

**EVALUATION OF THE SMART SPECIALISATION
STRATEGY 2019–2024**

June, 2025

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1. SUMMARY OF CONCLUSIONS AND RECOMMENDATIONS

1.1. KEY FINDINGS OF THE EVALUATION

In the period 2019–2024, the implementation of the Smart Specialisation Strategy demonstrated high financial efficiency, with 90.05% of the planned funds realised and a clear trend of increased investment in the final phase, when the implementation exceeded the plan by more than 200%. At the same time, a total of 66% of activities were fully implemented, and an additional 15% partially, thus confirming a stable and functional implementation framework, although 19% of activities remained unimplemented.

Regarding the achievement of operational objectives and related indicators, the analysis shows that most of the key results exceeded expectations, particularly in the areas of S3 skills development, innovation infrastructure, and investment in industry and SMEs. Out of 14 analysed indicators, ten exceeded the target values, while four fell short, with the weakest performance recorded in innovation promotion and public information. All this indicates that the foundations for Montenegro's innovation development are well established, but also that there is room for stronger orientation towards visibility, broader community involvement, and more targeted communication of results.

Relevance

The Smart Specialisation Strategy of Montenegro (S3) has been confirmed as one of the most relevant strategic documents in the country, as it enables a targeted development of innovation potential in the areas with the greatest capacity to contribute to economic development and social transformation. Evaluation findings show that as many as 93% of respondents believe that the Strategy has responded to the needs of society. Most evaluation participants agree that all four defined priority areas are relevant, although the area of “sustainable and health tourism” is considered too narrowly defined and bureaucratically constrained, while ICT should be reconsidered and redefined as a fully-fledged priority area. In addition, several participants pointed out the importance of introducing new areas, including digital infrastructure, artificial intelligence, the green and circular economy, the blue economy, and creative industries.

All strategic objectives of the Strategy were assessed as highly relevant. With regard to operational objectives, most were evaluated as relevant, but some, particularly in the field of tourism, received more negative assessments due to imprecision, weak measurability, insufficient linkage with strategic objectives, and limited practical applicability.

The evaluation has shown that although the Strategy's objectives were largely aligned with sectoral needs, their implementation was uneven, with the research and NGO sectors assessed as the most engaged, while the education and business sectors demonstrated weaker integration.

Coherence

The evaluation has shown that the Smart Specialisation Strategy is largely aligned with the European framework for smart specialisation, national strategic documents, sectoral policies, and legislation. As many as 87.9% of respondents assessed that there is a high degree of alignment of the Strategy with EU guidelines, while 67.7% considered that there is a high degree of alignment with national strategies, and 79.4% that there is significant alignment with sectoral legislation. However, despite these positive assessments, respondents pointed out that further alignment with the legislative framework is necessary in the sectors of tourism, health, agriculture, digital technologies, and data protection, where the legal framework is only partially harmonised or insufficiently developed. It is also necessary to more precisely position S3 in relation to other key strategies in order to ensure better coordination and mutual complementarity of objectives.

Although formal alignment has been achieved, the evaluation highlighted the limited operationalisation of S3 through concrete institutional and technical mechanisms, as well as weaker coordination among stakeholders, particularly in areas with overlapping competences. The Ministry of Education, Science and Innovation is the main implementing body for most activities, but broader institutional mobilisation has been lacking, further hindered by frequent staff changes and the absence of stable mechanisms for intersectoral cooperation.

Effectiveness

The effectiveness of the implementation of the Smart Specialisation Strategy in the period 2019–2024 was moderate. Even though a significant number of activities were carried out and more than 64% of respondents considered that implementation followed the planned dynamics, the process was slowed down by numerous obstacles. The main hindrances included frequent changes in political and administrative leadership, the COVID-19 pandemic, limited institutional capacities, and slow intersectoral cooperation. The greatest challenge was insufficient financial support, identified as the key problem by as many as 67.7% of respondents, while additional factors included unrealistic planning, misalignment of the legal framework, and low awareness among stakeholders.

Despite systemic weaknesses, the strong commitment of operational teams, particularly employees of the competent ministry and members of the innovation working groups, enabled continuity and concrete results. Contributions were also made by international partners, a well-designed implementation framework, and a developed innovation infrastructure. These findings confirm that human capacities, cooperation, and clearly established mechanisms were crucial for the sustainability of the process, although the full potential of the Strategy remained only partially realised due to external and institutional constraints.

Efficiency

The efficiency of the implementation of the Smart Specialisation Strategy in the period 2019–2024 was assessed as high; 86.2% of respondents believe that the implementation was optimal given the available resources and the institutional context. However, almost one-third of participants expressed partial dissatisfaction with the ratio between invested funds and achieved results, which suggests room for rationalisation and a stronger performance-oriented approach in the next phases.

The organisational structure established through the Operational Programme was recognised as an innovation and good practice, with particular emphasis on the work of innovation working groups and the professionalism of the coordination directorate of the competent ministry. Nevertheless, the evaluation identified the need for improvement in intersectoral cooperation, particularly between the sectors of economy, tourism, health, and agriculture, as well as stronger involvement of certain ministries and sectors that demonstrated weaker engagement.

Most respondents (74.2%) believe that further development of the institutional and organisational structure is necessary, with recommendations relating to strengthening human capacities, a more precise distribution of responsibilities, improvement of reporting and planning systems, and better linkages with the private sector and the innovation ecosystem. Despite the challenges, it was assessed that the implementation structure laid a solid foundation for the continuation and enhancement of the Strategy, provided that additional efforts are invested in building a stable, merit-based, and interconnected administrative network.

Impact

The implementation of the Smart Specialisation Strategy in Montenegro has already delivered measurable positive results both in terms of institutional strengthening and in the improvement of the innovation ecosystem. The Innovation Fund has been established, key infrastructural and regulatory mechanisms have been developed, and cross-sectoral cooperation has increased, particularly in the fields of science and technology. Almost all respondents (80.8%) highlight the rise in awareness of the importance of innovation as the most visible effect of the Strategy, while significant progress has also been recorded in supporting stakeholders in the priority areas (46.2%).

However, a smaller share of respondents (below 35%) recognize systemic improvements in institutional efficiency, which indicates that in-depth organisational reforms have not yet been fully implemented. Existing initiatives are still not sufficiently recognized among end users, particularly in the business sector and the community, partly due to weaker visibility and uneven implementation of measures. Although the Strategy has laid solid foundations for long-term change, its sustainability and wider impact will depend on stronger market connectivity, enhanced institutional efficiency, and continued investment in human and innovation capital.

Sustainability

The sustainability analysis indicates that the Smart Specialisation Strategy has achieved important results, but its financial, institutional, and human resource sustainability remains only partially secured. Most respondents (60.7%) assess that sustainability is not fully ensured, identifying political instability and the

changing will of future governments as key threats. Although monitoring and feedback mechanisms exist, they are underdeveloped and poorly integrated into institutional operations.

The capacities of the institutions responsible for implementing S3 are largely assessed as only partially sustainable (57.1%), with particular emphasis on the lack of qualified staff, high employee turnover, and the absence of systemic measures to preserve institutional memory. The problem is further exacerbated by weak intersectoral coordination, limited resources for innovation, and excessive reliance on international donors and unstable sources of funding.

Financial sustainability is also partial - 40.7% of respondents rated it as such, while most stress that numerous measures do not continue after initial support, causing a loss of development momentum. Without stable domestic budget planning, efficient use of resources, and a long-term institutional approach, it is difficult to ensure the lasting impact of the Strategy.

Despite these challenges, it is important to highlight that all respondents agree that the Strategy has achieved its objectives, at least partially, which confirms its strategic significance. However, for its effects to be long-term and sustainable, systemic strengthening of human, financial, and organisational capacities is essential.

1.2. CONCLUSIONS

Conclusion 1. The Smart Specialisation Strategy of Montenegro has been recognized as a highly relevant development framework that clearly directs the country's innovation potential.

Its role in linking science, technology, and business has been assessed as crucial for fostering competitiveness and social transformation, with most respondents confirming that the Strategy corresponds to the real needs of society and holds strong development potential.

Conclusion 2. Although the relevance of the Strategy is high, its full applicability requires broader sectoral involvement and the redefinition of certain priority areas and objectives.

In particular, the need has been highlighted to revise the area of health tourism, which has been assessed as too narrow and bureaucratically constrained, and to include modern fields such as digital infrastructure, AI, and the green economy, along with stronger involvement of the business and education sectors.

Conclusion 3. The Strategy shows strong formal alignment with European and national frameworks, but operational coordination across sectors remains weak.

Unclear allocation of responsibilities, underdeveloped intersectoral coordination, and institutional instability are particularly evident in measures with overlapping competences, which limit effective implementation and reduce the overall efficiency of the Strategy in practice.

Conclusion 4. The objectives of the Strategy have been assessed as relevant, but the operational objectives, particularly in certain areas, are often imprecise, poorly measurable, and insufficiently linked to the strategic orientations.

This lack of elaboration on the operational objectives hinders their practical application and reduces the possibility of systematic performance monitoring and achieving tangible results on the ground.

Conclusion 5. The implementation of the Strategy has been moderately effective, while the pace of implementation was often slowed down due to political instability, the pandemic, limited capacities, and poor intersectoral cooperation.

Although a significant number of activities have been carried out, a series of institutional, financial, and organisational obstacles reduced the continuity of implementation and affected the achievement of the Strategy's full potential.

Conclusion 6. Insufficient and unstable financial support has been identified as a key obstacle to the full implementation of the Strategy.

Excessive reliance on international sources and the lack of sustainable domestic budget planning have limited the continuity and long-term sustainability of the implemented measures and activities.

Conclusion 7. The institutional structure established through the Operational Programme has been recognised as a positive practice and an important element for the further implementation of the Strategy.

Despite the challenges, the established organisational mechanisms provide a solid basis for the continuation of implementation, with the need for further strengthening of coordination and the involvement of a broader range of stakeholders.

Conclusion 8. The visibility of the Strategy, as well as its recognition among end users, particularly within the business sector, has remained at an unsatisfactory level.

Insufficient communication, limited involvement of the private sector, and low availability of information on the benefits of the Strategy have slowed the expansion of its impact and restricted feedback mechanisms.

Conclusion 9. The sustainability of the implementation of the Strategy has been recognised as only partially secured, with the main challenges linked to political instability, staff turnover, and unstable financing.

Institutions face a lack of qualified personnel, weak institutional memory, and limited capacities for strategic planning, which may jeopardise the long-term objectives of the Strategy.

Conclusion 10. The Smart Specialisation Strategy has laid solid foundations for the enhancement of the innovation ecosystem, but its full potential has not yet been achieved and depends on further systemic capacity strengthening.

To achieve long-term and sustainable results, it is necessary to invest further in human capital, improve institutional coordination, and establish stable mechanisms for policy implementation.

1.3. RECOMMENDATIONS

Recommendation 1: Redefine the existing priority areas and include new sectors such as digital infrastructure, artificial intelligence, and the circular economy.

Recommendation 2: Improve the operational objectives of the Strategy so that they are clearer, more measurable, and directly linked to the strategic objectives.

Recommendation 3: Ensure stable and predictable domestic funding for the implementation of S3, while reducing dependence on donor sources.

Recommendation 4: Establish effective mechanisms for intersectoral cooperation and coordination among key sectors (economy, tourism, health, agriculture).

Recommendation 5: Strengthen the human resource capacities of the institutions involved in the implementation of S3 through recruitment, training, and the reduction of staff turnover.

Recommendation 6: Establish systematic monitoring and evaluation of results with a focus on outcomes rather than solely on implemented activities.

Recommendation 7: Increase the participation of the business and education sectors in the implementation of the Strategy through targeted measures and partnerships.

Recommendation 8: Position the S3 Strategy more precisely in relation to other national strategies to improve coordination and avoid overlaps.

Recommendation 9: Enhance communication and promotion of the Strategy towards end users, particularly the business community and local communities.

Recommendation 10: Ensure institutional memory and continuity through stable administrative mechanisms and a clear allocation of responsibilities.

2. INTRODUCTION

This report presents the main findings, conclusions, and recommendations of the evaluation of the Smart Specialisation Strategy of Montenegro (S3) 2019–2024, covering the period from 2019 to 2024. The evaluation was conducted by Jadranka Kaluđerović, PhD, between March and June 2023.

The primary purpose of this evaluation was to assess the success of the implementation of the Smart Specialisation Strategy of Montenegro (2019–2024) and its operational programmes, i.e., the corresponding Action Plans: the Action Plan for 2019–2020, the Action Plan for 2021–2022, and the Action Plan for 2023–2024.

The specific objectives of the evaluation were to assess the performance of the Strategy, particularly its relevance, efficiency, effectiveness, impact, and sustainability, and to identify lessons learned as a basis for recommendations.

The intended users of the evaluation are the Government of Montenegro, the European Commission, partners from academia, business, the NGO community, and other development partners and donors.

Montenegro adopted its Smart Specialisation Strategy (S3) 2019–2024 in June 2019, becoming the first country in the Western Balkans to adopt this type of strategy by following the EU methodology.

The Strategy defines four key priority areas of smart specialisation:

- Sustainable agriculture and the food value chain;
- Energy and sustainable environment;
- Sustainable and health tourism; and
- Information and communication technologies as a horizontal priority supporting the development of the three vertical priorities listed above.

The Strategy defined five strategic objectives, five operational objectives, and 36 activities.

To monitor the progress in achieving the strategic objectives set out in the Strategy, the Action Plan for the implementation of the Smart Specialisation Strategy of Montenegro (2019–2024) for the period 2019–2020 was adopted.

In December 2021, the Government of Montenegro adopted the Operational Programme for the implementation of the Smart Specialisation Strategy 2021–2024, as well as the Action Plan for the period 2021–2022. The Action Plan for the period 2022–2024 was adopted in August 2023, following the adoption of the Report on the implementation of the Action Plan for the Operational Programme for the implementation of the Smart Specialisation Strategy 2021–2024 for the period 2021–2022, which the Government of Montenegro approved at its session on 30 March 2023, after consultations with the relevant stakeholders.

The objective of adopting the Operational Programme was to: i) provide a clear overview of the situation in the priority areas; ii) adequately address the strategic objectives of the Smart Specialisation Strategy through the revision of operational objectives and activities; and iii) establish a solid programme basis that would serve as a lever for further work on improving the implementation of S3.

The Operational Programme also introduced and expanded the number of operational objectives and defined new activities through the Action Plan. More precisely, 12 operational objectives and 65 activities were planned under the Action Plan 2021–2022, and 53 activities under the Action Plan 2022–2024.

The Operational Programme also defines the Framework for the implementation of innovation and smart specialisation, which consists of: the Government of Montenegro, the inter-institutional S3 Group, the Council for Innovation and Smart Specialisation, the organisational unit for S3/the directorate within the Ministry of Education, Science and Innovation, the innovation working groups of the Council, the IT platform, the Innovation Fund of Montenegro, as well as innovation infrastructure actors and the wider innovation community.

2.1. Context and Institutional Background

The work on the Smart Specialisation Strategy in Montenegro began in early 2017. During the drafting process, the methodology developed by the Joint Research Centre (JRC) of the European Commission was applied, with the JRC also providing support to the process¹. The then Ministry of Science (now the Ministry of Education, Science and Innovation), with the support of the Ministry of Economy (now the Ministry of Economic Development), coordinated the drafting process, working closely with other relevant institutions from the public, business, academic, and civil society sectors under the quadruple helix governance model.

One of the important steps in preparing the S3 was the process of mapping and analysing Montenegro's economic, scientific, and innovation potential, which was completed in March 2018 based on relevant domestic and international statistical data. This analysis served as the basis for identifying preliminary smart specialisation sectors. The next stage in developing the S3 was the Entrepreneurial Discovery Process (EDP), which applies a bottom-up approach, allowing for the consideration of the perspectives and interests of the business community and the integration of all four sectors, with a focus on key areas. During this process, more than 250 stakeholders were consulted, and based on the information collected, the priority S3 sectors were selected.

By adopting the Smart Specialisation Strategy² in 2019, Montenegro aligned its strategic framework with the EU strategic framework and became the first country outside the 28 EU Member States to adopt this important strategic document. The Strategy was adopted in line with the JRC methodological framework for smart specialisation in EU enlargement and neighbourhood countries and received a conditionally positive assessment from the European Commission services.

The Strategy defined three key strategic directions for the country:

- A Healthy Montenegro;
- A Sustainable Montenegro;
- A Digitalised Montenegro.

Based on the strategic vision for Montenegro's development, four priority areas were identified. The selected priorities are: Sustainable agriculture and the food value chain; Energy and sustainable environment; Sustainable and health tourism; and Information and Communication Technologies (ICT). ICT is a horizontal sector, as it provides business and technological support to the other priority sectors.

The S3 Strategy identifies the main common objectives of the policy mix, determined by interests related to research and innovation activities. These are:

Strategic Objective 1: Improving the excellence and relevance of scientific research activities;
Strategic Objective 2: Strengthening human resources in research and innovation;
Strategic Objective 3: Enhancing cooperation within the innovation system;
Strategic Objective 4: Supporting innovative activities in the business sector; and
Strategic Objective 5: Improving the framework conditions for the innovation ecosystem.

