

About the Horizon 2020 Biotechnology and Food 2018 – 2020 Work Programme priorities

Inderjit Singh Marjara, Trondheim 17. October 2017



Horizon 2020

EU's new framework programme 2014-2020

75 billion Euro

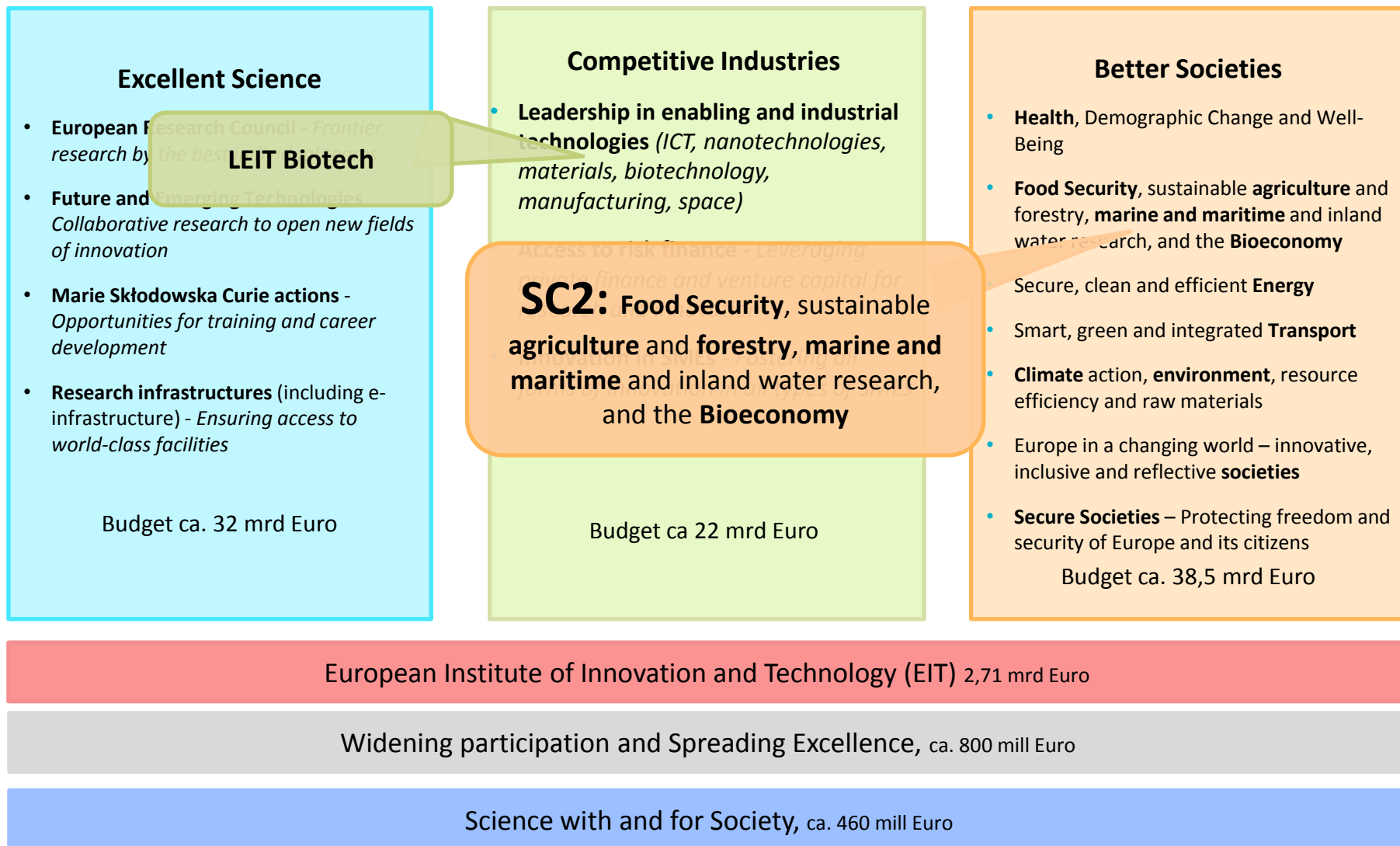
Research and Innovation

Jobs and growth – SDGs – Paris agreements

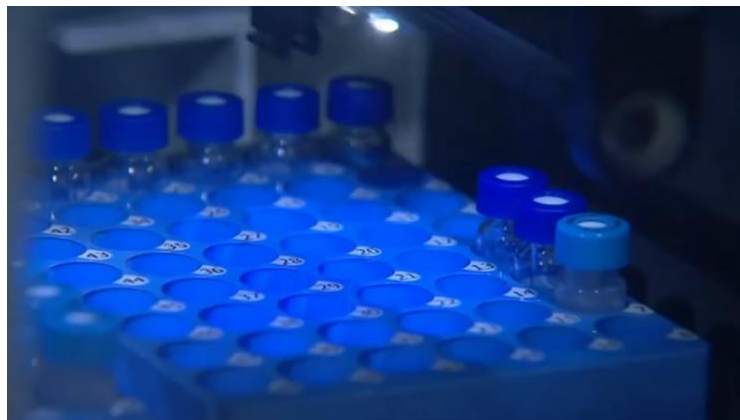
The world's largest arena for international R&I



Structure in Horizon 2020



How is Horizon 2020 implemented?



Bi-annual work programs

2014	2015	2016	2017	2018	2019	2020
Strategic Programme						
Work Programme 1 (plus tentative information for 2016)		Strategic Programme				
		Work Programme 2 (plus tentative information for 2018)	Strategic Programme			
				Work Programme 3 (plus tentative information for 2020)		
						Work Programme 4

Work Programs 2018-2020

e.g.:

SC2:

- 1. Sustainable food security (SFS)**
- 2. Blue Growth (BG)**
- 3. Rural Renaissance (RUR)**



Advices,
consultations,
input

Topics created based on



- **Scoping Papers**

- Analyses of gaps, political documents, policy-DGs
- Jobs and growth

- **Political agenda**

- Paris-agreement and UN SDGs
- EUs CAP and CFP, SET-Plan, ...
- Blue Growth, MSFD, Circular economy package
- Bioeconomy strategy, Food 2030



- **Political goals, e.g. 3 O-s**

open access, **o**pen innovation, **o**pen to the world

