



Key factors for encouragement of greater use of organic seed

Results from the project LIVESEED

Xenia Gatzert



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 727230. The information provided reflects the views of the authors. The Research Executive Agency is not responsible for any use that may be made of the information provided.

Content

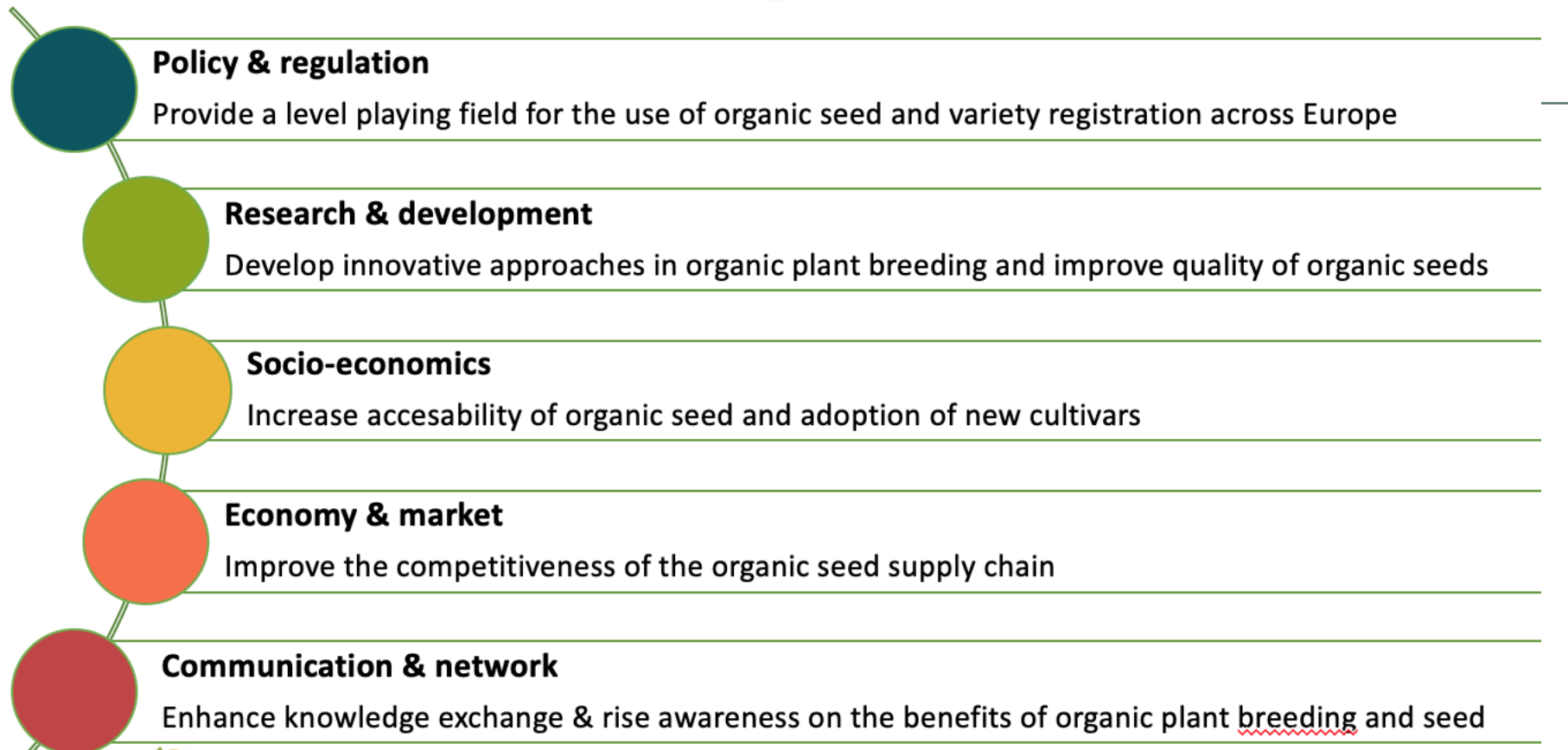
- LIVESEED project
- Why organic breeding and propagation
- Legal Framework in EU
- Status Quo in EU
- Practices found in EU member states
- Recommendations
- Changes with new EU regulation from 2021 on



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 727230. The information provided reflects the views of the authors. The Research Executive Agency is not responsible for any use that may be made of the information provided.



