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Smart Specialisation in the Western Balkans – the first thematic workshop on agri-food

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Abstract

Smart Specialisation has gained traction in the Western Balkans. In the last four years, all Western Balkan economies made progress in developing their first Smart Specialisation strategies. This development led to revealing preliminary or final priority areas in most of them, highlighting few potentially common ones for the entire region. This is the case with the agri-food area which so far appeared in all finalised Smart Specialisation strategies as well as in the final analyses that provide priority areas that should enter the strategies. Having in mind that the Smart Specialisation-related documentation aim at providing justification for selecting priority areas, as well as thorough analysis of their potential for national economies, there was a need to identify common niches for collaboration in research and innovation efforts and to highlight the challenges that the economies are facing concerning exploiting their full potential in the agri-food area. This report highlight main challenges and opportunities that were emphasised during the discussion. The report also gives an expert overview of the context and provides recommendation for facing these challenges and promoting collaboration in the Smart Specialisation priority area of agri-food for the benefit of the entire region.

Foreword

“The first S3 thematic workshop on agrifood in the Western Balkans” was organised within the project “Support for Smart Specialisation in the Western Balkans and Turkey” coordinated by the JRC and DG NEAR. It marked the beginning of thematic workshops on common Smart Specialisation priority areas in the EU Enlargement region based on the progress made in the Smart Specialisation process. The participants of the workshop included stakeholders from business sector, academia and public authorities from the entire Western Balkan region, while the event was moderated by the experienced experts in this field.

Acknowledgements

We would like to thank all participants from the workshop “The first S3 thematic workshop on agrifood in the Western Balkans” for their insightful elaborations on the wider topic of the state of agri-food in the Western Balkan region. The discussion at the workshop enabled us to identify regional opportunities and challenges in the agri-food area more clearly. We also appreciate the valuable comments from Mark Boden, Deputy Head of the JRC Territorial Development Unit, and Monika Matusiak, Team Leader of the JRC Smart Specialisation Global Outreach Team, that contributed to the quality of this report.

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Executive summary

As the Smart Specialisation in the Western Balkans is picking up pace, the process is revealing several similar or common priority domains for the economies from the region. One of these priorities relates to agricultural and food industries or to the domain of 'agri-food', being the commonly used term to encompass both industry areas.

By analysing this domain in the mapping stage, majority of economies from the Western Balkan region identified key elements of its economic, innovation and scientific potential, as well as key stakeholders that operate within the domain. The first thematic workshop in the Western Balkans on common priority area of agri-food aimed to bring together national authorities for Smart Specialisation and these key stakeholders to further discuss the potential of this priority domain for enhancing regional competitiveness and discussing opportunities and challenges for collaboration in this area.

The event was organised so to provide relevant information on the ongoing and planned national, regional and international programmes for advancing the agri-food domain, which was further discussed during the whole workshop. It also enabled members of national Smart Specialisation teams and stakeholders from the Western Balkans to state main challenges for developing collaboration in research, innovation and market placement of promising regional products from the agri-food domain. The discussion was moderated by two international experts from this area.

The event resulted in giving an overview of the current state in the agri-food area in the Western Balkans and in strengthening the links between regional stakeholders in the agri-food area who all agreed to continue discussing the challenges and opportunities for further collaboration. Furthermore, the discussion among stakeholders produced a list of possible actions for enhancement of the regional competitiveness in the agri-food domain. The main findings from the discussion and the recommendations for possible actions are given in this report.

1 Introduction

During the EU Western-Balkan Summit on October 6, 2021, the European Union and the six economies of the Western Balkan region have agreed to strengthen their cooperation on several areas including research, innovation and education, also to emphasize the intention of these economies of a long-term goal of EU membership.

The agreement aims at promoting scientific excellence and education reform in the Western Balkan economies of Albania, Bosnia and Herzegovina, Kosovo^{*1}, North Macedonia, Montenegro and Serbia, also helping to prevent a 'brain drain' of researchers out of this region. The strategy covers an increase in investments in research and education, and includes "nurturing knowledge-based societies and evidence-informed policymaking", "transforming the national research and innovation eco-systems" and "enhancing the quality of education and training". This also includes that all six of the economies are expected to associate with the EU's R&D programme Horizon Europe.

The Smart Specialisation (S3) strategy plays an important role in achieving these ambitious goals, because it relies on a regional prioritisation of economic areas with high innovative potential and promotes a bottom-up approach aimed at strengthening existing scientific, innovative and technological endowments of the territory (Gianelle et al, 2016; Matusiak et al, 2018). In line with this process, the Joint Research Centre of the European Commission (JRC) invited regional experts for a two-day online workshop on October 5 and 6, in order to identify the opportunities for regional cooperation in Smart specialisation priority domain of agri-food, and respective sub-domains, as well as initiatives to promote such cooperation. The S3 agri-food partnership focuses on various priority areas related to agriculture and food including consumer involvement and extended satisfaction, high tech farming, traceability, sustainability and big data, nutritional ingredients as well as key enabling technologies (Industry 4.0), e.g. Internet of Things for agri-food.

This event brought together various stakeholders of the region from the agri-food area which discussed potential promising areas for cooperation based on regional research and innovation potential as well as opportunities and challenges for increasing regional competitiveness in the agri-food area. This report summarises the results of this workshop and highlights the main outcomes.

1 *This designation is without prejudice to positions on status, and is in line with UNSCR 1244/1999 and the ICJ Opinion on the Kosovo declaration of independence.

