

A reflection on monitoring and evaluation of peer-to-peer learning in on-farm and virtual demonstration events

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Introduction

On-farm demonstration events are used as a peer-to-peer learning approach (Cooreman et al., 2018) to reach agricultural objectives such as technology adoption, farm practice change, capacity enhancement and shifting to sustainable farming systems (Ingram et al., 2018). In H2020 project NEFERTITI¹, a network of demonstration hubs is set up to facilitate knowledge exchange between agricultural actors, boost innovation uptake and improve peer-to-peer learning with the goal to contribute to a more competitive, sustainable and climate-smart agriculture in Europe. Thematic demonstration networks are set up around 10 innovation areas, each consisting of 4 or 5 regional demonstration hubs, totalling 45 hubs in 17 European countries.

Monitoring and evaluation of peer-to-peer learning

Next to organising demonstration events, a key focus in NEFERTITI is also to assess peer-to-peer learning processes during on-farm demonstration events. In NEFERTITI, a reflexive monitoring and evaluation (M&E) method was developed to assess peer-to-peer learning processes. This M&E approach serves two main objectives: (i) increasing the capacity for self-assessment and help hubs and networks to improve their demo activities reach their objectives; (ii) collect and report information on what has happened in each hub, what hubs, networks and the wider AKIS (Agricultural Knowledge and Innovation System) have learned..

Virtual demonstration events

In 2020, many demonstration events were organised virtually due to the COVID-19 pandemic. Although virtual demonstrations have been mentioned as a promising way to reach underrepresented groups (Sutherland et al., 2020) or as an enriching, innovative pedagogic method (Dockès et al., 2019), there has been very little literature elaborating and reflecting on the potential of virtual demonstration events. Therefore, we have added the assessment of peer-to-peer learning during *virtual* demonstration events to our M&E focus in NEFERTITI. With this paper, we aim to reflect on M&E of peer-to-peer learning in both on-farm and virtual demonstration events.

Methodology

To carry out M&E of demonstration activities, a set of M&E tools and guidelines was developed. Four practical tools were provided to assist in preparing and carrying out the M&E:

¹ Networking European Farms to Enhance Cross Fertilisation and Innovation Uptake Through demonstration

the hub M&E journal, a checklist, a participant survey and a method for team reflection. Triste et al. (2019) provide a more in-depth description of the M&E approach in NEFERTITI.

We analysed filled-in M&E Journals at the end of the demo-years 2019 (267 events organised) and 2020 (126 on-farm events and 107 virtual events organised), structuring lessons learned along the six steps in designing an on-farm demo event, as suggested by the FarmDemo² guide (FarmDemo, n.d.): 1) Objectives & target group; 2) Demonstration farm; 3) Demo set-up; 4) Promotion; 5) Learning & facilitating; and 6) Evaluation & follow-up. For the demo year 2020, we added lessons learned specifically on virtual demonstration events. Additionally, we organised interactive sessions with all 10 thematic networks reflecting on peer-to-peer learning and organisation of demonstration events.

Results

In this section, we describe three overarching topics to reflect of peer-to-peer learning in on-farm and virtual demonstration events: 1) difficulty of measuring impact of demonstration events; 2) the need to improve reflexive skills of hub coaches; and 3) a reflection on virtual demonstration events.

Difficulty of measuring impact of demonstration events

Firstly, measuring the impact of peer-to-peer learning and demonstration networks has proven to be a difficult task. Demonstration events and peer-to-peer knowledge exchanges do not happen in isolation of their AKIS environments or within discrete timeframes, making it difficult to measure the impact of a single event over time and within a broader system. Short surveys or exit polls were used to get indications of impact. Virtual demos allow measuring impact in new ways, e.g. by recording and sharing events or tracing impact via shares, but simultaneously come with the challenge of missing non-verbal and informal feedback.

The need to improve reflexive skills of hub coaches

Secondly, there is a need to improve hub leaders' reflexive skills and the facilitation of farmer-to-farmer learning. The M&E tools in NEFERTITI were designed by social scientists with experience in facilitation and reflexive thinking. This approach did not necessarily align with experiences of hub leaders who are often non-social scientists with different formative education or training. This is reflected in the fact that despite being connected through the thematic topics, most reported lessons learned from participating in the networks were related to soft skills in network management, facilitation of farmer groups and the organisation of demonstrations. Networks also referred more specifically to having learned concrete facilitation methods and tools used or developed in the project (e.g., storyboards, icebreakers, facilitation tools, guidelines on virtual demonstrations). Virtual demonstrations require more upfront preparation and usually have a clearer focus compared to on-farm events, which facilitates hub coaches in improving their skills. Moreover, virtual demos can be more inclusive (e.g. for women farmers, small farmers, actors living in remote areas) because virtual demos are not place bound, therefore allowing more flexibility to attend the event.

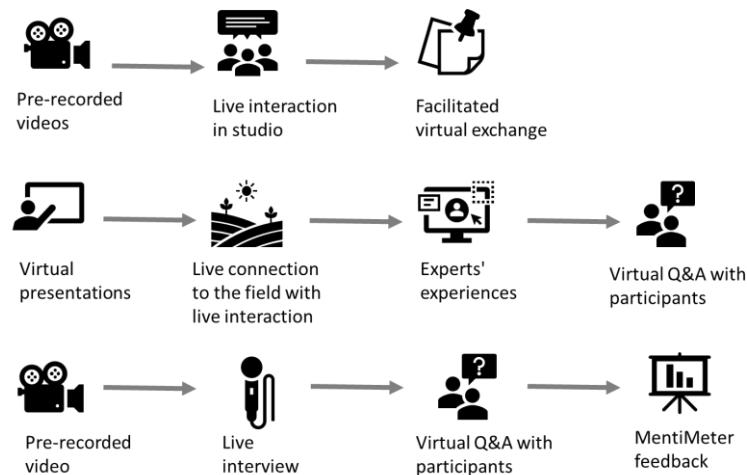
A reflection on virtual demonstration events

Finally, the COVID-19 crisis necessitated conversion from on-farm to on-line events, requiring peer-to-peer and multi-actor interactions to often be confined to virtual channels. Overall, hub

² PLAID, Agridemo-F2F and NEFERTITI are 3 FarmDemo projects that received funding from the European Union's Horizon 2020 research and innovation programme under grant agreements N°727388 (PLAID), N°728061 (Agridemo-F2F), and N°772705 (NEFERTITI).

coaches were still able to organise good demonstration events. Hurdles to organise virtual demonstrations relate mostly to technicalities (e.g. connectivity issues, failing technology, lacking IT knowledge) and knowledge exchange (how to engage people in a virtual setting, how to foster interaction). Interestingly, we found that many demonstration events took on a hybrid form, mixing both virtual and live elements. Figure 1 provides examples of hybrid demonstration events. The involvement of farmers to create their own virtual material (e.g. a video about their practices) can be a way to foster active participation during the event.

Figure 1. Hybrid forms of demonstration events, with both live and virtual elements.



Discussion and conclusions

In this extended abstract, we described three reflections on M&E of peer-to-peer exchange in on-farm and virtual demonstration events. Because our findings are rooted in reflections of real-life demonstration events, they are highly applicable for other demonstration organisers. Furthermore, our elaboration on virtual demonstration events contributes to the literature on the potential of virtual demonstrations and is particularly relevant during this time where many countries still restrict or prohibit group events to take place.

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