



**POLICY
ANSWERS**

KOSOVO'S* ERA INTEGRATION

An update by POLICY ANSWERS

Main author: Bujar Gallopeni

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Contact Information

POLICY ANSWERS

Malte Schrage-Veltins

Email: policy-answers@westernbalkans-infohub.eu and Malte.Schrage-Veltins@dlr.de

Disclaimer

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Executive summary

Progress related to European Research Area (ERA) integration was achieved since the establishment of the new ERA along the following aspects:

- Kosovo has prioritised its support for research and innovation (R&I) measures for the upcoming years. This includes defining key measures supporting research, development and innovation in the Kosovo Economic Reform Program 2022-24.
- Since 2013 and 2018, separate laws have been developed to provide a comprehensive legal framework for the regulation of research, innovation, and knowledge transfer activities.
- In 2022, a new National Research Council (NRC) was established, and a new National Research Programme (NRP) has been drafted. The NRP's budget has been planned with a minimum tenfold increase annual budget indicated for the 2023-2028 period in comparison to the annual budget allocated in 2022 (1.2 million euros) and previous years.
- Kosovo started the development of a Smart Specialisation Strategy, adapting the methodology and guidelines by the Joint Research Centre (JRC) of the European Commission (EC).
- Since the beginning of 2021, Kosovo is associated to Horizon Europe (HE) reaching a good level of participation. In this context, Kosovo has been supporting the development of HE capabilities, including the refinement of the NCP system, and the establishment of a Programme Committee team and the appointment of respective correspondents in accordance with the thematic areas of HE.
- In 2022, Kosovo has developed a Research Information System¹, including modules to collect data and generate statistics on researchers, research organisations, infrastructure and projects, financing and publications. This initiative will be completed in 2023.
- Kosovo has implemented a research infrastructure roadmap in 2022 and is developing a register for data collection. In addition, the Kosovo Research and Education Network (KREN) has formally been associated to GÉANT.
- Since gaining the status of a COST Near Neighbour Country (NNC), Kosovo has increased participation in up to 67 running actions by December 2022, involving 98 partners from Kosovo.

¹ Kosovo Research Information System



Challenges for further ERA integration:

- The overall challenge for Kosovo is the development and maintenance of an integrated R&I policy framework. This may require merging or complementing existing R&I legislation and policy plans while also supporting funding through a joint R&I portfolio. The measures outlined in the NRP 2023-2028 only address a small portion of this challenge, with innovation being largely overlooked.
- Kosovo needs to increase coordination and administrative capacities to plan, implement, monitor and evaluate R&I policies. The current administrative capacities are facing challenges in implementing the new government initiative for the new NRP, which includes an increased budget.
- The implementation approach of R&I grants must rely on established European best practices, particularly introducing peer review evaluation of proposals and an increased quality of research community applications. In addition, the government needs to regularly monitor the implementation of awarded grants on the one side and impact assessments of the disbursed research funds on the other side.
- With being associated to HE and contributing more than one million euros to the programme, Kosovo needs a well-developed strategy to strengthen participation in HE. This might include defining and implementing support measures at national, institutional and individual level in order to enable a better mobilisation of the R&I community towards improved HE participation.
- Kosovo must utilise the Kosovo Research Information System (KRIS) to improve data collection and provision regularly in order to meet the target criteria for membership into the European Innovation Scoreboard (EIS) and upcoming ERA Scoreboard.
- Similar to the HE association, Kosovo needs to explore participation in other European initiatives, such as EURAXESS for example. In this regard, Kosovo needs to improve national regulation and implementation practices and should internationally offer research and scientific positions in higher education and research institutions, particularly attracting the Kosovar diaspora.
- In addition to the NRP objectives and measures, legal and policy directives are needed as a systemic approach to directly stimulate R&I activities in order to create a societal impact with regard to the economic development of Kosovo. This may include measures to support innovative businesses, start-ups, CSOs and academia as well as cooperation between business and society.

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List of abbreviations used in this document

