

Boosting organic seed and plant breeding across Europe



LIVESEED

Horizon 2020 RIA: 2017 -
2021

Change seed,
grow difference!



LiveSeeding

Horizon Europe IA: 2022 - 2026

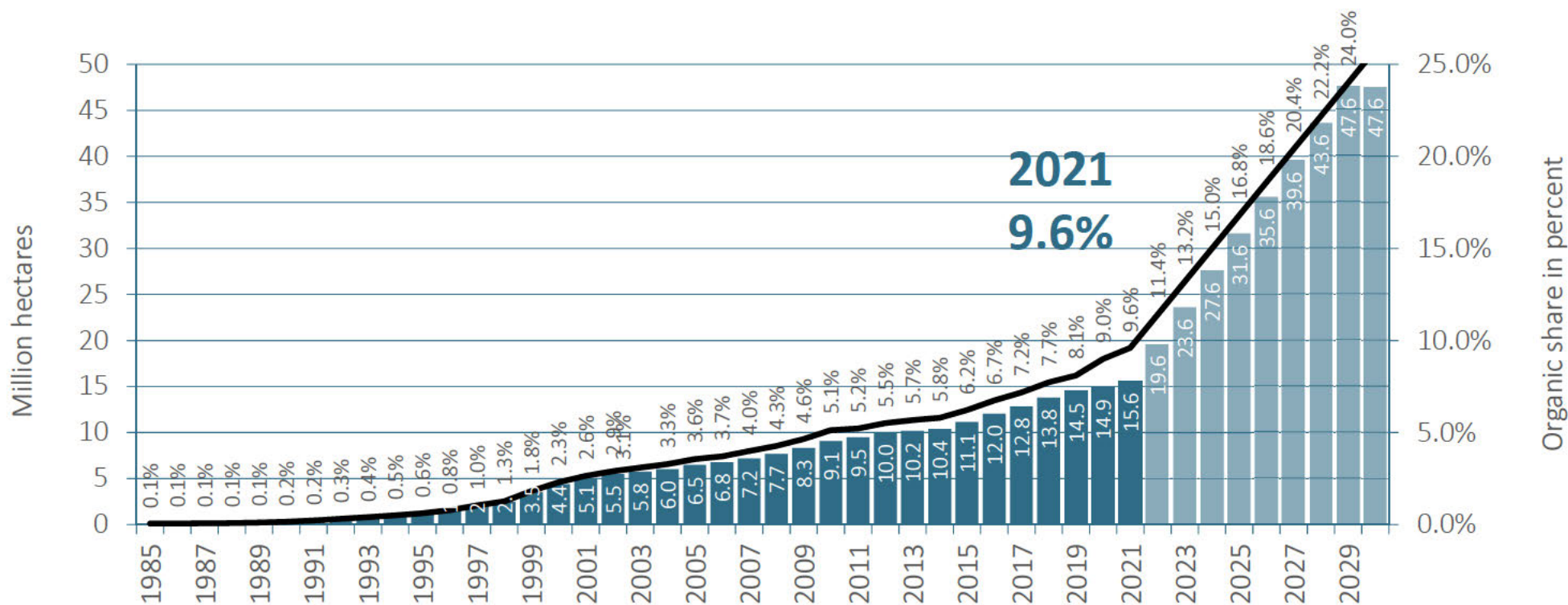
Great Challenges for Sustainable food production

European Farm to Fork Strategy

- **Reduce environmental and climate footprint** of food system
- Strengthen resilience and food security in **face of climate change and biodiversity loss**
- Access to **sufficient, nutritious, sustainable and affordable food**
- Facilitation of **global transition of food systems**
- Circular bio-based economy, **reduction of nutrient losses** by 50%
- **Reduced pesticides and antibiotics** by 50%
- **Increase organic farming to 25% of total farmland by 2030**



European Union: Growth of organic area 2000-2021 and projection to reach 25% by 2030



European Union: Growth of the organic agricultural land and organic share 1985-2018, Projection 2030

Source: FiBL-IFOAM-SOEL-Surveys 2001-2020, FiBL projection

<https://www.organic-world.net/yearbook/yearbook-2021>

Requirement of varieties suited for organic production

- Varieties adapted to organic farms, which deliver sufficiently high and above all stable yields of high quality even under low-input conditions and build up soil fertility.
- Specific variety requirements:
 - Rapid youth development
 - Nutrient efficiency and high N-fixation
 - Weed suppression capacity or weed tolerance
 - Resistance to soil- and seed-borne diseases
 - Good storability, processability, nutritional quality and taste
- Large portfolio of locally adapted varieties for different crop rotations and organic markets
- Option for farm saved seed
- Genetic diversity
- Prohibition of GMOs (including cytoplasm fusion, gene editing, NGT1, NGT2)
- Conservation and free access to GMO-free genetic resources

Different breeding strategies

- › **Conventional breeding:** **Status quo**
 - › Selection with application of seed treatments, herbicides, optimal nutrient supply
 - › Breeding goals and variety development for conventional / IP farming
 - › Test registered varieties under conventional farming (very few organic variety trials)

- › **Breeding for organic farming** **Product oriented**
 - › Considering of the breeding goals of the organic agriculture
 - › No GMO (no cell fusion, no NGT)
 - › Selection or at least variety testing is partly under organic farming conditions
 - › Last multiplication step under organic farming conditions

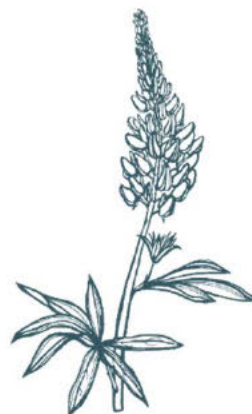
- › **Organic plant breeding:** **Process oriented**
 - › Breeding specifically /exclusively for organic agriculture
 - › Every selection step under organic conditions
 - › Breeding technics in harmony with the organic farming and IFOAM principles
 - › Multiplication steps under organic conditions

IFOAM
ORGANICS EUROPE

FiBL



LIVESEED



[@LIVESEEDeu](https://twitter.com/LIVESEEDeu)

www.liveseed.eu



Boosting Organic Seed and Plant Breeding across Europe (2017-2021)



8.9 Mio €
52 months
50 partner and linked parties
18 European countries
125 stakeholders

Inter- and transdisciplinary approach of co-development of innovations



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 727230 and by the Swiss State Secretariat for Education, Research and Innovation (SERI) under contract number 17.00090. The information contained in this communication only reflects the author's view. Neither the Research Executive Agency nor SERI is responsible for any use that may be made of the information provided.



Aim: Improve integrity and competitiveness of organic sector by reaching 100% organic seed of cultivars suited for Organic Agriculture

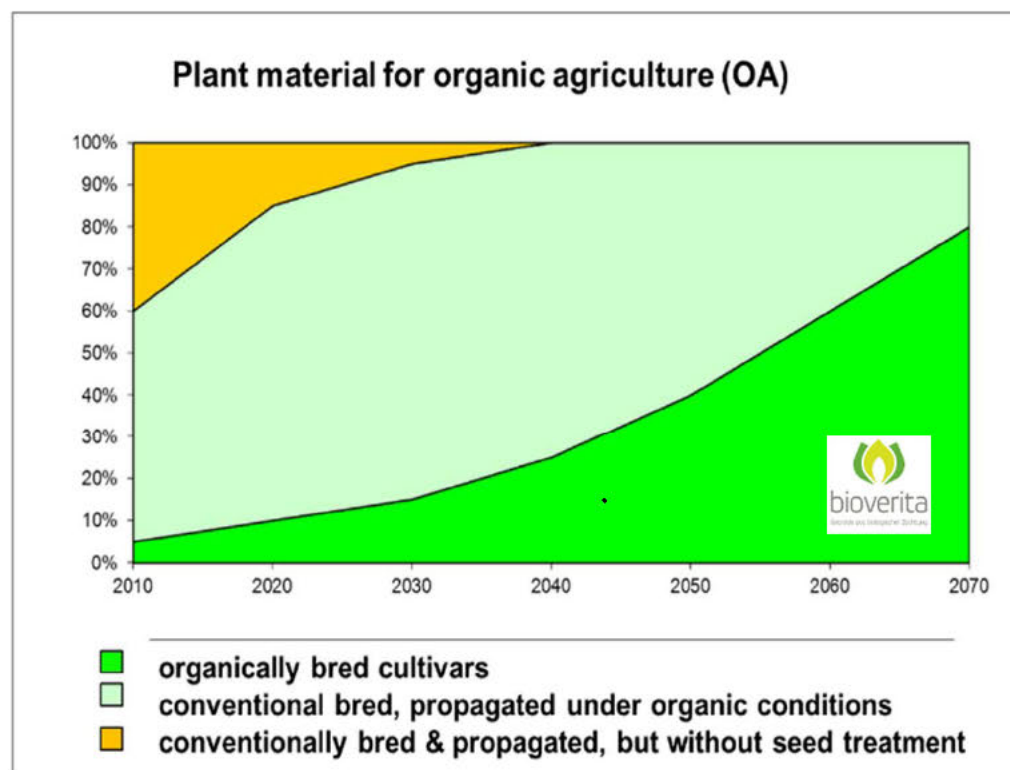
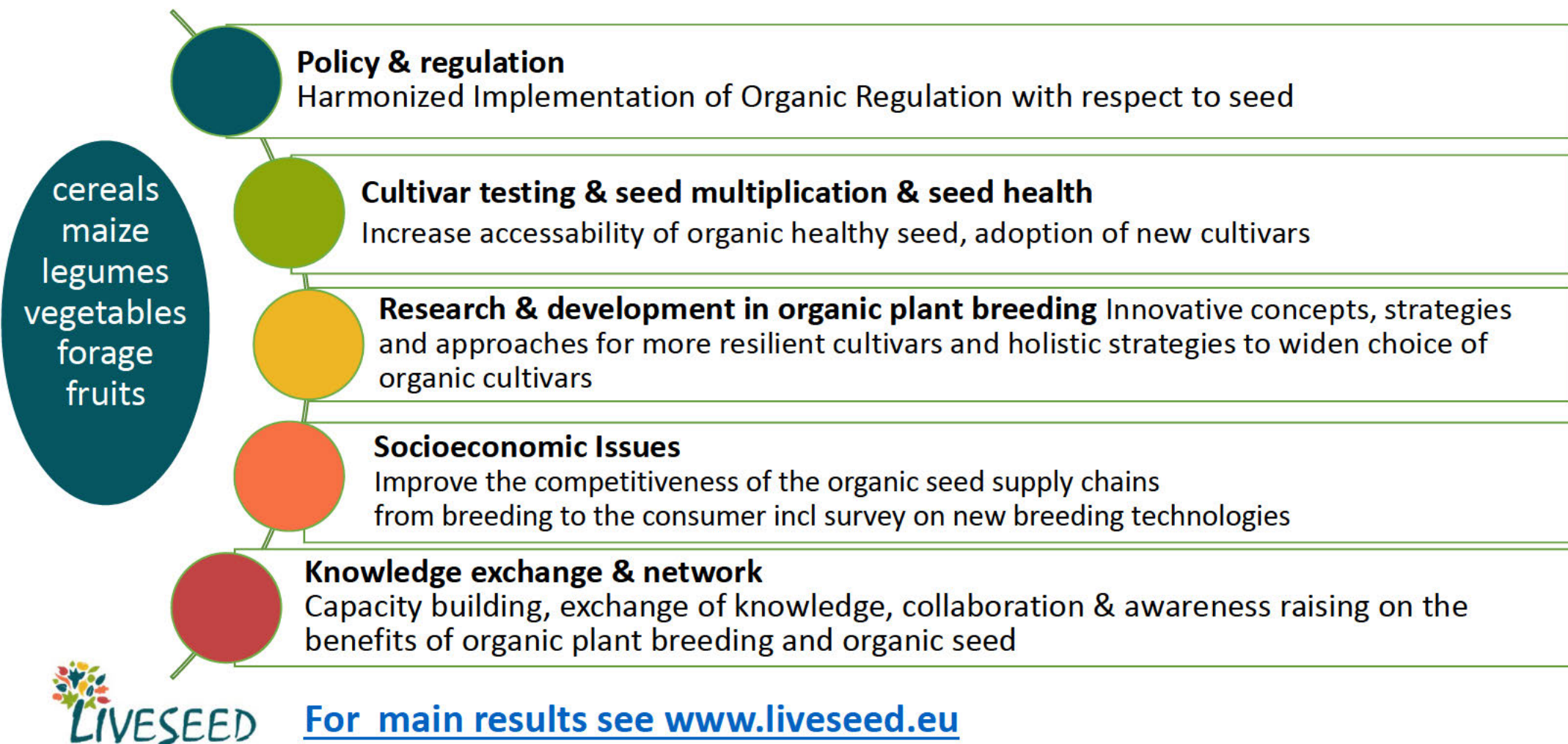


