

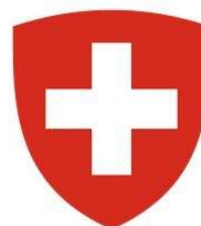


D2.2 Report on the Cross Visits

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1. Summary

In the framework of the LIVESEED project, four cross visits were organised to demonstrate smart practices and to promote the exchange of knowledge among stakeholders, with the aim to increase productivity and quality in organic seed production.

The four cross visits were organised in France (2018), Italy (2019), Netherlands (2019) and a virtual visit due to the COVID-19 outbreak in Germany and Switzerland (2020) primarily for agricultural trainers, farmers advisors, and key stakeholders from countries where the organic seed production is less advanced in Europe.

Each in-person visit was attended by 14-24 participants. In this document we summarize the visits, and reflect on the visits, on the organisation of the visits and on the selected AgriSpin methodology. LIVESEED's multi-actor approach and the diverse aspects of organic seed production covered in each of our visits made it harder to transfer easily the AgriSpin methodology to our cross visits. While some elements of the methodology were highly valuable, we had to adjust significantly e.g. the methods for structured learning and reflections. We hope that some of the methodology developed for the LIVESEED cross visits will be useful in future visits on organic seed production.

Concerning program development, it is advisable for future cross-visits on organic seed production to visit places that offers learning on multiple aspects in depth in one location. Next to such complex places to visit, it is also very important to meet small scale initiatives that match the implementation level of countries where organic seed production is currently underdeveloped and allow for exchange of knowledge between them and the participants. Other, important but marginal aspects interest to only a few participants could be incorporated via guest presentations or webinars prior to the visit. It is also recommended that for multi-actor groups, the program development and the selection of participants are an iterative process.

The LIVESEED cross visits offered a valuable wealth of knowledge on practical and technical issues of organic seed production in cereals, vegetable, potato seed and fruit propagation that were captured and disseminated in reports, videos, Practice Abstracts, a booklet, in articles, and exploited through knowledge transfer, everyday practice, training materials, demonstrations at farmers field days by the participants, or resulted in new practices/methods/processes/innovations as well as discussed in round tables/expert groups in Hungary, Bulgaria, Romania, Poland, Portugal, Spain, Greece, Latvia, Austria and France. Several participants followed up with hosting organisations and other attendees for collaboration and networking.

2. Introduction to the visits

This deliverable summarizes the experiences gained through the organisation of four cross-visits in Europe, in the framework of the Horizon 2020 funded LIVESEED project.

The LIVESEED project, driven by the use of a multi-actor approach, based the cross visits on the assumption that appropriate solutions must be tailor-made, and partners from other regions are in the best position to provide learning that could initiate change. Therefore, to discover these ideas, it is necessary to visit and explore systems applied elsewhere, to interact with stakeholders, colleagues, and scientists in other parts of Europe. A specific focus was put on allowing experts from countries



where the organic seed sector is less developed and/or has particular needs, to attend the cross visits with the aim of:

- i) enable a mutual learning process among professionals engaged,
- ii) reveal regional particularities as well as lessons to be generalized,
- iii) inspire and stimulate regional partners to initiate changes in their system,
- iv) forge relationships as a basis for a professional network that can sustain after the project period.

Four cross visits were organised to demonstrate smart practices and promote the exchange of knowledge among stakeholders (primarily from Poland, Hungary, Bulgaria, Greece, Spain, Portugal and Romania) with the aim to increase productivity and quality in organic seed production.

Participants were organised by IFOAM EU together with the local project partners, and the visits planned and hosted by the ITAB, UBIOS and COCEBI in France (2018), by Rete Semi Rurali (RSR) in Italy (2019), by the Louis Bolk Institute, Vitalis Organic Seed, BIONEXT, Wageningen University in the Netherlands (2019) and by FiBL-DE and FiBL-CH in Germany and Switzerland (2020) (detailed report of each visit can be found in [Annex III](#)).

The French visit - 04-07th June 2018:

The visit focused on

- organic seed production in cooperative for cereal, legume and forage crops
- crop management for seed production,
- tools, seed cleaning and storage, seed quality management
- variety testing
- heterogeneous population (wheat Composite Cross Populations)
- seed certification
- Formal seed system

Places visited were:

- JEAN-PAUL BOUCHET, an organic farmer producing seeds for UBIOS, and testing varieties of durum wheat and oat
- VINCENT LEFÈVRE, an organic farmer producing seeds on 220ha for UBIOS and COCEBI
- COCEBI, a cooperative with an experimental station testing cereal varieties in 700 plots, an seed testing platform of wheat, triticale, spelt.
- UBIOS, a seed cleaning and storage station, management of the activities, seed cleaning and storage, seed conditioning, and seed quality lab

The Italian visit - 04-08th June 2019

The cross visit focused on cereal and vegetable seed production and processing around Bologna, Pisa and Firenze, and covered the topics of:

- conservation varieties of cereals;
- good practices of short value chain;
- CPVO-EU field trials of heterogeneous populations of cereals registered under the temporary experiments on marketing of cereal populations (2014/150 EU)
- Population registration in Italy;
- Good practice of cooperation between farmers and universities in the maintenance of conservation varieties and populations;
- Community seed bank and the informal seed sector;
- Seed cleaning, seed processing in a large-scale cooperative;



- Dedicated organic seed processing;
- Organic vegetable seed production and multiplication;
- Common bunt management in decentralised organic seed systems
- Different organisational models for producing, multiplying, storing and sharing organic seeds;
- Setting up participatory research under organic and low-input conditions;
- Involving further stakeholders (bakers, millers, researchers, farmers, health professionals) in the breeding of cereal varieties.

The following places were visited:

- PODERE SANTE CROCE, a biodynamic cereal farm, growing in rotation with legumes, vegetables, forage and pastures.
- CREA DC, Budrio, hosting comparative field trials that cover all Italian and German registered bread wheat CCP for evaluation by the expert group of DG SANTE
- C.A.C, the largest vegetable seed producing operator in Italy that has a new dedicated organic processing plant, and we also visited two of their experimental fields.
- RSR's COMMUNITY SEED BANK, hosting a community seed bank holding local varieties and populations of cereals.
- ROSARIO FLORIDDIA'S FARM, 300ha organic farm producing ancient and local varieties of cereals, and legumes.

The Dutch Visit - 30th September - 03rd October 2019

The program was focussed on vegetable and seed potato production technology:

- seed ripening and storage
- gene bank, the Centre for Genetic Resources (CGN)
- seed treatments in organic farming context
- vegetable seed: breeding lettuce, pumpkin for organic
- variety registration, seed health and the safety of new varieties, new variety testing
- seed potato production: disease testing, certification, organic production and breeding, quality/diseases in the chain from breeding to production to trade
- visions, worries, perspectives and necessities of organic seed potato production in Spain
- predicting yield on the basis of selected morphological plant development in organic potato

The following places were visited:

- WAGENINGEN RESEARCH, expert centre on seed technology and seed health related issues.
- National context including the Dutch seed market, key actors, the key national laws and the national annex, and the Seed Expert Group were presented by Maaïke Raaijmakers (BIONEXT).
- VITALIS ORGANIC SEEDS - Organic vegetable breeding company with breeding programmes
- SEED TREATMENTS GERMAINS, a company specialising in seed priming, pelleting, film coating, health and polymers, some also for organic
- DE BOLSTER, a 400ha organic vegetable breeding company with varieties particularly suited to professional and also to hobby growers.
- NAK SERVICES, an independent research institute testing seed potatoes and seed from cereals and grasses.
- AGRICO, potato production cooperative producing for a worldwide market and is breeding new potato varieties including organic ones.



- NAK TUINBOUW, the Dutch Inspection Service testing propagating materials (seed and planting materials).

The German/Swiss Cross-Visit

The in-person visit was organised between 12-14th May 2020 and focused on organic grape/vine breeding and organic fruit propagation and cultivation. Due to the pandemic, the team was forced to cancel the in-person meeting in mid-April. FiBL-DE, FiBL-CH and IFOAM EU carried out in-depth interviews (with organic vine experts from Weingut Rummel, Rebschule Freytag,), organised webinars (Orchard Museum GLEMS, apple breeder Niklaus Bolliger and Michael Friedli (FiBL-CH) on fruit propagation and cultivation technology in cherry, apricot and berries) and acquired presentations (The VitiFit project's coordinator, FÖKO and Claudia Daniels from FiBL-CH on plant protection in organic) to process for a report on the planned visit.

The following places were included in the report:

- VITIFIT PROJECT - a project funded by the German Federal Ministry of Food and Agriculture on grape vine health (esp. *Plasmopara viticola*), breeding for fungus-resistant grape varieties (PIWI) and the VitiMeteo *Rebenperonospora* forecasting system
- WEINGUT RUMMEL- Organic vine breeding, selection, propagation and production, winemaking, organic wine value chain.
- REBSCHULE FREYTAG- Selection, propagation and marketing of robust vine varieties.
- ORCHARD MUSEUM GLEMS, Germany - an orchard with a focus on breeding and production of pears on plums.
- BIO-OBSTHOF GLOCKER (FÖKO) - DIE FÖRDERGEMEINSCHAFT ÖKOLOGISCHER OBSTBAU e.V - organising organic fruit grower farmer networks for education, and promoting conversion to organic through training
- NIKLAUS BOLLIGER, Organic Apple Breeder
- FiBL SWITZERLAND: FiBL is one of the world's leading institutes in the field of organic agriculture. The program offered insights into FiBL-CH research on organic plant protection measures, cultivation technology on apple, cherry, apricot and berries.

3. Organising the visits

3.1. Selection of the participants

Our primary target group for attendees was defined as agricultural trainers that we assumed that would later organise courses on organic seed production in their countries, and therefore multiple the results locally. Our secondary target group were key stakeholders, such as seeds companies, farmers and advisors with interest in organic, and a third group was defined as official persons involved in seed testing and certification and researchers. In order to ensure that a multi-actor approach is applied, we balanced these target groups in each visit.

