

# Case study reports: France CS2



# 1. Background

#### Programme

The vegetable experimental farm organises every year an open demo activity for vegetable grower. The first aim is to deliver to the producers the results of trials implemented: organic farming, new equipment and robot tests, technic to reduce pesticides. The second objective is to federate independent producers in Brittany who are isolate. This demo is a good moment to discuss, to share knowledge and create connection between the producers. The target participants are the market gardeners who sell mostly through short circuits and direct sale.

#### Funding and Governance

A steering committee composed by the experimental farm manager, other employees of the regional Chamber of agriculture and about 12 vegetable producers decide to implement research projects on main stakes: working time and painfulness, pesticides decrease, organic farming development, new equipment and robot. They meet two times per year, at the beginning of the season to agree on directions of development for the year, the objectives of the year, and at the end of the season to analyse the results. During the demo and moreover during all the year partners, advisers, elected members who are also producers try to feel the farmers' needs and problems. The board rank the priority and turn farmers' question into research projects to find solutions. For each topic the manager of the experimental farm write a project, find private and public partners and look for financial resources. The funding mainly come from local and national authority. The Chamber of agriculture also finances the experimental farm on its own budget which come from agricultural taxes. Based on this governance and funding this demo, which is the main event in the year for the experimental farm, is the best way to present the results and exchanges with the farmers. It's also a goof moment to have their view on the research projects results and find new ideas for new projects.

#### Actors and networks

The main actors for the demo activity is the farm manager and Chamber of agriculture advisers. They organise the demo activity, choose the topics and results to focus on and the partners to associate with. They also manage the budget: document and leaflet to write and print, coffee, lunch...

Private partners are associated with to organise the demo activity. The experimental farm tests some equipment and presents the results of these tests. During the demo event several equipment and materials were shown and presented by private companies: movable greenhouse, weather forecast station, organic and natural material (mulch, strings...), new vegetable variety (tomatoes, pepper, zucchini...).

The experimental farm is also involved in regional and national networks with other institutes or research stations: ITAB [Technical Institute of Organic Farming], GRAB in Avignon [Group Research on Organic Agriculture], IBB and CERAFEL (Britain producer association), the CTIFL (French vegetable institute).

#### How it works

Participants are invited at three moments to visit the farm: 9.30 am, 10.30 am and 2.30 pm. A group of visitors (between 20 to 40 participants) is leading by the experimental farm manager or an adviser. All the experimental projects are presented during a succession of short workshops: the adviser presents the main results, the visitors could see the experimentation, touch the vegetable and the different equipment, and could ask questions. After the 2 hours tour the participants had a lunch and/or coffee and exchanges between them, partners, advisers... Then they could visit again the farm in a free time.

#### Event Farm and location

The event took place on the 18<sup>th</sup> of September in Auray.

http://www.bretagne.synagri.com/synagri/eve-18-septembre-2018---innovons-en-maraichage---auray

The innovations presented were:

- Tomatoes and beans mix cropping to avoid aphids and mites damage
- Organic fertilisation by alfalfa
- Movable greenhouse
- New varieties: tomatoes, pepper, zucchini

- Connected weather station Sencrop
- Experimentation to reduce pesticides Organic material: string, mulching...

#### Event Field Lab group

The group followed was composed by around 40 people: mix of farmers, students, advisers and equipment seller.

# 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-F<sub>2</sub>F partner who carried out the case study.
- 2. Interviews with representatives of programme/networks (level 1) and farm level interviews with demonstrators/hosts (Level 1) to reveal how the functional and structural characteristics enable learning. Analysis of these interviews is reported in Sections 3 and 4. Data for this case study report is sourced from one interview with a Programme interviewee in May 2018. The analysis followed 4 themes: (1) Coordinating effective recruitment of host farmers and participants, (2) Developing and coordinating appropriate interaction approaches, (3) Planning, designing and conducting appropriate demonstration processes,(4) Enabling learning appropriate to purpose, audience, context, (5) 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 6 pre and post demonstration surveys for participants, 2 pre and post surveys for the 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 and to discuss on key characteristics related to effectiveness of demonstrations. The workshop for the French case studies took place on the 9<sup>th</sup> of November, 2018.