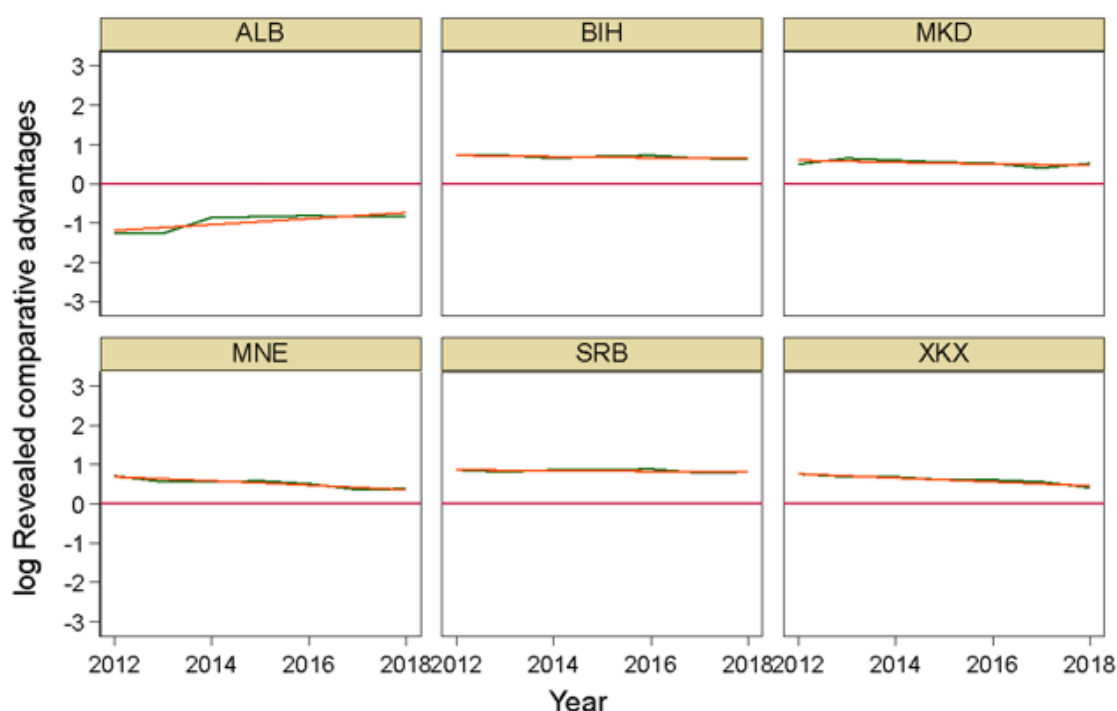
2 Smart Specialisation in the Western Balkan economies

Western Balkan economies started activities regarding the development of S3. This process is led by national S3 working groups and supported by the JRC. The S3 working groups are responsible for all S3-related phases such as the design, implementation and monitoring of the final strategy. Due to several factors, including structural, institutional and contextual ones, the six Western Balkan economies are at different stages of the process of finalising the S3 strategy document. Some of them have already adopted the S3 strategy, whereas others are running the preliminary analytical studies or are still preparing for that stage of the process.

Experiences from the S3 exercise and stakeholder discussion organised in all Western Balkan economies so far pointed out several common priority areas with high economic, innovative and scientific potential. Agri-food area is one of them. In addition, a detailed analysis of the value chains in the Western Balkans published in 2022 (see Matusiak et al, 2022) outlined six sectors with the strong potential with agri-food being one of them.

Despite the issues caused by various factors, such as inadequate sector structure with prevalent small farms and firms, obsolete technology, products with low added value, obsolete marketing strategies, inadequate productivity and efficiency, low cooperation, labour quality and availability (OECD, 2019, 2021) and inadequate institutional framework and policies, the agri-food sector remains as a crucial economic area for all six Western Balkan economies. It is one of the biggest sectors in terms of size of assets and revenues (Matusiak et al., 2022). In terms of the contribution to income and employment, the agriculture and food sectors play an important role in these economies. In particular, income per worker in the food sector is above average compared to other average incomes. The agri-food sector in each of the six Western Balkan economies (except in Albania) has revealed comparative advantages (see Figure 1).

Figure 1. Revealed comparative advantages in the agri-food sector of the six Western Balkan economies, 2012-2018

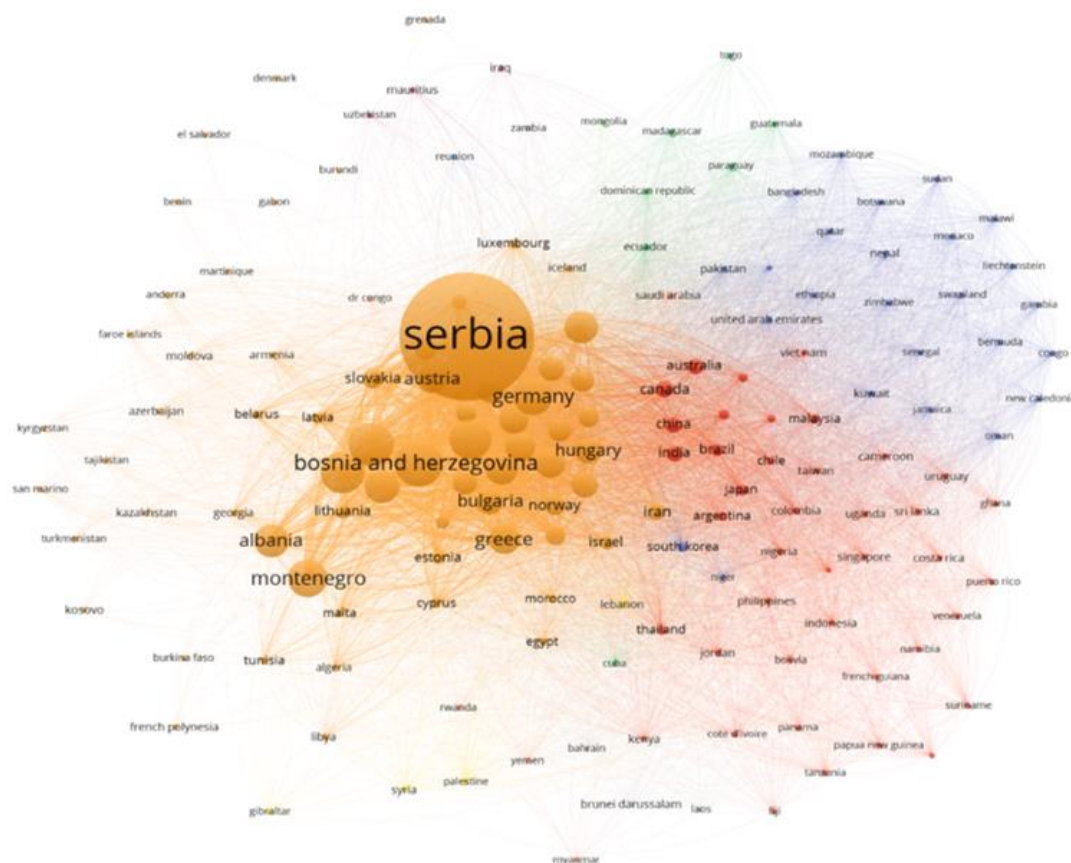


Source: Matusiak et al., 2022.