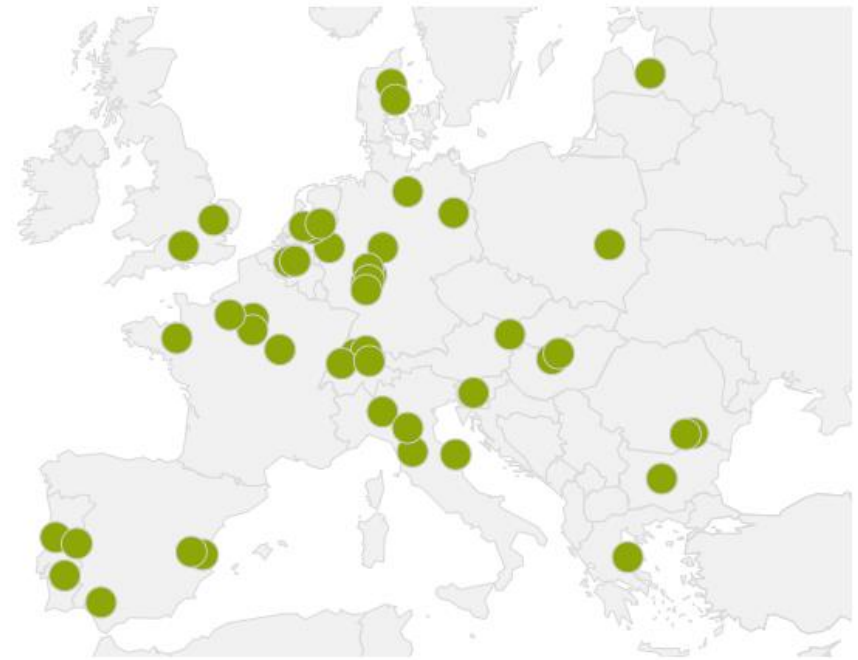
LIVESEED project (2017 – 2021)



LIVESEED project

- 49 partners
- 18 European countries
- Multiple actors
(research institutes,
breeding companies,
seed companies, organic
association (farmers,
processors, retailers)
and national authorities)
- More information under

[Liveseed.eu](https://liveseed.eu)



Why organic breeding and propagation

- Organic farmers use organic inputs
- Increases the integrity of the organic product
- Live up to consumer expectation
- Lower risk of residues
- Seed companies need to invest in organic breeding
- Organic seed use stimulates organic breeding
- Bred without GMO



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 727230. The information provided reflects the views of the authors. The Research Executive Agency is not responsible for any use that may be made of the information provided.



Why organic breeding and propagation

- Organic farmers need adapted cultivars
 - of good quality
 - adapted to low input
 - good weed suppression
 - disease resistance
 - resistant to (a)biotic stress



robust cultivars

Legal Framework in EU – Organic seed regulation

Requirements of EC Regulation 889/2008

Use of organic propagated seed and planting material is the rule, exceptions can be made:

Art. 45: Non-organic seed and seed potatoes without chemical treatment may only be granted in the following cases:

- a) where **no variety** of the species which the user wants to obtain is registered in the database
- b) where **no supplier** is able to deliver the seeds before seeding time
- c) where **the variety** which the user wants to obtain is not registered in the database, and the user is able to demonstrate that **none of the registered alternatives of the same species are appropriate** and that the authorisation therefore is significant for his production
- d) where it is justified for use in **research, test in small-scale field trials** or for **variety conservation** purposes agreed by the competent authority of the Member State

Legal Framework – Organic seed database

Seed database in accordance with Art. 45, 48 and 49 of EC 889/2008

Each Member State shall ensure that a **computerised database** is established for the listing of the varieties for which seed or seed potatoes obtained by the organic production method are available on its territory

Varities for which seeds produced by the organic production method are available shall be registered in the database at the request of the supplier

Any variety which has **not been registered in the database shall be considered as unavailable**



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 727230. The information provided reflects the views of the authors. The Research Executive Agency is not responsible for any use that may be made of the information provided.



