Report

on the review of EDP and six summary reports

provided by the Albanian national S3 team

September 2023

1. Introduction

The definition of a Smart Specialisation Strategy is one of the flagship initiatives of the Western Balkan Agenda on Research, Innovation, Education, Culture, Youth and Sport promoted since 2021 by European Commission in the framework of its strategy for the Enlargement and Neighbourhood[1]. It is also envisaged in other EU policy documents regarding the region, such as the 2020 Communication on EU Enlargement Policy and the Economic and Investment Plan for the Western Balkans[2].

This report has been drafted within the project "Support to Smart Specialisation in the Enlargement and Neighbourhood region" led by JRC and aimed at accompanying the Western Balkan Countries in the design process of their Smart Specialisation Strategies.

Through this project JRC provides a guideline for the governments on how to define the main elements for an effective Smart Specialisation Strategy.

More specifically, the JRC support action includes five areas of intervention – institutional capacity building, diagnosis, stakeholders' dialogue, definition of the policy mix, draft of the Strategy.

The focus of this report is the JRC expert review of the summary reports and additional documents provided by the Albanian national team involved in managing the stakeholders' dialogue within the Entrepreneurial Discovery Process of the S3 Albania.

The report mainly describes the work done by the S3 team for fostering stakeholders' dialogue and summarizes the main findings emerged from this process.

More in details,

- Chapter 1 provides a description of the institutional context in which the process of defining the S3 of Albania falls and the main stages of the EDP Albania;
- Chapter 2 refers the key methodological issues of the EDP highlighting its importance in the S3 definition process;
- Chapter 3 describes the stakeholder identification process, the work plan and rules applied for managing workshops and round tables;

[1] European Commission, Directorate-General for Research and Innovation, A Western Balkans agenda on innovation, research, education, culture, youth & sport, 2021.

[2] Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, An Economic and Investment Plan for the Western Balkans {SWD(2020) 223 final}.

- Chapter 4 shows data about stakeholders' participation in the consultation process, the degree of involvement of the different actors of the quadruple helix and the lessons learned from the management of the EDP as a whole;
- Chapter 5 points out for each priority domain identified the main findings derived from the stakeholders' dialogue carried out in the context of workshops and round tables;
- Chapter 6 on the basis of a horizontal reading of the main findings of the stakeholders' dialogue process relating to the various domains, it provides a summary representation of what emerged and further ideas for defining the priorities of interventions of the S3.

2. The EDP policy framework in Albania

S3 is a strategy that the European Commission has mandated for all its member countries, including Albania as part of the EU's Innovation Agenda for the Western Balkans Countries (WB6)[3] 2021-2027 with a view to joining the European Union.

S3 is also part of two chapters of the Community Acquis[4]. Particularly, it is intended to be part of the negotiating Chapter 20, "Enterprises and Industrial Policies," and Chapter 25, "Science and Research."

In addition, the definition and implementation of a Smart Specialisation Strategy is an expected result of the Common Regional Market (CRM) 2021-2024 Action Plan for WB6[5] defined within the Berlin Process. Particularly, based on the agreements reached the WB6 have committed to develop the smart specialisation strategies as part of the smart growth actions in the Multi-Annual Plan on Regional Economic Area (MAP REA)[6].

To support the design and implementation of a Smart Specialisation Strategy in WB6 the European Commission's Joint Research Centre (JRC), in cooperation with the Directorate-General for Neighbourhood and Enlargement Negotiations (DG NEAR), elaborated the document "Supporting an Innovation Agenda for the Western Balkans: Tools and Methodologies"[7] which gives an overview of the Western Balkan region, looking at challenges and emerging potentials for innovation.

The document also presents the tools and methodologies available at the JRC to support an innovation agenda for economic transformation inspired by smart specialization. The document identifies a "Smart specialisation framework for Enlargement and Neighbourhood countries" (*S3 framework*), whose implementation is based on *4 lines of activity*:

(i) the application of the S3 methodology to design and implement innovation strategies[8];

(ii) capacity-building activities for technology transfer, in particular through workshops, tools and instruments specifically designed to assist the academic institutions in the regional economies;

[3] https://data.europa.eu/doi/10.2777/831554

[4] https://neighbourhood-enlargement.ec.europa.eu/enlargement-policy/conditions-membership/chapters-acquis_en

[5] https://neighbourhood-enlargement.ec.europa.eu/enlargement-policy/policy-highlights/common-regional-market_en

[6] https://www.rcc.int/docs/383/consolidated-multi-annual-action-plan-for-a-regional-economic-area-in-the-western-balkans-six

[7] Matusiak M., Kleibrink A. (ed.), Supporting an Innovation Agenda for the Western Balkans: Tools and Methodologies.

[8] Foray, D., Smart Specialisation: Opportunities and Challenges for Regional Innovation Policy, Routledge, Abingdon/New York, 2015.

(iii) *support to transnational collaboration and linkages in the context of EU macro-regional strategies;*

(iv) *data quality enhancement*.

Within this policy framework through the development of the Smart Specialization Strategy (S3), the Albanian government aims to give itself a strategic agenda that identifies priority areas for a specialization path based on innovation.

In view of this goal, the S3 Albania is intended to promote the conditions for the creation of a competitive advantage in the medium term in specific thematic areas of economic activity.

3. The EDP in the S3 design process

The *S3 Framework* lines of activity mentioned above are intended to be developed into 5 phases:

1. *Institutional capacity building*
2. *Diagnosis (mapping exercise)*
3. *Stakeholder dialogue*
4. *Institutional capacity for implementation*
5. *Final strategy*

According to the *S3 framework*, the operational translation of these lines of activity is carried out on the basis of a methodology in which each stage – as a part of a *stage-gate* process – should only start after the previous one has been completed. The entire process is divided into 7 stages[9] leading to the design and formal approval of S3.

The Entrepreneurial Discover Process is the fifth stage in the process of S3 design.

It aims at bringing together representatives from quadruple helix to discuss the already evident or latent innovation prospects in the various fields of economic activity and identify priority domains for intervention, starting from a SWOT analysis as a basis for formulating a medium-term vision and a mix of related policy actions.

In fact, a key aspect of the Smart Specialization Strategy is a participatory bottom-up approach based on the involvement of 4 stakeholders (Business, Academia, Civil Society, and Central and Local Governance) to discuss and identify priority areas for intervention, as input for S3 definition.

The EDP consists of 6 sub-stages:

[9] The other 6 stages are: 1) Decision to start smart specialisation process; 2) Analysis of strategic mandates; 3) Analysis of existing economic, scientific and innovative potential (quantitative); 4) In-depth analysis of priority domains (qualitative); 6) Design of monitoring, implementation and financing system; 7) Preparation of S3 strategy document.

Source: S3 Framework, 2018.

This report describes the evidence emerged from EDP with specific reference sub-stages from 5.2 (Identification of stakeholders for each priority domain) to 5.6 (EDP input for S3).

According to the above described methodology, the stakeholder's dialogue (EDP) preparation was based on the evidence resulting from the previous activity stage ("Mapping exercise"), conducted with the support of the JRC in 2022.

The main results of the mapping exercise came together in a document[10] that identified six priority areas on which it was considered relevant to carry out specific insights in the EDP phase.

The six priority areas are the following:

- Agriculture, forestry and fishing
- Business Process Outsourcing (Administrative and support service activities)
- Energy
- ICT
- Manufacturing
- Tourism (Accommodation and support service activities)

Therefore, in the following paragraphs, after describing how the EDP was structured and what the outputs of the process were, the report will describe the main findings deriving from the stakeholder's dialogue for each of the six domains mentioned above.

4. EDP structure

4.1 Identification of stakeholders

The first step to set up an effective EDP consists in the identification of relevant stakeholders to be involved in the dialogue taking into account the thematic domains selected as a result of the mapping phase.

According to the methodology of the *S3 framework* the stakeholders must be identified among the most representative subjects active on the territory in the respective thematic domains.

Subjects such as key players in the value chain of the thematic domain respond to this profile, as well as innovative companies, University departments and research centres from related fields, chambers of commerce and other business associations. Relevant governmental bodies including

[10] Fabbri, E., Gerussi, E., Hollanders, H. and Sinjari, I., The identification of Smart Specialisation priority domains in Albania. A mapping exercise.

ministries, regulatory bodies, public agencies, as well as civil society organizations should be involved in the process.

In the context of the preparation of EDP Albania, as highlighted in the document "EDP in the EU Enlargement and Neighbourhood Region in 2022 Smart Specialisation process in the Republic of Albania", according to methodological guidance[11] a S3 national team was created by the Government to ensure effective coordination of the EDP related activities.

The selection of relevant stakeholders was carried out by the S3 national team starting from a desk analysis focused on identifying subjects from academia, research and civil society. As far as companies are concerned, the main source has been the databases available at government level.

The list of subjects involved in the qualitative analysis phase of the mapping exercise was also used to identify further relevant stakeholders.

After assembling the contact information of relevant stakeholders from the business, academia, and civil society helix, they were shared with the inter-institutional working group who was asked to indicate further relevant subjects to involve for each domain.

As for the government helix, stakeholders were identified based on the relevance of each key line ministry, government department and agency to the 6 priority areas identified.

As a result of this activity 6 working groups have been identified, taking into account the thematic domains and the need to represent all the subjects of the quadruple helix within each of them.

4.2 EDP plan and working rules

According to the *S3 framework* methodology before the EDP is launched, clear working rules should be defined for participation and decision-making process. The rules must be shared in advance with the members of working groups together with the invitation or when introducing the works of the first meeting.

Besides, as the EDP includes a series of workshops, often organized in different regions, a plan has to be developed and communicated to the participants.

As outlined in the document "EDP in the EU Enlargement and Neighbourhood Region in 2022, S3 in the Republic of Albania Priority domains Agriculture, Tourism, Energy", a first round of EDP events were held from October to November 2022, covering the domains Agriculture, Energy and

[11] Perianez-Forte I. and Wilson J., Assessing Smart Specialisation: The Entrepreneurial Discovery Process EUR 30709 EN, Publications Office of the European Union, Luxembourg, 2021, ISBN 978-92-76-37823-5, doi:10.2760/559139, JRC124405.

Tourism, and the rest of the events took place between April-June 2023 (see paragraph 4.1 for details).

To develop an effective stakeholders' dialogue, two different tools have been identified: round tables and workshops.

In order to prepare effectively each event, the meetings were planned so as not to organize round tables and workshops related to the same domain on days too close together.

Therefore, the workshops were also scheduled sequentially in different weeks in order to allow the necessary time to process the findings from the roundtables and be able to present and validate them through the national workshops.

The round tables were intended as an interactive method for engaging stakeholders, in line with methodological guidance on EDP[12].

Besides, they were configured as a preliminary working stage to promote discussions focused on sub-themes of the different domains freerly, in accordance with the brainstorming method.

This choice was also motivated by the need to more easily reach subjects with little knowledge of participatory working methods such as those EDP related. With this view the round tables turned out to be important, in terms of collecting initial insight useful for directing the subsequent dialogue within the workshops. In addition, they contributed also to spread knowledge of what S3 is and to increase awareness of its importance in the perspective of a development based on innovation for Albania.

Before each round table, a set of materials was sent to the invitees, including the invitation with a description of the event and its purpose, the agenda as well as a document with thorough information regarding the importance of the S3 process, the EDP stage, and a summary of the relevant priority area findings from the quantitative and qualitative analysis. This set of materials was intended to provide the participants in these roundtables with the necessary knowledge and information needed to be able to participate in a constructive way during the meetings.

Each meeting was facilitated and moderated by at least two experts from the National S3 Team and experts of the relevant sectors.

The organisation of the national workshops aimed at involving subjects able to contribute to the dialogue by providing value added information and points of view useful for carrying out the SWOT analysis, the definition of the vision and the consequent identification of possible actions of the policy mix, through a dissemination of the information provided from the roundtable discussions.

[12] Marinelli, E. and Perianez Forte, I., Smart Specialisation at work: The entrepreneurial discovery as a continuous process S3, Working Paper Series No. 12/2017, EUR 28838 EN, Publications Office of the European Union, Luxembourg, 2017, ISBN 978-92-79-74377-1, doi:10.2760/514714, JRC108571.

At the beginning of each workshop the work agenda was introduced by the Government representatives responsible for the S3 design process. The process of EDP, the various stages of the work path and the specific purpose of the workshop were each time explained.

In accordance to the RIS design model, within each workshop the activity was organized in three work sessions, dedicated respectively to the definition of the SWOT, the identification of the Vision and the identification of the actions that will have proposed to compose the policy mix.

The participants were distributed in different working groups/tables, each made up of about 10 people. The composition of the groups took into account the need to bring together representatives from quadruple helix.

Within each working group, a member of the S3 national team acted as a facilitator, both by asking the participants specific questions and by taking notes on a specific board of the opinions/considerations expressed.

For each work session, a list of the most relevant points that emerged from the discussion was thus produced and a member of each group presented to other groups the main findings coming from the dialogue with regard to SWOT, vison and policy mix.

5. EDP output

5.1 EDP working groups

After the first roundtables held in 2022, in order to give greater visibility to the EDP process and to promote more aware participation in its purposes, the Albanian government organized an EDP kick-off meeting in April 2023, which was attended by a total of 175 subjects of the quadruple helix.

The event was held in Tirana and the participants were divided as follows: 55 government representatives, 49 from business, 34 from the academic world, 37 representatives from civil society.

