

RECOMMENDATIONS

On Including Both Digital and Territoriality Priority to Future EU Agricultural and Forestry Policy

Following the Meeting in Helsinki on 11 December 2019

Ensuring sustainable & productive biosphere economy for future generations of Europeans

In cooperation with the Finnish Presidency of the Council, the tripartite, independent **High Level Group on the Biosphere Economy Innovation** continued to think ‘outside-the-box’ on how to innovate policy-making for the ‘biosphere’ – agriculture, forestry, and rural economy in the EU.

Belonging to a limited number of temporary think-tanks set up via initiative in the Competitiveness Council,¹ the High Level Group applies an original ‘open innovation’ approach through its diverse members from European governments, business, and academia, to inject innovative policy ideas into the EU system.²

Digital technology makes it possible to **produce more and better public goods** with the same, or even smaller public budgets while maintaining or even improving productivity and sustainability and ensuring attractive employment and living conditions for future generations. Contrary to this, merely following established policy pathways would lead to ever more inefficacy and even less credibility.

Therefore, the EU faces the challenge of radical innovation in current biosphere policy paradigms – inherited from the 1960s and no longer suited due to deep economic and societal shifts. It needs to focus more on **new demands for public goods**, such as protecting bio- and landscape diversity and mitigating the effects of climate change, alongside new and various methods of production in agriculture and forestry as well as diverse rural industries. One size fits all belongs to the past.

¹ Council of the EU, 5-6 December 2011, Presidency Note.

² Members participate in their personal capacity. All recommendations for action and all ideas for further consideration have not always been agreed on by all members, but advice is based on a very wide consensus. The final version is written under responsibility of the chairman and the secretary general.

Digitalisation needs to be applied ex-ante and with the following principal objectives:

- To rapidly **scale the precision agriculture**, in order to protect sustainability and biodiversity and to eliminate CO2 emissions;
- To **supervise the use of public subsidies**, in order to eliminate corruption and misuse of taxpayers' money;
- To **share with farmers beneficial agronomic data** making the farmer a centre point of digitalization in agriculture;
- To better **connect production to real market needs**, in order to avoid food and resource waste.
- To **generate more jobs** – transforming the climate action to a growth strategy.

Along with the innovation principle, digital technology enables to introduce a **principle of territoriality** in biosphere economy policy-making, complementing the hitherto market sector approach.

Such territorial principle is a **systemic check on policy impact in the real world** of Europeans to avoid the growing urban/rural economic and social gaps and to better manage the complexity of climate change (not least because it leads to a migration of species). The goal should be to smooth the complementarity between the value chains of large corporations (which focus on large markets) and of SMEs (which have a regionally-relevant role).

The impact of policies on territories (regions) and on biodiversity requires a synergetic approach between various policies:

- Specific efforts of **diversification of plants** (in agriculture & forestry) and of introducing **new techniques based on bio-sciences**. Legal obstacles need to be removed to give innovation its fullest chances to benefit sustainability and climate mitigation.
- A territorial principle can be elaborated and implemented through **closer cooperation with the Committee of Regions**, provided its working methods are updated to ensure evidence-based inputs.
- Public funding in the future must **prioritise the development of (trans-) regional innovation ecosystems** based on multi-disciplinary evidence and with multi-stakeholder collaboration.

Summary of discussions

On territoriality

The territorial diversity in Europe coincides with ecological diversity. The CAP always had a territorial impact, but the collateral effects on Europe's variety of territories were either ignored or insufficiently taken into account, given the primary focus on sector productivity. The later addition of sustainability did not fundamentally mitigate European or national policy and funding models. In particular, the new public goods such as bio- and landscape diversity protection, are not rewarded according to their cost and benefit, and scientific and technological innovation is insufficiently fostered.

The results today are hidden losses in terms of growing rural and urban divide and its multiple economic, social and political consequences, missed employment opportunities, and lack of entrepreneurship and economic diversification, not to mention a growing tension between productivity and sustainability. Nevertheless, structural support mechanisms have an overall positive effect on economic activity and employment and there is, therefore, enough evidence to maintain public budget levels, but there is a need for a deep shift in their use.

Furthermore, policy change is hindered by declining infrastructure and public services, lack of credible statistical models, and shortage of venture capital. Also, national taxation systems and European funding mechanisms are insufficiently streamlined in many cases to produce desired effects. If consumers would pay a little more for their food, then this could have radically positive effects on the environment; however, this can only be achieved by intelligent tax shifts in the framework of a coherent climate change and other policy innovations.

