



AGRIDEMO

Case study reports: Denmark CS₁



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1. Background

Programme

In Denmark, we do not have any specific programmes for demonstration activities. The demonstration for case study 1 was organised and held by an organic extension service called ØRD. They organise several demonstrations and events each year as a service for their customers and to attract new customers. ØRD is a private organisation, which acts as advisory service to organic farmers.

Funding and Governance

The demonstrations are usually funded by ØRD itself but this particularly event also had an entrance fee.

The events are planned and organised by the employees at ØRD and usually held at one of their client's farm/fields.

Actors and networks

ØRD works closely with *Organic Denmark* and *Seges Organic Innovation*, two organisations in Denmark working with innovative projects to develop organic agriculture.

How it works

The employees at ØRD continually discuss which event they want to make. They then find a suitable host farmer (one of their clients). If other companies are invited, they involve them in preparing the program. ØRD has the contact information of their 800 clients (organic farmers) and they usually send them an email or text message with an invitation for the event.

Event farm and location

- ØRD use different host farms for their events. It depends on what they want to show.
- Event date: May 2018

The demonstration event in May 2018 was the first large scale demonstration held by the local extension service ØRD (Observation tool).

2. Method

In line with the Methodological Guidelines, three main data sources are used: a background document and interviews at Programme and Farm level to analyse structural and functional characteristics, and event tools and surveys to analyse event level participation and learning, as follows:.

1. A background document for every case study was completed by the AgriDemo-F2F partner who carried out the case study.
2. Interviews with representatives of programme/networks (Level 1) and farm level interviews with demonstrators/hosts (Level 2) to reveal how the Functional and Structural characteristics enable learning. Structural and functional analysis is reported in Sections 3 and 4. Data is sourced from interviews with two programme level actors. The first interviewee is a consultant at Seges, a private organisation, which works as a knowledge centre that builds bridges between research and practical farming. The interviewee is also in the steering committee for the organic part of Danish Agriculture Extension. S/he gave a presentation during the demonstration event (demonstrator) and filled out the survey for demonstrators. The other interviewee is the director of ØRD. The director gave an introduction to the day at the demonstration event. The analysis followed four themes: (1) Coordinating effective recruitment of host farmers and participants; (2) Appropriate demonstration and interaction approaches; (3) Enabling learning appropriate to purpose, audience, context; (4) Follow-up activities.
3. Event tools and surveys (level 3) to reveal peer to peer learning processes. Event details and analysis is reported in Section 5. This data is sourced from 17 pre and 4 post demonstration surveys for participants, and 10 pre surveys and 3 post surveys for demonstrators and an event observation tool completed by an observing researcher. This data is mainly used for the analysis of learning processes and learning outcomes related to the specific event and overall comments on the effectiveness of the event.

Finally, partners reviewed the case study reports to prepare their workshops with different stakeholders related to the case studies. These workshops aimed at validating the data presented in the case study reports. The workshop for the Danish and Swedish case studies was held on the 17th of October, 2018.

3. Structural characteristics

T1: Programme/network level

1. The main organisations and actors involved in the demonstration activities and their roles

In Denmark, they do not have any specific programmes for demonstration activities. The demonstration for case study 1 was organised and held by an organic extension service called ØRD. They organise several demonstrations and events each year as a service for their customers and to attract new customers. ØRD is a private organisation, which acts as advisory service to organic farmers.

ØRD organisation and ØRD employees' roles

ØRD plans and organises demonstration events usually held at one of their customers' organic farm/fields. Its employees select after discussion a suitable host farmer depending on the event they want to organise and the 'innovativeness' of the farmer with respect to the specific demo goal/idea.

We have 800 farmers as clients, so we choose the farmers we think has something interesting to show. Farmers that do something special lead the way or do something new. (Programme interviewee 2)

The employees of ØRD are the main people involved in demonstration activities. (Programme interviewee 2)

ØRD makes an action plan based on a demonstration idea/goal. Then, they decide on the timing of the event and the intended audience. The planning and preparation period of an event varies, ranging from 1 year to a shorter time horizon, depending on the characteristics of the event. Finally, they organise one-off events, with topics emerging from the field. (Programme interviewee 2)

ØRD involves multiple actors on the demonstration topic selection to meet its audience interests (Programme interviewee 2). When the event focuses on machinery exhibition, the topics are related to what the collaborating companies find interesting to demonstrate.

We involve the host farmers, the local advisors here at ØRD, and sometimes external people, where we make a brainstorm. (Programme interviewee 2)

The events differ in some way. For example, last spring a new machine was introduced in Denmark that none had seen before. A farmer bought it and then we thought that other farmers could be interested in seeing it on the field. Therefore, we called the farmer and asked when he was going to use it in his field and then we texted our customers to tell them when and where they could see the machine. This kind of event does not require any form of planning. The only thing we do is send a message. Other events are planned one year ahead and we control what it is that we want to communicate. (Programme interviewee 2)

ØRD's demonstrations are exemplary according to the Programme interviewee 2, although at his point of view, experimental approaches are more preferable as an effective decision-support tool.

In most cases the farmers have different types of treatments in their field and then the difference is shown at the demos. But as a decision support experiments are more effective because they can be reproduced more easily than best practices in a farmer's field. If we had the money to do experiments I would prefer this approach. (Programme interviewee 2)

Finally, farmers are sometimes involved in the overall development of demos at the program level, although indirectly and mainly through professional groups.

Some farmers are involved in the development of the overall programme through a professional group that are selected to give input to the advisors and input to demonstrations. On which topic, such as soil fertility, climate or animal welfare, we need to focus on? 10 farmers are selected for the group each year. They meet 3-4 times a year. (Programme interviewee 2)

SEGES organisation and employees' roles

Seges' approach concerning demonstrations, is quite participatory. They aim at the involvement of as many actors as possible such as representatives from the intended audience, advisors, host farmers, machinery demonstrators etc. The project director is responsible for the final decision after this multi-actor consultation. Additionally, when a demo is organised in the context of a project the host farmers are selected in relation to the project's requirements.