In spite of a weak logistic infrastructure within the region, there are several initiatives connecting farmers' associations, companies, traders, financial and intermediary institutions. In addition, strong regional agri-food trade connects sectors even more across the six Western Balkan economies. According to OECD (2021), public and private funding for research and development (R&D) is very low with a minor rate of translating research results into economic activities, which in turn leads to under-optimised use of R&D. „...With increased funding

for public sector research and by promoting scientific research as an attractive profession to develop human capital and counteract brain drain, innovation systems could be a key driver of economic growth in the region..." (OECD, 2021). Currently, Serbian R&D institutions are the most active in collaborating with all Western Balkan economies, building strong networks that increase the sector's innovative potential and should also strongly benefit from a successful implementation of the S3, as presented in Figure 2.

Figure 2. Cooperation networks of Western Balkan economies in the agri-food sector, 2008-2020



Note: Nodes = Number of documents; Edges = Number of co-authored publications.

Source: Matusiak et al., 2022.

The OECD report (2021) outlined that the pandemic has revealed the need to reorient the region's reform priorities towards a stronger focus on sustainability, inclusiveness and citizens well-being. Therefore, the S3 approach can support the development of the agri-food sector to utilise existing and revealed potential, like it is outlined in the S3 documents from Serbia², Montenegro³, North Macedonia⁴, as well as in the OECD reports on SEE competitiveness (2021, 2018). That is why the agri-food sector is becoming central to EU efforts of supporting the development of a sustainable, inclusive and integrated region.

A first step in that direction is to support and enhance stakeholders' dialogue in order to identify the main challenges and the potential, promising economic domains for a more precise recommendation for policy interventions that will build six stronger, well integrated Western Balkan economies.

² Republic of Serbia (2020): Smart Specialisation Strategy of the Republic of Serbia for the Period 2020 to 2027. Official Gazette of the Republic of Serbia", No. 30/18. <https://pametnaspecijalizacija.mpn.gov.rs/wp-content/uploads/2020/09/Smart-Specialization-Strategy-of-the-RS-for-the-period-2020-to-2027.pdf>

³ Smart Specialisation Strategy of Montenegro 2019 – 2024, Ministry of Science, Podgorica, Montenegro, ISBN 978-9940-732-03-5

⁴ Radovanovic, N., Lazarov, D., Arizankovska, J., Majstoroska, J. and Bole, D., Qualitative analysis of economic, innovation and scientific potential in North Macedonia, EUR 31013 EN, Publications Office of the European Union, Luxembourg, 2022, ISBN 978-92-76-49385-3, doi:10.2760/231671, JRC128181.

3 Objectives and methodology of the workshop

This first thematic workshop on agri-food aimed at considering, debating and exploring issues, challenges and determinants of increasing collaboration opportunities for the Western Balkan economies that can enhance competitiveness of the region in terms of its economic and innovation potential. To this purpose, this workshop brought together various national stakeholders in the agri-food area from the Western Balkan region and helped to identify the opportunities for regional cooperation in the Smart specialisation priority domain of agri-food (and respective sub-domains), as well as initiatives to promote such cooperation.

The workshop builds on the ongoing Smart Specialisation process in the region as well as on previous works on the topic including JRC's findings from recent research on value chains in the Western Balkans and the updates of the ongoing S3 processes in the six economies.

Methodology

The workshop organized by the JRC included the support of international experts Aleksandra Nikolic (University of Sarajevo, Bosnia and Herzegovina) and Martin Banse (Thünen-Institute, Germany).

The first phase of the workshop was on-desk research to understand the concept and implementation of the S3 approach within the Western Balkan regions done by international experts and development of the appropriate agenda for a two-day workshop (see Annex). The workshop was opened with the introductory speeches presenting the S3 concept with the logic of regional cooperation efforts. It was followed by presentations of international programmes and initiatives in the agri-food area with the emphasis on promoting collaboration in research and innovation in this domain. The central part of each day of the workshop was represented by a round table discussion. The discussions included presentations on the current state of S3 within the Western Balkan economies and the related position of agri-food priority area, as well as elaboration on opportunities for collaboration.

Prior to the workshop, a list of specific questions was sent to the invited panellists which were intended to substantiate the respective round table discussions. In this manner, the current pillars of competitiveness of the agri-food sectors across the six Western Balkan economies should have been explored as a basis for policy making processes and for strengthening the integration of six Western Balkan economies through different incentives promoted by S3.

The first round table focused on the following questions or points:

- economic and innovation potential of agri-food in regard to their economies;
- what is being implemented/planned in the agri-food area in S3 or related policy documents;
- main challenges of agri-food transformation towards sustainable, inclusive and highly efficient value chains;
- exploiting the potential of the agri-food priority area at respective national and European levels;
- collaboration opportunities in the Western Balkans - experience and examples.

