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CORE Organic
15th year anniversary event
10 December 2019

Organic and agroecology research in H2020 and Horizon Europe

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DG Agriculture and Rural Development

1. Organic and agroecology R&I 2014 - 2020
2. Preparations for Horizon Europe (2021 – 2027)
3. Opportunities for organic and agroecology research in Horizon Europe

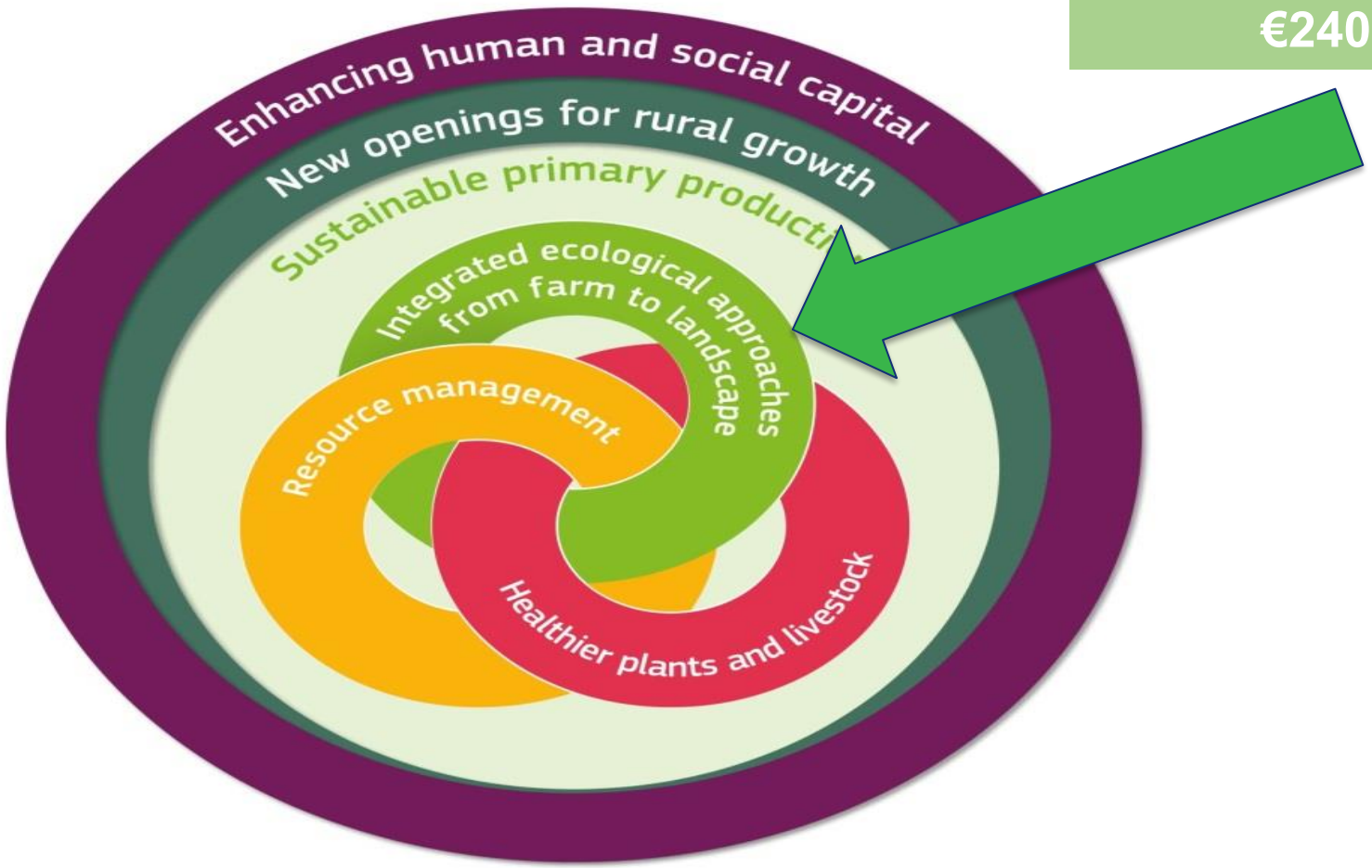
1. Organic and agroecology R&I 2014 - 2020