You never do it alone, that is simply too dangerous, because then we miss some of the obvious people we needed to include. So, you should always work with some representatives from the intended audience, typically we work together with advisors, and a host (one of the intended audiences), and if machinery is demonstrated those people demonstrating the machines are also represented. And they have great influence. (Programme interviewee 1)

So, all parts are involved in the process, and there is a project manager that takes the final decisions. It does not work without involving the other parts. (Programme interviewee 1)

We choose the host farm so it matches with what we want to demonstrate. (Programme interviewee 1).

Seges makes use of its network in order to select suitable farmers to host demonstration events. In cases, the local extension services are often approached to suggest possible suitable host farmers. (Programme interviewee 1).

We use our network. We know a lot of farmers but we can also ask our colleagues at the local extension services if they know someone who would be good at hosting a big or a small demo and then they come up with some suggestions. It is necessary with some knowledge. (Programme Interviewee 1)

With regard to the selection of a demonstration topic, Seges employs a rather flexible approach, making use of its knowledge and experience, or in consultation with other actors, considering also audience needs and interests. In case of a project, topic selection depends also on project requirements. The criteria for the topic selection are both the topics the organisation has already worked on as well as new interesting topics, as the organisation aims to correspond to issues organic farmers' face. Finally, a demonstration could be also built upon an occasional good farming example, as a one-off event.

It requires that we have our fingers on the pulse. And that I think we have. Otherwise we talk with other people. But here in this house it very much depends on the projects we have and if they require reporting. It should be consistent with the needs they have on the farms, otherwise we have a problem. (Programme interviewee 1)

What are the topics we have worked with and what new can we tell. That is typically something we worked on for two or three years at a time. The second is: what is relevant right now. Suddenly there are *Psylliodes chrysocephalus* in the fields and then we must go the field with rapeseed and see how it looks and what we can do about it. That is the good thing about a demo, you can change the programme up to one week before it is held. (Programme interviewee 1)

Our big and small demos are situational. We can make very small and narrow demos, for example for a person who has made a fantastic machine for ridging up potatoes. And then we make a demo just for him. That is very narrow. And then we make these bigger events where we cover a lot of different subjects. So, we can do both. (Programme interviewee 1)

The evaluation of the organisation and implementation of the demos is carried out by Seges in collaboration with other actors involved.

We talk with the others who helped to plan, organise and carry out the demo, to evaluate how things went. For the big events, we use a survey. (Programme interviewee 1)

Companies / machinery representatives

Sometimes ØRD collaborates with commercial companies for its demonstrations. In this case, ØRD sets the agenda for the demo day in consultation with the companies they invite and they are planning together what they want to demonstrate. Sometimes these companies sponsor the demonstration activities of the organisation. (Programme interviewee 2)

Seges and *Organic Denmark* are permanent partners and then we also cooperate with different commercial companies... We invite companies that have created some technology or product that can create added value for the farmers e.g. new machines or new cultivars. (Programme interviewee 2)

Some are funded by projects, other are sponsored by companies, and sometimes the farmers pay a fee. (Programme interviewee 2)

Host farmer

ØRD uses different host farms from its customer list (organic farmers) for their events, depending on what they want to demonstrate (Programme interviewee 2). The host farmer is involved in the topic selection.

Q: How do you identify/select relevant topics that will interest farmers? R: We involve the host farmers, the local advisors here at ØRD, and sometimes external people, where we make a brainstorm. (Programme interviewee 2)

Both Programme interviewees stated that host farmers are always involved in the overall development of individual demonstration activities. Programme interviewee 2 considers that this involvement is necessary for the effectiveness of the demo, while, according to Programme interviewee 1, the host farmer's presentation is desirable but not compulsory.

Because the activities are taking place at their farms and it is best if they are involved to some extent to make the event a success. If the farmer is involved in the activities that take place at his farm and tell stories about these activities the participants will be more responsive. (Programme interviewee 2).

We choose the host farmers because they can do something. They have either taken some decision or have some special machines or they do farming in a special way they can tell about. That is the frame and then we have some specific demos. But their presentation of the farm is important. If they host farm isn't included enough in the demo we get bad evaluations. People want the story of the farm..... It is not necessary that he is a good communicator, because most farmers are uncomfortable with talking in front of big crowds. Then we do the talking. That is not a problem. We ask them if they want to do it and if not, we do it. (Programme interviewee 1)

Demonstrators

Demonstrators usually have different occupations like advisers, sellers, product manager, company owners, agronomist product specialists etc. Most of them participate as demonstrators from 5 to 50 times per year while some hold over 50 events per year (Pre survey demonstrator).

None of the demonstrators of the case study has ever received any training to become demonstrator. (Pre survey demonstrator). Additionally, two out of three demonstrators strongly disagreed that they could benefit from some extra training as a demonstrator (Post survey demonstrator).

Advisors

Advisors are involved at the organisation of the demonstrations according to Programme Interviewees, as they are in direct contact with the farmers. Advisors are also involved at the demonstration topic selection in order to meet the audience interests. Finally, the engagement of demo participants after specific events comes through advisors' engagement.

Q: How is the programme/network managed? R: You never do it alone, that is simply too dangerous, because then we miss some of the obvious people we needed to include. So, you should always work with some representatives from the intended audience, typically we work together with advisors. (Programme interviewee 1)

We involve the host farmers, the local advisors..., and sometimes external people, where we make a brainstorm. (Programme interviewee 2)

Q: What is the most effective way to encourage engagement after specific events? R: Our problem is that we don't have the direct contact to the farmers. Local advisors have this contact. (Programme interviewee 1)

Extension services

Seges seems to cooperate with local extension services either for host farmer's selection or for demo dissemination actions.