Figure 1 : Schematic time line to reach the goal of 100% organically propagated seed of suitable cultivars (light green) in short term and to foster cultivars specifically bred for organic farming systems (bright green) in the long term

Scope of activities

to reach 100% organic seed of cultivars suited for Organic Farming by 2036



Transparency of organic seed supply and demand

Regulation & policy framework regarding production, use, transparency of organic seed



Regulation & policy framework regarding organic seed

21 COUNTRIES

explored for their implementation of the EU Organic Regulation



71 COMMITMENTS

on a national level to improve the implementation of the EU Organic Regulations



21 PRESENTATIONS

of the EU Router Database for Organic Seed

450 NATIONAL STAKEHOLDERS

consulted across Europe

772 FARMERS

consulted on factors influencing their organic seed use



23 VISITS

and workshops organised across Europe



We consulted

29 DATABASE MANAGERS

29 NATIONAL AUTHORITIES

60 CERTIFICATION BODIES

350 SEED SUPPLIERS

consulted on factors hampering organic seed supply



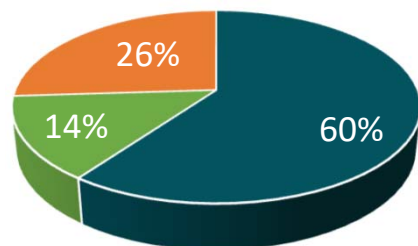
400 STAKEHOLDERS

reached via dissemination events

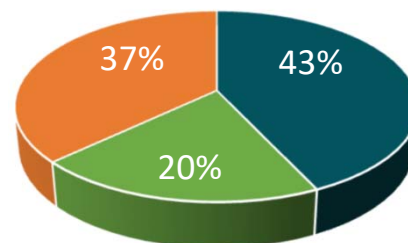


First status quo analysis on organic seed in EU and Switzerland in 2016

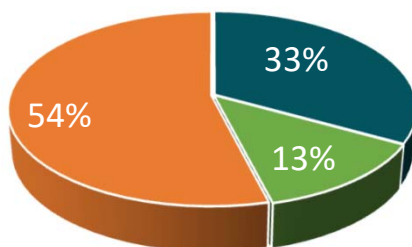
Northern Europe (23'887 t)



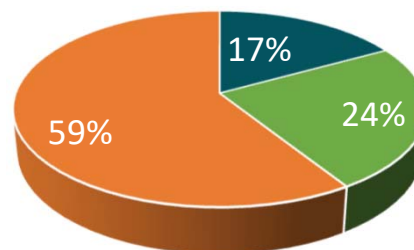
Central Europe (40'622 t)



Southern Europe (55'363 t)



Eastern Europe (24'692 t)



New organic regulation 2018/848 will phase out derogation for non-organic seed latest by 2036

NON-ORGANIC
SEED SUPPLY *

ORGANIC SEED
SUPPLY

ORGANIC FARM
SAVED SEED

<https://orgprints.org/38616/>

<https://orgprints.org/id/eprint/44726/>

EU wide router database for availability of organic seed



Interface to:
organicXseeds

en ▼

Welcome to the European database for organic seeds

✓ Language successfully changed

Objectives of the European router database

The European database for organic seed has been developed within the EU project LIVESEED. Its objective is to create more transparency for the EU member states and for seed suppliers regarding available offers of organic seeds, and to increase the supply of organic seed in the EU member states and Switzerland.

The national databases, however, will continue to be the basis for farmers to check the availability of organic seeds and to apply for derogations when necessary. The European database enables seed suppliers to manage their supply in all EU member states and Switzerland from one account. Registered seed suppliers can upload information about their available organic seed supply and indicate to which countries the individual offers can be delivered. When a seed supplier requests to list a seed offer in a national database, the competent authority receives a notification to verify the information provided by the seed supplier. The competent authority may then include the offer in its national

Financing through LIVESEED

Contact: FiBL Germany

Tel. +49 69 7137699-855 seeds4organic@fibl.org

In case you experience any difficulties regarding the use of the website, please contact us

Creating incentives for farmers to use organic seed

Bottlenecks and success factors in 4 pilot case studies



<https://www.liveseed.eu/tools-for-practitioners/booklets/>

www.seeds4organic.eu



WP1 Regulation & Policy – Potential Impact

Innovation	Target Groups	Impact
EU router database	Seed companies, national authorities	One entry point for seed offers Larger availability of organic seed standardized reporting / monitoring
A national roadmap towards 100% organic seed by 2036	national authorities, seed companies	Supporting guide for stakeholder and authorities to work on national roadmaps
Infographic on incentives for farmers to use organic seed	all actors along the supply chain	Awareness raising how to stimulate use of organic seed
Declaration on organic seed	all actors along the supply chain	71 voluntary commitments from 10 EU countries



A national roadmap towards 100% organic seed



Improving cultivar testing, seed multiplication & health for high quality seeds for the organic sector



Organic Cultivar Trials and Seed Health

More than
50 COMMON BUNT TREATMENT
methods tested



More than
40 SEED HEALTH ISSUES COLLECTED



25 FIELD TRIALS

for crop specific protocols for testing



13 CHALLENGES

collected from experiences with DUS and VCU trials

100 EXPERTS

networked in cross visits



46 SMART PRACTICES

shared on Organic Farm Knowledge Platform's Seed Section



50 PRIORITY SPECIES

recommended for the temporary experiment on organic varieties



TOOLBOX

on Organic Heterogeneous Materials



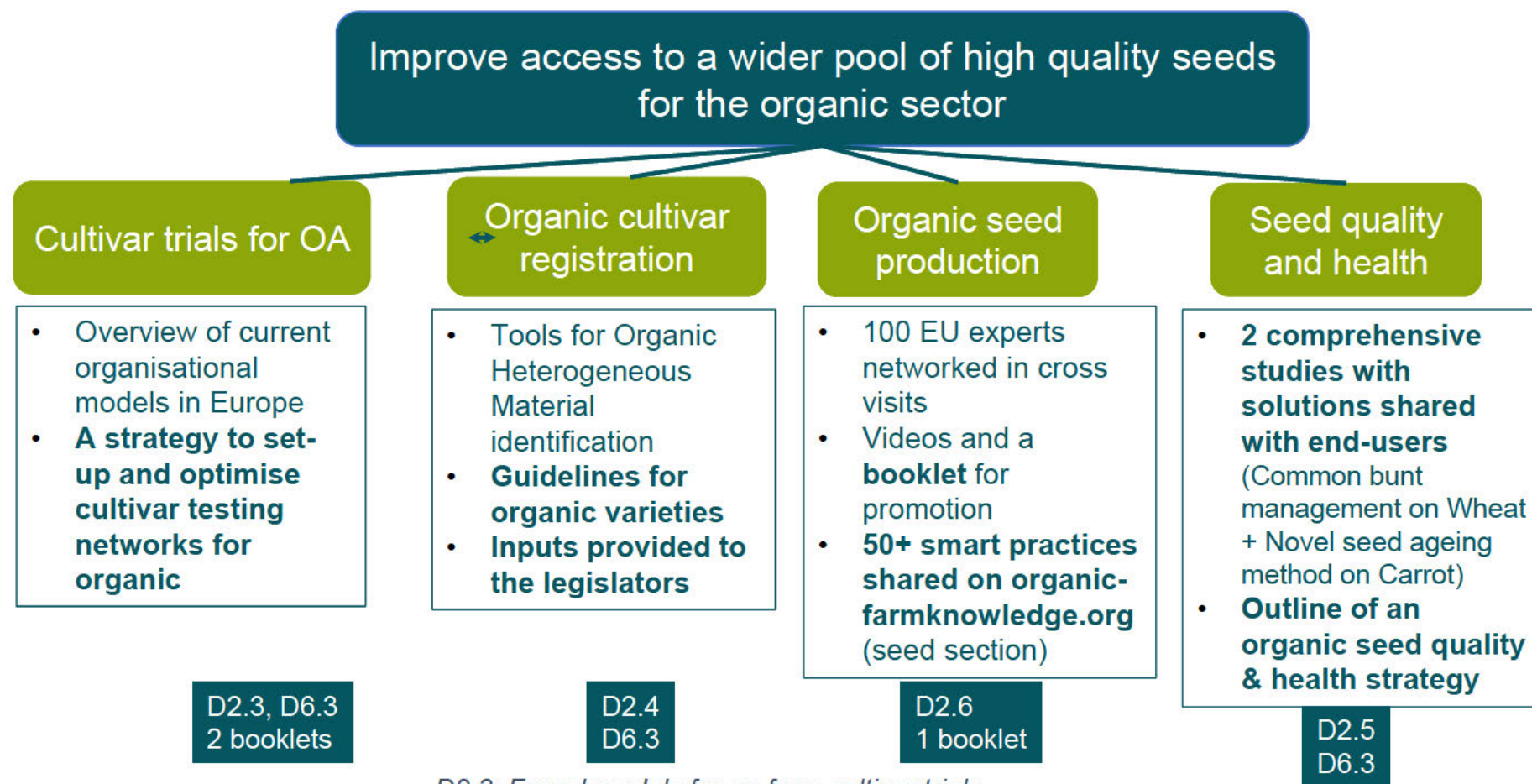
INPUTS FOR THE DELEGATED ACTS OF THE NEW EU ORGANIC REGULATIONS



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 101019719. The European Union is not responsible for any errors or for any consequences arising from the use of the information contained in this document. The views expressed are only those of the author(s) and do not necessarily represent those of the European Union.