Status Quo in EU – findings in some member states

- Not enough organic seed and planting material available
- Comparison of derogations between 2004 and 2016 for selected crops: volume of seed and number of derogations have increased in most cases
 - Mostly due to substantial increase in land area, which is likely to continue (as several countries have growth targets for organic agriculture) and lead to additional demand for organic seed
- Low transparency about what is available on the market
- In some member states high administrative burdens for farmers to get derogations
- High administrative burdens and trade barriers for seed supplier to enter organic seed offers into databases
- Low investments made by some seed supplier in organic production due to higher risk and higher costs of production



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 727230. The information provided reflects the views of the authors. The Research Executive Agency is not responsible for any use that may be made of the information provided.



Status Quo in EU – findings in some member states

- Organic seed production not feasible in every country
 - pests and diseases; weed contamination; weather conditions
 - costs of production; limited number of organic farmers with knowledge on seed production; missing infrastructure
- National self-sufficiency of organic seed for certain crops might be limited
- Seed trade from bordering countries should be allowed to promote availability of organic seed
- Investments in training and infrastructure in organic seed production is needed



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 727230. The information provided reflects the views of the authors. The Research Executive Agency is not responsible for any use that may be made of the information provided.



Status Quo in EU – Findings in some member states

- Farmers are often the main producers of (organic) seed
- Many farmers re-use their own seed.
- In several countries the majority of seed is uncertified, especially from cereals
- Certified organic seed often comes from international companies or from research institutes (public breeding)
- In case of contract farming the buyer of the product usually decides which varieties and seeds are used
- Motivation to use organic seed increases if the varieties are better adapted to (local) organic growing conditions
- Therefore, increase of organic seed use is connected to organic breeding, and organic variety trials



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 727230. The information provided reflects the views of the authors. The Research Executive Agency is not responsible for any use that may be made of the information provided.



Status Quo in EU – Findings in conducted survey among organic farmers in EU (D4.1 Report)

- Main critical issue is the availability of organic seed for the varieties farmers need
- The quality of organic seed does not seem to be a problem
- Farms in Central and Northern Europe, where most organic seed is produced, have a significantly higher rate of use of organic seed
- Farms selling through direct marketing and organic shops have significantly higher rate of organic seed use
- Organic seed use in fruit-oriented farms was significantly lower than in arable and forage farms
- Farmers claim a lack of locally adapted varieties and a need for breeding for organic farming



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 727230. The information provided reflects the views of the authors. The Research Executive Agency is not responsible for any use that may be made of the information provided.



Status Quo in EU - Implementation of the required seed database

- All EU Member States provide a “database” according to Art. 48 of EC 889/2008
- Implemented as: online database, Excel or PDF file
- Managed by: national authority or designated body
- Upload of new data by database manager or seed supplier
- Frequency of updating: real-time, weekly, monthly to annually
- Data collection on granted/rejected derogations: automatically through online database or manually through authority



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 727230. The information provided reflects the views of the authors. The Research Executive Agency is not responsible for any use that may be made of the information provided.