IFOAM EU developed a background information package and a survey for its project partners to be able to nominate the right participants. A selection criterion was also developed to assist the selection of the nominees, including their involvement in the organic sector, existing knowledge on seed production, capacity to multiply and report in their country 'change agents', a good level of English, and availability on the given dates confirmed.



LIVESEED project partners from Poland, Hungary, Bulgaria, Greece, Spain, Portugal and Romania then nominated participants with descriptions and CVs to allow us to understand better their backgrounds and expertise. Project partners from other EU countries also nominated further experts who wished to participate themselves.

Lessons learned from the selection process

Sending organisations may not necessarily be able to characterize their own nominees in depth, therefore it is essential to ask for a full CV/resume to be able to judge what that participant would bring to the small community of the cross visit, and in order to see the potentials for future collaboration and active networking and dissemination in their country.

Organisers of cross visits with national experts must take into account language barriers and therefore make the advanced use of a common language a main selection criterion, preferably English. Even though experts across Europe may speak German or French, most presentations and facilitation happens in English, which may reduce the learning outcomes and the interactivity of the participants if they cannot interact in that language.

Motivation to attend is also a very important factor to double check with the nominated participants directly. To avoid that nominated people “are sent” or “are gifted with the trip” but attend with no internal drive to learn during the visit, skype interviews with nominees prior to the visits are useful, which also helps to assess their language skills better.

The multi-actor approach, although brings benefits and surprising follow-up initiatives, also creates its own issues, such as the different interest levels in the same activity, or completely different topical interests and knowledge. When developing the program, the participants’ interest should be aligned to the plans to allow the generation of meaningful discussions once the group is together. This means that for multi-actor groups, **the planning of the visit’s concept and its participants should be iterative.** One way to facilitate the clarification of the program is to screen the selected participants for their interest. We developed a quick survey for them on the options we could present them and asked their thematic interests and preferences. This proved to be very helpful in finalizing the program and to convey expectations to the speakers on the topic they should cover.

The sending organisations should be also closely involved in the development of the program to ensure that they have a proper overview of the topics covered and that they can nominate the right people suited for the visit. This helps to avoid the withdrawal of participants who realize late in the planning that the program does not match their interest, and then the sending organisation replaces them last minute with someone who is not necessarily motivated or interested.

Taking into account the multi-actor nature of the group is also essential when planning the follow-up activities, such as building an expert network across Europe for future collaborations. A diverse group that does not share the same expertise, field of work, specialisation in a certain crop type, etc. is unlikely to form a future network as a group. Expectations for follow-up interactions therefore should be realistic and consider fruitful, but rather bilateral cooperation between the individuals. It also helps if the group’s expertise pool is at least partially overlapping. These issues need to be taken into account at the participant selection stage.

3.2. Selected Methodology

3.2.1. General methodology based on the Agri-Spin project’s manual



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The methodology of the cross-visits was overall based on the one developed in the EU H2020 project AgriSpin¹. This method is useful to organise exchange between professionals with similar tasks in different regions. The method was adapted to organic seed production, and consisted of the following steps:

Step 1: Kick off - Getting Acquainted

Acquainted

These are facilitated sessions to build up the team spirit, to focus on individuals' motivations, values, the person behind the expertise. Since we are a multicultural multi-actor team, building up an atmosphere of mutual understanding is key, and saves a lot of time later on in the visit that is otherwise spent on sorting out misunderstandings.

Oriented

The host gives an introduction of their organisation and the regional context. For visitors to prepare themselves, the host already sends them fiches with key information about each case at least a week before arrival.

Elements included in these presentations:

farming system in the country in general (% organic, crops), seed system in general (what type of seed companies exist, formal – informal), most important actors in organic seed system (national authorities, certification, companies, cooperatives, maybe value chain, etc.), are there any specific measures in place to stimulate organic seed use or production? (subsidy, training, etc.), what are obstacles for organic seed production in this case/country, what are the things that developed well over time/advantages?

Updated

A brief overview on the process of organising this visit (selection of participants, choice for this case/place). Further how does this cross visit fit into the entire LIVESEED project? Include a short presentation/summary of the project aims & goals

Organised

These are facilitated sessions to provide the attendees specific *themes for observation*. Without a focus, technicians are tempted to ask all kind of technical details while visiting a farmer, but these details sometimes do not serve the objective of the visit. The observation exercises should provide some guideline to ask targeted questions and especially facilitate people. The aim was to gain a focused view on several aspects: technical (how is the seed cleaning etc done), market aspects (how is it sold), organisational aspects (who has which responsibilities), regulatory aspects (what is the legal frame), activities (description of farm, history), future perspective, problems, actors.

Each day:

Step 2 – field visit

During a field visit the team studies a particular farm or farm related enterprise / organisation. Key actors, such as the farmer or farm family, the support agent and other persons who play a particular role in the operation of the farm are being interviewed. A visit, including an introduction, a farm tour or a tour in the enterprise, interviews and wrap up session *usually takes half a day*. The facilitator keeps an eye on the questions being asked and stimulates the team members to use the target questions provided to them.

¹ AgriSpin Manual, Wielinga & Paree, 2016



Step 3 – reflection

After a visit, the team takes time to share observations and to reflect on them. Methods from AgriSpin focus on the innovation process, but in LIVESEED we wanted to include also technical aspects and the whole social construct, therefore other methods were also used.

Step 4 – social activity

Somewhere during the cross visit there is time to meet each other in a socialising setting. This is important to build good relations that might continue after the cross-visit. Examples: cooking together, farm games, cultural evenings, gastronomy, etc.

Step 5 – preparation of the feedback

Half a day or an evening is used for preparing the symposium at the end of the cross visit. The team formulates feedback based on what has been observed and discussed. At this session, a general feedback should be given to the organisers on the cross-visit method and the selected cases. What can be improved? What was difficult? What was appreciated?

Step 6 - symposium

At the end of every cross visit the host organises a symposium of half a day, for which key actors and decision makers are invited. This is a feedback session where the team and the invited participants exchange observations and opinions.

After the visit

The host and task leader write a short summary of the visit and the outcomes (ca. 5 pages) within 3 months the visit. The report will be circulated to all participants to comment and add on.

6-months survey

Participants are asked to provide feedback after 6 months on where and how they utilized the gained knowledge, and if, their perspective has changed over time on the learning outcomes.

3.2.2. Reflections on the general methodology

The Agri-Spin methodology is a great way to provide structured learning where the participants share the same expertise and interests and they focus on one specific aspect (in the case of AgriSpin, innovation). However, the LIVESEED cross visits' multi-actor groups, as well as the diversity of the programs in each country did not allow us to fully follow this methodology. After each visit, we evaluated the lessons learned from the visits, and adjusted the next visit accordingly.

Nevertheless, some elements of the AgriSpin method, such as the **Acquainted, Oriented and Updated** were crucial elements of our visits as well and served as icebreakers early on. Interactive games were developed to allow the participants to engage in a non-formal setting. IFOAM EU developed a series of icebreakers for each visit (e.g. "Crossing the Alligator river" moral dilemma exercise, Participants Bingo game, and further exercises to allow complete strangers to get to know each other, see **Annex I**). These proved to be very well received by the participants and facilitated the team spirit rather quickly.

An overview of the local context is also essential for the participants. Although the hosting organisations provided information in advance that were disseminated to the participants, most participants did not prepare themselves in advance. Therefore, it was very important to explain the national context in which the visit was organised. An overall presentation of the steps of the visits was also necessary for the participants to gain a good overview of the program of the days ahead.



An important factor to raise is that **participants should arrive around the same time** (preferably the night before to have a good rest before the intensive visit) and they should be **all involved in the introductory exercises together**. **The introduction part of the program should not be skipped** as it brings extraordinary value to the team spirit, to the understanding of the program and of the expectations from the participants, serves as an introduction to the places visited, and an introduction to the methodology applied.

The “**Getting Organised**” part of the Agri-Spin method proved to be the most difficult to transfer directly to our visits, because we visited different farms and organisations, operating at different scales (from small biodynamic farms to large cooperatives, or research institutes). While made the program more diverse, and allowed for a good understanding of the main approaches in which organic seed is produced in the visited counties, in terms of preparations for the facilitated sessions, for almost all individual visits, we had to develop a separate way to reflect on the visits with the participants, see Annex I). We used:

- Observation cards tailored to the place visited;
- Printed hand-outs with open questions;
- Printed quizzes tailored to the places visited;
- SWOT-analysis of places visited in smaller groups;
- Facilitated sessions to collaboratively write Practice Abstracts based on the visits;
- Feedback session to evaluate the cross visit itself.

To prepare properly in advance with the questions and exercises, it is very important that the hosting organisation understands the rationale for structured learning, and is willing to cooperate in their developments, and explains in detail the activities of the places the group would visit to the facilitators.

Field visits

Hosting organisations are proud to bring the group to farms and organisations in a program that covers all aspects of organic seed production from breeding to seed cleaning and processing, certification, to variety testing. This is a good approach to equip the participants with an understanding of the local context and how the steps of seed production are embedded in that social, economic and institutional setting and how they involve the key stakeholders.

It is important to keep in mind that each visit requires the presence, concentration and patience from the attendees. In our experience, no more than 2 places can be visited per day without overloading the participants with information and allowing them to properly process and reflect on what they experienced. All our cross visits were highly informative but also extremely intensive. Participants had different levels of tolerance for this intensity.

Trips between the visited places provide valuable time to rest and network, but long trips only help lose the energy of the group for learning. Maximum of three hours of travel a day can be managed without losing momentum of the team’s spirit. Participants have also different tolerance level for traveling (due to travel sickness or other health issues) which must be taken into account, as well as tolerance levels of environmental factors such as heat or rain.