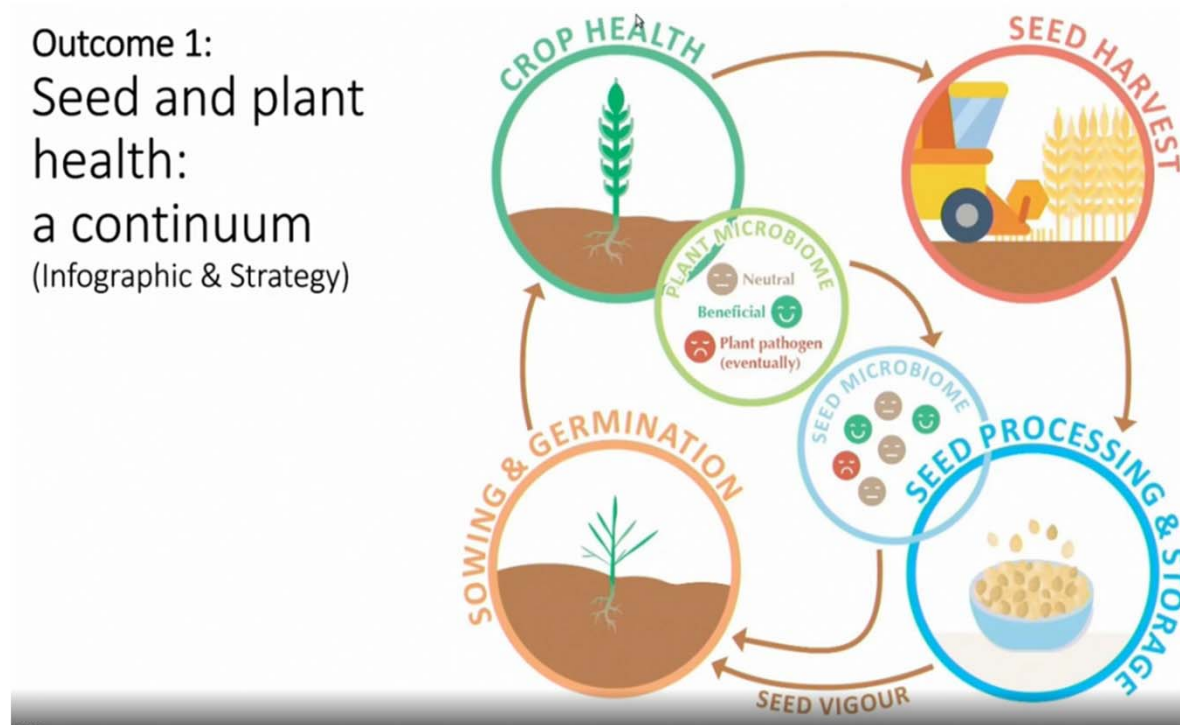


WP2 – Cultivar testing, seed production & seed health



Holistic Seed Health Strategy

Outcome 1:
Seed and plant
health:
a continuum
(Infographic & Strategy)

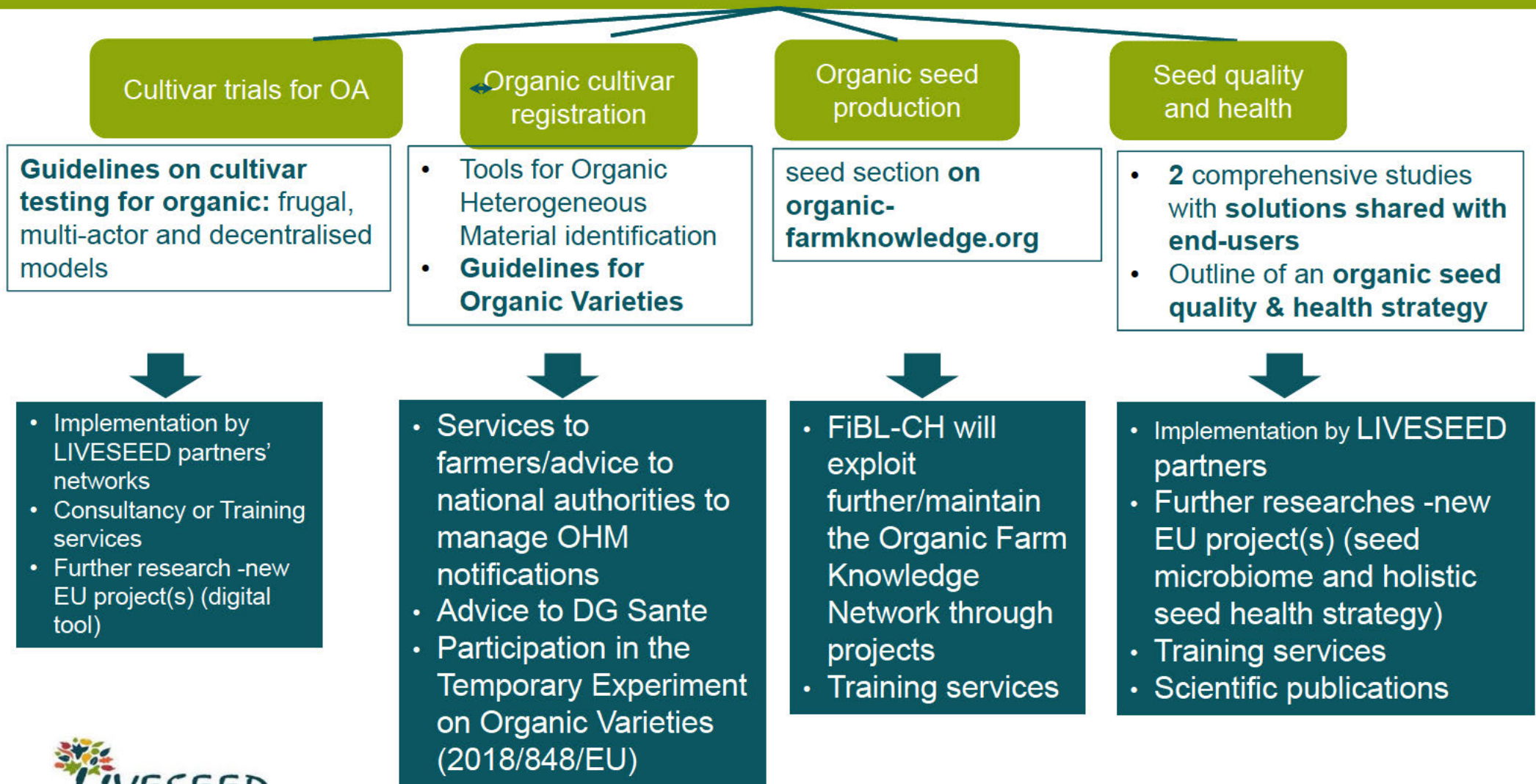


- High seed vigour maintenance is important for resilience
- Organic farming is based on healthy soils and diversified crop rotation
- Management of seed production from sowing till seed harvest
- Impact of seed microbiome
- Seed treatments as last option

WP2 Cultivar testing, seed production, seed health – Potential Impact

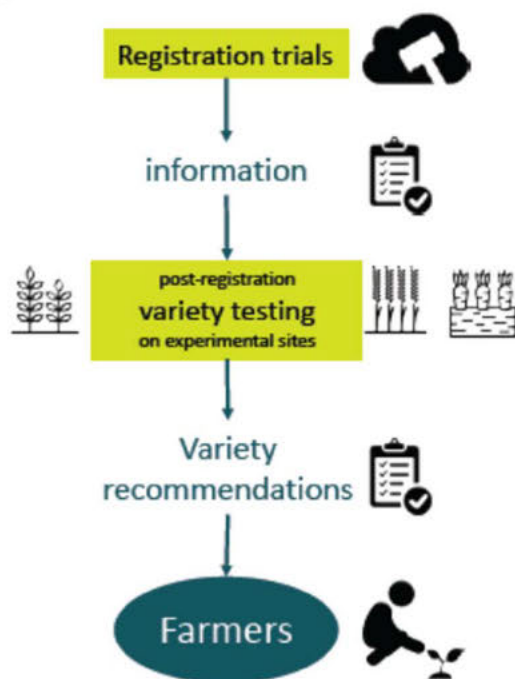
Innovation	Target Groups	Impact
Guidelines for organic on-farm cultivar trials : new models	Farmers, Advisors, Breeders	Informed cultivar choice fit for purpose, organic networks initiated or coordinated (e.g. UK, DK, Hung., Slov., FR, NL, Lv, IT)
Toolbox for OHM	Policy makers National authorities Breeders	Direct contribution to the delegated act (EU Organic Regulation)
Guidelines for Organic Varieties	Policy makers National authorities Breeders	Discussion with stakeholders (incl. DG SANTE and EU national authorities, examination offices), direct contribution to the 7 year experiment (EU Organic Regulation)
Seed section on OFK platform to share smart practices on organic seed and breeding	Farmers, Advisors, Breeders Seed companies	+50 tools uploaded and described, statistics to be monitored on OFK to assess the impact over months
Novel seed ageing method to study the impact of seed vigour on tolerance to <i>Alternaria</i> on carrots or shelf life of applied biological	Seed companies Scientists	Innovation on organic seed: new solutions for organic under development by seed companies (e.g. Bing. Saatgut, FSF, Sativa, Vitalis), like adapted packaging or applied beneficial microorganisms on seed
Solutions to manage common bunt on organic Wheat	Farmers, Advisors, Seed companies, Breeders	Online platform available in English, French and German. More than 4,000 stakeholders reached (workshops, Videos...)

