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AGRICULTURE & INNOVATION

EIP-AGRI Seminar 'Multi-level strategies for digitising agriculture and rural areas'

Short Report

The EIP-AGRI Seminar 'Multi-level strategies for digitising agriculture and rural areas' took place in Antwerp (Belgium) on 12 and 13 December 2018. 143 participants from 25 European countries engaged in a very interactive event to discuss what it takes to build effective digital strategies for agriculture and rural areas, the main challenges and priority actions to move strategies forward.

Digitisation of agriculture and rural areas in the EU can help to increase farm efficiency, while improving economic and environmental sustainability of the agricultural sector. It can also make farming more attractive for young people, improve the quality of life of farmers and rural communities, and support the development of rural businesses, thus helping to fight rural depopulation.

Research & innovation can contribute to developing new solutions, provided preconditions such as fast broadband connectivity are available. However, factors such as the lack of information about existing technologies, insufficient digital skills and the limited availability of reliable cost/benefit analyses of the new technologies may limit investments in this area. Digital technologies may also increase imbalances in market power along the agri-food chain. The risk of a 'digital divide' is real.

To maximise the positive contributions of digitisation to agriculture and rural areas, a comprehensive and strategic approach is needed at different levels, from local to EU-wide. Such an approach needs to combine investments in knowledge, in the enabling environment and in the uptake of digital tools. It should be based on and maximise the synergies between relevant EU policies, including the CAP, Research and Innovation policy (Horizon 2020 and the future Horizon Europe), Cohesion policy and other relevant EU and Member States' policies and programmes. During the seminar the European Commission presented a summary of the most relevant EU-policies and programmes supporting digitisation in agriculture and rural areas setting the scene for the discussions on how to best use these policies and tools in the context of multi-level strategies.

The current document summarises elements of these multi-level strategies and actions that will help to make them work. Hopefully this, together with the longer report and other seminar outputs will prove helpful tools for EU member states and regions wishing to develop and implement effective multi-level digital strategies for rural areas.



Elements to build effective digital strategies: 12 ideas from the seminar:

- 1 **Vision and positioning.** Strategies should consider the specific context and they should regularly be adapted to evolving challenges and needs. They should be built on a common vision agreed by the stakeholders, with farmers' and rural inhabitants' needs at the centre and covering the whole agri-food chain.
- 2 **Needs and gap analysis,** with a focus on the needs from the field. This is a precondition for engagement and ownership. It is also the basis for the design of new business models using digital opportunities for farms and other rural enterprises.
- 3 **Skills development, education and training,** covering several aspects, from access to basic ICT skills in rural communities, to keeping up with new developments in knowledge and technology. Acceptance, engagement, competitiveness, awareness and proficiency are important issues to consider.
- 4 **Infrastructure (and technology).** A robust infrastructure is a prerequisite to develop and implement digital strategies. The strategy should consider both existing and future infrastructure developments. Connectivity and 'internet of things' (IoT) are key elements.
- 5 **Data governance.** Good data governance constitutes another prerequisite for the uptake of digital technologies in the farming sector. Well-articulated data governance is needed to create added value, for instance through new services, products and business cases. Attention should be paid to: standards and semantics, interoperability of data formats, the legal framework and data ownership, access to data and data management.
- 6 **Business models, use cases, services.** For digitisation to contribute to the sustainability of rural economies, it has to lead to economically viable and attractive services, products and business models. Digital strategies may identify potential business models, use cases and services, which should be adapted to each local context, covering different scales of farming and niche markets.
- 7 **Research.** Fostering research and collaboration between research and practice (co-creation), including basic and applied research. It should address the risk and volatility of new digital solutions and developments as well as avoiding monopolies.
- 8 **Ecosystem.** Ensuring the conditions for the development of an enabling and innovative digital ecosystem by, for instance, promoting the establishment of Digital Innovation Hubs. The socio-economic implications for rural communities should be taken into account, and inclusiveness must be ensured.
- 9 **Governance and communication.** The identification and engagement of stakeholders during the different stages (from design to execution) taking into account: inclusiveness, strengthening connections among the different types of stakeholders, commitment (particularly from policy makers), appropriate language and simplified e-governance.
- 10 **Evaluation and monitoring.** The strategy needs to be monitored and should include an evaluation system to allow measurability and continuous improvement.
- 11 **Finance and funding.** Availability and access to adequate financing instruments.
- 12 **Implementation** of the digital strategies requires governance, clear leadership, budgets and an agreed road map indicating responsibilities and timing.