Although an introduction session on the first day covers the places the groups visits, it is still essential that before each place a briefing takes place on what will the group visit next, and provide a background on the significance/novelty/added value of what they would see. This can be printed material/a verbal presentation/a power point/ or a mobile app providing further information.



At the farms, it is essential that the presenter speaks English. Valuable time can be lost in translations, and it is also discouraging for the participants to interact with the presenter or with key experts who require translation. Information is also lost in translations due to misunderstanding or loss of focus for the interpreter. It is very challenging for the host to translate most of the day, and also very challenging for the participants to follow the discourse.

The people who present the visited place and speak to the group need to be introduced properly, including their background, so that participants know what kind of questions they can ask from them. This helps to avoid situations where attending experts are not interacted with in lack of understanding of who they are, or questions are addressed to the speakers that they cannot answer/not allowed to reveal (i.e. patents, or information on genetic markers, etc).

Participants in general ask random technical questions from the presenters that personally interest them. The prepared cards and questions that were tailored to the place visited helped them greatly to focus on questions at different levels/perspectives or on issues they would normally not cover/that would not necessarily occur to them. (Providing them with observation cards that covered general questions on seed production but were not tailored to the place visited brought less value.)

It is important to note, however, that both personal questions and facilitated structured learning approaches bring value to the groups' learning process, and both should be encouraged and facilitated during the visits.

Group Reflections

Due to the intensity of the programs, after each visit, the team needs to take the time to relax, process/digest and reflect on the experience. This is best done right at the spot after a short break or in the afternoon after finishing the program for the day, but not later than 4PM. Our experience shows that taking time to reflect on the visits helps the participants to structure the experience, to place the visited farm/institution in the overall local/national context, and to sum up for themselves what the experience brought to them. It also helps to fill the knowledge gaps that occurred due to translation processes, or not hearing the speakers properly, or due to mental fatigue, or simply, from being distracted. Therefore, the reflection sessions, in the full or in smaller groups are essential part of this journey. At the same time, it is important to note that the experts presents are highly knowledgeable, therefore the group reflections should be organised in a meaningful and interactive way that helps to share the learning experience and fill the gaps rather than repeating what has been learned.

It must be emphasised, that proper time slots and venues for facilitated discussions should be planned in, where participants can comfortably sit, relax, refresh and use tools (post-its, papers, etc).

Out of the several methods we used, one of the best tools to reflect collectively proved to be a SWOT analysis in small groups of 4 different places we visited, then shared and discussed with the entire group. This was an efficient way to conclude on the experience of two full days in one time slot, as well as allowed to phrase recommendations for the visited places from the participants (mutual learning). Collaborative Practice Abstract writing also provided a framework in which the participants could reflect meaningfully on a visit in a group. Another way we found useful was a facilitated exchange through a workshop (e.g. on potato in the Netherlands) on a selected range of topics. During this workshop, we invited attendees to share their own expertise with the host and the fellow participants, to deepen understanding of the hosts of the context in which the attendees operate, as well as to see the collaboration potentials.



Facilitated sessions (e.g. a quiz on the temporary experiments of the CPVO) at CREA-DC's hosting site helped facilitate the flow of questions and answers between the participants and the hosts. Most countries whose experts attended that visit did not participate in the 7-year temporary experiment, therefore it was a novel concept and participants did not feel equipped to raise questions. The facilitation proved to be essential for the participants to gain an understanding of how their own country could also participate in the future in such an experiment. Facilitated discussions based on observation cards only proved efficient if the questions on the cards were specific and narrowed down to a particular place visited. Participants could not necessarily and easily identify general questions on seed production with the places visited, therefore if observation cards are used, they should focus on the same theme across all visits, or on a specific place visited to bring value.

Individual structured learning was best facilitated through short, targeted quizzes tailored to the places visited. However, not all participants are motivated to fill the quizzes during the day. During a reflection session, time should be provided for the participants to fill out the blanks individually or collectively in the quizzes.

Social Activity

During the visits, we organised social activities, mostly in the form of dinners, city visits or cooking together. These events had additional value to bring the group together and to break the cultural and linguistic barriers in the group. It also helped participants to mentally disengage from the intensive learning experience and do something different than processing new information. Based on our experience, the social activity should be simple, relaxing, close to the accommodation, and allow for a cultural rather than professional exchange between the participants.

Preparation of the feedback

We deviated from the methodology here as well, and the feedback sessions were organised at the very end of the visits and allowed participants to express their overall satisfaction or dissatisfaction with the visit. In France and Italy, the feedback and closing session was a facilitated session in a group, while in the Netherlands, we used the tool "wooclap" to guide the questions and discuss the responses and suggestions in a more structured format. If space and time allows, wooclap or mentimeter is a fun and engaging way for everyone involved in the session to express views and do that simultaneously. Questions we prepared, and answers from the group:

Q1: Did the cross-visit fill your knowledge gaps? (Yes, Partly, No). In our case, 42% responded "Partly" to this question. We then asked the participants to elaborate on the knowledge they missed from the program, which were community level seed banks and smaller scale seed production companies.

Q2: Please rate the following statements from (5) fully agree to (0) do not agree.

- The cross-visit was well organised (4.6)
- The pace allowed me to follow and write down my thoughts (4.8)
- The number of visits per day was satisfactory (4.9)
- The time for reflection was enough (4.3)

We then asked the participants suggestions on how to improve that element for next time (that got low scores). This question on reflection time confirmed that it is essential for the attendees to stop and reflect from time to time to digest better the information load.



Q3: What were the 3 most useful sessions in terms of knowledge transfer?

- Vitalis: Germains seed treatments, seed production, horizontal breeding (Tuesday morning) 83%
- NakTuinbouw (Thursday morning) 75%
- Genebank: storage and seed ripening (Monday afternoon) 58%
- NAK: seed potato production (Wednesday morning) 42%
- Agrico: seed potato production (Wednesday afternoon) 42%
- De Bolster: seed treatments, seed production (Tuesday afternoon) 8%

We then asked what made Vitalis so successful and De Bolster to reach such a low score.

Q4: What sort of dissemination are you planning to do?

- Knowledge transfer to colleagues – 92%
- Introduction of a new innovation – 38%
- Everyday practice – 38%
- Training material for farmers – 31%
- Set up of local network on an issue – 31%
- Discourse/roundtable concerning an aspect - 31%

Then explored the responses more in depth with the participants.

Symposium

This element of the methodology worked during the French visit where we were able to bring the participants to the Board of the organisation UBIOS so that they could provide feedback, and connect that to a workshop on heterogeneous populations with the French authorities. The French visit in this sense was fortunate, because the places visited were all connected to each other, therefore the session could bring meaningful reflections towards the Board of UBIOS, and through them towards Cocebi and the farmers visited. Therefore, for similar settings, it is possible and recommended to follow this element of the methodology.

However, this was not easily replicable or transferable elsewhere, because during the other visits, we visited distinct places with occasionally significant geographical distances, therefore such symposium made no sense to organise. Instead, in Italy, the participants attended a workshop on Common bunt with Italian authorities and 85 Italian farmers to exchange knowledge on treatment methods, and in the Netherlands, we organised a potato workshop where Dutch potato breeders and experts attended to facilitate knowledge exchange with the participants.

After the visit

After the visits we produced reports (Annex III), focusing on the journey. The Italian and Dutch visits were recorded, and the reports were produced with a view to provide the technical details for those who could not attend due to space limitations but would be interested in them. The German/Swiss report followed the same focus, even though COVID-19 hindered our in-person visit, we aimed at collecting as detailed information as possible through interviews, webinars, presentations and desk studies. The reports were disseminated to the participants and made publicly available on the LIVESEED website². Participants also received presentations, further materials and the CV of all attended participants in their groups to facilitate their future interactions.

² <https://www.liveseed.eu/results/wp2/reports-cross-visits/>



6-months survey

Participants are asked to provide feedback after 6 months on where and how they utilized the gained knowledge, and if, their perspective has changed over time on the learning outcomes, in the form of a survey. This survey serves the reflection on the organisation of the visit in terms of the program, helps to assess the networking and innovation potential, and to see how the learning outcomes are passed on. The surveys are voluntary. To increase the response rate to this survey it is necessary that the detailed report is re-sent to the participants, that during the visit it is explained that they would be required to fill it out, and that several reminders are sent to them to act. In the case of the German visit, we had no time to incorporate six months into the timeline of this deliverable, therefore only the French, Italian and Dutch visit's conclusions are incorporated into the chapters on the aspects involved in the survey.

4. Outcomes of the visits

4.1. Specific Outputs

Based on the cross visits, several tangible outputs were produced in the framework of the LIVESEED project. A **booklet** titled "Success stories on organic seed production" was produced in 2020 that presents examples that are inspiring and transferable in organic seed and reproductive material production based on interviews with the farmers during the visits. From each visit, we presented two case studies: the French cases describe the activities of organic cereal farmer and seed producer Vincent Lefevre, and those of UBIOS, an organic seed cooperative which produces and commercialises seeds of arable crops and with whom Lefevre successfully collaborates (as seed multiplier). The Italian cases include a short value chain model involving the Floriddia organic Farm (which grows cereal Organic Heterogeneous Materials and conservation varieties), and a vegetable seed cooperative whose activities stem from breeding to seed processing (in a dedicated organic seed processing facility). The two examples from the Netherlands highlight two different models and scales under which organic seed production can be made successful: the (initially small) vegetable seed company Vitalis, and the seed potato giant Agrico which engages farmers in the production of organic seed potato. The cases from Germany and Switzerland target organic fruit propagation: a successful selection and marketing of modern organic apple varieties initiative, and a well-working model for the propagation and processing of organic grapevine.

