



# Research on agricultural soils in H2020

*Dr. Agnieszka Romanowicz  
European Commission, DG AGRI  
Estonia 3 October 2017*

# Horizon 2020



1. Health, demographic change and wellbeing

2. Food security, sustainable agriculture and forestry, marine and maritime and inland water research and the bio-economy  
(€3.8 billion 2014-2020)

3. Secure, clean and efficient energy

4. Smart, green and integrated transport

5. Climate action, resource efficiency and raw materials

6. Inclusive, innovative and reflective societies

7. Secure societies

# Research Activities under 'societal challenge 2'

*Co-management DG RTD - DG AGRI*

2.1.

**Agriculture  
and forestry**



2.2.

**Agri-food  
sector for a  
safe and  
healthy diet**

2.3.

**Aquatic  
living  
resources**



2.4.

**Bio-based  
industries  
and  
bioeconomy**



2.5.

**Marine and  
maritime  
research**



# A strategic approach to EU agricultural research and innovation



**19/06 AGRI  
workshop on  
the future of  
agriculture  
R&I**

**15/10 EU  
Scient.  
committee  
event on  
Global Food  
Security**

*Strategic  
programming  
2016/2017: expert  
workshops*

**08/10 SCAR  
Foresight  
conference**

**26-28/01/16:  
conference on  
agriculture R&I**

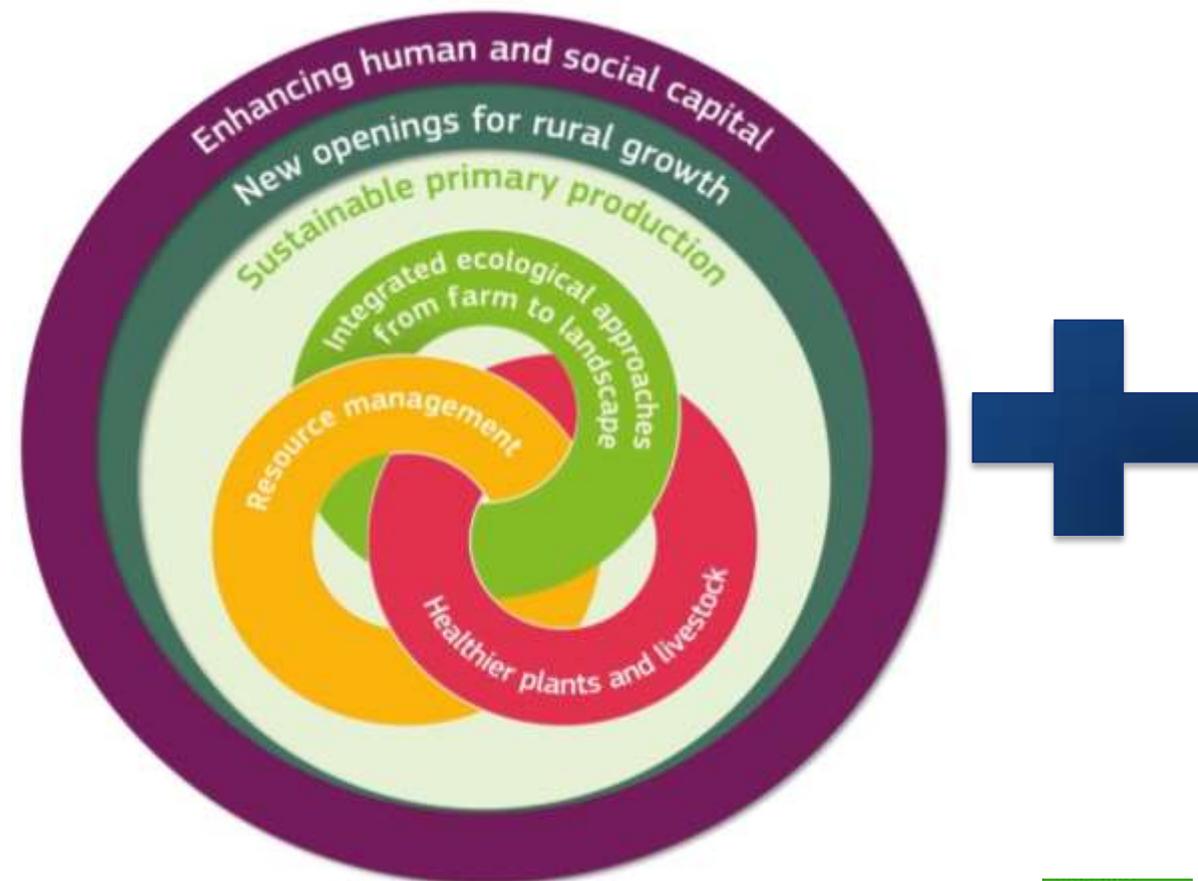




# A strategic approach to EU agricultural research and innovation

Five building blocks

Cross cutting issues



Systems approach,  
interdisciplinarity and  
transdisciplinarity

Societal engagement

ICT as enabling technologies for  
research and innovation

Enabling sciences and  
infrastructure

Socioeconomic research and  
support for EU policies

# Encouraging efficient resource management

Issues of  
scale

Resource  
management

Safeguard long-term productivity  
and reduce impact on ecosystems

Climate change: support strategies  
for adaptation and resilience

Optimise resource flows, use of  
residues and by-products in a  
circular economy