The Action Plan for the implementation of the Smart Specialisation Strategy (2019–2024) was adopted for two years (2019–2020). Within the defined strategic objectives, five operational objectives were defined:

- Enhancing innovation activities through cooperation between research institutions and enterprises;
- Developing human capital through education and skills acquisition to strengthen competitiveness in research and innovation;
- Developing innovation infrastructure in line with the needs of the economy;
- Strengthening the dynamics of business sector operations; and

¹ <https://s3platform.jrc.ec.europa.eu/>

² <https://s3.me/wp-content/uploads/2022/06/Strategija-pametne-specijalizacije-Crne-Gore-2019-2024-.pdf>

- Strengthening capacities for innovative activities.

For all operational objectives, performance indicators were defined, including their baseline values in 2018, target values for 2020, and target values for 2024.

In addition to these objectives, the Strategy defined instruments for achieving the objectives. For each instrument, the responsible institution for implementation, target groups, and financial framework were specified. To ensure results monitoring, the Strategy also defined 13 context indicators.

In November 2021, the Report on the implementation³ of the Action Plan for the Smart Specialisation Strategy of Montenegro (2019–2024) for the period 2019–2020 was completed and adopted.

In line with the recommendations of the European Commission, the Government of Montenegro launched the preparation of the Operational Programme for the implementation of the Strategy in May 2021. The main reasons for adopting the Operational Programme included: providing a clear overview of the situation in the priority areas; adequately addressing the strategic objectives of the Smart Specialisation Strategy through the revision of operational objectives and activities; and establishing a solid programme basis to serve as a lever for further work on strengthening the implementation of S3.

In December 2021, the Operational Programme for the implementation of the Smart Specialisation Strategy 2021–2024⁴ was adopted, together with the Action Plan for 2021–2022.

The Operational Programme retained the strategic objectives defined in the Smart Specialisation Strategy 2019–2024, but introduced new operational objectives within them, as follows:

Strategic Objective 1: Improving the excellence and relevance of scientific research activities

OC 1.1 Strengthening research capacities in the focus areas and technologies identified in the S3

Strategic Objective 2: Strengthening human resources in research and innovation

OC 2.1 Strengthening S3 skills

Strategic Objective 3: Improving cooperation within the innovation system

OC 3.1 Strengthening cooperation among stakeholders in the innovation system, with a focus on science–business collaboration

OC 3.2 Strengthening innovation infrastructure

OC 3.3 Improving destination management and cooperation among target groups in the field of sustainable and health tourism

Strategic Objective 4: Supporting innovative activities in the business sector

OC 4.1 Creating conditions for the establishment of cluster initiatives and their transformation into sustainable clusters

OC 4.2 Stimulating the development of innovative start-ups

OC 4.3 Stimulating innovation activities of SMEs

OC 4.4 Strengthening the international competitiveness of SMEs

OC 4.5 Stronger alignment of industrial development with S3

Strategic Objective 5: Improving the framework conditions for the innovation ecosystem

OC 5.1 Enhancing the implementation framework for innovation and S3

OC 5.2 Promoting the importance of innovation with a focus on informing the wider public and the business community

The Operational Programme also established a new Framework for the implementation of the S3 Strategy. The Framework consists of the following institutions:

- Government of Montenegro – the executive body;

³ <https://s3.me/wp-content/uploads/2022/06/lzvjestaj-S3-s-AP-za-2019-2020.pdf>

⁴ <https://s3.me/wp-content/uploads/2022/06/Operativni-pogam-za-implementaciju-strategije-pametne-specijalizacije-2021-2024-s-Akcionim-planom-2021-2022.pdf>

- Council for Innovation and Smart Specialisation – the key advisory body of the Government, responsible for managing the process of coordinating feedback from target groups;
- Inter-institutional S3 Group – the governance and coordination body for inter-institutional cooperation, chaired by the relevant ministry responsible for innovation;
- S3 Organisational Unit/Directorate – the body with a key role in coordinating all relevant target groups in the process, responsible for daily monitoring of the S3 implementation and providing administrative and expert support to the Council;
- Innovation Working Groups of the Council – one for each priority area, ensuring continuity of the Entrepreneurial Discovery Process, and comprising representatives of business, the research community, NGOs, and intermediary organisations;
- IT Platform – provides all relevant information on S3 in one place and offers an overview of all available instruments and projects;
- Innovation Fund of Montenegro – enables the implementation of innovation policy through the provision and management of funds to support innovation activities;
- Innovation infrastructure entities – play a key role in strengthening the implementation system through their direct involvement in the implementation of activities (Innovation and Entrepreneurship Centre Tehnopolis Nikšić, Science and Technology Park of Montenegro, cluster organisations); and
- Innovation community – natural and legal persons engaged in innovation activities, investing in or promoting them, and serving as the ultimate beneficiaries of support measures.

At the session of the Council for Innovation and Smart Specialisation held on 9 November 2022, the Review of the Operational Programme for the implementation of the Smart Specialisation Strategy 2021–2024, with the Action Plan 2021–2022, for the year 2021, was adopted. In March 2023, the Report on the implementation of the Action Plan for the Operational Programme for the implementation of S3 (2021–2024) for the period 2021–2022 was also adopted.

Subsequently, in line with the 2023 Work Programme of the Government of Montenegro, the Ministry prepared the Action Plan for the implementation of the Operational Programme of the Smart Specialisation Strategy 2021–2024 for the period 2023–2024.

The Action Plan for 2023–2024 contains the same strategic and operational objectives as the previous one. The only difference is that in this plan, Operational Objective 2.1 is entitled “Strengthening human resources in research and innovation,” whereas in the previous strategy it was defined as “Strengthening S3 skills.” In addition, the novelty of this plan is the introduction of a column for monitoring gender-sensitive statistics, in order to obtain feedback and potentially stimulate consultations in this area, as well as to identify segments for possible future interventions through activities aimed at triggering change.

In March 2024, the Government of Montenegro prepared and adopted the Review of the Action Plan for the implementation of the Operational Programme of the Smart Specialisation Strategy (2021–2024) for 2023, intending to analyse the achieved results and further improve the implementation of strategic measures.

2.2. Implementation Governance

The main advisory and coordination body, the **Council for Innovation and Smart Specialisation**, was established in accordance with the Law on Innovation Activity (“Official Gazette of Montenegro” No. 82/20).

The first convocation of the Council for Innovation and Smart Specialisation was defined in 2019, while its office began operating in March 2020 with donor support from UNDP. The Council was chaired by the Prime Minister and consisted of 22 members, in line with the Decision on the Establishment of the Council⁵ adopted by the Government of Montenegro at its session in August 2019. This convocation of the Council met only once, in December 2019, after which the COVID-19 crisis followed. However, in mid-2020, the legal framework was adopted, which clearly positioned the Council within the innovation ecosystem of Montenegro and defined its competences.

⁵ <https://www.gov.me/clanak/211705--obrazovan-savjet-za-inovacije-i-pametnu-specijalizaciju>

Since December 2020, the competences of the former Ministry of Science, falling within the domain of innovation policy and smart specialisation, have been taken over by the newly established Ministry of Economic Development, which assumed the coordination role and further activities related to smart specialisation. According to the Decision on the Establishment of the Council from 2021, the Council had 17 members and was also chaired by the Prime Minister, while the Ministry of Economic Development carried out the administrative and professional tasks for the needs of the Council. Following the new organisational changes of the Government of Montenegro in May 2022, a new Decision on the Establishment of the Council stipulated that the Council would have 19 members, that the administrative and professional tasks for the needs of the Council would be performed by the Ministry of Science and Technological Development (now the Ministry of Education, Science and Innovation), and that the Council would be chaired by the Minister of Science and Technological Development, as this was deemed the most suitable option for ensuring continuity in the current Montenegrin context. According to the applicable Decision, in addition to the relevant ministers and advisors to the Prime Minister, representatives of the academic and business sectors, as well as representatives of the Union of Municipalities of Montenegro, the Investment Agency, and the Investment and Development Fund, are members of this body. On 25 July 2022, the current Rules of Procedure of the Council for Innovation and Smart Specialisation⁶ were adopted. The Rules of Procedure do not prescribe a minimum number of meetings the Council must hold, but data show that during the analysed period, the Council (in its different convocations) held meetings in December 2019, December 2021, and in March, July and December 2022, March and May 2023, and March and July 2024.

The Interinstitutional S3 Group is the governance and coordination body for interinstitutional cooperation, tasked with monitoring the day-to-day implementation of smart specialisation, participating in the programming and coordination of instruments, preparing analyses, reports and proposals related to the implementation of strategic documents, programmes and projects relevant to smart specialisation, establishing constructive cooperation with the Innovation Working Groups of the Council for Innovation and Smart Specialisation, and reporting on its activities to the Council and the Government of Montenegro. Members of the Interinstitutional Working Group include representatives of line ministries, Monstat – the Statistical Office of Montenegro, implementation agencies (Innovation Fund of Montenegro, Investment and Development Agency of Montenegro), as well as representatives of stakeholders (business sector, clusters, innovation infrastructure, Montenegrin municipalities). The composition of the Interinstitutional Working Group is significantly broader than that of the Council but reflects its structure. The current composition of the Interinstitutional S3 Group was established by the Decision of 25 August 2022, according to which the Working Group consists of 40 members.

The organisational unit for S3, i.e. the Directorate for Smart Specialisation, was established within the Ministry of Science and Technological Development. The Directorate is part of the Directorate-General for Innovation and Technological Development, headed by a Director-General who also serves as the National S3 Coordinator. The S3 team of the Directorate has four systematised positions and currently consists of three members, two of whom are permanently employed, while one is engaged under a contract, with the recruitment procedure underway. In addition to providing administrative and expert support to the Council, this unit plays a key role in coordinating all relevant target groups in the process, monitoring the daily implementation of S3, preparing S3 reports, coordinating the S3 platform, and preparing various analyses, studies, and other materials that enable evidence-based decision-making. The unit also coordinates the work of the Innovation Working Groups.

Four Innovation Working Groups (IWGs) were established, one for each priority area, as key actors in the implementation of the Entrepreneurial Discovery Process. The process of establishing the Innovation Working Groups was carried out during 2022. The Ministry of Economic Development, which at that time was the body responsible for performing the administrative and professional tasks of the Council, launched public calls for non-governmental organisations, scientists, researchers, and businesses to express their interest in membership in the Innovation Working Groups. Following applications and the selection of members, the Council confirmed the composition of the Innovation Working Groups, whose work was subsequently

⁶ <https://s3.me/wp-content/uploads/2022/11/Poslovnik-o-radu-Savjeta-za-inovacije-i-pametnu-specijalizaciju.pdf>

formalised through the Rules of Procedure of the Innovation Working Groups. This document defines the composition of the working groups, the procedure for the appointment and dismissal of members, the organisation and mode of work, the main tasks, as well as the financing arrangements for these groups. Membership in the Innovation Working Groups is limited to six members, elected for a one-year term, with the possibility of extension.

As the coordination of these groups was supported by the UNDP Office in Podgorica through the second phase of the project “Norway for You” until the end of September 2023, there was a need to repeat the transparent process of selecting members through public calls, and to establish a composition whose work would be supported by the national budget. The Innovation Working Groups submit detailed quarterly reports to the Council on the results of their work. The established IWGs are: IWG “Sustainable Agriculture and Food Value Chain”, IWG “Energy and Sustainable Environment”, IWG “Sustainable and Health Tourism”, and IWG “Information and Communication Technologies”.

The call for members of the IWGs was re-launched.

The currently active **IT platform** www.s3.me was revised and developed in 2022 with the aim of better informing the public about the Smart Specialisation Strategy. This platform provides all relevant information about the Strategy itself, the implementing bodies, and the ongoing support programmes across all areas. However, in addition to this, there are several other websites with relevant information. The Innovation Fund of Montenegro, which is responsible for the implementation of most of the instruments within the Operational Programme, has its own IT system and website (www.programifonda.me). There is also a website publishing all available support for small and medium-sized enterprises (www.biznis.gov.me), while the Register of Innovation Activities and the Ministry’s support programme lines are available at www.inovacije.gov.me.

The Innovation Fund of Montenegro is the key implementing body for innovation policy and for programmes and projects in the priority areas of smart specialisation. It is a specialised institution bringing together internal and external experts in innovation and development, technology transfer, EU funds, financial management, and evaluation.

The innovation infrastructure consists of several companies, majority-owned by the Government of Montenegro, business incubators, as well as cluster organisations, all of which support the development of science and innovation and their synergy.

The Government has established:

Innovation and Entrepreneurship Centre (IPC) “Tehnopolis-Nikšić”, the first institution of its kind in Montenegro, was founded as one of the key stakeholders in creating and reshaping the Montenegrin innovation ecosystem. It provides a range of infrastructural and support measures facilitating the establishment of new companies and the development of businesses based on new, innovative ideas and technologies.

The Science and Technology Park of Montenegro was established to provide support and strengthen the potential for economic growth and development of Montenegro, through the establishment and growth of companies/teams in high-tech sectors.

3. EVALUATION METHODOLOGY

3.1. Evaluation Objectives

The process of the independent evaluation of the Smart Specialisation Strategy of Montenegro (2019–2024), together with the corresponding Action Plans, was carried out based on a call launched by the UNDP Office in Montenegro.

The task of the evaluator was to analyse the relevance and the results achieved so far in the implementation of the Smart Specialisation Strategy of Montenegro (2019–2024), and to conduct a comprehensive analysis that would identify the strengths and weaknesses of the Strategy's implementation, while also providing recommendations for its improvement.

The main evaluation objectives are to:

- Assess the efficiency and impact of the S3 Strategy in achieving its strategic and operational objectives;
- Identify strengths, weaknesses, opportunities, and threats that emerged during the implementation of the S3 Strategy;
- Assess the relevance and coherence of the S3 Strategy regarding the economic and innovation potential of the region;
- Assess the level of engagement of stakeholders and collaboration in the development and implementation of the S3 Strategy; and
- Provide concrete recommendations for improving the efficiency and impact of the S3 Strategy.

The methodological basis for the preparation of this Report, in addition to the documentation available to the evaluator through the review of annual reports on the implementation of the Strategy, also included feedback obtained from ten in-depth interviews, as well as two online surveys conducted.

3.2. Scope of the Evaluation

The scope of the evaluation of the Smart Specialisation Strategy of Montenegro (2019–2024) and the accompanying Action Plans covers the period from 2019 to 2022.

Methodologically, the evaluation was conducted in line with the Handbook for the Evaluation of Strategic Documents⁷ prepared by the Government of Montenegro (General Secretariat), in accordance with the Regulation on the manner and procedure of drafting, aligning and monitoring the implementation of strategic documents, as well as the Methodology for Policy Development, Drafting and Monitoring the Implementation of Strategic Documents, which established the legal basis for the evaluation of strategies and programmes within Montenegro's planning system.

In line with the above regulation, the evaluation assessed relevance, coherence, efficiency, effectiveness, and sustainability.

3.3. Evaluation Methodology

In the evaluation of the Strategy, a combined methodology was applied, i.e. a mix of qualitative and quantitative research methods. Table 1 below presents the use of different methodological approaches for assessing various aspects of the Strategy.

This evaluation can primarily be characterised as a process evaluation, as it examines whether the Smart Specialisation Strategy was implemented in line with the plan, while identifying elements that worked well in practice and the reasons why. Although it formally represents a final evaluation, given that it was conducted

⁷ <https://www.gov.me/dokumenta/54336d53-335b-4811-91aa-7298bcacc991>

immediately after the end of the implementation period, it does not cover the full-time lag required for a standard impact evaluation (ex post). For this reason, the impact evaluation is treated only partially, with the approach remaining general and focused on the Strategy as a whole, without an in-depth analysis of individual priority areas.

The evaluation relates to the assessment of achievements within the priority areas, strategic and operational objectives, as well as the activities implemented. The assessment of the implementation of individual activities was carried out primarily based on documentation, i.e. the available reports on the implementation of the Strategy, in particular: the Report on the Implementation of the Action Plan for the Smart Specialisation Strategy 2019–2024 for the period 2019–2020; the Report on the Implementation of the Operational Programme for the Smart Specialisation Strategy (2021–2024) for the period 2021–2022; the Review of the Operational Programme for the Implementation of the Smart Specialisation Strategy 2021–2024, with the Action Plan 2021–2022, for 2021; and the Final Report on the Implementation of the Smart Specialisation Strategy of Montenegro 2019–2024 (including the Operational Programme for the Implementation of the Smart Specialisation Strategy of Montenegro 2021–2024).

A specific scope of the evaluation of the Strategy is reflected in the primary data collected through a questionnaire intended for members of the Innovation Working Groups as well as members of the Interinstitutional S3 Group. The questionnaire was completed online. It consisted of 55 questions, most of which were multiple-choice. In addition to these, the questionnaire also included open-ended questions where respondents provided their suggestions for amendments and improvements to the Strategy.

Primary data were also collected through in-depth interviews. A total of seven in-depth interviews were conducted, with coordinators of the Innovation Working Groups, members of the Interinstitutional S3 Group, representatives of the Ministry of Education, Science and Innovation, and representatives of the research community.

