Report on Political Obstacles and Bottlenecks on the Implementation of the Rules for Organic Seed in the Organic Regulation

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Summary

This document is based on the results of the activities undertaken in Task 1.2.1 (analysis of current implementation and best practices for improved implementation of the regulation on organic seed) and Task 1.3.1 (technical support in setting up national organic seed databases) under Work Package 1 of the LIVESEED project. The aim of Task 1.2.1 is to collect information about the implementation of the rules on organic seed use in different European countries and to identify political bottlenecks that might hamper this implementation. The aim of Task 1.3.1 is to set up and improve the functioning of national seed databases. For these Tasks, several EU countries were visited and relevant stakeholders from the competent authorities (national or regional authorities, database manager, control bodies) and from the organic seed sector (seed producers, seed associations, farmers, researchers) were interviewed.

The main obstacle found regarding the implementation of the derogation rules is that in most EU Member States visited, the approach as it has been applied so far has not encouraged the use of organic seed. This is especially true in the countries where the national seed database is not properly implemented and the production of organic seed for nationally adapted varieties is limited or entirely absent. In cases where there is little or no availability of organic seed, it is clear that derogations for the use of conventional seed are necessary. But if derogation to use conventional seed remains possible irrespective of the availability and suitability of the organic seed offered on the database, this undermines the investment in organic seed production by seed companies.

Another problem is that in most countries visited for Task 1.2.1, the interpretation and the implementation of the derogation rules causes a high administrative burden (and thereby costs) for farmers and the competent authorities. For instance, in several countries, the derogation process is complicated and involves several authorities, which can cause administrative burdens.

To increase the production of organic seed and limit the number of derogations in several, mainly Central European countries, the competent authorities have developed a strict national derogation regime. Especially the national non-derogation list, implemented in seven countries, has proven to be effective at increasing the production and use of organic seed, step by step, with the commitment of the stakeholders. To provide a more solid legal basis for the implementation of such a national non-derogation list, it is recommended that the new organic regulation defines the preconditions for this system including the establishment of stakeholder seed expert groups to follow up on such stepwise approach.

It was found during the national visits and the farmers survey that the motivation to use organic seed increases if the varieties are better adapted to (local) organic growing conditions (Orsini et al 2019). Therefore, the aim to reach 100% organic seed use cannot be seen apart from the need for investment in organic breeding, and organic variety trials. Strict derogation rules should only be applied when there is organic seed available from a wide range of varieties that are demonstrably suitable for organic farming in the country concerned.

In many countries across the European Union, organic seed databases don't meet the main goal: providing an up-to-date overview of the organic seed available on the market in that country. If the

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seed database is difficult to access, causes high administrative burdens and is not updated regularly, it is not interesting for seed suppliers to use. Consequently, most of the organic seed on the market is not listed in national seed databases. Since the availability of organic seed on the database is the legal touchstone for granting derogations, a dysfunctional database can lead to unsubstantiated exemptions for the use of conventional seed. To improve this situation, it is necessary to implement *online* and *real-time* updated databases with direct logins for seed suppliers to manage their seed offer directly and frequently.

Also, to increase the transparency of the European organic seed market it is important to allow organic seed suppliers easy access to all 28 EU Member State databases. The new EU-wide router database, which is programmed within the LIVESEED project (Task 1.3.2 and Task 1.3.2) will implement, besides other features, a back-end solution for organic seed suppliers to access with one single login to all national EU Member State databases. To implement the EU-wide router database, the collaboration of EU Member State authorities is inevitable and should be stipulated by the European Commission.

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1 Introduction and methodology

Seeds are the foundation of farming. Therefore, organic production should start with organic seed. According to IFOAM "*The choice of high-quality organic seed and plant propagation material of suitable varieties is an important key to successful organic farming, allowing for improved yield and product quality, for crop resilience, considerate use of non-renewable resources and increased genetic and species diversity*" (IFOAM-Organics International, 2017). However, until the first European wide organic regulation was introduced in 1991, the compulsory use of organic seed was only mentioned in private guidelines of some organic farming associations. Through the introduction of Regulation EC No 2092/91, which came into force on January 1, 1992, the use of organic seed became mandatory Europe wide, whenever available. The implementation of the regulation differed among the EU Member States, as the term "available" was not defined in the regulation. The amendment Regulation EC No 1452/2003, which came into force on January 1, 2004, addressed this issue and the term "availability of organic seed" was defined. Furthermore, the use of chemically treated conventional seed was prohibited, the establishment of a national database to list all offered organic seed and seed potatoes became mandatory and the procedure for authorisation of the use of non-organic seed was defined. Regulation EC No 834/2007, repealing the former regulations, and the implementation Regulation EC No 889/2008 became effective on January 1, 2009. Chapter 6, Section 2, Article 45, of the implementation Regulation EC No 889/2008, defines the exceptional production rules related to the non-availability of organic farm inputs and the use of seed or vegetative propagating material not obtained by the organic production method in accordance with Article 22(2) (b) of Regulation EC No 834/2007. Chapter 7 (Article 48-56) describes the requirements for the implementation of a seed database and the annual reporting to the commission.

The new Regulation EC No 2018/848 will replace regulation EC No 834/2007 and new implementation regulations will become effective from January 1, 2021. This report aims to identify and describe the political obstacles and bottlenecks that hamper the implementation of the current regulation regarding organic seed or vegetative propagating material. The background for identification will be the regime under Regulation EC No 834/2007 and its implementation Regulation EC No 889/2008.

Information for the identification of obstacles has been collected mainly during the 10 national visits (Task 1.2.1), and during the support in setting up national databases (Task 1.3.1). Between September 2017 to October 2018 for both tasks the countries Austria, Bulgaria, Denmark, Estonia, Greece, Hungary, Italy, Ireland, Latvia, Lithuania, Poland, Portugal, Romania, United Kingdom, and Sweden have been visited. Varying from country to country, actors from following stakeholder groups have been interviewed: national competent authorities, regional competent authorities, organic seed database manager, control bodies, seed certification offices, national seed associations, organic seed producer (company or farmer), organic farmers associations, organic farmers, research institutes and organic as well as conventional breeder. The detailed results of the 10 national visits (Task 1.2.1) will be published in a different report (D1.7). Further data collection based on specified questions was performed through LIVESEED project partners in Croatia, Slovenia, Slovakia, and the Czech Republic. Furthermore, cross-linking information was added from the analysis of the current state of organic seed (Task 1.1.1), the database synopsis (Task 1.1.2), the farmer surveys (Task 1.1.3), the seed supplier and breeders survey (Task 1.1.3), national workshops (Task 1.4.1), as well as from numerous expert interviews (Task 4.1.) as part of work for the LIVESEED Project.