Improve soil fertility and functions

Reduce water consumption and  
pollution

Preserve and make better use of  
genetic resources



# Adopting integrated ecological approaches

Accounting of  
ESS;  
optimisation of  
systems

Encourage better use of ecosystem services to strengthen sustainability and support productivity

Explore functional role of biodiversity

Support organic and mixed farming systems

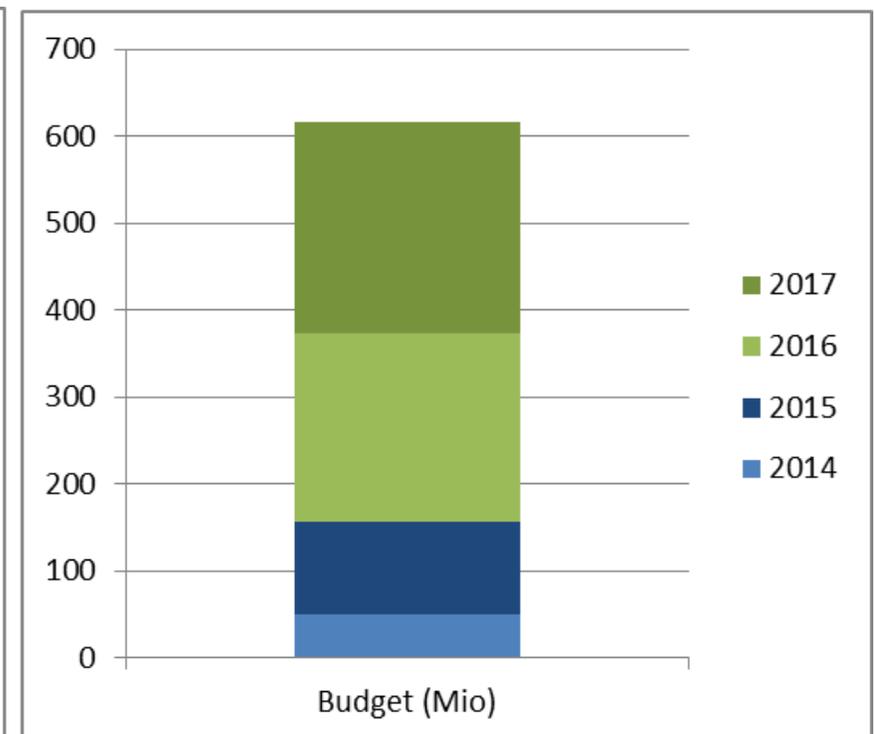
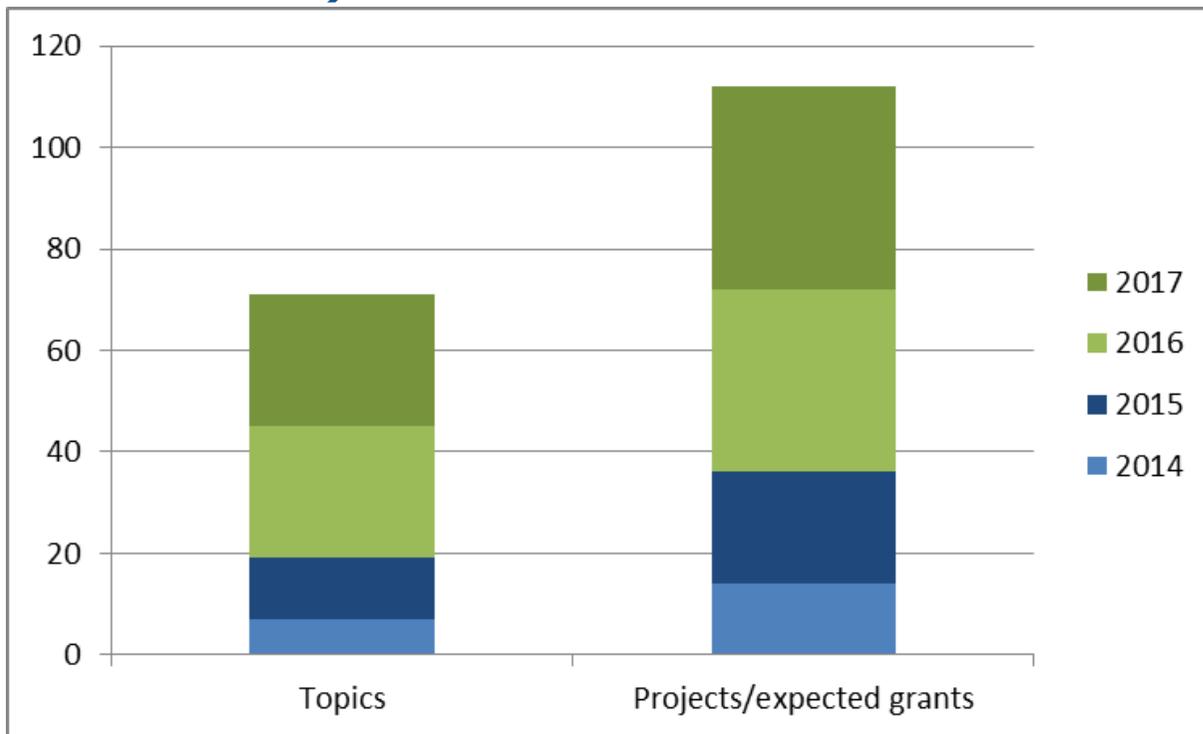
Research at various levels