The current European context for organic and agroecology R&I

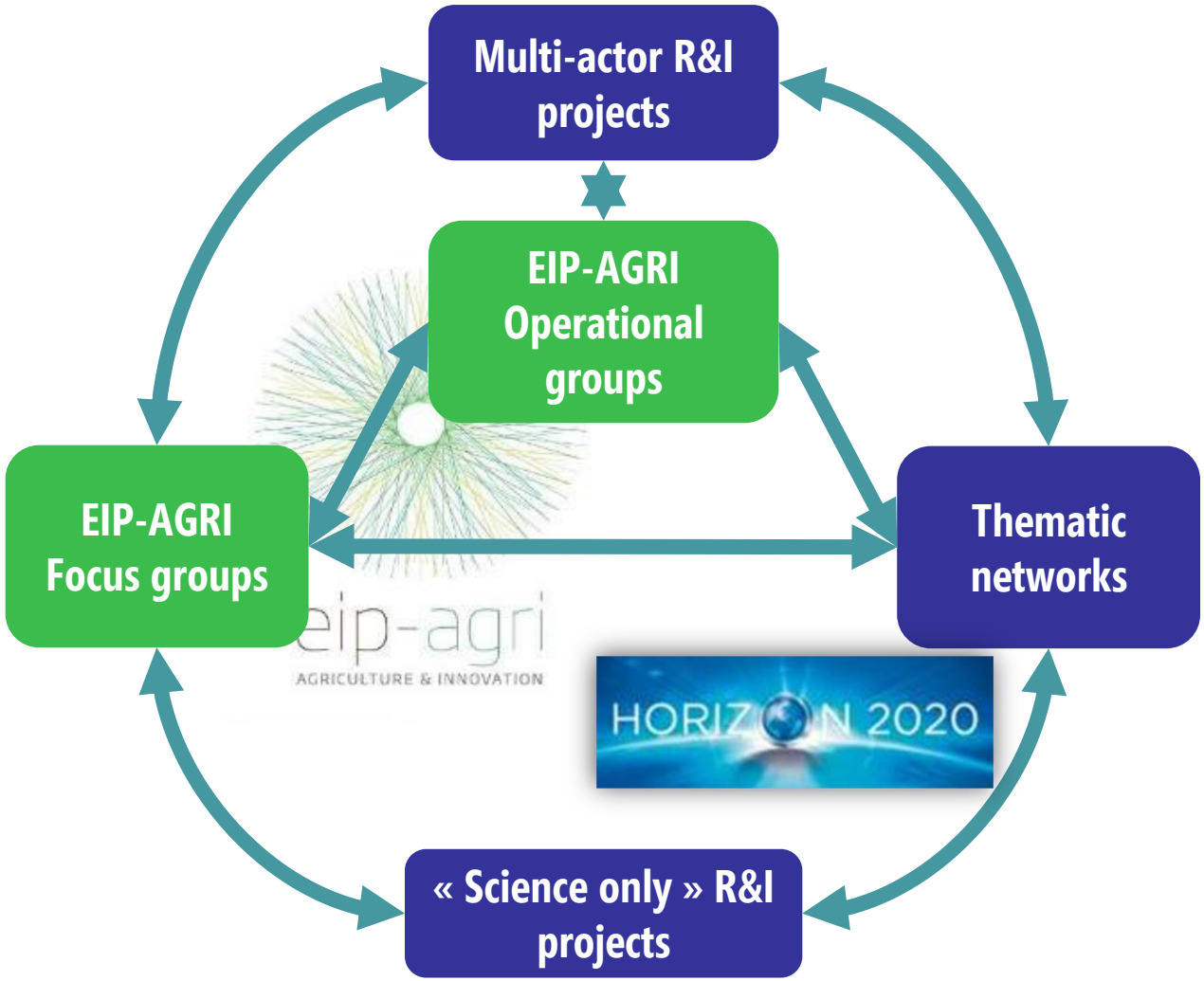
- EU Organic Regulation
- Common Agricultural Policy (CAP) and Common Fisheries Policy (for organic aquatic production)
- **European Innovation Partnership EIP AGRI**
- **European Research Framework Programme (Horizon 2020)**

Agri-research priorities

More than 40 projects relevant to organic farming and agroecology amounting to €240 m 2014 - 2017



Implementation



CAP

Horizon 2020

www.eip-agri.eu

Agriculture and Rural Development

- ✓ ***27*** *Member States,* ***98*** *rural development programmes implementing the EIP*
- ✓ *Around* ***3 200*** *OGs planned 2014-2020; around* ***1000*** *OGs running*
- ✓ *Around* ***180*** *H2020 multi-actor projects, including* ***29*** *thematic networks.* ***OG involvement*** *strongly recommended*
- ✓ *A growing and thriving network*