AD	Alper-Doger
AI	Administrative Instruction
CBHE	Capacity Building in Higher Education
CIS	Community Innovation Survey
COBISS	Co-operative Online Bibliographic System and Services
COST	Cooperation in Science and Technology
EC	European Commission
EDP	Entrepreneurial Discovery Process
EIS	European Innovation Scoreboard
EMM	ERA Monitoring Mechanism
EOSC	European Open Science Cloud
ERA	European Research Area
ERP	Economic Reform Programme
ESS	European Social Survey
EU	European Union
EuroHPC JU	European High Performance Computing Joint Undertaking
FTE	Full-Time Equivalent
GBARD	Government Budget Allocations for Research and Development
GII	Gender Inequality Index
GIZ	Gesellschaft für Internationale Zusammenarbeit GmbH
HE	Horizon Europe
ICPC	International Cooperation Partner Country
ICT	Information and Communication Technologies
ITP	Innovation and Training Park
JRC	Joint Research Centre
KAS	Kosovo Agency for Statistics
KERP	Kosovo Economic Reform Programme 2022-2024
KIPA	Kosovo Industrial Property Agency
KREN	Kosovo Research and Education
KRIS	Kosovo Research Information System
MEST	Ministry of Education, Science, and Technology
MESTI	Ministry of Education, Science, Technology and Innovation
NEIA	New European Innovation Agenda
NNC	Near Neighbour Country
NRC	National Research Council

NRF	National Research Fund
NRP	National Research Programme
NT	National Team
OSP	Office of Strategic Planning
PMO	Prime Minister's Office
R&I	Research and Innovation
RCC	Regional Cooperation Council
RFO	Research Funding Organisation
RPO	Research Performing Organisation
S3	Smart Specialisation Strategy
SAA	Stabilisation and Association Agreement
SEEIIST	Southeast European International Institute of Science and Technology
SIC	Scientific Innovation Council
STEM	Science, Technology, Engineering, Mathematics
STI	Science, Technology and Innovation
VET	Vocational Education and Training
WB	Western Balkans

1 National measures in support of the Horizon Europe association: achievements and challenges by ERA priority

1.1 ERA Priority 1: More effective national research systems

The legal basis of the R&I system in Kosovo is consolidated in three laws: Law No. 04/L-135 for Scientific Research Activity of 2013, the Law No.04/L-037 on Higher Education of 2011², and the Law No. 06/L-049 on Scientific Innovation and Transfer of Knowledge and Technology endorsed in 2018. In the past, R&I in Kosovo have been treated separately with no cohesive policy or legal framework. In recent years, efforts have been made to restructure government institutions and agencies, resulting in the shifting of the innovation activity portfolio from one institution to another, consequently altering the support for innovation activities. The Ministry of Entrepreneurship and Innovation was established in 2018, albeit only operating for two years (2018 and 2019). Only recently a paradigm shift on treating R&I jointly was initiated. In 2021, the area of innovation was added to the portfolio of the Ministry of Education, Science, and Technology (MEST), which is now the Ministry of Education, Science, Technology and Innovation (MESTI). In the latter half of 2022, the Minister of MESTI by a decision established a working group to revise the law for research activity as well as the law for innovation activity and knowledge transfer. One of the group's main aims is the consolidation of R&I legislation into one single law. Furthermore, the National Research Council (NRC) has proposed under the draft National Research Programme (NRP) that R&I should be governed by a unified policy and legal regulation, thus promoting a more cohesive connection between the two areas. Nevertheless, the NRP lacks more systematic measures to support innovation activity per se.

The Law No. 04/L-135 of 2013 on Scientific Research Activity³ sets the government's responsibilities for the research governance structure, mechanisms and the basis for research policy. It also defines the financing and determines the types of research institutions and performers of research activities. The law establishes the areas of responsibility for the NRC, with its functions to develop the NRP and oversee its implementation. After over a decade of inactivity due to a lack of governmental action, the NRC was reinstated in early 2022. The law stipulates dispositions for a National Research Fund (NRF) with an annual allocation of 0.7% of total national annual budget financing and a list of possible activities that can be supported from the fund to finance research activities in Kosovo.

However, the Government Budget Allocations for Research and Development (GBARD) in Kosovo have been reported at around 0.1% in the past years (2022 and earlier), with a total amount of approximately 1.2 million euros. It has to be considered that this number only reflects the allocations for the NRF and doesn't include the budget allocated for research institutes such as the Academy of Science, and a few other public research institutes (Institute of Albanology, Institute of History, Institute of Pedagogy, Institute of Agriculture, Kosovo Institute for Public Health, etc.), as well as for research activities in universities and for other research-related

² <https://masht.rks-gov.net/ligji-per-arsimin-e-larte-ne-republiken-e-kosoves-nr-04-l-037/>

³ <https://masht.rks-gov.net/ligji-nr-04-l-135-per-veprimtari-kerkimore-shkencore/>



funds. According to a recent report⁴, the annual budget for research and higher education⁵ was approximately 2.45% (58.3 million euros) of the overall Government budget⁶.

Nevertheless, at present, the NRF offers financial support for various research instruments including small scale research projects; support for short-term research mobility to present research work in international conferences; reimbursement of publication fees of scientific articles in international scientific journals indexed in Scopus and Web of Science; support for academic book publication; grants for PhD and postdoc research in top 500 globally ranked universities; grants for lab equipment; and researcher awards. The support is granted to successful applicants who have submitted competitive applications to the scientific community in Kosovo, evaluated by the Scientific Council at MESTI. The Scientific Council, which was established by MESTI, consists of external members from Kosovo's scientific community.