Besides, a review of literature, presentations, and reports from ECO-PB workshops and former projects, such as SOLIBAM, DIVERSIFOOD, and COBRA, as well as position papers of IFOAM EU Group and the European Seed Association (Euroseed) has been conducted and considered for this report. The experience of the authors of this report allowed us to set identified obstacles into the context of the current legal organic Regulation. Based on the identified obstacles, which resulted from the implementation of the current rules on the use of non-organic seed, the authors give some

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recommendations for the implementation of the rules regarding organic seed in the new regulation EC No 848/2018. Together with the information provided in this report, they could support the development of the delegated and implementing acts of Regulation EC No 2018/848. Furthermore, it could foster a more harmonised implementation of regulations towards the aim of reaching 100% of organic seed use in the EU by 1 January 2036.
This report focusses on the obstacles regarding the implementation of the exceptional production rules related to the use of non-organic seed or seed potatoes (in other words: the derogation policy), the structure and functioning of the seed databases and the annual derogation reports. Besides, attention is paid to the use of farm-saved seed. The organic regulations apply to seed and vegetative propagating material, therefore, throughout the report when organic seed is mentioned organic vegetative propagating material is included.

2. Exceptional production rules related to the use of seed or vegetative propagating material not obtained by the organic production method

2.1 Introduction

The reasons for derogation (or authorisation) to use "seed or vegetative propagating material not obtained by the organic production method" are clearly defined in article 45 of Regulation 889/2008. Still, the interpretation of this article differs a lot between the European Member States. Detailed derogation rules aim to minimize the number of derogations, to prevent the improper use of conventional seed and, at the same time, assure that organic farmers always have access to the appropriate seed for their production. Ideally, a strict interpretation of the derogation rules should not only increase the use, but also stimulate the production of organic seed. Unfortunately, as will be explained in this chapter, the rules in article 45 of Regulation 889/2008 do not always meet this goal. Several countries, starting with the Central European countries with a well-developed seed sector and internal organic market, have therefore by now implemented a strict national derogation regime.
The seven international ECO-PB workshops on the organic seed regime, organized between 2003 and 2013, played an important role in this by facilitating the sharing of ideas and information on best practices between Member States. These workshops were also frequently attended by people from the competent authorities responsible for organic farming, including database managers and control bodies. During these ECO-PB workshops on the organic seed regime and the national visits of the LIVESEED project (Task 1.2.1), the following obstacles regarding the derogation regime were identified.

2.2 Possibilities for derogations are not related to the availability of organic seed

According to Article 45 of EC 889/2008 farmers can ask for a derogation for the use of untreated non-organic seed or seed potatoes for the following reasons:

(a) where no variety of the species which the user wants to obtain is registered in the database referred to in Article 48;

(b) where no supplier, meaning an operator who markets seed or seed potatoes to other operators can deliver the seed or seed potatoes before sowing or planting in situations where the user has ordered the seed or seed potatoes in reasonable time;

(c) where the variety which the user wants to obtain is not

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registered in the database referred to in Article 48, and the user is able to demonstrate that none of the registered alternatives of the same species are appropriate and that the authorisation therefore is significant for his production;

(d) where it is justified for use in research, test in small-scale field trials or for variety conservation purposes agreed by the competent authority of the Member State.

The use **of reason (a)** is undisputed. When there is no organic propagating material in the database from the crop a farmer wants to grow, the use of non-organic seed or seed potatoes should be allowed. The alternative would be that the farmer cannot grow this crop. In this situation Article 45.8a allows the competent authorities to give a general derogation for all varieties from this crop (see also paragraph 2.4 on the general derogation).
It is not known how often **reason (b)** is used as a reason to ask for a derogation. The database analysis performed in Task 1.1.2 (Solfanelli et al 2019) showed that the seed suppliers' market radius is often not indicated in the seed database. It was found during the national visits that in some countries, the distribution of organic seed to farmers indeed is a problem. This was often related to the costs of transport over a longer distance. Especially for larger volumes of (cereal) seeds or seed potatoes. As a consequence, farmers sometimes received a derogation because it was too costly to transport the organic seeds to their farm and the farmer was not willing (or able) to pay for these costs.
From all the options for a derogation to use conventional seed or propagating material, **reason (c)** creates the biggest obstacle. This concerns all situations where there is organic seed available, but a farmer asks for a derogation because none of the varieties offered in the database is 'appropriate'. The problem is that it is hard to define what is an "appropriate" variety for an individual farmer since it depends not only on the local climatic and soil conditions on his farm but also on market demands and the preferences of the farmer.
In practice, this usually means that farmers always receive a derogation if they ask for a variety from which no organic seed is listed in the seed database. If the possibility to receive a derogation is not related to the availability of organic seed from suitable varieties in the database, this undermines the investment in organic seed production by seed companies. During the National Visits (Task 1.2.1.) some farmers openly admitted they use the database to avoid the use of more expensive organic seed by choosing a variety for which no organic seed is available.
This problem was already foreseen before EC No 1452/2003 came into force in 2004 and was the main discussion point during the first ECO-PB workshop organized in Frankfurt in April 2003.
In the invitation letter, it was formulated as follows: "*Growers are aware that the probable new rules will allow derogation even for those crops for which there are sufficient, appropriate organic seeds. Some key seed companies have announced they will stop their organic programmes should the criteria for derogation remain unclear and if derogation remains possible for all crops irrespective of availability, as it becomes financially unviable. That is a real threat and would be a great setback for ongoing efforts to build up a healthy organic seed sector and hence further close the organic production chain.*"
The fact that farmers can easily avoid the use of organic seed by stating that none of the available varieties is appropriate, is limiting the growth of the organic seed sector. This was confirmed by a study among seed companies that was conducted in the framework of the European projects SOLIBAM, COBRA and ECO-PB in 2013 (Pedersen and Rey, February 2016). Although the 36 seed companies that contributed to the study stated that their sales in organic seed were increasing significantly, they also mentioned 'the easy granting of derogations' as the main factor hampering this growth.

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On the other hand, seed companies sometimes offer organic seed from varieties that organic farmers do not ask for and the availability of organic seed on the seed databases is often very limited. When asked for "reasons not to use organic seed" during the national visits, farmers often replied that the varieties offered on the database are not suitable for their production or market and the choice is too limited. There are for instance more than 300 wheat varieties available in Hungary, while only 3 of them are listed in the organic seed database.

The interpretation of **reason (d),**" *justified for use in research, test in small-scale field trials or for variety conservation purposes"* differs between Member States**.** In some countries, for instance, in Germany, this rule can only be applied by research institutes that organize official field trials. In other countries, this exemption can also be used by farmers that want to test newly registered varieties, from which no organic seed is on the market yet, on a small-scale basis on their farm.

For seed companies producing both conventional and organic seed, this option is very important, especially in countries working with a non-derogation list. Those seed companies want to test their new varieties on organic farms before they start organic seed multiplication. This is only possible if the farmers receive a derogation for the use of non- organic seed for on-farm trials.

2.3 The European non-derogation list remains empty

Article 45.3 of Regulation EC No 889/2008, provides the legal basis for a European non-derogation list. It states that the reasons a, b and c do not apply for species listed in Annex X and "…*for which it is established that organically produced seed or seed potatoes are available in sufficient quantities and for a significant number of varieties in all parts of the Community* …."