Table 1. Evaluation criteria and corresponding methods

Relevance	<ul style="list-style-type: none"> ● Mapping of key stakeholders and interested parties ● Mapping, gathering, and systematisation of available documentation and contextual analyses ● Analysis of relevant documentation ● In-depth interviews with institutions responsible for the implementation of the Strategy and interested parties ● Online survey
Coherence	<ul style="list-style-type: none"> ● Documentation mapping (national, regional, EU) relevant for coherence evaluation ● Relevant documentation analysis ● In-depth interviews with institutions responsible for the implementation of the Strategy and interested parties ● Online survey
Effectiveness	<ul style="list-style-type: none"> ● Evaluation of the strategy implementation through the analysis of data on results from the monitoring and reporting system ● Analysis of available national indicators ● In-depth interviews with institutions responsible for the implementation of the strategy and interested parties ● Online survey
Efficiency	<ul style="list-style-type: none"> ● Systemic management and coordination ● Analysis of data on results from the monitoring and reporting system on the Strategy RJU ● In-depth interviews with institutions responsible for the implementation of the Strategy and stakeholders. ● Online survey

Impact	<ul style="list-style-type: none"> ● Analysis of relevant documentation ● Analysis of data on results from the monitoring and reporting system on the Strategy RJU ● In-depth interviews with institutions responsible for the implementation of the Strategy and stakeholders ● Online survey
Sustainability	<ul style="list-style-type: none"> ● Analysis of relevant documentation ● In-depth interviews with institutions responsible for the implementation of the Strategy and stakeholders ● Online survey

The evaluation was based on the complementarity of data collected from secondary sources, as well as information, views and statements gathered through the questionnaire and during in-depth interviews. This approach ensures a double-check of certain claims and facts to define conclusions as objectively as possible.

All key stakeholders in the process were included in the evaluation in accordance with the stakeholder mapping and the consultation strategy conducted during the initial phase and documentation review.

3.4. Evaluation phases

The evaluation was carried out in several phases as described below.

Structuring phase

In the structuring phase, the overall evaluation design and work plan were developed. Relevant stakeholders were mapped, as well as relevant sources of information and documentation. Based on the systematisation of information collected from secondary sources, the evaluation questions were prepared, including questions for the online survey and the in-depth interviews. All steps were undertaken in communication with the Ministry of Education, Science and Innovation.

Data collection and processing phase

This phase began with a review of the available reports and other relevant documentation in order to gain insight into the status of the Strategy's implementation and the key changes introduced during the period under review. The analysis of the available implementation reports of the Strategy provided an overview of the activities that had been carried out, as well as those that had not been implemented. Based on this analysis, several hypotheses were defined and subsequently tested, both through in-depth interviews with stakeholder representatives and via the online questionnaire.

The initial list of persons for in-depth interviews was prepared in communication with the Ministry of Education, Science and Innovation. The evaluator then selected the individuals from this list who were interviewed. *(The indicative list of interview questions is presented in Annex 1).*

The evaluation process also included an online survey, which collected the views of members of the Innovation Working Groups and members of the Interinstitutional S3 Group. A total of 31 respondents completed the questionnaire. *(The questionnaire is presented in Annex 2).*

Synthesis phase

In this phase, all information and findings obtained in the previous phases, both from secondary and primary sources, were synthesised in order to derive the main findings, conclusions, and recommendations. This phase also included the preparation of the evaluation report, i.e. the presentation of the evaluation results.

4. EVALUATION RESULTS

4.1. Financial Implementation

In the first two-year cycle (2019–2020), 37,17% of the planned funds were implemented; in the second (2021–2022), 65,83%; while in the final period (2023–2024), implementation significantly exceeded the plan, reaching 208,42%, indicating intensified activities and additional investments in the final phase. This upward trend in implementation reflects increased efficiency, strengthened institutional capacities, and improved coordination among all stakeholders involved in the implementation of the Strategy.

Table 2: Expenditure overview

	2019-2020	2021-2022	2023-2024	2019-2024
Total planned	70.208.527,00 €	70.580.286,43 €	45.768.405,97 €	186.557.219,40 €
Total spent	26.102.274,20 €	46.478.500,18 €	95.392.625,36 €	167.973.399,77 €
Implementation rate for total funds spent	37,17%	65,83%	208,42%	90,05%

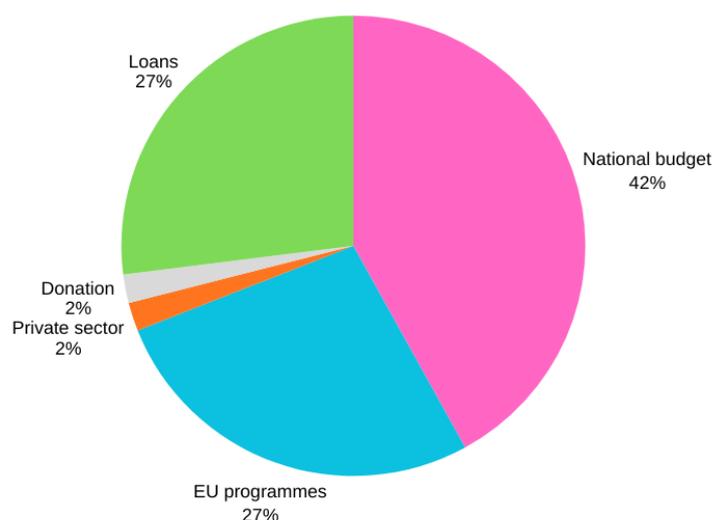
Analysed by the periods covered by the individual Action Plans, out of a total of **€70.208.527,00** planned for the implementation of activities under the Action Plan for 2019–2020, **€26.102.274,20** was implemented. Out of a total of **€70.580.286,43** planned for the implementation of activities under the Action Plan for 2021–2022, **€46.478.500,21** was implemented. The period 2023–2024 was the most successful in terms of plan implementation, with planned investments of **€45.768.405,97** and actual implementation amounting to **€95.392.625,36**.

Observed over the entire implementation period of the Strategy, from 2019 to 2024, a total of €186,56 million was planned, while €167,97 million was actually spent, representing 90,05% of the planned budget execution.

Analysed from the source of financing aspect:

- In the period 2019–2020, the largest share of funds (48,2%) was financed from the national budget of Montenegro, 44,5% from EU funds, while the rest from donation programmes (WBIF, MIDAS II, etc.) – 4% and the private sector – 3,3%.
- In the period 2021–2022, the largest share of funds (65%) was financed from the national budget of Montenegro, 26% from EU programmes, while 6% came from the private sector and 3% from donation programmes.
- In the period 2023–2024, the largest share of funds was financed 36,4% from the national budget, 34,08% from loans, and 27,2% from EU programmes.

Figure 1: Investment Structure by Funding Sources



The analysis by funding sources for the entire period of the Strategy shows that the largest share of funds was provided from the Budget of Montenegro (42,12%). The second largest share came from EU programmes (27,23%), followed by loans (26,39%). The private sector contributed 2,26%, while donation programmes accounted for 2,01%.

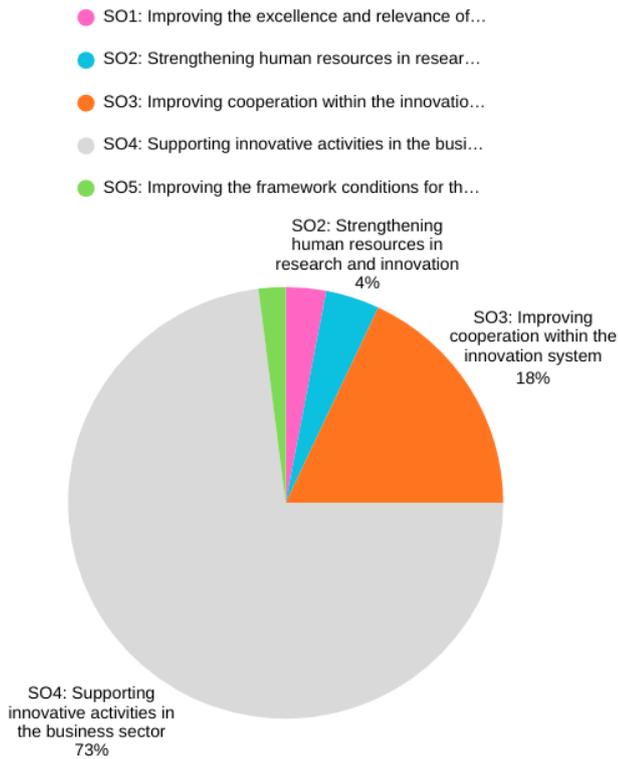
Table 3: Breakdown of investments by funding source

	2019-2020	2021-2022	2023-2024	Total
National budget	10.409.671 €	25.617.456,00 €	34.719.904 €	70.747.031 €
EU programmes	9.651.120 €	10.136.493,00 €	25.949.600 €	45.737.213 €
Private sector	701.496 €	2.429.982,00 €	666.053 €	3.797.531 €
Donation programmes	857.390 €	964.003,00 €	1.548.868 €	3.370.261 €
Loans	4.482.597 €*	7.330.564,21 €*	32.508.200 €	44.321.361 €
Total	26.102.274 €	46.478.498,21 €	95.392.625 €	167.973.397

*For these years, the amounts do not include loans but rather other investments that were not initially foreseen in the plans

The analysis of investments by strategic objectives shows that the largest share of funds was invested in achieving Strategic Objective 4 – Supporting innovative activities in the business sector (73%), while the smallest share of funds was invested in achieving Strategic Objective 5 – Improving the framework conditions for the innovation ecosystem (2%).

Figure 2: Structure of investments by strategic objectives



4.2. Implementation of activities

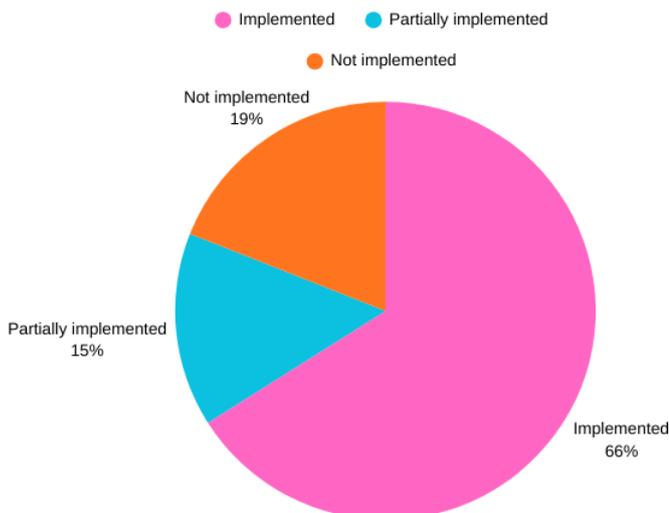
Out of a total of sixty-five (65) activities envisaged by the Action Plan for the period 2021–2022, forty-two (42) activities were successfully implemented, ten (10) activities were partially implemented or are being implemented on an ongoing basis, while thirteen (13) activities were not implemented. Expressed as percentages, 65% of activities were successfully implemented, 15% were partially implemented, and 20% were not implemented.

Out of a total of thirty-nine (39) activities in the period 2019–2020, twenty-three (23) were implemented, eight (8) were partially implemented, and eight (8) were not implemented. Expressed as percentages, during the reporting period, 60% of activities were successfully implemented, 20% were partially implemented, and 20% were not implemented.

In summary, during 2023 and 2024, out of a total of fifty-three (53) activities scheduled for

implementation in these two years, thirty-nine (39) activities were implemented, nine (9) were partially implemented, while five (5) activities were not implemented. Expressed as percentages, implementation for the period 2023–2024 amounts to 74%, with 17% of activities partially implemented and 9% not implemented.

Figure 3: Activity implementation rate



Considering the overall period of the Strategy’s implementation, out of a total of 157 planned activities, 104 were implemented, 30 were not implemented, and 23 were partially implemented. This shows that the rate of non-implementation of activities is 19%.

Based on the data presented, it can be concluded that the implementation of the Smart Specialisation Strategy in the period 2019–2024 was financially highly efficient, with almost 90% of the planned funds realised and a marked increase in investments in the final phase. At the same time, the rate of activity implementation – with 66% of measures fully implemented and an additional 15% partially implemented –

points to a stable and functional implementation framework, while leaving room for further improvement in the implementation of the remaining activities in the next strategic cycle.

4.3. Implementation of operational objectives/performance indicators

All operational objectives defined in the Operational Programme for the Implementation of the Smart Specialisation Strategy 2021–2024 were monitored through corresponding performance indicators and presented as baseline values in 2020 and target values in 2024. Compared to the initial table from the Strategy, several indicators were added or modified. Thus, within Operational Objective 4.3, an indicator was added: “increase in the number of supported innovative enterprises”, while within Operational Objective 5.2, the following indicators were introduced: “number of events promoting innovation culture organised by stakeholders in the innovation ecosystem” and “number of promoted events on the www.S3.me platform”.

The analysis of the performance indicators of the Smart Specialisation Strategy shows that by 2024, significant progress was recorded in most of the planned areas. Out of a total of 19 performance indicators, for 5 it was not possible to calculate progress due to the lack of adequate data. Of the remaining 14 indicators, as many as 10 were achieved at a level higher than planned, indicating that the implementation of the Strategy was successful in key segments, particularly in strengthening S3 skills, developing innovation infrastructure, increasing investments in industry, and supporting small and medium-sized enterprises in innovative activities.

The remaining 4 indicators fell short of expectations, with particularly weak achievements in promoting the importance of innovation and informing the public, as well as in the number of events carried out on the S3 platform.

Table 4: Overview of Performance Indicators

Target/Indicator	Data Source	Objective Title	Baseline value 2020	Expected Value 2024	Achieved Value 2024
Operational objective 1.1 Number of supported research activities through national programmes	MPNKS, MPSV, Public Health Institute	Strengthening research capacities in the focus areas and technologies identified in S3	9	12	30
Operational objective 2.1		Strengthening S3 skills			
Operational objective 2.1 Global Competitiveness Index (GCI)	World Economic Forum		53 (2019)	53	53 (2019)
Number of R&D researchers in FTE	National Statistics Office (MONSTAT) (https://www.gov.me/clanak/saopstenje-statisticki-istrazivanja-i-razvoja-za-2019-godinu)		469 (2019)	480	469 (2019)
Global Innovation Index (GII)	World Intellectual Property Organisation (WIPO)		59 (2021)	56	65
Operational objective 3.1		Strengthening cooperation among stakeholders in the innovation system with a focus on science-business collaboration			
Number of established science-business partnerships	MER, MPNKS, Innovation Fund of Montenegro		18	30	73
		Strengthening innovation infrastructure			

Target/Indicator	Data Source	Objective Title	Baseline value 2020	Expected Value 2024	Achieved Value 2024
Operational objective 3.2 Global Innovation Index (GII)	WIPO		53/131	43/132	65/133
Operational objective 3.3		Improving destination management and cooperation among target groups in the field of sustainable and health tourism			
Tourism revenue	Central Bank, MONSTAT		159 mil. €	1.482 billion €	1.46 billion €
Operational objective 4.1		Creating conditions for the establishment of cluster initiatives and their transformation into sustainable clusters			
Number of transformed clusters	MER		0	4	5
Operational objective 4.2 Number of established startups	MER	Simulating the development of innovative startups	15	47	54
Operational objective 4.3		Stimulating innovation activities of SMEs			
Global Competitiveness Index (GIC)	World Economic Forum		69/141 (2019)	69	69/141 (2019)
			380 (2022)	480	497
The number of supported innovative startups Operational objective 4.4 Number of implemented measures from international programs	MER, MPNKS	Strengthening the international competitiveness of SMEs	23	25	45
Operational objective 4.5		Stronger alignment of industrial development with S3			
Investments in fixed assets in the industrial sector	MONSTAT – Investments by sectors: Mining and quarrying, Manufacturing, Electricity, gas, steam and AC supply, Water supply, waste management		117 mil. €	145 mil. €	216 mil. €
Number of employees in the industry	MONSTAT – Employees by sectors: Mining and quarrying, Manufacturing, Electricity, gas, steam and AC supply, Water supply, waste management		20,027	25,502	25,730
Operational objective 5.1		Improving the implementation framework for innovation and S3			
Percentage of identified priorities in priority areas of S3, with special focus on Action Plans for S3 implementation	S3 Administrative Unit – MER with collected reports from implementing units		60%	100%	74%
Operational objective 5.2		Promoting the importance of innovation with a focus			

Target/Indicator	Data Source	Objective Title	Baseline value 2020	Expected Value 2024	Achieved Value 2024
		on informing the wider public and business community			
Percentage of informed citizens about the importance of innovation	S3 Administrative Unit – MER with collected reports from implementing units		10%	25%	
Percentage of informed businesses about the importance of innovation	S3 Administrative Unit – MER with collected reports from implementing units		20%	60%	
	S3 Administrative Unit – MER with collected reports from implementing units		20%	60%	—
Number of innovation promotion events by stakeholders in the innovation ecosystem towards the wider public	MPNKS, MER, MJU, Innovation Fund, Chamber of Economy of Montenegro, IPC Technopolis, ICT Cortex		317 (2022)	440	293
Number of events on the S3 platform www.S3.me	S3 Administrative Unit		65 (2022)	30	33

-	achieved at a level higher than planned
-	achieved at a level lower than planned
-	achieved at the planned level
-	assessment not possible due to lack of data

Overall, the Strategy demonstrated high functionality in the economic and innovation segments, while at the same time highlighting weaknesses in communication, visibility, and the engagement of the wider community, which opens up room for significant improvement in the next strategic period.