The Law No. 06/L-049 of 2018 on Scientific Innovation and Transfer of Knowledge and Technology⁷ provides a comprehensive regulation for the governance and structures of innovations in Kosovo. It outlines the roles, responsibilities, and structures of those involved in innovation activities in Kosovo. The legislation provides provisions for establishing the Scientific Innovation Council (SIC) as an inter-ministerial body with representatives from both business and industry, thereby taking on a broader responsibility for supporting innovation activities in Kosovo. Although the law has been ratified four years ago, the SIC has still not been established yet, meaning that Kosovo lacks a defined framework for innovation policy and financing instruments of innovation activities. An Innovation Fund currently does not exist, leading to fragmented support for innovation activity. MESTI drafted an administrative instruction (AI) for voucher schemes to support knowledge and technology transfer through the NRF budget. However, has yet to be endorsed and no call has been launched to support any projects.

The Kosovo Education Strategic Plan 2022-2026⁸, which includes substantial measures for the development of higher education and universities, provides only marginal support for R&I activities. Coinciding with the reconvening of the NRC, a new NRP for the 2023-2028 period was drafted during autumn 2022 and has been undergoing stakeholder discussion in November and December 2022. The NRP draft sets out ambitious goals for the upcoming six-year period to support research activities including: a) Development of an effective system of scientific R&I; b) Development and training of human capacities for research-scientific activities; c) Development of scientific research infrastructure; d) Internationalisation of research-scientific activities; e) Inter-relation between science, economy and society; and f) Excellence in research-scientific activities in specific fields. In addition, the NRP has identified four main and two cross-cutting scientific priorities: Health, Society, Energy & Environment, and Agriculture, with the crosscutting ones in: Green Deal and Digitalisation. According to the draft NRP 2023-2028, the research budget plans for 2023 are around 0.32% (10.27 million euros) of the national budget⁹. On the other side, higher education institutions in Kosovo, as the main actors of R&I activities and potential recipients of the R&I budget are mainly focusing on teaching. Research is not a

⁴ Mapping of Research and Innovation System in Kosovo (2019).

⁵ Note: According to the Frascati Manual's criteria for the allocation of research funds, the majority of funds for higher education/universities are accounted also as research funds (used for salaries of academic/research staff, infrastructure used for research and university funds for research). However, in Kosovo, there has been no comprehensive analysis conducted to determine the exact percentage of funding allocated to universities that is also used for research activities.

⁶ The calculation is based on 2019 data.

⁷ <https://masht.rks-gov.net/ligj-per-inovacion-shkencor-dhe-transfer-te-dijes-dhe-teknologjise/>

⁸ <https://masht.rks-gov.net/en/education-strategy2022-2026/>

⁹ Kosovo's budget for 2023 was indicated in the amount of 3,21 billion euros: <https://gzk.rks-gov.net/ActDocumentDetail.aspx?ActID=68589>



focal point and merely serves the purpose of academic promotion. This is due to the absence of concrete legislative measures to both stimulate and boost R&I activities in universities.

Kosovo is currently not part of the European Innovation Scoreboard (EIS), and as such, an innovation index report is not available. However, in the Economic Reform Programme (ERP) 2022-2024¹⁰, the Government of Kosovo has indicated plans to apply for EIS membership and establish an inter-ministerial group for (1) setting priorities to identify, collect and submit the data needed for the EIS; (2) secure sufficient funding and personnel to support this work; (3) develop a plan to continue to support the EIS from the initial stages until the data collection is embedded into routine operations of the Kosovo Agency for Statistics (ASK) and related Ministries; and (4) coordinate with other national projects that seek to promote research, development, and innovation in Kosovo.

Kosovo currently provides limited data and statistics of its R&I sector. Therefore, the Kosovo Research Information System (KRIS) is being developed with donor funding¹¹. KRIS aims to gather and accumulate systematic data on research and to produce statistics on key research indicators. According to MESTI, the KRIS is expected to be operational in 2023, with the data collection covering researchers, research institutions and infrastructure, publications and research financing and projects. It is anticipated that the KRIS will provide information to fill in several gaps on STI data to the extent possible with the expectations of Kosovo Agency of Statistics and EUROSTAT.