Thus far, however, this Annex X has remained empty. There are several reasons for that. First, there are no data available about the organic seed and variety demand per crop for the whole European Union. Secondly, only crops at species level can be listed, while in practice the availability of organic seed might differ a lot between the different sub-species and purposes of use (e.g. cucumber for glass-house production and cucumber for open-field production). Thirdly, there is always a need for flexibility, to deal with unforeseen circumstances like shortages in the organic seed supply, which is very difficult to realize at European level.

To resolve this obstacle, given the very strong seed sector in the country, the Dutch government decided in 2003 to develop their own National Annex. The National Annex is a list of species and sub-species for which sufficient organic seed is available on the national territory and for which no derogations are granted (except for reason d). The Louis Bolk Institute, a Dutch research institute for sustainable agriculture, was asked to develop a system to define which species and sub-species could be placed on the National Annex. Preconditions from the Dutch government were: strong involvement of the (seed) sector, support from the farmers, and flexibility. In 2003 expert groups were established, and in 2004, the first National Annex was in place. Anno 2019 also Germany, France, Luxembourg, Sweden, Belgium, and Switzerland have developed a similar system, adapted to national conditions. What all those countries have in common is the use of one or more expert groups, involving stakeholders from the organic seed sector, to advise the competent authority concerning the national implementation of regulations on organic seed. Another approach that is used in several countries (notably Denmark and Poland) is to develop lists of *recommended varieties for organic farming*. The idea behind this is that once organic farmers have access to organic seed from recommended (and thereby appropriate) varieties, no or fewer derogations for the use of conventional seed will be granted. A prerequisite for this is that the main varieties are tested under organic conditions in organic field trials and that organic seed is produced from these recommended varieties. Besides, it requires the involvement of experts to judge whether the derogation request from an individual farmer is justified or whether he can use a variety that is equivalent to the one he asks for.

2.4 General derogation creates a lack of data on varieties needed

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Article 45.8a of Regulation EC No 889/2008 allows the competent authorities to give a general derogation in case there is no organic seed available on the database from a certain crop. According to the database analysis performed under Task 1.1.2., eleven Member States (Solfanelli et al 2019) use this option. The main advantage of this rule is that it reduces the administrative burden and costs in cases where there is no organic seed available anyway and asking for a derogation is only a formality since it will always be granted. The disadvantage is that giving a general derogation for a certain crop creates no incentive to produce organic seed from this crop. When farmers ask for a derogation, automatically data are collected about the varieties they want to use. This information is used by seed producers to determine what are the main varieties and therefore are the most interesting to produce organic seed from. However, no data is available for the use on non-organic seed if general derogation are granted for the respective crop. An even larger obstacle is the fact that in several countries there is not a list of crops for which the general derogation applies. Farmers may just assume that for all crops that are not listed on the database, the general derogation applies.
In Germany and Luxemburg, they use a different approach. Organic farmers need to notify within the online seed database the varieties and the quantity of non-organic seed used for crops on the general derogation list. Hence, by this obligation, it can be tracked how much non-organic seed was used for each variety from crops within this category.

2.5 Derogation policy causes a high administrative burden for farmers

In several countries, the current derogation rules are interpreted in a way that they cause a high administrative burden (and thereby costs) for farmers and the competent authorities. The focus from the competent authorities seems to be solely on meeting the legal requirements, granting derogations according to the EU rules, and not on stimulating the production and use of organic seed. In many countries, the derogation process is under the responsibility of the regional authorities or the certifiers instead of one national competent authority. This causes an extra step in the process and can increase the administrative burden.
In countries where no general derogation policy is implemented (Article 45.8a), farmers are obliged to ask for a derogation for each variety they use non-organic seed from, even if the organic seed database is (nearly) empty. In cases where the seed database is not functioning well, farmers must provide additional information (written statements from seed suppliers) to prove that they could not obtain organic seed. In several countries, additional proof is also asked to assure the conventional seed used is untreated. Often the derogation process is not, or only partly, digitalised which makes the process more time-consuming.
For many vegetable crops, e.g. cabbage, tomato, lettuce, farmers use organic seedlings instead of seed. In those cases, it is usually the seedling producer that buys the seed and takes care of the derogation. The advantage of this is that it reduces the administrative burden for the farmers. The disadvantage is that farmers are less aware of the kind of seed used for the seedling. It was frequently found during the national visits that farmers using seedlings do not know whether the seed used was from organic or conventional multiplication.

2.6 Rules for the labelling of seed forage mixtures are inconsistent

In 2006, ECO-PB reported that labelling of forage seed mixtures is differently implemented between the EU Member States. To avoid trade barriers, harmosination should be encouraged (ECO-PB 2006). The use of mixtures with a high diversity of grasses, clovers, herbs, and wildflowers is important for agrobiodiversity and animal health. Unfortunately, there is not always organic seed available yet from all ingredients in these mixtures. Article 26 of Regulation EC No 834/2007 states that "*The Commission shall in accordance with the procedure referred to in Article 37(2) establish specific labelling and composition requirements applicable to: "...." (c) vegetative propagating material and seeds for cultivation*." Regrettably, those rules have never been implemented. Therefore, several Member States (notably Germany, the United Kingdom, Austria, Denmark, France) and Switzerland have

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developed their own national labelling rules for grass seed mixtures containing both organic and conventional seed. Since such mixtures cannot be labelled under the organic EU regulation, they only have a private organic label. On the label it is listed which varieties are in the mixture, what percentage of the total amount in weight every single component has and whether they are produced according to the organic regulation or not. One reason for having such a mixture rule is that it can stimulate the use of organic seed. Especially if the percentage of organic seed in the mixture is increased annually. Another advantage can be that no derogation is required for individual conventional components. This reduces the administrative burden for farmers. One obstacle is the fact that there is no level playing field: the minimum percentage of organic seed in mixtures differs between countries. Several countries require a minimum percentage of 70%, but in Denmark, the amount depends on the actual supply and therefore varies per year.

In the Netherlands and Italy for example, only mixtures with 100% organic seed are allowed. Those mixtures carry the European organic label. Another problem is that the varieties from which conventional seeds are permitted in the mixture also differ per country. This is since the use of conventional (untreated) seed is only allowed if there is no organic seed from this variety on the seed database in that particular country. For instance, in one country white clover can be on the national non-derogation list while in another country the use of conventional seed from white clover is granted by general derogation. Further, officially derogations should only be granted per farm and per mix and not to a seed merchant for supplying a mixture to several farms. Therefore, seed mixtures that contain a proportion of conventional seed cannot be exported or imported (Döring et al 2016).

For trading companies, this means that they need to make different packages for each country. But since there is free trade in Europe, farmers inevitably find seed mixtures on the market, for instance from a neighbouring country, which they sometimes are not allowed to use.

For farmers, this means that they must check the list of ingredients to know whether they can use the mixture and if this is the case, whether they need a derogation. Nevertheless, since the mixture has a (private) organic label, farmers will probably assume they can use the mixture without asking for a derogation.

In the Netherlands, where farmers can only buy 100% organic grass seed mixtures, they complain about the fact that mixtures with a high level of diversity are not always available for them. They sometimes buy additional conventional seed, from the varieties that they miss in the mixture and from which no organic seed is on the national seed database.