# 3. Structural characteristics

#### T1: Programme/network level

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

The experimental farm is involved in regional and national networks with other institutes or research stations: ITAB [Technical Institute of Organic Farming], GRAB in Avignon [Group Research on Organic Agriculture], IBB and CERAFEL (Britain producer association), the CTIFL (French vegetable institute).

So we are rather involved in other organic networks, so with other organic research stations and via ITAB [Technical Institute of Organic Farming], so here we will say that it's better coordinated, I think, at the national level. So with other organic stations, the GRAB in Avignon [Group Research on Organic Agriculture], stations like this... Then, on the level of the region of Brittany, we have our networks, so IBB and CERAFEL, so we are members of two networks, so with Breton stations. And at the national level, we also have another network whose aim is to coordinate us, where we are very involved, the CTIFL, so... but they coordinate less and less... they work by theme, type of crops, so it's very precise, so there [ are working groups, for example on the tomato, eggplant, any type of crops, when we are in market gardening, by definition, we work mostly on these crops, so it's difficult to find our place there. And on the European level we work very little with other stations... a little with FIBEL in Switzerland. (Programme interviewee)

#### 2. The main actors involved in the demonstration activities and their roles

That would be me with the support from the communications department, in the end I do not know how precise I should be, but this is more or less it. So then, the themes on which I want to elaborate... it's me as well who will showcase certain themes. And who speaks, so it's me who speaks and my colleague JC, and since the regionalisation, we involve also our colleague SP from Saint-Paul de Léon who is also an adviser on market gardening. So that would be it for the chamber of agriculture. Then, there's a bunch of private partners with whom we work, whom I convince... I invite them to be present during this day, on such days it's comprised in the service delivery. This service comprises a test, a trial, and in the end, their presence at open doors. (Programme interviewee)

Q: When you say presence is that they present the results of the test? R: No, no, it's me who does it, they present their products. (Programme interviewee)

#### Host farmer

The case study refers to demonstration activities organised on an experimental farm/station. No host farmers are engaged in/related to this farm's activities.

#### Audience / type of participants

The programme addresses itself to the vegetable growers in Brittany. The interviewee shared the programme's potential, and ambition, to attract participants from neighbouring areas too. While, he noted that participants are targeted, no further criteria were shared except those referring to the scope of the activity (vegetable growers) and the regional focus.

Q: Who is your intended audience? R: So, market gardener, short circuit, diverse market gardeners from Brittany, or even the Big West [informal name for the western regions of France], we spread a little in the Big West. So the market gardeners who sell exclusively through short circuits, direct sale, so we are less focused on... on long circuits, but we still work for long circuit producers anyway, on certain topics... (And) Convert to organic, as well. (Programme interviewee)

Q: Are participants targeted in demo recruitment? R: Yes, they're always targeted. All market gardeners whom we can reach, so all market gardeners of the Big West. (Programme interviewee)

The programme relies mainly on electronic means to invite participants. Neutrality and direct contact with potential attendees seems to be important parameters of the programme's communication.

Q: And how are they invited? R: There's plenty of stuff. So we have: the email, letter, text. And then there's press so it's vaster, but individually it's going to be that and what's the most efficient in our opinion is texting. (Programme interviewee)

Q: Do you rely on private partners or networks, do you rely on them to communicate around the events you organise? R: No, very little, I only do it very little. I prefer to keep it neutral and independent from the communication. (Programme interviewee)

#### 3. Resources, finances and incentives

Q: What are the funding arrangements for your demo activities? R: Well, historically it was about the functioning of the station, so since a little while, the... we budget it as project development now. So it's rather recent, since 2 or 3 projects where the communication is a separate activity in itself, so we foresee in this case budget lines for communications. (Programme interviewee)

Q: And so these projects are funded how? R: There's a [monetary] envelope of the Regional Council who was our principal financer. There's also an envelope from FranceAgriMer [department of the French Ministry of Agriculture]. There's also an envelope of the Ecophyto programme [programme of the French Ministry of Agriculture aiming at reducing the use of phytosanitary products], so it comes from the APCA, through the APCA. And there's also CASDAR [French financing programme].....And some private funds also?? Some private funds, yeah. (Programme interviewee)

#### 4. Goal/ objectives

Q: What are the overall goals/objectives of the demo farm? How are these decided?