Data on research publications is limited as Kosovo doesn't yet have full access to SCOPUS or Web of Science databases. Data retrieved from the AD (Alper-Doger) Scientific Index 2023¹², which generates research output data based on the Google Scholar registered profiles of researchers, lists only two researchers from Kosovo in the top 10% scientists of the world. This is out of 778 registered researchers affiliated with 13 higher education institutions from a total of 3.275 full time equivalent (FTE) academic staff declared in all HEIs in Kosovo during the academic year 2021/22¹³. Data for co-publications with international researchers is not available.

Kosovo possesses an established legal framework for acknowledging and validating research and innovation outcomes, including intellectual property rights, patents and trademarks. This includes the Law No. 04/L-065 on copyright and related rights¹⁴, Law No. 04/L-029 on Patents¹⁵, Law No. 04/L-026 on Trademarks¹⁶, and Law No.04/L-028 on Industrial Design¹⁷. This legislation was aligned with the respective EU acquis legislation and supported by the EU funded project "Strengthening the Intellectual Property Rights System in Kosovo"¹⁸. However, the policy and legislative framework currently lacks clear provisions to encourage research activity for industrial actors. There is no established system in place to, e.g., track joint work, research co-

¹⁰ <https://konsultimet.rks-gov.net/viewConsult.php?ConsultationID=41299>

¹¹ Supported by projects: the EU financed project under Erasmus+ "Enhancing Research Culture in Higher Education in Kosovo" (<https://researchcult.net/>), and Collaboration between the Austrian Government and MESTI for the project "Higher Education, Research and Applied Science +" (<https://www.heraskosovo.org/>).

¹² AD Scientific Index calculates data based on the values of the i10 index, h-index, and citation scores, in 12 scientific areas. <https://www.adscientificindex.com/pdfs/toplists/kosovo-top-scientists.pdf?v1660423114>

¹³ Data from Kosovo Agency of Statistics: https://askdata.rks-gov.net/pxweb/sq/ASKdata/ASKdata_Education/

¹⁴ http://www.auroriks.com/repository/docs/LAW_NO_04_L_065_ON_COPYRIGHT_AND_RELATED_RIGHTS.pdf

¹⁵ <https://kipa.rks-gov.net/desk/inc/media/888B0AB6-F08D-457E-9A9D-FF87F893E34C.pdf>

¹⁶ <https://kipa.rks-gov.net/desk/inc/media/A0537EC7-A1CF-468A-B9FB-508018AF0EB4.pdf>

¹⁷ <https://kipa.rks-gov.net/desk/inc/media/F9B05496-2C24-4D71-B622-3D47454541BE.pdf>

¹⁸ <https://kipa.rks-gov.net/desk/inc/media/C9948B76-D6E5-4408-A34D-71BD28AA1AA8.pdf>

publications, and innovation co-creations between academic and research institutions with industrial partners. Thus, there is a need for a new policy initiative that concerns regulation and financing, in order to increase collaborations and to further encourage triple and quadruple helix measures in Kosovo. Its implementation would lead on the one hand to higher education institutions being more consistently encouraged to develop and fulfil third and fourth university missions, in particular by enabling knowledge and technology transfer. On the other hand, industrial actors can co-finance such initiatives and benefit from them, giving them a competitive advantage in the market.

Kosovo is not included in the WIPO database, meaning that there is no data for patents on a global level available for Kosovo. The Kosovo Industrial Property Agency (KIPA) accepts and evaluates applications for patents, trademarks and industrial designs. According to KIPA's published data¹⁹, the number of patents and industrial designs remains consistently low in Kosovo, with variations during 2017-2021 (Figure 1). This was due to a lack of the development of an innovative industry in Kosovo on the one side, and to the fact that Kosovo is not yet a member of the European Bureau of Patents, as explained in the KIPA's annual report for 2021 on the other side. The number of trademark applications have been much higher in numbers, with a steady increase from 2017 to 2020, while a slight decrease for 2021 can be observed.