Draft work programme for SC2 2018 - 2019 – 2020

- Introduction
- Focus Areas
- 3 Calls
- Mission statement
- Topics
- Other activities



4 virtual «Focus Areas»



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

CE: Connecting economic and environmental gains – the **Circular Economy**'

DT: **Digitising** and transforming European industry and services'

SU: Boosting the effectiveness of the Security Union

General features of the WP 2018 – 2020 draft

- **Impact** more important – for economy, environment, society and knowledge base – deliver to focus areas – LC-CE-DT
- **Multi-actor**-approach
 - https://ec.europa.eu/eip/agriculture/sites/agri-eip/files/eip-agri_brochure_multi-actor_projects_2017_en_web.pdf
- Increased budget
- **Several projects in some topics**
- 2020-topics tentative – bridge to next FP
- Higher **TRL**
- SME-instrument moved to EIC,
bottom-up



Challenge-driven approach

Structure of topics



Challenge

- What is the issue, the reason for including this topic?
- Often related to EU policies and strategies
- A major problem for EU / Europe that needs transnational cooperation to be addressed

Scope

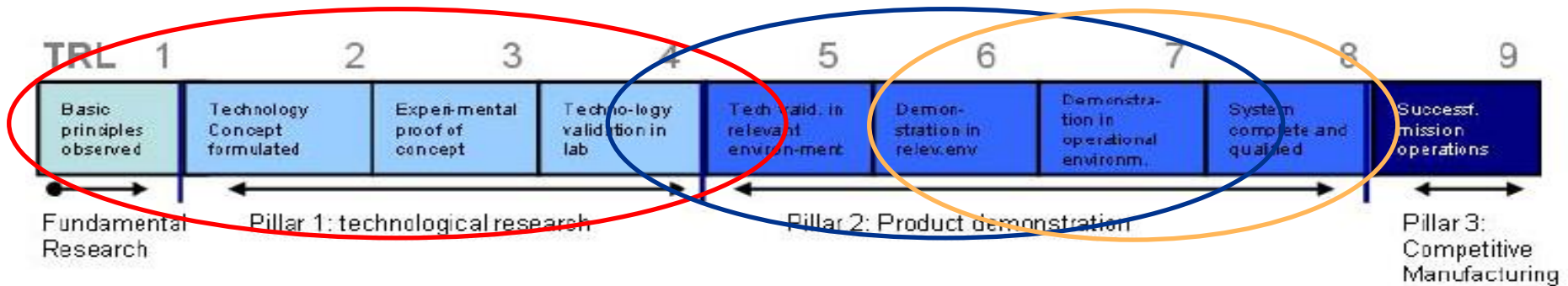
- Outline of what the project (s) should address and in which way. What should be included and what should be delivered