The EIP-AGRI in short

- 2010: European Innovation Partnerships want to speed up innovation through collaboration and **linking policies and instruments**
- The EIP-AGRI was launched by DG AGRI in 2012: COM (2012)79
- The EIP-AGRI applies an overarching "*Open innovation*" concept based on the **interactive innovation model** (applied in **CAP Operational Groups and H2020 Multi-Actor projects**):

  *Tackle real practice needs/opportunities through collaboration between specific actors to make **best use of complementary types of knowledge** (scientific, practical, organisational, etc) in view of **co-creation** and diffusion of solutions/opportunities **ready to implement in practice.***

- **EU wide EIP network** linking AKIS actors: communication, partnering, dissemination, knowledge flows and collecting practice needs (*Open science*)

The organic sector: key for AKIS and the Multi-actor approach (MAA)

- ✓ *MAA: a success today*
- ✓ *''Multi-actor approaches'' are intrinsic in organic sector*
- ✓ *CORE Organic was key for development of EIP-AGRI, MAA and Strategic Working Group AKIS of the Standing Committee of Agricultural Research (SCAR)* -> ***CORE ORGANIC used as good example***

Agriculture and Rural Development

EIP-AGRI and organic farming

- ✓ *Organic farming a common topic in Operational Groups (organic cropping systems, horticulture, grassland management, livestock systems…)*
- ✓ *121 OGs – **20% of the total** – working on organic farming topics*
- ✓ *Focus Group (2013) and Workshop ''Organic is Operational'' (2017)*
- ✓ *Organic farming in EIP-AGRI Work Plan 2020:*
  - ❖ **Focus Groups on sustainable beef production and (sub)tropical crops**
  - ❖ **Workshop carbon neutral farming**

H2020 research supporting the organic sector

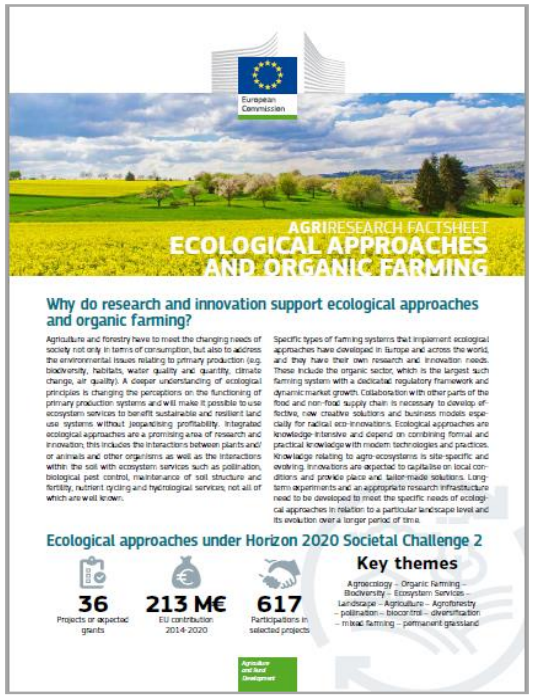
8 "organic" projects + 1 ERA-NET (CORE Organic)

€46 m EU funding

> 20 EU MS

> 150 partners

\+ assoc. and int. partners



More than 40 projects relevant to organic farming and agroecology amounting to €240 m 2014 - 2017

On-going Horizon 2020 projects for the organic sector

RELACS
IMPROVING INPUTS FOR ORGANIC FARMING

ORGANIC PLUS

BRESOV

LIVESEED

OK NET ecofeed

OK NET arable

ecobreed
IMPROVING CROPS

CORE organic

BIOfruitNET

The organic sector is also part of:

TREASURE
Diversity of local pig breeds and production systems for high quality traditional products and sustainable pork chains

