eip-agri
AGRICULTURE & INNOVATION

EIP-AGRI Seminar
Multi-level strategies for digitising agriculture and rural areas
FINAL REPORT
APRIL 2019

funded by European Commission

Table of contents

1. Summary

The EIP-AGRI Seminar 'Multi-level strategies for digitising agriculture and rural areas' took place in Antwerp (Belgium) from 12 to 13 December 2018. The seminar was organised in cooperation with the **Flemish Rural Network** and the contribution of the European Network for Rural Development. **143 participants** from 25 European countries engaged in very interactive participation.

This EIP-AGRI event builds upon the substantial work undertaken by the European Commission and the European Rural Networks to promote the digitisation of the EU's farming sector and rural areas. The need to ensure that agriculture and rural areas are included in the strategic agendas for digitisation is a recurrent conclusion of these activities. Indeed, in order to maximise the positive contributions of digital technologies to agriculture and rural areas, the EU needs a comprehensive and strategic approach. Such an approach needs to combine investments in knowledge, in infrastructure and technologies and in the uptake of digital tools. It should build on and maximise the synergies between relevant EU policies, including the Common Agricultural Policy (CAP), Research and Innovation Policy (Horizon 2020 and the future Horizon Europe), Cohesion Policy and other relevant EU and Member States` policies and programmes.

The seminar aimed to raise awareness on the importance of **multi-level strategies for digitising agriculture and rural areas that take into account specific regional contexts.** The importance of strategic planning was particularly emphasised in view of the CAP Strategic Plans, proposed to be established by the EU Member States (MS) under the new CAP. In addition, the seminar provided the space to display different tools and initiatives that promote the digital transformation in the agricultural sector and rural areas at EU, national, regional and local level. The participants identified and discussed twelve main components of strategies for digitising agriculture and rural areas (**Section 4**) and they addressed the main challenges involved (**Section 5**). Finally, the participants selected and elaborated the following eight priority areas to address in moving strategies forward: **benchmarking, knowledge and learning, communication and involvement, the CAP strategic planning, data governance, process design governance, smart villages and multi-level and cross-cutting strategies** (**Section 6**).

2. Background and context

Digitisation of agriculture and rural areas in the EU has the potential 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 contributing to fighting rural depopulation.

Some digital applications and technologies which are already well-advanced have been taken up quite broadly (e.g. milking robots). However, the use of digital technology in agriculture and rural areas in the EU is, on average, low. In many cases, research & innovation can still contribute to developing new solutions. In other cases, the preconditions are missing, for example fast broadband connectivity. Moreover, 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. At the same time, digital technologies may increase imbalances in market power along the agri-food chain. The risk of a 'digital divide' is real.

In opening the seminar, Maria Angeles Benitez Salas from the European Commission highlighted the key role that EU policies play in driving digitisation at farm level and in rural areas. To maximise the positive contributions digitisation can bring for 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 future CAP highlights the importance of digitisation of agriculture and rural areas. **The proposals for the new CAP** include the development of strategic plans in which MS outline how they intend to meet the nine CAP objectives, using CAP support instruments, while responding to the specific needs of their farmers and rural communities. According to the proposal, the MS have to address the cross-cutting objective of fostering and sharing of knowledge, innovation and digitisation in agriculture and rural areas, and encouraging their uptake (Art. 5), and a specific objective to enhance market orientation and increase competitiveness, including greater focus on research, technology and digitisation (Art 6 b). Moreover, MS are asked to put forward in their CAP strategic plans a strategy for the development and use of digital technologies in agriculture and rural areas, and to highlight the elements of the CAP strategic plan that support the modernisation of the agricultural sector (Art.102). At the time of finalising this report, the co-legislators were still negotiating these provisions.

Regardless of what the result of these negotiations will be, strategic approaches to ICT in agriculture and rural areas will be key to foster the digitisation of the EU's agriculture and rural areas.

funded by European Commission

3. The seminar

The EIP-AGRI Seminar 'Multi-level strategies for digitising agriculture and rural areas' took place in Antwerp (Belgium) on 12 and 13 December 2018. It was organised in cooperation with the **Flemish Rural Network** and with the contribution of the **Contact Point of the European Network of Rural Development** and the **Broadband Competence Office**.

This EIP-AGRI event built upon the substantial work undertaken by the European Commission to promote the digitisation of the EU's farming sector and rural areas, in particular through the **EIP-AGRI network**, and the **ENRD**. The need to ensure that agriculture and rural areas are included in the strategic agendas for digitisation is a recurrent conclusion of these activities.

The challenges for the digital transformation of agriculture and rural areas will vary per Member State, depending on their national and regional context. Different sectors and different European regions face different challenges and they therefore need to adopt different approaches to develop their own digital agendas, which are adapted to local and regional circumstances.