WP2 – Exploitation Plans

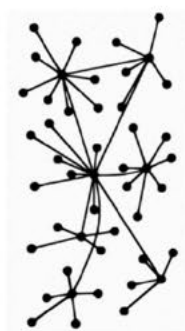


New models for post-registration on-farm cultivar testing networks

“conventional” variety testing



Decentralized on-farm cultivar testing networks:
multiactor – simple - cost efficient - interactive –
shared data – digital tools/app

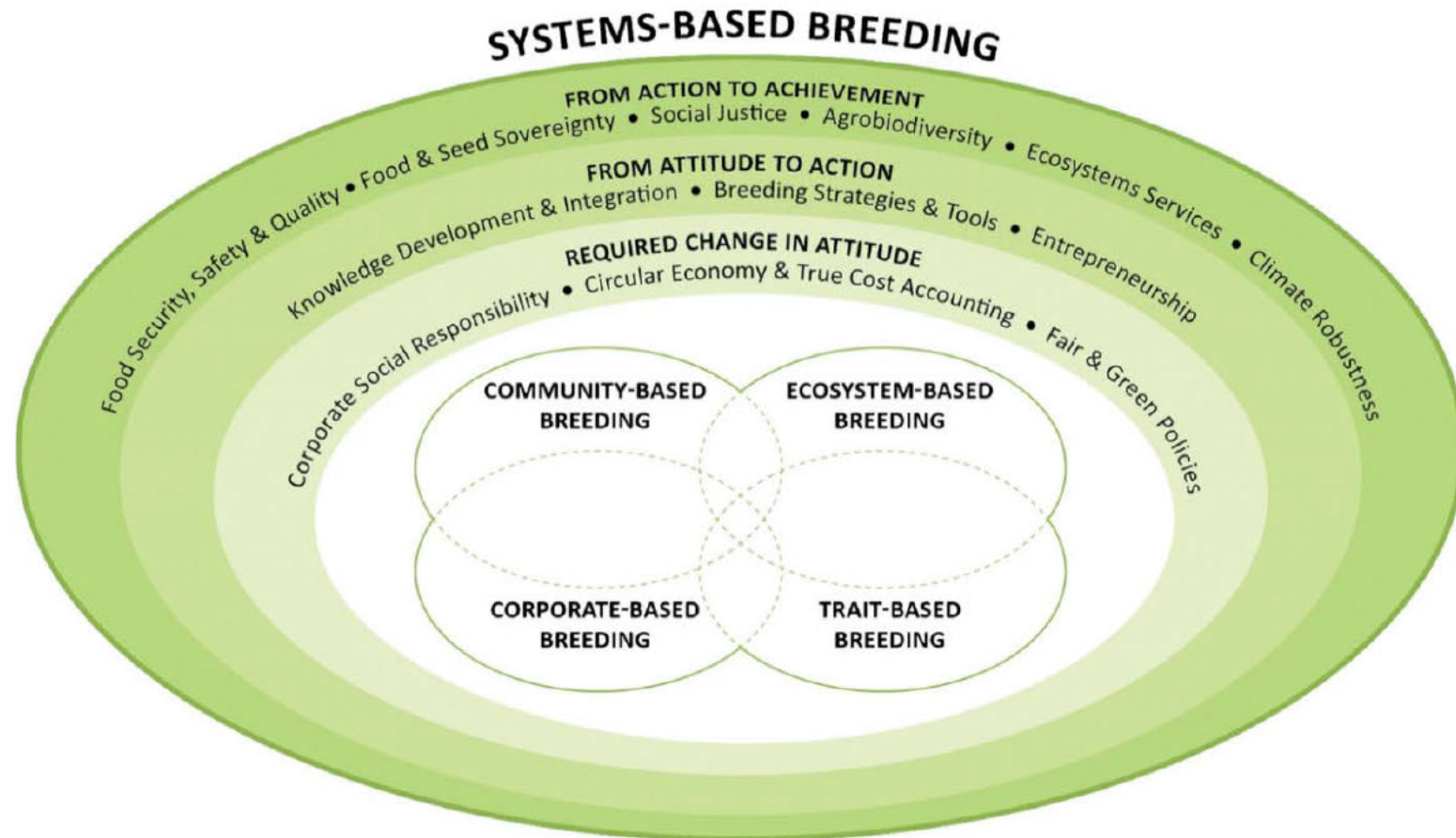


Intuitive platform + crowdsourced data from experts and growers + environmental data + analytics =
POWERFUL RECOMMENDATION ENGINE

www.LIVESEED.EU > Results > WP2 > D2.3 Frugal, multi-actor and decentralised cultivar evaluation models for organic agriculture

Horizon 2020
Project No 727230.

Systems-based breeding beyond direct benefit of value chain



Lammerts van Bueren et al 2018. Towards resilience through systems-based plant breeding. A review. *Agron. Sustain. Dev.* 38(42).
<https://doi.org/10.1007/s13593-018-0522-6>



www.LIVESEED.EU > Results > WP3 > M3.5 Organic plant breeding in a systems-based approach
www.LIVESEED.EU > Results > WP3 > D3.5 Novel breeding concepts and strategies for organic and low-input farming systems

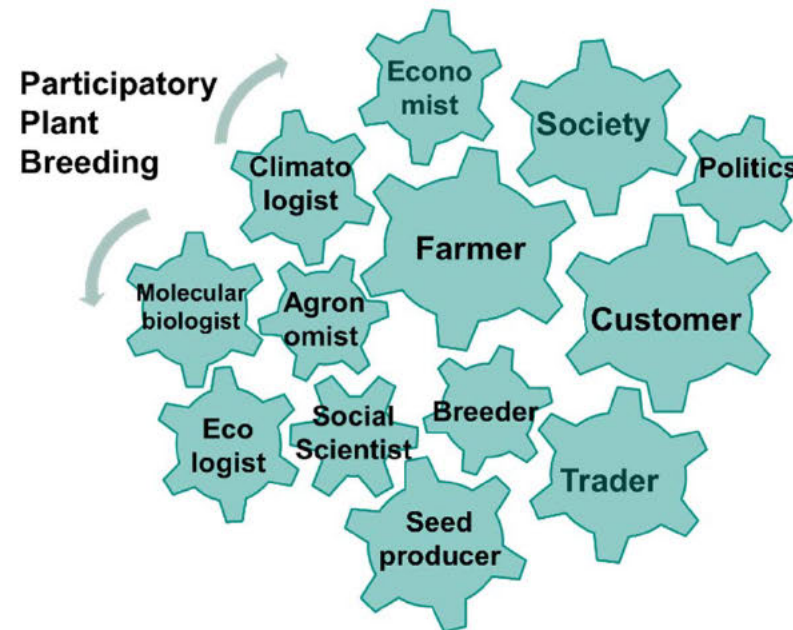
Breeding for functional biodiversity

Develop concepts, strategies, and tools for the development of cultivars with improved resilience:

- Genetic diversity within cultivars e.g. **composite cross populations and dynamic populations** that can adjust to multiple stresses (cereals, legumes) = organic heterogeneous material OHM
- Develop concepts for optimized **cultivar mixtures** (cereals)
- Breeding cultivars suited for **species mixtures** (legume – cereal mixtures, Lucerne – grass species, agroforestry)



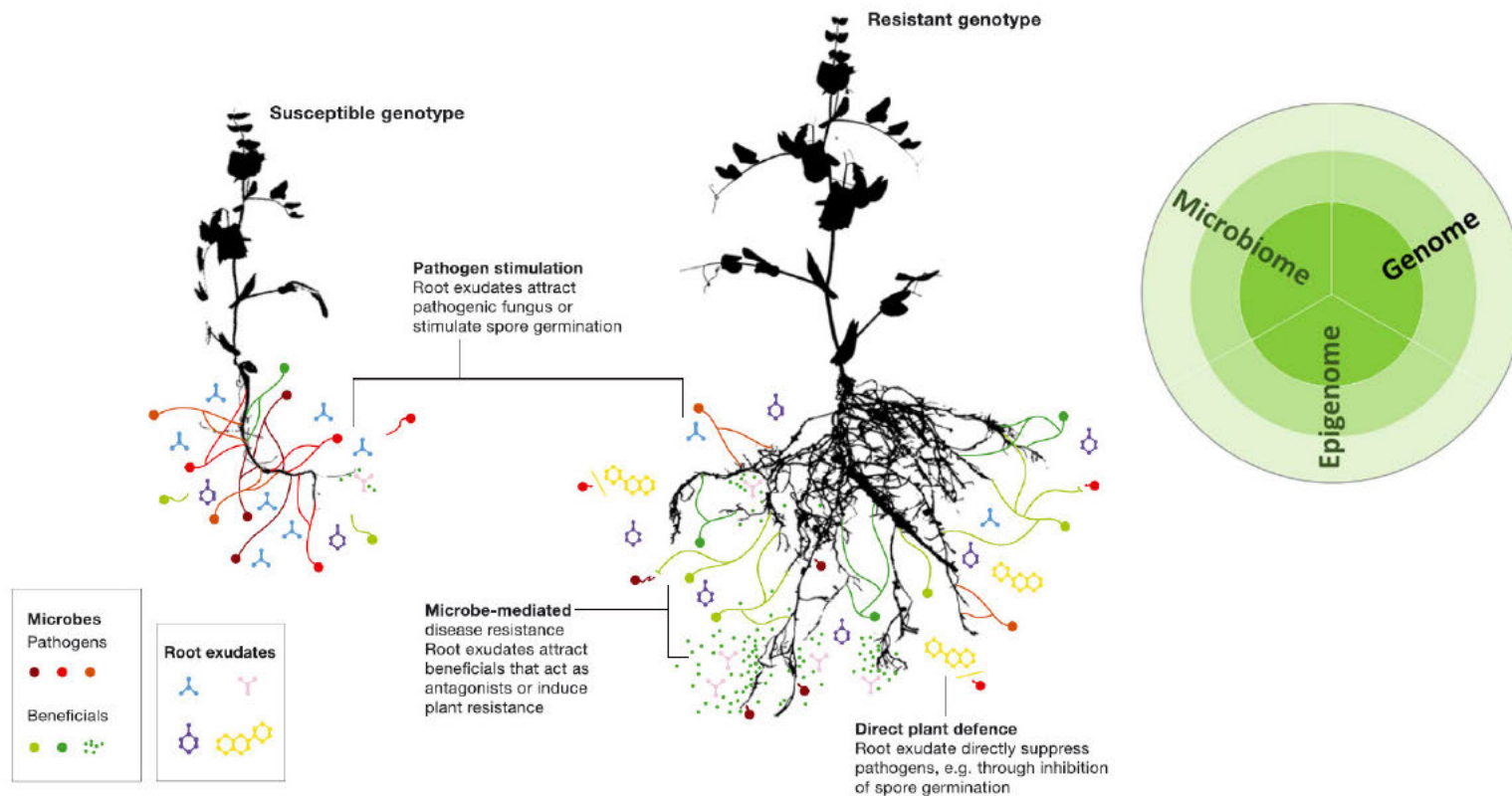
Decentralized Participatory Plant Breeding in tomato, maize and cereals