ReMIX
Species mixtures for redesigning European cropping systems

IWMPRAISE

SmartAgriHubs

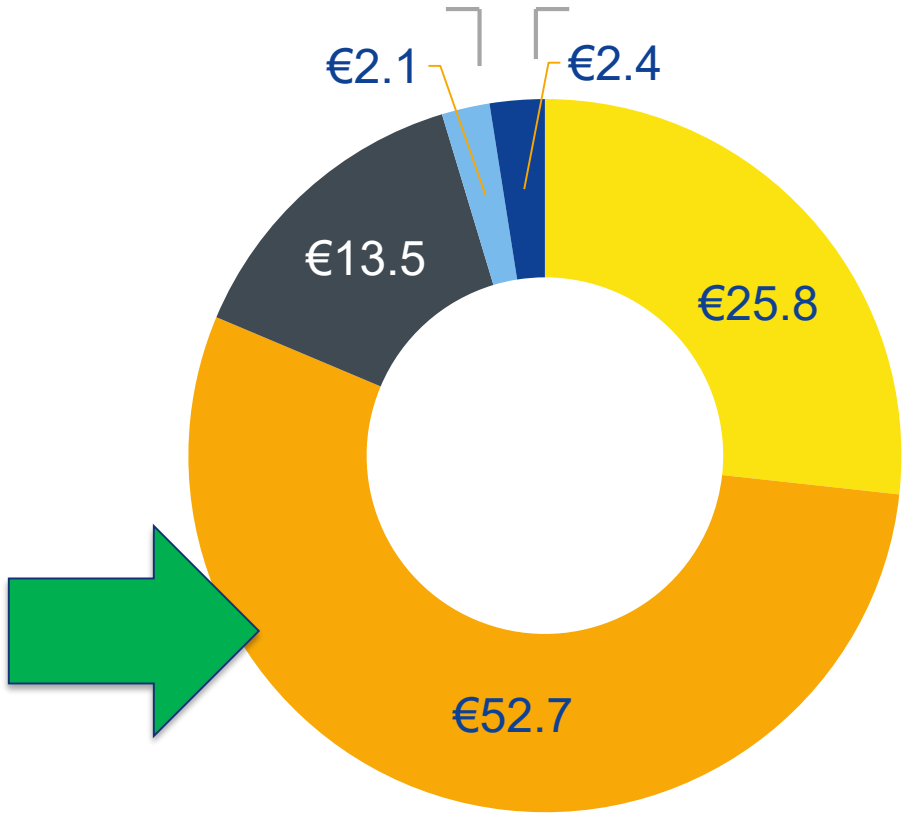
DIVERSIFOOD

NEFERTITI
FARMDEM

… an many others ….

2. Horizon Europe preparations

Horizon Europe, the biggest EU research and innovation programme ever: budget €100 billion*



€ billion
In current prices

- Open Science
- Global Challenges & Ind. Competitiveness
- Open Innovation
- Strengthening ERA
- Euratom

* This envelope includes EUR 3.5 billion allocated under the InvestEU Fund.

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Horizon Europe (2021-2027)

Pillar 2:
EUR 52,7bn out of a total of
€ 100bn
(implemented through calls, missions and partnerships)

EUR 10 bn proposed for R&I on food, bioeconomy, natural resources, agriculture and the environment

Horizon Europe Cluster 6 – Seven key R&I orientations

Environmental Observation

Biodiversity and Natural Capital

Agriculture, Forestry and Rural Areas

Sea and Oceans

Food Systems

Biobased Innovation Systems

Circular Systems

Under one cluster: the interlinked challenges of eco-systems, health of our planet, sustainable agriculture, forest and marine production, and sustainable consumption

Horizon Europe Cluster 6 – Six targeted impacts

- Reduction of **GHG emissions; ecosystems adaptation to climate change**
- Halt **biodiversity decline;** restoration of ecosystems
- **Sustainable and circular management and use of natural resources**; healthy **soils;** clean water and air for all; attractive jobs, enhanced value creation and competitiveness
- Primary production, food and bio-based systems based on **sustainability, inclusiveness, health and safety**; food and nutrition security for all
- **Behavioural, socio-economic and demographic change** well understood and drive sustainability; balanced development of **rural**, coastal, peri-urban and urban **areas**
- **Governance models** enabling sustainability

Organic and agroecology research relevant for all the impacts

Horizon Europe – Where are we?

3. Opportunities for organic and agroecology research in Horizon Europe

New approach to European partnerships: overview

New generation of objective-driven and more ambitious partnerships in support of agreed EU policy objectives

Key features

- **Simple architecture and toolbox**
- **Common set of criteria**
- **Coherent life-cycle approach**
- **Strategic orientation**

Co-programmed

Based on Memoranda of Understanding / contractual arrangements; implemented independently by the partners and by Horizon Europe

Co-funded

Based on a joint programme agreed by partners; commitment of partners for financial and in-kind contributions & financial contribution by Horizon Europe

Institutionalised

Based on long-term dimension and need for high integration; partnerships based on Articles 185 / 187 of TFEU and the EIT-Regulation supported by Horizon Europe