In addition, the invited stakeholders from the Western Balkan regions were asked to discuss the following issues that were selected by the expert based on existing analysis presented in the referenced documents:

- which sectors are crosscutting “facilitators” of the agri-food sector development (which sectors can boost/pull/push development);
- how to attract foreign smart/modern investment?;
- what is the main obstacle for building up Western Balkan/EU Agri-food business networks?;
- how to start turning challenges into opportunities – what kind of support should be provided;
- what do you think of the following pillars on which modern inclusive, innovative and integrated Western Balkan agri-food value chain/networks rely: biodiversity – very special and unique in the whole Western Balkan (same goes for landscape); tradition – authenticity on which new business (products, processes and consumption) should be build; resources and “waste” (unused resources) – as a basis for building attractive jobs and connecting urban and rural areas?

The second round table presentations were shaped to explain the following:

- discuss the value chain analysis results (from the presentation in the previous session);
- how can research and innovation contribute to enhance the ‘smart’ implementation of measures discussed on the first day;
- benefits and challenges of integrations into regional and European value chains;
- inter-regional collaboration potential and challenges, especially in terms of value chains;
- elaboration on the status quo on collaboration efforts between the public and private sector and academia in regard to boosting mutual trust, sharing resources (e.g. knowledge, finances);
- the topics should be followed by real case examples where possible.

To focus and streamline the discussion, the invited panellists were asked to address the following questions:

- how can research facilitate the agri-food sector development?
- what is needed to support the collaboration of R&D with smart investments in the six Western Balkan Economies?
- how to enhance the inter-regional collaboration in the Western Balkan and the trans-European collaboration of researchers in enhancing smart investments?
- what kind of support is needed from the European Union?
- are there examples of successful collaboration and how can these examples be transferred to other regions?

The final phase included preparation of a short report which summarizes the main points outlined by panellist and stakeholders and offers recommendations on how to build up smart, integrated, inclusive, sustainable and competitive agri-food sectors across six Western Balkan economies with respect to regional collaboration potential.

4 Findings from the round table discussions

The first round table discussion “From smart priorities to smart implementation” included presentations on the Smart Specialisation progress and achievements related to the priority area of agri-food from national Smart Specialisation teams of several Western Balkan economies. Representatives of all Western Balkan economies were invited to join the discussion and elaborate on the potential of agri-food domain based on the progress made so far in their Smart Specialisation processes.

The discussion aimed at identifying ways to turn challenges into opportunities as well as at defining possible interventions needed for supporting connectivity and building inclusive, smart and sustainable Western Balkan agri-food networks. The panellists outlined that agri-food sectors in all six Western Balkan economies face similar challenges while the context and level of development vary across economies.

The discussion was mostly focused on the most prominent economy-specific technology and policy challenges. At the same time, similarities in respect to existing opportunities/challenges were revealed through discussion, supporting the panellists’ definition of existing opportunities in the Western Balkan region. The following opportunities for the establishment of a vivid attractive smart agri-food region in the Western Balkans through creating sustainable attractive jobs and economic growth based on innovation were outlined:

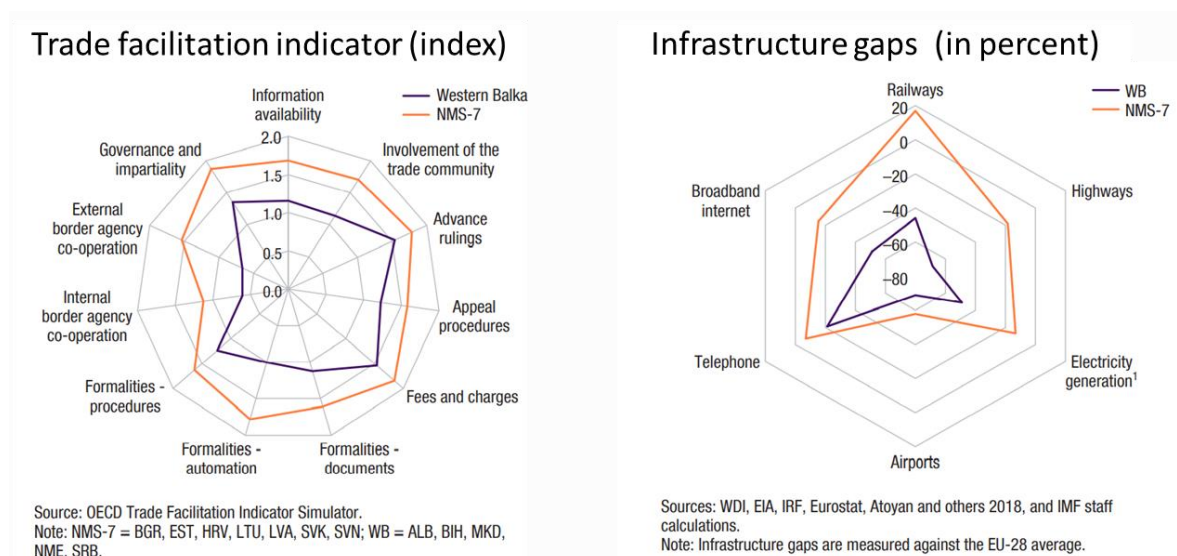
- Most of the economies from the region nurture a reputation of having high quality and diverse agricultural/food products, rich biodiversity and attractive cultural heritage (including traditional food products). One of the main opportunities lies in the development of agri-food value chains that are focused on new/innovative products, preserving tradition and adding values that support extended customer satisfaction. In other words, the opportunity is in the development of organic/urban/smart agriculture which offers premium products, increasing resilience, sustainability and decreasing the environmental footprint.
- Another opportunity is recognised in inter-sectoral cooperation providing food and other innovative products/services for gastro/adventure/sustainable tourism, health industry, pharmaceutical and cosmetic industry, biotechnology etc. Traditionally processed food, old varieties and breeds, medical plants, forest fruit/mushrooms/snails can be used as a basis for development of new products, new value chains to add values through knowledge-based partnership. Such approach should meet the needs of modern customers and society.
- Resource-management embedded solutions that turn waste (from agricultural production, food processing and consumption) into resources and inputs for energy recovery or other production lines (e.g. wool into isolation material, etc.) is recognised as an important strategic opportunity for the region.
- Low competitiveness of agri-food system is seen as main challenge within all Western Balkan economies. There is a need to have more diversified and efficient services for raising competitiveness that are based on new modern and clean technology and application of ICT solutions (Industry 4.0) connected with productivity, innovation and technology diffusion, food safety and quality, provision of detailed information about product life cycle (real-time data) including smart packaging and extended customer satisfaction (i.e. value provided through cyberspace and localized for consumption at different occasions and places).
- Recent data show that innovation and R&D infrastructure have been improving in the last decade. Different types of publicly financed innovation funds are established in North Macedonia, Montenegro and Serbia. They are seen as vehicles behind strengthening cooperation within the innovation eco-system. Research institutions (institutes and universities) are well embedded and connected to the EU and international research networks while only limited regional connections exist. A specific and industry-led policy mechanism in the form of Ph.D. regional schools can be an excellent tool for supporting the exchange of ideas and experiences, as well as for diffusing innovation and technology and strengthening the innovation capacity of all stakeholders. In such a way, connectivity between institutions/stakeholders within the region will be enhanced, fuelling better cooperation, exchange of ideas and sharing of scarce resources – keeping all stakeholders, especially the industry, engaged and motivated in Smart Specialisation and regional integration. This means that the network of R&D and innovation institutions, businesses and stakeholders has to be strengthened with new/different and problem-oriented links between them.
- Existing innovative initiatives, successful projects and clusters offer valuable opportunities to learn from others’ experiences, in order not to repeat the same mistakes. The most prominent ones that