R: So the objectives are to deliver to the producers the results of trials implemented to study the situation during the current year. The second objective is to federate the producers for whom we work, so who are independent producers in Brittany, so their independence, well, ultimately, isolates them a little from each other, so it's kind of a good moment to discuss and to share, when they meet at our farm. Next, it's to involve private partners, in order to showcase as well and also to face producers, so this is another of our objectives. And then, during such events, it's also about selling our know-how and also to showcase our new projects, you know. (Programme interviewee)

Q: How are these goals decided? By whom and how? The employees and you from the station who decide...? How does it work? R: that would be me, I consider that the trials that we implement at our station are only interesting if at some point they also happen on the farm and if tomorrow they benefit the producers, so this is my principal objective and so all the events that we can organise at the station are connected, you see. (Programme interviewee)

The interviewee describes that demo events focus on a whole farm approach, with an experimental character. He would prefer though a mixture of experimental and exemplary approaches, in order to meet better the objectives of the demo events.

R: I fulfil my profession, it means that I implement experiments and it's thanks to these open doors that on the day when I give out the test results. the market gardeners will tell me that it doesn't necessarily fulfil their expectations. We can take an example of a crop variety that will give the best tomato yield, they will taste it during this open door, and they will tell me that no, the taste is not

sufficiently good to keep it, so I change my orientations towards a variety that will be less good in terms of yield, but tastier and I will know how to prevent such things from happening, so yeah... (Programme interviewee)

Overall the Programme interviewee describes the process followed as mainly top down. Nevertheless, he refers to practices and attempts to take into consideration the farmers' view in selecting topics and in organising demonstration activities. At the end, of the day, however, which experiments/trials will be selected, is a decision taken mainly by the farm manager.

Q: As an organisation, how would you describe your general approach to providing demonstration activities? R: Yeah, so, it's rather top down, we are supposed to have some advantage over them, so the things that we show here, we didn't necessarily... get feedback from them....so yeah, there's still dialogue, but yeah, it's rather top down. (Programme interviewee)

Q: Are host farmers involved in the development of the individual demonstration activities? R: Indirectly, yeah... I'm influenced a lot by their choices, I'm not alone in my...

Q: Are host farmers involved in the development of the overall demonstration programme? R: Yes, yes, yes. In which way, well... We choose priority topics, so yeah... the producers tell us about their priority trial topics, eh. Then, the means of living up to their request, we are completely free, but the priority topics and priority problems, it's them and we follow them on this. (Programme interviewee)

Q: How are demonstration topics selected? R: Well, I choose themes that... novelties that will... that will make more people come... more market gardeners, and when they're here, I transfer the message that we have to transfer. But I choose themes that... yeah, that will attract market gardeners. (Programme interviewee)

Q: How do you identify/select relevant topics that will interest farmers? (Prompt: do you involve hosts and/or participants in the selection?) R: I... indirectly yeah, but I invite them non directly, the market gardeners, but I know that, for example, right now, they come back to the themes, or questions, that we often have producers, everything that concerns novelties about biodegradable materials. So we've got questions about this, quite often, once per week we have a producer from Britany who calls us to ask whether there are any novelties. So knowing that I've been testing novelties for 2-3 years now, to see which are most adapted to our sector, our market, and here I chose is as a theme... and I try... try to pinpoint themes that... that they will like, in order for them to come. (Programme interviewee)

#### 5. Follow-up material and assessment processes

The programme shares follow-up material as a means to keep engaging with local/regional farmers.

Q: Are follow-up materials made available to participants after demos? R: YES, I only distribute the four pages that transformed in 8 pages this year, so it's just... so it's 8 pages where we find themes of the ongoing year, synthetic results from the previous year... it's a summary of what we do orally. But we invite them, this open door is means to see them and make them want to call us afterwards or come back to see us, so the objective is this, really, so in the dialogue, since we know that they're diversified, there are no two same market gardeners, they're all different in their practices, their commercialization circuits, and so I could never adapt my discourse to market gardeners, they're all different and so we invite them all the time to this open door, to come back to us, that's the message we try to get across. (Programme interviewee)

The Programme interviewee noted that there is not a structured procedure in place to request feedback from participants on the demonstration activities; however, he intends to start assessing demos in the near future. In the same line, there seems to be an indirect evaluation of the overall demo programme, as well as if participants have taken any action on the lessons of the demonstrations. Again, the interviewee underlines the

need to have a more structured approach in assessing those dimensions of the demo events. Finally, he seems to see out of the scope of the activities, and/or perhaps beyond his power to assess the influence these demo had on non-participants. Nevertheless, he tries to assess this issue through recurrent attendees and informal exchange/discussion with them.