However, improved coordination between the European, national and regional levels and across sectoral policies and funding instruments will be needed to support the digital transformation in the sector. Developing comprehensive multi-level strategies can support and guide the transformation process and contribute to finding solutions to tackle these challenges. The seminar aimed to raise awareness on the importance of **multi-level strategies for digitising agriculture and rural areas that take into account the specific regional context.** It had the following objectives:

- To raise awareness about the role and importance of strategic planning to foster and steer the digitisation of agriculture and rural areas, also considering the proposed CAP Strategic Plans;
- To provide inspiration for the development of digital strategies, through showcasing existing examples of strategic planning and relevant digitisation initiatives across Europe;
- To discuss and kick-start the process for developing digital strategies that are adapted to context-specific needs, by fostering mutual learning among actors, sectors and governance levels;
- To showcase tools and initiatives developed at EU level to accompany the digital transformation in the farming and rural economy sectors

funded by European Commission

143 participants from 25 European countries took part in the seminar. The largest group of participants were representatives of managing authorities and other public organisations, followed by experts from agricultural organisations, industry or manufacturing, advisory services and researchers (see chart below).

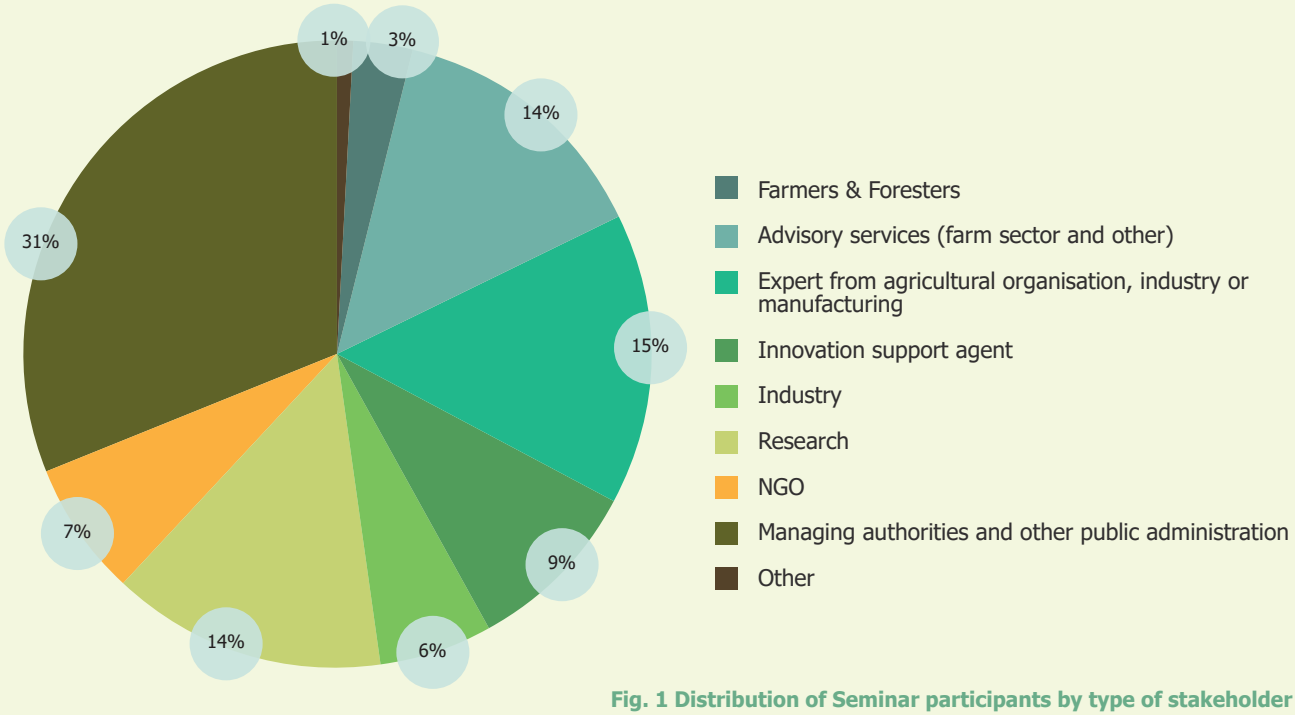


Fig. 1 Distribution of Seminar participants by type of stakeholder

The **programme** of the Seminar was designed according to its four objectives. The EC representatives María Ángeles Benítez Salas and Kerstin Rosenow opened the seminar and presented the most relevant EU-policies and programmes supporting digitisation in agriculture and rural areas.

Representatives from the Junta de Andalucia in Spain presented the **Strategy for the Digital Transformation of the Agrifood Value Chain in Andalusia**.

The Andalusia strategy identifies digitisation as a key element for the modernisation of the agri-food sector and builds on cooperation and coordination as its core values. The strategy consists of four pillars. The first pillar focuses on the participation in relevant specialised networks, like the S3P Agrifood Thematic Partnership on Traceability and Big Data in the agri-food value chain. Moreover, the region has constituted the Digital Innovation Hub Andalucia Agrotech, one of the main tools to develop public-private coordinated actions for the digital transformation of the agrifood sector . The second pillar promotes the involvement of the region in innovative international projects and using their relevant results to feed into policy discussion in the short term. The third pillar aims at boosting the digitisation of the agri-food sector including farmers and the agro-industry through seven main action lines. For example, the EIP Operational Groups, SmartAgroLabs in the FIWAREZone or Demofarm 4.0 Andalucia, a network of digitised farms that are used as training sites. Finally, the fourth pillar addresses the aspect of digital public administration, which aims to make administrative procedures easier to handle, and facilitate access to relevant data. Several different measures are put in place in this domain, such as a new Geoportal, a spatial data infrastructure for the agrifood sector.