Ecological approaches at farm and landscape levels



# Key facts 2014-2017 – AGRI-financed

- 71 topics → 89 running projects, 28 to be granted, 4 closed
- **618 million euros** (out of 1,5 billion for 7 years – 41%)



## POLITICAL DRIVERS

- Increased investment in **sustainable development** and **climate** related research and innovation
- Integrating **digitisation** in all enabling technologies and societal challenges
- Strengthening **international cooperation** in R&I
- **Resilience to crises** (dealing with migration, cybersecurity, etc.)
- **Market creating innovation** (disruptive innovation)



## ***Horizon 2020: Commission approach toward innovation in agriculture***

- ***Horizon 2020 projects:*** from €1-2 mio (coordination actions) to ... €45 mio (European joint programme on Zoonoses)
- ***International Cooperation:*** bilateral (e.g. with China) and multilateral (e.g. international research consortium Star-Idaz on animal health)
- ***Multi-actor projects:*** seek involvement of complementary actors in project activities (for all or part of project activities)
- ***Thematic networks*** exploiting existing research and best practice on specific themes chosen bottom-up – to foster knowledge exchange and translation into practice language at the European level

# EU-Africa R&I Partnership on food and nutrition security and sustainable agriculture



Sustainable intensification

Agriculture and food systems for nutrition

Expansion and improvement of agricultural markets and trade

Cross cutting issues

# Projects

**LEAP-AGRI** – ERANet some of the projects are linked to priority 1

**InnovAfrica** - The main objective of InnovAfrica is to improve FNS by integrating sustainable agriculture intensification (SAI) systems, innovative institutional approaches (IIAs) with novel extension and advisory services (EASs) and enhancing smallholder adaptive capacity in Sub-Saharan Africa (SSA).

**SALSA** - will assess the role of small farms and small food businesses in delivering a sustainable and secure supply of affordable, nutritious and culturally adequate food.

# PRIMA - Partnership for Research and Innovation in the Mediterranean Area

- \* the general objective of PRIMA is to reinforce cooperation in Research and Innovation in Mediterranean countries in order to contribute to the challenges of sustainable food production and water provision in the Mediterranean region*
- \* Decision on PRIMA entered into force on 6 August 2017 and the art. 185 initiative will run till 2028. First WP will run for 2018.*

*Soil is one of the cross cutting objectives of SRIA.*

## **LANDMARK**

LAND Management: Assessment, Research, Knowledge base

*"How to make the most of our land? How can we ensure that our soils deliver on the many expectations we have of our land?"*

## **ISQAPER**

Interactive Soil Quality Assessment in Europe and China for Agricultural Productivity and Environmental Resilience

## **SoilCARE**

Soilcare for profitable and sustainable crop production in Europe.

## WP 2016-2017

- soil: 51 times (crop resilience, precision farming, weeding management, biodiversity, nutrients, DSS, water, resource efficiency, fertility)
- SFS 47: Management of soil-water resources in the EU and China and its impact on agro-food ecosystem functions - evaluation on-going
- SFS-50-2017: Supporting international cooperation activities on agriculture soil contribution to climate change mitigation and adaptation – On the 4<sup>th</sup> October Grant Agreement was signed with consortium CIRCASA

# WP 2018-2020

- 1) countries have voted till yesterday
- 2) pre-publication 6/10, final publication expected by end of October

<https://ec.europa.eu/programmes/horizon2020/en/food-security-sustainable-agriculture-and-forestry-marine-maritime-and-inland-water-research-and-0>

- 3) soil- 93 times; 5 times in topic

## Concluding remarks

- *Agricultural research is necessary to cope with **long-term challenges** – yet the EU could foster synergies to deliver better - Big challenge for the future will be **to work better together** (research infrastructures...)*
- *Importance of agricultural research policy (research financing) (stability of financing, instruments, etc.)*
- *Innovation through **co-creation of knowledge** has huge potential*
- *Importance of international cooperation*



***Thank you for your attention!***  
***[agnieszka.romanowicz@ec.europa.eu](mailto:agnieszka.romanowicz@ec.europa.eu)***

- [Learn about EU agricultural research and innovation](#)  
Twitter: [@EU AGRI](#)
- Facebook: [EU-Agri](#)
- <http://ec.europa.eu/agriculture/>