



On-Farm Demonstration in Europe

Findings from national inventories

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Key Messages

1. Demonstration events are well-accepted by farmers, advisors, researchers and agricultural industry members as valuable opportunities for knowledge exchange and learning about innovations. Farmers also value demonstration events as occasions to share experiences and to establish and strengthen social relationships.
2. The prevalence of on-farm demonstration directly relates to the availability of publicly-funded agricultural advisory services. Demonstration activities are declining in most Southern European countries, mainly due to the reduced funding and to the reduction or disappearance of public advisory services. Making demonstration part of AKIS (Agricultural Knowledge and Innovation Systems) plans in the new CAP program could help address this gap.
3. There is a clear demand for more organised and long-term on-farm demonstration, especially where agriculture is regionally based (Italy and France), where farmer networks are generally weak (much of Eastern Europe), and at the EU scale. Agricultural advisors are often the key stakeholders that bring together multiple actors to put on a demonstration event.
4. Organisers of on-farm demonstration (e.g. public, private and charitably-funded advisors, farmers, researchers) would benefit from opportunities to network across regions and countries in Europe.
5. Increased farmer involvement in leading demonstration activities could be achieved by making funding directly available to them for this purpose. Farmer-led demonstration should be supported not only in terms of funding but also in terms of methods and training.
6. Highly-educated farmers are more likely to participate in demonstrations. Agricultural education thus appears to lead to a culture of 'lifelong learning' and innovativeness amongst farmers.
7. New strategies for on-farm demonstration activities to reach currently under-represented groups, such as young farmers, women, farmers in remote regions, and farmers involved in highly specialized production, should be considered.
8. There are opportunities to increase the quality of on-farm demonstration, through promoting best practice and establishing guidelines for evaluation of success. For example, organic farming could be used as a "best practice example" in terms of high levels of farmer-led demonstration, and demonstration of whole farm approaches.
9. Improving access to on-farm demonstration could be achieved through identification of demonstration as desirable outputs from EIP Agri research projects, Thematic Networks and Operational Groups. Integrating the Multi-Actor Approach (whereby farmers, industry stakeholders, advisors and researchers are incentivised to work together to address specific problems) at national level would increase the quality of demonstration activities.
10. New digital tools and social media can help in notification of demonstration events and dissemination of key outputs, in addition to facilitating contact and continued exchange after the events. Opportune use of technologies and new digital platforms (e.g. the PLAID 'Virtual Farm') is important to supplement access to innovation but should not replace face to face interactions.
11. Although peer-to-peer learning and knowledge exchange is powerful and important, there is still a need for traditional, linear knowledge transfer in some circumstances.

Introduction

The H2020 PLAID project, in collaboration with AgriDemo-F2F (jointly branded 'FarmDemo') has produced an inventory of on-farm demonstration across Europe. Consortium members and sub-contractors identified trends in on-farm demonstration in the EU 28, Norway, Serbia and Switzerland. This document summarizes findings from across Europe, focusing particularly on distinctions between three 'supra-regions':

- Northern Europe: Belgium, Denmark, Finland, France, Germany, Ireland, the Netherlands, Norway, Sweden, Switzerland, and the UK
- Eastern Europe: Croatia, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Serbia, Slovakia
- Southern Europe: Austria, Bulgaria, Cyprus, Greece, Italy, Malta, Portugal, Slovenia, Spain

Findings in this report are based on the country reports on demonstration farming in each country and three 'supra-regional workshops', held in Venice, Italy; Krakow Poland, and Leuven, Belgium in February/March 2018. The country reports also integrated observations by consortium members and sub-contractors during the process of enrolling farmers and organisations involved in demonstration into the inventory database. Although over 1,200 entries were in the inventory at the time of reporting, we do not see these entries as representative of all on-farm demonstration in Europe. However, the inventory and associated reports represent the first substantive dataset on demonstration on European farms and are useful for identifying themes and distinctions between countries and regions.