Portfolio of candidates for European Partnerships (44)

HEALTH

EU-Africa Global Health

Innovative Health Initiative

Chemicals Risk Assessment

Fostering an ERA for Health research

Large-scale innovation and transformation of health systems in a digital and ageing society

Pre-clinical / clinical health research

Personalised Medicine

Rare Diseases

DIGITAL, INDUSTRY AND SPACE

High Performance Computing

Key Digital Technologies

Smart Networks and Services

AI, data and robotics

Photonics Europe

Clean Steel - Low Carbon Steelmaking

European Metrology

Made in Europe

Carbon Neutral and Circular Industry

Global competitive space systems

PILLAR III AND CROSS-PILLAR

EIT Climate KIC

EIT Health

EIT Manufacturing

EIT Food

EIT InnoEnergy

EIT Manufacturing

EIT Raw Materials

EIT Digital

EIT Urban Mobility

Innovative SMEs

European Open Science Could (EOSC)

CLIMATE, ENERGY AND MOBILITY

Transforming Europe's rail system

Integrated Air Traffic Management

Clean Aviation

Clean Hydrogen

Built environment and construction

Towards zero-emission road transport

Mobility and Safety for Automated Road Transport

Batteries

Clean Energy Transition

FOOD, BIOECONOMY, NATURAL RESOURCES, AGRICULTURE AND ENVIRONMENT

Accelerating farming systems transition

Animal health: Fighting infectious diseases

Environmental Observations for a sustainable EU agriculture

Rescuing biodiversity to safeguard life on Earth

A climate neutral, sustainable and productive Blue Economy

Safe and Sustainable Food System for People, Planet & Climate

Circular bio-based Europe

Water4All: Water security for the planet

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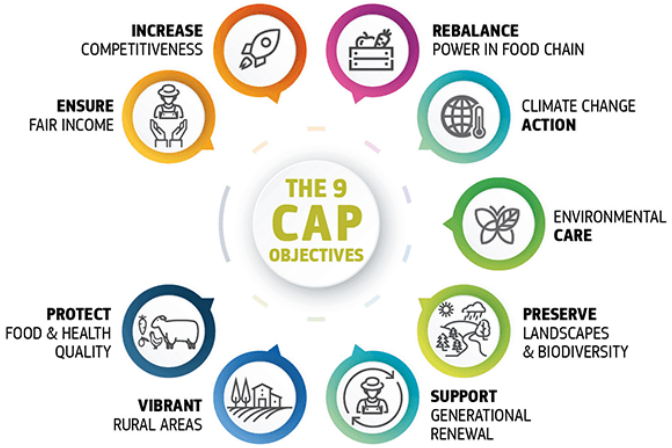
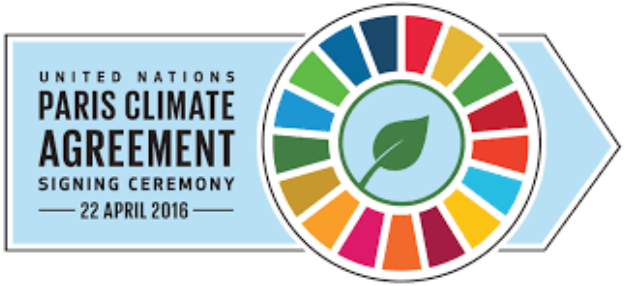
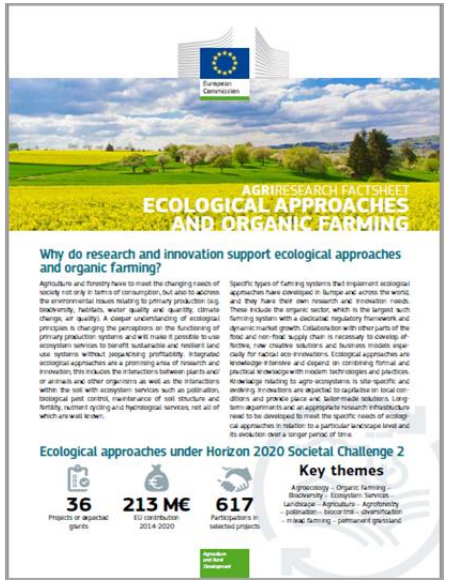
Why agroecology?