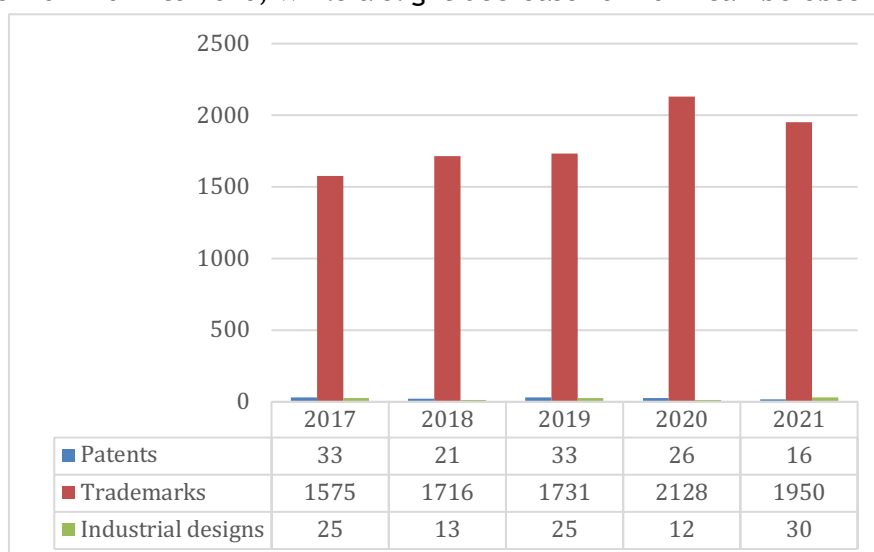


Figure 1: Patent, industrial design and trademark applications during 2017-2021²⁰

1.2 ERA Priority 2a: Optimal transnational cooperation and competition

In 2016, Kosovo signed the Stabilisation and Association Agreement (SAA) with the European Union (EU), making a joint effort to bilaterally cooperate in the field of education, training, research and technological development (articles 107 and 118). Following the SAA implementation, in 2021 Kosovo signed an agreement with the EC for the association to the European Framework Programme for Research and Innovation, Horizon Europe (HE), which became effective as of 2022. Kosovo allocates around one million Euro annually for the associated membership to HE. Details regarding Kosovo's involvement in this programme are outlined in chapter 2 of this report.

¹⁹ KIPA Annual Report 2021: <https://kipa.rks-gov.net/desk/inc/media/F00D6BBA-E8B5-4AD0-B063-4967FD528710.pdf>

²⁰ KIPA Annual Report 2021: <https://kipa.rks-gov.net/desk/inc/media/F00D6BBA-E8B5-4AD0-B063-4967FD528710.pdf>



Kosovo has started to participate in several other science, technology and innovation (STI) programmes of the European Union (EU). Yet, data on participation in European and international programmes are partial and scarce in some programmes.

In the European Cooperation in Science and Technology (COST), Kosovo has gained the status of a Near Neighbour Country (NNC). It is noted that in recent years, there has been increased participation from Kosovo, with 98 participants taking part in 67 actions.²¹

Kosovo is an active participant in the Erasmus+ programme, with a particular focus on higher education initiatives. Between 2015 and 2020, Kosovo realised 5,954 mobilities under the International Credit Mobility scheme, from which 2,074 (35%) were incoming mobilities from European countries to Kosovo. Furthermore, 28 student beneficiaries were included in the Erasmus Mundus Joint Master Degrees during this period. Kosovo has participated more actively in the Erasmus+ Capacity Building in Higher Education (CBHE), with a total of 38 CBHE projects being granted between 2015 and 2020, involving approximately 142 partners from Kosovo. Of these projects, 10 were coordinated by Kosovo HEIs²². In 2022, Kosovo's HEI and Vocational Education and Training (VET) institutions were awarded 23 projects, including 13 higher education capacity building projects, one Jean Monnet project, and 9 vocational education projects.

Kosovo joined the COSME program in 2018, which is now known as the Single Market Programme. However, participation in projects so far remains low. At present, Kosovo has not participated in the EUREKA programme. Although Kosovo is a member of NEIA (New European Innovation Agenda) and ERA (European Research Area), its participation in their actions remains limited.

Kosovo has a bilateral cooperation agreement in place with Austria primarily aimed at supporting technical assistance for Kosovo in enhancing the STI sector²³. This collaboration has been regularly financed for over 20 years now. Partial support from this collaboration has funded small scale collaborative research projects among researchers in Kosovo, Austria and other economies from the Western Balkans. The collaboration also supports researchers from Kosovo to conduct PhD and post-doctoral research work in Austria. In addition, Kosovo has signed a co-financing collaboration agreement with the US Government for the Fulbright programme, which supports mutual academic and research mobility and exchange between higher education institutions from both economies.

In 2022, Kosovo developed a digital agenda roadmap, in order to advance e-governance services²⁴ for both legislative measures and policy actions. In addition, Kosovo is collaborating with Germany; the Gesellschaft für Internationale Zusammenarbeit (GIZ) is financing the establishment and operation of the Innovation and Training Park (ITP) in Prizren²⁵, which is being financed from the German Government, the EU and other funds. This facility provides opportunities and support for incubators and accelerators for entrepreneurial ideas, as well as support for start-ups, and it also provides training and recreational services. The ITP promotes collaboration among businesses, research and educational institutions, as well as government and non-governmental organisations. Five grants worth up to 50,000 Euros each are being offered for collaboration between academia and enterprises in applied research through the initiative #Digital4Business.²⁶

²¹ Based on data received from MESTI.