Some places you only use once. We use our network. We know a lot of farmers but we can also ask our colleagues at the local extension services if they know someone who would be good at hosting a big or a small demo and then they come up with some suggestions. (Programme interviewee 1)

Q: Are follow-up materials made available to participants after demos? R: If we cooperate with the local extension service, the power points are placed on their homepage and our homepage. Sometimes we also use short films. (Programme interviewee 1)

Networks

ØRD organises several demonstrations events. They work closely with *Organic Denmark* and Seges Organic Innovation, two organisations in Denmark which develop innovative projects on organic agriculture. Seges cooperates with any organisation that could fit in its demonstrations. Sometimes they cooperate with local extension services, as well as with other organisations/partners at several EU or national projects in which they participate. Finally, as stated earlier Seges uses its own network, to draw either host farmers and/or demo participants.

Seges and *Organic Denmark* are permanent partners and then we also cooperate with different commercial companies. (Programme interviewee 2)

When we make bigger events, we cooperate with whomever it makes sense to cooperate with. Sometimes two, three or four different project activities. It is complicated because they all need to have something unique to report. It could be some EU programmes, Interreg that we work together, which work together with some of our own GUDP projects. The GUDP projects are very much about development and innovation and they are often very good to cooperate with, since they have same outgoing nature. And other very narrow theme projects, for example projects on faba beans, they also need to tell a story, but they can seldom do that themselves, so it is very good when they get embedded in some bigger projects. So, we cooperate on all kinds of levels. (Programme interviewee 1)

Trial and error. Some places you only use once. We use our network. We know a lot of farmers but we can also ask our colleagues at the local extension services if they know someone who

would be good at hosting a big or a small demo and then they come up with some suggestions. It is necessary with some knowledge. (Programme interviewee 1)

The host farmer of this specific event participates to a farming network called ERFA-groups (grazing, roughage) and to Facebook-groups. While the majority of the demonstrators of the event were not part of a network, two of them reported their membership in the steering committee for the organic part of Danish Agriculture Extension and the second in the plant breeding committee at *Organic Denmark* (Pre survey demonstrator).

2. Funding arrangements

The demonstration activities organised by ØRD are funded in different ways such as projects, participation fee, or by companies. In the same vein Seges in most cases makes use of project funding and/or participation fee. It should be noted that for Seges charging a fee to participants is considered as an interesting coordination mechanism, which also indicates a high added value potential for participants. Finally, an interesting point is that funders tend to be more positive towards demo programs that involves multiple partners.

Some are funded by projects, other are sponsored by companies, and sometimes the farmers pay a fee. (Programme interviewee 2)

Nine out of ten are some projects that contain some dissemination obligations. But we are more and more looking at the commercial part of it, because 'for free' is not always the best. It is experienced as more exclusive. Of course, some may not come and you reduce your audience. Then of course, you need to get something extra; a presentation, some extern people, something new. That is a very important part of how we develop our demos that we are aware of it is a narrow reporting or it is something developing where people walk away with a feeling of learning something new, then there must be something exclusive in it and then you can charge a user fee. (Programme interviewee 1)

In my opinion, it is always perceived positively by the funding provider if you work with other partners so it gets a broader appeal. (Programme interviewee 1)

ØRD offers incentives to farmers in order to host demonstration activities. Depending on the funding arrangement of its demo, these incentives vary from small gifts to a direct payment. On the other hand, in the case of Seges, demonstration partners very seldom get money for their involvement.

Small gifts, for example wine. If the demo is funded by a project, it is sometimes possible to pay the farmer. (Programme interviewee 1)

Because the ones who are participating and contributing (representatives from the intended audience, advisors, host, people demonstrating machines) they very seldom get money for it, but they must see some other benefits such as business development. It is very important that they are positively involved. (Programme interviewee 1)

3. The decision-making process in organising demonstrations

Seges makes use of multilevel feedback and two-way communication before and after the organisation of a demonstration event.

The overall goal is to tell what we work with in the projects, especially why we do it, and get some feedback to see if it is the right things we work with. Of course, we try to clarify it before we start a project, but it is very important for us to get it checked. We are very aware of that it is a two-way communication. It should be designed in a way so that we also benefit from the demo. (Programme interviewee 1)

You never do it alone, that is simply too dangerous, because then we miss some of the obvious people we needed to include. So, you should always work with some representatives from the intended audience, typically we work together with advisors, and a host (one of the intended audiences), and if machinery is demonstrated those people demonstrating the machines are also represented. And they have great influence. So, all parts are involved in the process there is a project manager that takes the final decisions. It does not work without involving the other parts. (Programme interviewee 1)

However, it seems that the general approach of the organisation is mostly top down. The starting point of the demo is to deliver a concrete expert knowledge to participants. In this frame, Seges invests in dialogue and communication. Similarly, ØRD has a mostly top-down approach, as it follows a specific agenda and plans on what they want to demonstrate.

I recognise that there are many experts in the world that knows more than I do. So, it is very seldom me who push expert knowledge. You expect some expert knowledge that is disseminated with great confidence. Then they can discuss it afterwards but it is delivered as "expert-to-receiver". It is important that we give people the conclusions on how to solve different problems. That is step one. And then hopefully someone will oppose or have some experience. But to get a discussion you do not start with a question. We must tell what we think and what we have learnt. (Programme interviewee 1)

We set the agenda for the day together with the companies we invite. So, we have a plan for what we want to demonstrate. We have some information we want to give and we think that the participants expect that something happens. (Programme interviewee 2)

4. Goals / objectives

The overall goals and objectives of the two organisation were not detailed in the two programme interviews. Creating benefits for the farmers and getting multilevel feedback on their projects were the main goals stated.