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Understandings of agroecology

''The integrative study of the ecology of the entire food systems, encompassing ecological, economic, and social dimensions''

''An integrated approach that simultaneously applies ecological and social concepts and principles to the design and management of food and agricultural systems. It seeks to optimize the interactions between plants, animals, humans and the environment while taking into consideration the social aspects that need to be addressed for a sustainable and fair food system.''

"Is considered jointly as a science, a practice and a social movement. It encompasses the whole food system from the soil to the organisation of human societies. It is value-laden and based on core principles…(…)''

We define it simply as the **science of ecological processes applied to agricultural production systems**

Distinctive aspects:

- **Fully systemic and transformative approach to sustainability**
- **Re-diversification of agricultural systems**
- **Equity, justice, access**
- **Focus on the local/territorial level**

AGROECOLOGY EUROPE

VÍA CAMPESINA

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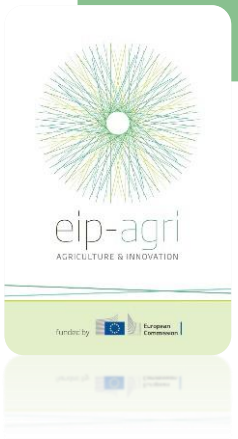
Why living labs?

Digital farming, S3

Multi-actor projects

G20

Agroecosystem living labs



Could LL be a powerful tool for change?

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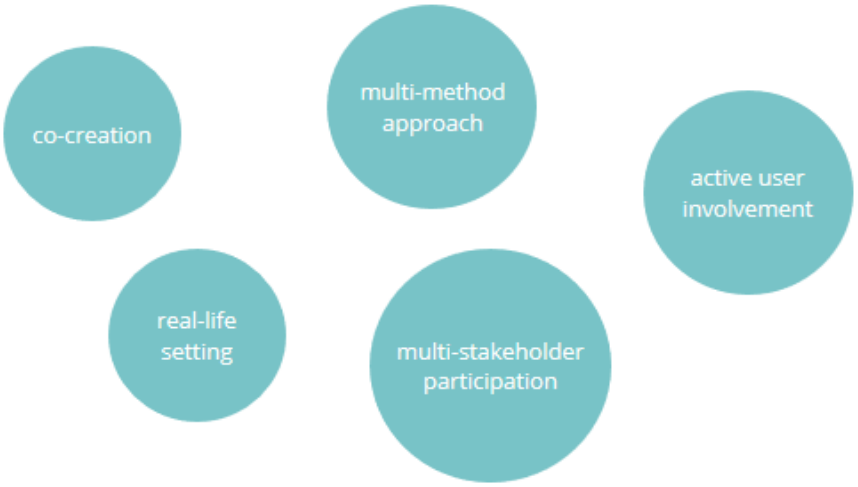
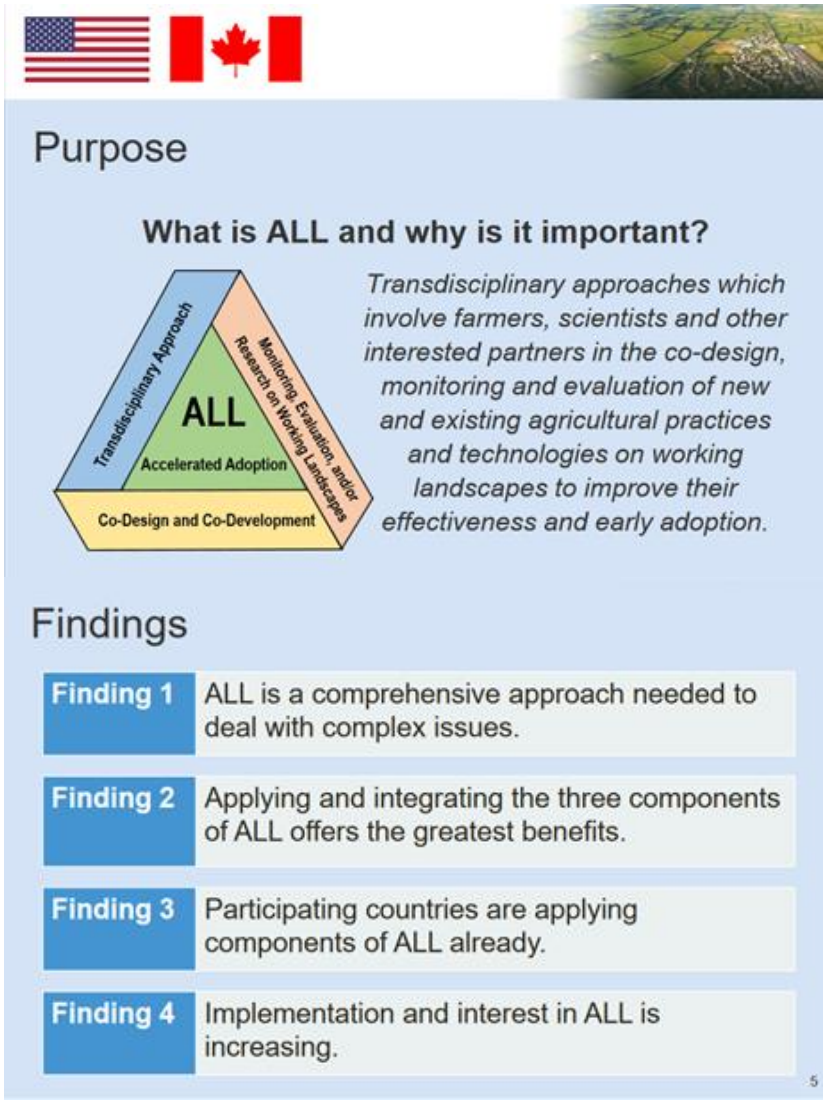
Understandings of living labs