2.7 Discussion

Organic farmers need to have an optimal choice of varieties and they should be able to grow all types of crops, including those for niche markets. At the same time, it is not realistic to expect organic seed to be produced for all (conventional) varieties from all crops that are on the market, as the production of organic seed is difficult and requires extra investment from seed producers. In other words, the obligation to use organic seed inevitably means that organic farmers will be limited in their choice of varieties. Combined with the fact that organic seed, in general, is more expensive makes it necessary to apply a strict derogation regime and at the same time invest in organic seed from varieties that have an added value for organic farmers. It was found during the national visits and the farmers survey (Orsini et al 2019) that the motivation to use organic seed increases if the varieties are better adapted to (local) organic growing conditions. Therefore, the aim to reach 100% organic seed use needs to be supported by investments in organic breeding programmes and variety testing under organic conditions. However, the limited area of organic agriculture will be the bottleneck for economic interest in establishing specific breeding programmes for organic farming systems (Lammerts van Beuren et al 2002), therefore, new concepts of financing organic breeding activities are needed as well. Preferably, the results from national post-registration variety trials should also visible in the organic seed database as is, for instance, the case in Denmark.

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The fact that the current rules in the regulation provide so many options to use conventional seed undermines investments by the seed industry in organic seed. Therefore, in several countries, the competent authorities have developed strict national derogation regimes. The results from the database analysis (Solfanelli et al 2019) and the farmers survey (Orsini et al 2019) substantiate the expectation that countries with a strict derogation policy have higher availability and use of organic seed. However, it must be acknowledged that those countries also have a properly functioning database and a well-developed seed sector. However, when farmers were asked to rank the actions that in their views would boost the use of organic seed, stricter national rules for granting derogations were ranked as least important in all the countries (Orsini et al 2019). This is not surprising as at present state this would limit their choices in production.

The advantage of a national approach is that it gives Member States the flexibility to develop rules that are adapted to their national or even regional conditions. The national non-derogation list has proven to be effective at increasing the production and use of organic seed step by step in the Netherlands, Germany, France, Luxembourg, Sweden, Belgium, and Switzerland. The bottom-up approach with strong involvement of all stakeholders, represented in one or more expert groups, guarantees a high level of acceptance of the obligation to use organic seed. The fact that also sub-species instead of whole species can be placed on this list (e.g. cherry tomatoes) increases the effectiveness of this system.

Still, in most Member States no such strict derogation regime is applied. Sometimes this is because the competent authorities see no legal basis for a national non-derogation list and fear court cases from farmers that are forced to use organic seed. To avoid such problems, involvement and support from the farmer (associations) in the decision making process which (sub-) species to place on the non-derogation list is essential.

In some countries, the use of an equivalent variety list is also controversial due to liability reasons. What if a farmer is forced to use another variety than requested and the crop production fails? To avoid such problems, this rule should only be applied when there is organic seed available from a wide range of varieties that are demonstrably suitable for organic farming in a region. This leads to the prerequisite to have high-quality national variety testing trials under organic production.

To provide a more solid legal basis for the implementation of a national non-derogation list it is recommended that the new organic regulation, defines the preconditions for such a national approach within the delegated acts.

At the same time, it is clear that derogations for the use of non-organic seed and vegetative planting material will remain necessary, at least in the near future. For many organic crops in the EU Member States and Switzerland, there is a total lack or insufficient availability of organic seed or vegetative propagating material. This was confirmed by the online farmers survey that was conducted within WP 1 of LIVESEED and to which 839 organic farmers from 17 European countries contributed. The main critical issue reported by the surveyed farmers is the availability of organic seed for the varieties they need. This is true regardless of the crop sector, whereas it is significantly less pronounced in Central European countries (Orsini et al 2019).

In the new organic Regulation EC No 2018/848, the general derogation is no longer foreseen. This will create a large increase in the administrative burden and costs for farmers and competent authorities. Especially in countries where there is little availability of organic seed and where the derogation process is not yet digitalized. On the other hand, a general derogation does not contribute to the aim to reach a 100% organic seed use. A first step towards the right direction would be to make it obligatory to list all the crops for which the general derogation applies. In the Netherlands, it is experienced that making a general derogation list motivates seed producers to offer organic seeds from the crops on this list to move them to the single derogation list.

Since grass seed mixtures are traded across countries it is important to establish European rules for the labelling of such mixtures. In the recent position paper (IFOAM EU 2019) IFOAM EU recommends that common rules for labelling should be established and that "…..*the aim should be to have a high*

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percentage of organic seed as possible, there should be a mechanism to gradually achieve this purpose, monitor and stimulate more organic seed production and use for mixtures."
But unfortunately, just setting a common threshold for the minimum percentage of organic seed in mixtures will not solve the problem for trading companies. It remains that the availability of organic seed differs a lot between countries and therefore the possibilities for exemptions to use conventional seed from a certain variety. It is recommended to create a European expert group to deal with this issue.

3. Implementation of organic seed databases

3.1 Introduction

According to regulation EC No 834/2007 and its implementation regulation EC No 889/2008 each Member State shall provide a seed database that indicates the availability of organic plant reproductive material. Both regulations give only minimal requirements for information that needs to be transferred by the database. Based on these minimal standards many different systems have been developed among the EU Member States. Some EU Member States provide a computerised database while others provide a static version such as a pdf or excel file. The frequency of updating varies a lot between the EU Member States from real-time updating, daily, weekly, monthly, to once or twice a year. The responsibilities among bodies involved in the database and the derogation process differ by each country. A synopsis of databases in the year 2018 to 2019 conducted within LIVESEED project (Task 1.1.2) revealed that acceptance and user frequency cannot finally be distinguished by the type of database, it rather seems to depend on the quality and accuracy of information provided in seed databases. However, the regulations don't provide detailed requirements that ensure that databases are user-friendly, informative and comprehensive. Hence, the level of technical development (system quality) and information value (information quality) provided by national seed databases differ between the EU Member States. *System Quality* refers to the quality of the system elements that enable the interaction of the user with the website and is considered as a basic dimension of any evaluation. *Information Quality* is the quality of information contained in the website: appropriate, complete and clear information needs to be provided to enhance the effectiveness and success of a website (Delone & McLean, 2002). Some databases are reported to be used frequently by farmer and supplier, other databases remain mainly unused and empty. The following obstacles and bottlenecks regarding the implementation of the seed database were identified.

3.2 The database is hard to find for farmers

National organic seed databases are often difficult to find for farmers. Sometimes webpages of competent authorities do not provide a direct link to the national seed database. Farmers need several clicks through confusing webpages before retrieving often incomplete information on the availability of organic seed and vegetative planting material in their country. During the national visits within Task 2.1, it was found that in several countries interviewed farmers were even unaware of the existence of a national seed database.