- Embedding Cultivated Diversity in Society for Agro-Ecological Transition, *Chable, V.; Nuijten, E.; Costanzo, A.; Goldringer, I.; Bocci, R.; Oehen, B.; Rey, F.; Fasoula, D.; Feher, J.; Keskitalo, M.; Koller, B.; Omirou, M.; Mendes-Moreira, P.; van Frank, G.; Naino Jika, A.K.; Thomas, M.; Rossi, A.. Sustainability 2020, 12, 784.*
<https://doi.org/10.3390/su12030784>

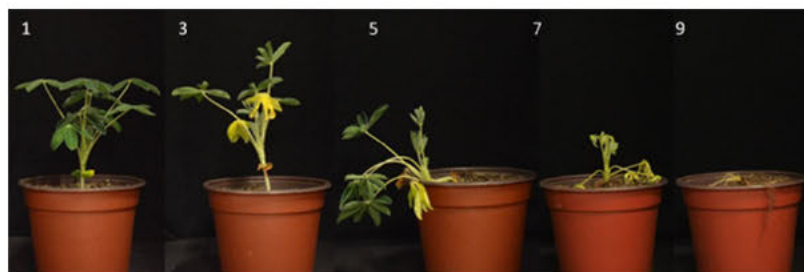
Breeding on the holobiont: plant with associated microbiome community mediated disease resistance

A high-throughput screening system that successfully differentiates pea genotypes with resistance against soil fatigue caused by a complex of different root pathogens and related microbiome community

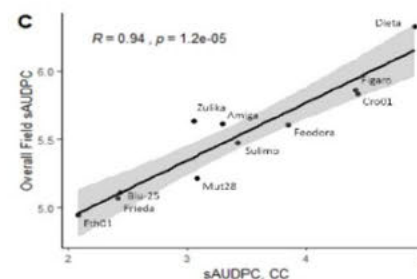
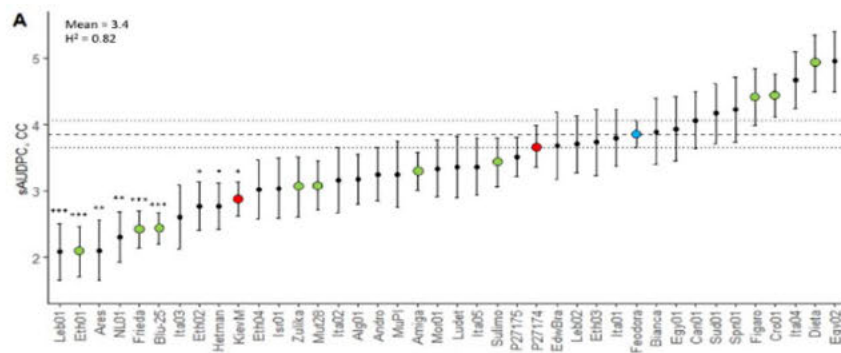


Wille et al. *Plant Cell Environ* 2019; 42:1–21. ; Wille et al. *Front. Plant Sci.*, 2020 <https://doi.org/10.3389/fpls.2020.542153>
; Ares et al. *Front. Microbiol.*, 2021 <https://doi.org/10.3389/fmicb.2021.636009>

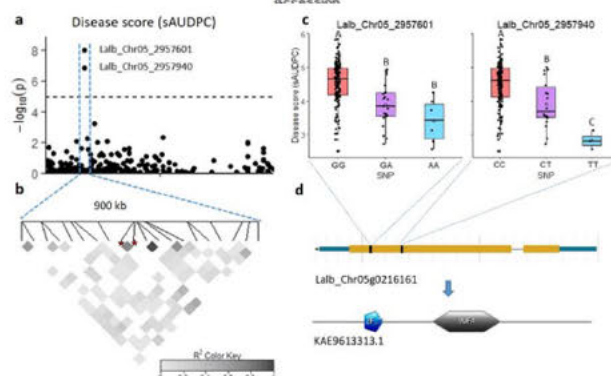
White lupin breeding for anthracnose tolerance, low alkaloid content, calcereous soil and drought tolerance



Development of screening test for anthracnose tolerance in white lupin under controlled conditions



Validation with observed tolerance in the field *Alkemade et al. 2020 Plant Disease*



Genom wide assosiation study
→ 1 QTL encodes for protein with a RING zinc-finger and VWFA domain potential resistance gene *Alkemade et al. 2021 TAG submitted*

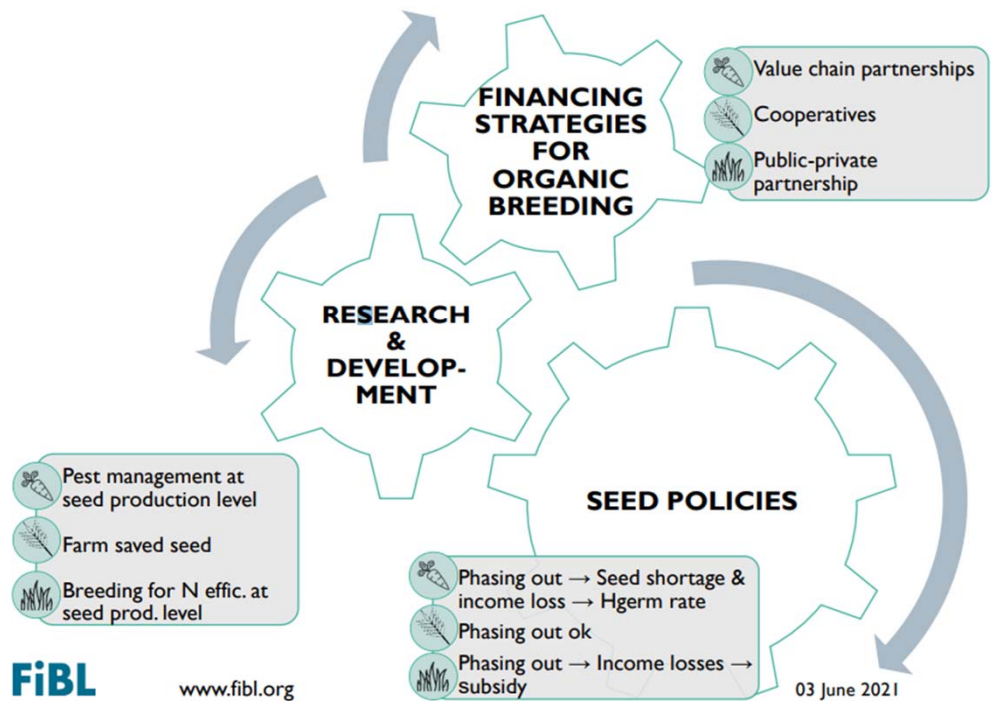
WP3 Organic Breeding – Potential Impact

Innovation	Target Groups	Impact
New multi-actor, on-farm population breeding models	Farmers, advisors, breeders	Better methods for developing well adapted populations Increase in agro-biodiversity
New CCPs, advanced lines, cultivars, base material	Farmers, advisors, breeders	better adapted seeds for a large range of crops
New breeding methodologies and methods	Breeders, researchers, farmers	More effective breeding for organic farming
Development of breeding networks for various crops	breeders, researchers, farmers	Closing knowledge gaps at various levels: breeding methods, breeding material, new approaches
Holistic concepts on organic breeding and plant-microbiome interactions	breeders, researchers, farmers	Improved basis for the further development of organic breeding and all relevant related knowledge fields

WP4 Socioeconomic Aspects – Potential Impact

- The first overall statistics of Organic Seed supply and demand in EU+CH(+UK)
 - +500% Organic Wheat seed supply needed by 2030
 - +1500% Organic Carrot seed by 2030!
 - Challenge of organic forage breeding (underdeveloped, at times perceived as not needed)
- How to get there? an Integrated roadmap

Results from different case studies



WP 5: Communication, dissemination and exploitation

RSR, Italy



Dissemination

12,000 VISITORS
of the LIVESEED website



20 VIDEOS PRODUCED



120 EVENTS ORGANISED

196 EVENTS

attended to present the project

65 PRACTICE ABSTRACTS

for farmers



7 BOOKLETS

produced

145 STAKEHOLDER

platform members representing the value chain

73 POPULARIZED PUBLICATIONS

over the project

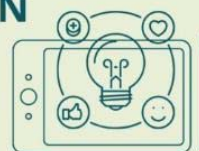
46 PRACTICAL TOOLS



446,000 REACH OF TWITTER POSTS



3,500 POSTS ON SOCIAL MEDIA



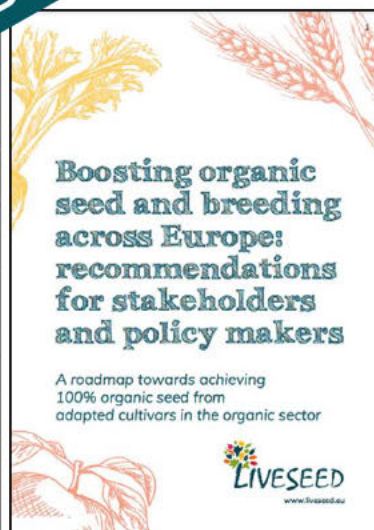
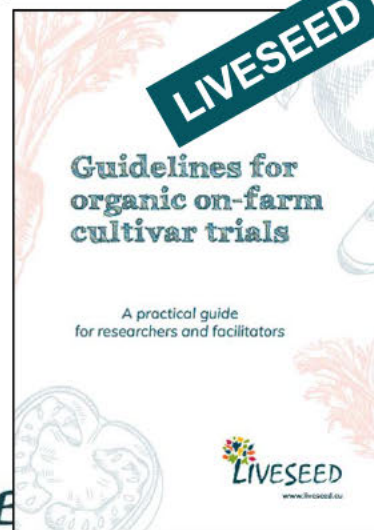
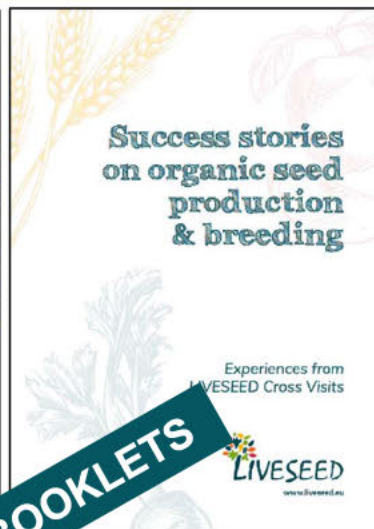
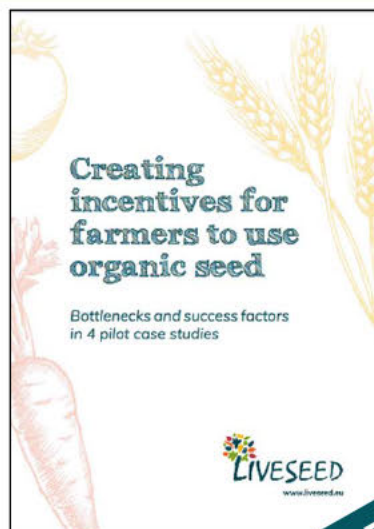
added from LIVESEED to Organic Farm-Knowledge Platform's Seed Section



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No. 101019150 and by the Swiss State Secretariat for Education, Research and Innovation under contract number 17.00000. The information contained in this communication only reflects the author's view. Neither RSR nor LIVESEED is responsible for any use that may be made of the information it contains.