To promote the stakeholders' dialogue within the 6 thematic domains emerged as relevant from the mapping exercise a total of 28 events have been organised by the S3 national team from October 2022 to June 2023.

In total there were 964 participants in the EDP events. There were 629 participants in the round tables, while 335 participants in the workshops.

The table below shows more in details the participation to the 28 EDP events held.

No.	Event	Date	Location	No. Participants
		Agriculture		
		Round table		
1	Agro-processing	26.10.2022	Tirana - Agricultural University of Tirana	34
2	Fishing and Aquaculture	26.10.2022	Tirana - Agricultural University of Tirana	25
3	Forestry	26.10.2022	Tirana - Agricultural University of Tirana	30
4	Livestock	18.11.2022	Tirana - Uka Farm	26
5	Agriculture, Livestock Farming, and Agro-processing	9.5.2023	Tirane - Ministry of Agriculture	50
6	Blue Economy, Food Security	9.5.2023	Tirane - Ministry of Agriculture	24
		Workshop		
1	Agriculture and Livestock Farming	2.6.2023	Petrele - Fustanella Farm	60
		Business Process Outsourcing		
		Round table		
1	Business Process Outsourcing	3.4.2023	Tirane - TUMO Center	31
		Workshop		
1	Business Process Outsourcing	15.5.2023	Tirane - Rogner Hotel	45
		Energy		
		Round table		
1	Renewable Energy	16.11.2022	Tirane - Tirana International Hotel	26
2	Alternative Energy	16.11.2022	Tirane - Tirana International Hotel	13
		Workshop		
1	Energy	13.6.2023	Tirane - Tirana International Hotel	51
		ICT		
		Round table		
1	Startup Ecosystem	18.4.2023	Tirane - TUMO Center	32
2	Innovation	18.4.2023	Tirane - TUMO Center	32
		Workshop		
1	Information and Communication Technology (ICT)	19.5.2023	Tirane - Tirana International Hotel	62
		Manufacturing		
		Round table		
1	Textile and Leather Product Manufacturing	24.4.2023	Tirane - M.I.E.	18
2	Wood Processing	24.4.2023	Tirane - M.I.E.	19
3	Raw Materials Production	2.5.2023	Tirane - M.I.E.	26
4	Construction Materials Production	5.5.2023	Tirane - M.I.E.	25
5	Automotive, Electrical, and Metal Processing	10.5.2023	Tirane - M.I.E.	16
		Workshop		
1	Manufacturing Industry	29.5.2023	Tirane - Tirana International Hotel	54
		Tourism		
		Round table		
1	Agro-Tourism	3.11.2022	Tirane - Xheko Imperial	32
2	Mountain Tourism	3.11.2022	Tirane - Xheko Imperial	29
3	Coastal Tourism	9.11.2022	Tirane - Mondial Hotel	31
4	Health Tourism	9.11.2022	Tirane - Mondial Hotel	18

5	Development of the Tourism and Hospitality Market	8.6.2023	Tirane - Ministry of Tourism	60
6	Diversification of Offerings and Year-Round Tourism	8.6.2023	Tirane - Ministry of Tourism	32
Workshop				
1	Tourism	20.6.2023	Tirane - Xheko Imperial	63

Source: Albanian national S3 team

Downstream of the 28 national EDP events, with a view to promoting smart specialization also based on the identification of priorities of common interest with neighboring countries on which to develop cooperation paths, 3 bilateral meetings with institutional, academic and business representatives from Kosovo, North Macedonia and Montenegro were organized in June and July.

A specific report elaborated by the National S3 team describes in detail the main findings resulting from these meetings, while in annex of this report a summary table highlights some specific inputs related to the priority domains covered by the EDP.

Bilateral Workshops				
No.	***Event***	***Date***	***Location***	***No. Participants***
1	Kosovo	26.06.2023	Tirane – Diamma Hotel.	43
2	North Macednia	07.07.2023	Pogradec – Hymeti Palce.	43
3	Montenegro	17.07.2023	Shkoder – Hotel Colosseo	50

Source: Albanian national S3 team

5.2 Overall feedback on stakeholders' engagement

Overall the participation of the quadruple helix actors in each event organized was very satisfactory, in qualitative terms. A considerable part of the actors invited responded positively to the invitations and confirmed their participation. Some of them even proposed other qualified subjects to be invited in the events, thus contributing to promoting awareness of the S3 approach among stakeholders.

The participants were mainly CEO-s of companies or high level executives, directors of organisations or institutions, high level professors and representatives of Universities or high level experts of the specific areas.

Their engagement during the meetings was generally very high and most of the participants were very active during the discussions taking initiative to propose new perspectives and new ideas.

Overall, there was a good participation from Business sector, Academia, High Education (HE) and a very good participation and involvement in discussion from VET and Government and there were wide discussions on proposals and issues that were raised by all the participants. Considering the novelty of the S3 approach for Albania, the participation of NGOs and more generally of subjects representing civil society can be considered satisfactory.

Participants from some priority domains, especially tourism and agriculture, participated also in the activities of other related priority domains considering the relations of the subsectors.

The roundtables and workshops which had the highest number of participation were those organized for the priority domains of agriculture and tourism. These two priority domains, together with the energy, are those that highlighted the highest number of qualified participants (in general but also from each helix) and the most active discussions too. In these priority domains, more than in the others, the stakeholders involved, in addition to showing a high interest in the prospect of smart specialization, have demonstrated that they possess a clearer vision, also through the formulation of concrete proposals and ideas regarding the innovative development of the reference sector.

Besides, the discussions conducted within the organized events indicated that the development of advanced services and digitalisation, considered as possible specific priority domains for smart specialisation, are perceived by stakeholders as a transversal priority investment area for innovative development of all sectors.

The discussions conducted within the events organized in the priority domain manufacturing highlighted less capacity in bringing out a clear vision regarding the future development of the sector and its possible smart specialization in more specific sub-sectors (such as, for instance, raw materials exploration, exploitation and processing).

Helix	***Agriculture***	***BPO***	***Energy***	***ICT***	***Manufacturing***	***Tourism***
Academia	57	10	14	17	22	59
Business	95	29	32	42	44	81
Civil society	42	8	8	14	17	23
Government	55	29	36	53	75	102
Total	**249**	**76**	**90**	**126**	**158**	**265**

Source: Albanian national S3 team

6. EDP findings by priority domain

6.1 Agriculture sector

6.1.1 Round tables and Workshops participants

Domain	Event	Participants from				
		Academia	Business	Civil society	Government	Total
Agriculture	Round table	44	74	35	34	187
	Workshop	13	21	7	21	62
	Total	*57*	*95*	*42*	*55*	***249***

Source: Albanian national S3 team

After Tourism, Agriculture is the domain that registered the highest level of participation. In total the participants were 249, mainly from business (38%). Over 50 were the participants from the academia and the government, while the participation of civil society was slightly lower. Overall, in qualitative terms the participation and the involvement from business, academia (mostly HE), Government and NGOs was very good.

The discussions on agriculture were very vivid. The participants were very much engaged to bring out all the strengths and weaknesses of the sector and propose innovative methods to move forward.

6.1.2 Key findings

For the field of Agriculture, six roundtable discussions were held involving representatives from the quadruple helix. The discussions focused on agriculture, livestock farming, agro-processing (including medicinal plants and tobacco) & food processing, as well as the blue economy (fishery) and food security, in line with the national government's 2021-2027 agricultural strategy. The following issues emerged from the discussions as key points to consider as a basis for the definition of an innovation sectoral agenda:

1. **Fragmentation of land and land ownership:** Agricultural land in Albania is fragmented into numerous small plots, posing challenges to efficient land organization and utilization. Fragmented land hinders the modernization of agriculture and the adoption of advanced agricultural technologies. Issues related to land ownership were also raised, citing bureaucratic hurdles that hinder investment.

2. **Lack of organization and collaboration**: Albanian farmers often work individually, resulting in a lack of organization and collaboration among them. This hampers the strengthening of agricultural and livestock capacities and makes it more difficult to implement effective marketing and distribution strategies for agricultural products. To address this, proposals were made to promote livestock farming organization, including financial mechanisms, legal and regulatory infrastructure. The government and business

helices emphasized the lack of cluster development and fragmented value chains across sectors in Albania. For example, in the livestock sector, value-added opportunities are missed because hides from livestock are not utilized due to a lack of collaboration. This results in the importation of primary raw materials (leather) by businesses involved in the Textile and Leather Processing Industry, against capacities that remain underutilized in Albania.

3. **Promotion of sustainable production and food quality:** The preservation of abundant and of high value natural resources that Albania has was emphasized as an integral part of the national agricultural strategy. The adoption of more sustainable agricultural practices represents an essential condition for an innovative development of the sector and should go through a more efficient and environmentally friendly use of land, water and energy. Albania faces significant challenges related to the use of agricultural land, water management, and biodiversity conservation. Promoting sustainable agricultural methods, adopting new technologies, and raising awareness among farmers about the importance of preserving natural resources are crucial for addressing these challenges. It is also necessary to improve agricultural infrastructure, invest in packaging and marketing of agricultural products, and promote local and farmer-produced goods for a more sustainable approach and access to export markets.

4. **Climate change:** Albania is impacted by climate change, including floods, droughts, and temperature variations. These climate-related factors affect agricultural production, increase costs, and pose risks to food security. Addressing this issue requires the integration of new agricultural methods and innovative technologies – such as precision agriculture – that can assist in weather forecasting and mitigation.

5. **Rising input costs due to global instability:** The increase in oil prices, agricultural chemical costs, the prices of food crops used as animal feed (such as wheat and corn), and imported agricultural machinery/equipment have significantly affected farmers' financial health. To mitigate this issue, greater government and institutional support was proposed, including subsidies for agricultural inputs, increased local production of inputs, improved agricultural infrastructure, and the promotion of advanced technologies to reduce import dependency. Furthermore, investments in diversifying the agricultural sector and enhancing local processing capabilities can help mitigate the impact of input prices in Albania's agricultural sector.

6. **Strengthening health and welfare policies in livestock farming:** Participants highlighted a growing spread of diseases affecting livestock breeding that require specific attention. They emphasized the need for vaccination, training, monitoring, infrastructure development, and scientific research in collaboration with the government and academia. Participants also suggested integrating new technological monitoring methods to address these issues, mentioning the advantages that can arise from an intelligent use of microchips and sensors.

7. **Lack of a purebred livestock market:** Albania currently lacks a market for purebred livestock, which leads to high costs associated with importing animals. Short-term proposals included the development of appropriate legislation to establish purebred improvement stations. In the medium-long term, efforts should be made to produce certified breed animals and create a domestic market for purebred livestock. Another proposal in this context was the establishment of a beekeeping station in Albania. Preserving the integrity of native bee species was considered essential by the academia helix.

8. **Lack of laboratories for quality certification and product safety:** Albania currently lacks accredited laboratories that can perform the necessary tests to certify agricultural products, especially medicinal plants, for export to international markets. This hinders the development of niche sectors with good potential such as essential oil production. Efforts should be made to establish accredited laboratories capable of conducting comprehensive tests and certification.

9. **Lack of agricultural research:** Collaboration and coordination between various research institutions and agricultural practices remain insufficient in Albania. Participants mentioned the negative impact of transforming Agricultural Research Institutes into Agricultural Technology Transfer Centers, leading to a reduction in research capacity, specialized expertise in agriculture, and demotivation/attrition of qualified personnel.

10. **Inadequate funding and unfavorable conditions of access to credit:** Participants complained the absence of adequate funding and accessible credit as factors slowing down growth and modernization of the agricultural sector. Thus, the agricultural sector requires a stable framework of substantial financing and favorable credit conditions to support investment in technology, infrastructure, and skills management.

11. **Policies for enhancing domestic production vs. imports:** Participants from the business helix discussed the need for support in promoting domestic production in agriculture. They proposed supportive schemes, including the imposition of customs tariffs on specific seasonal imported products to prioritize local supply when feasible. They also expressed a desire to strengthen and expand common agricultural markets that help secure a market for domestic products and increase farmers' ability to adapt to market demands.

12. **Information transfer** was identified as a challenge in two ways:

    Firstly, not rarely Albanian farmers continue to rely on traditional farming methods based on personal experience and generational knowledge. The lack of up-to-date information based on scientific research restricts their access to advanced agricultural methods and innovations, limiting the growth and competitiveness of the sector. The government introduced an initiative to establish model farms to inform and train farmers about new agricultural practices. However, further collaboration between academia, business, and local government is necessary for the success of this project.

Secondly, the business sector is not fully aware of many support measures, projects and programs that exist.

13. **Lack of human capacity:** This issue was discussed from several perspectives, including population migration, the ageing agricultural population, a decline in student enrolment/interest in the University of Agriculture due to the preference for other fields of study, and the absence of contemporary programs, curricula, or vocational courses/schools as alternatives to university education.

Findings emerged from the roundtables served as a starting point for discussions within the national workshop to identify strengths and weaknesses, opportunities and threats related to the challenges to be faced and better focus the main components of an innovation-based strategy for the development of the agricultural sector in Albania.

Firstly, from the workshop emerged a widespread awareness among all subjects of the quadruple helix that the agriculture sector in Albania holds preeminent economic importance, benefiting from favorable environmental conditions for high quality agriculture (including through organic practices), extensive and diverse productive land, a rich tradition of food production, and proximity to the European Union market. Thanks to the workshop several findings already emerged from the round tables found confirmation and those that should be more considered as priorities in the path of smart specialization have been more clearly identified.