3.3 The database is not frequently updated

The frequency of updating is very crucial to provide accurate information on the availability of organic seed and seed potatoes. If organic seed databases are not updated at a daily or at least weekly basis, it can remain unclear if the listed seed in a database is available or not, and therefore the database is of limited use for farmers. Even if organic seed may be available on the market but not listed or updated in the national database, derogations on the use of conventional seed and planting material must be granted by the responsible authorities. This leads to the situation that conventional,

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untreated seed may be used by farmers and organic seed stays at the organic supplier's shelf because the availability was not correctly indicated in the database. It was reported that this incidence happens quite often, and organic seed suppliers get disappointed when they realise that still conventional, untreated seed use is permitted. Seed suppliers argue that there is a very high need for improving national organic seed databases because accurate, complete and promptly updated information on the availability of organic seed and seed potatoes material can reduce unsubstantiated granting of derogations.

3.4 The database is not comprehensive and user-friendly

When farmers start to search for organic seed, they should first consult their national database. But if the information on organic seed offer is incomplete and not up to date, they experience the national database as useless and not informative. This led to the result that some farmers refuse to consult national databases and start to search the internet for organic seeds or contact seed suppliers directly. By this, it repeals unattractive for seed suppliers to invest time in updating (un-used) seed databases. Beside confusing and not self-explanatory user-guidance in databases, it was reported that the process of how and in which case a farmer shall apply for a derogation is not transparent and comprehensible through the database. Some countries provide a downloadable user-guide or a list of frequently asked questions, while others provide contact details of the database manager or a skilled helpdesk who can support users to navigate through the system. However, even if a support document is provided it reveals that in certain cases a special national rule applies that is not fully described in the general guidance documents and not known by the database manager. It was reported that this incidence happens in the EU Member States with federalism systems, where the competences are shared among several regional authorities.

3.5 High administrative burdens for seed supplier

In some countries, the administrative burden in listing seed in a database can be very high, as there are several authorities involved in the process. It may also happen that the information provided by the seed companies about the availability of organic seed does not get immediately updated in the database by the relevant authority. Furthermore, bureaucratic processes may cause high administrative burdens and not frequently updated databases. All those obligations create high administrative burdens for seed suppliers and reduce the overall acceptance and use of the national seed databases. Seed suppliers reported that it remains unclear to them why they should list their seed in national databases, as there are no clear benefits to do so and databases are often not frequently used by farmers either, due to their low system and information quality. In fact, in some cases, the administrative burden prevents seed supplier in listing their organic seed in national seed databases at all. Also, if a seed supplier is willing to list his organic seed offer in a national seed database it is not always transparent whom to contact first. The distribution of responsibilities among bodies involved in the database and the derogation process differs by country and seems to change over time. There is often no organigram available on how responsibilities are shared among different bodies involved within a country. The process of entering an offer in a national database is not always clear and can be very complicated. Some seed suppliers feel not well informed whom to contact, what the requirements to meet and how the process of updating a seed offer is organised in each respective country. It was reported, that those databases where seed suppliers have their login to manage their seed offer online are used by seed suppliers more frequently. Thus, more organic seed is listed in those national databases and the information given therein is often more up to date. While in countries where the information flow is channelled through competent authorities some seed suppliers claim to be underprivileged as they need to report their seed availability but have no influence when and in which cycle the seed offer is updated.

As the suitability of a variety is not necessarily defined by national borders, but rather by pedo-climatic regions it can be of interest for a seed supplier to also trade their organic seed in other countries.

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Transnational trading organic seed suppliers reported that the listing of organic seed in foreign databases can be difficult. The most important hindering factors are language barriers, as databases are most often provided in national language only. Furthermore, some EU Member States don`t allow foreign seed suppliers to list their offer in the national database unless they have a national branch in the relevant country. In some countries, organic seed suppliers are obliged to be controlled by a national organic control body or comply with additional national regulations, even if the supplier can prove his company is certified organic and complies with the European organic standard, controlled by a control body in another EU country.

3.6 Lack of budget for the maintenance of high-quality databases

It was reported, that the budget to set up, maintain and further develop national organic seed databases is mostly allocated by national competent authorities. This is differently organised in each country, but a lack of financial resources and thereby capacity to manage the database often leads to underdeveloped and/or outdated databases. In some countries, costs are partly covered by a fee paid by seed suppliers. If the database is user-friendly and can be used as a promotion tool for organic seed sales, seed suppliers are willing to pay this fee. One hand it gives money to maintain the system but on the other hand, it may hinder supplier to list seed.

3.7 Discussion

In 2015 the European Seed Association (Euroseed) stated in a position paper that the concept of seed databases managed by each EU Member State does not reflect the reality of supply, demand and organic seed flow in EU internal markets (Euroseed 2015). Based on the findings of activities undertaken in Work Package 1 (Regulation & Policy Framework) within the LIVESEED project, the statement Euroseed`s position paper can be confirmed. Except for a few Central European countries with well-developed seed databases, the most organic seed produced and traded within the EU is not listed in national organic seed databases. The combination of difficult access for seed suppliers to databases and low user-friendliness for farmers results in the fact that in many countries most of the organic seed is sold outside of the database, directly to farmers. Thus, the majority of national seed databases cannot be considered as a reliable source of information on the availability of organic seed and therefore do not fulfill its purpose as a monitoring tool. The availability of organic seed displayed in national seed databases is the legal basis for granting the use of non-organic seed and planting material. Therefore, there is a high need to introduce standards on user-friendliness, information value and technical development of organic seed databases in the implementing act of Regulation EC No 2018/848. In detail, this means to introduce on a mandatory basis *online* and *real-time* updating databases with direct logins for seed suppliers to manage their seed offer directly and frequently, as well as offering user-guides, FAQ lists or skilled help desks. There is an online database application available (organicxseeds.com) that can be adapted by each EU Member State to fulfill the requested standards (Döring et al 2012). The programming, maintenance, and support of seed databases require a sufficient budget to ensure minimum quality standards and accuracy of data. However, there is no definition of where this budget is coming from. In the majority of EU Member States, the budget is allocated from national or regional competent authorities as well as from fees paid by seed suppliers. With the new organic Regulation EC No 2018/848 (Art. 26.2), it will be not possible anymore to ask for an entry fee for seed suppliers. This may deteriorate the financial situation of maintaining good seed databases.

In 2013, at the ECO-PB workshop on the use of organic seed the implementation of an EU-wide database was recommended that would list all available organic seed and be uniform, accessible and readable for farmers in their language (ECO-PB 2013). This would encourage companies to enter their products as it would effectively be a ‘one-stop shop' as opposed to the current system where many countries have their own databases that require data to be entered by seed companies multiple times and in different formats. Euroseed suggests in its position paper of 2015, the integration of the existing

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national databases and the information supplied therein into a common EU-level database on the availability of organic seed, similar to the system of the EU Common Catalogue of plant varieties (Eusoseed 2015). Furthermore, Euroseed concludes "that decisions on derogations shall solely be taken based on an assessment of organic seed availability on EU level. National shortages in the one or other species generally can easily be compensated by supply from companies in other Member States" (Euroseed 2015). However, the suggestions of Euroseed (formerly ESA) on the decisions on derogations are not in line with the current legal regulation EC No 889/2008, Chapter 7, article 48, paragraph 1, where it is stated that derogations are granted on a territorial country level. Also, the new Regulation EC No 2018/848 states the authorisation on a territorial level. The integration of the existing database to a common European database has also been proposed by Döring et al (2012) and in reports of several ECO-PB workshops (ECO-PB 2008; ECO-PB 2012; ECO-PB 2013) with a great advantage to encourage sourcing of organic seed from similar environments across Europe. Döring et al (2012) conclude that cross-links between national databases should be improved for example by standardising plant names and tagging varieties on national databases for their regional appropriateness, e.g. in Denmark information is given whether the listed variety has been evaluated in Danish field trials.