²² <https://erasmuspluskosovo.org/en/erasmus/projects/>

²³ Higher education, research and applied sciences project: <https://www.heraskosovo.org>

²⁴ <https://opendatakosovo.org/wp-content/uploads/2022/07/Kosovo-Country-Report-2022.pdf>

²⁵ <https://itp-prizren.com/>

²⁶ <https://itp-prizren.com/position/faq-on-the-call-for-proposals-for-the-activity-fostering-applied-research-in-kosovo/>

Kosovo is not part of the EU Strategy for the Danube Region, nor is it part of the Adriatic Ionian EU Strategy or the Central European Initiative (CEI)²⁷. However, Kosovo is involved of other regional initiatives such as the Western Balkans Agenda on Innovation, Research, Education, Culture, Youth and Sport, and the Western Balkan Regional R&D Strategy for Innovation²⁸. As such, it collaborates with other Western Balkan economies on joint regional measures.

1.3 ERA Priority 2b: Make optimal use of public investments in research infrastructures

Data for research infrastructure in Kosovo are almost non-existent. In 2022, the Regional Cooperation Council (RCC)²⁹ facilitated the drafting of the first research infrastructure roadmap for Kosovo and other Western Balkan economies, partly adapting the ESFRI approach. The roadmap's key recommendations suggest to enhance data collection in research infrastructures, and allocate more funding for investments in this regard. The roadmap also provides a register of research equipment and their estimated expenses, collected through a piloting process phase with a few higher education institutions in Kosovo.

Thereupon, Kosovo started developing a comprehensive register of research infrastructure, which is composed as one module of the KRIS. The broader objective of KRIS in this context is to provide to some extent Open Access information about the various types of research infrastructure, the type of equipment, their state of condition, estimated costs and investment sources, as well as their availability to be utilised for research work from researchers and research institutions. In addition, the new draft of the NRP 2023-2028 dedicated one main objective to the development of research infrastructure in Kosovo. This includes: Investment in research laboratories and equipment comparable to international standards; promotion of science and Open Access in scientific journals and electronic libraries across all disciplines; providing adequate spaces for reading, studying and online communication; Open Access to scientific research infrastructure for all scientific researchers in Kosovo; providing scientific infrastructure for interdisciplinary studies in the areas of environment, energy and the green deal; and providing support to e-infrastructure. To implement these measures, around 2 million euros annually have been earmarked in the NRP for the next six years to come (2023/28).

Kosovo joined GÉANT as an associate member in 2021. This was facilitated by the support of the KODE project running, which was implemented by the Ministry of Economic Development from 2018-2023. This project has facilitated the establishment of the Kosovo Research Education Network³⁰, with the objective of linking higher education institutions in Kosovo to it and delivering digital services to these institutions, as well as to academics, researchers, and students.

In 2012, Kosovo participated for the first time in the European Social Survey (ESS). It re-joined ESS in 2022 again, and yet MESTI is putting up a national team of researchers for this purpose.

Regarding regional research infrastructure initiatives, Kosovo joined COBISS (Co-operative Online Bibliographic System and Services)³¹. COBISS is a network that interconnects the bibliographic systems of the Western Balkan economies and facilitates the unrestricted dissemination of bibliographic information.

There are currently no projects recorded for Kosovo's participation in ESFRI. However, Kosovo is a co-signatory of the collaboration agreement for the SEEIIST (Southeast European International

²⁷ <https://www.cei.int/member-states>

²⁸ <https://www.rcc.int/docs/325/western-balkans-regional-r-and-d-strategy-for-innovation>

²⁹ <https://www.rcc.int/pubs/144/a-framework-for-research-infrastructure-roadmaps>

³⁰ <https://kren-ks.eu/>

³¹ <https://ks.cobiss.net>

Institute of Science and Technology) initiative. Additionally, the government has plans to join two other Pan-European initiatives, namely the European High Performance Computing Joint Undertaking (EuroHPC JU) and the European Open Science Cloud (EOSC)³², by 2023.

1.4 ERA Priority 3: An open labour market for researchers

No research institution from the Kosovo has endorsed the Charter and Code for Researchers, thus it is not possible to advertise open research positions outside of Kosovo. Additionally, a national portal for EURAXESS has not yet been developed, even after being granted association status to Horizon Europe. As a result, the ERA priority 3 headline indicator (Researcher's posts advertised through the EURAXESS job portal per 1,000 researchers in the public) is not available. In promoting the movement of researchers to and from EU Member States, Kosovo uses opportunities to participate through Erasmus+ KA1 projects, COST initiatives, as well as the CEEPUS programme, a Central and Southeast Europe collaboration programme for mobility and networking of universities³³. In addition, MESTI offers funding for short-term research mobilities, enabling researchers to participate in international scientific conferences and present their work. This funding is provided through the NRP. Furthermore, small grants are provided from the NRF to cover researchers publication fees for their research articles in international research journals indexed in SCOPUS and Web of Science.