One of the main challenges is the lack of infrastructure, especially logistics, able to support the modernization paths of the agriculture and agro food sector and the low level adoption of advanced technologies in agricultural practices, which affects the efficiency and quality of agriculture production and competitiveness of food processing products. A negative role on this is played by the lack of close collaboration among academic institutions, industry, and the government which hinders the creation of a supportive environment and innovative policies.

Additionally, the lack of training and educational capacities in the field of technology and management represents a strong complementary obstacle for the achievement of smart specialization in the sector.

Difficulties in financing and accessing financial resources was confirmed as a further barrier to investment in technology and innovation, together with the allocation of resources specifically aimed at supporting research in the sector.

All this brings with it as a consequence a difficulty of the agriculture and food sector in adapting its offer to the market demand and creating suitable products in terms of high quality and safety standards to enter international markets and able to give value on the market to a brand “Made in Albania” in agrifood sector.

6.1.2.1 SWOT

From the summary report provided by the S3 team for all elements of the SWOT analysis several key insights were identified which can support the definition of the vision and the policy mix.

Strengths	Weaknesses
➢ Abundant natural resources (including water) and biodiversity and land quality ➢ Inherited agricultural and livestock traditions, especially in the cultivation of medicinal plants, tobacco, olive and viticulture, with wide diffusion of organic practices (not certified), resulting in high quality of the products ➢ Presence of specialized producers/farmers in trade and export (but not reaching their full potential) ➢ Favorable climate conditions for early access of products to markets (compared to regional countries, product maturation times are shorter)	➢ Land fragmentation (law 7501) and small farms, resulting in lack of agricultural cooperatives and more generally lack of collaboration and weakness of organizations that represent the sector ➢ Low adoption of advanced technology, including utilization of ICT ➢ Inadequate logistics infrastructure, especially in rural areas ➢ Low collaboration between the academic sector, industry, and government ➢ Lack of skills aligned with market demands (due also to low number of professional schools) ➢ Uncertain legal framework due to lack of long term policies (i.e. lack of policies on uncultivated land) and need for review of sectoral legislation (i.e. tobacco) and for improvements in the implementation of legislation (i.e. bureaucracy for land lease from local government), resulting also in Informality of the sector ➢ Unclear institutional framework, resulting in need of better role division and collaboration between local and central government institutions ➢ Inadequate funding and fiscal policies (including tax refund schemes) for firms to face high costs of production and for boosting research and development applied to agriculture and food sector ➢ Low compliance of products to quality and safety standards for export, resulting in limited space for Made in Albania brand,

	also because of disconnected value chain (e.g., packaging not produced in Albania)
Opportunities	**Threats**
➢ Constant growth trend in demand for organic products and exploration of new markets ➢ High transformative potential deriving from the diffusion of advanced technological applications in the agricultural and food processing sectors ➢ Strong growth trend of rural and agro-tourism ➢ Favorable government policies, including increased attention to incentivizing and attractive national policies and strategies for Foreign Direct Investments and policies on uncultivated land and efficiency on land use ➢ Opportunity for broad access to financing in the Green and Circular economy at an international level ➢ Potential for development of aquaculture on fresh water (lakes, rivers) ➢ Potential for development of composting as an energy producer and fertilizer	➢ International competition with higher quality ➢ Climate change, resulting also in higher erosion and forest degradation ➢ Global instability such as the COVID-19 pandemic and the Russia-Ukraine conflict, and trade restrictions, resulting also in increasing price of inputs ➢ Emigration and depopulation of rural areas ➢ Old age of the farmers ➢ Inefficient waste management from agricultural production and food processing ➢ Legal framework allowing to change easily the land status and its use for constructions

6.1.2.2 Vision

The vision for the development of an innovation agenda in the agriculture-based sector in Albania is to transform it into a modern, sustainable, and competitive industry to deliver healthy food by focusing on the development of sustainable food chain based on tradition that maximizes productivity, enhances value addition, and fosters inclusive growth ensuring the well-being of its citizens. The strategy is to leverage technological advancements and promote diversification by enhancing innovative solutions connected to the development of the blue and green economy, and strengthen market linkages to establish “Made in Albania” as a new player in the regional and international agricultural markets.

The strategy is also based on the creation of enabling context conditions that pass through the implementation of a broader policy agenda that includes measures capable of improving the

living conditions of residents in rural areas, to reverse the trend towards depopulation and abandonment of primary sector activities.

In addition, this vision also encompasses fostering a supportive specific policy environment, through the definition of measures aimed at strengthening the transfer of knowledge to farmers and entrepreneurs in the food sector, increasing financial support to businesses and adapting functional infrastructures to support modernization of the sector.

Pursuing this vision will mean focusing policy action on the development of specific trajectories of innovation, such as:

- Sustainable Organic Farming;
- Food Processing;
- Sustainable Fisheries and Aquaculture;
- Medicinal Aromatic Plants, oils and extracts production.

6.1.2.3 Policy mix

In order to translate this vision into a concrete mix of support measures consistent with the objective of promoting smart specialization in the agrifood sector in the medium term some possible lines of action have been identified.

More specifically, enabling and more horizontal in nature lines of action are:

1. **Creation of an institutional environment conducive to innovation**:
    - Enhance infrastructure, including irrigation and drainage systems, social infrastructure.
    - Review and improve legislation (including for tobacco) related to grants, certifications, and subsidies and respective support schemes.
    - Create enabling context environment through improvement of working conditions on the basis of European standards, also for the achievement of the Acquis communautarie;
    - Simplify administrative procedures and local government reforms, also with the view to facilitate land renting and the use of uncultivated land.
    - Improve planning and regulations for land protection and management and property registration.
2. **Boosting financial support and improving funding opportunities**:
    - Improve access to finance and information in both directions.

- Review subsidy packages and establish tax incentives.
- Develop policies and guidelines for businesses to better access and use of funds, including through financial assistance.

Priority specific lines of action are to be considered

3. **Support to the implementation of innovative solutions (not only technology-based) in production, processing and marketing**:
    - Stimulate, also through investments in technology transfer actions, the adoption of new technological solutions (including automation) and digital capabilities and spur the transition to green practices and solutions, not only technological (digital and green transition transformation of at least 60% of the agricultural sector within 2030)
    - Strengthen support for training for all stakeholders to favor green and digital transitions.
    - Support zero KM-products and promote safer and higher-quality products in the market through certifications, control, reduced pesticide use, and invest in farmer education with the view to promote agro-tourism.
4. **Promoting collaboration and sectoral clustering**:
    - Strengthen collaboration among all stakeholders in the sector.
    - Support and consolidate at national and regional level EDP as a mean for supporting Smart Specialization paths
    - Promote clusters and inter sectoral cooperation.
5. **Promoting Market Development and Value Chain Optimization**:
    - Enhance the market's recognition and demand for local products, also by supporting the identity of Albanian products through the creation of a made in Albania brand
    - Support bio/organic agricultural practices and products
    - Promote the diversification of the agricultural sector through the promotion of agro tourism.
    - Strengthen the local market and enhance the capacity of local producers.
6. **Strengthening Capacity Building and Research**:
    - Enhance vocational training and professional development programs.

- Strengthen scientific institutions and research capabilities, including through the creation of a national network of labs for certification of products for export or internal use
- Support NGOs and environmental-related capacity building initiatives.

7. **Natural resources risk management and Resilience**:
    - Develop measures to mitigate the impact of natural disasters, including financial support.
    - Enhance information campaigns on product insurance and risk management.
    - Improve absorptive capacities for projects and strengthen disaster response mechanisms.

8. **Support measures related to specific trajectories of innovation with higher potential**
    - Support to sustainable and organic farming including through certification, to meet the growing demand for organic products;
    - Strengthen the weight of food processing in the Albanian agro-industry value chain, by investing in food processing facilities, supporting the development of value-added food products and enhancing their marketability, including through the establishment of AKIS (Agriculture Knowledge Information System);
    - Boost sustainable Fisheries and Aquaculture, by developing sustainable fisheries and aquaculture practices and processing to ensure a steady supply of high-quality seafood;
    - Support the subsector of Medicinal Aromatic Plants (MAP), oils and extracts production, by providing training and support to farmers on best cultivation practices, including organic methods, establishing quality control standards and procedures to ensure the consistency and purity of MAPs from field to market, including through the creation of cooperatives or associations among MAP growers and producers.

6.2 BPO sector

6.2.1 Round tables and Workshops participants

Domain	Event	Participants from				
		Academia	Business	Civil society	Government	Total
BPO	Round table	6	9	5	11	31
	Workshop	4	20	3	18	45
	Total	*10*	*29*	*8*	*29*	***76***

Source: Albanian national S3 team

BPO sector is the domain that registered the lowest level of participation, pointing out that in this area a lack of subjects capable of expressing a demand for specific innovation paths. In total the participants were 76, of which just 29 as business representatives. Even considering the round table and the workshop together, participants from the academia and the civil society were very few.

6.2.2 Key findings

As a premise participants emphasized that in Albania, the BPO sector has primarily focused on non-core aspects such as customer support or care, although in more recent years it has sought to expand into other markets, including value-added services such as marketing and market analysis, IT and software programming, as well as financial and accounting services.

The BPO sector in Albania in the past years experienced a growth trend, bringing significant revenues to the country and employing a considerable number of young people. The participants in the organized meetings agreed that BPO remains one of the important sectors with potential for smart specialization in Albania, serving as a significant source of employment and income for many young individuals.

During the roundtable discussions, several key issues were raised:

1. **Skills related challenges:** Participants expressed concerns about emigration, which is an ongoing and urgent problem with immediate consequences for every sector. Another issue raised was the declining proficiency in foreign languages, which is diminishing one of the sector's advantages. Therefore, more importance should be given to language training, especially in Italian. Training professionals and aligning university curricula with European Union standards and best practices were cited as key factors too.

2. **Financial aspects:** The inability to secure financing from banking institutions and the lack of knowledge regarding expenses for advertising on digital platforms, such as Meta, were identified as challenges for businesses operating in the sector. Business representatives proposed changes to the current legislation on value-added tax to align it with the

operational reality of BPO. They also suggested streamlining bureaucratic procedures for contract agreements between BPOs and foreign clients, as well as treating the sector differently due to the absence of physical products. Furthermore, they emphasized the importance of creating favorable economic conditions and supportive schemes for the sector by increasing fiscal incentives and access to both public and private finances for the sector.

3. **Educational practices:** The discussions highlighted the need for monitoring the practical training of students within businesses to prevent abuse and ensure the effective implementation of such programs for proper professional development.

4. **Collaboration between academia and businesses:** Participants emphasized the importance of finding common ground in curriculum development at universities. As businesses are the future employers of graduates, it is crucial to align the curricula with the skills necessary for managing business processes that require, knowledge, know-how and expertise. The provision of specialized training, particularly in the fields of innovation and technology, was also discussed. Business representatives expressed their willingness to collaborate with universities in establishing professional schools, developing curricula, piloting programs, and providing specialization opportunities for students, such as in operational management, which has high demand in the market.

5. **Need for uniqueness and specialization:** Participants stated that, given its limited labor force, Albania can only compete in the BPO sector by offering unique digital services. To achieve smart specialization in this sector, participants called for a long-term plan with investments in both individual knowledge and technological infrastructure, also by adopting best practices to improve productivity.

6. **Regional balance and decentralization:** The challenge of decentralizing the economy and business was discussed. Cities are experiencing population migration, while the capital city, Tirana, has exceeded its capacity, resulting in regional imbalance. The case of Italy was cited, and participants suggested providing legal incentives for cities facing deficiencies to promote BPO sector development, while avoiding an over-reliance on the capital city.

7. **Free economic and technological development zones:** The ongoing project by the Municipality of Tirana, "Development of Free Economic and Technological Zones," was highlighted. Within five years, the first operational data centre in Albania is expected to be established through this project.

8. **Diversification of services offer:** Participants discussed the types of services that Albania could offer and further develop within the BPO sector. These include legal and medical services, training, market research and consulting, software development and maintenance, and high-value design and programming for the market. Several Albanian businesses in the sector have already started implementing pilot initiatives and solutions

through ICT to ensure intelligent analysis and security for a stronger market position and value-added services.

9. **Challenges of artificial intelligence (AI):** The current challenges arising from the implementation of AI through software applications, applied AI in robotics, targeted digital marketing (SEO, PPC), e-commerce, green technologies, etc., were also addressed. Robotic process automation and social media management were identified as other trends that would further evolve BPO service demands. Investments in equipment and systems were seen as one of the main challenges to meet market demands, differentiated products/services, and cost reduction.

10. **Data protection officer:** The participants discussed the potential for Albania to develop a data protection officer position due to language skills and technological capabilities. Currently, there is a demand for this position, as it is required for the functioning of companies according to European Union regulations. This offers an opportunity for diversifying the BPO portfolio and specializing in this field as an outsource profession and offshore service.

11. **Further development of the business developer sector:** The importance of this position for businesses was emphasized, highlighting Albania's advantage in terms of communication skills.

12. **Communication and information:** The participants stressed the need for improved communication and information dissemination among all stakeholders. A communication strategy and necessary interactions should be developed to integrate the BPO sector into intelligent specialization.