Practices found in EU member states

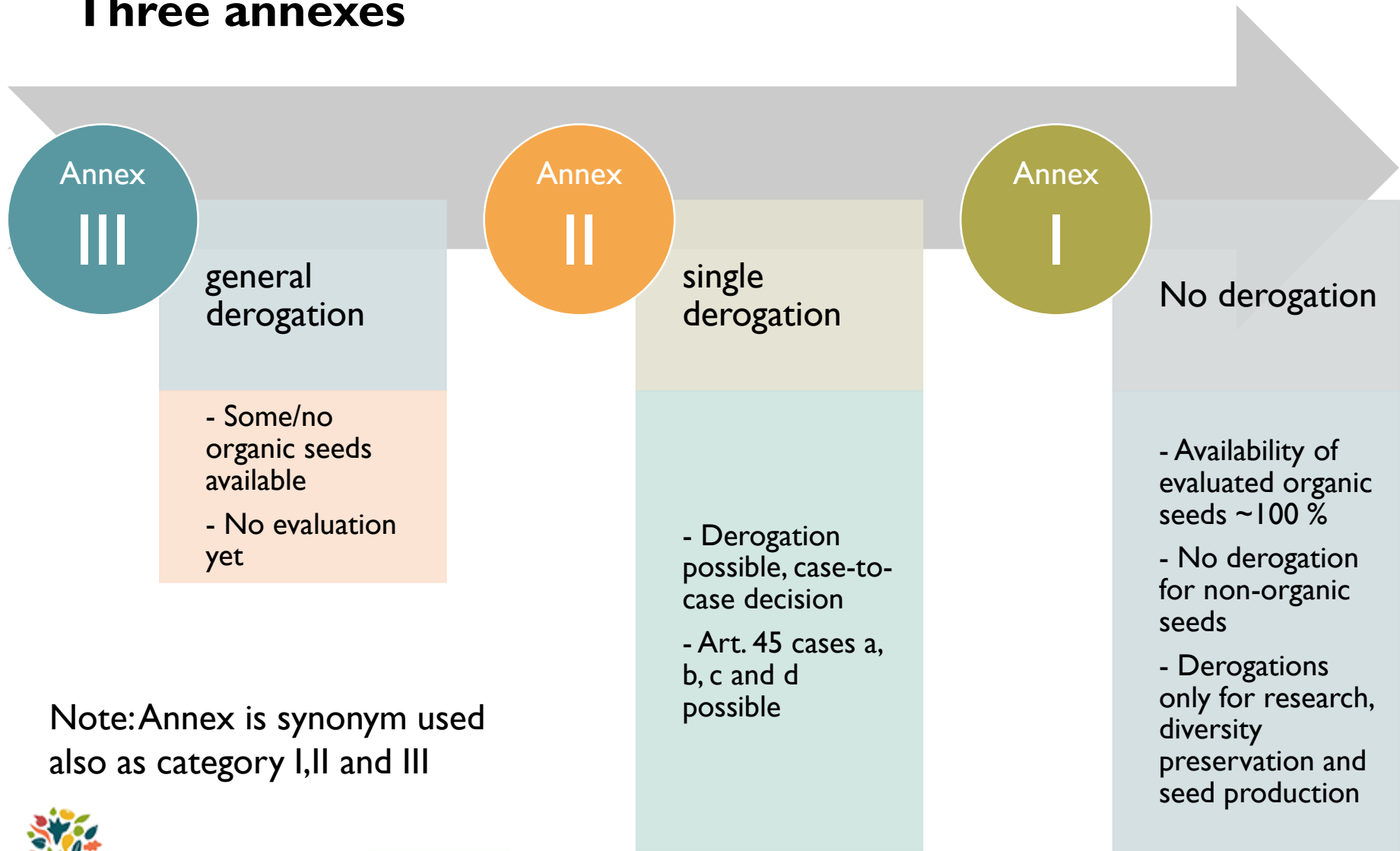
- In the Baltic states organic seed use and production is funded through CAP: When organic seed is produced or used there will a higher percentage of CAP money
- Hungary and Poland stimulate organic variety trials
- Spain, Italy and Greece stimulate the marketing of old and regional varieties and heterogeneous material
- In Romania over 4000 farmers are authorised seed producers
- In several countries there is a defined percentage of organic components that needs to be in mixtures for being seen as organic; this percentage is raised step by step
- In Switzerland they put a premium on the price of conventional seeds as high as the price difference to organic ones is



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 727230. The information provided reflects the views of the authors. The Research Executive Agency is not responsible for any use that may be made of the information provided.