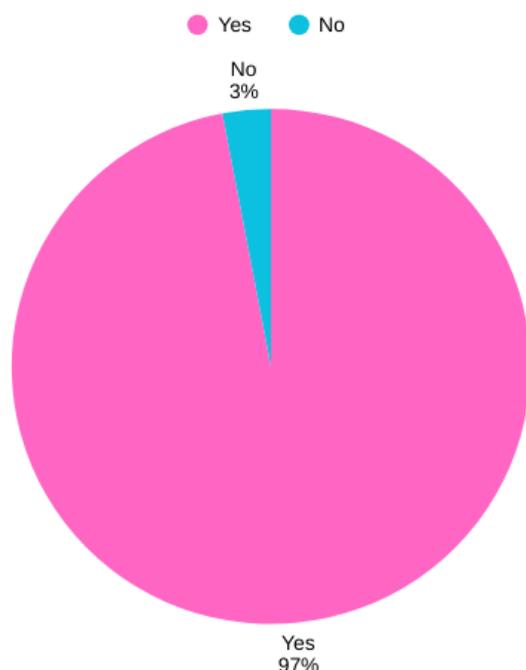
4.4. Relevance Analysis

The Smart Specialisation Strategy (S3) represents one of Montenegro's key strategic documents, as it enables the targeted development of innovation potential and its concentration in areas that can provide the greatest contribution to economic growth and overall societal progress.

Through the implementation of this Strategy, Montenegro has further strengthened its position among the countries that, in close cooperation with the European Union, continuously work on reinforcing the links between science, business, and education. According to the European Commission's 2024 Report, Montenegro has a good level of preparedness in the field of research and innovation. Visible progress has been achieved, particularly in the continuous implementation of the Smart Specialisation Strategy and the strengthening of cooperation between the academic sector and the business sector. The Smart Specialisation Strategy has, according to the Commission's findings, delivered the expected results, confirming its relevance as a key instrument of innovation policy.

Additionally, the results of the most recent evaluation showed a high level of consensus among relevant stakeholders regarding the relevance of this document, as many as 93% of respondents believe that the Strategy has addressed the needs of society, confirming its significance and relevance in the current context.

Figure 4: Do you think that this strategic document has addressed the real needs of society?



The views collected through semi-structured interviews further reinforce the evaluation findings and confirm the high perception of the Strategy's relevance among key stakeholders. Most respondents consider that the Strategy occupies an important place within Montenegro's strategic framework, recognising it as a fundamental document for fostering economic growth and social transformation. Some interviewees emphasised that the S3 Strategy should become the central development framework, against which all other strategic documents at the national level would be aligned. As a key advantage of the Strategy, they highlight its clear identification of priority areas, the directing of resources towards fields with the greatest innovation potential, and the creation of conditions for sustainable and inclusive development.

The majority of respondents consider the priority areas defined by the Smart Specialisation Strategy to be relevant and aligned with Montenegro's development capacities. This is also confirmed by quantitative findings.

Specifically, as many as 97,6% of respondents believe that all priority areas, except for "Sustainable and Health Tourism", are adequately defined. With regard to this particular area, 83,3% of evaluation participants state that it is relevant, but at the same time, they point to certain ambiguities concerning its title and scope. According to some respondents, this area is defined too narrowly in the Strategy, tailored only to the current needs of a part of the sector, and framed in an overly bureaucratic manner. While none of the respondents questioned the importance of tourism as a development area, the prevailing view is that in the next revision of the Strategy, this area should be reconsidered, possibly redefined to encompass tourism, or sustainable tourism, as a whole sector. This would allow greater flexibility in implementation and open space for the valorisation of innovations across different branches of tourism - not only within health tourism, but also cultural, adventure, digital, and other forms with development potential.

Another significant finding relates to the field of information and communication technologies (ICT). Several respondents highlighted the importance of ICT, which is currently positioned as a horizontal area. In their view, ICT should be redefined as a fully-fledged priority area in order to enable a systemic approach to the development of the digital economy and to support the implementation of activities specific to this sector, rather than solely those serving as support to other areas.

In addition, the inclusion of new areas was proposed, such as construction (on which respondents expressed divided opinions), digital infrastructure and artificial intelligence, green and circular growth, the blue economy, creative industries, as well as sustainable transport and logistics. Respondents also stressed the need for a greater emphasis on the digitalisation of public administration, as well as on creating a competitive international business environment through the application of modern technologies.

While the priorities of the Strategy were assessed as adequate, the findings on health tourism point to the need for its conceptual broadening in order to encompass Montenegro's wider tourism potential. It was also proposed to redefine the ICT area and to include new ones.

With regard to the strategic objectives, the evaluation results show a high level of consensus among respondents concerning their relevance. As many as 85,7% of participants consider the Strategy's objectives to be fully relevant and aligned with Montenegro's development needs, while 14,3% assessed them as only partially relevant, thereby indicating the scope for more precise definition and possible adjustment in the forthcoming period.

All respondents agreed that the strategic objectives - Improving the excellence and relevance of scientific research activities (Objective 1) and Improving cooperation within the innovation system (Objective 3) are fully relevant. These findings point to broad support for both objectives and confirm their key role in strengthening Montenegro's innovation system by linking scientific institutions, businesses, and other stakeholders in the process of creating and applying knowledge. The evaluation showed that Strategic Objectives 2, 4, and 5 – relating to strengthening innovation capacities in the economy, improving the governance of the innovation system, as well as developing human resources and infrastructure – also enjoy high levels of support among respondents. Strengthening capacities for innovation in the economy (Objective 2) was assessed as relevant by 95,2% of participants, reflecting the recognised need to enhance the innovation potential of economic stakeholders. However, a smaller number of respondents suggested that this objective could be more precisely formulated or supplemented in order to better address specific challenges in the economy. Improving the governance and coordination of the innovation system (Objective 4) received nearly unanimous support – 97,6% of respondents considered it relevant, highlighting the widely shared view that effective management of the innovation system represents a key prerequisite for its sustainability and functionality. With regard to - Developing human resources and infrastructure to support innovation (Objective 5), 92,7% of respondents assessed it as relevant, while a smaller proportion expressed the need for its redefinition or replacement. These findings indicate overall strong support for the strategic objectives, with limited suggestions that some aspects should be further adjusted to the needs of the system and its stakeholders.

Although most of the operational objectives of the Smart Specialisation Strategy were recognised as relevant, the evaluation pointed to certain objectives for which a smaller number of respondents expressed reservations regarding their current relevance. The highest number of negative assessments was recorded for Operational Objective 3 – Improving destination management and cooperation in the area of sustainable and health tourism, with 26,7% of respondents considering that the objective is not fully relevant. This result further confirms the findings that there is a need for a broader and more flexible approach to tourism as a development area.

A smaller number of negative assessments (ranging from 6,7% to 13,3%) were also recorded for objectives related to strengthening S3 skills, research capacities, start-ups, cluster initiatives, as well as improving the implementation framework for S3. It is important to note that these criticisms are constructive and mainly refer to the need for a more precise definition of objectives and better alignment with the specific needs of stakeholders on the ground. Overall, the findings indicate a high level of relevance of most operational objectives, with clear recommendations for targeted improvements in order to enhance their efficiency and applicability in practice.

Respondents provided a range of constructive proposals regarding the potential improvement of the Strategy's operational objectives, with a focus on stronger applicability, measurability, and territorial inclusiveness. Among the strongest suggestions were the need to strengthen internationalisation and support for export-oriented start-ups and innovative SMEs, the development of digital infrastructure and accelerated digitalisation of public services, as well as the application of advanced ICT solutions in traditional sectors. Some respondents also emphasised the importance of a greater role for universities within the innovation system, as well as the strengthening of cooperation through joint projects between research institutions, businesses, and the public sector, including public–private partnership models.

In addition, concrete thematic areas were proposed for stronger strategic positioning, such as energy transition, the development of artificial intelligence (including open-source approaches and human resources), support for innovation outside the main urban centres, and sustainable and multimodal transport. The need to create a network of scientists from the diaspora and to connect them with the Montenegrin economy was also underlined.

Several participants also pointed to the need for more precise operationalisation of objectives, particularly in the area of tourism, through more clearly defined activities (e.g. certification schemes, concrete investment models), as well as for greater measurability of the outcomes of the objectives. These proposals represent a valuable contribution to the process of revising the Strategy, offering directions for its further alignment with contemporary development challenges and opportunities.

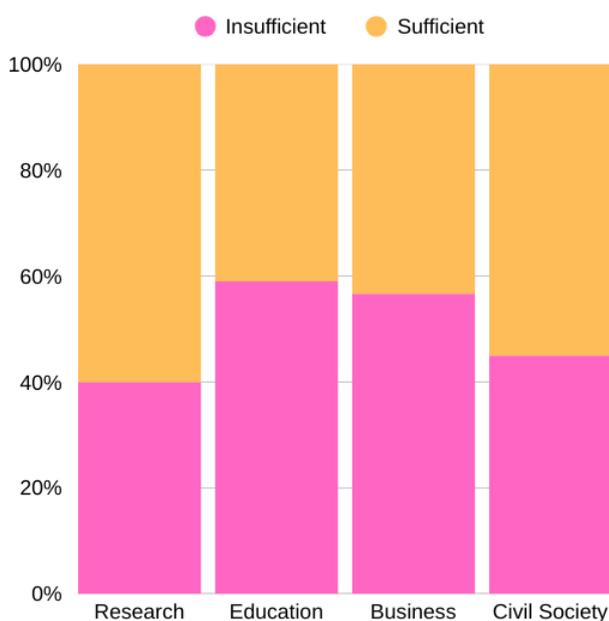
The evaluation clearly demonstrated that both the main and operational objectives of the Smart Specialisation Strategy are recognised as highly relevant and strategically justified, with the

dominant consensus among respondents being that they adequately address Montenegro’s key development challenges. The comments received were limited and mainly focused on the need for more precise formulation of certain operational objectives to facilitate their practical application and to ensure better linkage with strategic objectives on the one hand, and with indicators on the other.

One element of the evaluation relates to the alignment of the objectives defined by the Strategy with the capacities and needs of specific sectors. The analysis of results shows that the objectives defined in the Smart Specialisation Strategy largely correspond to the needs and capacities of all observed sectors. For the research sector, 61,8% of respondents consider that the objectives correspond, while 38,2% state that they only partially correspond to capacities and needs. As for the education sector, 55,9% of respondents assessed the objectives as corresponding, while 44,1% assessed them as partially corresponding. A similar pattern is evident in the business sector, where 55,9% of respondents believe the objectives correspond, 41,2% believe they partially correspond, and 2,9% consider they do not correspond. The lowest level of full agreement relates to the civil society sector. Specifically, 48,5% of respondents assessed that the Strategy’s objectives correspond, 39,4% that they partially correspond, and 12,1% that they do not correspond to this sector. These data point to a generally positive attitude towards the Strategy’s objectives, but also highlight the need for further alignment, particularly with the existing priority needs and capacities of the education and civil society sectors.

According to the evaluation results, perceptions of the involvement of different sectors in the implementation of the Smart Specialisation Strategy vary significantly. The research sector is perceived as the most involved, with 58,8% of respondents considering its participation adequate. This is followed by the civil society sector with 54,5%, while the business sector was rated somewhat lower at 47,1%, and the education sector received the lowest score for involvement, only 41,2%. This was also confirmed through interviews, which highlighted the need to improve the participation of the private sector, particularly in priority areas such as Sustainable Agriculture and Food Value Chain and Sustainable and Health Tourism. These findings suggest that, although key sectors were included in the implementation process, a significant number of respondents believe that their involvement was not sufficiently strong, thus opening space for improving intersectoral cooperation, transparency, and participation in future phases of the Strategy’s implementation.

Figure 5: Which sectors were the least involved in the implementation?



The objectives of the Strategy are largely aligned with the needs of key sectors, but the involvement of these sectors in the implementation itself was assessed as insufficient, indicating the need for stronger intersectoral cooperation and a more participatory approach in the next period.

4.5. Coherence Analysis

The Strategy itself, as well as the Operational Programme, are aligned with the most important national strategic documents, namely: the Montenegro Accession Programme to the European Union 2021–2023, the Montenegro Accession Programme to the European Union 2022–2024, the Development Directions of Montenegro 2018–2021,

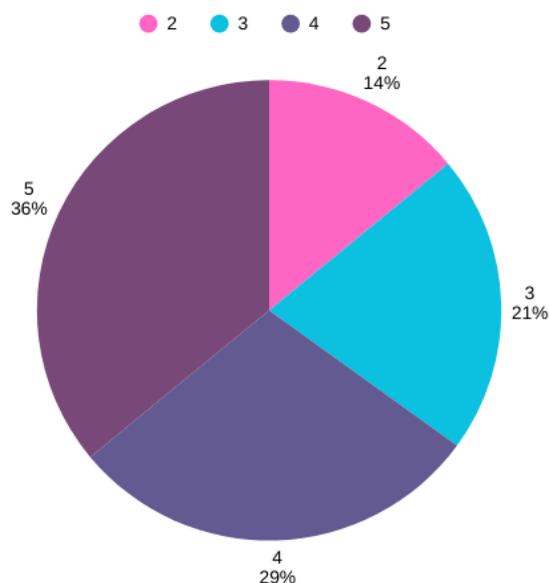
the Economic Reform Programme 2022–2024, the Government’s Mid-Term Work Programme 2022–2024, and the National Strategy for Sustainable Development of Montenegro by 2030. In addition, the Strategy is aligned with other strategic documents in this field, the most relevant of which is the Scientific Research Activity Strategy 2017–2021⁸. Furthermore, during 2021 and 2022, several documents stemming from and

⁸ The finalisation of a new strategic document, which will define the framework for the next five-year period, is currently in progress

closely linked to the S3 Strategy were adopted, including: the Development Programme of Health Tourism in Montenegro 2021–2023, the Digital Transformation Strategy 2022–2026, the Tourism Development Strategy of Montenegro until 2025, the Strategy for the Digitalisation of the Education System 2022–2027, and the Circular Transition Strategy of Montenegro until 2023.

With regard to the alignment of the Smart Specialisation Strategy with national development documents, such as the Innovation Strategy, the Industrial Development Strategy, and the Digital Agenda, the evaluation results indicate a positive perception. In total, 67,7% of respondents assessed that there is a high degree of alignment (scores 4 and 5 on a scale of 1 to 5), suggesting that the majority of participants recognise S3 as a document that follows and supports the broader development policies of the country. On the other hand, only 2,9% of respondents believe that the Strategy is not aligned with other strategic frameworks, which represents an extremely small share and points to its overall coherence and acceptance among relevant stakeholders. These findings suggest that a good level of strategic coherence has been achieved, while also highlighting the potential for further integration and synergies between sectoral policies.

Figure 6: To what extent do you consider the Smart Specialisation Strategy (S3) to be aligned with national development strategies?



Note: (Scale from 1 to 5: 1 = not aligned at all, 5 = fully aligned)

According to the evaluation results, Montenegro’s Smart Specialisation Strategy is perceived as largely aligned with the principles and guidelines of the European Union. As many as 48,5% of respondents rated this alignment with the highest score (5), while 39,4% gave a score of 4, which together make up 87,9% of participants who believe that there is a high degree of alignment with EU frameworks. Only 12,1% of respondents awarded a score of 3, indicating that there is limited scope for further adjustment of certain aspects of the Strategy to European standards. These findings confirm that Montenegro’s S3 Strategy is, at its core, well aligned with the European approach to smart specialisation. However, it was observed that in certain areas, for example, in sustainable and health tourism, the EU legal framework is far more developed than is the case

in Montenegro.

According to the evaluation results, Montenegro’s Smart Specialisation Strategy is perceived as largely aligned with legislation in the priority areas. Half of the respondents (50%) rated the alignment with a score of 4, while an additional 29,4% gave the highest score of 5, meaning that a total of 79,4% of participants believe that there is a high degree of alignment with legislation in the relevant sectors. A score of 3 was given by 17,6% of respondents, while only 2,9% assessed the Strategy as poorly aligned. These findings indicate a generally positive perception of the S3’s alignment with sectoral legislation. However, several respondents pointed out areas where improvements are needed. The most problematic areas identified were sustainable and health tourism, where respondents highlighted the lack of adequate regulation and inconsistencies between health and tourism legislation. Additional sectors mentioned included agriculture, transport, and data protection, with emphasis on the need to adapt the legal framework to the development of modern digital solutions and innovations, while at the same time ensuring the protection of privacy. Several respondents stressed the need to address alignment in each sector individually, particularly in the context of harmonisation with European legislation. Furthermore, the need was underlined for the legal framework to be flexibly adjusted to sectors that may be identified as new priority areas, to ensure legal support for their implementation. Participants also highlighted the importance of strengthening the normative framework for scientific research activities.

The evaluation results indicate that sectoral policies were, to a significant extent, linked with the priorities defined in the Smart Specialisation Strategy. More than half of the respondents (55,8%) rated this linkage with scores 4 and 5, confirming that there is a solid basis of alignment between sectoral development directions and S3 objectives. An additional 41,2% of respondents gave a score of **3**, thereby indicating partial alignment and suggesting further room for improvement. Only **2,9%** of participants assessed the alignment as low. These findings suggest that the strategic foundations for cooperation between S3 and sectoral policies have already been established, and that there is a positive framework which can be further strengthened through better operational linkages and institutional coordination.

Most respondents did not provide additional comments, which suggests a general level of satisfaction with the formal alignment of the Strategy with national, sectoral, and European strategic frameworks. However, those who did provide comments highlighted several important recommendations. Several participants emphasised that, as a horizontal document, S3 should serve as a basis for the alignment of all sectoral strategies, and that its visibility and implementation in practice are still insufficient. Stronger linkages with the Innovation Action Plan were also recommended, as well as alignment with the Higher Education Strategy and the Reform Agenda of Montenegro.