The overall goal is always to create added value for the farmers. They are the intended audience. (Programme interviewee 2)

The overall goal is to tell what we work with in the projects, especially why we do it, and get some feedback to see if it is the right things we work with. (Programme interviewee 1)

Turning though to the specific event, its objectives were to promote ØRD's extension services, to develop organic dairy production, to demonstrate field trials as well as to exhibit farm machinery. Moreover, ØRD intends to get new customers, and develop new services for its current customers.

As far as the demonstrators' goals are concerned, these are more related to sales and commercial issues. Seven out of ten demonstrators participated at the specific event stated that new costumers for their products and sales were their main goals. Networking and knowledge dissemination were a less frequent answer (Pre survey demonstrator).

T2: Farm (event) level

1. Event farm and location

The demonstration event took place at a large sized private farm, an organic dairy farm located in Jutland. The farm has 550 organic dairy cows and 440 hectares of clover grass and corn. In addition, the farm cooperates with six plant breeders in the area with a total of more than 300 hectares (Poster info). The farm has had demos on different themes concerning cattle and arable production, e.g. Housing systems, grazing of rye, nutrients, etc. (Post host farmer interview).

The demonstration event took place in May 2018, and it was the first large scale demonstration held by the local extension service ØRD. During the event, different machines were exhibited and some of them were actually demonstrated in the field. Moreover, the demonstration included presentations of experiments, field walks and generally a common area where participants could discuss and socialise.

During the demonstration event, people were divided into three groups going to three different stops in turn. (Observation tool). Demonstrators, were either advisors who made presentations in the fields of maize, clover and rye and supply chain actors demonstrating machinery equipment.

The first stop addressed the production of maize and clover-grass. The demonstrators (two local advisors) talked about maize and clover-grass cultivated in different test strips. Those presentations occurred in the field of the crop in question. In the maize field, two different machines (hoeing machines) for weed control were tested and demonstrated. In the clover-grass field a "Plate-meter" was used to measure height and density of the sward (Observation tool).

The second stop was in the pasture where several demonstrators talked about rye and grass-clover pastures. In the clover-grass field, three or four advisers talked about different mixtures of clover-grass, different strategies for cutting the grass etc. In the field of rye, presentation about grazing of rye and measurement of the sward occurred (Observation tool).

The last stop was at the exhibition of machinery and other farming equipment such as machinery for weed control, grass cutting, processing of the crop etc. Different companies exhibited their machines with supply chain actors standing next to the machines giving information about their products (Observation tool).

2. Topic and group size

The Topic is Roughage for organic milk cows (Observation tool) with the following Subtopics: (Practice/technology/machine) demonstrated:

- Maize: soil treatment, pests, cultivars and weed control and two hoeing machines demonstrated in the field
- Clover: Different mixtures of clover-grass, different strategies for cutting the grass and "Plate-meter" machine demonstration in the field.
- Rye: Grazing of rye and measurement of the sward.
- Machinery and farming equipment exhibition: machinery for weed control, grass cutting, processing of the crop and cultivars were exhibited etc. (Observation tool)

Attendees were approximately 100. The organisers expected 200-300 participants but only 110 had registered and less than 100 showed up (Observation tool). The demo was held in the first warm week in Denmark, so all the farmers were very busy doing field work and they think this was the main reason for the low attendance. More than 80% of the participants did not work at the local area where the demonstration event occurred. The vast majority (over 88%) of the interviewed participants were farmers (Pre demonstration survey participant).

3. Event Farm Location and layout

Both Programme interviewees stated that the demos organised by their organisations fall in-between single focus and whole farm approach. In this specific event, however, one demonstrator stated that he did not aim to apply a 'whole farm approach' during the demonstration. The observation tool confirms this statement, noting that no notion of whole farm approach was demonstrated but only isolated practices. Each presentation addressed isolated practises concerning roughage for dairy cows. (Observation tool). The other two demonstrators being product sellers or managers, found the question as not applicable to their situation.

The event was classified as a showcasing of existing practices by two out of three demonstrators and as exemplary by one of them (Post survey demonstrator).

According to the observation tool, there were both fields with comparison and fields without comparisons in the farm. More specifically, the organisers had made some test strips in the farmer's field. They had shown different cultivars of maize, showing the differences between traditional and new cultivars in test strips. They had also made test strips in the clover grass-field with different treatments (sowing date, level of fertiliser, date of cutting the grass etc.).

4. Frequency, duration and timing

The timing of a demonstration event is an issue of great importance. If an event takes place at the same time with important seasonal farming activities, it will be difficult for farmer participants to attend the event, due to heavy workload.

If they need to travel a long way or if they don't have time. If the events are held in the middle of the sowing or harvest season it will discourage people from attending. (Programme interviewee 2).

The demo was held in the first warm week in Denmark, so all the farmers were very busy doing field work and I think this was the main reason for the less attendance. (Observation tool 1)

5. Farm's infrastructure and arrangements

The analysis of this case study points out the importance of specific arrangements when organising a demonstration. The host farmer and the organisers had made some arrangements for hosting the specific event. They took care for the good looking of the farm, they offered water and organic pizza to participants.

The extension service has planned everything. I have spent some time making everything look fine at the farm. (Post host farmer interview)

It also has something to do with pride. You don't do demos on farms that look awful. The farmer must be proud to show his farm. (Programme interviewee)

The weather was beautiful with sun and 25 degrees. It was very warm but the organisers provided water for the participants during the entire day. (Observation tool)

For lunch, they had arranged a food truck with a pizza oven who made organic pizza for the participants. This was a very good way to feed so many people with delicious food. (Observation tool)

There is a lot of logistics. It can be very banal, but when we are making big events, we hire people to guide the cars, provide fruit and coffee etc. If it does not work it will always be a part of a bad evaluation. (Programme interviewee)

It was also pointed out that a demonstration event is a "day out" for farmer attendees and an occasion to eat and discuss with peers. The machinery exhibition was placed far away from the eating area, which resulted to a very low attendance.