Practices found in EU member states - Three annexes



Note: Annex is synonym used also as category I, II and III

Expert groups - to support the establishment of a well-functioning organic seed market

- Cooperation between public and private stakeholders,
- In Germany led by the Ministry of Lower Saxony for food, agriculture and consumer protection (Dr. Stefan Dreesmann)
- Meetings once or twice a year
- Giving recommendations to governmental bodies
- Different crop groups (e.g. arable crops, vegetables)
- Representatives from all stakeholders are involved (representatives of farmers and farmers' associations, organic seedling producers and seed suppliers, control bodies, competent authorities and state representatives)
- Discussing improvements and constraints in terms of organic seed availability for different crops, crop groups and varieties

Expert groups - to support the establishment of a well-functioning organic seed market

- Analyzing yearly derogation report: e.g. how many derogations were granted for which crops and which varieties were requested by the farmers, how things can be improved etc.
- Agreement about which crops to be put in Category I → Commitment from seed suppliers to produce it and from farmers to buy it
- Agreement about the necessary selection types of a given crop (e.g. cherry tomato, beef tomato...)
- If resistance breaks occur or seeds are not available anymore, crop will be put back from Category I on Category II again

Different Categories – examples from Germany

| Category I (No derogation) | Category II (Single derogation) | Category III (General derogation) |
|-------------------------------|------------------------------------|--------------------------------------|
| Winter Rye | Wheat | Sunflower |
| Buckwheat | Barley | Ornamentals |
| Hokkaido | Tomato | Melon |
| Ryegrass | Spinach | Carrots |
| Sugar Beet | Cabbage | White clover |
| Corn | Beetroot | Parsley root |

Different Categories – examples from the Netherlands

| Category I (No derogation) | Category II (Single derogation) | Category III (General derogation) |
|-------------------------------|------------------------------------|--------------------------------------|
| Cereals: Spelt wheat | <u>Cereals:</u> Buckwheat | <u>Cereals:</u> Sorghum |
| Wheat | Oat | Summer rye |
| Spring barley | Winter rye | Durum wheat |
| Winter triticale | | Summer triticale |
| | | Winter barley |

Practices found in EU member states - Fruit trees

- Farmers have to order on time (>1,5 year in advance), so tree nurseries can prepare the trees
- Derogations only for specific reasons:
 - ✓ *The variety can not be produced*
 - ✓ *Compensate the loss of trees*
 - ✓ *Business expansion*
 - ✓ *Catastrophic disease*



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 727230. The information provided reflects the views of the authors. The Research Executive Agency is not responsible for any use that may be made of the information provided.



Practices found in EU member states - Potatoes

- To avoid that potato grower order too late when supplier have already sold their planting potatoes
- Derogation only possible between 1st October and 31st January of each year
- Potato grower have to order their potatoes before this date
- After 31st January no derogation possible anymore
- Exception: The supplier could not deliver organic quality although they were ordered in time (proven by order confirmation)



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 727230. The information provided reflects the views of the authors. The Research Executive Agency is not responsible for any use that may be made of the information provided.



Practices found in EU member states – Similarity lists

- In field trials in Denmark different cultivars are compared
- The authority creates a similarity-list for different cultivars, f.e. if cultivar x should be used, cultivar y is comparable
- So if a farmer wants to get a derogation for cultivar x but cultivar y is in organic quality is available, the derogation will not be granted



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 727230. The information provided reflects the views of the authors. The Research Executive Agency is not responsible for any use that may be made of the information provided.



Recommandations to extend the use and production of organic seed

- Form legal basis for national policy measures:
 - Introduce national Annex for species where there is sufficient supply available
 - Establish expert groups
- Ensure transparency of the available organic seed cultivars
 - Establish a seed database with real time information on seed supply
 - Seed suppliers need direct access to this database to keep it up-to-date
 - Additional information on varieties helps to make it interesting
- Collect data about:
 - Organic seed production and demand
 - The use of farm saved seed



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 727230. The information provided reflects the views of the authors. The Research Executive Agency is not responsible for any use that may be made of the information provided.



