to boost interactive innovation	



Thematic networks

- foster **cross-border knowledge exchange**
- establish links with and between the OGs
- involve a wide range of concerned actors **covering both science and practice** on specific themes: no pure research networks
- synthesise, discuss and present **existing scientific knowledge & best practices**: what do we have/what do we miss to be used
- Develop **end-user material**:
 - info sheets in a common format
 - audio-visual material
 - Available in the long-term and easily understandable,
 - **shared through the EIP** (input for education and a research web-database for end-users)



17 running thematic networks

Innovation systems



Environment, mixed farming, grasslands



Value chains



Crops



EUFRUIT – European Fruit Network



Livestock



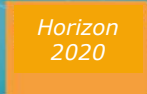


#InvestEUresearch



Horizon 2020 Work Programme for Research & Innovation 2018-2020

Evaluation: timeline & how does it work?



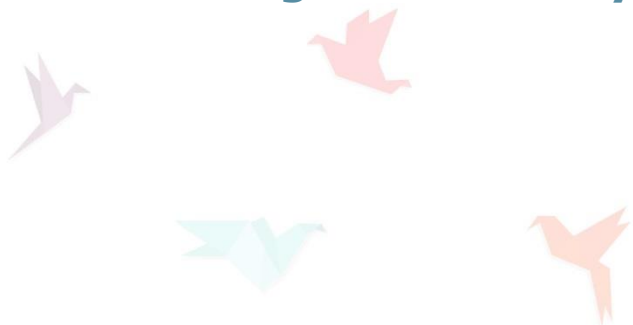
Evaluation timeline

2018

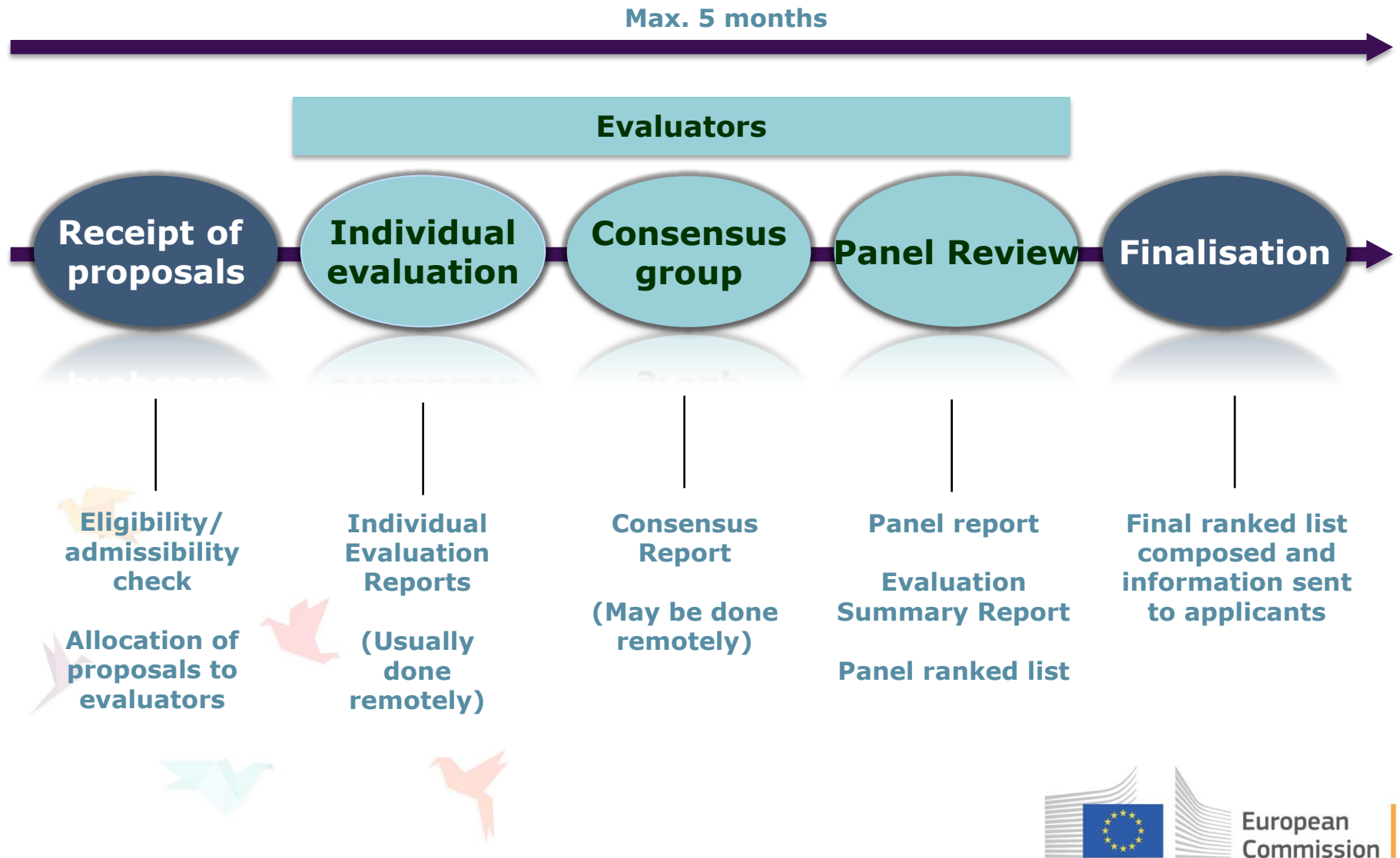
- **Single stage evaluations: CSAs, Ias, EJP – Deadline 2018: 13 February**
- **Two-stage evaluations: RIAs - first stage deadline 13 February, second stage deadline: 11 September 2018**