More information:
https://www.juntadeandalucia.es/organismos/agriculturaganaderiapescaydesarrollosostenible/areas/desarrollo-rural/dih-andalucia-agrotech.html

Moreover, the seminar showcased **16 inspiring cases**, presenting a wide range of examples of strategic planning for digitisation of agriculture and rural areas at national, regional and local level.

Interactive sessions put the participants and their contributions at the core of the event, and most of the time was devoted to different types of group work and discussions.

The Seminar was closed by a **video message from Commissioner Phil Hogan**.

Participants assessed the event through an online evaluation survey made available at the end of the Seminar. Almost 85% of respondents to the survey were satisfied or very satisfied with the Seminar.

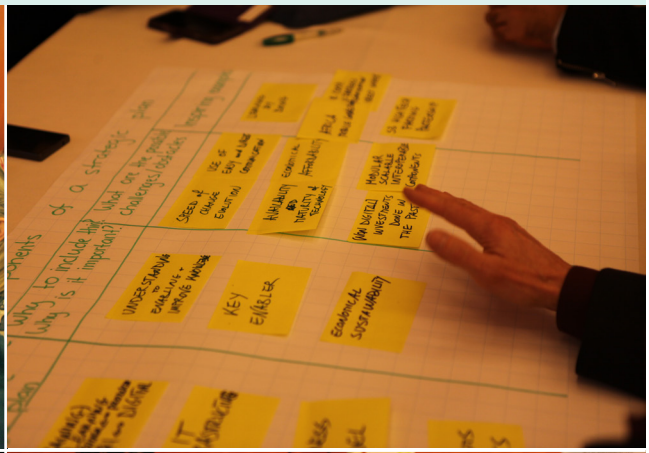
funded by European Commission

4. Main components of a strategy for digitisation

Participants reflected on the main components of a digital strategy for agriculture and rural areas. Divided in 20 groups, they worked in parallel sessions defining the most important elements and identifying the key challenges or obstacles to tackle (see next section).

The discussions resulted in a significant and diverse set of potential components, harvesting almost 100 different items as a result. The table below clusters these items in twelve main themes:

COMPONENT	RATIONALE-SYNOPSIS
1. Vision and positioning	The strategy should consider the specific context(s) and be flexible so that modifications can be made according to the evolving challenges and needs. It should build on a common vision agreed by all relevant stakeholders, putting the farmer and the rural inhabitant at the centre and covering the whole agri-food chain.
2. Needs and gap analysis	The focus should be on the needs from the field. This is a precondition for ensuring engagement and ownership. It is also the basis of the design of business models.
3. Skills development, education and training	This component covers a broad range of elements. From access to basic ICT skills in rural communities, to keeping up with new developments in knowledge and technology. Issues such as acceptance, engagement, competitiveness, awareness and proficiency should receive particular attention. Different approaches and tools may be used (peer-to-peer, long-life learning, etc.…) to foster this crucial component.
4. Infrastructure (and technology)	A robust infrastructure is the prerequisite of digital strategies. The strategy should consider both existing and future infrastructure developments. In this context, competitiveness and technology management should receive particular attention. Key elements identified were connectivity and 'internet of things' (IoT). Moreover, new legislation may be needed for the adaptation of infrastructure and new technologies.
5. Data governance	Good data governance constitutes another prerequisite and for some participants this is at the core of digitisation. Well-articulated data governance is needed to create added value (through new services, products, business cases, etc.…). Attention should be paid to the following elements: 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	Value propositions linked to digitisation. Critical for addressing sustainability of rural economies, the models, cases and services identified by the strategy should be adapted to each local context, covering different scales of farming and niche markets. This component is very much related to investments as well as to the engagement of actors.



Word cloud from the 20 groups answering: "What are the 3 to 5 keywords from your table?"

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 solutions and developments as well as avoiding monopolies. Linked to ecosystem (see component 8).
8. Ecosystem	Ensuring that the conditions are in place for the development of an enabling and innovative digital ecosystem by, for instance, promoting the establishment of Digital Innovation Hubs. Building an enabling environment should take into account the socio-economic implications for rural communities and ensure inclusiveness.
9. Governance and communication	The identification and engagement of stakeholders during the different stages (from design to execution) is a clearly identified component. It refers to different levels of involvement: awareness, participation, co-creation for uptake. Besides, there is a range of elements that should receive attention: inclusiveness, strengthening of connections among the different types of stakeholders (e.g. farmers and the wider rural community), commitment (particularly from politicians), appropriate language, and simplified e-governance. Proper governance and communication supports also the identification of needs and gap analysis.
10. Evaluation and monitoring	The strategy needs to be monitored and to include an evaluation system to allow measurability and continuous improvement.
11. Finance and funding	Availability and access to financing instruments.
12. Implementation	Leadership. Road map and governance for implementation

5. Challenges to foster strategies for digitising agriculture

Besides reflecting on the main components of the strategy, the different working groups identified the barriers and opportunities for setting up digital strategies. Access to funding, availability of technology and infrastructure, especially in remote and less developed areas, or data issues, were frequent discussion topics. Nevertheless, the majority of the challenges mentioned fall into the social and institutional domains. This includes issues such as how to increase awareness and commitment by relevant actors (for instance, policy makers); how to ensure communication among a broad and diverse range of players, with different interests; how to address the lack of an adequate level of digital skills; how to ensure inclusiveness in the process from different perspectives (age, location, position in the agri-food chain, etc.). The table below contains the main findings of the group discussions:

