European research and innovation on organic agriculture and agroecology

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Organic Innovation Days
Eisenstadt, 7 November 2018
"Organic agriculture combines tradition, innovation and science to benefit the shared environment and promote fair relationships and a good quality of life for all involved."

(IFOAM, 2008)
The organic sector – a (European) success story

- Steadily growing sector: area doubled in relation to 2002 and increased by 63% in decade 2007 – 2016
- Currently about 185,000 farms across Europe, trend increasing while consolidation of conventional agricultural holdings in EU-28
- Value of organically grown products doubled in the last decade: more than 30 bn€ in 2016
Organic farmland in Europe (2016)

European Union
11.9 Million ha

More than half (54%) of EU organic farmland is in 4 countries.

Distribution of organic agricultural land by country

Spain
2 Million ha

Largest area of organic farmland in Spain, Italy and France.

Top 5 countries with the largest areas of organic agricultural land

6,7% of EU farmland is organic

Nine countries have 10% or more of their agricultural land under organic management

Top 5 countries, where more than 10 percent of the farmland is organic
The World of Organic Agriculture 2016

Organic Farmland 2016
- North America: 3.1 m ha
- Europe: 13.5 m ha
- Asia: 4.9 m ha
- Latin America: 7.1 m ha
- Africa: 1.8 m ha
- Oceania: 27.3 m ha

- 57.8 m ha Organic farmland in million hectares
- 178 Countries with organic farming

Organic Producers 2016
- 2.7 million Organic farmers

- +12.8% From 2015

Organic Market 2016
- More than 80 bn € Global organic food market in billion euros

- Top 3 countries (market in billion euros)
  - USA: 38.9
  - Germany: 9.5
  - France: 6.7

- 21.8% Organic market growth
- 9.7% Market share
- 274 € Highest per capita spending is in Switzerland

Source: FiBL survey based on national sources © FiBL 2018
More information: www.organic-world.net
Challenges for the organic sector in Europe

- Despite continuous growth significant potential to move beyond current share of 6% EU farmland and 2% of the food and drink industry
- Increases in area devoted to organic farming slowing down and in some Member States the area is even declining
- Organic production is lagging behind growth of organic market
- Consumer demand to be met by imports - need for equivalence in standards
- Organic production and consumption unevenly distributed across the EU
- What about research capacity?
The European context for organic farming, research and innovation

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

Direct Payments (EAGGF)

- Basic income support
- Green payment (30%)
- Market measure: Support to producer organisations

Pillar I (70%)

Pillar II (30%)

Rural Development Programmes (ERDF)

- Agri-env-climate
- Organic farming
- Cooperation, e.g. on climate action and operational groups
- Knowledge transfer and information
- Advisory services
- Quality schemes

* Focus on elements relevant to organic farming

Significant level of subsidiarity!
The EU Research Programme Horizon 2020

- Agricultural research mainly funded under Societal Challenge 2 (Agriculture, forestry, food, aquatic production, bioeconomy)
- No specific heading on organic food and farming
- Research on organic agriculture addressed in specific topics
- Research topics for the organic sector arise from a) needs following new organic regulation, b) ETP Organics research agenda, c) AGRI research strategy
- General approach to request research which addresses both conventional and organic farming ("mainstreaming" of needs of the organic sector)
- Organic research also benefiting from major support to research on agro-ecological approaches and crop diversification
Research under SC2 supporting the organic sector

6 "organic" projects

- on seeds, breeding and critical inputs

27 m€ EU funding

- > 150 partners

20 EU MS

+ assoc. and int. partners

More than 20 projects relevant to organic farming and agroecology amounting to 100 m€

- e.g. on diversification, genetic resources, plant health, functional biodiversity, legumes, permanent grasslands, plant-soil interactions

A dynamic web of activities and approaches!
Crop diversity projects joining forces

DiverIMPACTS, DIVERFARMING, DIVERSify, ReMIX, TRUE, LEG-VALUE, IWMPRAISE forming a cluster to work closely together and deliver

- **Crop diversification solutions**, e.g. new varieties, crop protection solutions, machinery
- A network of field experiments across biogeographical regions to demonstrate benefits of crop diversification
- **New products or products with enhanced value** for the food/feed or industrial sectors (e.g. hemp for isolation boards in the building sector, pulses for the food sector)
- **New business models along value chains**
- Knowledge-intensive **services to farmers** to help manage and monitor their transition to more diversified cropping systems.
- **Multi-criteria assessment tools** to monitor performance of diversified cropping systems
- **Learning-for-innovation** platform, networking, case studies, experiences across Europe
- **Policy recommendations** for crop diversification
Examples of upcoming calls in 2019 and 2020

SF1-01-2019: Capitalising on native biodiversity in farmland landscape
SFS-01-2020: From agrobiodiversity to dynamic value chains
SFS-04-2019: Integration of plant protection in a global health approach
SFS-04-2020: Biocidal and plant protection products
LC-SFS-19-2019: Efficiency and resilience of mixed farming and agroforestry systems
CE-SFS-24-2019: Innovative and citizen-driven food system approaches in cities
EIP AGRI: Bridging research and practice

- Participatory innovation
- Networks
- Focus Groups
- Knowledge repository

European level

- Multi-actor projects (MAA)
- Thematic networks

Regional level

Common Agricultural Policy

- Operational groups (OGs) in Rural Development Programmes

By 2020: 1bn allocated to 180 MAA projects
50% newcomers

600 OGs running; about 3,000 by 2020
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<tr>
<th>Sectors</th>
<th>Resource Management</th>
<th>Food safety / product quality</th>
<th>Pollution</th>
<th>Socio-economic sustainability / competitiveness</th>
<th>Biodiversity / nature / landscape management</th>
<th>Animal health and welfare</th>
<th>Pest and disease treatment</th>
<th>Climate change</th>
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Scope of OG projects

- Agricultural production system: 30%
- Farming practice: 48%
- Plant production and horticulture: 33%
- Animal husbandry and welfare: 24%
- Farming equipment and machinery: 12%
- Landscape/land management: 12%
- Pest/disease control: 19%
- Fertilisation and nutrients management: 18%
- Soil management/functionality: 18%
- Genetic resources: 5%
- Forestry: 3%
- Climate and climate change: 14%
- Energy management: 6%
- Waste, by-products and residues management: 9%
- Food quality/processing and nutrition: 18%
- Supply chain, marketing and consumption: 17%
- Farming/forestry competitiveness and diversification: 13%
- Biodiversity and nature management: 15%
A supportive context for EU organic R&I

- EU Organic Regulation
- Common Agricultural Policy (CAP)
- European Research Framework Programme (Horizon 2020)
- European Innovation Partnership EIP AGRI

- Policies/tools provide a solid framework that can be further developed
- But: current opportunities can be better exploited
- How to develop more evenly EU capacities for research and innovation?
- How to pool resources and share knowledge more efficiently?
- Research processes (HOW) as important as Research questions (WHAT): involvement of end-users in R&I activities is a critical factor
- Agricultural Innovation and Knowledge systems (AKIS) are key!
To know more

- **Organic farming in EU**

- **Horizon Europe Work Programme 2018-2020**
  Deadline: 23 Feb 2019

- **Agricultural research and EIP AGRI**
  [https://ec.europa.eu/agriculture/research-innovation_en](https://ec.europa.eu/agriculture/research-innovation_en)
  [https://ec.europa.eu/eip/agriculture/](https://ec.europa.eu/eip/agriculture/)

- **SCAR: Agricultural knowledge and innovation systems**