2019

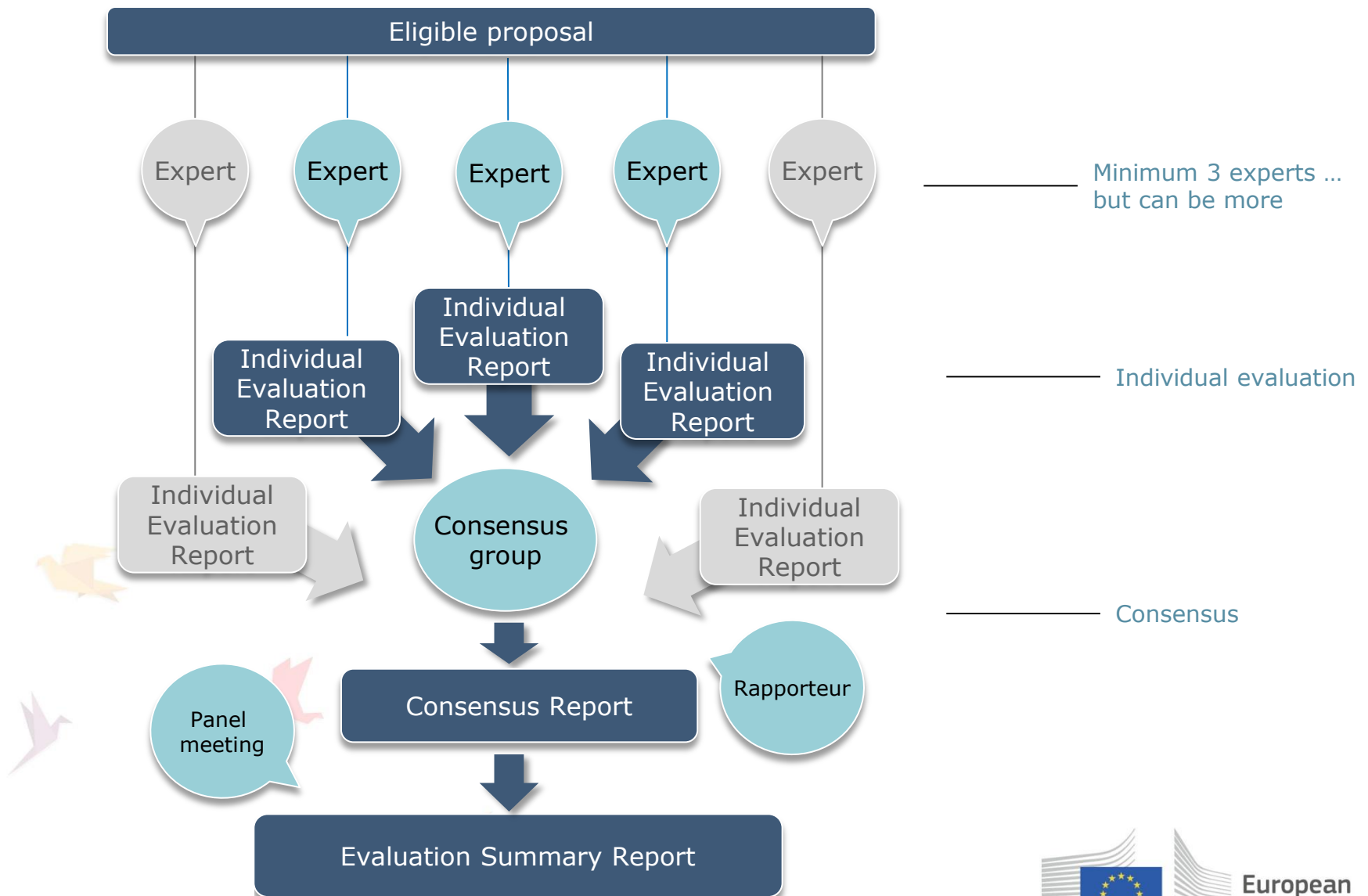
- **Single stage: 23 January 2019**
- **Two-stage: 23 January 2019 + 04 September 2019**