Videos: we also used the opportunities during each visit to shoot videos. During the French visit, a summary video of the event was produced. In Italy, a series of videos were shot, including one introducing the Community Seed Bank of Rete Semi Rurali (RSR), one that explains how to organise knowledge exchange events for farmers, millers, consumers, seed companies, one with interviews with the participants, and using the opportunity of a workshop on common bunt, an interview with Tilletia expert Anders Borgen (from Denmark) was produced. In the Netherlands, Vitalis Organic Seeds explained in a video their activities in general and specifically in pumpkin breeding. In Switzerland, apple breeder Niklaus Bolliger will explain his organic breeding activities in a video (planned for September 2020). The videos aimed at covering knowledge gaps or specialised technical know-how that are otherwise difficult to obtain.

Altogether 13 titles for **Practice Abstracts** (short technical fact sheets focusing on particular problems and solutions) were identified during the visits, out of which 10 have been produced by May 2020 (available on the LIVESEED website), and further Practice Abstracts are expected by December 2020. The PAs were drafted by the cross-visit participants and then finalized by the hosting organisations:



- Proper seed storage
- Managing common bunt in wheat seed lots (EN, FR)
Seed health in potatoes
- Seed vigour: keep it high!
- Conservation varieties in Italy
- Application of acetic acid as a seed treatment in organic cereal seed
- How to set up a community seed bank
- How to produce seed of heterogeneous populations of inbred cereals
- Organic wheat variety testing by a network of farmers
- Introduction of new varieties to the market

Reports on the visits and presentations have been shared on the LIVESEED website, on social media, and will be shared on Organic EPrints and ECO-PB's web portal for young organic breeders and students. Summary articles were also produced on the LIVESEED website after each visit³.

4.2. Learning outcomes

Participants were asked what they found as the most important learning outcomes of the visits (examples of self-reported learning outcomes are summarized in Annex II). As it can be expected from multi-actor groups, the focus of individual learning depends on the background, field of research or activity of the individual. Yet, with the guided questions, many experts who filled out the survey also added comments on issues that are not related to their fields. The most reflection took place on technical, market and organisational aspects of seed production by the participants. Knowledge gaps could also be identified: for instance, the support and regulatory aspects remained unclear to the participants:

"No subsidies for seed producers in the Netherlands (?). In Latvia we have small subsidies for seed producers, however, we think that subsidies for organic seed users would better stimulate the organic seed market."

"C.A.C. work together with organic farmers and agronomists who should have the knowledge how to produce organic seeds. I am not sure if C.A.C receives a subsidy, but I don't think so."

"I don't remember if there was any incentive for those who grew organically, but it would be a very good idea. We try to work only with organic producers as we believe in this type of production more favorable for the environment and cultivated biodiversity."

"I am not sure if there are special requirements to produce organic local varieties. This would have been an interesting information."

These are aspects that need to be incorporated into the program more clearly next time. At the same time, some specific topics were also identified for future cross visits:

"A cross visit focusing specifically on practical details on seed quality and on yield issues."

"I would have been interested on how common bunt testing or in general seed health testing is done in Italian seed certification"

³ The German Cross visit report will be available in the end of July 2020.



“Organizing a workshop/cross visit with farmers in Bulgaria and experts from Italy and France would help to disseminate the knowledge in Bulgaria”

“To see the testing of seeds (of varieties and populations) under different environment, and multi-location varieties and populations trials tests to assess the disease incidence of different species”

“To be able to find an experience similar to ours. Although it is very difficult, since in our case, and in the case of a very small and above all tourist-exploited island, it is difficult to find a similar context.”

4.3. Exploitation

Based on the closing and reflection sessions and the 6-months surveys, most participants primarily transferred the information to their direct colleagues, to farmers or incorporated the gained knowledge in their everyday practice. Amongst the limitations for exploitation, the following issues were mentioned:

“The gap between the Netherlands and Latvia is too wide with respect to investments, know-how, market etc. So, sometimes this aspect makes people not be able to exploit the knowledge.”

“As Austria has a highly developed organic sector I cannot transfer so much learned outputs to our legislation or multiplication sector from Italy.”

“It is difficult to organize an open day on our little organic field in the Institute. The limited financial resources currently make it possible to grow only a few vegetable crops, which complicate matters practically.”

“As I mentioned earlier, the difference in context between the experiences visited and the reality of Mallorca or the Balearic Islands is very big.”

“Longer visits would help deepen the acquired knowledge and make it clearer how to exploit it.”

Despite these limitations and considering the limited time (6 months) to exploit and disseminate the results, also considering the limitations exposed by the COVID-19 outbreak for individuals to meet and travel, still multiple forms of exploitation were self-reported (Table 1).

Table1. Self-reported exploitation of the information from the cross visit by the participants (non-exhaustive list)

<p>Everyday practice, knowledge transfer to colleagues</p>	<ul style="list-style-type: none"> • Transferred knowledge regarding Organic Heterogeneous Materials OHM (Hungary) • We transferred of our acquired knowledge to our colleagues from the Innovation and Technical Assistance Centre for Ecological Agriculture, Seed Lab Production, Breeding Departments and Plant Protection and also to the participant farmers at National Workshop Organic Seeds (Romania, June 19, 2019). • When I have just had opportunity, I have transferred this knowledge to farmers and industries that work with organic seeds (Spain); • I informed my colleagues about the temporary experiment and the situation of populations in Italy. This is a big topic for us concerning the new EU regulation becoming operative on 1.1.2021 (Austria). • I informed my laboratory colleague on what was discussed at the Tilletia workshop and what I have learned there. (Austria) • Certainly, at every opportunity, we mention relevant professional examples to stakeholders (Hungary)
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	<ul style="list-style-type: none"> I employ lot of things I learned from the Dutch cross visit on my organic farm in Romania, especially on organic potato, and vegetables, weed management, seed cleaning and storage. It was very inspiring to see Agrico, and also the Bolster, how they expanded to different countries where farmers produce for them seeds.
Developing training materials	<ul style="list-style-type: none"> A procedure (protocol on field surveys) on OHM is on the way (Hungary) I took up the method of mind-mapping seen in the Tilletia workshop from Stephanie Klaedtke for further presentations about seed pathogens (Austria) At the moment I work on a training material from the cross visit on vegetable seeds for farmers (Bulgaria) We plan to include the variety mix experience in the plant variety experiments in our on-farm research (Hungary) We incorporated a lot of information from the cross visits and discussed with our organic farming students at ESAC (Portugal), we are training future farmers, and all European examples are very inspiring to them
Presentation/demonstration at farmers field days	<ul style="list-style-type: none"> OHM what they are and why are good for farmers (Hungary) The experiences visited were exposed to the different members of our association, explaining a little how each experience works (Mallorca, Spain) SEAE/ECOVALIA organised farmers workshops after each cross visit with the returning Spanish cross visit participants; We have professional training for farmers and consultants several times a year, where we share our research and study experiences, including the ones from the LIVESEED cross visits (Hungary) Presentation on Tilletia to colleagues (Austria)
Introduction of new practice/method/process:	<ul style="list-style-type: none"> OHM, and organic wheat testing introduced newly in Hungary The organized effort to create organic seed with the involvement of all relevant stakeholders convinced me to deal even more with organic seed in the vegetable species (Greece) Evaluating evolving wheat populations (Greece) From Vincent's intake we set up an intercropping trial at Biomagker kft farm in Hungary to see how it can help soybean seed production. We used Borbala variety and buckwheat as an intercrop to manage weeds. The goal is to establish an easily adaptable technology that can be used in a larger scale (Hungary) I've introduced some practises from Italy in vegetable growing for seed production in a new project (Bulgaria) The caries - and also the fusarium - are such dangerous fungal diseases that can sometimes cause serious problems. We plan the protection against these fungal species (but rather prevention) and research into resistant varieties in our variety experiments (Hungary) Experimental fields were established to evaluate new varieties and populations of wheat suitable for organic cultivation. (Greece) We are trying to improve seed production through the experience we have visited. As for example, make sure that there is no other allogamous variety of the same species in the nearby plots (Spain)
Application in developing new innovations	<ul style="list-style-type: none"> New lines developed from OHM for further selection (Hungary) New evolving cereal populations will be developed and evaluated in the coming years. (Greece) The propagation of cereals (Emmer, Alakor wheat) also has a definite commercial (innovation product) purpose. The LIDL store chain has distributed our landrace tomato seedlings. We now similarly cooperate on the introduction of landrace cereals (flour, baked goods) in the store. (Hungary)
Round tables/expert groups:	<ul style="list-style-type: none"> "Round table discussion with colleagues was organized right after the cross visit-information on potato seed production and certification system was provided. As well quality issues discussed from the point of improvement of storage facilities etc. In future we plan to we plan to create high-tech seed cleaning centre for grains and grass seeds. Our technical staff was informed about cleaning equipment and facilities in Vitalis and De Bolster." (Latvia) The Dutch National Annex system and the way the seed expert group is operating were presented to the new organic seed expert group in Hungary
Networking	<ul style="list-style-type: none"> "Agrico- organic breeding and seed production and NAK TUINBOW – organic cultivar registration regulatory aspects" (Latvia)



(e.g. Which agent you met during the visit (including participants and visited locations) would you find useful to regularly network, and on what aspect? What would be the added value for you of such networking?)