Recommandations to extend the use and production of organic seed

- Promote the use of organic seeds, inform farmers about the advantages of organic seed
 - Support variety trials to show potential
 - Financial incentives when using organic seeds
 - Easy language understandable for farmers (not officialese)
 - Explanation of national rules (e.g. national implementation of Category I, how/when to apply for a derogation, deadlines for derogation requests, ...)
 - Organigram with roles, responsibilities and mandates of stakeholders (authorities, control bodies, seed inspection bodies, expert group)
 - Additional information (where to find variety traits, breeding process, regional suitability, region of delivery....)



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 727230. The information provided reflects the views of the authors. The Research Executive Agency is not responsible for any use that may be made of the information provided.



Recommandations to extend the use and production of organic seed

- Use the derogation report to improve the availability of organic seed from suitable varieties
- Make the derogation system more strict (whenever possible, consult expert group in your country)
 - Use lists of similar varieties
 - Non derogation list (category I)
 - Minimize the list of general derogations
 - Ask for a 'personal' motivation from the farmers, why using a special cultivar
- Funding of organic breeding and research
- Training of seed producers and investment in seed cleaning facilities
- Create networks for agrobiodiversity



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 727230. The information provided reflects the views of the authors. The Research Executive Agency is not responsible for any use that may be made of the information provided.



Requirements that an organic seed database should/could offer

- Be user friendly and intuitive to handle
- Reduce administrative burdens in using for farmer, seed supplier, control bodies and authorities
- Increase the transparency of the organic seed market
- Navigability (search/filter for species, seed supplier, etc.)
- Frequent (real-time) updating
- Intuitive user guidance
- History function
- Updating of seed offer (directly by seed supplier)
- Online derogation process (farmer apply online for derogation, authority grants/rejects online)



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 727230. The information provided reflects the views of the authors. The Research Executive Agency is not responsible for any use that may be made of the information provided.



Changes in the new regulation from 2021 on regarding seeds

848/2018

- Additionally database for animals (66 and Art. 26)
- Show period of the year of its availability (Art. 26)
- Quantities of seeds need to be displayed (Art. 26)
- Also heterogenous material can be used

Implementing acts – draft

- Use of in-conversion seeds needs to be granted
- Category I: No EU-wide Annex X anymore with species where no derogation is allowed but now member states can implement such an Category I-list for their country
- General Derogation: operators shall keep records of quantity used and competent authorities responsible for authorisations shall list the quantities of authorised non-organic plant reproductive material



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 727230. The information provided reflects the views of the authors. The Research Executive Agency is not responsible for any use that may be made of the information provided.