Evaluation process for each call



Evaluation process for each call



Scores

0

The proposal **fails** to address the criterion or cannot be assessed due to missing or incomplete information.

1

Poor. The criterion is inadequately addressed, or there are serious inherent weaknesses.

2

Fair. The proposal broadly addresses the criterion, but there are significant weaknesses.

3

Good. The proposal addresses the criterion well, but a number of shortcomings are present.

4

Very Good. The proposal addresses the criterion very well, but a small number of shortcomings are present.

5

Excellent. The proposal successfully addresses all relevant aspects of the criterion. Any shortcomings are minor.

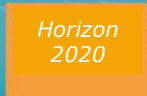


#InvestEUresearch



Horizon 2020 Work Programme for Research & Innovation 2018-2020

Useful tips & resources



Some tips on how to succeed

- **Do networking!**
- **Start in time**
- **Choose your partners well**
- **Avoid “recycling”** of former projects or project partners which do not have a specific contribution to the topic
- Check for **eligibility**
- **Read the evaluation criteria** – imagine what the evaluator will think
- Excellent science is not enough: consider **all the criteria**
- **Impact matters as much as excellence!** → **Check the expected impacts and scope of the topic in detail**

Some tips on how to succeed

- **Write clearly and concisely** - ask someone impartial to proof-read your proposal
- Respect the **page limits**
- **Be coherent!** Make sure that the chosen objectives are coherent with the foreseen project activities, the competence of the partners and the planned budget per activity.
- **Is your project good value for money?** Make sure the cost/benefit ratio is sound. Keep in mind that all costs should be reasonable in the light of the foreseen outcomes.