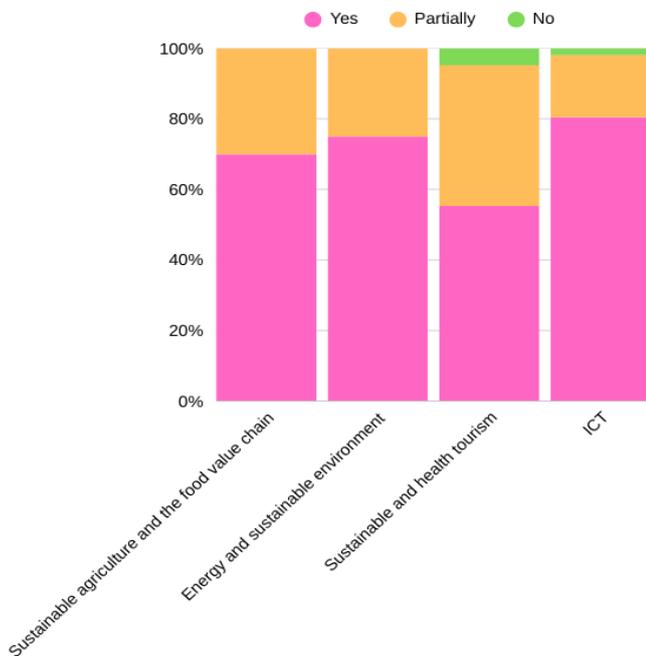
Respondents largely recognised the need for further alignment of the Smart Specialisation Strategy with the legislative framework, particularly in areas already identified as priorities or under consideration for inclusion in the next cycle. The most frequently mentioned were health and sustainable tourism, where issues were raised regarding inconsistencies between health and tourism legislation, as well as the lack of regulations that would enable the practical development of health tourism. Other areas mentioned included agriculture, transport, data protection (particularly in the context of the development of software solutions and artificial intelligence), as well as scientific research activities, which require stronger regulatory support.

However, in the practical application of the Strategy, a lack of operationalisation through concrete mechanisms of digital and innovation infrastructure was observed. While the strategic framework is well established, implementation requires technical and institutional support through specific initiatives such as: establishing a national API gateway system to improve interoperability, eGovernment, and data access; developing infrastructure for artificial intelligence, including AI centres, hardware resources, models, and training programmes; and creating sandbox environments for testing digital solutions under real-life conditions. These initiatives represent key steps towards building a functional innovation ecosystem in Montenegro.

The Smart Specialisation Strategy is largely aligned with EU guidelines and national strategic frameworks; however, there is a need for further harmonisation with legislation in certain sectors – particularly in tourism, health, agriculture, and digital technologies - as well as for clearer positioning of S3 in relation to other overarching strategies, to ensure better coordination and complementarity of objectives.

Although the Smart Specialisation Strategy was developed through an inclusive and participatory process and has been recognised as one of the key development documents, coordination among the stakeholders involved in its implementation has not been fully established.

Figure 7: Is there complementarity, alignment, and coordination with other stakeholders in the priority area?



In the area of Sustainable Agriculture and the Food Value Chain, the evaluation showed that there is a certain level of complementarity and coordination with other actors – 69,7% of participants believe that cooperation exists, while 30,3% state that it exists only partially. Although initiatives in this sector have been implemented in previous years, such as training programmes, digitalisation in quality control segments, and support through IPARD programmes, the findings indicate that coordination between innovation actors and sectoral institutions is still not systemic. The areas most frequently mentioned as requiring stronger coordination include the Ministry of Agriculture, local self-governments, small and medium-sized enterprises in food processing, the Chamber of Economy of Montenegro, and other associations.

In the area of Energy and the Sustainable Environment, the majority of evaluation participants (75,8%) assessed that complementarity, alignment, and coordination with relevant actors exist, while 24,2% stated that this coordination exists only partially. Although the overall assessment is positive, comments indicate the need to strengthen cooperation with specific groups of stakeholders, including private companies in the field of renewable energy, municipal enterprises, major energy companies (e.g. EPCG), as well as with the civil sector and organisations active in the field of environmental protection. The role of the competent ministry in coordinating activities and ensuring the strategic interconnectedness of the sector was particularly emphasised.

In the area of Sustainable and Health Tourism, 57,6% of evaluation participants believe that there is complementarity, alignment, and coordination with other actors, while 36,4% consider that it exists only partially, and 6,1% assess that there is no coordination. Although most respondents recognise a basis for cooperation, numerous comments point to a lack of functional alignment and operational coordination. Key actors identified as requiring stronger engagement include: the Ministry of Tourism, the Ministry of Health, healthcare institutions, tourist boards, hoteliers, the private sector (spa and wellness centres), as well as institutions for the protection of natural and cultural heritage. The importance of the ICT sector, the scientific community, and specialised institutions such as the Simo Milošević Institute was also emphasised.

In the area of Information and Communication Technologies (ICT), the majority of evaluation participants (82,4%) acknowledge the existence of complementarity, alignment, and coordination with other actors, while 14,7% state that coordination exists only partially, and only 2,9% assess that there is no coordination. Despite the overall high rating, comments indicate challenges in systemic and operational coordination, particularly in the context of developing digital infrastructure, open data, interoperability, and AI solutions. Stakeholders highlighted as requiring stronger collaboration include the Ministry of Public Administration, private sector entities from other industries applying ICT solutions, as well as other priority sectors, to strengthen horizontal integration.

Coordination among stakeholders in the implementation of the Smart Specialisation Strategy (S3) remains one of the key issues requiring attention in the coming period. Although the development of the Strategy was carried out through an inclusive, participatory, and technically sound process, and the document positioned highly among the strategic priorities of the Government, in practice, full functional interconnectedness among the stakeholders responsible for its implementation has not been achieved. It is particularly noted that the Ministry of Education, Science and Innovation has been the most active in carrying out activities, while the Strategy was often perceived by other institutions as *belonging primarily to that Ministry*. This perception, instead of fostering broader institutional mobilisation, led to a more passive engagement of other relevant ministries and stakeholders, even in situations where their competences were clearly defined.

This situation was further complicated by the fact that in many priority areas there are multiple responsible institutions, but without clearly delineated responsibilities, which has resulted in overlaps, inefficient communication, and weak coordination. The most frequently cited threats include: **lack of interest from certain institutions, weak intersectoral cooperation, fragmented accountability**, as well as **the absence of clearly defined competences**, particularly in areas without an adequate legal framework, such as sustainable and health tourism. **Weak coordination among ministries** was also observed, especially in cases where initiatives from one sector did not receive adequate support from others. It was not uncommon for institutions formally responsible for implementing certain activities to fail to initiate cooperation with key partners from academia, the private sector, local government, or civil society. In some sectors, especially where the legal framework is underdeveloped, this has further slowed down the pace of implementation.

One of the systemic challenges repeatedly identified during the evaluation, both in the questionnaires and in the interviews, was institutional instability, driven by frequent changes in personnel and in the structure of the competent authorities. This situation hindered continuity, the building of mutual trust, and the establishment of long-term partnerships. In addition, the lack of formal coordination mechanisms, weak intersectoral communication, low visibility of the Strategy among a broader circle of stakeholders, and at times a limited understanding of the concept of smart specialisation – all further constrained the achievement of the strategic objectives.

In conclusion, there is a clear consensus that it is necessary to establish a stable, binding, and functional model of coordination among all stakeholders involved in the implementation of the S3 Strategy. This entails clearly defined competences, role mapping, institutional stability, as well as the political will to implement complex, horizontal policies that require joint action – not only in a formal, but also in a substantive sense. Only in this way can the future S3 fulfill its full developmental role and become a cornerstone of Montenegro's innovation and economic transformation.

Effective coordination among institutions is a key prerequisite for the successful implementation of the Strategy, and strengthening it requires greater institutional commitment, a clear allocation of responsibilities, and a systematic building of intersectoral trust.

4.6. Effectiveness Analysis

The implementation of the Smart Specialisation Strategy (S3) in the period 2019–2024 can be assessed as effective, given the significant number of activities that were fully or partially implemented.

In addition, the effectiveness analysis shows that, according to the evaluation results, 64,5% of respondents believe that the implementation of the Strategy and accompanying action plans followed the planned dynamics, while 35,5% indicated that the pace was not satisfactory.

Respondents noted that, despite the existence of political will and a formal framework, the implementation of the Strategy was repeatedly slowed down due to numerous institutional, organisational, and systemic obstacles.

Most notably, frequent changes at the political and administrative level, including the replacement of four governments between 2019 and 2022, led to a loss of continuity and breaks in institutional memory, thereby weakening the pace of implementation. Furthermore, instability in ministerial and administrative staffing slowed down the planned reforms and complicated communication among responsible institutions. The

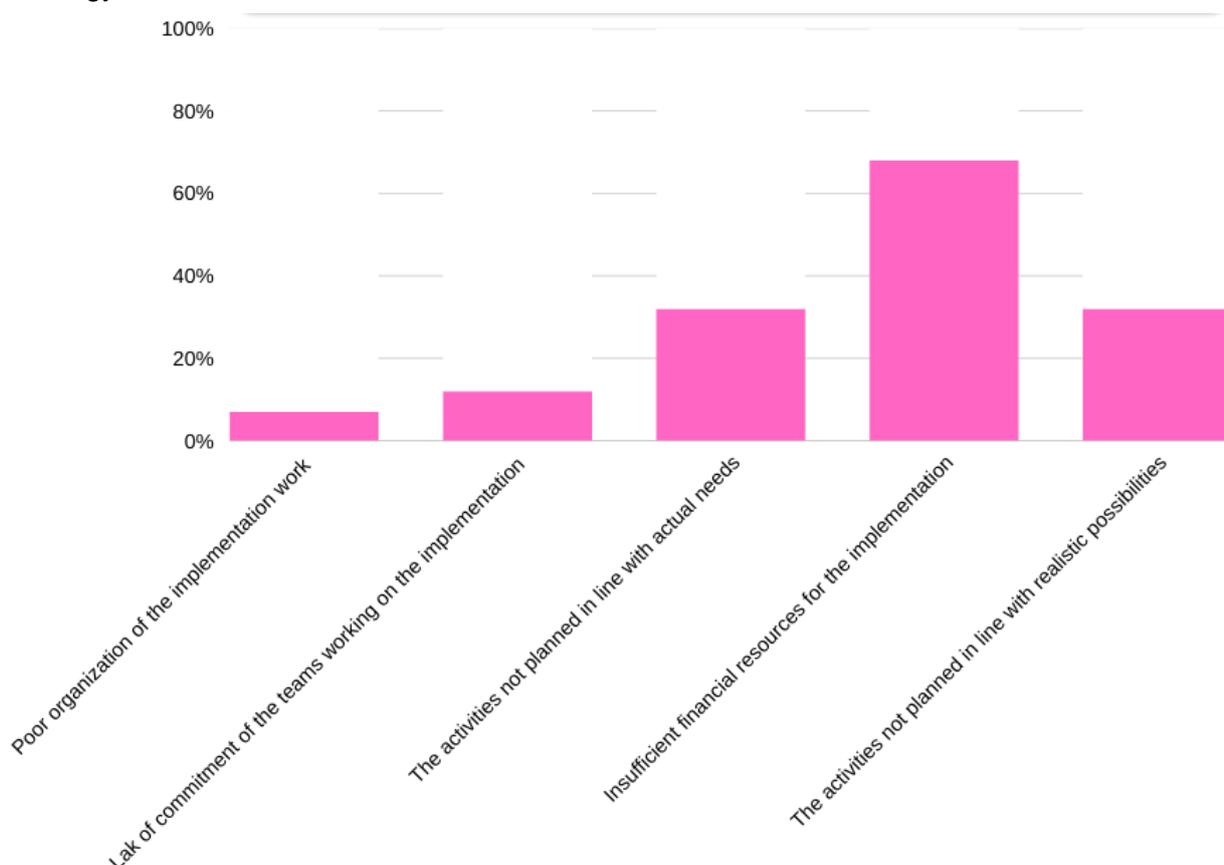
period immediately after the adoption of the Strategy proved particularly challenging, as the original team that led the preparation of the document ceased to operate, requiring the establishment of a new structure for operational support. A positive step forward came in 2021 with the adoption of the Operational Programme, which enabled a more concrete and systematic implementation of measures by setting out a clear framework for delivery.

As another important reason for the disrupted pace, respondents highlighted the COVID-19 pandemic. The pandemic had a dual impact on the implementation of the Strategy: on the one hand, it accelerated the digitalisation of certain processes, particularly in public administration and education, where it was necessary to rapidly switch to online models of operation. On the other hand, it significantly slowed down or completely halted activities in almost all sectors, especially those in which institutional and human resources had to be redirected towards urgent needs, which affected the pace of implementing the planned measures.

Among the key challenges for maintaining the planned dynamics, respondents also emphasised the insufficient commitment and limited capacities of certain institutions responsible for implementing individual measures of the Strategy, combined with slow intersectoral cooperation, particularly in cases where multiple institutions shared responsibility for the same measure.

In addition to the factors already mentioned as having negatively affected the planned pace, respondents were asked to select the key limiting factors from several options provided. The evaluation showed that the main limiting factor in the implementation of the S3 was insufficient financial support, which 67,7% of respondents identified as the primary challenge. This clearly indicates that even with strong commitment of human resources, without stable and systematically planned financing, it is not possible to achieve the full potential of the Strategy. Unrealistic planning of activities, which neither reflected actual needs (32,3%) nor the realistic possibilities of implementation (32,3%), further complicated the process.

Figure 8: What do you consider to be the most important limiting factor for the successful implementation of the Strategy?

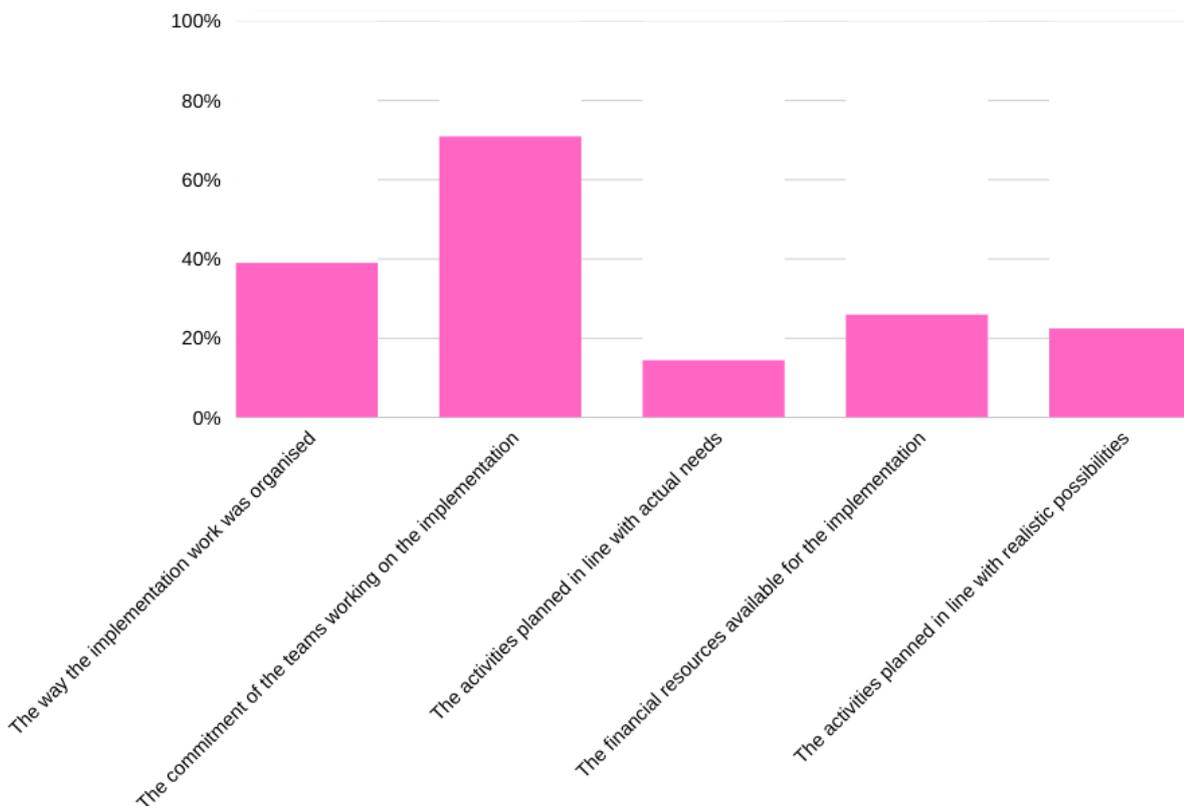


In addition to the aforementioned key negative factors, respondents also pointed to several additional factors which, in their opinion, significantly constrained the successful implementation of the Strategy:

- The absence of an adequate legal basis and the lack of alignment of the regulatory framework in certain areas, which limited the implementation of concrete measures;
- Insufficient understanding of the essence of the Smart Specialisation Strategy and its importance among decision-makers;
- The complexity of certain priority areas, as well as the absence of clear guidelines for their development at the national level;
- Unrealistic and overly ambitious planning of activities that were not aligned with the actual financial, human, technical, and institutional capacities of the bodies responsible for implementation;
- Unclear division of competences and responsibilities among institutions for the implementation of specific measures;
- Low level of awareness among stakeholders – both within institutions and in the business sector and the general public – regarding the importance of innovation, the concept of smart specialisation, and processes such as start-up entrepreneurship and technological development;
- Insufficient investment in research, development, and innovation by the private sector and other participants in the innovation ecosystem outside of public administration;
- Weak cooperation and lack of synergy between the business sector and institutions, along with the slow involvement of the private sector in activities and support programmes;
- Bureaucratic obstacles and administrative delays.

