

REPORT & RECOMMENDATIONS

(virtual) MEETING

27 November 2020

The tripartite, independent High Level Group on Biosphere Economy Innovation continued to ‘think-outside-the-box’ on **how to innovate agriculture and forestry policy in the EU**. This task was given to these temporary think tanks, set up following an initiative in the Competitiveness Council.¹ The High Level Groups are an ‘open innovation’ approach between governments, business, and academia, to inject innovative policy ideas into the EU system.²

Opening its virtual meeting on 27 November 2020, the chairman, José Silva Rodriguez, said the focus had been set on the meat sector, because of its multifaceted role in the economy, ecology, and health; on the Green Deal and ongoing CAP reform discussions, because of persistent questions about their compatibility; and on the forestry policy strategy post-2020. The chairman expressed his pleasure that the vast majority of HLG members were virtually present, hoping that a real meeting would be possible soon again. The agenda was agreed upon.

SUMMARY OF RECOMMENDATIONS

The following recommendations have been reached on the Green Deal and ongoing CAP reform discussions as well as EU’s animal production:

CAP Reform and Green Deal

- Basic attitudes towards farming should become aligned with the contextual realities of the 21st century (mainly the need for adaptability and transformability to respond to new challenges)
- More horizontal collaboration is needed, and a joined-up advice infrastructure for the integration of agricultural best practices as well as environmental and climate protection into the production systems needs to be fostered in the MS
- Public money must be used more efficiently to support the uptake of technological and social innovations and for public goods. The flexibility shown during the Covid-19 crisis should be maintained and become a permanent feature

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.

- More money is needed to help farmers with the uptake of new technologies. More money for investment in research is needed too to understand the interaction and feedback of environmental interventions and to achieve more resilience, to manage carbon sequestration better, to explore new forms of agriculture, or to transfer research findings across the areas of the plant, human-animal and animal health
- An increase of sustainable and climate-neutral production methods should go hand in hand with an increase in the ability of farmers to earn better incomes through their provision of private and public goods

The Future of Animal Production in the EU

- The EU and its Member States should move towards a One Health concept for animal production, to ensure comprehensive and context-sensitive management, using the best available technologies and the latest scientific inputs, while acknowledging the wide range of different animal production systems across Europe that provide a broad range of different public goods
- The policy should not focus on one model of meat production for the entire EU but consider diverse regional circumstances
- The opportunities of precision animal husbandry should be further developed and used by enabling and incentivizing all actors in the value chain
- A harmonized animal welfare label can serve as EU's new quality brand to export not only the animal products but also EU-invented precision technology

1. The future of animal production in the EU

Prof. Daniel Berckmans (Leuven) introduced the discussions remarking that the animal welfare concept gives the EU a global lead affecting both animals, and indirectly, human health. But the sector is confronted by an expected worldwide increase in meat consumption, due to rising welfare and changing consumer habits, and (marginally) declining consumption in Europe. Animal welfare is not just an ethical issue, it is a key component of the quality of animal-based products and to the efficiency of production.

Given the effects on climate and the environment, it is unrealistic to aim for production increases without a paradigm shift to precision livestock farming. The introduction of digital monitoring features allows real-time monitoring of animal health and wellbeing. This can have a direct effect on the quality of meat produced because it reduces stress, which affects the animals' immune system, and thus helps to prevent disease and overall improves efficiency and quality.

Europe cannot expect to compete with cheaper meat produced in Latin America, Australia, and New Zealand, or some African countries (Namibia, South-Africa) because of very different contextual conditions. However, with precision livestock technologies and the role of genetics (accelerating genomics improvement, improving efficiency, and reducing carbon footprint), it can produce according to the highest animal welfare standards and thereby develop brand value. New technologies are also important because of zoonosis, i.e. transition of diseases from animals to humans. It can be used for all production animals, whether in -or outside, and for fish.

An innovative approach is needed based on comprehensive health and ecological concept and the move towards a circular economy. In a circular system, modeling is important, and this allows better controls, which in turn allows output data to link to regulatory objectives. Farmers should benefit from their efforts. However, there is a gap between the scientific views on sustainability, evidence-based, and the popular (and partly political) views, perception based.

Innovative approaches should include neglected issues such as food-waste recovery and transformation for animal feed, the development of laboratory meat, plant-based proteins, and alternative proteins from insects.