A searchable map of demonstration farms across Europe is now available through the FarmDemo Hub. To see the inventory or enter new farms in the database, go to: <https://farmdemo.eu/hub/>

Demonstration Topics

The main topics of demonstrations in all of the countries are related to improving production (i.e. animal husbandry and crop-related issues). In general, there is more focus on technological innovation than on whole farm approaches. Technical aspects are also easier to demonstrate in a physical setting (e.g. outdoors or agricultural sheds). Within regions, the most common topics typically reflected the dominant commodities produced in that region (e.g. in an arable cropping region, arable cropping topics are most common).

Topics with an environmental focus also occur through Europe, but are more common in Northern Europe. The economic utility of environmental actions is typically identified in the demonstration process to convince farmers of the feasibility of these actions. The social learning environment underpinning demonstration fosters development of social capital between farmers, advisors and researchers, but this is not usually the primary focus of demonstration activities.

Demonstrations are disproportionately likely to occur on organic farms. Demonstrations on organic farms are more

likely to be based on whole farm systems (consistent with organic farming ethos), are more likely to be farmer-led, and are more oriented towards community values and the impact on the whole community than demonstrations on conventional farms.

Topics like farm succession are not usually the subject of demonstration, nor are topics relating to broader farm business management, and aspects of production where logistics prevent demonstration (e.g. risk of spreading livestock disease).

A range of different actors are involved in demonstration organisation and implementation. Different types of organiser have different priority topics. Farmer-led demonstrations tend to focus on production systems, whereas organisation or company-led demonstrations focus on specific techniques or inputs, and research-led demonstrations focus more on resilience and sustainability issues. However, all three types of organiser engage across all these topic areas.

Input suppliers (e.g. machinery dealers, fertiliser or seed providers) throughout the 20th and 21st centuries have utilised on-farm demonstration as a means of promoting their products. Food chain driven topics appear to be the most recent form of demonstration (e.g. purchaser or collectors set up demonstration activities to advise farmers on how to produce the product characteristics they intend to buy, for example specific wheat varieties or new crops).

History of on-farm demonstration

The roots of farming demonstration in Europe extend back at least 250 years, to a pioneering farmer and model farmer in Switzerland in 1763. Professional exchange and model farms continued to emerge through the 19th century in the British Isles, France, Germany, Belgium, the Netherlands, Austria, Italy, Latvia, Estonia, and the Czech Republic. These demonstrations were primarily led by large-scale farmers and farming organisations. In Lithuania, Slovakia, Croatia, and Hungary research stations started demonstrations in the 19th or the beginning of the 20th century. Demonstration emerged in Scandinavia in the first half of the 20th century; this was supported primarily through research institutions.

Modern understanding of farm demonstrations and how they are put into practice has evolved throughout the 20th century. In many cases, demonstrations have developed in parallel with the formal agricultural education system. This is particularly true of post-Socialist countries, where the period of collectivization had a great influence on demonstration activities, which were primarily organised by state-funded research stations.

In the latter half of the 20th century, the emergence of big commercial farms and market entrance of large supply companies for seeds, machinery, fertilisers and pesticides had a significant influence on the demonstration landscape. This effect was realised later for post-Socialist countries (i.e. post 1990), but was particularly significant, often involving cross border activities (i.e. companies from Western Europe organising demonstrations in Eastern Europe in to promote their products).

Portugal, Spain and Slovenia reported their first organized demonstration activities in the late 1970s to beginning of 1980s. These countries therefore have a relatively short history of on-farm demonstration.

For many countries the 1990's became a turning point regarding the implementation of demonstration activities. In Bulgaria, like in many countries of Eastern Europe, the main reason was the structural economic and political change, especially the reorganisation of land holding and the restoration of the private property rights. In Italy, Greece and Slovenia a significant decline of demonstration activities has occurred in recent decades, due mostly to limited public support. By contrast, Austria has seen an increase in demonstration in recent years. In Portugal, meanwhile, technical support for agricultural development became a function of many co-operatives and farmers' associations, with a high degree of fragmentation and dispersion; the exception being the existence of networks or some form of articulation and coordination between them in specific topics.

A common point reported by many countries is that farm demonstration activities gained a new dynamic with the emergence of organic farming (from the 1940s in Western Europe and the 1990s in Eastern Europe).