The successful implementation of the Smart Specialisation Strategy (S3) was largely the result of the high commitment of the teams engaged in its implementation, as many as 71,0% of respondents identified this factor as crucial. This commitment was reflected in a proactive approach, perseverance, motivation, and willingness to cooperate, which in many cases compensated for systemic weaknesses, limited resources, and the complexity of institutional coordination. The mode of work organisation, additionally supported by 38,7% of respondents, was recognised as the second most significant contributor to success, particularly in cases where responsibilities were clearly defined and operational teams were established.

Figure 9: Select the factor that was crucial for the successful implementation of the Strategy



One of the most important drivers of successful implementation, highlighted both in the survey and in the conducted interviews, was the engagement of employees in the Ministry of Science and Technological Development (later the Ministry of Education, Science and Innovation). Through continuous work and

operational commitment, they managed to sustain implementation despite institutional changes. Their expertise, persistence, and leadership of the process were recognised as an important stabilising factor. In addition, the active role of the innovation working groups, which included representatives from various sectors – including science, business, and civil society – significantly contributed to operational effectiveness during the implementation. In particular, the contribution of certain groups, whose knowledge, initiatives, and commitment led to concrete results, was strongly emphasised.

In addition to these key reasons for the successful implementation, the following factors also played a significant role:

- Substantial international support during the development of the Strategy, the Operational Programme, and accompanying activities;
- A well-designed implementation framework, which represents an innovation in the context of implementing strategic documents in Montenegro;
- Strategic priorities formulated in a way that reflects the real development needs of Montenegro;
- The COVID-19 pandemic contributed to the accelerated digitalisation of certain sectors and processes, which had a positive impact on the implementation of specific measures;
- A high level of commitment and motivation among individuals in the innovation ecosystem, including responsible institutions and professional managers/officials, who clearly understood the essence of smart specialisation;
- The availability of financial resources for innovation and development, particularly through the establishment of the Innovation Fund of Montenegro, but also through other intersectoral and sector-specific S3 programmes;
- Effective use of international support and European funds, especially in the areas of innovation and support for startups, enabled the implementation of concrete and beneficial activities;
- The development and expansion of innovation infrastructure, including the establishment of technology parks, incubators, and similar organisations that foster innovation.

The implementation of the Smart Specialisation Strategy was partially effective – although many activities were carried out, the dynamics were slowed down by institutional changes, the COVID-19 pandemic, and the lack of financial and human resource support. Despite this, key teams and innovation groups ensured continuity, confirming that human resources were a decisive factor in sustaining the process.

4.7. Efficiency Analysis

According to the data collected, most respondents (86,2%) believe that the Strategy was implemented in the most efficient way possible within the existing context and available resources. However, 13,8% believe that there was room for more efficient alternatives, suggesting approaches such as a more agile implementation process, stronger alignment between objectives, activities, and resources, and performance- and results-based incentives.

The results of the question on proportionality between costs and benefits achieved show that most respondents (71%) consider costs to be partially proportionate to the results achieved, while 22,6% assess them as fully justified. Conversely, 6,5% of respondents believe that costs were not justified at all in relation to the benefits achieved.

This distribution of responses indicates the perception that, although certain results have been achieved, there is room for better rationalisation of resources and increased efficiency of investments. Partial satisfaction with the balance between inputs and outcomes suggests the need for more precise budget planning and a stronger results-oriented approach in the next phases of implementation.

Most respondents (76,7%) assessed that the institutional and organisational structure for coordination, monitoring, and reporting on the implementation of the Strategy was adequate, while 16,7% considered it to be only partially adequate.

According to participants' assessments, the organisational structure established through the Operational Programme was evaluated as an innovative and significant step forward compared to previous practices in managing strategic documents. In particular, the innovative working groups stood out as effective and functional segments, providing a strong contribution to implementation and enabling a thematically focused, expert, and agile approach.

The Directorate of the competent ministry, which was responsible for coordinating the Strategy, was highlighted as an example of high commitment and professionalism, which positively influenced the engagement of other stakeholders. The Interinstitutional S3 Group was recognised as an important part of the structure, but interviewees pointed out the need for its members to be carefully selected so that they can genuinely act in the direction of implementing activities within the institutions they represent. In practice, a difference in the level of engagement was observed – while some members were very active, others showed a low level of involvement.

The role of the Council for Innovation and Smart Specialisation was also assessed as important for providing strategic guidance and political validation of the process. However, it was suggested that a greater impact could be achieved through a structure composed of ministers and/or chaired by the Prime Minister, which would strengthen intersectoral involvement and create a sense of shared responsibility of the entire Government for implementing the Strategy.

In the previous period, particularly challenging cases in the implementation of the Strategy were those that required joint action by several line ministries, but where cooperation was lacking. This was especially the case with the Ministry of Economic Development, the Ministry of Tourism, and the Ministry of Health, whose mutual coordination was not at the required level, particularly within the priority area of sustainable and health tourism. There was also a recognized need for greater engagement of the Ministry of Agriculture, Forestry and Water Management, primarily through the development and implementation of new targeted programmes and measures, rather than only through formal participation in planning and monitoring structures.

The Ministry of Education, Science and Innovation and the Ministry of Labor, Employment and Social Dialogue should, in the next implementation cycle, strengthen their presence and contribution, both within the institutional structure and through the proactive development of intersectoral initiatives. When analysing sectors, the most active were the state and research sector, as well as NGOs and the business sector in the domain of ICT. In contrast, lower motivation and engagement were observed in the NGO sector and among business entities in other vertical priority areas.

Based on the collected data, as many as 74,2% of respondents believe that there is a need for further improvement of the institutional and organisational structure for the implementation of the future Strategy, while 25,8% of respondents do not see the need for additional improvements.

When it comes to the implementation structure, it was assessed as good, but there remains a need to further enhance it in the coming period. Based on the questionnaire and interviews, several key recommendations can be highlighted for improving the institutional and organisational structure.

- **Strengthening human and administrative capacities:** It is necessary to engage competent and motivated staff, ensure additional administrative capacities in all relevant areas, and implement continuous training. Special focus should be placed on preserving institutional memory and preventing the outflow of experts through appropriate reward and motivation policies.
- **Improving coordination, monitoring, and reporting:** Operational roles and responsibilities of all involved stakeholders need to be clearly defined, stable teams should be established, and reporting processes improved through better-planned deadlines and clearer interpretation of indicators and data sources.
- **Greater involvement and accountability of institutions in implementation:** Institutions responsible for implementing specific measures should be more actively involved already in the planning phase of the new strategy, with clearly defined tasks and obligations for implementation and monitoring.
- **Enhancing intersectoral cooperation and communication:** Stronger links should be established between the research sector, business community, public administration, and civil society. Special

attention should be given to strengthening intersectoral cooperation without relying solely on coordination by the Ministry of Science.

- **Development of a communication strategy:** It is recommended to create a dedicated communication strategy to bring the S3 Strategy closer to end users, the public, and relevant institutions, with a targeted approach to promoting its objectives, benefits, and concrete results.
- **Focus on sectoral empowerment:** Additional efforts should be made to strengthen sectors such as science, creative industries, sustainable and health tourism, as well as those that show weaker motivation. More operational teams dedicated to specific strategic areas are also needed.
- **Improvement of planning, evaluation, and indicator mechanisms:** It is essential to more clearly define the strategic vision and align activities with available capacities, while simultaneously strengthening the evaluation framework through the introduction of precise, measurable, and realistic performance indicators. Indicators should be aligned with the Strategy's objectives, enabling regular monitoring of progress and providing a basis for decision-making. In addition, it is important to establish a system of merit-based rewards, thereby stimulating performance driven by results.
- **Strengthening the private sector and the innovation ecosystem:** The business sector should be further motivated to actively participate in S3, with a focus on investing in innovation and engaging in available support programmes, including cooperation with technology parks and incubators.

In conclusion, the analysis indicates that improving the efficiency of the future implementation of the S3 Strategy requires not only strengthening institutional and human capacities but also enhancing mechanisms of intersectoral coordination and operational management, with clearly defined responsibilities and more consistent cooperation among stakeholders.

4.8. Impact Analysis

Almost all respondents agreed that, despite the challenges observed during implementation, the Strategy has already brought visible positive progress in the priority areas.

As the key results of the Strategy's implementation so far, respondents most often highlighted the following:

- The establishment of the Innovation Fund of Montenegro, as the central mechanism for financial support to innovations and startups, with numerous programmes aimed at different stages of development.
- The development and strengthening of the innovation ecosystem, including:
 - The establishment and operation of the Science and Technology Park of Montenegro;
 - The establishment of the Technology Transfer Office;
 - The creation and implementation of support programmes through The Innovation and Entrepreneurship Centre (IPC) "Technopolis – Nikšić".
- The establishment of a strategic and legislative framework for innovation has created a more stable environment for innovation development, including the regulatory recognition of areas such as health tourism.
- The strengthening of cooperation between research institutions, the public sector, and the business community, through joint projects, thematic areas, and intersectoral coordination.
- The increase of awareness on the importance of innovation and smart specialisation in society, including greater public awareness of the benefits of the S3 approach and its long-term objectives.
- Launch of concrete programmes and projects providing training, mentorship, grants, and other forms of support for the development of human capacities, the startup community, and small and medium-sized enterprises.
- Definition of priority areas and development pillars, resulting in improved targeting of policies and resources towards sectors with the highest development potential.
- The establishment of intersectoral cooperation, with the inclusion of a wide range of stakeholders in the planning and implementation process, contributed to better inter-institutional coordination.
- The establishment and support for the development of clusters and networks of stakeholders, which contributed to the expansion of innovation infrastructure and increased synergy between sectors.
- Increased internationalisation, particularly through the participation of the research and private sectors in European projects and programmes.

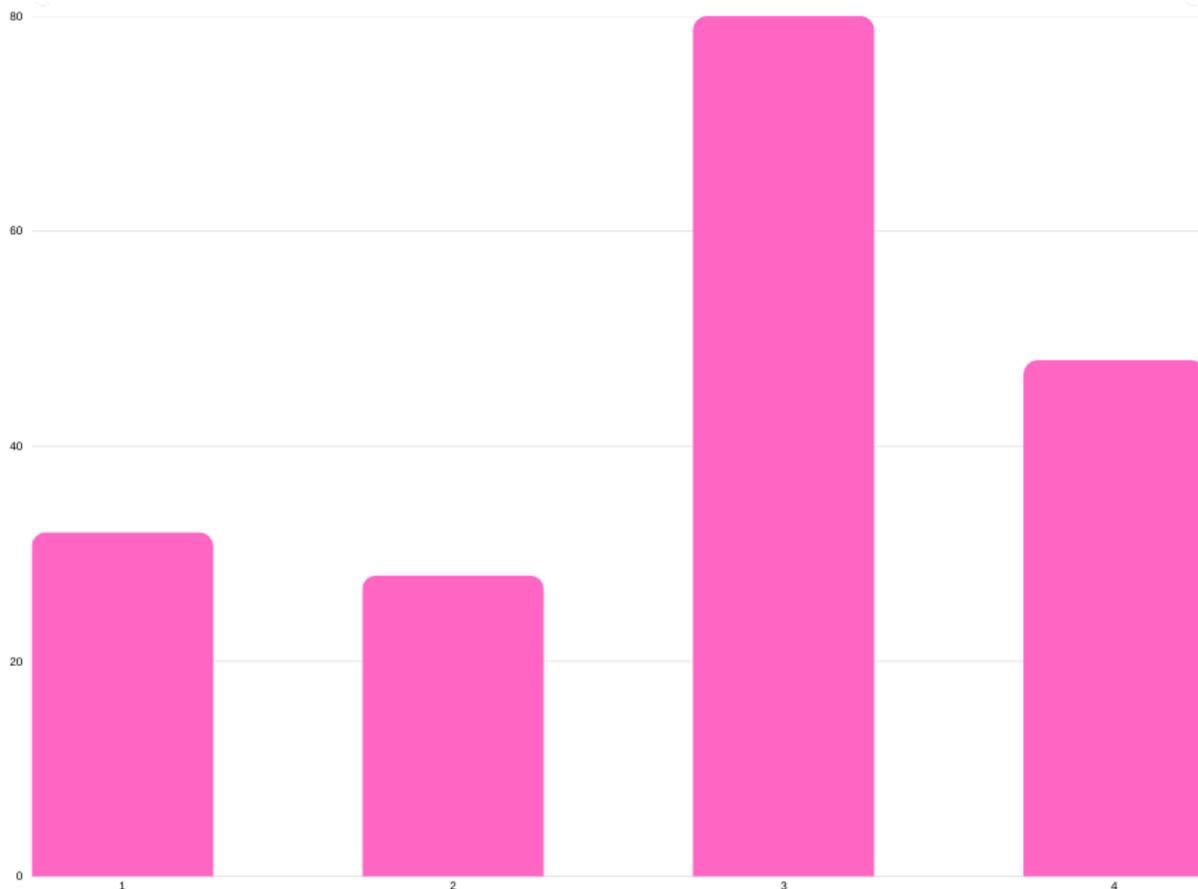
- The advancement of innovative activities in small and medium-sized enterprises, reflected in their stronger involvement in development programmes.
- The development of human resources through education and capacity building in the public, private, and civil sectors on the concept and importance of smart specialisation.
- The improvement of the monitoring and evaluation system, through the application of an innovative reporting and coordination model (particularly through Innovation Working Groups – IWGs).
- Continuous increase in budget allocations for the implementation of measures defined by the Strategy.
- Positive international positioning of Montenegro as a country successfully implementing the S3 strategy, which further contributed to its credibility in regional and European frameworks.

The analysis of the collected data indicates that the implementation of the Strategy has led to certain organisational changes, although their intensity varies depending on the aspect to which they relate. The most pronounced effect was recorded in raising awareness of the issues addressed by the Strategy; almost all respondents (80,8%) believe that there has been a significant increase in awareness among stakeholders and the wider community. This confirms that the S3 approach has contributed to a better understanding of strategic development needs and the importance of innovation, and has enabled better positioning of strategic topics in public and professional discourse.

A somewhat smaller, but still significant share of respondents (46,2%) believe that there has been an increase in support for stakeholders in priority areas, which can be linked to specific support mechanisms, such as the establishment of the Innovation Fund, the development of science and technology infrastructure, and the implementation of targeted programmes. This finding suggests that certain institutions and sectors have recognised the importance of the Strategy and that functional instruments for its operational implementation have been developed.

On the other hand, improvements in the organisational efficiency and effectiveness of government institutions, as well as in the effectiveness of stakeholder activities, were recognised to a lesser extent (34,6% and 26,9%). These results indicate that, although there are examples of good practice, systemic effects are still not sufficiently strong. This may be the result of numerous challenges identified during implementation - including limited human resources, insufficient coordination, frequent team changes, and variations in institutional commitment. Overall, while certain positive organisational effects are visible, it is necessary to further strengthen institutional capacities and improve coordination to ensure the long-term sustainability and full impact of the Strategy.

Figure 10: Have the results of the Strategy led to organisational changes?



1. Improvements in the organisational efficiency and effectiveness of government institutions implementing the Strategy; 2. Improvements in the activities and efficiency of stakeholders; 3. Increase in awareness of the issues targeted by the Strategy; 4. Increase in support for stakeholders in priority areas

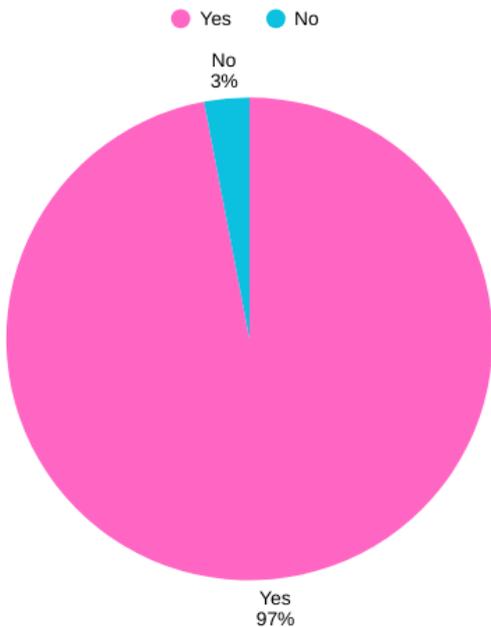
These results indicate that, despite certain challenges, the S3 Strategy has laid the foundations for systemic support to innovation and strategic development, with effects that are increasingly reflected through institutional changes, user support, and the strengthening of intersectoral cooperation. However, several responses suggest that the Strategy's broad impact is still not strongly felt among end users, particularly among businesses and citizens. The reasons for this are manifold: insufficient implementation of action plans, low community awareness of the importance of innovation, the absence of a fully developed innovation ecosystem, and weaker links between science and industry. It has also been emphasised that the positive effects of the Strategy are long-term in nature and that more time and consistent support are needed for their full visibility.

Overall, the effects are evident and can be observed in certain sectors; however, additional efforts are needed to expand their reach, enhance the visibility of benefits, and reinforce the sustainability of existing initiatives.