Living Labs (LLs) are defined as **user-centred**, open **innovation ecosystems** based on systematic **user co-creation** approach, **integrating** research and innovation processes **in real life communities** and settings.

(EnoLL)

Living Labs <-> **Social innovation**



Key additional features:

- **Place-based/embedded in real working landscapes/communities**
- More **systematic use of a wide range of social sciences (behaviour)**
- Beyond projects, structuring the **innovation ecosystem**

Why a partnership?

- Agroecology: **context-specific, long-term time scales, complexity, co-creation**
- Agroecology is **under-researched, and there is appetite for knowledge**
- **Living labs** can speed up development and scaling up of innovative practices
- EU has supported living labs **but not focused on farming /rural community and insufficient place-based focus**
- Need to establish a network at field level that can deliver solutions & data in the **long-term**

Key objectives and activities

- **Goal: speed up the adoption of ecological approaches in farming systems**
- Set a **direction for knowledge creation** on **ecological processes applied to farming**
  - ✓ **Integrated**: agro-ecosystem biodiversity; ecosystem services; climate change adaptation / mitigation; IPM; soil health; agroforestry; organic farming; etc.
  - ✓ **Transdisciplinary**
  - ✓ **User-involvement**
- Creating spaces for **long-term real-life** experimentation and innovation embedded in **working landscapes**
  - ✓ Network of **living labs/farms + research infrastructures**
  - ✓ Place-based innovation
  - ✓ Coordination + knowledge exchange

Key implementation principles

- **Co-funded**
- **Place-based** => Local/regional/national levels to play an active role
- **Combining EU funds** (synergies with ERDF/RIS3, CAP/EAFRD, ESF etc…)

- **Wide coverage of the diversity**: agroecosystems, farming systems, sectors, pedo-climatic conditions
- Seek involvement of **wide range of actors & stakeholders**: consumers, citizens, NGOs, authorities, industry etc… (in phases if necessary)

- Ensure **links with other Horizon Europe partnerships** candidates (Biodiversity, Animals and Health, Food systems…), existing initiatives (FACCE, CORE Organic, etc)…**and missions** on soil health and food and on climate adaptation!

- **Progressive** creation of the network with **capacity building**
- CSA under Horizon 2020 WP 2020 to help **prepare**!

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Who would the partners be?

Partners:

- National / regional and local authorities, incl. environmental authorities
- Funding organisations
- Research/innovation/education organisations

Stakeholders:

- Farmers and the wider farming / rural community
- Civil society representatives / NGOs
- Land owners
- Agricultural Knowledge and Innovation System (AKIS)
- …

How to get prepared?

- **Consultations with Member States** (SPC, SCAR) and **multiple stakeholders** → Update of fiche describing the partnership idea

- CSA FNR-01-2020 ‘’Strengthening the European agro-ecological research and innovation ecosystem’’ programmed under H2020 calls 2020 (published July 2019, deadline January 2020, action to begin November 2020)

- **Planning workshop early 2020 to:**
  - ❖ Discuss and build ownership of the concepts
  - ❖ Looking together at examples – Develop a shared understanding
  - ❖ Discuss how to do this in practice
  - ❖ Draw an action plan, in connection with the CSA

- **TOPIC in work programme 2023**
- **Partnership to start end 2023 – early 2024**

Open questions are many – we are just at the beginning of the process !