13. **Diaspora engagement:** All participants acknowledged the importance of the diaspora in this economic sector and the absorption of human capital from abroad. Creating a platform for brain circulation involving academics, professionals, and researchers in the diaspora was discussed. This platform would facilitate connections between the diaspora and businesses inside and outside the country, fostering collaboration in projects, start-ups, incubators, and other initiatives, which bring investments and expertise to Albania. The parallel measures necessary to strengthen this collaboration were also emphasized.

As for other domains, findings emerged from the roundtable served as a starting point for discussions within the national workshop to set up strengths and weaknesses, opportunities and threats linked to the possible evolution of the sector and better focus the main components of an innovation-based strategy for its further development in Albania.

Workshop discussions confirmed that, despite growing competition from other countries, Albania can still be considered as an attractive destination for the Business Process Outsourcing (BPO) sector, driven by its favorable business environment, competitive costs, and a skilled bilingual workforce.

Albania still offers a cost advantage compared to other European countries, making it an appealing choice for outsourcing. The proficiency of Albanians in languages such as English and Italian positions them well for customer service, technical support, and back-office functions. Its strategic geographic location provides proximity to European markets, particularly Western Europe.

The Albanian government actively supports the BPO sector, offering tax incentives, subsidies, and establishing specialized economic zones. The country's education system has also played a role by providing relevant training programs.

Services offered encompass customer support, call center operations, technical support, data entry, back-office functions, and content moderation.

To fulfill the potential of the BPO sector in Albania and overcome the identified obstacles, participants emphasized the need to invest in the education and development of the workforce, enhance network infrastructures, and build up a dedicated legal and fiscal framework for the sector.

6.2.2.1 SWOT

From the summary report provided by the S3 team for all elements of the SWOT analysis several key insights were identified which can support the definition of the vision and the policy mix.

Strengths	Weaknesses
➢ Increased interest of young people toward jobs related to the BPO sector, especially after the COVID-19 pandemic, due to the opportunity to work remotely ➢ Favorable geographical location for attracting investments and proximity to EU markets ➢ Comparative advantage in terms of cost of labor and presence of young workforce engaged in the sector ➢ Supportive and incentive policies from the government to enter the sector, with less bureaucracy and a differentiated tax rate of 5% compared to other sectors	➢ Lack of an accurate definition of the sector and insufficient prioritization of sub-sectors, also because of lack of statistics and administrative data ➢ Specialized outsourcing services have a main client in the public sector, while the private sector lacks a vision to align with specialized companies for some processes and prefers in-house operations ➢ Limited collaboration between academia and industry ➢ Lack of a skilled workforce for niche BPO services ➢ Unbalanced geographical coverage of network infrastructures resulting in difficulties in developing remote work practices (a weakness for digital nomads)

	➢ Inadequate legal framework (e.g., inability to register costs or recognize certain expenses) ➢ Limited access to funding resources and grant schemes
Opportunities	**Threats**
➢ Increasing global demand for BPO services ➢ Access to financial/incentive schemes from the European Union for sector development in the country. ➢ Use of AI-Based solutions as a means to improve competition, attract more clients, and contribute to the economic growth and technological advancement of the country. ➢ Strengthening cooperation with the diaspora to exchange expertise, knowledge, and mitigate the threat of emigration. ➢ Revitalizing economic diplomacy and increased participation in international events for promotion and contract connections, organized and supported by state agencies such as AIDA	➢ Lack of long-term and stable service assignments. ➢ Increased risk of losing professionals offering specialized services and foreign language proficiency due to the emigration of young workforce ➢ Increased competition from other countries offering free outsourcing services, such as Eastern European countries. ➢ Growing risks related to cybersecurity/data protection, as outsourcing services involve handling sensitive customer data and intellectual property

6.2.2.2 Vision

The future of the BPO sector in Albania is envisaged as being based on the strengthening of specialized and high quality skills, diversified professional services and unique specializations able to position itself in the world-class services market and supporting priority sectors in Albania by offering Advanced Digital services – including those based on AI and machine learning – for a digital transformation of economy and export capacities.

This vision also passes through a greater diffusion of business development opportunities linked to the BPO sector even outside the main cities and requires the creation of enabling context conditions through the activation of broader policy measures aimed at retaining talents and preventing brain drain.

6.2.2.3 Policy mix

As a result of the discussions carried out during the workshop, the following possible lines of intervention were identified capable of giving substance to the identified vision.

More specifically, enabling and more horizontal in nature lines of action are:

1. **Enhancing network infrastructure and support to digitalisation**
    - Improvement and development of digital infrastructure.
    - Creation of technology parks (TEDAs) and innovation hubs for BPO businesses.
2. **Set up of a better policy and regulatory framework**
    - Enhancement of the regulatory framework and legal environment, including through alignment with international standards and compliance.
    - Support for dedicated policy measures and initiatives, including financial support and fiscal incentives.

Priority specific lines of action are to be considered

3. **Sector Promotion and Recognition**
    - Promotion of "Albania Best Practice" in the BPO sector.
    - Development of a measurement methodology for the BPO market.
    - Improvement of legislation and alignment with EU standards and support to certification of operational standards.
4. **Promoting Collaboration**
    - Collaboration and exchange of experiences between universities and businesses within and outside the country, including through the creation of information platforms for legislation and information exchange
    - Attracting diaspora expertise through brain circulation or brain gain initiatives.
    - Establishment of a dedicated communication strategy.
5. **Supporting skill development and dedicated education programs**
    - Improvement of language skills and curriculum development, including through integration of practical modules in pre-university education.
    - Continuous training programs and lifelong learning opportunities, including horizontal programs on GDPR compliance and data protection.

6. **Strengthening of investment in marketing and promotion**

- Promotion of Albania as a BPO destination, including through implementation of a specific marketing strategy and participation in international trade fairs
- Boost stakeholder awareness and engagement, including through revitalization of economic diplomacy

6.3 Energy sector

6.3.1 Round tables and Workshops participants

Domain	Event	Participants from				
		Academia	Business	Civil society	Government	Total
Energy	Round table	9	17	5	8	39
	Workshop	5	15	3	28	51
	Total	*14*	*32*	*8*	*36*	***90***

Source: Albanian national S3 team

After BPO sector, Energy is the domain that registered the lowest level of participation. The level of participation recorded in the events organized in the energy priority domain must be read in the light of the structure of the sector, characterized by a more limited number of relevant players, above all from the business sector, compared to sectors such as agriculture and tourism. For this reason, the numbers relating to participation are to be considered significant for the sector. In total the participants were 90, with a slight prevalence of government representatives.

Over 30 were the participants from the business, while the participation of civil society was low. In qualitative terms, the participation and involvement from the participants from government helix, business sector and organisations of the energy sector was very good. Academia also participated (mostly HE).

Despite a lower participation in strictly numerical terms the discussions on renewable energy priority domain generated a lot of interest among the actors.

The main topics discussed were renewable energy production and exploiting natural resources by respecting environment to foster green transition and increase competitiveness of the economy. The sub sectors touched during the meetings and which were more promising to offer innovative solutions were the renewable energy and environmental preservation.

6.3.2 Key findings

The key points that emerged as a starting point, though not exhaustive, for discussions in the workshop are:

1. **Legal support and policies:** Participants highlighted the need for clear and sustainable policies and legislation to encourage investments in renewable energy sector. A well-defined legal and regulatory framework is crucial to create a favorable environment for small and medium-sized enterprises and to promote renewable energy production. Currently, although licenses have been granted for investments in all three forms of renewable energy, lack of concrete investments is observed due to bureaucratic hurdles (e.g., construction permits) and inadequate monitoring systems. It is necessary to adapt laws in accordance with the acquis. Another aspect related to legal frameworks is the implementation and management of contracts. Contracts should be fair, adhere to international standards, and ensure the rights and obligations of all involved parties. Ultimately, participants highlighted there is currently a legal void in this area.

2. **Network infrastructure:** The development of network infrastructure creates another challenge for the renewable energy sector in Albania. It is important to establish necessary networks for the efficient and sustainable transportation and distribution of renewable energy. According to participants, approximately 10-15% of production does not enter the grid due to interruptions in the distribution network and limitations in the transmission network during periods of high production when it rains. Discussions with donors, such as the World Bank, have suggested that if investments in the distribution network are directed towards smart and green solutions, grid losses could be minimized. Participants proposed the establishment of a Renewable Energy Operator to manage and address imbalances in the grids.

3. **Lack of coordination among participating actors:** There are various actors involved in this sector, operating without coordination, such as the Polytechnic University conducting research and development with support from the Ministry of Education, the Academy of Sciences conducting independent research and studies, a licensing agency, the Ministry of Infrastructure and Energy making decisions, and transmission and distribution operators. If there were coordination and joint decision-making, projects would be more comprehensive, easily financed by second-tier banks, and attract more investors. A comprehensive map of Albania highlighting areas with renewable energy potential is missing.

4. **Lack of specialized skills:** There is a shortage of specialized engineers in renewable energy for development, design, construction, and maintenance of renewable energy infrastructure. To address this issue, participants proposed upskilling and reskilling of existing engineers and specialists. There is a need for specialized programs in universities and higher institutes, offering scholarships and practical training opportunities in the

renewable energy industry. Additionally, improving collaboration between the private sector and the education sector to identify and prepare new talents and increasing budgets beyond solely relying on state funding is considered crucial.

5. **Need for updating processes to incorporate the latest technology:** Participants emphasized the need for updating standards in the renewable energy sector. It is important for competent authorities and the industry to stay abreast of the latest developments in renewable energy. This includes tracking new technologies, innovations, and advanced methods of renewable energy production, distribution, and utilization. Through the latest technological knowledge, new opportunities can be identified, and the performance of existing systems can be optimized. For instance, a revision of procedures for wind turbine installation is required.
6. **Integration with the existing energy system:** According to government representatives from the energy sector (KESH), there is potential to develop a sustainable hybrid system. Albanian lakes have the capacity to reserve water. Rather than just increasing capacity, investing in storage systems, such as Skavica, is also crucial.

As for other priority domains, findings emerged from the roundtable served as a starting point for discussions within the national workshop to arrive at a summary of the main strengths and weaknesses, opportunities and threats linked to the innovative development of the energy sector and better focus the main components of a policy mix for its further development in Albania.

From the discussions carried out within the workshop emerged a broad consensus that the renewable energy sector in Albania has witnessed significant growth and development in recent years, positioning the country as a promising player in the transition towards clean and sustainable energy sources.

With its favorable geographical location, abundant natural resources, and a growing commitment to environmental stewardship, Albania has made substantial strides in harnessing renewable energy to meet its energy needs.

Moreover, the energy sector has also created even greater opportunities for investment, job creation, and economic growth.

Recognizing the strategic importance of the renewable energy, Albania has strategically targeted the renewable energy sector as a key area for the development of smart specialization paths.

6.3.2.1 SWOT

From the summary report provided by the S3 team for all elements of the SWOT analysis several key insights were identified which can support the definition of the vision and the policy mix.

Strengths	Weaknesses
➢ Abundant renewable energy resources, including solar, wind, hydro, and biomass ➢ Increasing public awareness and support for clean energy ➢ Favorable geographic location for solar and wind power generation ➢ Potential for job creation and economic growth in the renewable energy sector ➢ High level priority and support from the government in terms of investments to increase capacities (including licenses for solar energy plants) and finalization of interconnection	➢ Reliance on traditional energy sources for electricity generation, resulting also in low level of biomass and organic waste usage for energy production due to the lack of recycling plants ➢ Still limited infrastructure for renewable energy generation and transmission and lack of energy storage systems ➢ Inadequate regulatory framework and incentives for renewable energy development (referring to the need for more legal acts) ➢ Lack of a masterplan for zoning and targeting areas with potential for investment in renewable energy (including lack of land categorization for more efficient information management, also as a consequence of the lack of supporting statistical data) ➢ Lack of specialized workforce capacities for emerging technologies, highly dynamic for the sector ➢ Absence of dedicated academic programs and scientific research ➢ Lack of an energy market (due also to lack of smart energy meters systems for measuring consumption) ➢ Lack of incentives to promote more efficient consumption among citizens and businesses
Opportunities	**Threats**
➢ Growing demand for clean energy in domestic and international markets ➢ Access to European Union (EU) funding and support for renewable energy projects	➢ Dependence on imported energy resources and fluctuating prices due to geo-political instability impacting the energy sector globally ➢ Competition from neighboring countries in attracting renewable energy investments

➢ Potential for technology transfer and collaboration with international partners ➢ Potential for Investment/research in smart grids applying the concept of the Internet of Things (houses, buildings, hotels, roads, etc.) ➢ Development of energy market analytics linked to the liberalization of the sector and the creation of Albanian Energy Stock Market ALPEX ➢ Growing attention of citizens and businesses towards sustainable energy use practices ➢ Increasing incentives for attracting investment and development of the domestic supply chain for renewable energy ➢ Potential for use of biomass and organic waste as a renewable energy source ➢ Potential of the applications of AI and new technologies for the development of agrovoltaic ➢ Growing demand for the provision of renewable energy systems applied to new buildings	➢ Technical challenges related to grid integration and energy storage ➢ High cost of initial investments in renewable energy plants ➢ Cyber security issues related to management of energy systems, due also to lack of specialized skills ➢ Emigration of workforce ➢ Limited incentivizing/subsidizing framework only for large-scale producers ➢ Risk arising from climate change to the stability of the renewable energy supply (including water resources)

6.3.2.2 Vision

The vision for Renewable Energy sector is to make Albania a leader of renewable energy in the region and assure exploiting and responsible management of its abundant natural resources, fostering environmental sustainability, energy security, green transition and increase competitiveness of the economy, through strategic investments, innovative technology, and sector reforms that will create sustainable and clean energy production in respect of the environment.