For me and my company this day was not very effective. There was not enough people visiting our exhibition. It was placed too far from the eating area. There were generally too few visitors at this event... our stand should have been located immediately near the area where food was served so that visitors could walk around the stands while eating. (Post survey demonstrator 3)

6. Farms accessibility and fees for participation

Farm's location and travel time for attending a demo have been pointed out as factors of great importance.

Q: What do you think discourages people from attending demonstrations? R: If they need to travel a long way or if they don't have time. (Programme interviewee 2).

The travel time of farmers to reach the demo farm, ranged from 20 to 90 minutes, with an average time close to 48 minutes (Pre demonstration survey participant). On the one hand, 50% of participants interviewed have rated their travel effort to participate as no effort or very little effort, with the remaining half rating their travel effort to participate as quite some effort or great effort (Pre demonstration survey participant). We cannot draw any clear conclusion in relation to the organisation of the specific event and the farm location. Some participants travelled for 30 minutes rated their travel effort to participate as great effort or quite some effort and some participants travelled for 90 or 60 minutes rated their travel effort to participate as no effort or very little effort. So, the effort rate may be also related to other factors i.e. participants motivations, free time etc. apart from travel distance.

Time is an issue for host farmer and participants. The analysis of this case study points out "time issues" as a crucial factor for demo effectiveness. The available time of participants to travel and the good organisation of the event in order to be considered as worth the time spent by participants is very important.

Q: What do you think motivates participants to attend demos? There should be a professional programme in order for participants to be willing to spend the entire day or morning on it. That is necessary. (Programme interviewee 2)

Additionally, the time is a quite important issue for the host farmers involved at demo events.

They do not do it without a great professional interest, because it is very troublesome. When planning the demo everything goes fine, but the last two or three days before and during the event, it is in the way and they could have used the time in the field. But they already know that. We return to those who are good at it, so they have tried it before. So, they know it and they think it is fun. (Programme interviewee).

Finally, during the specific demonstration event, a lack of sufficient time for interaction and a general rush is pointed out as an organisational issue.

The first session addressed the production of maize and clover-grass. In the maize field two advisers told about soil treatment, pests, cultivars and weed control and two hoeing machines were demonstrated in the field. The participants seemed interested in the demonstration, but everything was a bit rushed, since there was very little time for each presentation. This also meant that there was very little time for questions and no time for discussion. (Observation tool)

After this we drove to the clover-grass field where 3-4 advisers told about different mixtures of clover-grass, different strategies for cutting the grass etc. Again, there was very little/no time for questions and discussion. (Observation tool)

As already mentioned the demonstration activities organised by ØRD and Seges are funded in some cases by participants' fees. This was also the case in the specific demonstration event, as there were fees for participants. Moreover, farmer participants were not compensated somehow for attending the demo. Only one participant, an agriculture teacher, reported that he was compensated in order to attend the demo without clarifying how this happened.

4. Functional characteristics

T1: Coordinating effective recruitment of host farmers and participants

1. Incentives

The Programme interviewees described how the funding arrangements differed, and what farmers received to host the demonstration events differed accordingly.

Some are funded by projects, other are sponsored by companies, and sometimes the farmers pay a fee. (Programme interviewee 1)

It was felt that events that charged a fee were viewed as more exclusive or likely to be more professional, and thus they can attract more participants. Therefore, the network were increasingly focusing on the commercial aspects of demonstration events.

We are more and more looking at the commercial part of it, because “for free” is not always the best. Sometimes it is good if it costs something, 200-400 DKK. It is experienced as more exclusive. (Programme interviewee 2)

This arrangement meant that more often than not, host farmers received some kind of payment – but this may simply be a gift, temporary labour or compensation for their expenditure and time (as opposed to something they can make a profit from).

Small gifts, for example wine. If the demo is funded by a project, it is sometimes possible to pay the farmer. (Programme interviewee 1)

If it is possible, we pay them for their hassle. If they need some men to broom the courtyard and put new gravel on and so on. (Programme interviewee 2)

2. Motivations for host farmers

Both Programme Interviewees concurred that financial gain was not a key motivation for farmers to host demonstration activities. Programme Interviewee 1 talked about the opportunity to improve one’s social standing by hosting such events, accompanied with a desire to show off their farm.

Social standing is the most important factor and also because they want to show their farm to other. It is important for farmers to be recognised by other farmers for what they do. They do not have any financial interest in it. (Programme interviewee 1)

Programme Interviewee 2 suggested that hosts simply had a ‘great professional interest’ in farming and the topic.

They do not do it without a great professional interest, because it is very troublesome. When planning the demo everything goes fine, but the last two or three days before and during the event, it is in the way and they could have used the time in the field. (Programme interviewee 2)

3. Motivations for participants

The Programme Interviewees described a range of motivating factors for participants. An interest in seeing inside prestigious estates was something that Programme Interviewee 2 felt ‘always works’.

An important trigger is if the demo is held at one of the bigger estates. That always works. It is something people want to see. (Programme interviewee 2)

The importance of being able to see something ‘new’ or interesting at work in the field was highlighted by Programme Interviewee 1. He also cited the opportunity to network with other farmers and develop cooperative agreements.

If they can see a new machine, a new cultivar or something new in the field or in the stable. They are also motivated if other farmers attend. There is a commercial aspect in networking with other farmers and make cooperation agreements. (Programme interviewee 1)

Data from the pre-survey revealed how participants themselves stated as main motivators to attend the demonstration:

- Learn something new
- Improve my grass products
- Learn about new initiatives
- I am curious
- Learn about roughage
- Professional knowledge
- I need to buy a harrow
- Sharing of knowledge

4. Target audience

Although the interviewees both stressed that the target audience for the event was mainly farmers and advisors, they also recognised that it extended beyond this to include a variety of other stakeholders connected to the industry in different ways.