- How will the partnership work in practice
- Scope agroecology and living labs
- Sequence of actions
- Role of research infrastructures
- Partners and commitments (cash / in kind)
- …

Your views and comments are welcome !

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R&I Missions

R&I Missions

Connecting to citizens: Missions will relate EU's research and innovation to society and citizens' needs, with strong visibility and impact

A mission will consist of a portfolio of actions intended to achieve **a bold and inspirational as well as measurable goal** within a set timeframe, with impact for science and technology, society and citizens that goes beyond individual actions.

Horizon Europe proposal defines mission characteristics and criteria

Specific missions will be **co-designed with Member States, stakeholders and citizens** and programmed within the Global Challenges and Industrial Competitiveness pillar (drawing on inputs from other pillars)

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Adaptation to climate change, including societal transformation

Cancer

Healthy oceans, seas, coastal and inland waters

5 Mission areas

Climate-neutral and smart cities

Soil health and food

European Commission

Horizon Europe – Mission on soil health and food

- Relevant for new Commission priorities, notably the **Green Deal** (11 December) -> land/soil management central to achieving policy objectives on food and nutrition security, climate change mitigation, protection of biodiversity, reduction of pollution and vibrant rural areas
- Co-led by DG AGRI (secretariat) and DG RTD and co-managed in cooperation with DG CLIMA, ENV, MARE, SANTE and the JRC
- Mission board set up to **advise** the European Commission (content of work programme, communication, policy coordination, KPI, etc)
- Ongoing discussion on **targets, timelines**, etc
- **Citizen's engagement**: survey launched 5/12 (World Soil Day)

Do you organize activities related to soil health and food?
Let us know!

AGRI-SOIL-MISSION-BOARD@ec.Europa.eu

Steps towards Horizon Europe Strategic Plan and the Work Programme

Summer/ Autumn 2019	Exchanges with Member States, consultation with stakeholders and the public at large. Co-design via web-consultations (closed on 4 October and 17 November) and Research & Innovation Days (24 – 26 September)
Autumn-winter 2019/2020	Exchanges with the European Parliament. Establishment of new Commission. Drafting the Strategic Plan
2020	Adoption of Strategic plan. Drafting of first Horizon Europe Work Programme on the basis of the Strategic Plan
2021	Start of Horizon Europe

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To sum up

- ✓ **Legal base of Horizon Europe**: support to organic farming a broad line under IA Agriculture, Forestry and Rural Areas
- ✓ Organic farming and agroecology relevant for the **six targeted impacts of Cluster 6 of Horizon Europe**
- ✓ **Partnership on agroecology** will support implementation and upscaling of agro-ecological approaches in primary production, including organic, mixed farming and agroforestry
- ✓ **Mission on soil health and food** to include ecology, agroecology and delivery of public goods
- ✓ Need to **respond to consumer demand** for healthier and sustainable diets, **improve farmers' income**, minimize impact on **climate and environment**
- ✓ Public consultations: emphasis on organic and agroecological approaches; place-based approaches

To sum up

- ✓ **New organic regulation** -> new research needs (processing, plant protection products, organic seeds, organic varieties…)
- ✓ **Priorities of the new European Commission**: Green Deal, farm to fork strategy, EU biodiversity strategy 2030, zero pollution ambition…
- ✓ **MAA** will continue to be one of the pillars in Horizon Europe
- ✓ New CAP's **cross-cutting objective on knowledge, innovation and digitalization** -> CAP Plans, strengthened AKIS, EIP-AGRI continuation…opportunities for the organic sector

Ongoing identification of key R&I areas leading to first work programme of Horizon Europe (2021 – 2024)

Your contribution is welcome!

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To know more...

Strategic approach to EU's Agricultural Research and Innovation:
https://ec.europa.eu/programmes/horizon2020/en/news/final-paper-strategic-approach-eu-agricultural-research-and-innovation

Agri-research factsheet ''Ecological approaches and organic farming'':
https://ec.europa.eu/info/sites/info/files/food-farming-fisheries/farming/documents/factsheet-agri-research-ecological-approaches_en.pdf

Horizon Europe:
https://ec.europa.eu/info/horizon-europe-next-research-and-innovation-framework-programme_en

European Research and Innovation Days:
https://ec.europa.eu/info/research-and-innovation/events/upcoming-events/european-research-and-innovation-days_en

Thank you for your attention