CHALLENGE	RATIONALE-SYNOPSIS
Economic viability	Are funds and financing instruments available? Are returns on investment known and favourable? Are costs of the universal coverage of the "last mile" affordable? Related not just to infrastructure, but also to other aspects like training and skills' development.
Readiness of technology	Maturity of technology and availability – currently, that maturity or availability is only partial-. Connectivity: broadband/5G. Scalability, modularity, interoperability. Resilience of infrastructure to change (technological, to demand, etc.)
Data management	Several topics related to data were mentioned: availability, ownership, privacy, standards and interoperability, quality, storage, collection, analysis, etc.
Ability to adapt in time	Capacity at different levels to adapt to high speed of change. React in time to fast development of technology.
Lack of awareness and resistance to change	Potential disengagement of actors due to diverse reasons: cultural, mind-set, lack of interest, lack of knowledge, lack of trust. Diverging interests and/or opposing stakeholders/parties could also be an obstacle..
Skills level	Diverse levels of digital skills and expertise among actors-users as well as different levels of knowledge needs. Absence of [well] established channels and tools for this type of training, knowledge sharing. How to (and who should) address the training of trainers?
Effective communication	There are difficulties to reach all types of users / actors. There is often little networking and direct communication. Language barriers represent an important challenge too.
Inclusiveness	Difficulties to reach all the actors and lack of success in involving local people. Demand driven vs. supply driven approaches – prioritise the first one. Small agri-food chains should be considered when business models are defined so the digitisation process ensures their sustainability. How is value (benefits) captured, controlled and shared? . Collaboration of competitors/rivals. Consider actors with different skill levels.

6. Next steps & priority topics

The participants proposed around 30 priority issues to consider in moving strategies forward, for discussion at the second day of the event. These issues were clustered in eight priority topics (see Annex C). Each of these eight topics was further developed by the participants. Issues discussed concerned **benchmarking, knowledge and learning, communication and involvement, the CAP strategic planning, data governance, process design governance, smart villages, multi-level and cross-cutting strategies.**

The table below shows the main reflection points for each of those priority issues.

PRIORITY TOPIC	DISCUSSION: KEY ASPECTS / APPROACH / FIRST ACTIONS FOR SETTING UP STRATEGIES
Benchmarking	IT IS IMPORTANT TO BOTH MONITOR OWN STRATEGIES AND LEARN FROM OTHERS. BUT WHAT TO MEASURE AND WHEN? • The ultimate goal of the strategy is to create impact, and digitisation is only a component, which is difficult to isolate. • Common metrics and sets of indicators need to be developed, both general and sector-specific, focusing on impact. The potential of FADN data (Farm Accountancy Data Network) could be explored in this context. • Seize the opportunity to learn from others (for instance, the French and FAO initiatives presented during the Seminar). **First actions:** create a peer group of interested and competent experts. This group should bring data to the process, analyse results, monitor the process and include multi-level and multi-actor approaches into their reflections.

Knowledge and learning	HOW TO PROMOTE AWARENESS AND (POTENTIAL) USE OF DIGITISATION AMONG RURAL COMMUNITIES? AND HOW TO OVERCOME FRAGMENTATION OF STAKEHOLDERS? • Use different communication approaches (traditional + innovative). • Role of demonstration farms – build on existing initiatives in Europe-, disseminate information and good practice. Strengthen the role of networks (for instance of National Rural Networks). • Strengthen links among initiatives: multipliers, Public-Private Partnerships, applied research, advisory services. • Streamline existing funding and explore potential synergies among funds • Communication face-to-face, peer-to-peer. • Identify motivational aspects and develop them further. • Include family aspects: gender, generational perspective, etc. **First actions:** include this issue in the CAP strategic plan and coordinate different initiatives
Communication and involvement	HOW DO WE COMMUNICATE WITH RURAL COMMUNITIES? HOW DO WE GAIN ACCESS TO THEM AND COMMUNICATE? • Display multiple communication methods / approaches. Use a combination of new media (social media), classic media (like local newspapers) or face-to-face in meetings and consultations. Make sure communication efforts are integrated with local level activities and communication channels, address local concerns, and use multipliers to maximise the impact. • Use the right language for the people you want to reach! Simple and clear messages (e.g. people at the centre, include real stories, not just facts and figures). Make use of case studies. • Bottom-up approach: involve all actors, make it count (develop trust). Maintain interest, extract useful inputs/ask for opinion • Deliver the outputs on time (be sure that they are derived from the inputs provided by the stakeholders). • Keep in touch and stay informed all along the process • Educate/train yourself and the audience; interconnection – communication Plan. HOW TO MAKE BENEFITS ON DIGITISATION CLEAR TO END USERS? • Engage stakeholders (from different disciplines/fields) in inclusive partnerships: apply bottom-up approach, strengthen the ecosystem, and integrate the topic in local strategies. Advisers and educational organisations are needed to serve the community. • Importance of the process (process perspective) • Best practices to be highlighted: demonstration, validation and testimonials lead to increased trust. • Standards are relevant to allow communication • Availability of data for research

funded by European Commission

CAP strategic planning

WHERE EXACTLY IS DIGITISATION INCLUDED IN THE CAP STRATEGIC PLAN? WHAT IS IT EXPECTED TO ADDRESS? HOW TO KEEP ON EXCHANGING EXPERIENCE AMONG COUNTRIES?