Impact

- Short-, medium- and long-term effects

Type of Action

Technology Readiness Levels for Research and innovasjon



Research and innovation actions

100% + 25%

Innovation actions

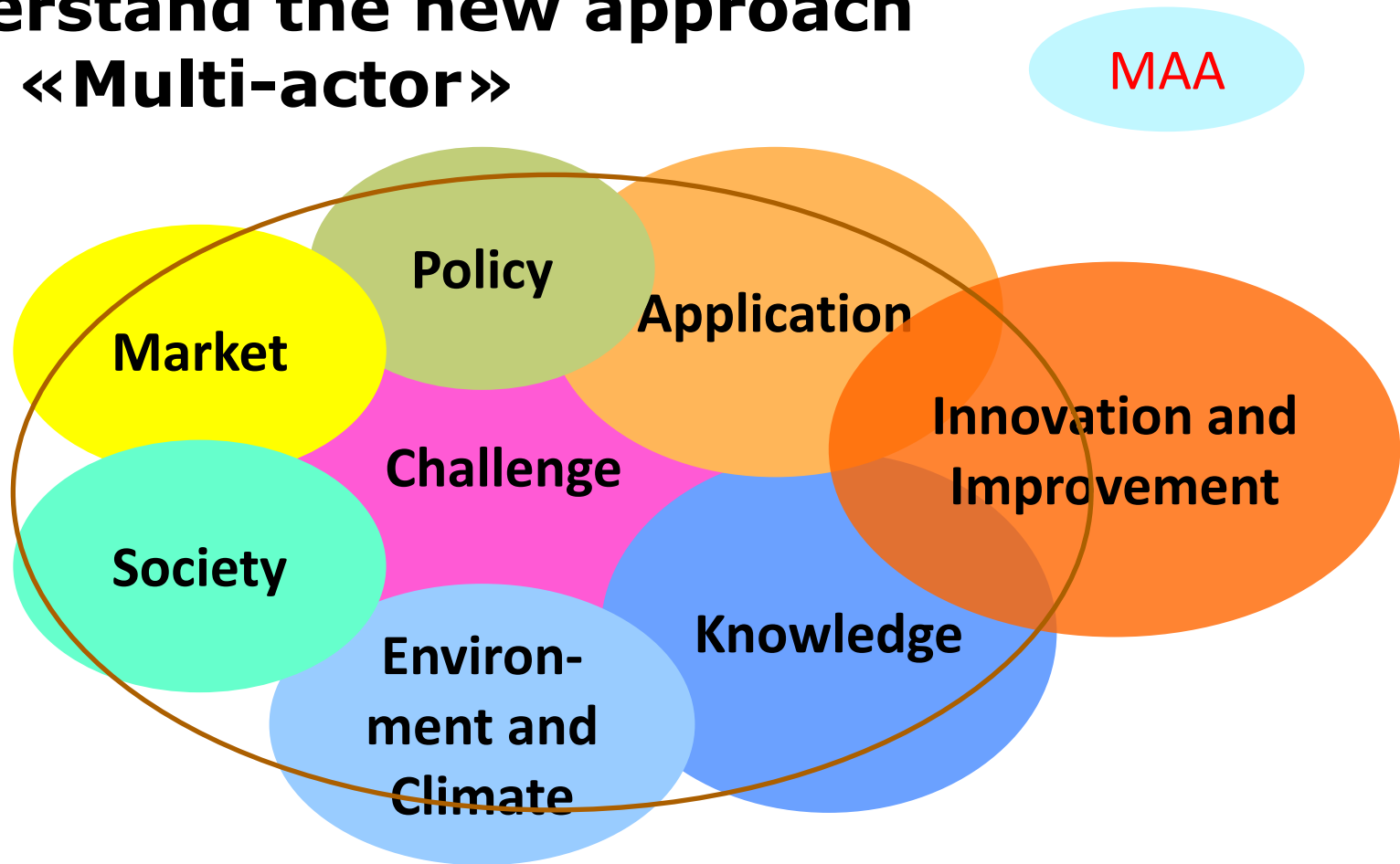
70% + 25%
(Unntak:
non-profit
organisasjoner:
100+25%)