Sustainable farming requires measurement based on criteria, the technology to apply them, which largely exists, and appropriate incentive systems. But the current CAP discussions hover between business and policy models from the past and more future-oriented ones and delay systemic change and radical innovation. Farmers are entrepreneurs who, like any other group, need incentives and an enabling environment to take up new technologies and to understand the multiple benefits, for example by ensuring their ownership of data collected, transparency about their use, and participation in the ensuing benefits. Data are valuable for many others in their value chain (such as feed producers, vaccine developers, slaughterhouses, public health policy).

At the moment, the EU is leading in research and technology development, but lagging far behind in technology uptake in livestock farming (compared to the US and China).³ However, research allocations of direct relevance for rural areas are very modest in most countries, which affects the overall competitiveness of agricultural sectors. This has multiple causes, from the lack of venture capital to regulatory obstacles and bureaucracy imposed by the CAP to the lack of entrepreneurial attitudes in higher education and research institutions. Patents are still seen as less important than publications, but there are also deficiencies in the patent system to be addressed, such as slow procedure, ownership (universities or enterprises), or Chinese copying.

A circular animal production system is also important to make the meat sector contribute to the objectives of the Green Deal. It should be synergized with the One Health concept now promoted by FAO, UNEP, and others, taking a comprehensive view about the interdependence of human, animal, and environmental health.

There is a need for an evidence-based approach, such as measuring meat sector emissions and indirect land-use concerning produced livestock products, which would stimulate production efficiency in prime locations with efficient value chains. Assumptions about emissions from different animal husbandry models must indeed correspond to reality. In the case of large-scale meat production, if transferred into sustainably managed production, it could contribute to climate targets.

³ The functioning of the research to innovation in the market chain is a key problem, discussed in the HLG on Innovation policy (see www.highlevelgroup.eu). It will be taken up again at the meeting in 15 December next in the context of the reform of the ERA.

RECOMMENDATIONS

The EU and its Member States should move towards a One Health concept for animal production, to ensure comprehensive and context-sensitive management, using the best available technologies and the latest scientific inputs, while acknowledging the wide range of different animal production systems across Europe that provide a broad range of different public goods. There should be no one-size-fits-all model. This will give European meat production a perspective for viable business models while guaranteeing also the respect of other production criteria such as animal welfare, environmental sustainability, or climate neutrality. The policy should not focus on one model of meat production for the entire EU but take into account diverse regional circumstances.

The opportunities of precision animal husbandry should be further developed and used as fully and quickly as possible by enabling and incentivizing all actors in the value chain. This implies that farmers, like other producers of data, should own the data generated on their farm, which would allow them to decide their use and solve indirectly privacy concerns. Business models that are based on farm data should ensure that farmers participate in the benefits.

A harmonized animal welfare label can serve as the EU's new quality brand not only to export the animal products but also EU-invented precision technology. Technology and digitalization will have significant impacts on the improvement of animal welfare in large-scale settings, and larger producers will be able to adopt new technologies faster, driving the innovation to become more cost-effective and affordable to small and medium farms. However, public research and innovation support for SME farms is needed to ensure that technology development benefits not only large-scale farms.

2. CAP reform and Green Deal

If the CAP intends to transform agriculture so that it can address the economic, health, and sustainability challenges, it should not shy away from its transformation, in a collaborative way with stakeholders. The agreement now (in the making) is far from a game-changer.

Everyone in all EU institutions should accept that farms are first of all enterprises, aimed at delivering quality and healthy food at affordable prices for everyone (along with other products and services), and which have to take into account price competition on open and often global markets. Like for all other enterprises, the Green Deal requires an effort towards more resilience, more sustainability, and climate neutrality. While it should not be overlooked that European agriculture has already achieved increased output with decreasing emissions, the sector has barely reduced its greenhouse gas emissions over the last decade and is lagging behind other parts of the economy. Incentives and disincentives under the CAP and the Green Deal should be based on scientific (peer reviewed) evidence, with (transparent and peer reviewed) impact assessment, on the contribution of each instrument to the overarching goals. Current tensions between sustainability and one-health goals on the one hand and the need to maintain competitiveness in a global market on the other cannot be solved without quick uptake of novel technologies and solutions that either enables the development of new, sustainability-based business models or that increase the efficiency of meeting sustainability

goals. The CAP must be better geared to incentivize and enable sustainability-oriented innovations and the quick uptake of technologies that enhance the provision of both private and public goods.