were emphasised by the speakers are: PRO-METROFOOD and METROFOOD-PP (public health), Horizon 2020 (MKD); "B-Ferst" - Reusing bio-waste for more sustainable farming – biotechnology (MKD); "Bin2Grid" - Turning unexploited food waste into bio-methane supplied through the local filling stations network (MKD); Embedding RRI in Western Balkan Countries - Enhancement of Self-Sustaining R&I Ecosystems (WBC-RRI.NET), Horizon 2020 (SRB); Innovative bio-inspired sensors and microfluidic devices for saliva-based theranostics of oral and systemic diseases – SALSETH (SRB); BioSense – SmartAgriHubs (SRB); Food4Health, INTERREG IPA CBC Italy-Albania-Montenegro (MNE); FoodHub - Centre of Excellence for Digitalization of Microbial Food Safety Risk Assessment and Quality Parameters For Accurate Food Authenticity Certification (MNE); TagItWine, Horizon 2020 (MNE); Products and process innovation in the Montenegrin food industry – InnoFood (MNE).

Challenges in the Western Balkan region are numerous, diverse, interconnected and usually inherited from the 'socialistic era' where the focus was put on big, state-owned companies capable to pursue industry-led/oriented innovation processes. Currently, institutions that are part of existing innovation eco-systems have insufficient innovation capacity and pursue their own business goals that are usually connected with "excellence and visibility" in the international research community. There is a limited number of institutions focused on innovation which makes the existing eco-system inefficient and limits technology diffusion and transfer. A vivid stakeholder discussion revealed the following groups of challenges:

- The issues in the agri-food sector in the Western Balkans include low productivity, inadequate usage of processing capacities, focus on medium- and low-technology products and insufficient price competitiveness. This situation is partly caused by a disadvantageous farm and processing industry (micro and small farms are dominant) structure, low institutional support through intermediate institutions that are crucial for knowledge and technology transfer, as well as by the inadequate sector monitoring system. Therefore, availability and access to new, innovative, clean technologies, information about new/future market trends and availability of reliable and timely datasets for every aspect of the sector are missing. Availability and accessibility of existing datasets need to be enhanced, while new digital solutions for gathering and integrating data about the Western Balkan agri-food sector is a precondition for successful S3 approach, but also for more systematic and targeted support to sector development.
- R&D and innovation investments are very limited, while private R&D investments are negligible. Only a very limited number of the private companies pursue their own innovation/R&D initiatives.
- In spite of the fact that several innovation funds exist in the region, access to finance in a transparent and systematic manner is limited, especially for start-ups, and patent and scaling up prototypes. Commercialisation of innovations/ideas/patents is very complicated in terms of administrative processes and time. In addition, non-financial measures of support for innovation that are efficient and well targeted seem to lack.
- Approach to development/improvement of R&D and innovation eco-system is very traditional, often disregarding the solutions that are new and innovative. This means that some solutions (e.g. development of different business incubators) are replicated without a real understanding of what is needed for their smooth functioning. These solutions are not context specific or well adopted to local conditions, so they remain inefficient and focused on their internal problems, neglecting their mission of diffusing innovations. Several speakers pointed out that governments are not fully willing or capable to make risky and delicate decisions concerning priorities for investment.
- The sector is vivid, but still has limited access to market and low embeddedness in Global Value Chains (GVC), which reflects in limited FDI (OECD, 2021).
- The availability and quality of labour force has been revealed as one of major obstacles to innovation across the Western Balkan agri-food sector. According to a RCC review (2019), the labour force lacks cognitive and behavioural skills connected with communication capability, the ability to learn on the job, creativity, innovativeness and risk taking, which are crucial for adopting technological innovations across the agri-food industry. In addition, low digital literacy remains prevalent and threatens to deepen the digital divide (OECD 2021), which is a long-term problem requiring collective actions of all interested parties and the introduction of on-job education programs as well as a change of the education curriculum and the introduction of new educational Life-long Learning (LLL) forms, such as micro-credentials. Those LLL forms are focused on providing short education to the group of different stakeholders to ensure not only transfer of knowledge but to initiate the exchange of ideas and experiences.