- Characterise the digital landscapes
- and inventory all available digital strategies to make the link.
- Look at SWOT analysis and: recognise the existing gaps, identify priorities around the nine CAP objectives and the strategic plan interventions in terms of digital needs/objectives.
- Regionalisation <=> national coordination issue still needs to be solved in some Member States
- Describe how the aspects concerning digitisation will be included into the intervention areas addressing the nine CAP objectives according to Member States´ needs.

First actions:

- Set up an EU group for Art. 102 of the CAP proposal to exchange ideas.
- Identify existing initiatives, including initiatives outside of EU (related to benchmarking)

HOW TO COLLECT THE EXISTING INFORMATION AND USE IT FOR THE CAP STRATEGIC PLAN (AND OTHER OBJECTIVES SUCH AS THE UNITED NATIONS SUSTAINABLE DEVELOPMENT GOALS (SDGS)?

- Better/bottom-up collection of data to use in CAP strategic planning. Need to promote a cultural shift – increase interaction between ministries to integrate data.
- Sharing of best practices.
- Create multiple-scale platforms (regional/national/EU/sectoral) to facilitate data sharing: elaborate a definition of standards at higher levels, to be adapted at local level.

First actions:

- Evaluate own experiences managing and sharing data and use them.
- Create stakeholder networks/ecosystems covering the different levels and actors needed – build on DIHs.
- Map the needs, bottom-up.
- Always explain why we are doing things – communication of policy objectives and approaches.

funded by European Commission

Data governance	HOW TO CREATE OPEN DATA MARKETPLACES ENABLING DEVELOPMENT OF DIGITAL SERVICES FOR THE HORIZONTAL AND VERTICAL INTEGRATION OF PARTNERS (SHARECONOMY)? • Interoperability: define (initial) standards, rules (including translation) and semantics of data in agriculture. • Agree on EU wide sets of open data – e.g. collected by governments. Accept competition though! • Need of legal rules for data economy to allow investments. • Select technical solutions for data governance and usage control. • Need to build community actively and do promotion for solutions. **First action:** spread the word – be a multiplier! HOW TO ORGANISE A BETTER GOVERNANCE AROUND DATA (SECTOR NEEDS, FAIRNESS, COMPETITION, SHARE ADDED VALUE, CHAIN POWERS AND RELATIONS)? • Consider existing experiences to learn from them. Reflect on what is missing and on the main challenges. • Organise the benefits in a balanced way, which depends very much on governance of data: ownership and fair share of added value in the chain, accessibility and availability of data for everybody vs. privacy and usage control on data competition (definition of open data), from general agreements to operational contracts and tools • ICT to allow sound governance: platform for common use and control of data quality • Awareness: elaborate/organise possible business models, share successful cases, invest in trust building, envision new services e.g. through hackathons
Process design governance	HOW TO DESIGN A DECENTRALISED (DIGITAL) STRATEGY DEVELOPMENT PROCESS? • Problem: the strategy is not well adopted where it actually matters (e.g. in regions, local areas, etc.). Therefore, decentralised processes are needed to give local people more control in the strategy design and implementation. • FAO experience/approach to strategies can be a usable reference, but it has to be better adopted (see point above) • Open and decentralised process: digi-wiki, bottom-up, potential role of EIP-AGRI (leadership, acting as "sherpa") **First actions:** create a digi-wiki, enforce the involvement of local actors and talk local

funded by European Commission

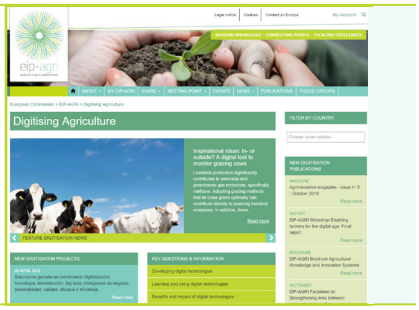
Smart villages	HOW TO LINK DIGITAL STRATEGIES AND SMART VILLAGES? • Digitisation is a tool to help community ambitions. It has a transformational character – make the impossible possible! • Policy landscape: if plans and strategies are in place, are local communities aware of them? Are the strategies sound and do communities feel ownership (vision and ambitions aligned)? • Once infrastructure is there, will it be used? Do local communities realise the possibilities that digitisation offers? Support is needed for that: brokerage, expertise, leadership (e.g. LEADER approach). • Inclusiveness is very important: reaching the parts others can't reach. **First actions:** Mapping landscape, motivating people, mobilise people to utilise smart village plans.
Multi-level and cross-cutting strategies	CROSS-CUTTING – DIGITISATION IS NOT EXCLUSIVE TO AGRICULTURE. HOW TO BREAK THE SILOS AND CONNECT EXPERIENCES SO THAT AGRICULTURE CAN USE THE ADVANCEMENT AND IMPACT FROM OTHER SECTORS AND DOMAINS? • Consider big societal issues (SDGs) and determine the role of agriculture. • Build bridges among sectors and increase awareness on what is happening in other domains: logistics, finance, retail, health, security, education, industry, automotive, smart cities, energy, etc.) • Conceptual mapping/landscape: what can be used from other domains?, present agricultural challenges to other domains and ask for support/advice • Monitoring and impact assessment **First actions:** identify key persons to build bridges among sectors, put it on the political agendas (in a broad sense), understand any external impact that is already present (through research) MULTI-LEVEL – DIGITISATION RECEIVES AN UNEVEN SUPPORT FROM THE DIFFERENT LEVELS. REGIONS SEEM TO BE LESS ACTIVE COMPARED TO EU. HOW TO ACTIVATE THEM? • Which are the levels to consider? Global, EU, trans-national, inter-regional, national, regional, sub-regional, local (village level). • Different levels can be understood and considered differently within different domains, and not just from a geographic or administrative scope but also the political, cultural, economic, technological, etc., perspectives • Commonalities need to be found across the different levels: which are the objectives? Which are the roles? What are the technology readiness levels (TRLs)? It is important to identify where is the 'valley of death' (the connection gap between the levels) to properly tackle it.