Sufficient income for farmers is a precondition for investment and to make their business attractive for young people. Rather than perpetuating high levels of transfer payments with significant leakage effects, the CAP must support farms in becoming both profitable and sustainable. This requires coordination with other policies that shape price relations and framework conditions, such as the development of carbon markets with appropriate border adjustments or trustworthy labeling systems for sustainability and animal welfare characteristics of products with a high level of ambition.

It is understood that reforming a common policy with a high path dependency and a variety of vested interests is a complex task, further complicated because of its interaction with shifting demographic, societal, technological, and geopolitical conditions and its interdependence with other policies, such as food, health, trade, environment, climate, digitalization, and industry. This requires more transversal policy-making within the Commission and by governments.

Nevertheless, the CAP is suffering increasingly from a legitimacy deficit, as also being well established, and documented in the academic literature. Although discussions are ongoing in dialogue, the next CAP should not imply seven more years of status-quo in a rapidly changing economic and social context; there should be an agreement in principle for continuous adaptability and transformative orientation, and for providing the Member States with maximum space during implementation while insisting on an evidence-based contribution of all instruments to achieve the goals of the Green Deal. The overall direction should be towards achieving impacts across the range of the CAP goals, and assessments should be based on scientific criteria. The CAP needs to embrace responsibility for both public goods and innovations, to achieve competitiveness and sustainability for the whole agri-food sector.

The effectiveness of the CAP instruments that use up most of the budget is questioned in research and by most of the target groups. At the same time, many second-pillar instruments could potentially support adaptability to new demands, if adequately designed and funded. Some measures that address agro-ecological issues are considered to have transformative potential. But this requires a paradigm shift, not just another incremental modification of existing instruments. Coordination with other policies, such as the cohesion funds, also needs to be strengthened.

Policy and instruments should be based on the outcomes desired and ensure tangible results across the range of the CAP objectives. Wishful thinking about agriculture in the past or the long-term viability of many current approaches should be checked by analysis of consumer spending elasticity and long-term agronomic and agro-ecological trends. New technologies can help to move towards more sustainable production without making food more expensive. But the transformation of research findings into practices that benefit animal and human health and sustainability is far too slow.

The potential benefits of using environmental indicators at farms have been hampered by a lack of solutions that address concerns about data privacy and ownership, a sensitive issue but which can only be resolved by innovative thinking, transparency, and consensual agreement.

Overall, one cannot discuss CAP reform or the Green Deal as if Europe is an island; the competitiveness of EU-based companies, large and small, on open markets is part of the equation. The EU cannot set international standards without a competitive economy to support its bargaining power. Agriculture and agricultural policy are about a mixture of private and public goods.

But the current liberalised version of managed markets, based on extensive use of taxpayers' money, is not the way forward; instead, entrepreneurship should be stimulated and public funds are used to enable innovation and sustainability; this will also increase the attractiveness of farm employment and the public reputation of the sector.

But the cost of production must include environmental externalities (like in all sectors). The highly productive agriculture in the EU, benefiting from a well-established environment, is low cost if compared with the environmental devastation in other continents. Deforestation in Brazil, Southeast Asia, or Africa is caused by unsustainable farming practices and exacerbated by the external effects of some European policies.

However, moving away from the current system will require careful management of the transition. Phasing out direct payments should not lead to the collapse of farm assets' value. But this cannot be an argument to continue forever a method conceived in vastly different circumstances (in the early 1990s as a transitional measure to buffer the stepwise retreat from managed markets). It also raises the question of how to ensure conditionality; internalizing externalities in food production needs to avoid leakage of problems to non-European locations. The implied increase in food prices might create issues for low-income groups that should be addressed through income policy measures such as tax rebates or transfer payments, in-kind transfers for households in need, or subsidized school meals.

Lump-sum payments are generally a method of social, not economic policy, which requires compensation only for specific requirements. However, lump-sum payments based on the size of managed land lack any systematic link to the neediness of the recipients. Justifying the area-based payments as compensation for the conditionality requirements neglects the gross overcompensation in most areas. As a compensation measure, direct payments would become more efficient if they would be more closely linked to parameters that affect the opportunity costs of the conditionalities. Many of these parameters follow lines of regional differentiation. The reduction of direct payments should go hand in hand with an increase in other investments (digitalization, rural broadband networks, etc.) and efficiency and environmental criteria and measurement.