Within work package 1 of the LIVESEED project an EU-level router database is programmed and implemented (Task 1.3). The concept of the router database is based on a back-end solution to allow registered organic seed suppliers, with one single login, access to all 28 EU Member State organic seed databases as well as access to the Swiss organic seed database. Interfaces between the EU router database and national organic seed databases shall allow free flow of information and thereby increase the transparency of the organic seed market within the EU and Switzerland. Each EU Member State can continue to use independent user-interface to display organic seed availability on their national level. Investments in the EU-level router database which is developed within LIVESEED could be used to provide Europe-wide a router database that provides a comprehensive standard of information and transparency. To support the work of the development of the router database it is important, that national competent authorities of EU Member States are open to cooperate, e.g. developing automated programming interfaces (API) for linking their national database with the European router database, in setting up an overall working group and continuously revise incoming seed offer from foreign seed suppliers. Furthermore, funding of the router database should be offered by the European Commission beyond LIVESEED, as in the new organic Regulation EC No 2018/848 the service shall be free of charge for users.

4 Annual reporting to the commission

4.1 Introduction

According to the authors' knowledge currently, there is no monitoring and information available if and how article 52(2) of Regulation EC No 889/2008 is ensured by the EU Member States. The derogation report analysis performed in Task 1.1.1 revealed several bottlenecks. For instance, some countries publish the annual report with a delay of several years. The derogation reports do not include any information on the derogations given under general authorisation. Often there is no list available what species and sub-species are listed under general derogation. Farmers and especially seedling producers tend to apply several months in advance for a derogation to ensure to get it, even if they don't need it later on. This often leads that the number of derogations and the amount of seed granted through derogations don't refer to the real demand. Also, the volume applied for is often much higher and often there is no cross-check between the requested amount of seed and the real demand. The structure of the summary report is not defined. Thus, the quality and information value of the reports differs tremendously. Some countries provide a yearly statistical analysis of the national report. A comparison of derogation reports between the EU Member States (Task 1.1, Solfanelli et al 2019) remains very difficult.

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4.2 Annual derogation reports are not publicly available

Even though the provision of a derogation report is required by the EU regulation, not all countries appear to provide on an annual basis. Already in 2006, ECO-PB claimed in a letter to the European Commission that derogation reports are not publicly available (ECO-PB 2006). As reported in LIVESEED D1.2 (Solfanelli et al 2019), for some countries, the historic reports are not available and/or accessible for the years 2014, 2015, 2016, also not upon request. Not all recent derogation reports are publicity available in the national organic databases of each country. Currently, only a few countries implement an online website in which it is possible to find derogation reports.

4.3 Annual derogation reports do not reflect the real use of non-organic seed in organic farming

In some countries, the reports do not include information regarding the crop or varieties included in the general derogation list. This information may help to understand the potential underestimation of the seed derogation amount since all species, sub-species, or varieties included to a general derogation list are not subject to the requirement for an individual derogation. Currently, only in Germany and Luxemburg the number and volume of non-organic seeds used by farmers under general derogation are reported (through notifications). The number of crop species for which general derogations are granted varies a lot between countries. In some contries it is not disclosed for which crop species general derogations are granted.

4.4 Annual derogation report does not follow a common standard

Analysis of derogation reports revealed, that different crop classification and units of measurement of the volume of derogations (e.g., in kg, tons, no. of seeds or planting units) make data storage, data processing, and analysis a challenging task. In most cases, the derogation report is available as a pdf file, which does not facilitate data handling and retrieval. Converting pdf files into excel files or similar can generate further errors and mistakes. Data reliability and validity are a prerequisite for seed data comparisons and calculation and to monitor the progress towards increased use in organic seed. Several inconsistencies were identified while processing the various national reports, most of which stemmed from typing errors or the use of wrong units (Solfanelli et al 2019).

4.5 Discussion

Annual reports on the use of non-organic seed and planting material of EU Member States are double-edged reports. On one hand they give important information on species, sub-species, and varieties used from conventional multiplication in organic farming, but on the other hand, the validity and comprehensiveness of the data of the reports are limited. Furthermore, those reports only indicate the use of non-organic seed which were granted by individual derogations, but don't reflect well the real supply, demand, and use of organic seed. If annual reports are publicly available they can provide useful insights for seed expert groups and seed companies to analyse the variety composition that has been requested by farmers. However, the analysis of annual reports at variety level requires experienced knowledge of the seed market and traits related to certain varieties and, therefore, is useful for detailed analysis only. To implement policy measures it is important to estimate the overall demand and supply of organic seed at crop level. For these estimations, other sources of information and data are required, such as the area of organic crop production at country level, seeding density per crop and country, percentage of farm-saved seed use, and the percentage of use of organic seed by farmers (ECO-PB 2013). To achieve the aim of phasing out all derogations in 2036 monitoring of supply and demand of organic seed and planting material is of high importance. In the new organic Regulation EC No 2018/848 (Art. 53.7) it is mentioned, that in 2026 the Commission should present a

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report to the European Parliament and the Council on the availability and reasons of a possible limited access of organic operators to organic reproductive material.
To better estimate the demand for organic seed each country should collect data of organic crop production and forward this information to Eurostat annually. The European Seed Certification Agencies Association (ESCAA) could play a role in collecting data about the production of organic seed since they already collect data about the production of certified seed in Europe, but presently do not distinguish between organic and non-organic seed. The European Seed Association (Euroseeds) which represents the European seed sector could play a role in estimating the actual production of organic seed by collecting and anonymise data of organic seed sales from their members.
From the experience in preparing the report of D1.2 in the LIVESEED project, it would be recommended that all competent authorities dealing with derogation reports could conduct simple quality checks (e.g. comparison with the data from the previous year(s)). As derogations requested are often cross-checked by organic control bodies, it could be an option to establish with the control bodies a specific protocol to verify potential typing errors or wrong units, leading to over/underestimation of derogation requested. If all derogations are granted regarding a specific crop area as is, for instance, the case in Greece, it is much easier and reliable to analyse the real demand of organic seed. Linking derogation to the area could not only help statistical data collection but would increase reliability and could also make inspection activities more effective. However, this will inevitably lead to an increase in the administrative burden for control bodies and farmers. The increase in the quality of data might not legitimate the additional administrative work and bureaucratic overkill implied in granting derogations must be avoided. In order to improve the monitoring with the goal to phase out derogation latest by 2036, it is suggested that the national authorities of each Member Stated publish on annual basis four lists of species or sub species crops names, for which (i) no derogation is granted, (ii) individual derogation is granted, (iii) general derogation is granted, and (iv) is foreseen to change the category in the next years for stricter regulation. Such lists allow easy monitoring of the progress on organic seed use and reduction of derogations across Europa.