Q: Do you request feedback from demo participants? R: No, I didn't do it before, but I'll do it this year. Quick satisfaction, you see. (Programme interviewee)

Q: Do you evaluate the demonstration activities overall? R: Yes, If my objective is for the station to be regional, then I evaluate the success of my open door with the participation of market gardeners from other departments than 56, and so last year we had more producers from 35 and 29 than from 56 so I estimate that my regional reach... somehow when we travel for 2,5h... it means that we knew how to sell it, and if people additionally come back the year after... yeah, it's like this that I evaluate. (Programme interviewee)

Q: Do you assess if participants have engaged with/acted on the lessons of the demonstrations? R: With some yes, for two reasons: some people come for the meal and dialogue, they're also happy to have seen... but in fact they mostly come to talk with others. Others have come for a precise topic and to have results, and we know this, they don't leave before they have minutes of a given trial. And then there are others who express themselves less... so we consider that... it's for this reason that we want to implement a system of assessment. (Programme interviewee)

Q: Do you try to assess the extent of influence (diffusion) from your demonstration programme(s) to non-participants (those who have not attended demo events)? R: The only feedback I had was from people who did not come, but I think that we can't get more than that, it's the disappointment because they couldn't be there, so clearly, we have an elected member for example, in the domain of vegs, Jean-Luc Moulin, who'd come with a group last year, of market gardeners from Saint Malo, he has come with 4 or 5 market gardeners, and then afterwards he told me "I am disappointed, the 4 people who have come, talked about it to loads of people" and he told me "I should've brought more people with me, it would be interesting to many people" so this year normally he comes back with a bigger group.... but those who don't come because they don't feel like it, I imagine that they don't tell me that, I don't see those people. (Programme interviewee)

#### T2: Farm (event) level

#### 1. The farm, the topic and the practices demonstrated

The demonstration event took place on the 18<sup>th</sup> of September in Auray. It is reminded that the event was on an experimental farm/station, so no host farmer was related to the event.

*Topics:* The following topics were presented during the event (background info):

- Tomatoes and beans mix cropping to avoid aphids and mites damage
- Organic fertilisation by alfalfa
- Movable greenhouse
- New varieties: tomatoes, pepper, zucchini
- Connected weather station Sencrop
- Experimentation to reduce pesticides
- Organic material: string, mulching...
- Equipment demo Toutilo
- Robot demo

#### 2. Group size and characteristics

Overall some 100 participants participated in the event. Participants were ranging from 20-40 in different groups and time slots. The observer followed a group of 36 people composed by mainly farmers but also

students, advisers and equipment sellers. Six of them filled a questionnaire before and after the event (observation tool + pre and post event participants).

Interviewed participants did not pay any attendance fee and were not compensated for their participation (post event participants).

Two out of three interviewed participants, felt that the group size was not the ideal one (post event participants). While participants were well known to demonstrators they did not seem to know very well each other. Thus, lunch time, as a more informal set-up, apparently offered opportunities for free discussion and exchanges among participants.

Travel time to reach the demo farm ranged between 60 and 90 minutes, with an average travel time of 75 minutes. Participants assessed that it took them an average effort to attend the event.

#### 3. Size and design

There were three different time slots predefined in which participants would by guided through a tour on the experimental vegetable farm. Different stops were planned in that guided tour, on the abovementioned topics, not strongly linked to each other but ranging from organic agriculture to the use of robots. The group was guided by an adviser and the farm manager who was acting also as a facilitator.

More specifically, during the farm tour demonstrators were presenting the results of single trials (with no comparative layout). Each topic and experimentation was linked with environmental sustainability (pesticides reduction, fertiliser spreading, etc.).

Furthermore, there were demonstrators focusing on equipment, machines and infrastructure that could be of interest to vegetable growers. Participants could see, touch and discuss on these new tools/equipment but could not use or test them (there were no hands-on activities scheduled).

For each topic presented, the demonstrator asked if participants knew the technics followed or equipment showcased. Moreover, the economics of every experimentation, were analysed and presented to the farmers-participants. Each presentation stop/topic was followed by a formal Q&A session. Interviewed participants felt that there were opportunities offered to get actively involved in the event mainly by sharing their own knowledge (i.e. their own farm situation) and less by sharing their own point of view. Still, all of them noted that the demonstrators encouraged participants to ask questions and engage into discussions (post event participants). A less formal discussion was held among participants in smaller groups during lunch.