Resources, guidance and tools

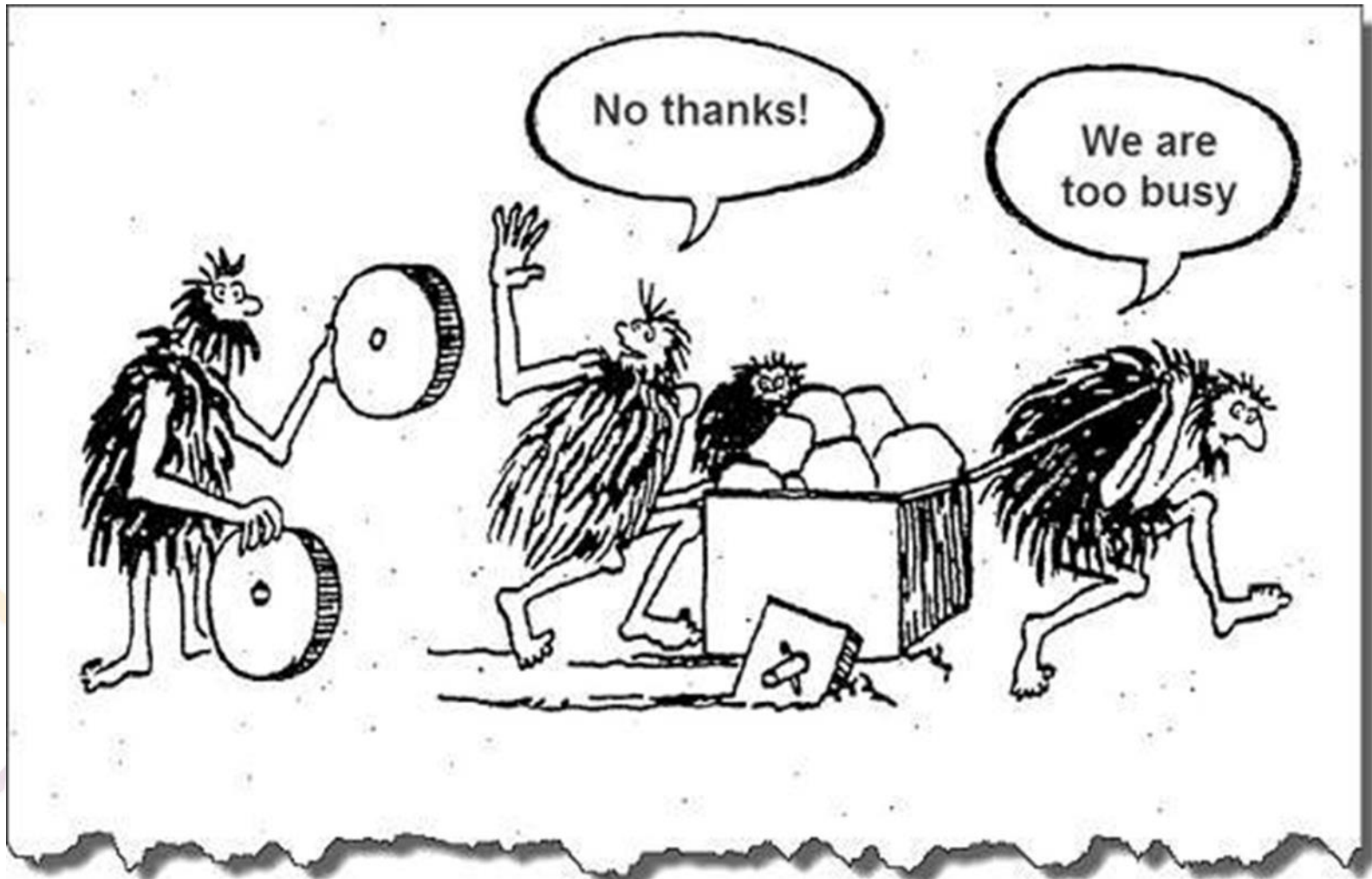
- **Useful pages and documents**

- Horizon 2020 [online manual](#)
- [Reference documents](#) : work programmes, legal and guidance documents
- [Frequently asked questions](#) (FAQ) on participant portal
- [IT Helpdesk](#) for questions about the Participant Portal tools and processes.

- **You have a specific question?**

- Contact your [National Contact Point](#) or the Horizon 2020 [helpdesk](#) for guidance, practical information and assistance on all aspects of participation in Horizon 2020.





*"The best time to plant a tree was **20 years** ago.
The second best time is now."*

Chinese Proverb



Thank you!

#InvestEUresearch
#H2020SC2

www.ec.europa.eu/research/bioeconomy

www.ec.europa.eu/agriculture/research-innovation_en

Participant Portal

<http://ec.europa.eu/research/participants/portal/desktop/en/home.html>