Vision on an EU-wide router database developed within the LIVESEED project

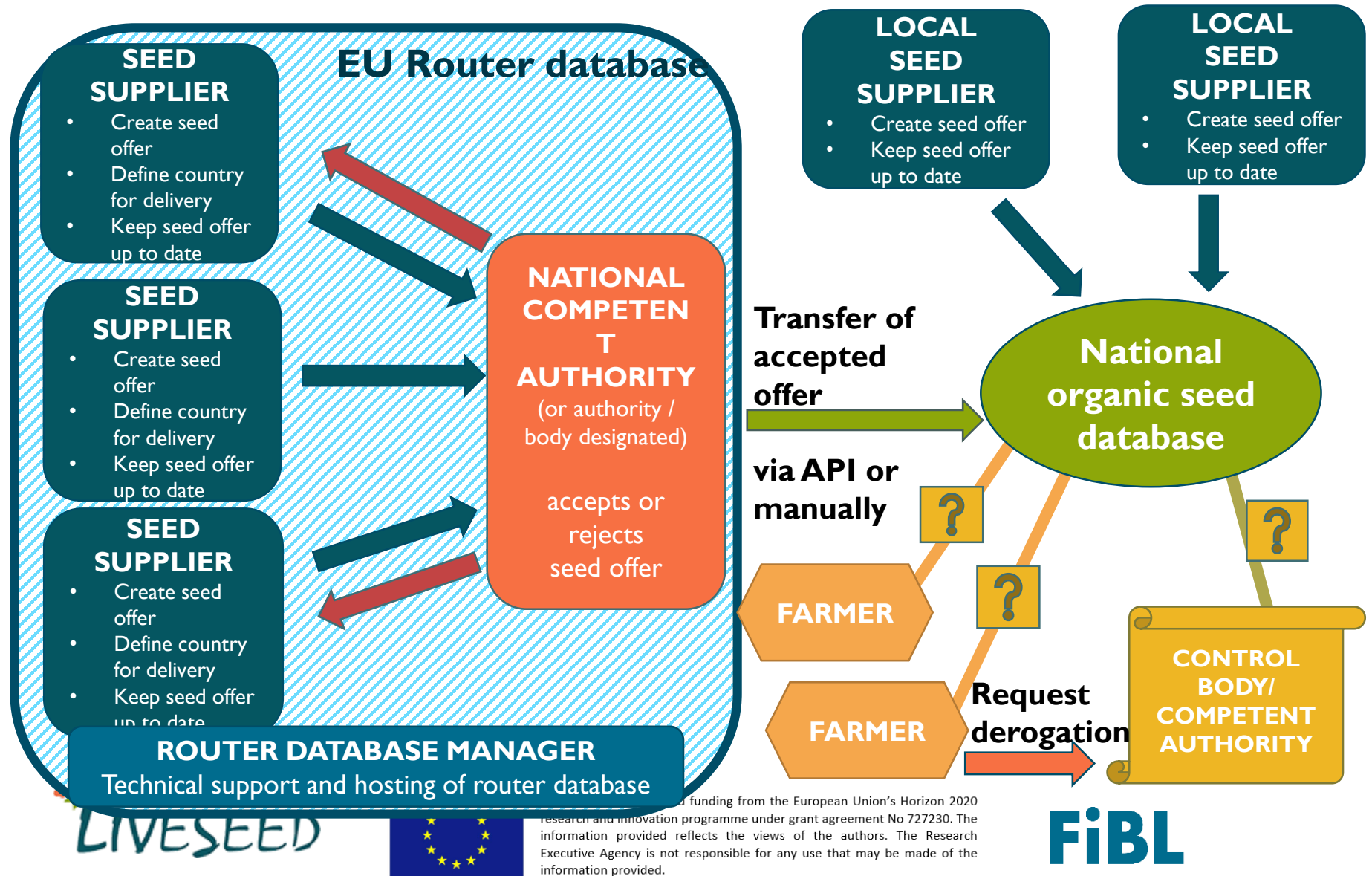
- Support transparency of available organic seed offers
- Boost the use of organic seed and planting material
- Decrease derogations (as they should be an exception, not the rule)
- Simplify access to international organic seed markets
- Reduce administrative burdens for seed supplier
- Harmonize the use of databases in the EU
- Give information on breeding process
 - organic breeding, breeding for organic, conventional breeding
- Give information on critical techniques used in breeding process (e.g. CMS-Hybrids)



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 727230. The information provided reflects the views of the authors. The Research Executive Agency is not responsible for any use that may be made of the information provided.



Aim of LIVESEED: Develop a (back end) EU-router database to link national organic seed databases



Contact



Xenia Gatzert
Admin of national databases
OrganicXseeds

xenia.gatzert@fibl.org
+49 69 7137699 62



Freya Schäfer
Leader WPI of the
project LIVESEED

freya.schaefer@fibl.org
+49 69 7137699 83



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 727230. The information provided reflects the views of the authors. The Research Executive Agency is not responsible for any use that may be made of the information provided.