The farm manager felt that there was a whole farm approach throughout the event (post event demonstrator1) and while, as noted earlier, the observer did not trace any strong links between topics, he also indicated a clear connection of all topics to sustainable agriculture practices and management. A mixed feeling on that was also shared by interviewed participants.

Demonstrators commented that the demo farm was appropriate and well suited for the event (post event demonstrators) a view equally shared by all interviewed participants (post event participants). The structure of the event gave participants opportunities to get involved in the process, mainly though through asking questions as well with presenting their own on farm situation and point of view (post event demonstrators).

Finally, dissemination material was shared with participants (no details on which topics/equipment, who was responsible for preparing these, etc.). No reference was made to follow-up activities, which is probably connected to the fact that this is a yearly planned event (still follow-up activities could be of interest in such cases).

But we invite them, this open door is means to see them and make them want to call us afterwards or come back to see us, so the objective is this, really, so in the dialogue, since we know that they're diversified, there are no two same market gardeners, they're all different in their practices, their commercialization circuits, and so I could never adapt my discourse to market gardeners, they're all different and so we invite them all the time to this open door, to come back to us, that's the message we try to get across (Programme interviewee)

# 4. Functional characteristics

#### T1: Coordinating effective recruitment of host farmers and participants

#### 1. Incentives

Funding came from a mixture of sources; the principle funder was the Regional Council, with additional funding from the French Ministry of Agriculture and other national financing programmes (Ecophyto, CASDAR). There were also some private benefactors. Host farmers were not paid.

[And so these projects are funded how?] There's a [monetary] envelope of the Regional Council who was our principal financer. There's also an envelope from FranceAgriMer [department of the French Ministry of Agriculture]. There's also an envelope of the Ecophyto programme [programme of the French Ministry of Agriculture aiming at reducing the use of phytosanitary products], so it comes from the APCA, through the APCA. And there's also CASDAR [French financing programme]. [And some private funds also...] Some private funds, yeah... (Programme interviewee)

#### 2. Motivations for host farmers

According to the Programme interviewee, the main motivator for host farmers was the opportunity to be involved with innovations in agriculture, such as robotics.

Here we can take a concrete example of robotics, [...] so the objective of our open doors is to have robotics demos... we measure the temperature, see how they imagine the future with innovations like this, with new equipment (Programme interviewee)

It is a certain recognition of his peers, and networks of agricultural development (Programme interviewee)

#### 3. Motivations for participants

Similarly, participating farmers were motivated by the opportunity to see demos of new equipment. The Programme interviewee also commented on the social aspect of the day; by sharing lunch, a feeling of conviviality is created amongst participants.

Hmm, the demos of equipment [...] And another thing also, I suppose... so we offer a meal on that day for example... with vegs grown at the station and so varieties that are being tested by the station, and this meal brings about the feeling of conviviality, and I think that people come back for this too (Programme interviewee)

Participants' main reasons to attend the demonstration were: to improve my work; learn new technics; results of experiments.

#### 4. Target audience

The programme mainly targeted market gardeners from Brittany who sell through short supply chains. However they did extend their audience to farms further across the western region of France, and to long supply chain producers on certain occasions.

So, market gardener, short circuit, diverse market gardeners from Brittany, or even the Big West [informal name for the western regions of France], we spread a little in the Big West. So the market gardeners who sell exclusively through short circuits, direct sale, so we are less focused on... on long circuits, but we still work for long circuit producers anyway, on certain topics. [Convert the organic?] Convert the organic farmers, both (Programme interviewee)

#### 5. Advertising and recruitment

The programme sends invitations via letter, text or email to all the market gardeners that they have contact details for. They also put adverts in the press to reach a wider audience. The Programme interviewee considered texting to be the most efficient form of communication.

Yes, they're always targeted. All market gardeners whom we can reach, so all market gardeners of the Big West. [And how are they invited?] There's plenty of stuff. So we have: the email, letter, text. And then there's press so it's vaster, but individually it's going to be that and what's the most efficient in our opinion is texting (Programme interviewee)

#### T2: Appropriate demonstration and interaction approaches

#### 1. The nature of interaction

The Programme interviewee described the nature of interaction as Mostly top-down. The programme leaders had a decisive role and did not necessarily receive feedback on the demos from the farmers.