Dissemination



LIVESEED BOOKLETS

LIVESEED Final Congress & European Workshop on organic seed

THE DATE

Organic Innovation Days
24-25 November 2020 / Brussels

Join us to:

- discover the innovations in organic seed production and plant breeding
- discuss the results of the LIVESEED project
- expand your network & get updates on the expected Horizon Europe calls

Innovation for organic seed and cultivars

ONLINE International Conference on BREEDING AND SEED SECTOR INNOVATIONS FOR ORGANIC FOOD SYSTEMS
by EUCARPIA
Section Organic and Low Input Agriculture
Jointly with LIVESEED, BRESOV, ECOBREED, FLPP projects and ECO-PB

EUCARPIA LIVESEED AREI FLPP

International Conference on Breeding and Seed Sector Innovations for Organic Food Systems

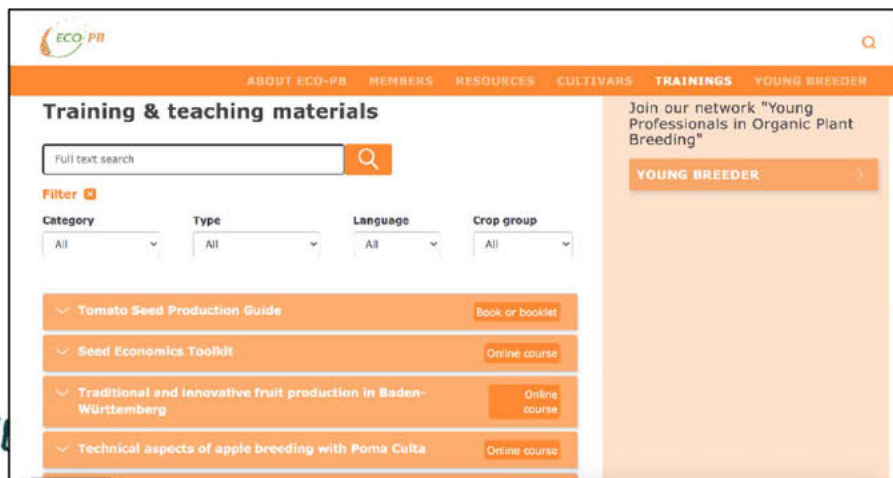
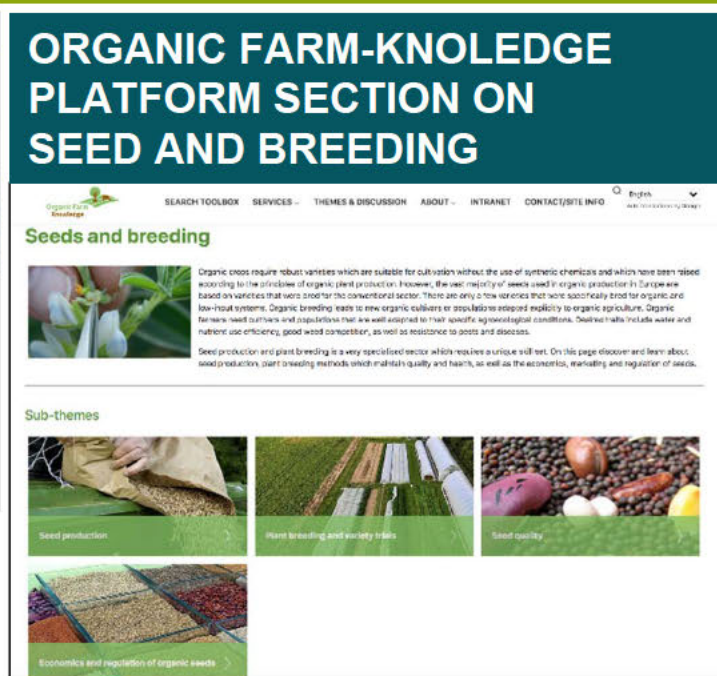
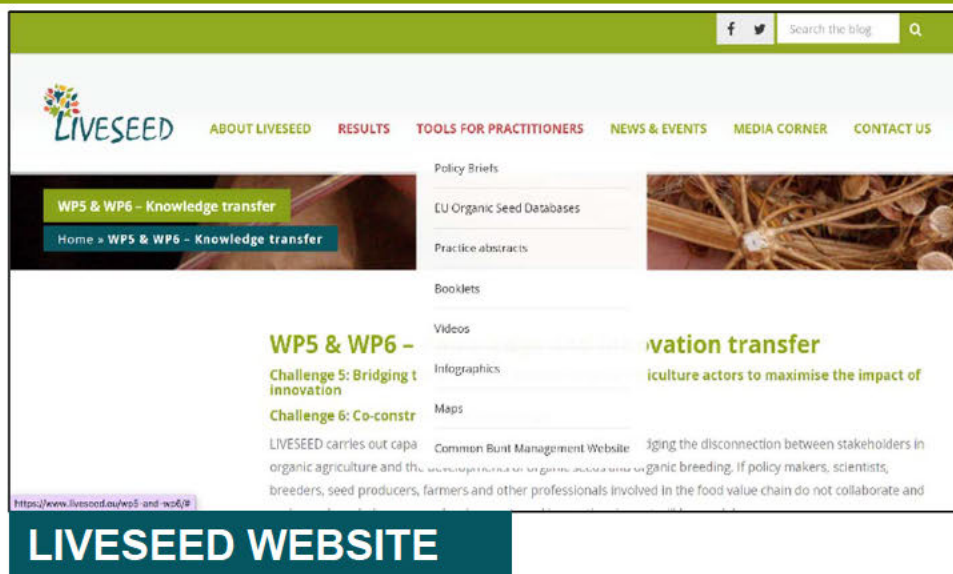
OWC Seed Ambassadors Pre-conference

Organic World Congress 2021 Pre-conference

Seed Ambassadors
Building an International Network to Advance Organic Seed Systems



Dissemination



ECO-PB WEBSITE ORGANIC BREEDING TRAINING SECTION



Strategies for Organic Plant Breeding

- Systems-based breeding
- Increase efficiency and diversity of breeding by networking and decentralized participatory breeding programs for local conditions
- Improving impact of breeding by involving all stakeholders in the breeding process (farmer, value chain and community driven breeding)
- Developing new concepts for the ownership of cultivars and their financing
- Participating in political discussions on regulatory framework to foster greater agrobiodiversity (official variety testing, seed regulation)
- Valorization of organic plant breeding along the value chain

www.bioverita.org, www.engagement.biobreeding.org

Policy recommendations for organic seed use

- Harmonized and **stricter implementation of derogation rules** for non-organic seed (national annex 1, expert groups, roadmap)
- Improved **interactive national databases** of available organic seed as basis for unbureaucratic derogations and monitoring
- **Eu-wide router database** linked to national databases of available organic seed promoted and financially supported by EU authorities
- **Improved data collection and monitoring** on production and use of organic seed → more transparency for seed producers
- **Wider choice of cultivars** adapted to organic production (Breeding and cultivar testing)
- Availability for **novel types of cultivars** like organic heterogeneous materials, organic bred varieties and populations, farmers' selections
- Improve **quality and health of seed** at similar price → seed health strategies, trainings, support in local infrastructure

www.LIVESEED.EU > Results > WP1 > D1.9 Report on Political Obstacles and Bottlenecks on the Implementation of the Rules for Organic Seed in the Organic Regulation



This project received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 727230.

Political Framework

Organic Varieties

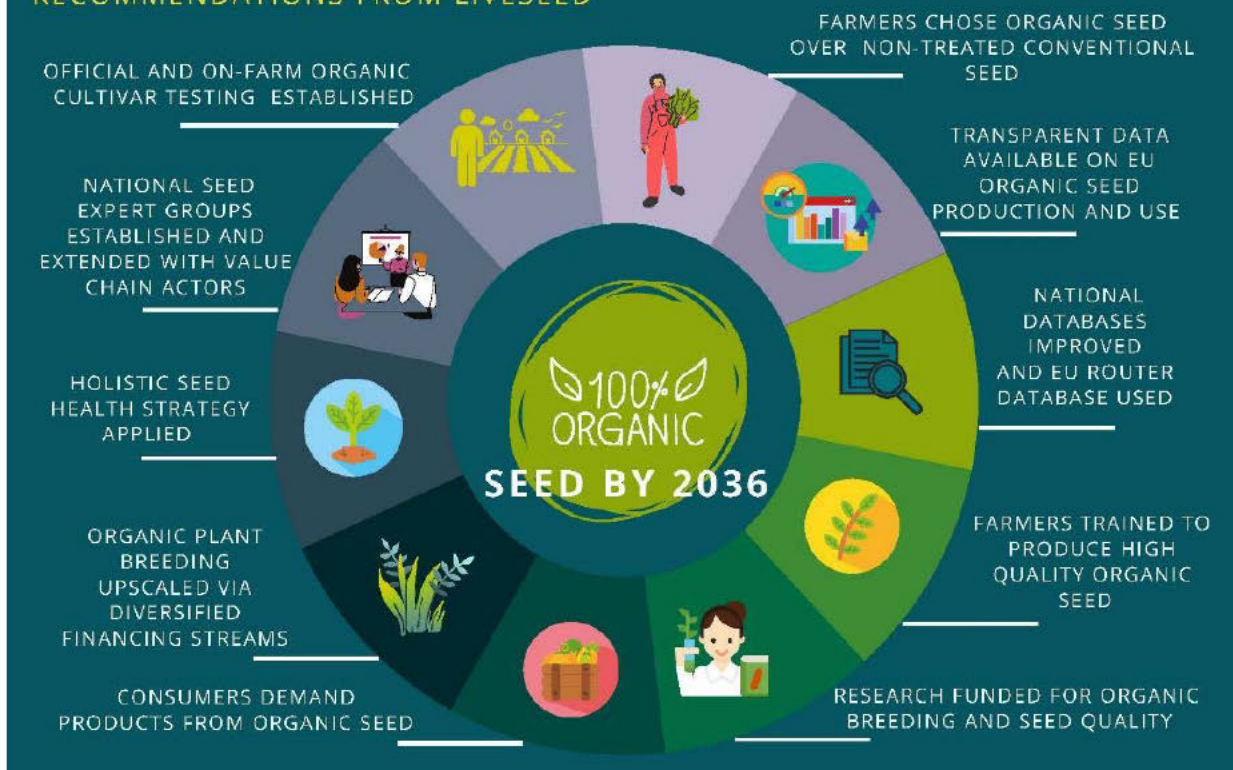
New EU organic regulation (2018/848) put into force January 2022

