

EIP-AGRI Workshop

Tools for environmental farm performance

7-8 FEBRUARY 2017



Concept note

1. Introduction

Recent years have seen a proliferation of tools, techniques and approaches to facilitate sustainable management practices in agriculture. Despite the variety of tools available, evidence suggests that relatively few are being widely used and fundamental questions are being asked by farmers and other stakeholders about the effectiveness of such tools. It is clear that the development process of any tool may be as important as its content: and an iterative process which engages stakeholders to facilitate discussions about preferences and uses, can be important to ensure success.

2. How we understand 'Environmental Sustainability Tools' in this Workshop

A Decision Support Tool (DST) is a broad term identifying various types of items such as a technical tool, a formal checklist or some other guided and structured approach (like a decision-tree or a documented, step-wise audit) that can be used by a decision-maker to help their decisions. For this workshop we are considering those tools and associated approaches in the field of *actions to improve the environmental performance of agriculture*. The focus of attention for this workshop is on these (more or less-formal) Environmental Sustainability Tools (EST) in agriculture, and how to make them more attractive, useful and operational for farmers and other land managers.

So, although we recognise that environmental sustainability as a goal for agriculture may be supported by a much wider range of actions, e.g. by the simple provision of information, or attending a training course, or employing a bespoke agronomic or business adviser, these are not our core focus in this workshop. These skills and activities could be regarded as *additional elements that could help an EST* to be made more effective, but they do not represent EST in their own right.

Types of EST include:

- simple checklists or self-audits that farmers use to assess and choose practices (e.g. LEAF audit);
- ICT programmes to help gathering, storage, retrieval and organisation of farm data regarding environmental performance, for monitoring (e.g. The 'boer en bunder' tool, including data on crops, soil type, and Remote Sensing indicators on vegetation growth of all parcels in the Netherlands);
- ICT/computer-based programmes with a user interface and some internal modelling that enable answers to "What if?" questions, including suggested practices (e.g. COOLFARM tool for carbon);
- downloadable apps for mobile devices which enable ICT-based approaches to be used in the field (e.g. water saving apps to increase the efficiency of irrigated crop production).

3. Why EST are used, in which contexts and by whom

A variety of drivers has encouraged adoption of EST by farmers in different contexts across the EU.

- In the commercial domain, the requirements of supply chain actors may be a driver – e.g. *food processors and retailers, who seek quality-assured production* that meets certain standards. This has led to the development and adoption by farmers of EST. For example, in the UK the supermarket Waitrose has made it a requirement for all farmers and growers supplying their fresh produce, that they adopt the LEAF marque and apply the LEAF audit.

- In some policy contexts, EST are offered as a way *to make compliance with regulations easier to assure*. So, the regulatory policy can be the driver for which someone designs and promotes an EST, as a simple solution to give farmers confidence that they meet legislative requirements.
- In other contexts, voluntary action is important. Farmers may recognise the potential for EST to help them to make savings (e.g. on input costs) or to realise additional returns (e.g. with premium pricing for a higher-quality market niche, or a more secure supply outlet). So, for instance there are some 'Protected Designation of Origin' products where EST help farmers to ensure they uphold standards in an efficient way; or examples where EST can enable farmers to reduce pesticide or fertiliser use without compromising on product value.

Those are examples where the motivation for adoption is partly or mainly economic. There are also situations where motivations are social, i.e. where farmers come frequently into contact with other rural actors for whom their use of an EST is seen as environmentally-responsible practice. For example, farmers can use applications like COOLFARM to suggest to their neighbours that they take environmental issues seriously, which can give them esteem within the rural community. And there are also many instances where farmers are motivated to adopt EST because they recognise and appreciate environmental values and concerns – for instance, because they enjoy managing a farm which hosts a variety of breeding birds or species-rich meadows and woodlands.

Notwithstanding these positive drivers for adoption, it is also important to note that there are many situations where existing EST are not used by farmers, even when much time and effort has been devoted to design and promotion. Understanding why this happens, and what factors underlie apparent failures or weaknesses, is critical to ensure more appropriate development and future use.

Sometimes, EST can be designed by technical experts who perceive a need for them, but who may have a different perception to that of the farmers for whom they design the EST. When this happens, if farmers then fail to use the EST this could reflect a failure of specification, because the tool is not recognised by the main users as being 'fit for purpose', useful or necessary. Other times, farmers may recognise the relevance of issues for which a EST is designed but there may be other factors which make the tool unattractive. For instance the tool may use information, data or language that farmers do not easily understand. Or, the EST may require the farmer to spend a lot of time setting it up or learning how to use it, and farmers do not recognise that the investment of time and effort will bring rewards that outweigh these costs (indeed, maybe costs **do** outweigh benefits).

There may also be situations where there is a lack of trust of the motivations of designers and promoters of EST so, although they try to convince the farmers that the results should be in their own interests, farmers fear that the EST is being used either as a way to constrain them unfairly or unreasonably, or it is encouraging them to make public certain details of how they operate, which could be advantageous to their competitors or could lead to new regulations being imposed.

It therefore needs to be recognised that *for any EST to be useful and used, there has to be firstly, a positive net benefit for the users; and secondly, a benefit that they recognise*.

We can thus see value in subjecting EST to SWOT analysis – weighing up the Strengths, Weaknesses, Opportunities and Threats that a tool offers to target groups of farmers and land managers, in any particular situation. *This is an important learning and sharing focus for the workshop.*

4. Concluding challenges and key questions for the workshop to address

- Why are there so many EST out there, but so few adopters of EST, within this arena?
- Which situations, or types of farmer and opportunity, help to encourage most efficient and effective design and use of EST?
- How can more open, positive design processes be promoted, in which both users and beneficiaries have a clear involvement?
- Which factors in the wider environment (context and trends) make for a successful EST?
- How can the sponsors and initiators of EST ensure that their tools will be used?