Yeah, so, it's rather top down, we are supposed to have some advantage over them, so the things that we show here, we didn't necessarily... get feedback from them. (Programme interviewee)

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

Host farmers made suggestions to the programme regarding their priority topics, but the programme decided in what way they will cover these topics in the demos.

Yes, yes, yes. In which way, well... We choose priority topics, so yeah... the producers tell us about their priority trial topics, eh. Then, the means of living up to their request, we are completely free, but the priority topics and priority problems, it's them and we follow them on this. (Programme interviewee)

There was no official process for involving host farmers in individual demonstrations, however they were indirectly involved as their behaviour and choices influenced the Programme interviewee.

Indirectly, yeah... I'm influenced a lot by their choices. (Programme interviewee)

#### 3. Involving farmers in the learning process and the demonstration programme

Host farmers made suggestions to the programme regarding their priority topics, but the programme decided in what way they will cover these topics in the demos.

Yes, yes, yes. In which way, well... We choose priority topics, so yeah... the producers tell us about their priority trial topics, eh. Then, the means of living up to their request, we are completely free, but the priority topics and priority problems, it's them and we follow them on this. (Programme interviewee)

There was no official process for involving host farmers in individual demonstrations, however they were indirectly involved as their behaviour and choices influenced the Programme interviewee.

Indirectly, yeah... I'm influenced a lot by their choices. (Programme interviewee)

#### 4. Focus

The Programme interviewee described the network as 'whole farm', as opposed to 'single focus' in its approach.

#### 5. Design

The Programme interviewee described the network as 'experimental', but expressed a preference for 'a mixture' between experimental and exemplary because with experimental there is a risk of showing something that is not relevant to the producers, or will not fulfil their expectations.

Well me... I suppose... I fulfil my profession, it means that I implement experiments and it's thanks to these open door that on the day when I give out the test results... the market gardeners will tell me that... that it doesn't necessarily fulfil their expectations (Programme interviewee)

#### 6. Ideal group size

The Programme interviewee considered 20-30 people to be the optimum group size, flagging up several issues with larger group sizes, such as a struggle to be heard or to appropriately adapt to the audience.

That's a good question, because last year we had around 100 participants... so the first group I took was 80ppl and it was really hard with 80, one doesn't express oneself that much as compared to when we're not many people, because I had to speak louder because of the hubbub so I think that some... there were annex groups that have formed, it was more complicated, I think that it should be 20-30 per group. So for the next open door, we multiply the number of departures [for a visit], we are equipped in megaphones also that we didn't... didn't necessarily have... we didn't need it before. And so 20 to 30 in order to leave space for dialogue. And then see who we have in front of us also. So last year I couldn't adapt to my audience for this reason as well. (Programme interviewee)

#### T3: Enabling learning appropriate to purpose, audience, context

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

The Programme interviewee felt it was preferable to be outside for the entire day, although in the colder months they make use of indoor spaces as well.

Well, for me they come to the station not to be in a room, but to be outside, so I assume that we should be 100% outside. Sessions already took place, but later in the season, in October-November, where we can be in a room. (Programme interviewee)

The Programme interviewee cited Participants ask questions & talk openly as the most important tool for engaging people on the day, and seemed to suggest that while experts are important, it is important that farmers are able to talk about what they are seeing.

#### 2. Taking into account variation in learning

The Programme interviewee felt there was an effort to take into account variations in learning, by presenting in an accessible manner and encouraging dialogue with the participants. When students of farm management came to the farm, a higher level of prior knowledge was assumed and demos were adapted accordingly. There was no mention of specific learning styles being considered.

I always try to pronounce myself in an accessible manner, so I always start at the problematic, so there's dialogue anyway, the producers can ask questions if ever... but my principle is that I've got market gardeners in front of me... And then, the second profile that we still have, we didn't talk about it yet, it's the BPREA [studies to become a person in charge of an agricultural farm], so we have

around 40 interns trained each year, who come to the station, so they're present at open doors, so I don't adapt myself to them, because I know that they've had a year of training and we go further when we visit the station. (Programme interviewee)

#### T4: Effective follow-up activities

#### 1. Follow-up activities and materials

The programme followed up participants within the scope of the 4-5 year projects.