- *“Keeping in contact on OHMs with Matteo Petitti” (Hungary)*
- *“I think for me as a seed health analyst it is very interesting to keep in touch with Anders Borgen and Stephanie Klaedtke, as they are working a lot with common bunt on wheat, which I am also working with.” Austria*
- *“Was very useful to meet another specialist on Karnal bunt (Tilletia spp.) - Stephanie Klaedtke from France and Angela Thuringer from Austria (Romania)*
- *“A real added value was to meet people from different countries and cultures and share different opinions”(Romania)*
- *“Regarding the locations, all of them are interesting due to large species diversity: Podere Santa Croce, Milandri’s Organic Field, Arcoiris Company’s Organic Experimental Fields, and Florida Farm” (Romania)*
- *“The added value is the principle “to obtain the best quality of seeds (especially a healthy seed) in order to assure customers satisfaction” and Rete Semi Rurali Seed Community Bank” (Romania)*
- *“The problems and solutions are partly similar and partly different. Voluntary, field trials have shown that farmers are willing and able to work together. In organic farming, biological bases are extremely important - so the sharing of research results as well as genetic material is also extremely important. We have seen good examples of this in our Italian colleagues. Ancient varieties of cereals were sent to farmers for testing and then propagation. In Hungary, the case of landrace tomatoes, we got to the point where we produced our organic strains from these varieties selected during testing in factory experiments and then shared them at a cost price with self-sufficient consumers in a large department store chain.”*
- *“The Western European market is looking for its organic word and so are the few domestic processors and livestock farmers. Therefore, in the framework of a tender, we plan to set up plant experiments to select the right variety and to research small-scale methods. We are looking for soybean varieties suitable for direct use (e.g feed) and simple processes that are suitable for the production of such a product. We will network with Polish participants on these issues. (Hungary)*
- *“We will network with the Dutch actors, particularly Bionext, to help us build our national annex, to learn more on how to organise the work of the seed expert group, and on the national seed database” (Hungary)*
- *“The Rete Semi Rurali (RSR) Biological Seed Bank maintains plant varieties that are given free of charge to farmers. We have similar community seed banks and will stay in touch with RSR” Greece*
- *“For our association it is interesting to maintain relationships with the people who work, above all, for the conservation and dissemination of local or traditional varieties, due to cultivated biodiversity or agrobiodiversity, be it cereals, legumes or vegetables” Spain*
- *“Thanks to the relationship created with Rosa from Portugal, I was able to ask her for information on different Portuguese quality labels” Spain*
- *“We will get in touch with Krystina from Poland because at ESAC we would like to set up a similar trial she presented during the cross visit on Predicting the yield of potato on the basis of selected morphological plant development in organic” Portugal*
- *“A network was set up with one of our fellow French cross visitors, I visited their organic farm and we explored our ideas and their marketability for soybean. We then set up trials that we are evaluating. We are trying to create a variety with a strong genetic potential with Vincent and Miguel from the cross visit (Hungary)”*
- *We will get in touch with FiBL-CH, Michael Friedli on berry cultivation and with Ute on the apple and pear breeding work she presented to us in the webinar (France)*

4.4. Multiplication to stakeholders

The following groups of stakeholders were mentioned that the knowledge transfer targeted:

- *Seed potato producers, grass and clover seed producers (information on seed cleaning machinery in Vitalis and de Bolster was relevant to them), organic breeders (especially the aspect of possible organic DUS testing) Latvia*



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- *Farmers through an article published in National agricultural magazine “Agrotops” on information about knowledge obtained during the cross visit– about National annex system, “February law” for potatoes. Etc. (Latvia)*
- *Farmers through farmers’ newsletter, and colleagues through briefings- Bulgaria*
- *Farmers, officials, breeders and consumers, supply chain actors, seed expert group members and national authorities (Hungary)*
- *Farmers and colleagues Austria (present the information on bunt and the mind mapping method in a presentation in February 2020, and to create an information about bunt management on the AGES website)*
- *Research community and farmers (Poland)*
- *Students, farmers and stakeholders invited to participate in field trials and participatory breeding at ESAC (Portugal)*
- *In Romania, farmers through the BIO Danubius Association from Tulcea, Seed Bank Community from Bucharest, Donau Soja Association*
- *Farmers, seed growers and breeders in Greece*
- *My students and farmers that I collaborate are the target group that I transferred my knowledge that I gained - Greece*
- *Above all, we work with the farmers who carry out the production of seeds for our association, as well as the other non-producing partners of said association – Spain*
- *Invited farmers and stakeholders to dissemination events across Spain on the cross-visit learnings (SEAE/ECOVALLIA)*

5. Conclusions

Organising the cross visits were challenging in terms of logistics, program development and participant selection. The logistical aspects were complicated by the fact that the budget was shared between the hosting and the sending organisations, requiring a lot of negotiations for the prices involved, the number of experts the sending organisations can afford to send, and the arrangements for invoicing for accommodations and dinners for the sending organisations through the participants taking into account different national laws and requirements. These require a lot of flexibility and patience for the hosting organisation and should be taken into account at the early planning stage for cross visits.

Because of how farms and visited places were located, multiple accommodations were needed during each visit, and travel also took up valuable time from exchange and learning. At the same time, there is a limit to processing new information for each individual, especially under strenuous weather conditions, such as a heatwave, that is not avoidable in the fields. Tolerance needed to adjust the program according to actualities, taking into account the physical and mental fatigue of the participants.

The participant selection is key to a successful cross visit; however, it is also the most difficult task. There is a certain complexity of human attitudes and endowments, which can limit or increase cooperation, especially in a multi-actor group where often there are no equal levels of interest, commitment, motivation, professional experience, or shared language. Three visit-packed days are too short to break professional barriers between strangers. To explore the collaboration potential between diverse stakeholders, understanding of motivations, trends and innovation potentials need to surface, which require time and space for conversation. The participants sharing similar level in the abilities and knowledge complemented each other better with their knowledge and learning outcomes. Therefore, a thorough selection of partners for cooperation is required if we expect networking and cooperation in the future, or a less packed program that allows for more free-minded exploration of the participants’ knowledge and fields of interest. A careful selection is not always fully possible - as it is possible to choose from what is available, in other words, if one relies on other sending organisations to suggest participants, it is essential to interview them beforehand or collect



their full CV to understand their background better. It is also very valuable to develop the program iteratively, to adjust the participants to the program and vice versa.

The multi-actor approach and the diverse aspects of organic seed production covered in each of our visits made it harder to transfer the AgriSpin methodology to our cross visits. While some elements of the methodology were highly valuable, including the introductory elements and the reflections in groups, we had to adjust significantly the methods for structured learning, and engage the participants in a series of different exercises to be able to reflect on the visits. Despite our best intention to allow for sufficient time to reflect, participants still found it hard to keep up with the information input. It is advisable for future cross-visits on organic seed production to visit places that offers learning on multiple aspects in depth in one location. For example, the C.A.C cooperative in Italy was a really good example to visit (which also was most reflected upon in the learning outcomes), since it allowed the participants to visit fields where minute practical issues of organic production and seed multiplication could be discussed as well as a seed processing plant with an organic unit, and an organisational model that can be transferable in other countries. Similar examples were UBIOS in France, and Vitalis and even Agrico in the Netherlands, which could offer a range of aspects in one place. Next to such complex places to visit, it is also very important to meet small scale initiatives that match the implementation level of countries where organic seed production is currently underdeveloped and allow for exchange of knowledge between them and the participants. It is also essential as larger companies often do not reveal information on innovations (e.g. on selection markers or patented seed treatments). Other, important but marginal aspects interest to only a few participants could be incorporated via guest presentations or webinars prior to the visit.

Other elements of the methodology, such as the symposium and the 6-month survey were not necessarily obvious or easy to implement. The symposium worked well in France but were replaced by workshops in Italy and the Netherlands, which brought more value. Reflections to hosting organisations were organised differently. The surveys offered valuable insights for reflections and reporting purposes and was a good reminder of the learning outcomes for the participants. However, not much change was observed over time from the learning outcomes obtained during the visits, therefore such surveys should be limited to exploitation reporting.

Despite all challenges, the LIVESEED cross visits offered a valuable wealth of knowledge on practical and technical issues of organic seed production in cereals, vegetable, potato seed and fruit propagation that were captured and disseminated in reports, videos, Practice Abstracts, a booklet, in articles, and exploited through knowledge transfer, everyday practice, training materials, demonstrations at farmers field days by the participants, or resulted in new practices/methods/processes/new innovations as well as discussed in round tables/expert groups. Several participants followed up with hosting organisations and other attendees for collaborations.



ANNEX I – Methodologies applied during the cross visits

France

ICEBREAKER GAMES:

1. Polyglot persons

Material: nothing, 1 facilitator

Time: max. 15 min for 20 persons

The whole group stands in a round circle. Then on nationality goes to the middle and teaches the others 1 word in their mother tongue. The people in the middle say their name and one adjective which starts with the same letter ('active Alexandra'; 'creative Catharine', 'powerful Peter').

2. We are Picasso

Material: 1 white paper for every participant; pens, colouring pens

Time: 2 min explanation; 5 min drawing; 7 min to walk around and exchange

Every participant gets 1 sheet of paper, pens are on the table. The task is to draw something:

- About your country
- What people know about you
- What people do not know about you

Then all papers are collected, shuffled and redistributed, everyone has to find the person who made the drawing, by asking people and getting in contact with the different persons.

Getting acquainted

Work in groups of 4-5 people. Discuss the following questions and write on this paper some answers to the questions. There is no right or wrong, just express your ideas. We will use it to know and address your interests. When discussing consider that not everyone is fluent in English and needs translation. You have approx. 5 min. per question.

1. What makes you interested in this particular cross visit?
2. What ideas or expectations do you have?
3. What are your key questions?
4. What do you want to take home from this visit?

Please select one person from your group that will present 1 question to the whole group, in just 2 minutes.