Only the University of Prishtina “Hasan Prishtina” offers doctoral studies in Kosovo, while no other universities or higher education institutions provide doctoral studies. The statistical report published by MESTI does not provide data on the number of international students pursuing doctoral studies in Kosovo.³⁴ Furthermore, there is no evidence of any initiatives to attract international students to pursue doctoral studies at any higher education institution in Kosovo. The NRP 2023-2028 includes measures that bolster PhD programmes in Kosovan universities. These measures include collaborations with international partners to provide joint programmes and scholarships and financing opportunities for Kosovan students pursuing PhD studies internationally. However, there are no initiatives planned to finance the support of international students seeking PhD studies in Kosovan universities.

1.5 ERA Priority 4: Gender equality and gender mainstreaming in research

Data regarding gender equality in research for Kosovo are only partial. Kosovo is not included in SheFigures 2021³⁵, nor in the UNESCO's Women in Science database³⁶. Thus, the ERA Priority 4 headline indicator (Share of women in Grade A positions in the Higher Education Sector), one EMM (ERA monitoring mechanism) indicator (Gender dimension in research content), and two other indicators under this priority (Women contributing to publication output; and Women in STEM) are not available.

Nevertheless, data provided by the Kosovo Agency of Statistics (KAS) and MESTI show that out of 3,275 FTE academic staff employed in all HEIs in Kosovo in the academic year 2021/22³⁷, 48%

³² Interview with MESTI representatives.

³³ <https://www.ceepus.info/default.aspx>

³⁴ MESTI, Education Statistics in Kosovo: <https://masht.rks-gov.net/statistikat-e-arsimit-ne-kosove-2021-2022/>

³⁵ <https://op.europa.eu/en/web/eu-law-and-publications/publication-detail/-/publication/67d5a207-4da1-11ec-91ac-01aa75ed71a1>

³⁶ <http://data.uis.unesco.org/>

³⁷ Kosovo Agency of Statistics: https://askdata.rks-gov.net/pxweb/sq/ASKdata/ASKdata_Education/

were female, which is an almost equal distribution between the two genders. There are no data available on the share of women in Grade A positions in the higher education sector. Data are also not available for researchers employed in research institutes and in other research-related organisations.

Enrolment statistics from the University of Prishtina show that for the 2019-2022 period there were 328 doctoral students enrolled in 22 doctoral programmes, of whom 56% were women. Newer statistics show that this percentage is increasing. For new PhD enrolments in the 2021/22 academic year, out of 54 candidates enrolled 63% were women. This is a much higher portion of women included (14.9% higher) than the EU-27 average for 2021 (48.1%).

Kosovo is not listed in the Gender Inequality Index (GII) reports³⁸. Data on enrolments in the three cycles of higher education provided by MESTI and KAS on an annual basis do not disaggregate the data by field of study, thus do not allow to estimate the participation of women in STEM (science, technology, engineering, and maths).

Data on higher education students in all three cycles of studies for the academic year 2021/22³⁹ show that female participation is dominant. Out of a total of around 91,897 students in all higher education institutions in Kosovo, 58.3% are female (58% female at Bachelor's level, 61% female at Master's level, and 56% female at Doctoral level).

The Kosovo Program for Gender Equality 2020-2024⁴⁰ provides marginal measures to support more gender equality in STI. Under the second pillar “Human Development, Roles and Gender Relations”, the programme foresees more grants for science and research for female researchers, with a support of around 40,000 euros over four years. The higher education measures of the Kosovo Education Strategic Plan 2022-2026 include only one indicator related to promotion of women in STEM: “Increased participation of girls in STEM programs, through motivation with scholarships”. In this context, MESTI offers annual scholarships for all female students attending studies in STEM study areas in public universities, while no such opportunity and support is provided for their counterparts studying in non-public HEIs.