- Definition of organic plant breeding included
- Temporary derogation to foster research and **to develop organic varieties suitable for organic production** shall be establish adapted DUS and VCU, as well as the definition of the production and marketing conditions for that material (2023 up to 2030)
 - The implementing should start in July 2023
 - LIVESEED developed **overview on current organizational modes on variety testing for organic agriculture** including post-release VCU testing
www.liveseed.eu > Results > WP2 > Deliverable 2.1

Synthesis & Recommendations

A VISION TOWARDS 100% ORGANIC SEED IN THE EU

RECOMMENDATIONS FROM LIVESEED



Boosting organic seed and breeding across Europe: recommendations for stakeholders and policy makers

A roadmap towards achieving 100% organic seed from adapted cultivars in the organic sector



www.LIVESEED.EU > Results > D6.3 Synthesis of LIVESEED results and stakeholder and policy recommendation
www.LIVESEED.EU > Tools for Practitioners > booklet > Boosting organic seed and breeding across Europe (July 2021)



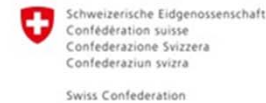
www.liveseed.eu



[Liveseed](https://www.facebook.com/LIVESEEDeu)



@LIVESEEDeu



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 727230 and by the Swiss State Secretariat for Education, Research and Innovation (SERI) under contract number 17.00090. The information contained in this communication only reflects the author's view. Neither the Research Executive Agency nor SERI is responsible for any use that may be made of the information provided.



LiveSeeding in a nutshell

Organic seed and plant breeding to accelerate sustainable and diverse food systems in Europe



Civil Group Dialog – Organic Farming
24th Oct 2023



Co-funded by
the European Union

Funded by the European Union, the Swiss State Secretariat for Education, Research and Innovation (SERI) and UK Research and Innovation (UKRI). Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or REA, nor SERI or UKRI.



UK Research
and Innovation

LiveSeeding in a nutshell

Organic seed and plant breeding to accelerate sustainable and diverse food systems in Europe

- 37 partners from 16 European countries
 - 32 from EU: BE, FR, DE, NL, SW, IT, ES, PT, HU, HR, SI, EL, RO, PL
 - 2 from Switzerland, 2 from UK, 1 affiliated partner in Italy
- several SME as subcontractors
- Innovation Action of Horizon Europe, GA ID: 101059872
- Total 6.6 Mio € (EU, SERI, UKRI)
- 4 years (**Oct 2022 – Sept 2026**)
- Sister project: InnOBreed on organic fruit breeding



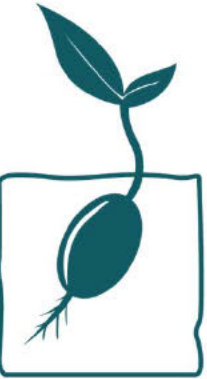
Project's general objective



Foster the growth of the organic sector and transition towards more sustainable local food systems by delivering high-quality organic seeds of diverse cultivars adjusted to organic farming for a wide range of crops

Objectives

- ✦ Increase and optimize **crop diversity** to be used in organic farming systems
- ✦ advance pre- and post-registration **cultivar testing** dedicated to organic farming
- ✦ Increase **supply of organic seed**
- ✦ Increase **transparency** of the organic seed market
- ✦ Ensure efficient **scaling out and scaling up** of organic seed and breeding initiatives
- ✦ Promote **organic breeding** supported by value chain partners and society
- ✦ **Capacity building and participatory knowledge creation** from seed to plate
- ✦ Promote the **competitiveness of the organic seed and breeding sector**

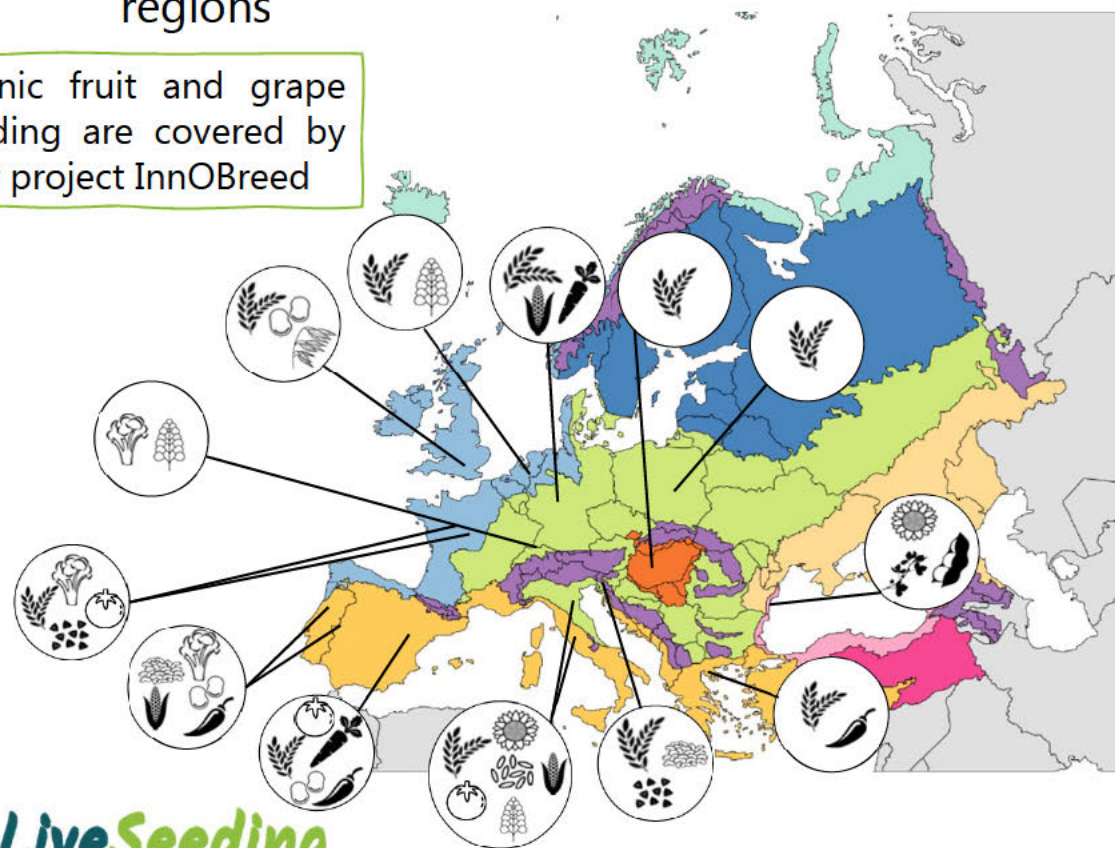


LiveSeeding

Target crops and climatic regions

- 15 different crops of special relevance for the organic sector in different pedoclimatic regions

Organic fruit and grape breeding are covered by sister project InnOBreed



Biogeographical regions of Europe

- Arctic
- Boreal
- Atlantic
- Continental
- Alpine
- Pannonian
- Mediterranean
- Macaronesian
- Steppic
- Black Sea
- Anatolian

After a map by the European Environmental Agency: www.eea.eu.int

ARABLE

Cereals

Wheat

Rice

Oat

Maize

Pseudocereals

Buck-wheat

Oil seed

Sunflower

Grain legumes

Broad bean

Lupin

Beans

Soybean

FODDER

Alfalfa

HORTICULTURAL

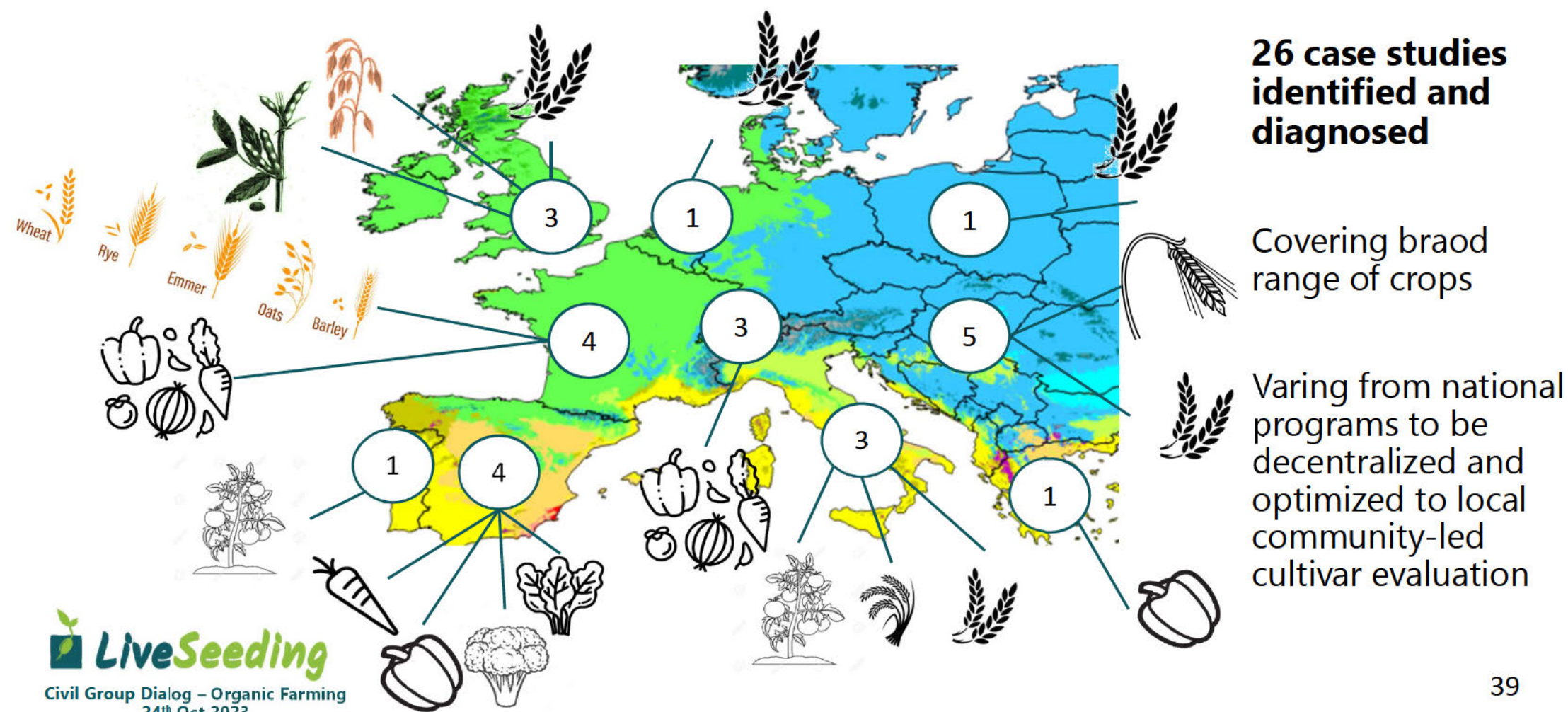
Pepper

Carrot

Tomato

Brassica

Advancing on-farm cultivar evaluation: activities carried out in year 1



Multi-actor approach

Inter- and transdisciplinary partners

- 9 research institutions fully dedicated to organic
- 5 organic breeders and seed producers and representatives of the European consortium for organic plant breeding (ECO-PB)
- 2 organic farmers associations
- 7 universities and experts on genetics, participatory and molecular breeding, microbiome, plant pathology, citizen science, socio economy, policy
- 3 examination offices
- 15 SME and 2 large seed and breeding companies
- NGO (European Coordination Let's Liberate Diversity (ECLLD), Red de Ciudades por la Agroecologia (RCxAE)
- 4 IT experts