Pursuing this vision will mean focusing policy action on the development of specific trajectories of innovation, such as:

- diversification of the renewable energy mix through the development of solar and wind energy sources;
- wide application of waste-to-energy technologies;
- creation of smart grids and a national energy storage infrastructure;
- sustainable forest management.

6.3.2.3 Policy mix

To translate the vision into a mix of support measures consistent with the objective of promoting smart specialization in the energy sector in the medium term some possible lines of action have been identified.

In this context, enabling and more horizontal in nature lines of action are measures to decrease the emigration and abandoning of the rural areas from young people.

More specifically, priority specific lines of action are to be considered

1. **Consistent policy and regulatory framework**
    - Promoting support measures for integration of alternative energy sources and energy efficiency.
    - Boosting investments in renewable energy, including through liberalization of the energy market.
    - Streamlining procedures for issuing permits and licenses for the companies operating in the sector and improving the legal and regulatory framework, including through developing under-regulations and guidelines to facilitate the implementation of energy-related laws.
    - Improve the capacities of the National Agency for Natural Resources (AKBN) and other institutions on collecting and processing the statistical data, also for developing a master plan for zoning areas with renewable energy potential.
2. **Creation of a smart energy infrastructure:**
    - Supporting solar and wind energy source projects to diversify the renewable energy portfolio, harnessing Albania's ample sunlight and wind resources for clean power generation.
    - Investing in the development of smart grids and storage systems, to support smart grids and energy storage infrastructure that can efficiently handle the various nature of renewable energy resources and enable cross-regional energy sharing.
    - Enhancing energy infrastructure, including the construction of technology centers (TECs) and charging stations to support electric transportation.

3. **Enhancement of skills capacity and research:**
    - Strengthening the partnership between academia, businesses, and the government to bridge the skills gap.
    - Enhancing education and training programs to improve knowledge and skills in renewable energy, including through updating and revising VET curricula to align with industry needs.
    - Providing financial support for lifelong learning initiatives in the energy sector.
    - Supporting research and development efforts for energy-efficient technologies.
    - Introducing licenses for the specialists operating in the energy sector to guarantee the specific know how.
4. **Sustainable energy use practices:**
    - Promoting awareness about environmental value of using renewable energy sources in schools.
    - Encouraging energy efficiency and energy-saving practices, through communication campaigns aimed at citizens and businesses.
    - Implementing energy efficiency measures and energy-saving practices in public administration.
    - Encouraging the utilization of waste-to-energy technologies, innovative technologies and biomass resources for clean energy production, reducing landfill waste.
    - Implementing responsible forest management practices, including reforestation and sustainable timber harvesting, to balance economic gains with environmental conservation.

6.4 ICT sector

6.4.1 Round tables and Workshops participants

Domain	Event	Participants from				
		Academia	Business	Civil society	Government	Total
ICT	Round table	8	17	7	32	64
	Workshop	9	25	7	21	62
	Total	*17*	*42*	*14*	*53*	***126***

Source: Albanian national S3 team

ICT sector meetings registered a good level of participation. In total the participants were 126, but with a prevalence of government representatives (53) over businesses (42).

In line with what was observed for the meetings of the other domains, the participation of representatives of universities and research centres and representatives of civil society was significantly lower. In qualitative terms, the involvement from academia, government and businesses was considered good.

It should be emphasized that ICT, Digitalisation and the usage of advanced technologies for smart growth was also a topic brought up in every meeting in every priority domain. Therefore, ICT has been suggested many times from various participants to be considered as an integral part of every domain.

6.4.2 Findings

In recent years, the ICT sector in Albania has experienced significant growth, with numerous companies offering ICT services and solutions across various fields. At the same time, Public institutions in Albania are also modernizing and developing advanced information systems to provide more efficient services to citizens and businesses.

During the organized discussions on the ICT sector in Albania, key points were highlighted in two roundtable sessions focused on startups and innovation.

To further support the sector's growth and create a smart and sustainable ecosystem, several areas for intervention and improvement were identified:

1. **Clear framework of institutional responsibilities:** Participants highlighted that there is no specific ministry responsible for innovation in Albania. Instead, an Interministerial Committee led by the Prime Minister oversees innovation policies, with each ministry responsible for promoting innovation in its respective field. Currently, this decentralized system for allocation of available funds and grants, leads to their underutilization by all interested parties. Thus, participants suggested the creation of a specific Ministry or Department.
2. **Dynamic legal and regulatory framework:** The technology sector requires a flexible legal and regulatory framework to facilitate its development. Participants discussed the need for a group of qualified lawyers to define this digital transition and propose new initiatives, avoiding mere replication of European Union models.
3. **Creation of favorable financing conditions:** Startups face challenges in accessing financing in Albania, since bank credit for these businesses is not easily accessible. Grants and investments from established businesses were identified as more suitable options. Financial instruments that support innovation include grants from the National Agency for Scientific Research and Innovation, grants from the Business Support Agency AIDA,

grants from the Ministry of State for Entrepreneurship Support, and international instruments such as those offered by the European Union.

4. **Stakeholders Collaboration:** Collaboration between academia, businesses, and the government was emphasized as crucial for the development of the startup and innovation ecosystem. Participants highlighted the need for research funding and proposed donations from businesses as a way to finance research and generate revenue. They also stressed the importance of student internships, organizing business forums, and promoting cooperation between universities and businesses.
5. **Digital infrastructure development:** Improving digital infrastructure was identified as a priority to enhance the development of advanced digital services across Albania. This includes upgrading internet networks, installing fiber optics, and deploying advanced cellular networks. Building data centers and ensuring digital security were also mentioned as other important factors.
6. **Human capital:** Developing workers' skills in information and communication technology (ICT) was recognized as crucial for advancing the sector. This can be achieved through specialized training programs and promoting STEM fields in the education system. Providing internship and employment opportunities in the ICT industry was highlighted as a means to improve local talent.
7. **Need for specialization in ICT sub-sectors:** Creating sub-sectors within ICT was seen as a way to prioritize development and extend the sector's impact into other industries. Examples include software development, online platforms, mobile applications, and digitalization, analysis and security of data.

These findings serve as a starting point for further discussions within the workshop to address the identified challenges and develop strategies for the development of the ICT sector in Albania.

During the national workshop for the ICT sector, two key issues requiring attention and priority were mainly focused.

The first is the development of human capital to improve skills and capacities within the industry. Investing in educational programs and training focused on ICT-related disciplines will empower the workforce with the knowledge and expertise needed to meet the demands of a rapidly evolving digital market. The education system needs updating and revision in curricula, training programs, establishment of research laboratories, and increased collaboration with career offices to meet specific market needs. By equipping individuals with advanced skills, Albania can create a highly specialized workforce that can drive innovation and competition.

The second level of priority lies in improving infrastructure and supporting digital transformation. This aspect includes investments in strong ICT infrastructure, including high-speed internet connectivity, data centers, and digital platforms. Enhancing digital infrastructure will create a

favorable environment for business development, attracting investments, and supporting the growth of the ICT ecosystem. Additionally, promoting the use of digital technologies in various sectors such as e-governance, e-commerce, and digital services will contribute to overall efficiency, productivity, and economic growth.

Ultimately, fostering a conducive environment for innovation, strengthening collaboration between stakeholders, improving financing options, and developing necessary infrastructure and human capital were identified as key factors in realizing the potential of the ICT sector in Albania.

6.4.2.1 SWOT

From the summary report provided by the S3 team for all elements of the SWOT analysis several key insights were identified which can support the definition of the vision and the policy mix.

Strengths	Weaknesses
➢ Growing interest of young people in ICT and related fields and strong entrepreneurial spirit, resulting in a significant growth trend in the number of startups and push for digital transformation ➢ Favorable ecosystem for start-ups (incubators, co-working spaces, etc.) ➢ Favorable legal and institutional framework ➢ Attractive wages compared to other sectors, but competitive in the regional and international context	➢ Offer of the educational system not adequate to the demand for profiles required by the sector, resulting in few LLL curricula for ICT, mainly offered by private companies, limited soft business skills and know-how in startups and companies and lack of highly specialized skills ➢ Prevalence of basic services outsourcing business models that do not facilitate the arising of more advanced business models in the ICT sector ➢ Absence of a specific industrial policy for the sector, resulting in the absence of a Ministry of innovation and information technology, low investment and participation of the public and private sector in R&D activities, also due to the lack of research laboratories, and in weak collaboration between academia and business ➢ Telecom infrastructure of relatively low quality and incomplete coverage of the territory ➢ Absence of venture capitalists

	➢ Alignment of the legal framework with technological advancements ➢ Low level of digital literacy among non-young people, resulting in lack of consumer education and in an inadequate development of the internal market ➢ The entire education system (pre university + HE) needs updating and revision in curricula, training programs, establishment of research laboratories, and increased collaboration with career offices to meet specific market needs ➢ Lack of analyses for skills needs ➢ Limited professional capacities of academic staff (trainings, experience exchange with other countries, participation in projects, etc.) ➢ Inadequate development of data protection systems
Opportunities	**Threats**
➢ Potential access to EU funds ➢ Opportunity to launch new business ideas in the sector without the need for large initial investments ➢ Growing demand in the global ICT market, also driven by digital transition, industry 4.0 and 5G development ➢ Collaboration with the diaspora for knowledge exchange among research and innovation professionals ➢ Regional collaborations in joint projects ➢ Creation of Science and Technology Parks ➢ Development of the phenomenon of digital nomads thanks to attractive	➢ Brain drain ➢ Lack of a centralized competence center for managing support measures and allocation of financial resources ➢ Need for constant large investments to ensure cybersecurity ➢ Slow adaptation of curricula in respect to new developments ➢ Weak legal framework dedicated to the validation of ICT products

climatic conditions and favorable geographical position ➢ Growing orientation of new curricula and lifelong learning offer towards the labor market needs ➢ Plan for strong digitalization of public administration	

6.4.2.2 Vision

The vision for smart specialization of Republic of Albania in ICT sector is to develop a sustainable and diversified ICT sector capable of successfully competing in international markets supporting all priority sectors to ensure competitiveness and technological development.

6.4.2.3 Policy mix

To fulfil this vision enabling and more horizontal in nature lines of action should be aimed at reducing the emigration of talent and the abandonment of the rural areas from young people.

More specifically, priority specific lines of action are to be considered

1. **Favorable policy and regulatory framework:**
    - Implementation of specific industrial policy mainly (but not only) based on: i) support measures for the adoption of digital technologies by businesses, including through the integration of digital technologies in other sectors, such as agriculture, tourism, green energy, and manufacturing; ii) support measures for the development of a national ecosystem of startups.
    - Review legal framework to support digitalization, including through support from regulatory authorities.
    - International collaboration and partnerships for knowledge exchange, including through diaspora involvement, international agreements and participation to international fairs.
2. **Infrastructure development and connectivity boost:**
    - Enhancing digital infrastructure, including broadband/optic fiber, 5G, and emerging technologies.
    - Measures for promoting connectivity and access to digital services by businesses and citizens.

- Support measures for digitalization of public services at Local Public Administrations

3. **Enhancement of skills and research capacity:**

- Development of digital skills, through curriculum updates and creation of credit-based courses by universities.
- Strengthening of ICT laboratories and connectivity in all schools and development of continuous training of teaching staff in the ICT sector.
- Lifelong learning opportunities and short courses for up-skilling and re-skilling of workers.
- Promotion of collaboration between academia and businesses for applied scientific research and skill development.
- Measures to retain talent and prevent brain drain, including through specific support measures for students in R&D programs.
- Promotion of scientific research and innovation in line with market needs and focused on subsectors.
- Increasing the international knowledge exchange and cooperation.

6.5 Manufacturing sector

6.5.1 Round tables and Workshops participants

Domain	Event	Participants from				
		Academia	Business	Civil society	Government	Total
Manufacturing	Round table	16	22	15	51	104
	Workshop	6	22	2	24	54
	Total	22	44	17	75	**158**

Source: Albanian national S3 team

In Manufacturing domain, the meetings organized registered a medium-high level of participation, compared with other domains. In total the participants were 158. However, as for other domains it has been experienced a prevalence of government representatives (almost 50% of overall participants). The number of businesses involved was significant too (44).

In line with what was observed for other domains, the participation of representatives of academia and civil society was significantly lower.

In qualitative terms, there was a good involvement of the Government representatives and associations of industries that led the discussions, but lower involvement in discussions from representatives of the companies itself and academia and low participation from NGOs.

The subsector which attracted the highest interest regarding the quality of discussions and had the highest participation proportionally to the number of the stakeholders of this subsector, was the one in Raw materials.

This subsector has recently gained a lot of attention from business sector, academia and government level. It is believed by all actors that Albania has a lot of untapped potential in this area taken into consideration the richness of the country in raw materials.

The establishment of the EIT Raw Materials Hub already agreed for 2023 during high level meetings with all the stakeholders involved from autumn 2022 and in collaboration with EIT Raw materials, demonstrates the interest and potentiality of this subsector. These was also discussed during EDP events.