Typically, our intended audience is farmers and advisors. But also, to get a good dialog with scientist, developers and supply chain actors, those who sell machinery. But it can also be someone who wants some new commodities such as quinoa, that we have a dialog with at the demos and bring people together, so that they can get an understanding of what is happening at the farms. And then maybe this can help them when they develop new products. But the primary audience is farmers and advisers. (Programme interviewee 2)

5. Advertising and recruitment

The Programme Interviewees claimed that participants were nearly always targeted when recruiting for demonstration activities. They used various methods ranging from the formal to the informal. Programme Interviewee 2 talked about a very novel method of purchasing access to farmers via their Facebook profiles. This was supplemented with more traditional methods of advertising, e.g. via newspaper.

We send out emails and text messages to the farmers we think will find the demo interesting, according to where they live and their type of production. We use our own database with lists of our clients. (Programme interviewee 1)

I cannot say always since we are not allowed to have a list of relevant people because of the data protection act. The last time we had a big event we bought hits on Facebook. For example, you can buy the email of people who have the word "organic" in their field of interest. Then they will get the news about the specific event. And it works. Otherwise we have ads in Landbrugsavisen (agriculture newspaper). (Programme interviewee 2)

The Programme Interviewees both stressed the need to "push" advertising on as many different platforms as possible.

It is a combination of advertising in the medias, personal emails, and that their local advisor tells them about the event. So, they hear about from different places. (Programme interviewee 1)

You need to spam people to the limit of nausea. But not more than that. Then it becomes annoying. Sometimes we make short movies on Facebook and they get a lot of views. (Programme Interviewee 2)

Programme Interviewee 2 suggested that the programme of events needed to be sufficiently professional looking to entice participants to it. He emphasised how farmers could be spending their entire morning or even day away from the farm, therefore the programme must be well-designed and professional looking, and highlight the benefits to participants.

There should be a professional programme in order for participants to be willing to spend the entire day or morning on it. (Programme Interviewee 2)

T2: Appropriate demonstration and interaction approaches

1. The nature of interaction

Both Programme Interviewees agreed that the nature of interaction tended to be 'Mostly top down'. Generally, host farmers were heavily involved in individual demonstrations, after they had been selected to be involved

We choose the host farm so it matches with what we want to demonstrate. (Programme interviewee 1)

2. Involving farmers in the learning process and the demonstration programme

As above, host farmers had a significant role in the design of the individual demonstration activities, but input to the overall programme was a little more exclusive. A select number of hosts/demonstrators, as opposed to participants, were invited to participate in a group meeting 3-4 times a year.

Some farmers are involved in the development of the overall programme through a professional group that are selected to give input to the advisors and input to demonstrations. Is it soil fertility, climate or animal welfare we need to focus on? 10 farmers are selected for the group each year. They meet 3-4 times a year. (Programme interviewee 1)

It was important to the network that they were 'across' or attuned to the issues that farmers wanted to know about, and they felt they were achieving this. He stressed the need to talk to farmers to find out what issues they were facing.

It requires that we have our fingers on the pulse. And that I think we have. Otherwise we talk with other people [...] It should be consistent with the needs they have on the farms, otherwise we have a problem. (Programme interviewee 1)

We choose the host farm so it matches with what we want to demonstrate. (Programme interviewee 2)

3. Focus and Design

Both Programme interviewees described the network as 'in between' a 'Whole farm' and 'Single focus' approach. The Programme Interviewees differed in their opinion of the network approach; Programme Interviewee 1 felt it was 'Exemplary' in nature, where as Programme Interviewee 2 felt it was 'Experimental' in nature. They both expressed a preference for a more 'Exemplary approach', although Programme interviewee 1 recognised the value of an 'Experimental' approach, he was concerned this was often costly.

4. Ideal group size

Both Programme interviewees suggested a number between 30 and 40 is an ideal size group. Programme Interviewee 1 talked about the different dynamics that can emerge in a group of 30-40 which allows for discussion and exchange. He suggested this kind of thing does not happen amongst larger groups.

A group of 30-40 people. Then different dynamics can be created among the participants and they can contribute with different things and experiences. It offers better opportunities for discussion and more people dare to say something than if there were 150 participants. (Programme interviewee 1)

T3: Enabling learning appropriate to purpose, audience, context

1. Facilitating interaction and learning: structure, content and techniques

Both interviewees talked about the integration of practical activities into the day, as well as the opportunity for participants to see things for themselves.

The best is a lot practical activities where you see things in the field or in the stable and you can touch it. (Programme interviewee 1)

Programme interviewee 1 later commented that space to discuss and ask questions was crucially important to the structure and content of the day.

And people asking questions is crucial for the dynamics of the demo. You learn much better by asking questions than when a person is talking for twenty minutes. (Programme interviewee 1)

Despite this statement, Programme interviewees 1 and 2 both agreed that 'Problem solving' was the most important characteristic of farm demonstration.

The most important thing is that the farmers think that they get closer to a solution to their problem by participating in a demo. (Programme interviewee 1)

You need to come home with a solution on how to solve a problem, and that requires that the participants talk and the technical tools are just facilities for that. (Programme Interviewee 2)

2. Taking into account variation in learning

It was apparent that the Programme did not take into account variation in learning styles or different levels of prior knowledge. However, Programme Interviewee 2 recognised that all participants 'must be challenged' for the event to be a success. With this level of understanding/appreciation for different learning needs, this could be something the network looks into providing or accommodating for in the future.

T4: Effective follow-up activities

1. Follow-up activities and materials

The Programme interviewees claimed that there was no attempt at continuing to engage participants after the event, although they recognised this as a priority for the future development of the programme. Interestingly, Programme interviewee 2 suggested that the ability to do this was limited by new Data Protection laws. Considering ways round this might be something the programme administrators wish to explore.