Figure 3. Level of connectivity across the Western Balkan agri-food sector



Source: as given in the figure

- Limited access to raw material and other inputs that are very often offered at higher prices compared to world prices and a lack of logistic infrastructure and connectivity is an additional challenge that the Western Balkan agri-food sector is facing. It can limit the efficiency of the efforts to economically integrate this region (see also Figure 4).
- Complex intergovernmental coordination mechanism to implement the S3 approach requires high skills and resources to perform policy function. Such skills and resources are limited and they need to be developed and nurtured in order to understand the economic fabrics of the agri-food sector and steer its modernisation based on industry-led innovation initiatives.
- Complementary industry sectors such as cultural and creative industries and ICT are not fully developed and in inadequate position to support (by provision of services or by commercialisation of new products) faster development of the sector through knowledge-based partnership.

Table 1. Conclusions of the round table 'Agri-food in the Western Balkans - From smart priorities to smart implementation'

<p>All economies have a similar intension to build agri-food value chains which are</p> <ul style="list-style-type: none"> • innovative, • competitive and • sustainable. • 	<p>All economies face similar challenges and opportunities; however, in different context size.</p> <p>Collaboration is seen as an opportunity.</p>
<p>Building up eco-systems should be characterised by</p> <ul style="list-style-type: none"> • a connection of new and old institutions through new links, • an intensified transfer of knowledge where the implementation of Agriculture Knowledge and Innovation Systems (AKIS) is a key element. • 	<p>Next steps should include</p> <ul style="list-style-type: none"> • appropriate timing and extent of the EU financial and technical support, • developing and defining priorities by the Western Balkan economies themselves.

Source: authors.

Having acknowledged these summarized opportunities and challenges, the discussion offered few main messages as follows (see also Figure 4):

- Stronger economic integration of the Western Balkan agri-food sector through the S3 process is seen as an opportunity to grow together and add value based on knowledge partnerships by providing attractive jobs that offer opportunities for professional development. These are seen as innovative growth strategies that are very needed in the wake of the COVID 19 pandemic.
- EU support should be more localized, context-specific, supporting specific measures to help governments and all stakeholders in developing capacities for Smart Specialisation. In this respect, there is a need to organise different types of workshops and meetings to build up a network of interested and motivated parties to support diffusion of information about existing initiatives/opportunities and ideas.
- The discussion revealed that a deep understanding of the Western Balkan agri-food sector and the existing economic fabrics, challenges and its interrelations is still missing. This limits the capability to reveal priorities and shape context-specific policies to ensure high efficiency of the whole S3 process.
- Development of regionally integrated, relevant, timely, interactive and "easy to use" digital datasets (and visualisation tools) is critical for evidence-informed policies and policies that rely on experiments. Such digital datasets should be developed by intermediate institutions as a part of knowledge and technology transfer process as well as a tool to monitor the sector and provide analysis and understanding of critical obstacles across the sector.
- Future policy mechanisms should ensure a better balance between public and private sector orientation in order to induce higher private investments in R&D and innovations.
- The importance of innovative intermediators/initiatives was outlined, pointing out a lack of official data and poor "relational infrastructure". Data infrastructure in the entire region seems to be under-developed, including the capacity to gather data (especially in real time) and the willingness to share, manage and use it for predictions, as well as the monitoring, planning and producing innovations. At the same time, accessibility and availability of data are still limited. This hinders the integration of the agri-food sector into a smart, inclusive and sustainable economy.

In order to realise such radical change for the whole sector, it is necessary to ensure financial means and to support measures to ensure the raise of private and public investments in R&D. Some of these investments should be provided through EU programs, such as IPA, but also through innovative financial products focused on the promotion of quadruple helix cooperation.

The main message would be that 'activation, participation and collaboration of relevant actors should be done through the building of a new innovation, science and business ecosystem that will manage, develop and monitor the S3 process'.

The second round table discussion 'Strengths and challenges for research and innovation collaboration in the agri-food area in the Western Balkans and beyond' included a presentation on the analysis of the agri-food value chains in the Western Balkans, summarizing the main outcome of the recently conducted analysis of value chains in the Western Balkan economies, as well as oral presentations by agri-food stakeholders from the entire Western Balkan region.

Some of the main bottlenecks for the implementation of the S3 strategy in the agri-food area include lack of capacity in research and insufficient cooperation between agricultural science and technical science. Regional collaboration but also cooperation with the EU-based institutions in the agri-food area were emphasised as highly important elements for boosting innovation in the agri-food sector of the Western Balkan economies.

Box 1. Example from Montenegro – successful collaboration for higher value of the product

Moric olive farm is a certified manufacturer of organic olive oil in Montenegro, which is efficiently dealing with the challenges of marketing in the niche of olive oil. The company has developed a marketing strategy to sell olive oil not only as a commodity, but as part of a regional concept. This concept goes beyond a close collaboration of olive-producing farmers and includes participation of regional actors, such as regional administration, hotel managers and companies providing leisure services, etc. The biggest challenge in implementing such a strategy, according to the company, is to develop narratives that embrace the concept of 'localhood', where participants share favourite experiences, businesses, and attractions with locals and potential visitors. An important and already successfully used instrument for solving similar challenges lies in ICT solutions. In combining the 'business' of high-quality olive oil with the regional attraction of the Montenegrin countryside, the successful implementation of the 'localhood' not only supports the marketing of olive oil, but also all other economic activities such as local tourism and other services.

Other challenges for research and innovation collaboration in the agri-food area include lack of skilled workforce and difficulties of following and implementing specific S3 tasks of in companies' daily operations, especially when a close coordination of work with partners from scientific fora is particularly important. An important result of this work is that efficiency criteria and cost savings are particularly decisive for improving competitiveness when implementing the S3 strategy. For companies in the food processing sector, cooperation with local scientists is especially important one. This is emphasised by requirements for successful implementation of EU standards in the field of food hygiene. A possibility for deepening cooperation between businesses and science was also discussed through the organisation of joint, supra-regional trainings. It was also emphasised that, despite the availability of public funds for the implementation of Agriculture Knowledge and Innovation Systems (AKIS), the lack of scientific experts in the Western Balkan economies represents a crucial bottleneck for further successful development of the agricultural economy.