funded by European Commission

Annex A: Relevant links to EU initiatives and EIP-AGRI materials

- Future of the common agricultural policy – CAP legislative proposal: https://ec.europa.eu/info/food-farming-fisheries/key-policies/common-agricultural-policy/future-cap_en
- CAP strategic plan proposal: https://ec.europa.eu/commission/sites/beta-political/files/budget-may2018-cap-strategic-plans_en.pdf
- Strategic approach to EU agricultural Research & Innovation: https://ec.europa.eu/programmes/horizon2020/en/news/final-paper-strategic-approach-eu-agricultural-research-and-innovation
- AGRI Research Factsheet - Digital transformation in agriculture and rural areas: http://ec.europa.eu/information_society/newsroom/image/document/2018-18/agri_factsheets_11_digital-transformation_ok_1545CC6B-DE68-0E34-42372644A48E7E2E_51898.pdf
- Horizon2020: https://ec.europa.eu/programmes/horizon2020/en
- Horizon Europe: https://ec.europa.eu/info/designing-next-research-and-innovation-framework-programme/what-shapes-next-framework-programme_en
- Digitising European Industry initiative: https://ec.europa.eu/digital-single-market/en/pillars-digitising-european-industry-initiative
- Smart Villages: https://enrd.ec.europa.eu/enrd-thematic-work/smart-and-competitive-rural-areas/smart-villages_en
- Smart Specialisation Platform: s3platform.jrc.ec.europa.eu/
- Action Plan for Rural Broadband: https://ec.europa.eu/digital-single-market/en/news/european-commission-joins-forces-help-bringing-more-broadband-rural-areas
- Code of conduct on data sharing: https://copa-cogeca.eu/img/user/files/EU%20CODE/EU_Code_2018_web_version.pdf

To support the digital transformation, **the EIP-AGRI website features a section on 'digitising agriculture'** which grows every day and unlocks all the knowledge that is already available in the EIP-AGRI network. This section inspires the EIP-AGRI community with existing digital technologies, and projects on precision farming, robotics, decision support tools, digital marketing and digital innovation hubs. It provides ideas on how to improve digital skills and knowledge.



funded by European Commission

Annex B: List of additional interesting initiatives fostering strategies

Example	Geographical level	Description	Source/Link
Strategy For Digitisation of Agriculture	Bulgaria	Strategy for the digitization of agriculture in Bulgaria.	Not available
Digital Strategy 2016-2020 "A Stronger and More Secure Digital Denmark"	Denmark	Digital Strategy 2016-2020 "A Stronger and More Secure Digital Denmark" (2016) – sets the course for Danish public sector digitisation efforts and their interaction with businesses and industry. It contains 33 initiatives.	link to website
Digital Growth Strategy	Denmark	Strategy for Denmark's Digital Growth, which contains clear goals and initiatives for the digital transformation of Danish commerce.	link to website
Digitising European Idustry - Catalogue	EU	A country overview with relevant information for digitising industry for all 28 Member States and 15 country reports.	link to website 1 link to website 2
e-rosa project	EU	e-ROSA is a support action in which the aim is to design a strategic long-term roadmap for achieving a sustainable open science e-infrastructure for research and education in agriculture. The design is planned to be achieved through a process in which different stakeholders will be involved, mainly research and education communities, but also practitioners and EU policy makers.	link to website
National strategy of digital infrastructure	Finland	National strategy of digital infrastructure	link to website
Digital Finland Framework	Finland	Digital Finland Framework supports effective coordination of sustainable digital transformation in Finland.	link to website