Eight main challenges to consider when developing digital strategies for agriculture and rural areas:

- 1 Economic viability:**
 - Are funds and financing instruments available?
 - Are returns on investment known and favourable?
 - Are the costs of the universal coverage of the "last mile" affordable?
- 2 Technological readiness:**
 - Is mature technology available? If not, how to adapt/develop?
 - Other challenges include connectivity (broadband/5G), scalability, modularity and interoperability.
- 3 Data management:**
 - What is the situation regarding data use trust, and availability, ownership, privacy, standards and interoperability, quality, storage, and collection of data?
- 4 Ability to adapt in time:**
 - How is the capacity at different levels to adapt to high speeds of change?
 - Can different actors react in time to fast development of technology?
 - Is the infrastructure resilient to change (in technology, demand, etc.)?
- 5 Awareness, trust, engagement:**
 - Are different actors willing to engage with new digital technologies?
 - Do they have sufficient information, knowledge, trustworthy cost-benefit analyses, trust, and does it fit with their cultural preferences?
 - Which diverging interests and/or opposing stakeholders/parties could form an obstacle?
- 6 Skills level:**
 - How diverse are the levels of digital skills and expertise among actors-users, and their corresponding levels of knowledge needs?
 - Are there established channels and tools for the training and knowledge sharing required, or do these need to be established or adapted?
 - How to (and who should) address the training of trainers?
- 7 Effective communication:**
 - How to reach all types of users / actors?
 - How to improve and encourage networking and direct communication among key stakeholders?
 - How to deal with language barriers?
- 8 Inclusiveness:**
 - How to successfully involve local people and foster a demand-driven approach?
 - How to ensure sustainability of the digitisation process devising business models that work for small-scale agri-food chains?
 - How is value shared?
 - How to move from competition to collaboration among involved actors?
 - How to equitably involve all, considering different levels of skills?



Eight priority actions to move strategies forward:

- 1 Benchmarking** allows to learn from others' experiences, and it is essential to monitor own strategy. Developing common metrics and the right sets of indicators - both general and sector-specific- ensures that the strategy has a real impact. Monitoring should be inclusive (multi-level) and collaborative (multi-actor).
- 2 Promoting knowledge and learning** is a pre-condition to exploit the full potential of digitisation. It all starts with the rural community, identifying and clarifying how digitisation may benefit them, and which aspects would motivate them to use it. Promoting links and synergies among funds and initiatives (networks, demonstration farms, public-private partnerships, multipliers and advisory services) helps to share and develop knowledge and make best use of available resources.
- 3 Fostering communication and involvement**, which should rely on multiple communication methods and approaches (new and traditional media, face-to-face, peer-to-peer, etc.) and targeted local activities and channels, addressing local concerns all along the process. Language needs to be simple and clear, adapted to the target audience - think about real stories and best practices, not just facts and figures.
- 4 Designing governance models strategically** to ensure a sense of ownership of the strategy at all levels, especially the regional and local level. The strategy's design and implementation process needs to be open, bottom-up and decentralised, putting local actors in the driving seat.
- 5 Defining data governance** to enable the development of digital services and to ensure a balanced redistribution of the added value created by digitisation. Attention should be paid to interoperability, open data, data marketplaces and platforms.
- 6 Linking to Smart Villages.** Digitisation can help communities to achieve their ambitions, but they need support (brokerage, expertise, leadership e.g. via LEADER) to develop the digital potential and ownership, based on a shared vision. Besides, digitisation should foster inclusiveness.
- 7 Ensuring multi-level and cross-cutting strategies** that bridge sectors and governance levels. Digitisation is not exclusive to agriculture. Digital strategies should help to exchange experiences between sectors, breaking the existing `silos` so that agriculture can benefit from the solutions offered by digitisation in other domains.
- 8 Designing CAP Strategic plans** while considering existing gaps and identifying priorities for digitisation in the CAP objectives. Effective planning should start from a proper analysis of the digital landscapes and foster links among existing digital strategies. Data collection, integration and sharing best practices is key in this process. It calls for more interaction and collaboration between public authorities.



Check the full report at

<https://ec.europa.eu/eip/agriculture/en/publications/eip-agri-seminar-multi-level-strategies-digitising-0>