6.5.2 Findings

Considering the particular breadth of innovation applications in the manufacturing sector and taking into account inputs from the innovation potential mapping exercise conducted by the JRC to better focus discussions under the national workshop 5 thematic roundtables were held. The sub-sectors on which the discussions focused are:

- Raw Materials
- Wood Processing
- Automotive
- Building Materials
- Textiles and Leather

Common or specific findings were highlighted for the sub-sectors as follows:

1. **Inadequate industrial Infrastructure:** Currently Albania has relatively limited industrial infrastructure, including transportation networks. This results in additional costs for businesses to ensure goods transportation, outdated production facilities, and a lack of specialized industrial zones. Participants suggested the establishment of specialized industrial zones to minimize costs and provide better services for businesses.
2. **Limited and Low-Quality Workforce:** Participants identified a shortage of workers, partly due to emigration, and a lack of skilled workforce engaged in specific processes, such as design and marketing, especially in sub-sectors like wood processing and textiles. Improved coordination between the government, businesses, and academia was

emphasized to address this issue, including collaboration in job demand-supply, curriculum adaptation, and on-the-job training.

3. **Need for investment in innovation and technology:** Participants stressed the importance of investing in new technology and innovation for competitiveness and strategic specialization. The use of advanced technologies in producing "Made in Albania" products was deemed crucial. Challenges included high private investment costs for technology and difficulties accessing financing from second-level banks. Participants proposed the creation of an industry development fund and transparent access to grant schemes as desired incentives for businesses.

4. **Lack of Scientific Research:** Continuous scientific research is lacking in all sub-sectors, primarily due to budget constraints in universities. Joint research activities with other countries are limited, with research predominantly funded privately by businesses. Encouraging the establishment of research laboratories and securing state funding was deemed necessary.

5. **Costs, Security, and Quality of Electricity Supply:** Business representatives highlighted the relatively high and fluctuating costs of electricity, as well as the lack of security in the continuous and consistent supply of energy. These factors directly impact the operations and competitiveness of the manufacturing industry, making production process planning and maintenance more challenging.

6. **Safety and Quality of Industrial Materials:** Albania has a limited number of accredited laboratories for testing and certifying industrial materials used in the manufacturing industry and its sub-sectors. While a state-accredited laboratory exists at the Polytechnic University for wood processing, textile, and leather materials, it is insufficient. Businesses prefer importing raw materials from neighboring countries to meet contract standards, resulting in higher costs. Encouraging the establishment of testing laboratories within universities and securing state financing was deemed necessary.

7. **Lack of Government Presence to Increase Regional Cooperation:** Business representatives emphasized the need for partnerships and participation in trade fairs to exchange experiences and expertise. They suggested increased government presence and funding for such activities.

8. **Proposal for Cluster Creation:** In the Wood Processing sub-sector, a proposal was made to create clusters. An organization has already been established by businesses and other stakeholders, positively contributing to exchanges between parties. However, clusters are not yet regulated by law. Establishing clusters can help organize the entire value chain of the wood processing industry, allowing businesses to combine resources, share costs, increase production quantity and quality, and target larger markets, such as the European Union and regional markets.

These findings served as a starting point for further discussions within the workshop to identify strengths, weaknesses, opportunities and threats to consider for a smart specializations of the manufacturing sector in Albania.

The discussions carried out in the context of the workshop highlighted that the manufacturing sector encompasses diverse subsectors such as food processing, leather and textile, automotive, electronics, and more.

However, the SWOT elements that emerged from the discussions as most relevant did not highlight a major importance of some of these sub-sectors, useful for more precisely targeting a smart specialization in the manufacturing sector.

Participants pointed out the relevance of horizontal factors such as strategic geographical location to access EU markets and competitive labor costs, without identifying other more specific factors capable of focusing policy choices for smart specialization in the manufacturing sector.

They broadly stated that implementing a smart specialization strategy can leverage technological advancements, innovation, and targeted investments to enhance competitiveness, productivity, and sustainable growth in the manufacturing sector.

6.5.2.1 SWOT

From the summary report provided by the S3 team for all elements of the SWOT analysis several key insights were identified which can support the definition of the vision and the policy mix.

Strengths	Weaknesses
➢ Strategic location and proximity to major markets in Europe, the Balkans, and the Mediterranean region ➢ Natural resources such as agricultural produce, mineral raw materials, and renewable energy sources, which can support specific manufacturing activities ➢ Cost competitiveness compared to some neighboring countries	➢ Limited technological adoption ➢ Reliance on imports on raw materials, machinery, and equipment, which can increase costs ➢ Fragmented industry structure/value chain leading to limited economies of scale ➢ Skills gap to meet the evolving demands of advanced manufacturing technologies ➢ Lack of collaboration between academia-private sector-public sector ➢ Lack of laboratories for R&D and quality and safety certifications

	➢ Lack of industrial policy, resulting in low level of incentives and lack of dedicated support measures and taxation policy ➢ Inadequate legal framework (Bureaucracy and inefficient procedures for licensing; lack of studies on the market needs and potentialities; inadequate regulations for IPR protection and enhancement of Made in Albania trade mark) ➢ Difficulty in accessing credit ➢ Low presence of treatment and recycling plants, resulting in a low capacity of use of waste as a secondary raw material for the manufacturing industry
Opportunities	**Threats**
➢ Policies for integration into global value chains, including through support to FDI and adoption of law on strategic investments ➢ Trend favorable to broader innovation and technology adoption and development of sustainable manufacturing practices ➢ Enhancement of connectivity, reduction of costs, and attraction of manufacturing investments, resulting from increasing investments in infrastructure for industrial zones, such as transportation, logistics, and energy ➢ Participation in EU chains and opportunities to enhance collaboration with other EU countries (Establishment of EIT raw materials Hub in Albania, WB6, Open Balkan and other initiatives opening the market to the region) ➢ Potential reduction in energy-related production costs resulting from the liberalization of the energy market	➢ Competition from low-cost manufacturing destinations for certain subsectors ➢ Rapid technological advancements ➢ Global economic uncertainties and geo–political instability, resulting in fluctuations in exchange rates and electric energy cost ➢ Trend of increasing energy costs for businesses ➢ Infrastructure gaps, especially in rural areas, affecting logistics and supply chain efficiency ➢ Skills migration ➢ Frequent changes of fiscal policies ➢ Not favorable framework conditions for business development (Corruptive practices, informality, unfair competition, disproportionality of administrative penalties and interests, high customs duties) ➢ Exchange rate fluctuations and not stable monetary policy

➢ Growing demand for construction sector and for goods and services related also to development of tourism ➢ Collaboration and involvement of Diaspora in promoting initiatives linked to the start-up of innovative businesses (i.e. hackathons, initiatives promoted by Fab Labs)	➢ Lack of evaluation of the EU integration processes

6.5.2.2 Vision

The vision for the manufacturing sector in Albania is to establish a thriving and competitive industry that contributes significantly to economic growth and job creation.

In the medium term the goal is to position Albania as a reliable destination for manufacturing investments, known for its focus on innovation, efficiency, and sustainable practices.

By leveraging existing strengths, embracing technological advancements, and fostering a supportive environment for businesses, a future is foreshadowed in which the manufacturing sector plays a vital role in driving economic development and enhancing Albania's global competitiveness.

This vision will be stimulated by the adoption of eco-friendly practices, minimizing environmental impact, promoting recycling and ensuring responsible resource management to support a more sustainable manufacturing industry, adhering to sustainability goals of the European Green Deal.

Pursuing this vision will mean focusing policy action on the development of specific trajectories of innovation, such as the enhancement of the exploration, exploitation and processing of mineral raw materials, also by encouraging cooperation and participation in extraction, processing and refining EU supply chains and establishment of organizations/institutions as EIT raw materials hub/center.

6.5.2.3 Policy mix

To translate the vision into a mix of support measures consistent with the mentioned goal some possible lines of action have been identified.

Firstly, enabling and more horizontal in nature lines of action should be aimed at reversing the trend towards emigration and abandonment of the rural areas from young people, convincing young people to stay in the rural areas through grants and other incentives.

More specifically, priority specific lines of action are to be considered

1. **Favorable Policy and Regulatory Framework:**
    - Strengthening the public-private dialogue to develop and update regulatory framework and collaboration with research institutes, also with a view to implementing best practices in the industry.
    - Adoption of sustainable fiscal policies to support private investment in manufacturing, including through lowering of customs tax and implementation of CEFTA agreement.
    - Development of employment aid measures that promote job creation and job stabilization in the manufacturing industry, including measures to attraction/retention of talent through competitive salaries, career advancement, and favorable working conditions.
    - Improve legal framework for use of land for manufacturing, including through land reform and regulatory measures for unused lands.
    - Improve regulatory framework through streamlined administrative procedures and reduced bureaucracy for getting property documents.
2. **Infrastructure development and better business environment:**
    - Investment in infrastructure development to improve logistics, connectivity, and access to markets.
    - Encouraging technology transfer, that lead to technological advancement, economic growth and sustainable resource management, including through the establishment of technology hubs.
    - Provision of necessary support mechanisms for product assurance, quality control, and certifications, including the adoption of international environmental standards and regulations and the integration of sustainability criteria in procurement processes and supplier selection.
    - Measures for facilitating access to banking finance, grants, and incentives for manufacturing businesses.
    - Encouragement of entrepreneurship in the manufacturing sector, especially among young people, including through supporting business incubators and start-up assistance services and bringing old enterprises into use.

- Define support measures to stimulate investments of Diaspora in the areas of origin.

4. **Talent Development and Education:**
    - Development of specialized training programs to enhance the skills of the manufacturing workforce.
    - Collaboration between educational institutions and industry to align curricula with industry needs.
    - Support for continuous learning and professional development opportunities for manufacturing professionals.
    - Support the possibility of contracting level 5 of EQF specialists.
5. **International Cooperation and Market Access:**
    - Establishment of partnerships and collaborations with international organizations and businesses, including through bilateral and regional agreements on a basis of reciprocity, economic diplomacy, and trade missions.
    - Support measures for participation in international trade fairs, exhibitions, and conferences to showcase Albanian manufacturing capabilities.
    - Support for Albanian manufacturers in meeting international standards and certifications.
    - Exchange of expertise and best practices with other countries to enhance competitiveness.
6. **Support to Digital and Green transition of manufacturing sector:**
    - Implementation of support schemes that foster digital transformation and adoption of green technologies in manufacturing processes
    - Promotion of sustainable manufacturing practices, through responsible resource management such as waste reduction, recycling, eco-friendly production, utilization of renewable energy sources and of local raw materials.
    - Implementation of green supply chain practices to minimize environmental impact, including integration of sustainability criteria in procurement processes and supplier selection.

6.6 Tourism sector

6.6.1 Round tables and Workshops participants

Domain	Event	Participants from				
		Academia	Business	Civil society	Government	Total
Tourism	Round table	54	65	19	64	202
	Workshop	5	16	4	38	63
	Total	*59*	*81*	*23*	*102*	***265***

Source: Albanian national S3 team

Tourism sector is the domain that registered the highest level of participation to the EDP meetings from quadruple helix stakeholders. In total the participants were 265. Although a prevalence of participants from government entities is also confirmed in this case, the high number of participants representing companies (81) and research (59) must be underlined, testifying to the high level of interest existing nationwide on the sector as a potential domain for smart specialisation.

The discussions during the meetings organized in the tourism priority domain were mainly focused on specializing on subsectors such as cultural heritage, health tourism (combined with agriculture, medicinal plants, culinary (combined with agriculture, food) as well as natural and rural tourism (agro tourism, adventure and sports tourism). Use of made in Albania products and cultural heritage was evidenced as an important topic for all type of tourism but also as a bridge with other domains as agriculture, handicraft products of leather, textile, stone, etc.

6.6.2 Findings

The high level of interest in the smart growth of the Tourism sector suggested to organize six different roundtable discussions focused on the following possible paths of innovation:

- Mountain Tourism
- Health Tourism
- Agro Tourism
- Sea Tourism
- Diversification of Tourism
- Development of the tourism and hospitality market.

The discussions revealed common findings as well as specific findings for each of the topics covered, as follows:

1. **Limited Human Capital:** The first and most significant challenge identified in all roundtable discussions was the shortage of skilled professionals in the Albanian tourism sector, which hinders its development and competitiveness. This challenge can be broken down into several related aspects:

    - Education and Training: The current challenge lies in the lack of an effective education and training system for professionals in the tourism industry. Specialized programs and high-quality training standards are needed to develop the professional capacity of employees in areas such as hotel management, gastronomy, tour guiding, etc. Improvement of professional curricula, in terms of duration and content of professional courses were emphasized as further key factors.

    - Brain Drain: Albania is experiencing a steady trend of emigration of tourism specialists to foreign countries, partly due to institutional and international recognition and accreditation of diplomas. This diminishes the country's human capital base and results in a shortage of experienced and highly qualified professionals in the tourism sector.

    - Salaries and Working Conditions: Salaries in the tourism sector are relatively low compared to other tourist destinations, causing skilled Albanian professionals to seek employment opportunities abroad. Moreover, working conditions and the benefits offered by employers in the tourism sector often fail to attract and retain qualified employees.

    To address these issues, participants emphasized the importance of developing long-term policies and strategies that may include investments in specialized education and training, improving working conditions and increasing salaries, standardizing and improving the reward system, as well as providing secure employment contracts for students and tourism professionals. Subsidies for seasonal employees may also be necessary.