SME instrument

Phase 1: Feasibility
Phase 2. Innovation projects

70% + 25%

Understand the new approach «Multi-actor»



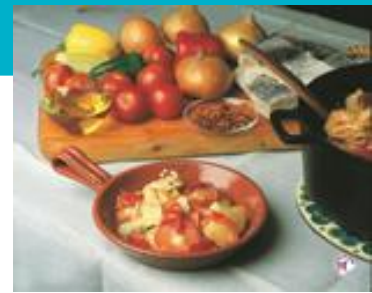
Work Programs 2018-2020

SC2:

1. Sustainable food security (SFS)
2. Blue Growth (BG)
3. Rural Renaissance (RUR)



Sustainable Food Security



Mission: diverse and healthy food from land and sea

- resource efficiency and environmental performance of food systems
- climate change impacts and reduction of GHGs
- The SFS call is divided in:

From functional ecosystems to healthy food (13)

**Environment and climate-smart
food production and consumption (6)**

Building Capacities (6)

Targeted International cooperation (11)

Africa

China

LC-SFS-03-2018 **Microbiome applications for food** systems

IA 10 mio (4 projects)

- Increase food quality and quantity, safety, productivity (health)
- Bio-products from food waste
- Marine microbiome for new food

Land and
sea

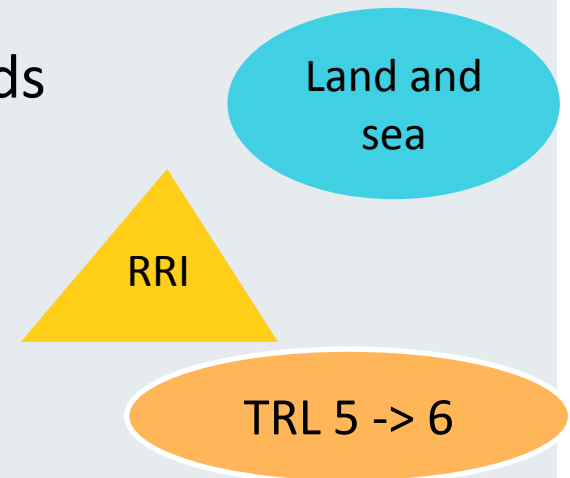
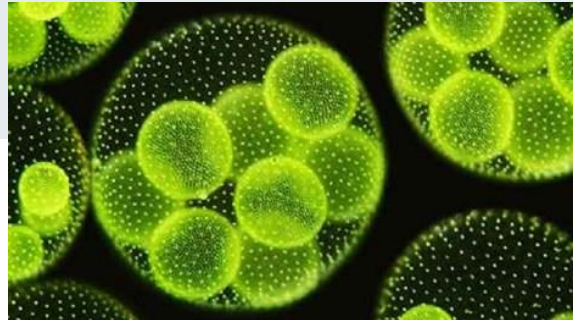
TRL 5/6->7



LC SFS-17-2019 **Alternative proteins for food and feed**

IA 8 mio (4 projects)

- **Products and ingredients:** identify - assess - develop production and processing to convert and integrate
 - Nutritional values, properties, health, safety, quality, sustainability aspects
- Test, demo, pilot .. commercialize
- Protein – protein interactions -> protein blends
 - Alignment and co-creation with societal actors

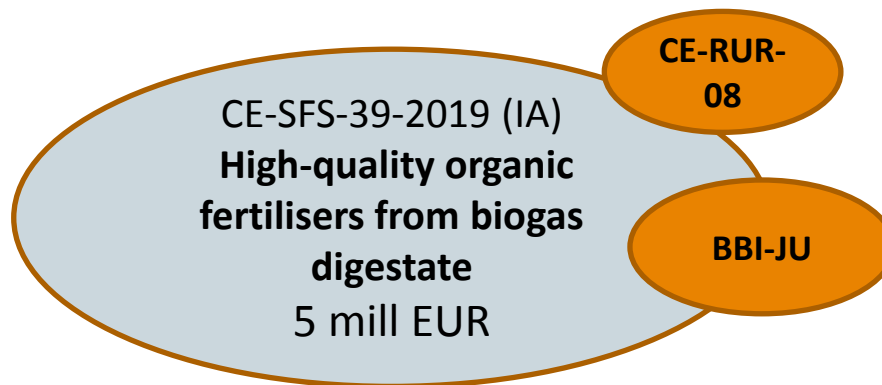


Targeted international cooperation

- In total 9 topics
- Total budget: 80 mill. EUR
- Addresses global challenges and allow for significant international cooperation, exchanges and sharing of resources.
- EU-China food, agriculture and biotechnology (FAB) Flagship Initiative and EU-Africa Research and Innovation Partnership on Food and Nutrition Security & Sustainable Agriculture (FNSSA)
- Promote coordinated and balanced research and innovation cooperation between the Africa, EU and China and EU



EU-CHINA FAB Flagship (from 2013)



Contributions for Chinese participants will come in addition and will be made available by China.