Reflection methods - Observation cards

<p>Technical</p> <p>How do they produce the seed?</p> <p>What are key innovations?</p> <p>How do they mitigate the risks? (of seed borne diseases, quality loss, ...)</p>	<p>Market aspects</p> <p>What do they produce? Why these crops & varieties?</p> <p>To whom do they sell?</p> <p>How do they know how much to produce?</p> <p>Who has the financial risk in case of crop failure or non-seed certification?</p>
<p>Support</p> <p>How did you acquire the knowledge to be an organic seed producer?</p> <p>Do you get any specific support to produce organic seed? (e.g. subsidy, other incentives)</p>	<p>Regulatory aspects</p> <p>What are the requirements for them to produce seed?</p> <p>What are the requirements to sell the seed?</p>



<p>Activities</p> <p>What is the company/farm doing?</p> <p>When did they start with seed production?</p> <p>Why did they start with seed production?</p>	<p>Actors</p> <p>List key actors and their roles:</p>
<p>Problems</p> <p>What are technical problems?</p> <p>What are structural problems?</p>	<p>Future perspective</p> <p>What needs to be changed to overcome the problems?</p> <p>How do they anticipate developments? (funding, political decisions, publicity)</p>



In rooms - when more time is available

- Reflection ball
- Laundry line
- Rick picture on observations
- Mapping -> time line

Practice Abstracts

Facilitated session to identify possible topics
Collaborative writing

Methods

- Feedback: 5 groups, 1 is responsible, 1 for issues -> collect criteria; all cards 1 person with envelopes → Fred knows the details (?)
- PA Topics & content collection

Italy

ICEBREAKER 1 -THE ALLIGATOR RIVER

Instructions: Please read the following story. After reading the story, rank the five characters in the story in the space provided below it, beginning with the one you consider as most repulsive or morally questionable, and ending with the one you consider as least objectionable. Also, briefly note your reasons as to why you ranked them in that order.

The Story

There lived a woman named Lola who was in love with a man named Alejandro. Alejandro lived on the shore of a river. Lola lived on the opposite shore of the same river. The river that separated the two lovers was teeming with dangerous alligators. Lola wanted to cross the river to be with Alejandro. Unfortunately, the bridge had been washed out by a heavy flood the previous week. So, she went to ask Pablo, a riverboat captain, to take her across. He said he would be glad to if she would consent to go to bed with him prior to the voyage. She promptly refused and went to a friend named Juan to explain her plight. Juan did not want to get involved at all in the situation. Lola felt her only alternative was to accept Pablo's terms. Pablo fulfilled his promise to Lola and delivered her into the arms of Alejandro.

When Lola told Alejandro about her amorous escapade in order to cross the river, Alejandro cast her aside with disdain. Heartsick and rejected, Lola turned to Thiago with her tale of woe. Thiago, feeling compassion for Lola, sought out Alejandro and beat him brutally. Lola was overjoyed at the sight of Alejandro getting his due. As the sun set on the horizon, people heard Lola laughing at Alejandro.

Ranking: (most morally repulsive first, the least last. Please add the group's rationale!)



ICEBREAKER 2 - CROSS – VISIT BINGO

CROSS – VISIT BINGO

Find someone who has:

special interest in small scale milling name:	studied Irish cereal varieties name:	spent an Erasmus+ in Italy on viticulture name:	co-authored maize varieties in their country name:
16 colleagues with a PHD name:	interest in maize rhizosphere microbiome name:	exploited heterosis in tomato breeding name:	co-authored an article on Corn Borer mass rearing name:
studied organic aromatic and medicinal plant production name:	a passion for landraces name:	been involved in organic horticultural production name:	curiosity for heterogenous material registration protocols name:
maintained a seed database name:	worked on environmental risk assessment for European agriculture name:	interest in the management of autochthonous or hybrid seeds name:	been a member of a council for organic farming in their country name:



CARDS FOR DAY 1. CREA DG CPVO-EU TRIALS

What did you learn about the type (s) of technique used to generate the population?

1.

2.

3.

What did you learn about the objectives of the breeding programme?

1.

2.

3.



What did you learn about the varieties used?

1.

2.

3.

What did you learn about the breeding scheme?

1.

2.

3.



What did you learn about their own production control programme?

1.

2.

3.

What did you learn about yield characteristics?

1.

2.

3.



What did you learn about quality characteristics?

1.

2.

3.

What did you learn about performance characteristics?

1.

2.

3.



What did you learn about usability for low input systems?

1.

2.

3.

What did you learn about disease resistance characteristics?

1.

2.

3.



What did you learn about yield stability characteristics?

1.

2.

3.

What did you learn about taste or colour characteristics?

1.

2.

3.



What did you learn about experimental trial results concerning the characteristics?

1.

2.

3.

What did you learn about the region of production?

1.

2.

3.



What did you learn about representative samples of the population?

1.

2.

3.

What did you learn about the outcomes: quantity and authorisation?

1.

2.

3.



CARDS FOR DAY 2. Seed company visit: seed production and multiplication

How to they produce the seed?

1.

2.

3.

How do they mitigate the risks? (of seed borne diseases, quality loss, etc)

1.

2.

3.



What were key innovative aspects for you?

1.

2.

3.

Who has the financial risk in case of crop failure?

1.

2.

3.



What do they produce? Why these crops & varieties? To whom do they sell?

1.

2.

3.

How do they know how much to produce?

1.

2.

3.



Why did the companies start with seed production/multiplication?

1.

2.

3.

What are their incentives to produce/multiple organic seed? (e.g. do they get any specific support, subsidy, other incentives?)

1.

2.

3.



Who dictates the organic seed market in Italy?

1.

2.

3.

What are the requirements to sell the seed?

1.

2.

3.



What were the companies' main problems (technical or other)?

1.

2.

3.

What were the companies' main issues about certification?

1.

2.

3.



How do they anticipate future developments in general (market, legal or any other)?

1.

2.

3.

How do they look at the new seed database in Italy?

1.

2.

3.



What dictates the organic seed market in Italy?

1.

2.

3.

What are the seed producers' views on the new organic regulation in Italy?

1.

2.

3.



Netherlands

Icebreaker Exercises:

No1: "I sell/I buy" 15'

1. Give each participant 2-3 pieces of pink, and 3 pieces of yellow post its.
2. Ask them to write their names on the top of each post it.
3. On the pink post-its, they need to "sell" themselves, writing up one item on each slide. Items may be skills, knowledge, expertise, experience, products, services, etc., they bring to the group.
4. On the yellow post-its, they need to list items they "buy", writing up one item on each slide. Items may be skills, knowledge, expertise, experience, products, services, etc. they are looking for from the group.
5. Ask them to stick all 6 post-its on their body in the front and ask them to find matches to their quests in the group. Once they find a pink post-it matching their yellow quest, they need to collect that post-it and put it above the pink one.
6. After 15 minutes, ask the group to settle. Ask a few of them in random to tell us examples of matches they found from the group, asking the participants whose name is on the top of the post-it mentioned to stand up (so the group can match names with faces). 5'

No2: Share the group into 4 groups:

Add each group a sheet of paper, allow each group to elaborate for 8 minutes and list at least 4-5 things: *What do we ALL have in common apart from work?* Allow each group to present the 4-5 things they share with the whole group. Based on what is common, ask them to select a name for their group.

Guiding questions: What are your favourite vegetables? Are you perhaps all good at tandem biking? How do you make your mashed potatoes? Which continents you have all visited? Which sports do you all follow? Do you all listen to the same music?

DAY 1 - HAND OUT CARDS: For everyone - open questions

1. What forms of seed banking are organised in your countries? How do their models compare to the one that we saw at WUR?
2. How did the Netherlands come about developing certain services (e.g. for seed health testing, seed treatments) and involving the private sector in it? Would it also be a solution in your countries? In what aspects of seed production could this model apply?
3. What were the main similarities and main differences in seed production and seed handling at Vitalis and at the De Bolster? Which approaches suit the situation in your countries?

DAY 1 - HAND OUT SWOT-ANALYSIS TEMPLATES

In the afternoon, each group will first have 25 min to prepare the SWOT, then 50 min to present and discuss, along with the 3 questions of the day from the CARDS.

GROUP1: Seed production at Vitalis

GROUP2: Germaines seed treatments for Organic

GROUP3: Seed Storage and seed handling at WUR

GROUP4: Seed production at Bolster



STRENGTHS	WEAKNESSES
OPPORTUNITIES	THREATS



DAY 2 - Hand-out Quiz for the Potato Day – to be collected in a box at the start of the workshop on Day 2. NAK Services

Which disease tests does NAK Services offer for seed potatoes?

.....
.....

What equipment is necessary?

.....
.....

What sample sizes are necessary?

.....
.....

What are the limitations of disease testing at NAK?

.....
.....

What are the main technical challenges?

.....
.....

What are the challenges especially for SMEs?

.....
.....

DAY 2 - Hand-out Quiz for the Potato Day – Visit at Agrico

What are the current obstacles in (organic) seed potato production in Agrico’s view?

.....
.....

What incentives are there for Agrico to produce organic potato seed?

.....



.....
What sanitary rules does Agrico apply during the trade of seed potato?
.....
.....

What are key innovations in seed potato production at Agrico?
.....
.....

How do you evaluate Agrico's innovations in terms of their risks, transferability?
.....
.....

DAY 2- Facilitated Workshop during the potato day in the afternoon:

Block one: Food for thought: **Breeding for Organic**

Breeding for abiotic and biotic resistance at Keszthely: transferability to organic and main considerations - Presentation by Zsolt Polgar, Hungary – confirmed 10'

Discussion themes:

What were the main strategies used in NL for potato breeding for organic? What other strategies are used in the other Member States for organic?

Block 2: Food for thought: **Organic Potato Farming and Seeds**

Perspective of a young farmer producing organic potato: the main obstacles with seeds and fields of learning – presentation by Tudor

Discussions: What can we learn from the obstacles Tudor faced with seed potato? What would he need from breeders, from seed companies like Agrico? How could Agrico reduce potential barriers in access to varieties? How could Agrico improve their services for farmers in other EU Member States?

Block 3: Food for thought: **Screening tools: yield, (Krystina) draught tolerance (Dominika Boguszewska Mańkowska) and seed potato health**

Predicting yield on the basis of selected morphological plant development in organic – Presentation by Kristina Zarzyńska, Poland

Discussions: What were the screening tools used in NL by farmers in organic? What other screening tools are used for yield in organic across Europe? What screening tools were used by Agrico and by NAK for seed health?