2. **Need for greater formalization of market operating practices:** Market formalization emerged as another significant challenge in the Albanian tourism sector. Participants highlighted the need to implement government rules and laws to regulate business operations, taxation, and necessary permits in the tourism industry. The persistence of informal practices creates unfair competition for formal businesses. Strengthening control measures and ensuring compliance with quality and standards, particularly in agrotourism and medical tourism, were proposed.

3. **Boost investments in marketing and Digitalization:** Participants emphasized the need to develop innovative solutions capable of allowing a complete mapping of tourist attraction points, calendars of events and accommodation offers to provide systematic and unified ways of accessing information at a national level. They suggested installing screens to promote tourism in Albania 24 hours a day, digitalizing public transportation (installing

digital timetables), virtual museums, and utilizing AR/VR technology to establish direct communication with the audience. These measures would enhance visibility and the image of destinations, thereby increasing interest in choosing Albania as a tourist destination.

4. **Development of MICE in Tourism (Meetings, Incentives, Conferences, Exhibitions):** Participants proposed developing MICE tourism in municipalities beyond Tirana, which has already initiated such activities. To achieve this, improvements in infrastructure, efficient accommodation systems at the local level (to avoid overbooking), operation of other airports in the country, promotional incentives, and interregional partnerships were suggested.

5. **Promotion of Art and Crafts:** Collaboration between local and national structures can create a rich cultural and artistic environment in Albania. Proposed steps include organizing artistic events, supporting local art performers and craftsmen through financial and technical assistance programs, promoting local art through galleries, social media, and online platforms, as well as collaborating with accommodation to incorporate art and crafts as part of the tourist experience.

6. **Promotion of Cultural and Entertainment Activities for Year-round Tourism:** Participants stressed the importance of cultural and entertainment activities throughout the year. Key aspects to consider include:

    - Protecting Cultural Heritage: Ensuring the preservation of cultural heritage in Albania, including historical settlements, cultural monuments, and areas of special cultural value.

    - Regulation and Facilitation of Drone Usage: Establishing clear rules and guidelines for drone usage, such as limiting flight areas, setting maximum altitude limits, and respecting privacy and safety considerations.

    - Controlling Noise Pollution: Implementing effective regulations and monitoring noise levels to minimize the negative impact of noise pollution on cultural and entertainment activities.

    - Involving Youth and Engaging the Local Community: Encouraging youth participation and involving the local community in promoting best practices to foster respect for the cultural and social environment.

7. **Development of Infrastructure, Transport Network, and Internet Coverage:** Investment in tourism infrastructure, including smart internal systems in hotels and restaurants, tourist routes, attractions, recreational facilities, and reliable internet coverage, is crucial for providing a satisfactory experience for visitors and enabling diversified tourism offerings. Combined with quality and friendly services for visitors, these factors are essential for creating a positive experience.

8. **Investing in Waste Management, Environmental Protection, and Collaboration with Local Authorities:** Proper waste management is vital to preserve the natural environment and ensure a clean experience for tourists. This includes protecting natural areas, national parks, the coastline, historical monuments, and cultural heritage sites. Close collaboration between local and central government authorities and businesses, along with clear division of responsibilities, is necessary.
9. **Boosting Controlled Designation of Origin products:** Adding Controlled Designation of Origin products to the European Union's list of attractions is suggested. Additionally, organizing events that showcase the history of these products, along with their promotion and sales, can help tourists learn about traditional production methods and how they are part of the local identity. This brings visitors closer to the country's culture and heritage.
10. **Ensuring reliable statistical data and understanding market trends for better planning:** reliable statistics are essential for measuring and monitoring the performance of the tourism industry, developing informed policies and strategies, and making fact-based and sustainable decisions. Improved coordination between the government, tourism institutions, and the tourism industry is needed to facilitate performance monitoring and enhance strategies and policies for sustainable tourism development. A key role for a better planning can be played by the university system to which more resources should be allocated to conduct research to analyze market trends and define new tourism solutions and products, by involving the Destination Management Organizations (DMOs) too.
11. **Supporting Local Action Groups:** The inclusion of local action groups (in the meaning defined at EU level by the LEADER approach) plays a crucial role in building local identity, promoting attractions and local products, as well as developing new tourist products. Through their involvement in tourism development, local action groups help increase tourist visits, generate income, and stimulate economic development in their areas.
12. **Findings related to specific trajectories of innovation**: The participants highlighted the development of health care, mainly the development of dental care, aesthetics, ophthalmology services, natural resources of spas (natural thermal springs and mineral-rich waters). They identified the need for scientific research following these trends to provide medical and therapeutic tourism and the specialization of students in these fields.

The national workshop helped to review the above findings in order to identify strengths, weaknesses, opportunities and threats to be considered for a smart specialization path of the tourism sector.

From the discussions within the workshop emerged as a general common view that Albania possesses a diverse and promising tourism landscape that encompasses a range of subsectors, including sea, mountain, cultural heritage, adventure, and ecotourism. Particularly, with its

coastline along the Adriatic and Ionian Seas, mountain ranges, rich cultural heritage, and preserved natural areas, Albania has the potential to attract a growing number of international and domestic tourists interested in the so-called "experiential tourism". To harness this potential and foster sustainable tourism development, the implementation of a smart specialization strategy can play a crucial role. By strategically focusing on specific sub-sectors and leveraging technological advancements, Albania can enhance its competitiveness, improve visitor experiences, and maximize the socio-economic benefits of its tourism industry.

6.6.2.1 SWOT

From the summary report provided by the S3 team for all elements of the SWOT analysis several key insights were identified which can support the definition of the vision and the policy mix.

Strengths	Weaknesses
➢ Natural beauty: Albania can boast of having 4 UNESCO World Heritage sites and its nature is rich in beaches, rugged mountains, national parks, natural thermal springs and mineral-rich waters, offering diverse and attractive landscapes for tourists ➢ Cultural heritage: the country's rich history, archaeological sites, and cultural traditions provide unique opportunities for cultural tourism and heritage exploration ➢ Affordability: compared to other European destinations, Albania offers relatively lower costs, making it an appealing option for budget-conscious travelers ➢ Authentic experiences: Albania's relatively unexplored tourism landscape allows visitors to experience authentic and untouched destinations, contributing to a sense of adventure and discovery ("experiential tourism") ➢ High strategic focus by Government on the development of the sector, which translates into a dedicated fiscal policy, an offering of supportive financial schemes	➢ Human capital/workforce: this includes limited skilled workforce, skills gaps and mismatch, seasonal employment, training and professional development, Language skills ➢ Seasonal concentration: the tourism industry in Albania is highly seasonal, with a majority of visitors arriving during the summer months, leading to underutilization of resources and limited year-round employment opportunities ➢ Infrastructure gaps: while improvements have been made, there are still gaps in infrastructure development, particularly in remote mountainous areas, limiting access and the overall visitor experience ➢ Quality of services: the quality of hospitality services, including accommodation, dining, and tourist facilities, needs further enhancement to meet international standards and customer expectations ➢ Low development of digital services within businesses and for accessing tourist services

and in the implementation of marketing strategy to promote Albania as an international tourist destination ➢ Geographic position and favorable climate ➢ Perception of Albania as a safe tourist destination	➢ High weight of informal market and lack of business standardization ➢ Lack of sustainable tourism practices, in terms of regulations and guidelines to encourage responsible tourism, including waste management systems, energy-efficient practices, and conservation initiatives to protect cultural heritage and preserve natural ecosystems ➢ Inadequate development of Public transport services ➢ Low level of collaboration between business sector, academia and government ➢ Absence of a long term policy in tourism, due to weak planning capacity, resulting also in frequent changes in legal framework and in the lack of harmonization of urban planning rules that do not allow companies to plan their investments
Opportunities	**Threats**
➢ Growing investments in the development of infrastructure to support tourism, including transport networks and connectivity, hotels, resorts, and recreational facilities, to accommodate increasing tourist demand ➢ Digital marketing and online presence: leveraging digital platforms and social media channels can significantly enhance Albania's visibility, attract a broader audience, and engage with potential tourists ➢ Potential for diversification of tourism products: adventure tourism, cultural festivals, gastronomy tours, and wellness retreats, can attract niche markets and extend the tourism season	➢ Environmental sustainability: Balancing tourism growth with environmental conservation is essential to preserve Albania's natural beauty and prevent the negative impacts of overcrowding and overdevelopment ➢ Competitive destinations: Albania faces competition from other Mediterranean and Southeast European destinations that have well-established tourism industries and robust marketing strategies ➢ Geopolitical factors: Political instability globally or unfavorable international relations can impact tourist perceptions and deter potential visitors ➢ Safety and security concerns: Addressing safety and security issues and ensuring a safe environment for tourists is crucial to

➢ Collaboration and partnerships: encouraging public-private partnerships, engaging local communities, and collaborating with international stakeholders can unlock new opportunities, foster knowledge exchange and support sustainable tourism development	build trust and attract international travelers ➢ Pandemics and global crises: External shocks, such as pandemics or global economic crises, more than in other sectors, can impact the industry's growth and stability, disrupting tourism flows

6.6.2.2 Vision

The vision is to position Albania as a premier sustainable tourism destination, offering diverse and authentic experiences that celebrate its rich cultural heritage, beautiful landscapes, culinary delights, and wellness offerings, that contribute to the well-being of its communities.

It is envisioned as a dynamic diverse, country-wide, all year tourism sector, that contributes to the socio-economic development of the country while promoting responsible practices and preserving Albanian natural and cultural treasures for future generations.

Pursuing this vision will mean focusing policy action on the development of specific trajectories of innovation, such as:

- Enhancement of the Cultural Heritage and traditions, by preserving and promoting Albania's historical and cultural sites, museums, and traditions.
- Support Health and Wellness Tourism, by exploiting connections with agriculture and medicinal plants sub-sector;
- Support Ecotourism, Agro tourism and Experiential Tourism, by exploiting connections with agriculture and food sectors.

6.6.2.3 Policy mix

To support this vision, the implementation a policy mix based both on enabling measures and priority-specific ones is considered crucial.

Firstly, more horizontal in nature lines of action should be aimed at reversing the trend towards emigration and abandonment of the rural areas from young people.

More specifically, priority specific lines of action are to be considered

1. **Long-term specific Policy Strategy:**
    - Development of a new tourism policy based on a new vision for the industry, including through the adoption of regional master plans to identify local services and products.
    - Creation of a compelling narrative for Albania and its cities as tourist destinations, including through branding of Albanian products and promotion of "Made in Albania" goods.
    - Implementation of tax reforms to align value-added tax (VAT) rates for accommodation and food services.
2. **Infrastructure and connectivity:**
    - Improvement of road infrastructure and enhancement of public transportation systems (including airport connection services) and signposting for tourists.
    - Strengthening of digital infrastructure in tourist areas to enhance connectivity.
    - Implementation of smart information points and audio guides for visitors.
3. **Better regulation:**
    - Improvement of legislation on private property rights to encourage investment, including completion of land and property reform for agro-tourism related developments.
    - Update the legal framework with measures aimed at preventing environmental pollution and strengthening sanctions and controls.
    - Streamlining of administrative processes and reduction of associated fees.
    - Simplification of entry procedures at border points and development of a centralized registry for foreign and domestic tourists.
4. **Support to businesses for sustainability and quality enhancement:**
    - Support to hospitality businesses for adoption of green energy solutions and digitalization.
    - Support action for the promotion of sustainable practices and eco-friendly initiatives in the tourism sector.
    - Implementation of smart waste management systems at territorial level to ensure environmental sustainability of tourism.
    - Upscaling of service standards and quality through accreditation and monitoring.

5. **Workforce development and collaboration:**
    - Establishment of a dedicated higher education institution for tourism studies.
    - Enhancement of workforce qualifications and skills through training programs, including continuous training of hospitality staff to deliver quality services.
    - Incentives to attract young professionals to work in the tourism sector.
    - Reorganization of business representation for constructive dialogue and collaboration.
    - Strengthening of partnerships and collaborations with local and international stakeholders.
6. **Enhance marketing actions in the tourist attraction strategy:**
    - Creation of a comprehensive information system for tourism offerings and unified digital platforms and channels for tourism promotion.
    - Creation of tourism apps and digital mapping for ancient sites and tourist attractions, public transportation and event calendars.
    - Analysis and targeting of specific tourism markets for effective marketing strategies.
    - Provision of a digitalized address directory for citizens and tourists.
    - Incentives for tour operators and touristic agencies for building and promoting eco-friendly touristic packages and for low season packages.
    - Strengthening of collaboration between Cost Agencies, Agency for tourism and tour operators on touristic package offers.
7. **Support measures related to specific trajectories of innovation with higher potential**
    - Leveraging Albania's natural thermal springs and mineral-rich waters.
    - Promoting Albania as an affordable and reliable destination for medical procedures, such as dental work, cosmetic surgery, and fertility treatments, including through the development of partnerships with top medical institutions and healthcare providers to offer high-quality medical treatments, surgeries and rehabilitation.
    - Developing eco-friendly health resorts that emphasize sustainability and eco-conscious practices, attracting health-conscious and environmentally aware tourists.