Blue Growth

- Mission:

- Integrated knowledge about **marine ecosystems and bio-resources and climate change** for response, mitigation and resilience management
- Preserve and use of biological resources for better **nutrition and health**
- De-risking major investments and boosting **blue innovations** on land and sea for **new bio-based value chains**
- Develop **smart and connected territories** between land and sea
- Strengthened **international R&I cooperation** for a globally sustainable **blue economy**
- 6 topics



Mesopelagic zone

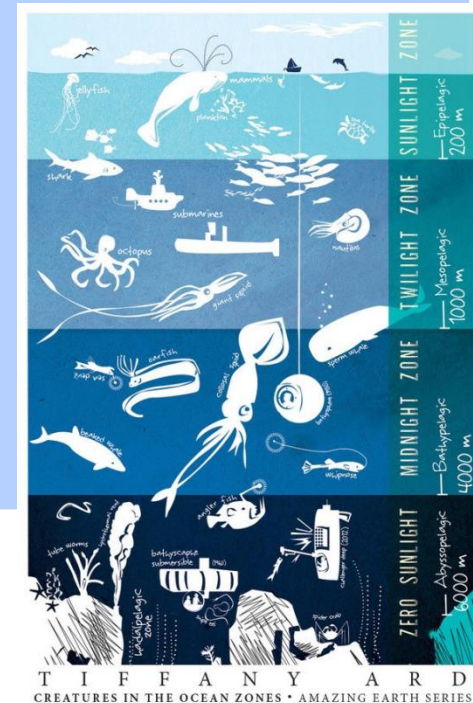
LC-BG-03-2018 Sustainable **harvesting** of **marine biological resources** RIA 6 mio

MAA

Societal actors

- Role of organisms for food chain and biobased?
- Assess **food safety, impact of fisheries** (techniques incl), **processing**, consumer acceptance
- **Assess impacts** of fishing and climate change on populations and ecosystems, CCS
- Bioresources incl microorg for **biotech applications**
- Develop ecosystem approach for exploitation of bioresources and **management tools**