I have to say no but it is our intention to contact some of the participants after the demo and ask them if they got something out of the demo or if there was something more we could have done. (Programme interviewee 1)

You could do that but because of the data protection act it is limited what we are able to do and how we can use the list of the participants. (Programme Interviewee 2)

In terms of the follow-up materials available to participants after the event, the Programme offered a range of materials, typically made available on their website. Materials included presentations, pictures and even short films.

The presentations and pictures of the day are available at our homepage afterwards. (Programme interviewee 1)

If we cooperate with the local extension service, the power points are placed on their homepage and our homepage. Sometimes we also use short films. (Programme Interviewee 2)

2. Assessing impact

The programme did not attempt to assess any kind of impact of the demonstration event amongst participants, nor in the broader context.

5. Event analysis: effective peer learning characteristics

Event details

The group consisted of 100 participants, of which 17 filled in the pre survey and 4 the post survey.

	n° survey participants	agriculture teacher	farmer	office worker	unknown
<i>occupations</i>	17	1	13	1	2
<i>working area</i>	16				
local area	3		3		
not local area	13	1	9	1	2
<i>gender</i>	17				
male	14	1	12		1
female	3		1	1	1
<i>age</i>	8				
18-30	2		2		
31-40					
41-50					
51-60	6	1	5		
60+					

T1: Learning processes

1. Communication initiation by participants

There were approximately 100 participants at this demo. They were not asked questions when they were together in the big group so participants were rather closed and didn't share their knowledge and/or experiences related to the topic willingly. Some, not more than about 10% of the participants had no problem asking questions but most of them were silent and just listening to the presentations. A little time was made for questions, about 5%, and only a few questions were asked. Some of the participants, formulated their own point of view but they were not encouraged to do so. Primarily the same persons asked questions.

	participant answers				
	strongly disagreed	disagreed	agreed	strongly agreed	not applicable
I had the feeling that I could share my own knowledge as relevant information.	0	0	2/4	0	2/4
I asked at least one question during the demonstration .	4/4 yes				
I shared my own point of view at least once during the demonstration.	2/4 yes				
I felt encouraged to ask questions during the demonstration.	0	0	4/4	0	0
When there were any discussions, I felt comfortable sharing my opinion.	0	0	3/4	0	1/4

	demonstrator answers				
	strongly disagreed	disagreed	agreed	strongly agreed	not applicable
I asked participants to share some of their own background knowledge during the demo.	0	1/3	1/3	1/3	0
I encouraged the participants to formulate their own point of view during the demonstration.	0	1/3	0	1/3	1/3
I encouraged the participants to formulate questions during the demonstration.	0	1/3	0	1/3	1/3

2. Interactive knowledge creation

Hands-on opportunities and other multi-sensorial experiences

More than one hands-on activity was demonstrated very clearly/ instructively. The machinery for weed control was demonstrated in the field and the measuring device for measuring grass density was also demonstrated in the field. But most of the sessions did not have any hands-on activities. Participants could take part in a hands-on activity, but didn't get any feedback on their doing. At one session, the participants were invited to use the device for measuring grass density, but they were not that interested in trying.

The visitors were invited to use the "plate-meter" for measuring the density of the sward, but only two people in the observed group (out of approximately 30 people) tried it out. In the fields, the participants could see and feel the different crops.

Discussion opportunities and negotiating conflicting points of view

At the demonstration site, participants were divided into three groups going to three different stops. The first stop was in the field where several demonstrators (local advisors) told about maize and clover-grass in different test strips in the field. Each demonstrator guided the questions and one person was responsible for the group and kept track of time. The second stop was in the pasture where several demonstrators told about rye and grass-clover pastures. The last stop was at the exhibition of machinery and other farming equipment, but there was not a facilitator to guide this part, so most of the farmers did not go and talk to the exhibitioners. Instead, they talked with the other farmers and walked around at the farm.

No open discussions were held and there was no elaboration/further explanation on shared critical points of view.

	participant answers				not applicable
	strongly disagreed	disagreed	agreed	strongly agreed	
In my opinion, there were interesting discussions during the demonstration.	0	2/4	2/4	0	0
If participants didn't agree with each other during discussions, somebody (demonstrator/other participant) tried to reach a consensus between them.	1/4	0	0	1/4	2/4

	demonstrator answers				not applicable
	strongly disagreed	disagreed	agreed	strongly agreed	
In my opinion, there were interesting discussions during the demonstration.	0	1/3	1/3	0	1/3
If participants didn't agree with each other during discussions , somebody (me or somebody else) tried to reach consensus between them.	1/3	1/3	0	0	1/3

3. Engagement during the event

Participants all seem to know each other well, but are not close friends. Many of the participants knew each other already. They sat together at the tables where there was a lively talk. Most of the demonstrators have worked in the sector of organic agriculture for many years and know most of the farmers and people from the supply chain companies very well, so they mostly acted as friends with the participants.

	participant answers				not applicable
	strongly disagreed	disagreed	agreed	strongly agreed	
I felt actively involved during the whole demonstration process.	0	1/4	3/4	0	0
I felt like the demonstration increased my ability to rely on myself as a farmer.	0	0	2/4	0	2/4
I could relate well to other participants (because they have an agricultural background similar to mine).	0	0	3/4	0	1/4
A lot of the other participants are part of the same farmer network as me.	0	1/4	2/4	0	1/4
I felt like I could trust the knowledge of (most of) the other participants.	0	0	1/4	0	3/4
The demonstration felt like an informal activity to me.	0	0	1/4	0	3/4
I thought the host farm was comparable enough to my own farm.	0	2/4	1/4	0	1/4
I had the feeling the demonstrator was like one of us.	0	0	1/4	0	3/4
I had the feeling I could trust the demonstrators knowledge.	0	0	2/4	1/4	1/4
I got along very well with the demonstrator.	0	0	2/4	1/4	1/4

	demonstrator answers				
	strongly disagreed	disagreed	agreed	strongly agreed	not applicable
Were participants (farmers, advisers, researchers etc.) involved in the overall development of this demonstration?	No				
Most of the participants were well known to me.	0	1/2	1/2	0	0
A lot of the participants are part of the same network as me.	0	0	2/2	0	0
The demonstration felt like an informal activity to me.	0	0	2/3	1/3	0
I think the host farm was well suited for this demo.	0	0	0	2/2	0
I got along well with the participants.	0	0	1/3	2/3	0