Yes, since we're on long-term projects each time, 4-5yrs, there's obviously follow-up. (Programme interviewee)

In terms of follow-up material, the programme produced a printed summary of the year, both results from experiments and the content of demo days.

The four pages that transformed in 8pg this year, so it's just... so it's 8pg where we find themes of the ongoing year, synthetic results from the previous year... it's a summary of what we do orally. (Programme interviewee)

#### 2. Assessing impact

The Programme interviewee expressed a desire to implement a system of assessing impact of the demonstrations days, as there were clearly a variety of responses amongst participants.

With some yes, for two reasons: some people come for the meal and dialogue, they're also happy to have seen... but in fact they mostly come to talk with others. Others have come for a precise topic and to have results, and we know this, they don't leave before they have minutes of a given trial. And then there are others who express themselves less... so we consider that... it's for this reason that we want to implement a system of assessment. (Programme interviewee)

The programme had no formal procedure for assessing the impact amongst the wider farming community, although the Programme interviewee felt there was space for this.

The only feedback I had had was from people who did not come, but I think that we can't get more than that, [...] And then I've got market gardeners who excuse themselves for not being there, so it always goes in this direction, the disappointment because one couldn't be there or an excuse, because of too much work etc... But those who don't come because they don't feel like it, I imagine that they don't tell me that, I don't see those people. (Programme interviewee)

# 5. Event analysis: effective peer learning characteristics

#### **Event details**

The group consisted of about 36 participants and 6 of them filled in the pre and post survey.

	n° survey participants	Vegetable farmer	Organic vegetable farmer
occupations	6	4	2
working area	6		
local area not local area	4 2	2 2	2
gender	6		
male	5	3	2
female	1	1	
age	6		
18-30			
31-40	3	1	2
41-50	1	1	
51-60	2	2	
60+			

#### T1: Learning processes

#### 1. Communication initiation by participants

In the whole group almost 30% of the farmers explained what they did on their own farms. The participants were never put into smaller groups on purpose. There was some time for questions after each topic there was a moment to ask questions. After each topic, there were about 5 to 10 questions. There were a few participants trying to formulate their own points of view regarding the topic.

		part	icipar	nt ans	swers
	strongly disagreed	disagreed	agreed	strongly agreed	not applicable
I had the feeling that I could share my own knowledge as relevant information.	0	0	6/6	0	0
I asked at least one question during the demonstration.	6/6 yes				
I shared my own point of view at least once during the demonstration.	6/6 yes				
I felt encouraged to ask questions during the demonstration.	0	2/6	4/6	0	0
When there were any discussions, I felt comfortable sharing my opinion.	0	0	6/6	0	0

	demonstrator answers				
	strongly disagreed	disagreed	agreed	strongly agreed	not applicable
l asked participants to share some of their own background knowledge during the demo.	0	0	1/2	1/2	0
		<b>'</b>			
l encouraged the participants to formulate their own point of view during the demonstration.	0	1/2	0	1/2	0
l encouraged the participants to formulate questions during the demonstration.	0	0	1/2	1/2	0

### 2. Interactive knowledge creation

#### Hands-on opportunities and other multisensorial experiences

There was not really a planned multisensory experience initiated for participants, nor was there a planned hands-on experience. Participants couldn't test the new equipment but they could touch it.

#### Discussion opportunities and negotiating conflicting points of view

The demonstrator was also the facilitator. Open discussions between a few participants were stimulated, mostly during lunch.

	participant answers					
	strongly disagreed	disagreed	agreed	strongly agreed	not applicable	
In my opinion, there were interesting discussions during the demonstration.	0	0	4/6	2/6	0	
If participants didn't agree with each other during discussions, somebody (demonstrator/other participant) tried to reach a consensus between them.	0	0	2/2	0	0	

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

# 3. Engagement during the event

Participants act more distant then open. They didn't know each other, some of them came in a small group but during lunch, there were unstructured discussions and exchanges.

