

**POLICY BRIEFING**

**A Smart CAP for EU Precision & Smart farming**

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**Few facts:**

Between 2010 and 2014, 5,337 new patent applications relating to precision and conventional equipment for agriculture were registered worldwide; 70% of those new agriculture patents were assigned to North America (the location of the filing company’s main headquarters), only 15% in Europe.

During the last few years, the EU has been financing research and innovation as well as product/service development projects. The majority of these projects are transnational, following the multi-actors approach and the co-design principle. If Precision/Smart Farming’s H2020 projects are expected to have decisive impact in supporting the development of new Agri-food business models, it is necessary to stress that, precision/smart farming is still underdeveloped in the EU. In other words, it is lagging behind some of our world competitors’ innovative approaches.

However, it is worth noting that, for instance, in the Netherlands nearly all arable farms larger than 100ha have adopted GNSS technology, while in France, precision farming is developing at a rapid pace with more than 600 000ha of winter wheat currently monitored via satellites.

Concerning the EU farming sector as a whole, on one hand, over the past 10 years, the growth of total productivity of the farming sector has halved and capital productivity has turned negative. Consequently, European farming sector is losing competitiveness.

On the other hand, societal expectations have never been so high on the farming sector, especially concerning issues related to environment and climate change. Not mentioning the on-going debates on the impacts of the environmental components of the CAP.

Today, the biggest challenge is clearly to find the right and balanced way to do more for the environment, while increasing the competitiveness of the European farming sector.

Both of these components have to be tackled together and synergies have to be found. It would not be useful and would even be counterproductive to imagine an increase in competitiveness without taking into account legitimate societal demands or to address environmental challenges without addressing the economic challenges of the farming sector.

In that respect, precision farming and smart digitalized farming are to be considered, as they are basically the only concrete tools, which are able to provide a plausible and pragmatic answer to this double challenge of competitiveness and environmental sustainability.

In this context what can, or *should*, CAP do and how could Europe deliver in this regard?

1) First, we have to make clear that:

- Smart farming allows for the **reconciliation between farmers’ needs and citizens’** expectations and it should be understood by them as an opportunity to simplify their everyday life and not as something that complicates it even more.

In this regard, the social impact of smart farming has to be emphasized: **farmer’s role as a public services provider, while at the same time being fully recognized as a producer of goods**.

2) Second, there is no single approach on how to build and implement precision and smart farming.

It has to be clarified that this is not a matter of large farms only. Precision and smart farming are suitable and useful also for small farms, and as well for medium-size farms. Depending on the types of farms, the way to organize and disseminate these technologies has to be adapted, especially considering who is asked to invest:

- some Smart farming business models require the farmer to invest in this kind of technology equipment and artifacts,

- other organizations invest in building and operating a large scale smart farming technology infrastructure and provide *‘investment free’* smart farming services to farmers and farmer groups.

In few words, depending on the choice of technics to be implemented locally and the approach to be promoted, needs in infrastructures may differ, notably on the question of the use of broadband or not. With some options, broadband is not a prerequisite to smart farming.

Same story when it comes to the so-called “sensitive” question of ownership of data. Depending on the choice of local economic actors on precision farming or smart farming approaches to be implemented, data property may or may not be so sensitive and in any case, it cannot be an excuse to differ the move of EU farming sector to smart or precision farming.

3) Third, the implementation of precision farming or smart farming is not only a matter and responsibility of farmers.

It is of paramount importance that incentives are conceived to motivate farmers’ organizations, companies providing training and advice, technology providers, machinery manufacturers, research organizations, financial organizations and governments, to work together. First, right advice communication and training are needed to answer to the still 51%-63% of farmers, who are questioning the ability of SF to help them to overcome the challenges they are faced with (conclusion of a survey conducted in the context of the Smart Akis Program).

Furthermore, it has to be stressed, that today, the sensitive part is to put the farmer at the core of the decision and not as someone, whose only task would be to follow prescriptions defined by other “supposedly bright people”.

4**) In that context, what could be the role of the current CAP and of a renewed CAP?**

First and foremost, we have to show ambition.

Indeed, everything is not known yet, when it comes to precision and smart farming and the whole range of their benefits.

Both innovation and development of these techniques are still on-going. However, what seems very straightforward, is that within the next 7 years there can be a major shift of the EU farming sector to a EU *smart* farming sector.

The most important environmental benefit of precision and smart farming is the precise estimation of the inputs which are needed and the controlled application of this precise amount of agricultural inputs, which leads to the minimization of agrochemical residues (e.g. fertilizers and pesticides) as well as irrigation water conservation:

European Data Market Monitoring Tool (2016) shows: crop yields up to 50% and 23% thanks to smart water management and improved plant variety selection; cost savings (25% reduction of use of fertilizers, 9 -42% herbicides, up to 84 % pesticides), increased productivity (5% increased yields), reduced environmental contamination and time savings (drones covering one hectare in 10 minutes versus 90 minutes normally taken by traditional farm machines).

Consequently, CAP should not argue the usual *“let’s wait and see when it will be ready”*, but should be what it is aimed to be: a policy of investment for the future of the European Union, a policy, which is able to drive the process, based on a common ambition and focused on results.

We have to take the clear decision to shift from a prescriptive CAP to a results-based CAP, to move from a policy of conservation to a policy of ambition, by providing concrete answers to the double challenge of sustainability and competitiveness, both of them, not one without the other or one against the other.

In that respect, precision and Smart Farming practices allow:

* To Address the sustainability challenge for EU agriculture in both its economic and environmental components;
* To Enhance product traceability and to Improve communication between producer & consumer;
* To Contribute to a more balanced, fair and transparent food chain;

And, at EU policy level, these techniques could:

* Improve accessibility & transparency on what is really going on at farm level allowing for an implementation of a results-based policy;
* be a major mean of simplification: Smart Farming equals Smart Policy in terms of reduction of administrative burden for EU/national authorities and bureaucratic procedures for farmers as well as in terms of monitoring.

Such a reformed results-based CAP (both environmentally and economically) would imply to define a clear CAP focus on smart investments, and on related efforts on training.

Renewed CAP should focus on smart investments.

Today, the European farming sector does not suffer from under-investment.

On the contrary.

But, do the current investments bring more competitiveness and more sustainability?

It is time to focus primarily on investments in machineries, in technology and in training, which answer at the same time to the double challenge of more environmental gains and more competitiveness. A smart European farming sector should be shaped in the near future, not within the next 20 years, otherwise the European Union will definitely lose the ground in comparison to its competitors worldwide. In that respect, we need a “European Marshall plan for a European smart agriculture” focused on specific smart investments Farm Europe is working on. We should not limit only to define or list them, rather we should focus on the scope of such European plan for smart agriculture in terms of:

* financing and needed CAP incentives
* environmental gains for the whole EU society
* economic benefits for the EU economy, the EU agri-food sector and rural communities.