Direct technical and financial support from the EU and its member states is said to play a decisive role in supporting cooperation between science, agriculture and industry. This help is particularly important in the fields of professional training workshops and on-farm workshops with farmers, processors or with farmers at food selling points.

Inter-sectoral collaboration in the Western Balkan economies is currently on a low level. More intensive inter-sectoral collaboration and trainings for applying for EU funding programmes were pointed out as preconditions for a successful joint regional participation in these programmes. In addition, annual planning is necessary for effective preparation and coordination of applications for EU funding programmes that are already available. Particular emphasis was placed on the involvement and participation of the business community.

Some of the concluding statements of the second round-table provided important insights into the needs for policy measures addressing the following points:

- Support for the introduction of new and innovative premium products;
- Adoption of and implementation of quality standards;
- Removal of Non-Tariff-Barriers (NTB) in trade;
- Further development and deepening of regional networks between business, politics and science.

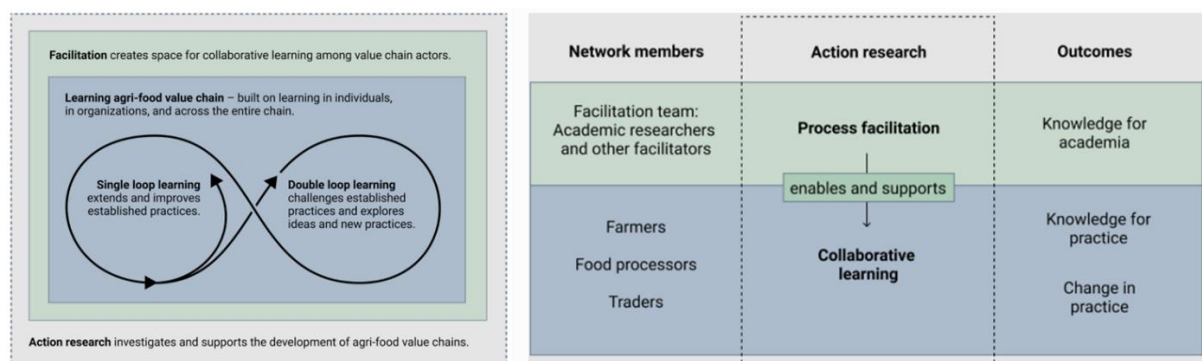
5 Recommendations

The S3 concept and process are still insufficiently followed in the Western Balkan economies. One of the consequences is replication of practices while neglecting context and producing pro forma initiatives, which then act as a barrier to innovation-led development. It is recommended to (re-)shape policy measures and actions that will gather all involved parties in different types of fora and events to discuss the S3 approach and share experiences and ideas, as well as to practically learn (from real cases and initiatives) more about the S3 concept and practice. The best approach for this activity is to explore existing connections between interested parties to build on, refreshing it with inclusion of new actors and new fresh, innovative and problem-oriented linkages.

Due to weak institutions and S3 approach requests for the “experimental” stakeholder/industry-led policy making, it is important to switch from usual and traditional “the best practice policy solutions” concept to a riskier one of “best match policies”, which in this situation should be based on “action learning” and “learning networks” as a governing mechanism. Establishing regional cooperation networks which build on already existing examples of collaboration between science and private sector could help to strengthen the comparative advantages of the Western Balkan economies. The workshop itself provided a platform for that, bringing together people from universities, private companies and public administration. In the two moderated round tables, the necessity, but also the high willingness of all participants to deepen their cooperation, became clear. This momentum should be intensified and continued in further activities.

The concept of learning networks could provide a successful method, because it is strictly problem-oriented approach for raising and keeping the attention of diverse stakeholders working on the same issue. This is an “unknown area”, highly situational and without pre-defined solutions for procedures which support functioning of a learning network (see Figure 6). It needs to be organised around real-world issues, with very clearly defined boundaries, an explicit structure and primary targets. In that way, learning and reflection across the network will be ensured applying the principle “getting things done”.

Figure 4. Learning networks as a governing mechanism within the concept of “best matches policies”



Source: Braun CL, Bitsch V, Häring, AM (2021)

In developing the S3 approach as a tool for faster and tighter economic integration of the agri-food sector across the region, it is important to define the policy measure focus on two intervention directions: (i) finding a niche for new, innovative premium products and initiatives that support the principle “transforming waste into resources”; and (ii) mainstreaming new technology/innovation into the existing industry, solving their problem with productivity, environmental footprint and access to the market, while the focus on all those measures should be supported for existing industry to make new connections and become a part of GVC. Finally, a specific financial instrument for innovations in the Western Balkan agri-food sector should be developed.

The recommendation could be summarized in the list of following items which provides an indication of measures required for a successful implementation of the S3 strategies in the Western Balkan economies in the agri-food area:

- Support for the introduction of new and innovative premium products;
- Adoption of and implementation of quality standards;

- According to speakers and literature review the fruitful cooperation could be built within the following areas:
 - bee products (with the focus on biopharmaceuticals, not only on honey);
 - food and other innovative products/services for gastro/adventure/sustainable tourism, the health industry, the pharmaceutical and cosmetic industry, biotechnology, etc;
 - traditionally processed food, old varieties and breeds, medical plants, forest fruit/mushrooms/snails can be used as a basis for development of new products, new value chains to add values through knowledge-based partnerships;
- The S3 should be based on Western Balkan economies examples and lessons learned which requests intensive activities to map existing initiatives, hubs, platforms and intermediate organisations;
- After the process of 'lessons learned', examples of best practice should be used to develop and disseminate the promoting, exchange and learning of these examples of excellence instead of a passive 'copy & paste' process of seemingly suitable ideas and solutions;
- The successful S3 approach requests a change of policy development logic from planning to process logic based on engaging different actors, nurturing new narratives and new stronger and more effective links between them;
- The Western Balkan economies need to develop and set priorities promoting opportunities to commercialize research;
- Strengthening of ecosystems connected with the new links fostering transfer of knowledge, ideas and narratives seems to be a key driver for success. Science and ready-to-use ICT/innovative solutions should also become more accessible and more 'user-friendly'. The data infrastructure should be the foundation for a new ecosystem enabling, gathering and optimising the use of data for all. Such new ecosystem would promote sharing of all resources, knowledge, skills and experience strengthening the capacity for policy innovation;
- Due to the fact that there is no 'one size fits all' solution, the EU support should be more focused and adapted to the specific needs and requirements of the six Western Balkan economies promoting quadruple helix cooperation and innovation. This adjustment is particularly needed because of different levels of economic development of most EU countries compared to the Western Balkan economies. A tailor-made approach to define regional specific priorities, appropriate mechanisms and tools for a successful policy implementation would be beneficial for meeting the needs of Western Balkan communities.
- This first S3 workshop on agri-food in the Western Balkan economies included some existing examples of joint regional initiatives that helps to promote and exploit the comparative advantages of this region. Together with other sectors, such as tourism, agriculture and food could provide a significant contribution for a successful socio-economic development of the region. While this workshop gave an important signal, further and more in-depth workshops would be needed to identify detailed approaches for investments in agriculture and the food industry.