5 Farm-saved seed (FSS)

5.1 Introduction

Based on the derogation (Art. 14) of the Council Regulation (EC) No 2100/94 on Community plant variety rights, farmers are authorized to use their harvest of arable crops, as propagating material on their own holding, excluding hybrids and synthetic varieties. This is also known as farm-saved seed (FSS). If an organic farmer re-sows his own seed, this seed is, in most EU countries, accepted as organic seed although it has no official seed certification. In practice, this also means organic farmers in those countries can use farm-saved seed without asking for a derogation. In a few Member States organic seed is only approved if it has a double certification, one for organic and one for seed quality (seed certification).

5.2 Lack of certified seed on the market

Although the exchange and sale of FSS to other farmers is officially forbidden, in many of the EU countries visited during the national visits, there is still a lot of non-certified seed on the market. Depending on the country and crop this can be up to 85% of the seed. Governments are sometimes forced to tolerate the use of non-certified seed because there is not enough certified seed available. It is remarkably that organic farmers in those countries are among the main buyers of certified seed (organic or conventional) because they must, in contrast to conventional farmers, account for their seed use to their organic certifier. Governments sometimes try to encourage the use of certified seed by linking it to receiving agricultural subsidies. In practice, this only works if there is enough suitable

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certified seed on the market. Another approach is to register and train farmers who propagate seeds, so that they can have their seeds certified and legally sold.

5.3 Certified organic seed cannot always compete on the market

An obstacle is that farmers sometimes produce or buy FSS out of necessity. It was found that farmers sometimes even use seed sold as animal feed for sowing because they cannot afford to buy certified seed. Since certified organic seed is even more expensive it is hard for organic seed producers (farmers and companies) to be competitive in these markets. It is often more lucrative to sell their seeds to international seed (trading) companies.

5.4 Lack of data about the use of farm-saved seed

Another obstacle is that it is hard to estimate how much FSS is actually used that have been produced on the own organic farm and how much non-certified seed is bought. There are little official data about this. This makes it difficult to determine how much organic seed still needs to be produced to supply the entire market.

6. Conclusions and recommendations

First, it is concluded that there is a general lack of data on the production and use of organic seed in the different EU Member States. These data are necessary for competent authorities to implement policy measures to reach 100% organic seed use. The derogation rules can play a role in this since they provide data about the conventional seeds used by organic farmers. Unfortunately, the amount of non-organic seed requested through derogations often doesn't match the real amount used. Also, farmers often receive a general derogation for all the crops not listed in the database. Consequently, there are no data about the seed quantity or the varieties used for these crops recorded (except for two countries). Another obstacle is that the current quality of the derogation reports is too different to make them comparable. It is therefore recommended to define minimum standards for derogation reports, install ongoing data collection on the use of organic seed (e.g. through farmer surveys and inventories), on the production of organic seed (in cooperation with the European Seed Certification Association Agencies (ESCAA)), as well as on organic production area per crop and country (data compilation through Eurostat or World of Organic).

It can be concluded that in many of the countries visited the interpretation and implementation of the rules on organic seed has, so far, not encouraged the production or use of certified organic seed. This is especially true in those countries where the national seed database is not properly implemented and the production of organic seed for locally adapted varieties is limited or entirely absent. Additionally, in several countries the seed industry is not well developed and there is a general lack of certified seed (both conventional and organic) on the market. In those countries, a lot of farm-saved seed is used, and farmers often do not see the advantage of buying the more expensive certified organic seed. This is even more the case if farmers only produce organic according to the organic Regulation to receive subsidies but sell their products on the conventional market. To make the use of organic seed more attractive for farmers it is important that the availability of organic seed is increased and that the varieties offered have an added value. Therefore, the aim of 100% organic seed use cannot be achieved without investment in organic breeding and variety testing as well as in capacity building and the promotion of enterpreneurship for organic seed multiplication. On the other hand, if the possibility to receive a derogation is not related to the availability of organic seed from suitable varieties in the database, this undermines the investment in organic seed production by seed companies. To involve more seed companies in organic seed production a more secure market and a more harmonised interpretation of the regulation is necessary. Given the current major differences between the EU Member States' national adopted policies to increase the production and use of organic seed, a step by step approach seems necessary. To provide a more solid legal basis for the

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implementation of a national non-derogation list, it is recommended that the new organic regulation, as a minimum, defines the preconditions for this system including the establishment of stakeholder seed expert groups. In order to monitor the progress on production and use of organic seed across Europe as required in the new organic Regulation EC No 2018/848, a well structured and harmonized reporting protocol in a central database should be foreseen in the delegated acts. Moreover, each Member State should publish annually the species or sub spieces for which (i) no derogation is granted, (ii) individual derogation is granted, (iii) general derogation is granted, and (iv) is foreseen to change the stricter category, and develop a roadmap how to reach 100% organic seed.

In many of the countries visited for the national visits the seed database is, in fact, a static pdf or excel file which is difficult to access for seed suppliers and only updated a few times a year. These databases are often nearly empty and do not give an overview of the availability of organic seed on the market. Most of the organic seed is sold directly to farmers. It is therefore recommended to make it mandatory for EU Member States to introduce an *online* and *real-time* updating database with direct logins for seed suppliers to manage their seed offer directly and frequently. Also, to increase the transparency of the European organic seed market it is important to allow organic seed suppliers easy access to all 28 EU Member State databases. The new EU-level router database, which is developed within the LIVESEED project will facilitate this.

Summarising, the combination of appointing stakeholder seed expert groups, well-functioning databases, the implementation of strict national derogation standards, ongoing data collection and monitoring as well as investment in organic breeding and variety testing as well as promotion of seed multiplication will pave the way to reach 100% organic seed use by 2036.

An overview of the reported obstacles and resulting bottlenecks can be found in Table 1, whereas the recommendations derived from the analysis of obstacles and resulting bottlenecks are compiled in Table 2.