T2: Learning outcomes

The different demonstrators were relatively clear in explaining their knowledge. However, some of them tried to dodge some of the questions from the participants, which could have interfered with the clearness of the presentation. Skills were not sufficiently addresses since there were only very few hands-on activities. Common methods or ways of thinking on farming were questioned and alternatives were shortly elaborated on in group. For some parts of the presentations demonstrators gave examples of where the knowledge behind the ideas came from. Learning methods or approaches were not mentioned at all.

	participant answers				
What would you ideally like to learn today?	See what is new; Learn about roughage – fodder – maize - organic agriculture; A bit of everything; Brush up on technics for organic production.				
	strongly disagreed	disagreed	agreed	strongly agreed	not applicable
The demonstration met my expectations regarding what I wanted to learn.	0	1/4	3/4	0	0
The demonstration exceeded my expectations.	1/4	2/4	0	0	1/4
I felt surprised at some point(s) during the demonstration.	0	2/4	2/4	0	0
I obtained a clearer understanding of the topic(s) demonstrated.	0	0	4/4	0	0
I have the feeling I learned something new (knowledge, skill, practice, etc.).	0	1/4	2/4	1/4	0
I thought about how I could implement some of the ideas and practices on my own farm.	0	1/4	2/4	0	1/4
I reflected on my own point of view at some point during the demonstration.	0	2/4	1/4	0	1/4
I learnt about the principles underlying a practice.	0	1/4	3/4	0	0
I thought about how we learn something new on demonstrations (e.g.: teaching methods).	0	1/4	1/4	0	2/4
I thought about why I want to learn about the topic(s) of this demonstration.	0	0	1/4	0	3/4

	demonstrator answers				
what do you intend for the participants to learn today?	To think in new possibilities for production of clovergrass and maize; Spread our concept; Get information about the company; That they buy our cultivars and understand our way of thinking about maize; That our products are better than the ones from our competitors; The benefits they can have of our machines; More focus on the details in precision farming and hoeing.				
	strongly disagreed	disagreed	agreed	strongly agreed	not applicable
I think participants have learnt what I intended them to learn.	0	1/3	2/3	0	0
I tried to surprise participants with uncommon/new knowledge/new skill.	0	2/3	1/3	0	0
I felt surprised at some point(s) myself during the demonstration (e.g. by a question or discussion).	1/3	1/3	0	0	1/3
I obtained a clearer understanding of the topic(s) myself.	0	2/3	0	0	1/3
I have the feeling I learned something new during this demo (from participants, discussion...).	0	2/3	0	0	1/3
I reflected on my own point of view myself at some point during the demo.	0	2/3	0	0	1/3
I encouraged participants to reflect on their own point of view during this demo.	1/3	1/3	1/3	0	0
I encouraged participants to reflect on their own situation sometime during this demo.	0	1/3	1/3	0	1/3
I encouraged participants to reflect on how we learn something new on demonstrations.	0	2/3	0	0	1/3
I encouraged participants to reflect on why we are trying to learn about the topic of this demonstration	1/3	1/3	0	0	1/3

T3: Overall comments on the effectiveness of the event

Participants:

With an average of 3,5 on 5, participants rated the event overall as effective. 4 on 4 participants who answered the questions would recommend the demonstration.

As main effective characteristics of the demo participants mentioned: The sessions about rye for pasture; the timespan for each session; the number of different subjects.

No participant mentioned suggestions for improvement.

Demonstrators:

As main effective characteristics of the demo, a demonstrator mentioned: Known and available technology was directly demonstrated to the users.

As suggestion for improvement two demonstrators mentioned: 'For me and my company this day was not very effective. There were not enough people visiting our exhibition. It was placed too far away from the eating area. There were generally too few visitors at this event.'

Observed main strong points of the event:

It was a tight program so the demonstrators prioritised sharing their knowledge rather than making time for discussion. The host farmer also presented some facts of his farm. This gave a very good impression of the venue.

The weather was beautiful with sun and 25 degrees. It was very warm but the organisers provided water for the participants during the entire day. For lunch, they had arranged a food truck with a pizza oven who made organic pizza for the participants. This was a very good way to feed so many people with delicious and informal food.

Most of the farmers thought it was a good day but they were not surprised by the content or presentations.

Observed main possible improvements of the event:

Timing. They expected 200 participants but only 110 had registered and less than 100 showed up. The demo was held in the first warm week in Denmark, so all the farmers were very busy doing field work and they think this was the main reason for the less attendance.

The participants seemed interested in the demonstration, but everything was a bit rushed, since there was very little time for each presentation. This also meant that there was very little time for questions and no time for discussion.

In the end, the visitor groups had time to visit the exhibition of machinery and the stands where supply chain actors gave information about their products (cultivars etc.). The machinery was located on the other side of the road and the stands were placed on the small strip next to the stable. Very few of the farmers visited these stands and exhibitions and the exhibitors were very disappointed with the attendance. Perhaps there should have been a guided tour at the exhibition or the machinery and the stands should have been located closer to the "food court".

There was very little hands-on activities and discussion but the main goal for the organisers was to spread out knowledge on organic roughage.