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Annex

- Agenda of the first S3 thematic workshop on agri-food in the Western Balkans

Day 1: October 5, 2021	
Chair: Joint Research Centre	
Venue: online	
10:00-10:15	Opening session and welcome note <ul style="list-style-type: none"> • Alesandro Rainoldi, Head of Unit, Joint Research Centre • Monika Matusiak, Team Leader, Joint Research Centre
10:15-10:30	The concept of thematic S3 workshops and collaboration perspectives in the Western Balkans in the agri-food area <ul style="list-style-type: none"> • Nikola Radovanovic, Senior Policy Officer, Joint Research Centre
10:30-11:45	Supporting regional collaboration in the agri-food area in the Western Balkans Panel discussion moderated by the Elisa Gerussi, Economic and Policy Analyst, Joint Research Centre <ul style="list-style-type: none"> • Alexis Loeber, Policy Officer, DG NEAR • Max Philipp Lehne, Policy Officer, DG NEAR • Zigo Rutkovskis, Programme Manager, DG AGRI • Sinisa Marcic, Expert on Human Capital Development, Regional Cooperation Council • Judith Litjens, Policy Officer, COST • Pirita Vuorinen, Human Capital Development Specialist, European Training Foundation • Adela Franja, Project Officer, Adrion
11:45-12:00	<i>Technical break</i>
12:00-13:20	Agri-food in the Western Balkans - From smart priorities to smart implementation Round table moderated by Aleksandra Nikolic, Professor, University of Sarajevo Speakers: <ul style="list-style-type: none"> • Montenegro - Djordje Brkuljan, Head of the S3 Team; Dubravka Radulović, Ministry of Agriculture, Water Management and Forestry • Serbia - Viktor Nedovic, Head of the S3 Team; Jelena Begovic, Director of the Institute of Molecular Genetics and Genetical Engineering, Serbia; and Jasna Mastilovic, Scientific Advisor, Institute of Food Technology, Serbia • North Macedonia – Jasmina Majstoroska, Head of the S3 Team ; Aleksandra Martinovska Stojcheska, Head of Institute of Agricultural Economics, Faculty of Agricultural Sciences and Food – Skopje <i>Discussants will include other representatives from the Western Balkan economies</i>
13:20-13:30	<i>Technical break (for summing up the results from the round table)</i>
13:30-14:15	Expert feedback on the round table Discussion moderated by Martin Banse, Director, Thuenen Institute
14:15-14:30	Wrap-up of day 1
14:30	End of day 1

Day 2: October 6, 2021	
Chair: Joint Research Centre	
Venue: online	
10:00-10:15	Opening session on agri-food complementarities in the Western Balkans <ul style="list-style-type: none"> Nikola Radovanovic, Senior Policy Officer, Joint Research Centre
10:15-10:45	Analysis of the agri-food value chains in the Western Balkans <ul style="list-style-type: none"> Branimir Jovanovic, Economist, The Vienna Institute for International Economic Studies
10:45-12:30	Strengths and challenges for research and innovation collaboration in the agri-food area in the Western Balkans and beyond Panel discussion moderated by Martin Banse, Director, Thuenen Institute <ul style="list-style-type: none"> Aleksandra Martinovic, Director, Centre of Excellence FoodHub, University of Donja Gorica, Montenegro Ilija Moric, Director, Moric LLC, Montenegro Bogdan Zigic, Director, Biofor System, Serbia Dejan Milijanovic, Key Account Manager, Desing company, Serbia Ana Simonovska, Associate Professor, Faculty of Agricultural Sciences and Food – Skopje, Ss. Cyril and Methodius University, North Macedonia Stefan Orozovic, Executive Director, National Federation of Farmers, North Macedonia Hafize Veseli, Food Technology Expert, Initiative for Agricultural Development, Kosovo* Jakub Butkovic, Head of department, Office for Harmonization and Coordination of Payment Systems in Agriculture and Rural Development, Bosnia and Herzegovina Marko Mandic, WB6 CIF initiative <i>Discussants will include other representatives from the Western Balkan economies</i>
12:30-12:45	<i>Technical break</i>
12:45-13:30	Exploiting collaboration opportunities - way forward Expert feedback on the panel discussion <ul style="list-style-type: none"> Discussion moderated by Aleksandra Nikolic, Professor, University of Sarajevo
13:30-13:45	Wrap-up by JRC
13:45	End of day 2

(*) This designation is without prejudice to positions on status and is in line with UNSCR 1244/1999 and the ICJ Opinion on the Kosovo declaration of independence. This applies to the whole document and each time Kosovo is mentioned.

List of abbreviations and definitions

AKIS	Agriculture Knowledge and Innovation Systems
FDI	Foreign direct investment
ICT	Information and communication technologies
JRC	Joint Research Centre
LLL	Life-long learning
R&D	Research and development
S3	Smart Specialisation
SEE	South-East Europe

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