Table 1: Overview of reported obstacles and resulting bottlenecks

Refers to	Obstacles	Resulting bottlenecks
Derogation rules	• Easy to get a derogation irrespective the availability of organic seed	• Farmers can escape the use of organic seed for economic reasons • Disincentive to produce organic seed • The available organic seed remains unsold
Derogation rules	• The amount of non-organic seed requested through derogations doesn't match the real amount used	• No reliable information about the amount of conventional seed used
Derogation rules	• Implementation of the rules differs among EU Member State	• No level playing field for farmers and seed producers
Derogation rules	• General derogation is given for all crops for which no organic seed is on the database	• No data collection about the varieties and quantities requested • No incentive to produce organic seed
Derogation rules	• In some countries, a lot of administration is involved to receive a derogation	• High administrative burden for farmers can demotivate farmers to produce organic and can lead to re-conversions to conventional farming
Derogation Rules	• No rules implemented for labelling of seed mixtures	• No level playing field • Trade barriers

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Refers to	Obstacles	Resulting bottlenecks
	with both conventional and organic seed	
European annex	• Only crops can be listed • No data about European seed demand per crop	• The list remains empty
European annex	• Unclear legal basis for the use of a national non-derogation list	• Fear of court cases • In many countries, there is no national policy in place to come to such a list
Database	• No detailed requirements for system quality and information quality	• The quality of databases differs among EU Member States. Some EU Member States' databases provide a very low system and information quality • Low acceptance to use the database
Database	• Often only a static version such as a pdf or excel or pdf file	• Actual availability is not transparent • Unsubstantiated derogations • Outdated information (no real-time update)
Database	• Lack of funding and capacity to maintain and improve databases	• Only a minimal level of programming and frequency of updating is implemented • Information in the database is often outdated and incomplete
Database	• Difficult to access for seed suppliers	• No overview of the availability of organic seed on the database • No good reference for authorisation of derogation
Database	• Only available in the national language • Difficult to access as foreign seed suppliers	• Only minimal transnational exchange of information and few transnational seed offers • Limitation of availability
Database	• The available quantity of organic seed per variety is mentioned in the database	• Farmers wait for the organic seed to be sold out or request for a larger quantity to receive a derogation
Annual Report	• No harmonized standard of annual reporting available	• Format and quality differs between EU Member States • Information content is insufficient • Not possible to compile data across countries
Annual report	• Reports are often not publicly available	• Seed suppliers have no access to information about the varieties requested by the farmers
Other issues	• Lack of availability of certified seed on the market	• Farmers are forced to buy un-certified seed which is illegal • The quality of farm-saved seed is not always good
Other issues	• Farmers cannot afford to buy certified seed	• Organically certified seed is not competitive in the market

The overall aim of the report is to promote a more harmonised implementation of regulations towards the aim of reaching 100% of organic seed use in the EU by 1 January 2036. Recommendations given in Table 2 shall serve the European Commission, the EU Member States and competent authorities as

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measures to overcome political bottlenecks. In addition, they can be used as proposals for the implementing or delegated acts of the new Regulation EC No 2018/848.

Table 2: Overview of recommendations based on identified obstacles

Refers to	Article in Regulation EC No 2018/848	Aim	Recommendation for implementing rules; delegated acts or other measures
Derogation policy	• Article 12.2 and point 1.8.5 of Part I of Annex II	• Avoid unnecessary burdens on the use of in-conversion propagation material	• No derogation for the use of seed from in-conversion farms • Allow the use of a general derogation subject to a notification
Derogation policy	• Article 12.2 and point 1.8.5 of Part I of Annex II	• Implementation of a strict national derogation regime is stimulated	• Provide a clear legal basis for a national non-derogation list of (sub)species • Make national non-derogation lists manadatory • Involve stakeholders, expert groups on organic seed must be established
Derogation policy		• Harmonized rules for seed mixtures with both conventional and organic seed	• The commission will create a working group at EU level to define labelling rules for seed mixtures
Derogation policy	• Article 12.2 and point 1.8.5 of Part I of Annex II	• Derogations reflect the actual use of non-organic seed • To analyse the validity of derogation reports	• The derogation request states the amount of seed, and additionally, the area of production per variety (in hectare)
All derogations will be phased out in 2036	• Article 53.1	• It is clarified what kind of derogation shall be phased out by 2036	• The use of conventional seed is still allowed for: - basic seed - field trials - research & innovations - breeding lines
All derogations will be phased out in 2036	• Article 53.1	• There is sufficient availability of organic seed from appropriate varieties	• Stimulate organic breeding • Adapt VCU and DUC protocols to register varieties for organic farming • Stimulate national post-registration variety trials under organic conditions
All derogations will be phased out in 2036	• Article 53.6 and 53.7	• Monitor the stepwise improvement from general derogation, via single derogation to no-derogation for species and sub-species	• Each EU Member State should develop a roadmap to reach 100% organic seed • Make yearly reporting of the progress on the production and use of organic seed obligatory
Derogation reports	• Article 53.6 and 53.7	• Standardised derogation reports allowing comparison of data	• For all derogation data, using either the EUROSTAT crop classification or other harmonised standard should be mandatory

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Refers to	Article in Regulation EC No 2018/848	Aim	Recommendation for implementing rules; delegated acts or other measures
			• For each derogation species (sub species) and variety is mentioned • The volume of seeds should be expressed in kg or tons • The amount of vegetative propagating material should be expressed in numbers • EU Member States publish the (sub)species in the different derogation categories
Derogation reports	• Article 53.6	• national derogation reports are publicly available	• The Commission will make the national derogation reports of all EU Member States publicly available on the EC portal
Derogation reports	• Article 53.7	• Market report on organic seed available for Parlament	• The Commision will compile and analyse the national derogation reports and will monitor the progress on organic seed use in each Member State
Database	• Article 26.7	• All national databases comply a minimum standard concerning user-friendliness, information quality, frequency of updating	• Make real-time updating of the seed database obligatory • Seed suppliers must be able to update their offer in the seed database themselves (own login) • Databases are accessible through a direct link
Database	• Article 26.7	• The database contains additional information about the offered varieties that help the farmers to define if they are suitable and appropriate	• The seed suppliers are requested to add additional voluntary information such as cultivar type, breeding method, rootstock specification, seed pelleting, links to VCU results, or results of post-registration variety trials • Databases offer a technical standard to display additional information
Database	• Article 26.7	• The database indicates in which region organic seed or vegetative propagation material can be delivered	• Add information on the region of delivery where relevant • Databases offer technical standard to display region of delivery
Database	• Article 12.2 and point 1.8.5 of Part I of Annex II	• The information on the amount of organic seed available on the database cannot be used by farmers to avoid the use of organic seed	• Only the initial total quantity of organic seed for the crop and season is mentioned in the database

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Refers to	Article in Regulation EC No 2018/848	Aim	Recommendation for implementing rules; delegated acts or other measures
Database	• Article 53.7 and 26.6	• In case of exceptional cases (de-certification or court cases) the database can be consulted to analyse the availability of organic seed retrospectively	• The history of the availability should be traceable through the database
EU-wide router database		• All national databases are connected to the EU-wide router database via interfaces • Seed suppliers can enter their offer through a central login	• The Commission should fund the further maintenance of the router database beyond LIVESEED so it is free of charge for users
EU-wide router database		• EU Member States can only reject organic seed offers from the EU router database based on predefined reasons	• The Commission stipulates that EU Member States authorities collaborate in a working group on the router database
Data collection	• Article 51, 53.7	• Reliable information on the production of organic seed for the European market	• Collect data on the production and marketing of certified organic seed in cooperation with ESCAA and the European Seed Association (EuroSeed)
Data collection	• Article 51, 53.7	• Reliable information on the use of organic seed in Europe	• Annually, the EU Member States shall collect data on the usage of organic seed and, additionally, the area of organic production per crop
Other issues	• Article 6 (i)	• Farm saved seed is accepted as organic seed	• The use of farm-saved seed requires no derogation

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