**Training and
skills**



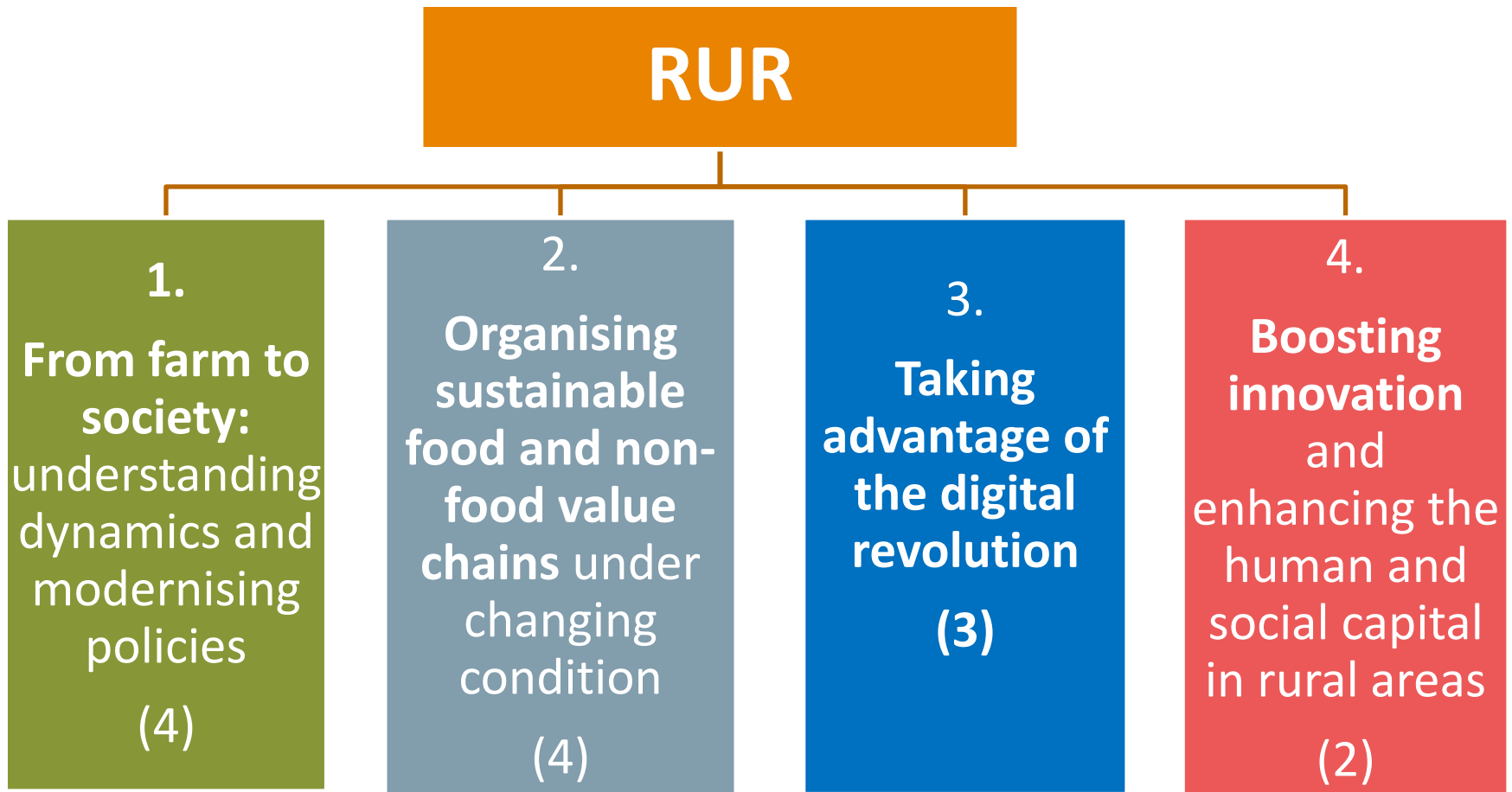
Rural Renaissance (RUR)

Enhancing the natural, social, cultural and economic potential of rural areas.

It will boost economic development, ecosystem services and entrepreneurial innovation.

This will be achieved by building on diversification and modernisation strategies, improving governance models, supporting innovative food and non-food value chains, and capitalising on local assets, including human natural and cultural capital.

A Rural Renaissance (RUR) – Enhancing the natural, social, cultural and economic potential of rural areas



RUR 2–Organising sustainable food and non-food value chains under changing condition

Based on an established agro-food system, consider a variety of additional bio-based processes and end products that could be integrated into the system, and that are viable on a small scale (farm to rural community level).

‘Agro-food system’ shall be understood here as a characteristic combination of farming activities and first

Develop and test new technologies and environmental friendly solutions for the use of wood-based materials in the (re)construction and/or retrofitting of buildings.

Generate a knowledge basis that could support policy decisions

Demonstrate processes for recovery of mineral nutrients and production of novel fertilisers from animal manure.



LC-RUR-11-2019-2020:
Sustainable wood value
chains

- A. [2019] Building with wood (IA)
- B. [2020] Resilient forest systems (IA)

Is it worth applying?

Norwegian success in H2020 pr. June 2017



Results pr. June 2017 Source: eCorda

SC2

- Norwegian participation in **15%** of all **SC2-projects** (76)
- Success rate **26%**
- Financial return **5,3%**

All Horizon 2020

- Norwegian participation in **4%** of **all H2020-projects** (663)
- Success rate **14,4%**
- Financial return: **1,81%**



Important links

- [Participant Portal:](#)
From curiosity to submission to project management
- [Horizon 2020 on the Research Council's homepage](#)
National Contact Points
- [PES 2020](#)
Project Establishment Support directed at H2020



Next steps

- Participant Portal
- Read the work programme
- Contact the EU-advisor in your institution
- National Contact Points for Food, Oceans and Bioeconomy and LEIT Biotech



Gudrun
Langthaler
gla@rcn.no



Inderjit S.
Marjara
ism@rcn.no



Øystein W.
Rønning
oro@rcn.no

- GET READY! Calls in the end of October 2017
- Deadline: 13. February 2018.