Additional supported by

- Broad Stakeholder group with over 200 participants
- International Advisory Board
- IPR Board



Civil Group Dialog – Organic Farming
24th Oct 2023

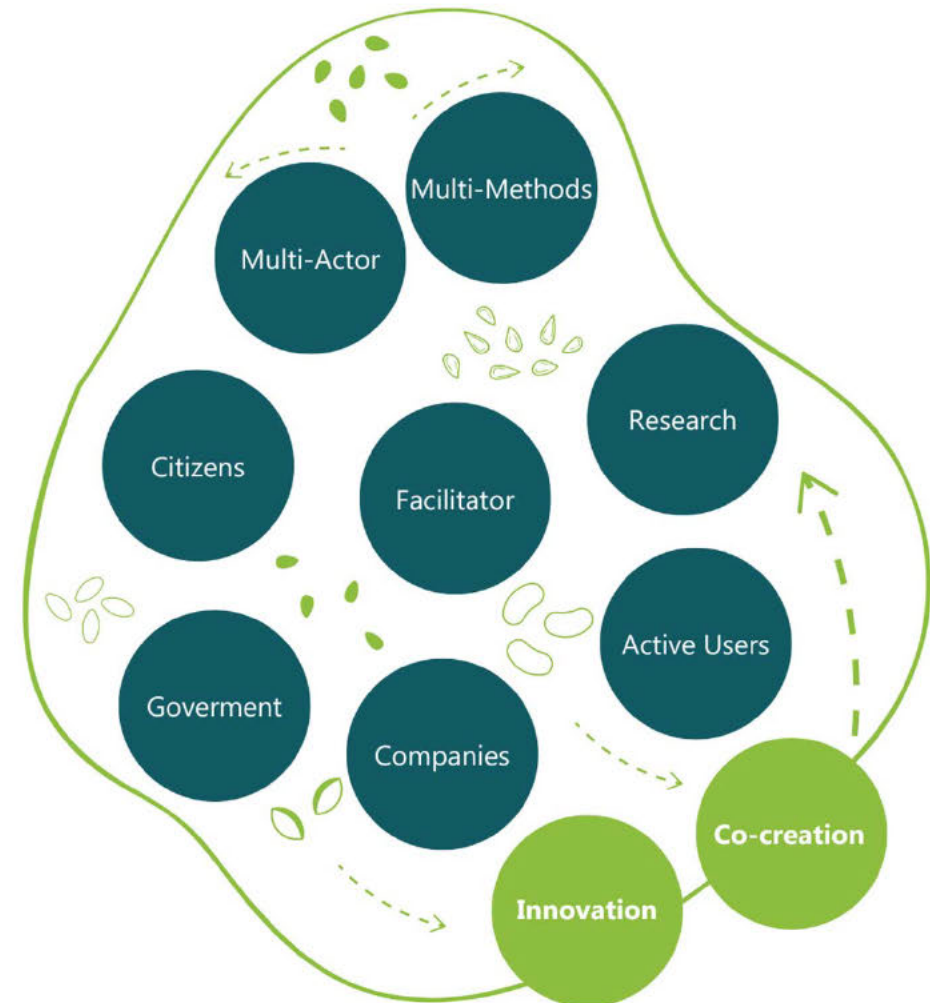
Become a stakeholder of LiveSeeding
Click on  on website www.liveseeding.eu



Multi-actor approach & 17 Living Labs

Characteristics of Living Labs

- open innovation ecosystems in **real-life environments** using **iterative feedback processes** throughout a **lifecycle approach** of an innovation to create **sustainable impact**
- focus on **co-creation, rapid prototyping & testing** and **scaling-up** innovations & businesses, providing (different types of) **joint-value** to the involved stakeholders
- **operate** as **intermediaries/orchestrators** among **citizens, research organisations, companies and government agencies/levels**

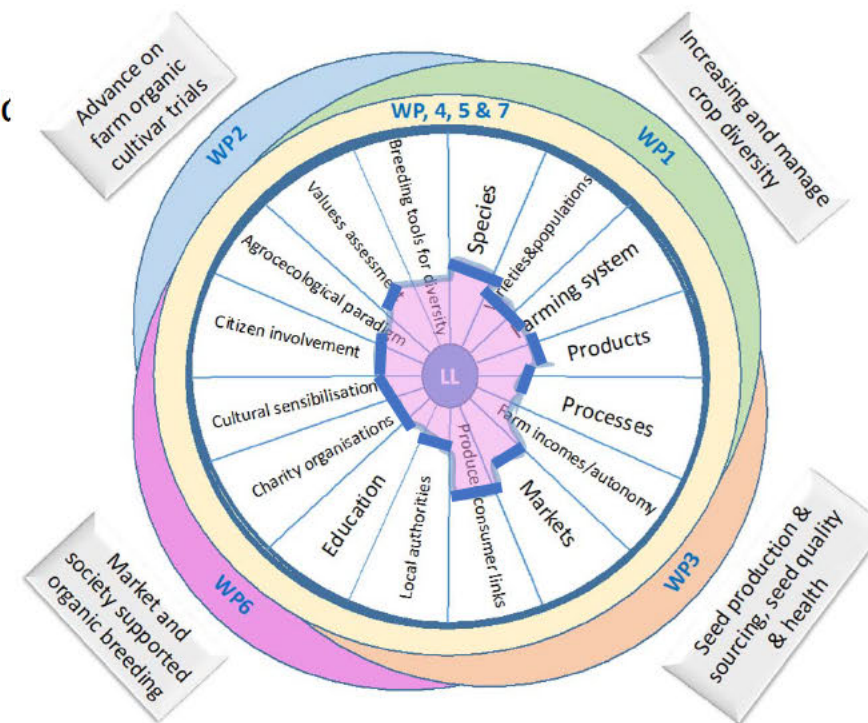


17 Living Labs (from farm to fork)



Cross fertilisation among Living Labs for developing market & society supported organic breeding

- **17 Living Labs** representing a diversity of European agroecosystems, breeding approaches, and value chains.
- They offer the forum where actors involved in organic breeding at different stages of the innovation process will be mobilised by partners and engaged through appropriate methods in participatory co-creation processes in the organic seed sector.
- **Each LL will integrate different segments of the project's activities** into real-world settings that will be specific to their unit



Pathway to impact

PUSH – PULL – ENABLE

Goal

high quality organic seed
of sufficient quantity
adjusted to organic
agriculture for
diverse diets and
sustainable food systems



Civil Group Dialog – Organic Farming
24th Oct 2023



PUSH – PULL – ENABLE approach

- the entire **market** is observed with the aim of generating long-term solutions for increasing the amount of organic seeds in the EU
- **PUSH** increases the availability of organic seeds of cultivars suitable for organic production
- **PULL** increases and stabilizes the market demand for organic seeds of cultivars suitable for organic production
- **ENABLE** accelerates and encourages the legislative and regulatory environment to adapt to supply and demand

Involving citizens and cities for increasing organic seed use

Local (Valencia ES, Rennes FR, Sandicci IT, Geneva CH) and global Level:

- *Cultivated biodiversity in urban food systems: **collecting proposals** from the community for the MUFPP and local governments.* October 2022, LLD Forum Budapest
- ***Enhance cultivated biodiversity in local food policies.*** October 2023, LLD Forum Dublin
- *Proposal EUROPEAN SYMPOSIUM "**CULTIVATED BIODIVERSITY AND CITIES.** Local tools to accelerate food systems committed to agroecology".* València EU Green Capital, spring 2024. VLC, FAO, ITPGRFA, MUFPP
- Agreement **Milano Urban Food Policy Pact (MUFPP)** to use outcomes to feed the update of MUFPP recommendations that will be published in 2025
 - Manual about integrating organic seeds and breeding in local sustainable and healthy food policies (M34)

Increase awareness of organic breeding benefits for the society and environment: activities carried out Y1

- Selection of two focus cases:
 - **Organic heterogeneous material** (OHM) by **Rete Semi Rurali**; Crop: **Wheat**; Product: Bread; Value chain region: **Tuscany (Italy)**.
 - **Organic variety** (OV) by **Bingenheimer Saatgut**; Crop: **Beetroot**; Product: Beetroot juice; Value chain region: **Baden-Württemberg (Germany)**.
- **OHM wheat**, Rete Semi Rurali:
 - Semi-structured interviews with supply chain actors at “coltiviamo la diversità – Floriddia farm*” to identify the economic, social, and environmental benefits of organic heterogeneous material.
 - Next step: Analysis of interviews.
- **OV red beet**, Bingenheimer Saatgut:
 - Supply chain actors identified together with Bingenheimer Saatgut and Bioverita.
 - Next step: Semi-structured interviews with supply chain actors – online.

* <https://rsr.bio/coltiviamo-la-diversita/>



Civil Group Dialog – Organic Farming
24th Oct 2023



Contact information



Follow LiveSeeding on:



LiveSeeding



@LiveSeeding



LiveSeeding



www.liveseeding.eu



LiveSeeding



Funded by the European Union, the Swiss State Secretariat for Education, Research and Innovation (SERI) and UK Research and Innovation (UKRI). Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or REA, nor SERI or UKRI.