Furthermore, it would be unrealistic to think that all regions in Europe and within the single Member State can have similar growth, therefore, one may have to introduce a concept of economic and social 'smart shrinking,' though respecting local populations' democratic will. Insufficiently productive land can be earmarked for diversified reforestation and new forest management techniques. A competitive price of wood, compared to fossil fuels, and bio-materials offer new economic opportunities – not to be missed.

The HLG considers it very important to achieve better synergies between micro, small and medium-sized enterprises (MNCs) and transnational corporations because they can help to scale-up start-ups. Expanding to other markets requires on average between 100 and 300 staff, due to the complex regulatory requirements and their burdensome application, and no SME can afford this.

MNCs can provide useful expertise to help sustain SMEs, on which rural areas often depend. If more complementarity can be achieved, then this will help their integration in global value chains; but also the role of inter-modal networks and e-commerce should be taken more into account. This can be done by concentrating public funding more on integrated value chains or on (trans-regional and trans-sector) ecosystems in the Single Market.

The Paris climate goals should be achieved first of all through adapting outdated framework conditions much faster, in line with the rapid development of science and technology. This means to give prominence to the innovation principle unanimously adopted by the Member States already in 2016 and still not properly applied, despite clear advice on its legal basis by the European Political Strategy Centre (EPSC).

A change process requires elaborating about so-called transition road maps. These should be all-inclusive, starting from the multiple effects of climate change (such as the migration of people and species), and focused on synergetic policy development and the rapid application of new science and technology and the removal of obstacles.

In addition, it will be inevitable that the Commission and MS governments look jointly at the externalities of tax and subsidy systems, which sometimes do not meet the stated objectives and which have no effect on EBITDA of companies large or small. Transition funding should be the new focus (including the learning curve of new technologies) along with compensatory mechanisms and coherent innovation pathways (ecosystem-based). Taxation can provide consumer incentives, it will be worthwhile to examine a reduction of income tax in favor of taxation instruments which do contribute to desired mega shifts, such as climate change adaptations. This does not require Treaty change, only openness to discuss and to design collaborative pathways.

On digitalization

The key to the future of productive and sustainable agriculture is precision agriculture: digitalization allows for both environmental and economic benefits for all types of farming. In forestry, it is the design of appropriate incentives for scientific evidence-based re-forestation. In all types of farming (conventional, agro-ecologic, organic) evidence shows that digitalization is multi-beneficial.

The benefits of digital farming are not applicable merely to large farms or the developed world. In fact, such technologies are more neutral in size and, with appropriate transfer of knowledge and the investments facilitating their application (e.g. farm advisory systems, various schemes of farm cooperation, publically available satellite data, broadband etc.) expand the prospects for their wider use and sharing of their benefits.

Job losses stemming from an ageing and declining farming population are not expected to stop in the future. Yet, job gains stemming from added-value knowledge-based services along the food chain and in rural areas often compensate the labour-saving new technologies, thus providing the sector with a unique opportunity to turn this transformation into a knowledge-based growth strategy.

The key element of digitalization is its application 'ex-ante,' which implies a culture shift of all those involved. It allows more public goods at similar budget levels, or even smaller ones. However, to ensure digitalization is successfully scaled-up, one needs to think how it can increase productivity and decrease the costs – at the same time.

Yet, Europe is generally behind in capturing the opportunities of AI and automation. Moreover, while Member States have their own starting points in AI activities, one should seek models on which countries could cooperate. This is even more important in the context of big data analysis becoming a mainstream – disrupting phenomena. In fact, one of the biggest gaps is the digital gap.

In rural areas, effective networks with stakeholders' input can be a way to catch-up, in addition to facilitation measures, which, however, require rapid adaptation of existing rules to innovation. However, sufficient funding needs to be allocated to establishment of broadband in rural areas.

Furthermore, digitalization should put the user at the center and allow early information and targeted reaction (ending practices harmful to the environment). European AI ecosystem can bring the benefits of the technology to the whole of European society and economy.

Indeed, precision agriculture should be fostered in such a way that also small farms can benefit, through the sharing of equipment mechanisms and support only to those farmers or foresters who are in need.

The current Commission approach to use satellite images (based on existent Copernicus program) and the shift from checking a number of specific fields at a certain time towards monitoring of an entire region in the growing season is a step in the right direction and should be extended to all fields in Europe in all seasons.

However, digitalization should be used primarily as an incentive for public goods, which should then be properly rewarded, and be done human-centric and allow people self-control, respecting also the privacy of individuals and enterprises and following widely recognized ethical principles.

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