Block 4: Food for thought: **Situation of organic potato seed production in Spain** - presentation by Roberto Ruiz?

Discussions: what could we learn from the Netherlands that is transferable to Spain to improve the production of organic seed potatoes?

DAY 3. - REFLECTIONS

Exercise No1: share the group into two groups and hand them a pile of post-its.



Step No1: Ask them to work individually first and write down the most transferable learning outcomes of the cross visit from their point of view, depending on the group. If they have multiple learning outcomes, they need to use a separate post it for each item. Give about 8 min to finish all their post-its.

Step No2: Then, ask them to read out loud what's on their post-its and then place their post-its on the following grid: geographical scale of relevance from low to high, versus usability/practicality for farmers from low to high. 10'



Step No3: ask them to deal with the ones in the quadrant for high geographical relevance and high practicality for farmers. If there is one post-it, the whole group should discuss that. If there are more than 1, we shall pick the 2 most interesting one, and divide the group to 2 subgroups. If there is none, pls select the more local ones but high practicality for farmers. 15'

Step No4: Provide participants with a simplified PA template to fill: 20-25'

- Describe the Problem
- Collect possible solutions (at least one from the cross visit, and others from other countries)
- Provide recommendations (3 bullet points)



ANNEX II. Self-reported learning outcomes



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<p><i>Technical aspects</i></p>	<p><i>“Based on the visits we got an overview on the organic heterogenous materials (OHM) production and situation and consulting with the colleagues involved in the OHM tests we got a lot of help so that upon returning home we started to organize that Hungary could join the official OHM EU tests. Now in Hungary we have some OHM populations under testing and the official inspection of them should also soon take place to which we’ll apply the example of the Italian OHM estimation”</i></p> <p><i>“Bunt prevention and control was really interesting as bunts are a serious threat and a big problem in organic cereal production as chemical treatment of the seeds are not allowed. 5% acetic acid, copper sulphate can be used for seed treatment. with good efficacy.” (Austria)</i></p> <p><i>“All generations (grades) of organic seed potatoes are produced under organic conditions in Agrico. This is different in Latvia. In Latvia we consider seed potatoes as organic when they have been multiplied under organic conditions for at least one generation. This means, that, for instance, seed potato until SE grade can be multiplied conventionally, that E grade is multiplied under organic conditions and obtained seed of A grade can be certified as organic. We think that this approach is reasonable for our conditions with respect to seed health issues. Unfortunately, we did not get to know much about mitigating the risks of organic seed potato producing. in Agrico. However, Agrico’s approach to pre-test their seed lots before the official certification is noteworthy operation that could be transferred to our conditions too. Pre-testing can mitigate the risks of downgrading the seed lot.”</i></p> <p><i>“Organic priming and pelleting are key innovations regarding vegetable seed. These innovations could be relevant for our medical plants growers as they also have difficulties with seed germination etc“.</i></p> <p><i>“Investing in seed cleaning facilities can help improving organic seed quality in Latvia.”</i></p> <p><i>“Organic production needs its own cycle and the best increase is obtained in a unique and exclusively organic context in any step of production. I’m satisfied of knowing the experiences in France. It’s important the activity of the cooperatives in France and how work in the same direction all links in the chain (researchers, industry, farmers, government ...), in the same sense and with the same objectives. This is better in exclusively organic entities and structures, that is to say, that conventional agriculture has its means and its development on the one hand, and organic production on the other. I think this is a very important point of differentiation because both types of agriculture and their objectives are not always the same.” (Spanish participant)</i></p> <p><i>“C.A.C. makes contracts with 2.200 farmers (including 100 organic farmers) which multiply the seeds for them. I think it is great that they have 30 agronomists who visit the farms and help farmers if they have any problems or obscurities. The risk of loss is split between C.A.C. Cooperative and the farmers, depending on the reason. E.g. if there is a problem with germination the farmers only receive 80% of the fixed price. In comparison RSR is a network of 40 organisations, which has the goal to promote and multiply local varieties and gives away small amounts (100g/variety) for free. Farmers then can multiply the local variety on their own for more seeds. They publish a catalogue once a year with the available seeds so farmers know which local varieties are available. They welcome seeds only through one door for sanitary reasons (to check the quality before entering into other storage facilities). These are interesting models.”</i></p> <p><i>“I learn new and useful aspects of growing organic vegetables for seed production. Also I saw good practices to avoid diseases and to produce quality seeds” (Bulgarian participant)</i></p> <p><i>“They produce the seed using different methods: biodynamic methods and participatory breeding. The key innovations: the local populations are maintained for educational purposes, they use the mixed populations to ensure a good nutritional value of the final product (flour) and help the local economy by local selling their products (seed and/or flour). A short supply chain resulting a cleaner environment. They mitigate the risks using different way: they use against disease a treatment based on Sulf during vegetation period to control of aphids they use oil emulsion or pyrethrums (an extract from Chrysanthemum cinerariifolium) before flowering” (Romanian participant)</i></p> <p><i>“The practice of seed production in Italy is similar to that in Hungary. I must note, however, that organic seed production does not take place in a large area in Hungary, as farmers can apply for derogations for the use of conventional propagating material. We could see during the Italian trip that the selected varieties were tested from the point of view of cultivation in organic farms, as</i></p>
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	<p>well as the quality was examined, and then organic seeds and mixtures were produced from the most suitable ones. They are always trying to produce the right amount (matching the demand) as part of the integration, as we have seen with vegetable seeds. The seed company does not only give seed and professional advice, but also helps the farmer for example, even with a machine (e.g. harvesting). Significant stocks of vegetable seeds can also be reserved, which comes in handy in bad years such as e.g. the 2019, whose extreme weather has also taken a heavy toll on seed production.”</p> <p>“The scientists of CREA-DC try to approach a new protocol for registering the heterogeneous wheat populations in the National Catalogue of Varieties and certifying these seeds. The different phenotypes that exist in each population and their evolution over time are recorded, with the ultimate goal of determining the frequency of different phenotypes within each population. This will be an important step in the cultivation of populations, which evolve differently in each environment as they are affected by environmental conditions and thus can be better adapted to organic conditions. Sowing certified organic seed will give better quality and higher-value products.”</p> <p>CREA DC is the responsible organization in seed certification for Northeast and Central Italy, covering a large area of 8 regions, and about 60 % of Italian seed certification activities. They have got many experimental fields, for listing their new varieties to the national and EU catalogues. They carry out the evaluation of populations to assist the European Commission in the inclusion of populations into the organic regulations, part of the implementation of the temporary experiment on marketing of cereal populations. In the future, organic farmers can use the populations of organic heterogenous materials and the EC needs to know how to proceed with the registration of populations. These experiments are also helping to find criteria for registration for population, to find some protocols. The finding of protocols for the registration of these populations will result in the distribution among farmers engaged in organic farming of varieties that are in line with their needs for high quality products.</p> <p>“Our reality (in Mallorca) is very different from that of the experiences we visited in the cross-visit. In Mallorca, the cultivation fields are very small, and it is not possible to cultivate as large an extension of seed as they do in the cooperative we visited. I liked seeing how they did it because I had never seen such a large expanse of land to produce seed. In addition, I was also impressed by all the machinery they use to extract, separate and package the seeds (different screens, machines that separate the seeds by color, etc.)”.</p>
Market aspects	<p>“Virgo brand is a good example for the short value chain product, starting from the farmer. This is a way to follow also for us in the case of the ancient wheats, emmer and einkorn, which are especially healthy and suitable for production under organic extensive conditions, however, they are poorly known in our country and are not available on the market. In our institute we organized meetings for the farmers, millers, bakers and breeders so that the production is promoted and the value chain be built together. We also asked a big commercial chain, Lidl about the commercializing of the organic emmer and einkorn landrace flours and they were open to it. This would soon solve the marketing problems of the farmers and satisfy the consumers demand at the same time.” (Hungary)</p> <p>“As the Netherlands has limited land resources, the country has successfully specialized on vegetable seed production and seed potato growing. Specialization of the country is an important aspect, however, the size of the local market and possibilities to export must be taken into account if you want to succeed in seeds market. Dutch seed producers sell well not only in the local market but also worldwide. A large part of the seeds is produced outside the country thus mitigating the risks of crop failure. Then seeds are cleaned and certified in the Netherlands and then exported again. Establishing distribution networks and cooperation with retailers can help planning production”. (Latvia)</p> <p>“Regrettably, our seed producers do not have well established export markets (except minor grass seeds producers). As good cleaning facilities are lacking, seed are often sent abroad for final cleaning and certification” (Latvia)</p> <p>“C.A.C. produces vegetable seeds, cereals and other industrial crops (sunflower, soybean, sugar beet) as well as seeds for sprouting like alfalfa. Every crop is grown conventionally and organically (just in a much smaller scale, only 4-5% in total). They sell 30% of their seeds in Italy. The rest is</p>



