

2019-01

# INNOVATION IN AGRICULTURE

French agriculture has been undergoing radical change since the mid 20th century. To adapt, it has relied upon different types of innovation: organisational and social (emergence of collective structures: unions, cooperatives, etc.), legal (setup of land development and rural establishment companies/ SAFER, agricultural groups for joint holdings/GAEC, etc.), regional (regional specialisation of production and sectors) and technical of course, achieved through research: mechanisation, genetic selection and synthetic inputs for example. These have made it possible to meet the targets set by the public authorities, aimed at providing the population with sufficient food supplies at affordable prices. These developments have had negative consequences, however, in terms of jobs, rural exodus and depopulation and, over the longer term, on the natural environment (biodiversity, water quality and landscapes for example). Mass production has also led to an industrialisation of food which has become standardised and often nutritionally inferior.

Today, French agriculture must take up significant challenges in satisfying consumers' new requirements and, more generally, in meeting society's expectations. Regarding the maintenance of farms and job quality, i.e. agricultural price levels, these are of a socioeconomic nature. They also concern food and

*“Although the farming sector is responsible for 20% of France's greenhouse gas emissions, agriculture is also a source of solutions thanks to innovative practices that can help it to mitigate its GHG emissions and offset part of those of other activities.”*

health, two aspects which are increasingly linked. They also have to do with climate change of course - a priority recently highlighted by the IPCC - as well as the depletion and deterioration of natural resources (ecosystems, energy, water, soils, etc.) that are essential for the survival of agriculture. Last but not least, the territorial dimension must also be borne in mind, since agriculture has a key role to play in thriving rural areas.

French agriculture has a wealth of strengths (people, know-how, tradition and a diversity of growing regions for example) and effective research tools it can harness in response to this situation.

The opinion, which looks solely at agriculture and does not address



**Betty HERVÉ**

is FGTA-CFDT National Secretary. She is a member of the CFDT Trade Union Group and the Section for Agriculture, Fisheries and Food.

**Contact:**

betty.herve@lecese.fr  
01 44 43 64 06



**Anne-Claire VIAL**

is a farmer and President of the Drôme Chamber of Agriculture. She is a member of the Agriculture Group and the Section for Agriculture, Fisheries and Food.

**Contact:**

anne-claire.vial@lecese.fr  
01 44 43 62 22

the later stages in the production sectors, outlines the main challenges and different forms of innovation likely to provide solutions. In a third part, based on the initiatives and experiences it has identified, the ESEC issues recommendations for ensuring that the innovations best serve the public interest, the needs of professionals and society's expectations.

# THE ESEC'S RECOMMENDATIONS

- **Take up the priority challenges through innovation** by considering the interactions between natural systems and production in a bid to guarantee the transition to such resilient and sustainable production methods as organic farming and agroecology
- **Involve all stakeholders in defining the research aims** by increasing the number of members making up the governing bodies of national organisations and competitiveness clusters if necessary, and by bringing these stakeholders on board territorial-level projects
- **Enable society to make an informed decision on the acceptability of innovations stemming from research** by striving to avoid the risk of conflicts of interest between public research and economic stakeholders and by holding systematic consultations with society members within institutional or ad hoc bodies (citizen conferences)
- **Tailor the research procedures and contents to the challenges** thanks to systemic, cross-cutting approaches (cross-disciplinary work, integrative and collaborative processes)
- **Shore up basic research and streamline the organisation of French research** by reforming the terms governing calls for proposals, coordinating the work of different organisations, pooling their respective remits and perhaps even forging closer structural links
- **Strengthen links between research, innovation and initial education and lifelong learning where skills are concerned**
- **Financially assist institutions, associations and cooperatives with their innovative initiatives and support them** through easier access for groups of innovative holdings to the research tax credit and by restricting use of the "rural and agricultural development" special allocation account (CASDAR) to initiatives benefiting professionals and maintaining public funding aimed at supporting innovative farmers' collectives
- **Encourage innovation within sectors**, paying careful attention to how it is rolled out by farmers and by systematically including the "innovation" dimension in sector-level plans drawn up by the IBOs
- **Nurture social innovation by involving employees** in the selection and monitoring of CSR indicators and drafting of ecological, digital and technological transition contracts incorporating training, vocational qualification, working hours and organisation of work
- **Sustain, analyse and assess national innovation strategies, identify innovative initiatives and promote success stories**, particularly for CASDAR-funded projects
- **Assess and minimise threats posed by new tools** by trialling a scheme, modelled on the "reparability index", established by the road map for the circular economy, compulsory from the beginning of 2020
- **Secure agricultural data** by promptly developing the codes of conduct stipulated by the European Regulation on the free flow of non-personal data, which all professionals will have to apply irrespective of their national origin