Demonstration Provision

There are a wide range of demonstration providers currently working in Europe: public, private and charitably-funded agricultural advisors, research institutes, higher education institutions, commercial companies, farmer organisations and farmers themselves. It is common for several of these actors to work together to put on demonstration in Northern Europe, but in Southern Europe demonstrations are more commonly led by a single organisation.

The primary organisers of demonstration vary by country, strongly reflecting the availability of state-funded agricultural advisory services. In general, advisory services play an important role in the organisation of demonstrations in Northern and Eastern Europe. In countries without a strong advisory system (including much of Southern Europe), this role is often taken by research institutes. Demonstration provided by research institutions is incentivized (in part) by the requirement to demonstrate the impact on European Commission funded projects.

Where available, advisory services bring together multiple types of actor to put on a demonstration activity. However, there remains considerable fragmentation in demonstration provision, particularly in larger countries (i.e. there are no overarching networks than integrate the demonstrations available). The role of commercial companies (i.e. companies undertaking demonstration with the purpose of selling their products) is increasing.

Farmers play an important role in organising demonstrations across Europe. To establish a demonstration activity, organisers must collaborate with the host farmer. Farmer-led demonstration is much more common in some countries (Belgium, the Czech Republic, England (UK), Finland, Germany, Norway, Romania, and Sweden).

A standard set of demonstration methods are used, including

different combinations of: presentations and discussions, demonstrations of products and/or processes, farm tours and field walks, field trials, and provision of printed literature. New options for 'virtual demonstration' using videos are being pilot tested in the PLAID Virtual Farm; videos demonstrating new innovations are also available on-line. At an individual demonstration level, events vary by location, size, temporal access, target audience, approach to implementation and demonstration topic. Most demonstrations are provided free of charge to participants.

Funding for demonstrations is primarily linked to demonstration providers, who in turn receive their funding from a variety of sources (e.g. government, farmer levies, supply chain companies, charitable giving to NGOs, private capital). There are striking differences between countries in funders of demonstration. For example, in Croatia, Hungary and Poland self-funding is most common, whereas public or research funding is much more common in Latvia. Advisory services often play an important role in the organisation of demonstration, but not in directly funding demonstrations.

Organic farming represents a special case for on-farm demonstration. In general, demonstrations are disproportionately likely to occur on organic farms (relative to the overall percentage of organic farms in the agricultural sector). Organic farmers are also more likely to lead demonstration activities than conventional farmers.

Access to Demonstration

There are clear gender distinctions in participants in on-farm demonstration across Europe. In both Northern and Southern Europe, events are typically male-dominated. Eastern European demonstration demonstrations are more egalitarian. The topic being demonstrated has been found to influence gender balance, whereby demonstrations on technology and machinery are particularly dominated by men. Women are more likely to represent higher numbers at demonstrations that focus on farm diversification, processing of farm produce or direct marketing. It is important to note that farming as a profession is male-dominated, therefore greater numbers of men attending demonstrations is to be expected. However, greater gender balance is evident in those organising on-farm demonstration, as both men and women are commonly employed as staff in farming and advisory organisations.

Farm demonstrations across Europe are also most commonly attended by participants over the age of 40, again reflecting the age of farmers in the sector. However, it appears from the supra-regional workshop discussions that although not 'young' in numeric terms, demonstration attendees are typically somewhat younger than the average age of farmers (i.e. younger farmers are more likely to participate). In Romania, more than half of attendees are reported to be under the age of 40.

Educational background also impacts on demonstration participation: more highly educated farmers are more likely to attend demonstration events.

Regional differences typically reflect the density of farming (i.e. regions with higher numbers of active, commercial farms are more likely to have on-farm demonstration activities). These

regions tend to be centrally located, more highly populated and well serviced by demonstration providers. Demonstrations are less common (but well attended) in areas that are more remote (e.g. Northern Scandinavia), have primarily small-scale farms, or have issues relating to access (e.g. islands). This higher number of small-scale farms is also a contributing factor to the lack of demonstration available in Southern Europe.

Workshop participants reported considerable fragmentation in delivery of on-farm demonstrations (i.e. lack of collaboration between relevant stakeholders, sporadic availability). This reflects the wide range of providers and topics, and weak histories of farmer collaboration. Fragmentation is particularly notable in countries without strong national level advisory services.



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