	<p>exported to Northern Europe (40%) and Asia (30%). They multiply what the market and companies are asking for. If they need 2000kg of carrot seeds and one ha produces about 500kg they know that they have to grow 4 ha to reach the requested amount. Farmer should have an insurance who pays if there is a crop failure due to weather conditions. When other problems occur the risk and loss is split between farmers and C.A.C.” (Austria)</p> <p>“RSR mostly has cereal seeds but also some vegetable seeds. They don’t sell them but give them away for free. They therefore don’t have a big financial risk, as they aren’t dependant from any customers.” (Austria)</p> <p>“I highly value the approach to the organization of seed production with farmers, the qualification company and the preparation of seeds on the basis of previously concluded market purchase contracts. Situation in Bulgaria is completely different.”</p> <p>“They produce a large diversity of vegetable and field crops (squash, hybrid chicory, poppy used as herbs, turnip, lettuce, sunflower for sprouting, eggplant, cherry tomato, zucchini, wheat and barley populations). They produce these crop and varieties due to high demand especially for populations They sell their products to local consumers in the specialized market and also export the seeds in many European country (from this 20% are Italian clients) and in Asia. They produce a specific quantity according some meeting where they decide what is going to produce and which area.” (Romanian participant)</p> <p>“In case of crop failure or non-seed certification the financial risk is split between growers and seed company. Also the growers have to do an insurance against the weather.” Bulgaria</p> <p>“They grow the species and varieties that are sought after in the market and can be produced on their organic farms. For example, in the case of cereals, populations that appeared to be suitable for propagation were also tested diatetically to find the most suitable variety or population for the consumer.” (Hungary)</p> <p>“The whole chain of organic seed production of the Cooperative COOPERATIVA AGRICOLA - CESENA (C.A.C.) is very interesting. The cultivation, variety and quantity of seed are determined by the client, but the C.A.C. has the risk of failure of the crop or seed certification. Organic seed production is mainly carried out in horticulture“- Greece</p> <p>“The C.A.C. Cooperative has the mission to multiply seeds in the most suitable Italian areas. They offer contract multiplication of many vegetable and field crops based on the stockseed supplied by the customers. In total, 30% of their seed production is domestic market, export in 40% to Northern Europe, 30% to Asia, Japan, Korea, China increasing. Organic production is mostly domestic, with some export to Northern Europe, mainly to the Netherlands, including chicory, cabbages, celeriac, carrot, lettuce, squash, rocket. The type and quantity of seed are determined by the clients, but the C.A.C. has the risk of failure of the crop or seed certification.”Geece</p> <p>“It is very good to produce the seeds on request, since this way you have very controlled how much you have to produce, what varieties, to whom it will be destined, etc., without the inconvenience that exists, when it is not produced on request, to produce and then not being able to sell it. The cooperative sells to large clients around the world, but in our association we sell mainly to individuals, and for this reason it is very difficult to control how much we must produce. They have very well controlled the market. (Spanish participant)</p>
<p>Activities</p>	<p>“Organic varieties in most cases perform better under organic conditions than conventional ones. Demand for organic seeds is steadily increasing, this makes companies to turn to organic seed production. However, very high know-how is required to be successful in the market, especially organic vegetable seed market. Our (Latvian) organic seed producers (cereal, grass seed producers, seed potato growers) need more training on growing technologies, pest management and quality issues. Today it seems that many of them are losing their faith in the future.”</p> <p>“Participatory breeding was also one aspect which was discussed with the organizers and participants. This was also especially useful in the further research on, and handling the EPO durum OHM population which we work on with the volunteer farmers together in Hungary”.</p>



	<p><i>"C.A.C. started in 1948 when 18 small farmers joined together to purchase fertilizers and chemicals to better conditions and to manage harvesting combines and other machines. They were very successful and after some years the cooperative started to produce seeds, which turned out to be very profitable and allowed steady development". (Austria)</i></p> <p><i>"RSR wants to promote and make available local varieties to all farmers, as big seed companies aren't interested in multiplying this varieties, although they can be very important to farmers with a special regional climate and also to save ancient landraces for further generations." (Austria)</i></p> <p><i>"In my opinion very good decision is organization of Workshops, were farmers may discuss any kind of problems - on field, plants, diseases and insects, seeds, market." (Bulgaria)</i></p> <p><i>"C.A.C -Societa Cooperativa Agricola CESENA (the largest vegetable seed producer) and FLORIDIA farm (300 ha organic farm producing ancient and local varieties of cereals and legumes). They started with seed production due the high demand regarding different species providing the requested seed quantities from local sources." Romania</i></p> <p><i>"Organic seed production began because farmers believe that organic farming helps sustainability, protect the environment and produce healthy food. Later they found that there was a market demand for organic seed and could professionally produce organic seed." Greece</i></p> <p><i>"There was a demand, not only domestically, they also export seeds because their vegetable varieties are adaptable, which is why they are liked worldwide." Hungary.</i></p>
<p><i>Regulatory aspects</i></p>	<p><i>Field surveillance and official inspections regarding OHMs (Austria)</i></p> <p><i>Organic seed must be used when available. Expert groups work efficiently on National annex, which really stimulates use of organic seed. In Latvia National annex is still empty so far. As we have expert group, they should make more attempts in limiting number of issued derogations. (Latvia)</i></p> <p><i>"C.A.C have to produce organic seeds regarding the EU regulations. They also have special cleaning rules for the organic plant, especially for sprouting crops as they are directly used for food."</i></p> <p><i>"I am not sure if there are special requirements to produce organic local varieties. This would have been an interesting information."</i></p> <p><i>"The farmers (in Italy) a very responsible people and they strictly follow the rules of organic requirements. There are: spatial isolation of cross-pollinated crops, plant rotation, weeds. Creation of farmers association gives certainty of production and market" (Bulgaria)</i></p> <p><i>"The requirements to produce seed: -specific technological sequences: weeding by hand and machines, crop rotation and respect the isolation distances, to use resistant varieties and local population to disease, a fixed contracted surfaces to produces seeds from different species. The requirements to sell the seed: germination, purity fixed by law and the customer agreement healthy seeds (every seed lot is tested for chemicals and especially for bacteria E. coli)." Romania</i></p> <p><i>"CCP acceptance is not possible in DUS-type systems. Composites / mixtures have not yet been recognized in Hungary, but even in the case of the most important species, there is no separate procedure for recognizing varieties suitable for organic cultivation, and we must put pressure on decision-makers in this as well." (Hungary)</i></p> <p><i>"The seed to be produced have to be organic. Then it must be certified according to the State Regulations." Greece</i></p> <p><i>"The seeds they produce are organic, because it is not allowed to introduce into the soils some part of soil which are not organic. C.A.C. provides the plant raiser the untreated seed who raise the seeds on certified substrate, and the plants are organic plants. Minimum requirements to sell the seed are germination, purity, the ones that are fixed by law and the agreement we have with the customers, usually higher than the minimum germination." Spain</i></p>
<p><i>Actors and Organizational Models</i></p>	<p><i>"In the Netherlands main actors are vegetable seed companies and seed potato producers (see Market aspects – specialization). In Latvia main actors in high grade seed production are Research institutes, seed production chain is not very well developed. Foreign cultivars are multiplied only</i></p>



for one season by local seed producers and sold to the farmers. Organic seeds are mainly produced in a small scale. The amount of the produced seed is insufficient. At the same is difficult to sell all seed in organic market, as farms prefer applying for derogations to use conventional seed because of the cheaper price. At this moment being a LIVESEED partner and being able to cooperate with stakeholders is the main driver of success.”

“C.A.C. becomes the seeds from the breeders, they deliver them to the contracted farmers, who sow or transplant, raise the plants and harvest. C.A.C. collects the harvest, cleans and process the seed and then delivers the seed to the customers. So main actors are the breeders, C.A.C. as coordinator and the farmers who take care of the plants on the fields. I think the main bottleneck is probably the farmer, because they have to make sure, that the quality of the plants on the field and the harvest have a good quality” Hungary

I think the main driver of their success is that local varieties were suppressed by new varieties in the last decades. People now become more and more aware of how important it is to keep alive a big range of varieties, which are adapted to many different habitats and climates to sustain moderate harvests also when climate is changing. The main actors in the value chain are the market and consumers of organic products. The high demand for organic products necessities the need for larger quantities and variety of organic seeds. (Bulgaria)

“They are organised in a network which means a complete chain from seed to final product. The main actors are seed company, growers, farm family and markets. The market are dictated by clients demands. The main drivers of seed production are the leading company, CAC respectively” (Romania).

“In Italy, a stronger internal market has developed, especially in the cereals sector, and processors and consumers also have specific quality expectations that they are trying to meet. In Hungary, some farmers have prepared variety mixtures for their own part, which we will have to examine in the future, because these attempts show very encouraging results, both in terms of yield and quality. Unlike the Italian example, we do not have such ancient varieties, but there are old cultivars of good quality but with unfavorable agrotechnical properties (eg tilt), which can be well associated in a mixture with modern cultivars. In these populations, this mixture formation results in better adaptability, disease resistance, increased weed tolerance, more stable, and higher yield and quality than the individual cultivars alone. Therefore, we plan to explore the benefits of blend formation in the future and find the best blends for our economies. We will be able to make excellent use of the results of our wheat variety tests since 2012”

“The market determines the production of organic seed. The demand from consumers for organic products is transferred to the producers of the organic products and they, in turn, transfer it to the producers of organic vegetable products. The latter are transferring this demand to organic seed producers.” Greece

“Production of healthier products from organic farming increases consumer demand for such products. However, organic farming today cannot compete with conventional farming in grain yield. Efforts are being made to develop new plant varieties that are adapted to organic farming conditions and their yield in organic farming conditions competes for those of conventional farming conditions.” Greece

“As always, the consumer is the dominant player in the large organic seed production chain. Their need to consume quality organic products has the effect of creating an entire organic seed production network. Many times, the state that is not a helper to these efforts or even difficult practices, such as weed control, are deterrents to the success of these efforts.” Greece

“The clients are the ones who govern the market in the case of the seed cooperative, since they produce exclusively what is asked of them. During the previous production campaign, the client orders the seed they want, and the cooperative produces, during the next campaign, what they have been asked for” Spain

“Based on its on-fam experimental network, ÖMKI reached out to Hungarian farmers who are willing to cooperate with us voluntarily, and managed to raise the research to the level of public interest. The next step is to help organize the real professional protection of the interests of farmers and consumers, which is currently limited, as in fact there is currently no organization that can



	<i>carry out this task. International examples, such as Italian, also serve as a model for organizational development.”</i>
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Annex III. Detailed reports of the cross visits

- A) France
- B) Italy
- C) Netherlands
- D) Germany-Switzerland