- Integrating traditional Albanian healing practices and alternative medicine into health tourism offerings. Examples include but are not limited to herbal remedies, and holistic therapies.
- Promoting rural tourism by connecting visitors with local farms and agritourist activities, emphasizing sustainable food production. Examples include but are not limited to:
    - Offering farm tours and experiences, based on engaging visitors in hands-on activities such as harvesting, cheese-making, milking etc.;
    - Offering farm-to-table dining, based on promoting the consumption of locally sourced fresh products. This is of dual benefit as it encourages locally grown food and also supports small-scale farmers. Such experiences can also be accompanied with culinary workshops;
    - Offering farmers' markets and agro-festivals, based on organizing regular farmers' markets and agro-festivals where local producers can sell their goods directly to visitors. These events can feature cultural performances and workshops to enrich the experience.
    - Encouraging farmers to adopt sustainable and eco-friendly practices, promoting environmental certifications from farmers. This may include responsible waste management and conservation of natural resources.
    - Encouraging hiking tourism, adventure and sports tourism to prioritize sustainable tourism practices that minimize negative environmental impacts and maximize social ones.

7. Conclusive remarks

Ultimately, the EDP indicate that:

- **in the agriculture, energy and tourism priority areas emerged a fairly defined vision**. Besides, **the policy mix appears to be coherently structured** for achieving innovative development based on diversification and the existing strengths are also correctly oriented from an outward looking perspective, with the view to make the **Blue and Green economy** two architraves that will orient the entire S3 horizontally. **Sustainable and diversified tourism, healthy and sustainable food chain, renewable energy and natural resources, seems to be evidenced during EDP as S3 priority domains**.
- for **BPO sector, ICT sector and manufacturing** the discussions held highlighted many cross-cutting issues and findings are not probably strongly enough for the identification of a sound specific vision and for a coherent focus of specific policy action. Those priority areas seem to be less mature for supporting a smart specialization path of the country, but the discussions carried out have highlighted that **ICT and knowledge-intensive services constitute for all priority domains a relevant factor for smart specialization in a horizontal manner**.
- As regards the manufacturing sector, indications mainly underline the need to strengthen the context conditions to make them more favourable to the growth of businesses and the development of investments, while no strong indication concerns the opportunity of focusing public support on a specific sub-sector compared to others, with the expection of the **manufacturing of raw materials that seems to be a priority area to focus on S3**, considered the natural wealth in mineral raw materials and the potential of development and application of new and innovative technologies in their extraction and processing.

From the entrepreneurial discovery process emerged also the need for defining and implementing a broader policy agenda functional to support the S3 with the creation of enabling context conditions.

As main horizontal lines of action to be considered were highlighted measures aimed at:

- **reversing the trend towards emigration and abandonment of the rural areas from young people**, making it attractive for young people to stay in rural areas through grants and other incentives;
- **improving the context for accessing to finance and credit;**
- **strengthening network infrastructures** such as access to internet broadband and transport infrastructures and enhancing public transport and logistics services.

Moreover, the entrepreneurial discovery process brought out the importance of defining **horizontal/cross-cutting measures more specifically related to improving the national innovation ecosystem**.

1. Firstly, the EDP suggested that it will be essential to **invest in human capital by increasing scientific and technological skills at all levels**.
    - This must include a review of educational and training programs, based on a skills and qualifications need analysis, that provides for a significant strengthening of curricula, with a focus on STEM disciplines and specific curricula related to S3 priorities, the harmonization of the education system with the VET system, review of curricula from primary education till higher education and the creation of university curricula capable of accompanying Albania in digital and green transitions and strengthening the specialization of the national economy in the S3 priority domains.
    - At the same time, it is essential to invest more in lifelong learning to implement a broad program of reskilling and upskilling of workers, taking into account the challenges posed by circular economy and artificial intelligence.
2. **Building up the culture of innovation** in schools and among young generations aimed at enhancing talents and preventing their emigration must be another goal to be pursued with specific policy actions.
    - Firstly, it is important to develop a favourable context that allows young generations to stay and contribute to the smart growth of Albania. The turning on of public information portals/services dedicated to **pushing curricula and job opportunities linked to the S3 specialization areas** and the support for the creation of places devoted to encouraging open innovation (such as living labs and fab labs) and capable of accompanying the growth in demand for innovation coming from civil society and young innovators should be considered as relevant actions.
    - Secondly, a key role on this could be played by the direct involvement of the diaspora. The return of talents and successful Albanians could be favoured by introducing stable financial support to companies for hiring researchers and workers with high skills and work experiences coming from abroad, inspiring confidence in the younger generations towards smart, sustainable, and inclusive growth of the country. The brain circulation and involvement of the diaspora from their country of stay will bring knowledge and skills to the Albanian market enabling also new ideas and innovation, knowledge transfer, new partnerships and joint projects, as an added value in the innovation ecosystem and closing the gaps for knowledge and skills evidenced by stakeholders' part of quadruple helix through the EDP.
3. A **sound industrial/innovation policy framework** must be defined with the aim of creating a favourable business climate for companies to develop research and innovation.
    - This passes through an overall review of incentive schemes aimed at promoting the priority domains of S3 with specific aid measures, including through the

adoption of sustainable fiscal policies, and the definition of a legislative and regulatory framework aligned with EU standards and which can encourage investments by local companies and foreign investments and the development of clusters. It will be important to achieve a strong simplification of the procedures for starting business investments and a policy tool kit to support businesses in accessing public funding dedicated to R&I, including through the establishment of informative platforms and a dedicated communication strategy. The strengthening of the R&I incentive framework must also be directed towards the cross-sectoral introduction of eco-friendly and sustainable practices and processes and towards the adoption of digital technological solutions, both in private and public sector.

- A key role should be assigned to the strengthening of collaboration between academia, businesses, and the government and a growing involvement of organizations representing civil society. This collaboration can be achieved by strengthening agreements between the educational and university system and businesses for company internships of students and researchers, dual VET schools and on the job training, collaborating in the organization of business forums and innovation fairs up to revitalizing economic diplomacy.

4. It will also be essential to **define a specific support framework for technology transfer processes** (vertical and horizontal) by "*strengthening of linkages between technology supply side, technology adopters and the intermediary support service provider*" [13].

    - The participants in the EDP asked for enhancing the institutional role and internal skills of state agencies such as AIDA and others for increasing Albanian participation in international events to boost networking, support "Made in Albania" products and the integration into global value chains of the S3 priority sectors.
    - The development by universities and research bodies of the so-called Third Mission activities, including through support to spin-offs, and creation of a national network of innovation intermediaries such as Industrial Innovation Hubs, Tech Parks and Clusters will require specific public support. Within these places the quadruple helix stakeholders can cooperate stably, with the aim to provide easier access to KIBS and better matching of SMEs' demand for innovation and foster the dissemination of technological innovations across sectors and territory.

The joint consideration of all these findings can help Albania to focus its S3 on enhancing the existing innovative potential and creating favourable conditions for smart growth of the Albanian economy and society.

[13] https://www.etf.europa.eu/en/news-and-events/news/technology-transfer-and-skills-western-balkans-key-growth-and-innovation

References

European Commission, Directorate-General for Research and Innovation, *A Western Balkans agenda on innovation, research, education, culture, youth & sport*, Publications Office of the European Union, 2021, https://data.europa.eu/doi/10.2777/831554

Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, *An Economic and Investment Plan for the Western Balkans* {SWD(2020) 223 final}

Multi-annual Action Plan for a Regional Economic Area in the Western Balkans Six, Regional Cooperation Council, 2017, https://www.rcc.int/docs/383/consolidated-multi-annual-action-plan-for-a-regional-economic-area-in-the-western-balkans-six

Matusiak M., Kleibrink A. (ed.), *Supporting an Innovation Agenda for the Western Balkans: Tools and Methodologies*, Publications Office of the European Union, Luxembourg, 2018, ISBN 978-92-79-81870-7, doi:10.2760/48162, JRC111430.

Fabbri, E., Gerussi, E., Hollanders, H. and Sinjari, I., *The identification of Smart Specialisation priority domains in Albania. A mapping exercise*. Gerussi, E., Hollanders, H. (editors), Publications Office of the European Union, Luxembourg, 2022, doi:10.2760/322286, JRC130660.

Foray, D., *Smart Specialisation: Opportunities and Challenges for Regional Innovation Policy*, Routledge, Abingdon/New York, 2015.

Perianez-Forte I. and Wilson J., *Assessing Smart Specialisation: The Entrepreneurial Discovery Process* EUR 30709 EN, Publications Office of the European Union, Luxembourg, 2021, ISBN 978-92-76-37823-5, doi:10.2760/559139, JRC124405.

Marinelli, E. and Perianez Forte, I., *Smart Specialisation at work: The entrepreneurial discovery as a continuous process S3,* Working Paper Series No. 12/2017, EUR 28838 EN, Publications Office of the European Union, Luxembourg, 2017, ISBN 978-92-79-74377-1, doi:10.2760/514714, JRC108571.

Zhezha, E., *EDP in the EU Enlargement and Neighbourhood Region in 2022 Smart Specialisation process in the Republic of Albania*, 2022.

European Training Foundation, *Analysing the skills dimension of technology transfer in the Western Balkans*, 2023.

Annex 1 - List of the horizontal issues considered for the drafting of the conclusive remarks

- Strengthen the collaboration between academia, businesses, and the government
- Enhance student internships, organizing business forums, and promoting cooperation between universities and businesses
- Skills development according to the country's needs for smart and competitive growth
- Prioritization of VET and Higher education curricula towards national priority domains
- Promotion of lifelong learning / micro credentials that allows specialization, upskilling and reskilling on national priority domains
- Development of a positive environment that enables the young generation to stay and contribute in the growth of their region
- Orienting the education curricula from early childhood to university to enable smart growth
- Work culture development through the introduction of practice curricula in the pre-university system and enhance in job training
- Harmonization of educational system when moving from one level to the other
- Increase the number of specialized staff and workforce
- Identification of talents and dedicated support to their growth
- Promoting the diaspora involvement in the development of the country, by supporting brain circulation platforms and practices that allow exchange of ideas, expertise, fostering collaboration and attraction of investments and supporting the return of diaspora in the origin cities and regions
- Fostering research and innovation through initiatives that promote collaboration among quadruple helix actors, such as Industrial Innovation Hubs, Tech Parks and Clusters
- Establishment of informative platforms for legislation and information exchange, dedicated communication strategy
- Improvement of collaboration with stakeholders within and outside the country
- Improvement of legislation and alignment with EU standards
- Orienting businesses on the possibility to access in finance and trainings on how to apply for projects. Access to EU financial/incentive schemes, projects and programs for sectorial development in the country
- Improve access to finance and information
- Financial support and investment incentives. Adoption of sustainable fiscal policies
- Incentives for investments in research, development, and innovation (R&D&I)
- Need for clear and sustainable policies and legislation to encourage investments
- Revitalizing economic diplomacy and increased participation in international events for promotion and contract connections, organized and supported by state agencies such as AIDA
- Development of Industrial policy
- Integration into global value chains, circular economy, clusters
- Develop and orient businesses towards sustainable economic policies.

- Promote eco-friendly practices
- Support measures/incentives to promote “Made in Albania”
- Preservation of traditions
- Digitalization/ Digital transformation in the private and public sectors, including public services, application of artificial intelligence.
- Improve internet access and broadband infrastructure
- Improve transport infrastructure/networks
- Review of incentive schemes that promote the priority domains of S3
- Adoption of new technological practices and training for all stakeholders
- Simplify administrative procedures
- Improve land management and property registration
- Enhance investment on technology and technology transfer
- Improving the legal framework, implementation of international standards
- Market formalization, fight informality
- Harmonization of strategies and strategic frameworks
- Alignment with international standards and compliance. Certification of operational standards
- Decentralization of digital infrastructure for rural areas
- Improvement of living condition and social life in rural areas, especially through the strengthening of health and educational services
- Review of the legal framework to support digitalization (more incentives/exemption from taxation for businesses supporting R&D or students giving grants, etc.)
- Enhancing connectivity and access to digital services
- Development of technological ecosystems and start up support/ Supportive policies for business
- Competitiveness diagnostic is needed

Annex 2 - Summary table of the main findings of the bilateral meetings

Country Meeting	Shared Priority Domain	Challenges	Solutions	Collaboration Potential
Albania - Kosovo	Sustainable Agriculture	- Climate change - Lack of interest by new generations - Urbanization impact - Asymmetric market positions - Limited access to information	- Green agenda and diversification - Technological improvements - Promotion of organic farming - Territorial product exploration	- Research joint projects - Investment in certified joint labs - Pollution reduction initiatives
Albania - North Macedonia	Renewable Energy	- Climate change - Urbanization effects - Energy balance - Regulatory hurdles	- Clean energy transition - Energy storage - Market coupling	- Joint energy projects - Research collaboration - Regulatory knowledge sharing
Albania - Montenegro	Raw Material Industry/Sustainable Materials	- Urbanization effects - Lack of collaboration - Regulatory barriers	- EIT Raw Materials Hub - Secondary raw materials utilization	- Joint mineral exploration - Research collaboration

Country Meeting	Shared Priority Domain	Challenges	Solutions	Collaboration Potential
				- Regulatory cooperation
Kosovo - Montenegro	ICT	- Digitalization lag - Cybersecurity concerns - GDPR compliance - Workforce shortages	- Digital innovation - Cybersecurity center - Digital Excellence Center	- Joint platforms for academia - Data science system - Cybersecurity capabilities
Kosovo - Montenegro	Sustainable Agriculture and Food Value Chain	- Digitalization in enterprises - Labor shortages - Regulatory issues	- Legal policy harmonization - Quality assurance agreements	- Joint research institute - Agro-processing tracking system - Finance access initiatives