4.9. Sustainability Analysis

Based on the collected data, the majority of respondents (60,7%) believe that the sustainability of the Smart Specialisation Strategy is only partially ensured, while 39,3% consider the Strategy to be fully sustainable. The key concern of those expressing reservations relates to political instability. These respondents believe that changes in political will and a potential lack of commitment from future governments could seriously jeopardise both the financial and institutional sustainability of the S3 process.

Figure 11: Is it likely that the Strategy will generate a long-term and sustainable (financial, institutional, etc.) impact on the target groups and/or policymakers?

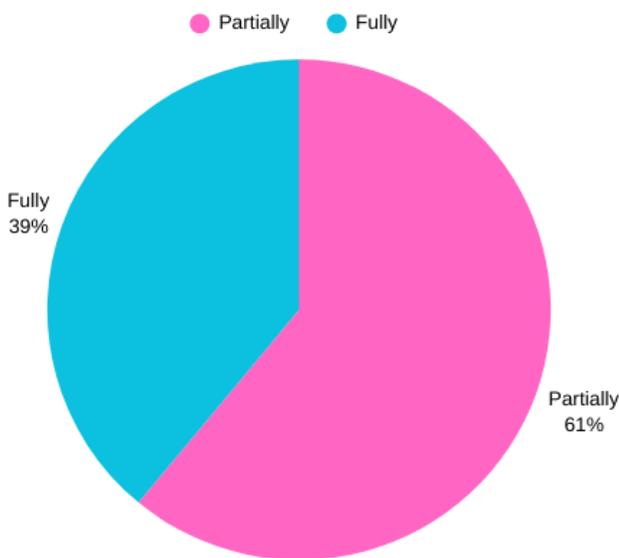


It can be concluded that stakeholder institutions have, for the most part, only **partially** designed and integrated feedback and monitoring mechanisms necessary for independent adjustment and achievement of the Strategy’s objectives – as indicated by **60,7%** of respondents. The remaining **39,3%** believe that these mechanisms have been **fully** established.

However, the comments of those who provided a partial response point to several key weaknesses. The most frequently mentioned issues include insufficient involvement of line ministries (particularly the Ministry of Health and the Ministry of Tourism), weak systemic coordination, and limited engagement of research institutions, universities, and the private sector in the design and adjustment of plans. In addition, the need for clearer roles within the monitoring and feedback system, as well as for capacity strengthening, was emphasized.

Overall, although a certain level of institutional reflection and adjustment is present, there is still room for improvement, particularly through strengthening intersectoral cooperation, clearly delegated responsibilities, and better-integrated mechanisms for learning and adaptation within institutional systems.

Figure 12: To what extent have stakeholder institutions designed and integrated into their plans and systems the necessary feedback and monitoring mechanisms that will ensure self-renewal (adjustment) to achieve the objectives?



Based on the participants’ responses, it can be concluded that the **sustainability level of the capacities of institutions** identified as key actors in the implementation of the Smart Specialisation Strategy has predominantly been assessed as **partial**, as stated by **57,1%** of respondents. A smaller share, **32,1%**, considers the sustainability to be high, while **10,7%** rate it as **low**.

Based on the collected responses, the most frequently highlighted issue regarding the sustainability of institutional capacities is the lack of human resources, i.e., staffing constraints. Several respondents pointed out that state institutions have insufficient personnel, with a particular shortage of qualified and motivated staff. The problem is further compounded by frequent

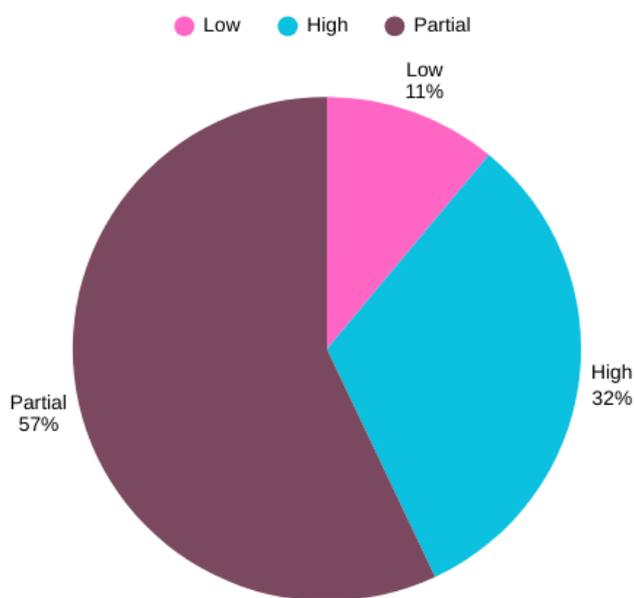
team changes and the absence of systemic measures to preserve institutional memory. The excessive workload of existing staff, combined with inadequate personnel support, leads to fatigue and loss of motivation, which negatively affects the continuity of Strategy implementation. This weakness is particularly evident in sectors that are key to the implementation of the S3 Strategy, such as health, tourism, education, and science. Without a stable, continuously trained, and sufficiently staffed workforce, long-term objectives cannot be achieved, which is why strengthening human capacities represents one of the key prerequisites for the sustainability and successful implementation of the Smart Specialisation Strategy.

In addition to the lack of human capacities, respondents also pointed to a few other factors that undermine the sustainability of institutions involved in the implementation of the Smart Specialisation Strategy. Among

these, insufficient financial support stands out, particularly for research centres, incubators, and other key actors within the innovation ecosystem. It was often noted that many initiatives launched with grants or one-off funding have been left without continuous support, which has called their long-term sustainability into question. Furthermore, several responses highlighted weak infrastructure, especially within research institutions and the private sector, which further limits their capacity to carry out innovative activities. Problems were also observed in organisational structures – with insufficient inter-institutional coordination and limited synergy among stakeholders. Some respondents specifically emphasised that the burden of implementation often falls on a small number of individuals, without adequate institutional support, leading to delays and hampering the implementation of planned measures. All these findings point to the need for a systemic approach to strengthening capacities, human, organisational, and financial, to ensure the sustainability and effectiveness of S3 Strategy implementation.

Despite individual examples of capacities functioning at a high level, these findings indicate that the overall system’s sustainability remains fragile and requires a systematic approach to strengthening human, organisational, and infrastructural resources to ensure the long-term stability and continuity of Strategy implementation.

Figure 13: To what extent are the capacities of institutions identified as stakeholders of the Strategy sustainable?



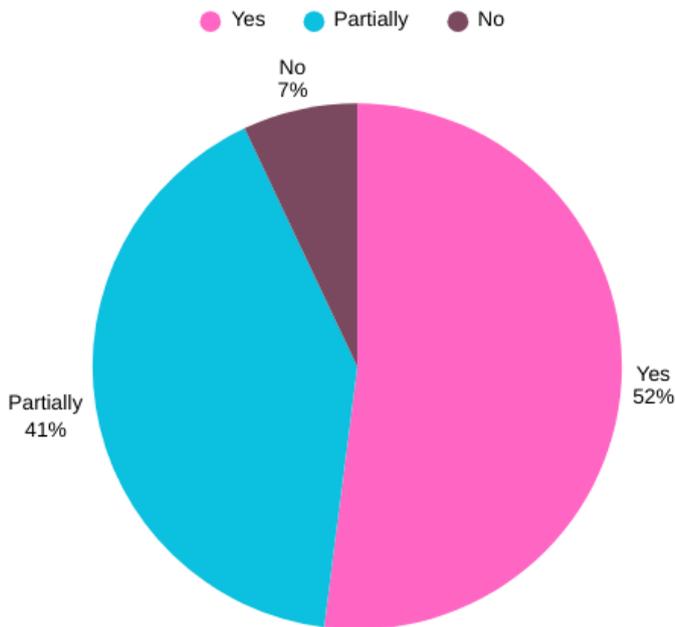
Based on the collected data, the sustainability of measures in terms of financing the Smart Specialisation Strategy was assessed as partial by a significant share of respondents – 40,7%, while 51,9% consider the measures to be sustainable. Only a small proportion of respondents, 7,4%, view the measures as unsustainable in terms of financing.

The main challenges regarding financial sustainability have been identified as follows:

Measures that rely exclusively on budgetary resources and political will show high vulnerability to changes in priorities and the dynamics of public financing. A particular challenge is posed by activities launched through one-off grants or other unstable

sources without a plan for their long-term integration; such measures often lack continuity and broader impact. In addition, the limited availability of funds, as well as their inefficient use, further reduces the sustainability of strategic interventions. It has also been observed that many successful initiatives do not continue beyond the initial phase of support, while a large share of responsibility and expectations is transferred to international donors, without developed mechanisms for domestic budgetary planning. Finally, although some measures are assessed as sustainable, it has been emphasised that objectives are often set modestly, thereby limiting their full development potential.

Figure 14: Are the measures sustainable in terms of financing?



In conclusion, the financial sustainability of Strategy implementation remains limited due to excessive dependence on unstable and external sources of financing, insufficiently predictable budgetary planning, and the lack of systemic support for long-term measures.

All respondents agree that the Strategy has achieved its objective. None of the respondents provided a negative answer to this question. Half of the respondents consider that the Strategy has fully achieved its objective, while the other half believe that the achievement of objectives has only been partially met.

5. Examples of good practice

In its document Implementation Framework for Smart Specialisation⁹, The European Commission defines, in the form of recommendations, various models for the implementation of the S3 Strategy at all levels, from the institutional level to the level of instruments, including monitoring and evaluation. In the following chapter, and precisely within the context of this framework, we will present several particularly significant results achieved during the implementation period covered by this evaluation.

5.1. Institutional implementation framework

The European Commission's recommendations related to the institutional level suggest that the implementation of the Strategy should be ensured through bodies established at several levels: at the decision-making level, at the operational level, as well as at the level of the entrepreneurial discovery process, which should be permanent.

One of the greatest results achieved during the implementation of the Smart Specialisation Strategy in Montenegro is the establishment of an **innovative and efficient institutional framework for implementation**. This was made possible by the commitment of the Government and the Ministry of Education, Science and Innovation to this process, as well as by the continuous cooperation with the European Commission's Joint Research Centre (JRC), which began in 2017.

Thanks to this, the current institutional framework for implementation is characterised by the following:

1. The Council for Innovation, as the highest advisory body of the Government, which enables policy design and monitoring of its implementation, and which, despite constant political changes in the previous period, has maintained its functionality;
2. The Inter-institutional Working Group, which represents the management and coordination body for inter-institutional cooperation and which is comprehensive in scope;
3. A highly dedicated S3 team within the Ministry of Science and Technological Development, which deals exclusively with smart specialisation issues and whose expansion is planned;
4. Innovation Working Groups, which are small in number but effective, as they bring together skilled and dedicated professionals and continuously enable the entrepreneurial discovery process;
5. An IT platform, which has been established but needs to be further improved in the coming period to allow for data collection and processing;
6. The Innovation Fund, which is focused on and dedicated to providing and coordinating financial support; and
7. Innovation infrastructure actors, who are directly engaged in the implementation of activities and whose number and level of development are continuously increasing.

All of the above-mentioned is in line with the recommendations of the JRC. Such an institutional framework, combined with the fact that it operates within a small public administration facilitating efficient communication, represents one of the most important results achieved so far and provides an excellent basis for further work on the implementation of the next phases of the Strategy.

5.2. Policy mix

A policy mix is necessary in order to adequately target the appropriate groups. When designing a policy mix, it is essential to ensure the inclusion of both horizontal and vertical policies.

⁹ <https://s3platform.jrc.ec.europa.eu/en/w/smart-specialisation-implementation-framework-for-the-eu-enlargement-and-neighbourhood-region>

During the definition of the S3 Strategy, particular attention was paid to creating an adequate policy mix, which is primarily reflected in the definition of priority areas, but also in the following example.

The Research Grant Programme for Promoting Excellence¹⁰ represents a key measure of the Ministry of Education, Science and Innovation of Montenegro in strengthening research capacities and connecting domestic researchers with the international scientific community. The Programme was adopted in the fourth quarter of 2024, based on the proposal of the Council for Scientific Research Activity, as part of the implementation of the Scientific Research Strategy of Montenegro 2024–2028. The planned duration of the Programme is four years, from 2024 to 2027, with a total budget of €2,100,000, while €700,000 has been allocated for 2024 to finance the first year of research under the approved projects.

The Programme is intended for research teams from licensed scientific research institutions in Montenegro. A key requirement for the application is the existence of a partnership with at least one additional national institution from another scientific field, as well as cooperation with an international scientific institution, thereby fostering interdisciplinarity and knowledge transfer. In addition, cooperation with the business sector in Montenegro is also possible, with the aim of developing applicable and commercial solutions.

The Programme aims to enhance research excellence, improve the international visibility of Montenegrin research teams, develop capacities for participation in European and global projects, and contribute to the development of a knowledge-based society. Special emphasis is placed on supporting young researchers, particularly doctoral candidates, through their involvement in project activities that enable the preparation of dissertations and professional development under the mentorship of leading experts from both Montenegro and abroad.

The Programme encompasses nine priority research areas defined by the Strategy: sustainable agriculture and the food value chain, energy and the sustainable environment, sustainable and health tourism, science, education and culture, medicine and health, socio-political and socio-economic challenges, new materials, technologies and services, disaster risk management, and information and communication technologies. Projects applying for grants must be focused on one or more of these areas.

The objective of the Programme is to position Montenegro as a country capable of conducting cutting-edge research, prepared to meet European challenges in the fields of science and innovation, and as an attractive destination for talented researchers from abroad, including the Montenegrin diaspora. The Programme is expected to result in strengthened capacities of domestic institutions, increased mobility, improved equipment, enhanced cooperation with the business sector, and the creation of a foundation for future centres of excellence.

The Programme for Encouraging Innovations in Energy Efficiency in Industry¹¹ was created with the aim of providing grant support for investments in improving production processes for micro, small, and medium-sized enterprises in the manufacturing sector. The Programme was initiated within the framework of intersectoral cooperation among several line ministries, in order to ensure the necessary synergy of innovation, industrial policy, and energy policy with the priorities of smart specialisation. The line ministries agreed that the Innovation Fund of Montenegro would serve as the implementing body of this Programme. All of this makes the Programme one of the best examples of how cooperation among different institutions can and should function during implementation, and how policies can be properly combined in order to achieve the desired objectives.

The Programme envisages the establishment of financial mechanisms for the introduction of innovative solutions and new technologies that will lead to improvements in energy efficiency and increased use of available renewable energy sources by enterprises, thereby contributing to the further development of the green economy. In line with this Programme, the Innovation Fund launched a call for funding in 2023, with a

¹⁰ <https://www.gov.me/dokumenta/53195b03-9d0f-402d-80ac-7b4f52f3b41d>

¹¹ <https://fondzainovacije.me/programi/podsticanje-inovacija-u-funkciji-energetske-efikasnosti-u-industriji/>

total value of €1 million. The specific objectives, i.e., the expected outcomes three years after the completion of project implementation, are as follows:

- Improvement of business operations of MSMEs in the manufacturing industry through the introduction of digital solutions that contribute to enhanced energy management;
- Improved energy management by MSMEs in the manufacturing industry; and
- Strengthened capacities of MSME staff in the manufacturing industry for managing energy efficiency and/or in the use of renewable/clean energy sources.

5.3. Specific Policy Instruments

The adequate design of policy instruments for implementation is crucial for success and for the development of the country's innovation community. During the implementation period to date, a significant number of successful policy instruments have been introduced. Below, we highlight several of the most important ones, relating to different priority areas.

Support to the Centre of Excellence – FOODHUB at the University of Donja Gorica

The Centre of Excellence for the Digitalisation of Food Safety Risk Assessment and the Precise Certification of the Authenticity of Food Products (FoodHub) was established within the University of Donja Gorica (UDG) in January 2020, following the Call of the Ministry of Science of Montenegro for the establishment of Centres of Excellence, published in 2018. The total value of the programme is €1.2 million, with the Ministry's planned contribution amounting to €0,92 million. FoodHub represents an example of a successful initiative in the field of food safety, quality, and authenticity.

The mission of FoodHub is to provide reliable, science-based solutions for eliminating food safety risks and identifying hazards, to develop digital tools for risk assessment, reliable product certification, and food authenticity monitoring – all ready for use in food production and tourism. This initiative, bringing together 12 consortium members, connects diverse stakeholders in Montenegro, including agricultural producers, leading food companies, research institutions, and consumers, while at the same time promoting international cooperation.

Since its establishment, FoodHub has achieved significant results, including:

- **Human capacity building** (over 30 trainings and workshops, 2 young researchers enrolled in doctoral studies in Vienna, 3 PhD dissertations, and 5 master's theses);
- **Laboratory capacity building** (a large number of methods accredited for the analysis of honey and wine, procurement of a third-generation sequencer for whole genome sequencing (WGS), and the development of methodologies for testing genetically modified organisms);
- **Research** (analysis of 560 isolates from food products, using advanced techniques such as MALDI-TOF and genetic identification for comprehensive analysis);
- **Software solutions and publications** (the mobile application *MontEat* for the promotion of Montenegrin gastronomy, 17 published papers, and the largest survey on the dietary habits of the Montenegrin population conducted); and
- **Education** (high-quality online information packages for food industry staff and the general population, training sessions, a food safety manual, and numerous awareness campaigns).

In addition, FoodHub has achieved long-term sustainability through new international and national projects.