funded by European Commission

MINASMART-DIH & Auvergne-Rhône-Alpes digital strategy	France - Auvergne-Rhône-Alpes	MINASMART- DIH Auvergne-Rhône-Alpes. Digital strateggy 2017/2021 Based on " main pillars: 1) infrastructures (improve rural connectivity); 2) Skills & training (tailor-made skills); 3) services (for entreprises, PAs)	**link to website**
Digital Village Bavaria	Germany - Bavaria	The aim of the "Digital Village" project is to tap potentials offered by digitization. To this end, ideas are to be developed throughout Bavaria and tested in three model villages - one each in northern and southern Bavaria and one in the Bavarian Alpine region - as an example.	**link to website**
Strategy for the digitisation of the economy of the state of Brandenburg	Germany - Brandenburg	The Ministry of Economic Affairs and Energy of the Federal State of Brandenburg has started to work out a strategy for the digitization of the economy of the state of Brandenburg on the basis of a parliamentary decision of 9 November 2016 . The aim is to provide business support in Brandenburg with the digitization of its value-added and administrative activities.	**link to website**
Masterplan Digitisation with one focus on agriculture	Germany - Lower Saxony	The state government is formulating a Masterplan Digitization with one focus on agriculture (with projects that aim at the "Stable of the Future" or "Experimental Fields"), which will be made official in the next months. This is in line with federal plans for establishing "experimentation fields" for the digitization of agriculture.	Not available
Digital transformation of Greek agriculture	Greece	The Greek government has been working on the policy for the digital transformation of the Greek agricultural sector for the last months.	Not available
eGovernment Strategy	Ireland	eGovernment Strategy 2017-2020	**link to website**
National Digital Strategy	Ireland	National Digital Strategy (under elaboration): Digital Strategy Interdepartmental Group	**link to website**

funded by European Commission

Digital Agenda 2020	Italy - Alto Adige	Digital agenda 2020 is a general strategy for the territory, but it has identified and it is implementing valid measures for the agricultural sector.	**link to website**
Piano strategico Banda Ultra Larga	Italy - Piamonte	Regione Piemonte is contributing to the development of a strategy for digitising agriculture or rural area on the whole regional rural territory mainly through the implementation of "Piano strategico Banda Ultra Larga"	**link to website**
Agenda for the Digitisation of the agri-food and forestry sectors and rural areas	Spain	Its main goal is to define the strategic lines and measures necessary to promote the digital transformation of the agri-food and forestry sectors and rural areas, as well as the necessary instruments for their execution.	**link to website**
Digital Agenda for Sweden "For a sustainable digitalised Sweden"	Sweden	Digital Agenda for Sweden "For a sustainable digitalized Sweden" (2017) - outlines how digitalisation policy is going to contribute to competitiveness, full employment, and economic, social and environmentally sustainable development	**link to website**
Agricultural technologies (agri-tech) strategy	United Kingdom	In partnership with industry, UK government has developed a long-term agri-tech strategy. It makes sure the knowledge and insight from the UK's world-leading science base are translated into benefits for society and the economy at home and abroad. The strategy was launched in July 2013, with £160 million of funding.	**link to website**

funded by European Commission

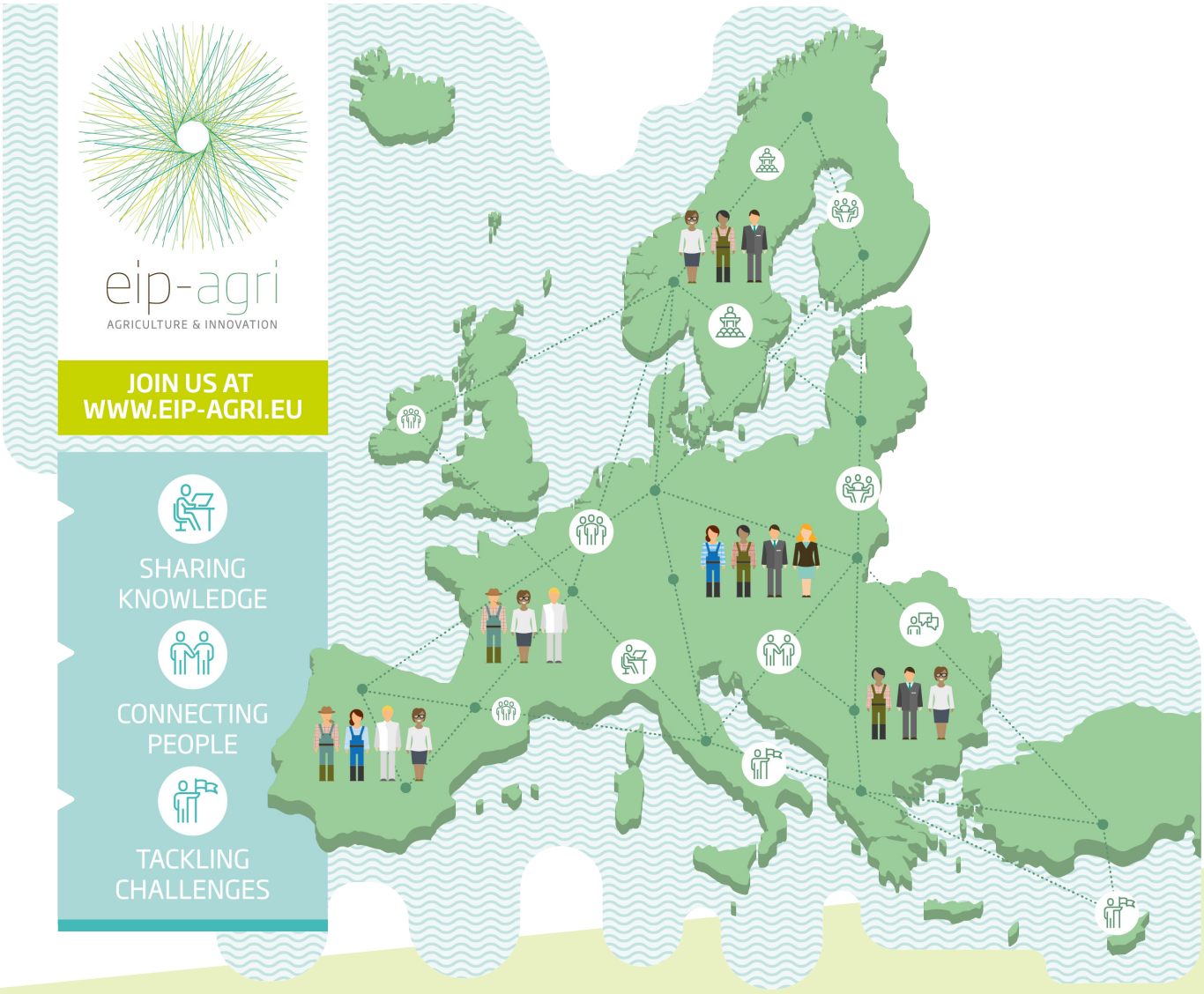
Annex C: Priority issues to move strategies forward (before clustering)