RECOMMENDATIONS

There is a clear need to see farmers as agricultural entrepreneurs who are at the basis of manifold food and feed value chains. Such a change in the mindset should be stimulated by all those interested in re-design of existing policy. Basic attitudes towards farming should become aligned with the contextual realities of the 21st century (mainly the need for adaptability and transformability to respond to new challenges). This will facilitate policy and regulatory change to ensure a more efficient translation of research into practical innovations along the value chain. This in turn will have positive economic, environmental, and societal effects. To achieve this, more horizontal collaboration is needed, while taking into account the economic realities of the agricultural sector. At the same time, a joined-up

advice infrastructure for the integration of agricultural best practices as well as environmental and climate protection into the production systems needs to be fostered in the MS.

To combine competitiveness and sustainability objectives in the CAP, one needs a continuous process of rebalancing targets, instruments, and budgets. Fixing a budget is one thing, managing transition is an entirely different exercise. Public money must be used more efficiently to support the uptake of technological and social innovations and for public goods. The flexibility shown during the Covid-19 crisis should be maintained and become a permanent feature: targets require adaptation of methods, not vice versa. However, while most efforts during the Covid-19 went into stabilizing the provision of private goods (recent finding from a review of 11 European farming systems as part of the SURE-Farm project), equal consideration must be given to the long-term maintenance of Europe's public goods.

In fact, more money is needed to help farmers with the uptake of new technologies. More money for investment in research is needed too to understand the interaction and feedback of environmental interventions and to achieve more resilience, to manage carbon sequestration better, to explore new forms of agriculture (including regenerative farming), or to transfer research findings across the areas of the plant, human-animal, and animal health (for example genomics or vaccines). Direct payments make a little direct contribution to these future-oriented aims. They have to be shifted creatively towards supporting the full range of goals of the CAP and the Green Deal in a sustained manner.

An increase of sustainable and climate-neutral production methods should go hand in hand with an increase in the ability of farmers to earn better incomes through their provision of private and public goods. This may also attract new entrants in the sector and help to revive rural areas. Such a sustained revival of the agricultural sector and rural areas requires also investments in digital infrastructure to ensure effective broadband coverage everywhere. Indeed, public support should focus on both technical and social innovations, such as new support networks for marketing, care services, or rural-urban partnerships.

3. The new Forestry strategy

There is ongoing reforestation in Europe, but deforestation elsewhere in the world. The emergence of a new forestry strategy in the EU requires to take account of the great diversity of forests and the differences between the member states, of the global situation, and the effects of EU policies externally.

A one-size-fits-all approach is impossible, but a more coherent and comprehensive forestry policy in the EU is much needed. A strategic and coordinated policy direction will be required, not least to support the implementation of globally agreed policy targets such as the Sustainable Development Goals. At the moment, there is a competition for the influence of this increasingly important sector, but there are also a lot of misconceptions and belief in quick fixes. Evidence-based policymaking with a long-term orientation is needed.

Diseases are rising, often linked to monoculture, which does not stop at state borders, and require a coordinated approach, based on appropriate research to combat them. Governments should be realistic about this.

Carbon sequestration in managed forests requires good practices, which allow serving economic and environmental interests simultaneously. Europe is well advanced with sustainable forest management, but it is not applied in all countries (in particular in some new member states, where criminal organizations are active in illegal logging). The dominant concern with carbon sequestration should not affect that other important functions of forests are neglected, such as habitat for biodiversity (not least in interaction with grasslands and arable lands), recreation, and water retention.

But there are significant concerns regarding the need to also strengthen the transition to a circular bioeconomy, to advance EU policy objectives and sustainability in all dimensions.

Climate change is happening and can only be reduced or halted, but the effects of the past cannot be undone. Therefore, the new strategy should also look at the adaptation of forests, including the selection of adapted tree species and the adoption of climate-smart management strategies.

The debate on the future of EU forests and what services are required from them needs to move from ideological to evidence-based, seeking practical means to maximize synergies and minimize trade-offs between the different needs for forests as the best basis for future forest policy development.

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