Support for the Introduction of Innovations in the Agricultural Sector through the Agrobudget

Since 2022, the Ministry of Agriculture, Forestry and Water Management, in line with the Agrobudget, has been publishing a Public Call for granting support for the introduction of innovations in the agricultural sector.

The support covers a wide range of activities – from the introduction of technologies for the rational use of resources (water, pesticides, fertilisers), automation of production processes, to innovative solutions for waste management, heating in protected areas, and IT solutions for precision agriculture. The support also includes the procurement of certificates for sprayers, as well as technologies that protect crops from frost.

Eligibility extends to agricultural holdings registered in the relevant registers, as well as legal entities whose activities fall under Sector A: Agriculture, Forestry and Fisheries, in accordance with the Law on the Classification of Activities. Innovations can be implemented in all areas of agriculture, with a special focus on livestock breeding and crop production.

According to the Call, the maximum eligible investment amounted to €10,000, with budget support covering up to 80% of the eligible investment value, i.e., up to €8,000. Through this programme, in 2020, 53 beneficiaries were supported with a total of €123 330,00. The implementation of the programme demonstrated both significant interest and the capacity to absorb the planned funds, which is why the amount allocated in the Agrobudget for this purpose was increased in subsequent years (amounting to €450 176,13 in 2024).

Support for the Development of Startups and the ICT Sector

Support for the development of startups has been ensured through a comprehensive support cycle that encompasses the following phases aimed at their growth:

- **The pre-acceleration phase**, which began in 2020, when the Ministry of Science (now the Ministry of Education, Science and Innovation) announced, for the first time, a Call for support to information and communication technologies as one of the priority areas of the Smart Specialisation Strategy. Since then, several pre-acceleration programmes have been implemented, such as *BoostMeUp*, which has already been successfully carried out twice, in the period December 2019 – October 2020 and in the period September 2021 – July 2022, and which continues to be implemented during 2023, with co-financing from the Innovation Fund and support from Technopolis and the Science and Technology Park of Montenegro.
- **Early-stage startup development**, within which a support instrument was implemented for the first time in 2021 by the Ministry of Economic Development and Tourism (MERT). The subject of the Public Call was the co-financing of startup projects offering digital solutions in four priority areas of smart specialisation. The total amount of support provided for this purpose in 2021 was €200 000,00. From 2022 onwards, the Ministry of Education, Science and Innovation also provided support through the Early-Stage Startup Support Programme, under which two calls were announced and €400 000,00 in grant funding was awarded. In 2023, the Innovation Fund launched a call for the allocation of grants and mentoring support for startups, with a total value of €350 000,00. The value of an individual grant was set at up to €35 000,00 (€30 000,00 for financial support and €5 000,00 for mentoring support).
- **Further development of startups**, carried out through the implementation of incentive measures for innovation development in accordance with the Law on Incentive Measures¹², which include exemptions related to: personal income tax and surtax; contributions for mandatory social insurance; corporate income tax; fees for communal equipping of construction land; the use of real estate and/or land owned by the state; and property tax. Support for innovation development is also provided through the Call for Strengthening the Innovation of Newly Established or Existing Micro, Small and Medium-Sized Enterprises, published in 2023, with a total value of €1 million, implemented by the Innovation Fund. The maximum amount of individual support can reach up to €200 000,00.

One of the successful examples of support for the development of the ICT sector is the support provided for the establishment and growth of the **ICT CORTEX cluster**. ICT Cortex was the winner of the Call for Supporting the Development of the Strategic Priority of Montenegro's Smart Specialisation Strategy – Information and Communication Technologies, which was conducted in 2021 by the Ministry of Economic Development and Tourism. The total amount allocated for the implementation of the ICT Cortex cluster's three-year work programme exceeds €1 million, with the Ministry of Economic Development supporting the

¹² Službeni list CG br. 82/2020

programme with more than €500,000, while the remaining funds were contributed by IT companies – members of the cluster. The purpose of this support was to create and build the capacity of an independent and inclusive association – ICT Cortex – focused on the growth of the ICT sector and the promotion of the industry, strengthening the innovation and R&D ecosystem, and fostering cooperation among all stakeholders (private, public, academic, and civil society) to jointly advance the digital transformation of Montenegrin society and the economy. Currently, ICT Cortex brings together 11 founding companies, represents more than half of the Montenegrin ICT scene, and involves over 300 IT professionals from Montenegro. The cluster carries out activities in three main areas: digital transformation, education, and sustainable innovation.

Creating the Foundations for the Development of Health Tourism

With the establishment of the Centre of Excellence for Biomedical Research – CEBIMER in 2019, the concrete implementation of the measure “Support for the Establishment of Centres of Excellence” began, aimed at strengthening Montenegro’s research capacities in strategic areas, including health tourism. CEBIMER, with a total value of €1,309,216, is focused on advancing biomedical research, particularly in the fields of rehabilitation, physical medicine, healthy ageing, and climate-medical therapies. This initiative represents a nexus of science, health, and tourism, contributing to the vision of developing health tourism as one of the key components of Montenegro’s year-round tourism offer.

The connection of the Centre with the Health Tourism Development Programme, adopted by the Ministry of Economic Development in 2021, further underlines its strategic role. This Programme defined the vision that by 2024, health tourism, through public-private partnerships and with the support of the hotel industry, should be positioned as a strong element of the Montenegrin economy. The operational objectives, including strengthening the “Dr Simo Milošević” Institute and creating conditions for international competitiveness, highlight the importance of CEBIMER as a concrete measure for implementing this vision.

One of the key challenges in the development of health tourism was the lack of a clear legal definition of this concept. The Innovation Working Group for Sustainable and Health Tourism identified this issue and submitted proposals to the Ministry of Health during the public consultation on the Draft Law on Health Care. Their suggestions were partially accepted, and it is expected that the new law, once adopted, will for the first time include a precise definition of health tourism in line with international standards. This represents an example of how cooperation between scientific, professional, and institutional stakeholders can identify obstacles and initiate essential changes in the legislative framework, necessary for the implementation of strategic initiatives such as CEBIMER.

6. Anex

6.1. Framework questions for in-depth interviews

Relevance

1. To what extent are the priorities and priority areas of Montenegro's Smart Specialisation Strategy (S3) 2019–2024 still relevant?
2. Which of the priorities do you consider to be no longer relevant? Which priority should replace it?
3. To what extent are the five strategic objectives of the Strategy still relevant?
4. To what extent are the operational objectives of the Strategy (12 objectives) still relevant?
5. To what extent do the objectives defined in the Strategy correspond to the existing priority needs and capacities of the scientific/educational/business/civil society sectors in Montenegro?
6. To what extent are stakeholders involved in the implementation of the Strategy?

Coherence

1. To what extent is there synergy and interconnection between the Smart Specialisation Strategy, the Operational Plan, and other documents implemented by the Ministry/Government in this area?
2. Is the strategic document aligned with the relevant EU framework for smart specialisation?
3. Are the documents currently being developed by the Government in this area consistent with the Strategic Framework for Smart Specialisation?
4. Is there complementarity, alignment, and coordination with other stakeholders in the given policy area?
5. In what way does the Strategy create added value while avoiding duplication of efforts?

Effectiveness

1. Has the implementation of the Strategy and the accompanying action plans progressed according to the planned timeline during the observed period?
2. To what extent have the **five** objectives of the Strategy been achieved?
3. To what extent have the 12 operational objectives of the Strategy been achieved? When can their achievement be expected?
4. Which factors have had the greatest influence on the achievement or non-achievement of objectives (describe the strengths that supported implementation and the weaknesses that hindered it)?
5. Has each activity contributed to the achievement of results, and if so, how well?
6. What changes (positive and negative) have occurred?
7. In the areas where effectiveness is low/high, which actions of stakeholders have most contributed to high effectiveness/insufficient progress (driving forces/limiting factors)?

Efficiency

1. Has the Strategy been implemented most efficiently compared to possible alternatives? To what extent are the costs proportionate to the benefits achieved?
2. How adequate was the institutional and organisational structure for coordination, monitoring, and reporting on implementation (did it facilitate or hinder the implementation of the strategic document)?
3. Is further improvement of the institutional and organisational structure for implementation necessary?
4. Which parts of the implementation structure were the least efficient? Why? How can these issues be addressed?

Impact

1. What are the most significant results achieved so far through the implementation of the Strategy? Has the application of the Strategy made any tangible difference for the users, and if so, what kind?
2. Have the results of the Strategy led to organisational change and learning, for example: improvements in organisational efficiency and effectiveness; improvements in policy; improvements/increases in political awareness or support?
3. How has the Strategy demonstrated enhanced capacity of decision-makers (in terms of new/adopted solutions, services, products, and processes) to address current challenges?
4. What would be the most likely consequences if the activities under the Strategy were discontinued or abandoned?

Sustainability

1. Is it likely that the Strategy will generate a long-term and sustainable (financial, institutional, etc.) impact on target groups and/or policymakers?
2. To what extent have stakeholder institutions designed and integrated into their plans and systems the necessary feedback and monitoring mechanisms that will ensure independent renewal (adaptation) to achieve the objectives?
3. What is the level of sustainability of the capacities of institutions identified as stakeholders by the Strategy?
4. How sustainable are the future measures in terms of financing?

6.2. Online Survey Questionnaire

Dear Members of the Innovation Working Groups and the Inter-institutional Group,

The questions before you have been defined for the purpose of evaluating **Montenegro's Smart Specialisation Strategy (S3) (2019–2024)**.

Your answers should be based on your experience and dedicated work to date in monitoring and implementing this **S3 Strategy**.

We kindly ask you to respond to the questions in as much detail as possible, as this will enable a high-quality analysis and evaluation, while also providing concrete inputs for future work in this area.

We also kindly remind you to submit your answers by 10 May.

Thank you in advance.

1. Do you think this strategic document has addressed the real needs of society?

- yes
- no

2. Do you consider the priority area, Sustainable Agriculture and the Food Value Chain, to be relevant for the S3 strategic framework?

- yes
- no

3. Do you consider the priority area, Sustainable and Health Tourism, to be relevant for the S3 strategic framework?

- yes
- no

4. Do you consider the priority area, Energy and the Sustainable Environment, to be relevant for the S3 strategic framework?

- yes
- no

5. Do you consider the ICT priority area relevant for the S3 strategic framework?

- yes
- no
-

6. Which new priority area would you include in the next S3 Strategy?

7. To what extent are the strategic objectives defined by the S3 Strategy relevant for development in Montenegro?

- they are relevant
- they are not relevant
- they are partially relevant

8. To what extent is Strategic Objective 1: Improving the excellence and relevance of research activities relevant?

- relevant
- not relevant
- not relevant, and I would replace it with another objective (please specify which)

9. To what extent is Strategic Objective 2: Strengthening human resources in the field of research and innovation relevant?

- relevant
- not relevant
- not relevant, and I would replace it with another objective (please specify which)

10. To what extent is Strategic Objective 3: Improving cooperation within the innovation system relevant?

- relevant
- not relevant
- not relevant, and I would replace it with another objective (please specify which)

11. To what extent is Strategic Objective 4: Supporting innovative activities in the business sector relevant?

- relevant
- not relevant
- not relevant, and I would replace it with another objective (please specify which)

12. To what extent is Strategic Objective 5: Improving the framework conditions for the innovation ecosystem relevant?

- relevant
- not relevant
- not relevant, and I would replace it with another objective (please specify which)

13. In your opinion, which operational objectives of the Strategy are not relevant, and which objectives would you replace them with?

- OPERATIONAL OBJECTIVE 1.1 Strengthening research capacities in the focus areas and technologies identified in the S3
- OPERATIONAL OBJECTIVE 2.1 Strengthening S3 skills
- OPERATIONAL OBJECTIVE 3.1 Strengthening cooperation among stakeholders in the innovation system with a focus on science-business collaboration
- OPERATIONAL OBJECTIVE 3.2 Strengthening innovation infrastructure
- OPERATIONAL OBJECTIVE 3.3 Improving destination management and cooperation among target groups in the field of sustainable and health tourism
- OPERATIONAL OBJECTIVE 4.1 Creating conditions for the establishment of cluster initiatives and their transformation into sustainable clusters
- OPERATIONAL OBJECTIVE 4.2 Stimulating the development of innovative start-ups
- OPERATIONAL OBJECTIVE 4.3 Stimulating innovation activities of SMEs
- OPERATIONAL OBJECTIVE 4.4 Strengthening the international competitiveness of SMEs
- OPERATIONAL OBJECTIVE 4.5 Stronger alignment of industrial development with the S3
- OPERATIONAL OBJECTIVE 5.1 Improving the implementation framework for innovation and S3
- OPERATIONAL OBJECTIVE 5.2 Promoting the importance of innovation with a focus on informing the wider public and the business community
- all are relevant, but I would add... *

14. To what extent do the objectives defined in the Strategy correspond to the existing priority needs and capacities of the research sector in Montenegro?

- they correspond
- they do not correspond
- they partially correspond

15. To what extent do the objectives defined in the Strategy correspond to the existing priority needs and capacities of the education sector in Montenegro?

- they correspond
- they do not correspond
- they partially correspond

16. To what extent do the objectives defined in the Strategy correspond to the existing priority needs and capacities of the business sector in Montenegro?

- they correspond
- they do not correspond
- they partially correspond

17. To what extent do the objectives defined in the Strategy correspond to the existing priority needs and capacities of the non-governmental sector in Montenegro?

- they correspond
- they do not correspond
- they partially correspond

18. To what extent was the research sector involved in the implementation of the Strategy?

- it was not involved
- it was insufficiently involved
- it was sufficiently involved

33. Is there complementarity, alignment, and coordination with other stakeholders in the priority area of ICT?

If you answered “no” or “partially,” please specify with which stakeholders coordination should be improved.

- yes
- partially
- no

34. What obstacles have you identified in achieving better coordination and alignment among different stakeholders in the implementation of the S3 Strategy?

35. Has the implementation of the Strategy and the accompanying action plans progressed in line with the planned timeline?

If you answered “no,” what were the main reasons?

- yes
- no

36. Please list 3 factors that, in your opinion, had the greatest impact on the non-fulfillment of the objectives, i.e. factors that hindered implementation.

37. Please list 3 factors that, in your opinion, contributed the most to the achievement of the objectives, i.e. factors that supported implementation.

38. Select the factor that was crucial for the successful implementation of the Strategy:

- the way the implementation work was organised
- the commitment of the teams working on the implementation
- the activities planned in line with actual needs
- the financial resources available for the implementation
- the activities planned in line with realistic possibilities

39. Select the most important limiting factor for the successful implementation of the Strategy?

- poor organisation of the implementation work
- lack of commitment of the teams working on the implementation
- the activities not planned in line with actual needs
- insufficient financial resources for the implementation
- the activities not planned in line with realistic possibilities

40. Did each implemented activity contribute, and to what extent, to the achievement of the results?

If you answered “no” or “partially,” please specify a few activities that did not contribute to the results.

- Yes, fully
- Yes, partially
- Most of the implemented activities did not contribute to the achievement of the results

41. In the areas where effectiveness is low, which stakeholder actions contributed the most to the lack of progress (limiting factors)?

42. In the areas where effectiveness is high, which stakeholder actions contributed the most to the high effectiveness (driving forces)?

43. Was the Strategy implemented most efficiently compared to possible alternatives?

If you answered “no,” please specify which alternative would have been more efficient.

- yes
- no

44. To what extent were the costs proportionate to the achieved benefits?

- not at all
- partially
- fully

45. How adequate was the institutional and organisational structure for coordination, monitoring, and reporting on implementation (did it facilitate or hinder the implementation of the strategic document)?

If you answered “not adequate” or “partially adequate,” please specify which parts of the structure were not adequate.

- adequate
- partially adequate
- not adequate

46. Is further improvement needed in the institutional and organisational structure for the implementation of the future Strategy?

- no
- yes (please specify in which areas improvements are needed)

47. Please specify the most significant results achieved so far in the implementation of the Strategy.

48. Has the implementation of the Strategy made a real difference for the users, and if so, what kind?

49. Have the results of the Strategy led to organisational change, specifically in terms of:

- improvement in the organisational efficiency and effectiveness of government institutions implementing the Strategy
- improvement in the activities and efficiency of stakeholders
- increased awareness of the issues targeted by the Strategy
- increased support to stakeholders in the priority areas

50. Is it likely that the Strategy will produce a long-term and sustainable (financial, institutional, etc.) impact on the target groups and/or policymakers?

If you answered “no,” please specify why.

- yes
- no

51. To what extent have stakeholder institutions designed and integrated into their plans and systems the necessary feedback and monitoring mechanisms that will ensure self-renewal (adjustment) to achieve the objectives?

If you answered “not at all” or “partially,” please specify which institutions need to work on improvements.

- not at all
- partially
- fully

52. What is the level of sustainability of the capacities of the institutions identified as stakeholders by the Strategy?

If you answered “partial” or “low,” please specify in which institutions sustainability is a problem.

- low
- partial
- high

53. How sustainable are the measures in terms of financing?

If you answered “not sustainable” or “partially,” please specify which measures are not sustainable.

- sustainable
- partially sustainable
- not sustainable

54. Overall, do you consider that the S3 Strategy has achieved its objective?

- yes
- no
- partially

55. What needs to be changed in the new S3 Strategy?

- define new priority areas
- create a new structure for implementation
- provide more financial resources
- define new objectives that are more in line with stakeholders' needs
- appoint new teams to work on implementation
- ensure better communication among teams
- ensure better communication with end users