Topic	Cluster
Digital transformation OBSERVATORY. Its value in the definition and monitoring of a digital strategy. Existing examples?	**benchmarking**
Which country has already a digital strategy for agriculture	**benchmarking**
How to improve data management and sharing (e.g. for indicators) for CAP plan preparation/implementation?	**CAP strategic planning**
Relation between Strategic Plan (required by draft regulations) and a Digital Strategy	**CAP strategic planning**
How to communicate and disseminate strategies in order to engage all different actors	**Communication & involvement**
How to engage rural citizens in planning?	**Communication & involvement**
How to communicate efficiently to end users?	**Communication & involvement**
How to design and implement a digitalization strategy to engage the small farmers.	**Communication & involvement**
Inclusion: Open data versus data protection. What could be the best technical, ethical, political approaches to ensure the farmers' privacy while benefiting from open data	**data**
Should the Strategy set up a digital agri-infrastructure for EU - a framework for transparent data sharing rules, open standards, secure public data services, etc.?	**data**
Presentation on FAO e-agriculture strategy guide: how to develop the vision, components of a strategy, M&E - interested? We can present it.	**design**
The potential to use the digitisation strategy as a catalyst for new / future rural based business models....	**design**
National authorities: involvement on digitisation of rural areas; identifying local and national interest; practical and accessible role of digitisation in the rural	**design**
Designing an Agri-Rural Digital Strategy; establishing a common framework	**design**

funded by European Commission

We need to work more on a vision/roadmap for digitisation in agro-food that allows us to cope with different possible future scenarios	**design**
How to compose a digi-strategy that ensures a fair level playing field for demand (inclusive cross-sectorial agriculture) and the supply side (interoperable tech offerings)?	**governance**
Governance for the implementation of a digital strategy. Which actors should be responsible of what?	**governance**
Chances of digital agricola-hubs	**governance**
How to measure/assess the impact related to the implementation of an agri-digital strategy? Existing examples?	**impact & monitoring**
How to address economic and environmental sustainability for farmers through digitalisation?	**impact & monitoring**
How to better connect farmers and rural actors from one side to digital solutions' providers on the other side?	**Knowledge & learning**
Incentives for learning and capacity building to speed up the uptake of digital strategies	**Knowledge & learning**
Creation of a network of demonstration farms/projects	**Knowledge & learning**
Transference of knowledge	**Knowledge & learning**
Identify and describe use cases.	**Knowledge & learning**
The multi-level approach for a digitisation strategy with objectives and roles at EU, national, regional and local level in a consistent overall strategy.	**multi-level**
Designing and implementing multi-regional strategies (between MS) pilots	**multi-regional**
How to promote exchange between managing authorities that are preparing a digital strategy in the CAP Plan? How to make this specific and precise (e.g. sheep sector)?	**multi-regional**
Linking people and technology in the Smart Village concept	**smart villages**

funded by European Commission


eip-agri
AGRICULTURE & INNOVATION
JOIN US AT
WWW.EIP-AGRI.EU
SHARING
KNOWLEDGE
CONNECTING
PEOPLE
TACKLING
CHALLENGES

eip-agri
AGRICULTURE & INNOVATION

The European Innovation Partnership 'Agricultural Productivity and Sustainability' (EIP-AGRI) is one of five EIPs launched by the European Commission in a bid to promote rapid modernisation by stepping up innovation efforts.

The **EIP-AGRI** aims to catalyse the innovation process in the **agricultural and forestry sectors** by bringing **research and practice closer together** – in research and innovation projects as well as through the EIP-AGRI network.

EIPs aim to streamline, simplify and better coordinate existing instruments and initiatives and complement them with actions where necessary. Two specific funding sources are particularly important for the EIP-AGRI:

- the EU Research and Innovation framework, Horizon 2020,
- the EU Rural Development Policy.

funded by European Commission

Join the EIP-AGRI Network & Register via www.eip-agri.eu

www.eip-agri.eu | +32 2 543 73 48 | servicepoint@eip-agri.eu | Koning Albert II-laan 15 Conscience Building | 1210 Brussels | Belgium