	participant answers					
	strongly disagreed	disagreed	agreed	strongly agreed	not applicable	
I <b>felt actively involved</b> during the whole demonstration process.	0	0	4/6	2/6	0	
I felt like the demonstration increased my ability to rely on myself as a farmer.	0	0	4/4	0	0	
I could relate well to other participants (because they have an agricultural background similar to mine).	0	0	2/4	2/4	0	
A lot of the other participants are part of the same farmer network as me.	0	2/4	0	2/4	0	
I felt like I could trust the knowledge of (most of) the other participants.	0	2/6	0	4/6	0	
The demonstration <b>felt like an informal activity</b> to me.	0	0	2/2	0	0	
I thought the host farm was comparable enough to my own farm.	2/6	4/6	0	0	0	
I had the feeling the demonstrator was like one of us.	2/6	4/6	0	0	0	
I had the feeling I could trust the demonstrators knowledge.	0	2/6	2/6	2/6	0	
got along very well with the demonstrator.	0	0	2/6	4/6	0	

	demonstrator answers						
	strongly disagreec	disagreed	agreec	strongly agreed	not applicable		
Were participants (farmers, advisers, researchers etc.) involved in the overall development of this demonstration?	only for questions						
Most of the participants were well known to me.	0	0	2/2	0	0		
A lot of the participants are part of the same network as me.	0	1/2	1/2	0	0		
The demonstration felt like an informal activity to me.	0	0	1/1	0	0		
I think the <b>host farm</b> was <b>well suited</b> for this demo.	0	0	0	2/2	0		
I got along well with the participants.	0	0	1/2	1/2	0		

#### T2: Learning outcomes

Explained knowledge was sufficiently understandable but it was not a training session. It had the aim to present results of projects.

	participant answers					
What would you <b>ideally</b> <b>like to learn</b> today?	robots, new greenhouse and new equipment; learn new technics; exchanges of knowledge					
	strongly disagreed	disagreed	agreed	strongly agreed	not applicable	
The demonstration met my expectations regarding what I wanted to learn.	0	0	6/6	0	0	
The demonstration exceeded my expectations.	0	4/4	0	0	0	
I felt surprised at some point(s) during the demonstration.	0	2/6	4/6	0	0	
I obtained a clearer understanding of the topic(s) demonstrated.	0	2/6	4/6	0	0	
I have the feeling I learned something new (knowledge, skill, practice, etc.).	0	0	6/6	0	0	
I thought about how I could implement some of the ideas and practices on my own farm.	0	0	4/6	2/6	0	
I reflected on my own point of view at some point during the demonstration.	0	0	2/6	4/6	0	
I learnt about the principles underlying a practice.	0	0	4/4	0	0	
I thought about <b>how</b> we <b>learn something new</b> on demonstrations (e.g.: teaching methods).	0	0	2/2	0	0	
I thought about why I want to learn about the topic(s) of this demonstration.	0	0	2/2	0	0	

	demonstrator answers						
what do you <b>intend for the particpants to learn</b> today?	Sustainable technics and best practices; equipment utility and interest.						
	strongly disagreed	disagreed	agreed	strongly agreed	not applicable		
I think participants have learnt what I intended them to learn.	0	0	2/2	0	0		
I tried to <b>surprise</b> participants with uncommon/new knowledge/new skill.	0	0	2/2	0	0		
I felt surprised at some point(s) myself during the demonstration (e.g. by a question or discussion).	1/2	1/2	0	0	0		
I obtained a clearer understanding of the topic(s) myself.	0	0	2/2	0	0		
I have the feeling I learned something new during this demo (from participants, discussion).	0	1/2	1/2	0	0		
I reflected on my own point of view myself at some point during the demo.	0	0	1/2	1/2	0		
I encouraged participants to reflect on their own point of view during this demo.	0	0	1/2	1/2	0		
I encouraged participants to reflect on their own situation sometime during this demo.	0	0	0	2/2	0		
I encouraged participants to reflect on how we learn something new on demonstrations.	1/2	0	1/2	0	0		
I encouraged participants to reflect on why we are trying to learn about the topic of this demonstration	1/2	0	1/2	0	0		

#### T3: Overall comments on the effectiveness of the event

#### Participants:

With an average of 4 on 5, participants rated the event overall as effective. 6 on 6 participants who answered the questions would recommend the demonstration.

Participants didn't mention any specific effective characteristics of the demo or suggestion on how to improve the demo.

#### Demonstrators:

Demonstrators mentioned as effective characteristics of the demo: the quality of demonstration and the scientific protocol.

As suggestions for improvement they mentioned: 'solution to capture farmers needs' and 'improve interactive communication.'