1.6 ERA Priority 5a: Optimal circulation, access to and transfer of scientific knowledge including knowledge circulation

Kosovo is at an early stage regarding innovation. Besides the endorsed Law on Scientific Innovation and Transfer of Knowledge and Technology, there is no comprehensive policy framework to support innovation activities. The Kosovo Innovation Council and the Innovation Fund provided for in the law have not yet been established, so the innovation sector lacks both policy guidance and financial instruments. The main existing policy basis that explores the implementation of measures in the innovation area is the Kosovo Economic Reform Programme 2022-2024 (KERP), which provides several measures, such as: endorsement of laws for innovation and entrepreneurship, as well as for an innovation fund and the related by-laws; functionalisation of the Kosovo Innovation Council, development and implementation of financing schemes for innovation and technology transfer, including scientific publications; as well as investments in the educational and research infrastructure to also support innovation activities⁴¹. The estimated costs to implement these measures are approximately 9.2 million

³⁸ <https://hdr.undp.org/data-center/thematic-composite-indices/gender-inequality-index#/indicies/GII>

³⁹ Kosovo Agency of Statistics: https://askdata.rks-gov.net/pxweb/sq/ASKdata/ASKdata_Education/

⁴⁰ <https://abgj.rks-gov.net/assets/cms/uploads/files/Programi%20i%20Kosov%20C3%ABs%20p%20C3%ABr%20Barazi%20Gjinore%2020-2024%20-%20ANGLISHT.pdf>

⁴¹ Kosovo Economic Reform Programme 2022-2024: <https://konsultimet.rks-gov.net/viewConsult.php?ConsultationID=41299#:~:text=Within%20the%20dialogue%20for%20economic%20governance%20between%20Kosovo,and%20the%20budget%20for%20the%20next%20three%20years.>

euros for three years. The Government of Kosovo has indicated that it intends to become a member of the European Innovation Scoreboard (EIS) in 2024.

Kosovo does not participate in the Community Innovation Survey (CIS), thus the ERA Priority 5a Headline indicator (Share of product and/or process innovative firms cooperating with higher education institutions or public/private research institution) cannot be covered. Because Kosovo is not yet included in the Scopus databases, the two EMM indicators under this priority (Share of public research financed by the private sector (HERD by BERD); and Number of public-private co-publications per million population) are also not available.

1.7 ERA Priority 5b: Open Access

In general, Kosovo has not yet developed a comprehensive policy to support Open Science. It is also not included in the EU Open Science monitor analysis.

However, Kosovo has launched some initiatives in 2020/22 to promote opportunities for Open Science. First, the development of KRIS aims at providing possibilities for Open Access publications in scientific journals developed in Kosovo's research institutions and indexed in KRIS. This initiative, as well as the establishment of at least six Open Access scientific journals in key research priorities in Kosovo, is supported by the Erasmus+ funded project "Enhancing Research Culture in Higher Education in Kosovo (ResearchCult)"⁴².

Second, the draft NRP 2023-2028 includes some measures to support Open Access publications for researchers and to provide access to e-libraries for researchers and research institutions. Approximately 200,000 euros have been provided annually for six years for this purpose.

Third, in 2020, Kosovo joined the Open Access Research Infrastructure in the Western Balkans Support Programme, which was facilitated by the RCC. This initiative provides training for WB representatives, including Kosovo, and has facilitated the endorsement of a Protocol on Open Access to Research Infrastructures in the Western Balkans, based methodologically on the European Charter for Access to Research Infrastructures.

Finally, MESTI carried out a few workshops with HEIs regarding Open Access activities supported by the Austrian government-funded project "Quality, Accountability, Integrity and Transparency in Higher Education (QAINT)".

Kosovo is not listed in Scimago, neither OpenAIRE or Pasteur4OA databases, thus the ERA Priority 5b Headline indicator (Share of a country's scientific publications available in OA (green and gold)) is not available for Kosovo. Likewise, Kosovo is not included in the ROARMAP (Registry of Open Access Repository Mandates and Policies) database, so the ERA Priority 5b EMM indicator no. 1 (Share of research funding organisations (RFOs) providing funding to cover the costs of making publications available in OA) and EMM indicator no. 2 (Share of research performing organisations (RPOs) making their research data available in OA) are not available.

1.8 ERA Priority 6: International cooperation

On the policy agenda, Kosovo systematically promotes international cooperation in STI. The Objective 4.4 of the KESP 2022-2026 "*Internationalization of higher education through joint study programmes, increase of participation in international programmes of academic and scientific cooperation, as well as integration in the European Higher Education Area*" provides a profound support for collaboration of Kosovo's HEIs with European and international partners, as well as fostering participation in European programmes for higher education and research. Furthermore, Objective 4 of the draft NRP "*Internationalization of research-scientific activity*" supports direct measures to enhance the internationalisation of scientific activity in Kosovo,

⁴² <https://researchcult.net/>



including: Networking of Kosovo’s research institutions in HE, COST, and other programmes alike; supporting mobility programmes for researchers; supporting joint projects with leading international scientific institutions; and supporting collaboration initiatives with the research diaspora. In line with these measures and with the increased performance in terms of participation in Horizon 2020 projects (around 22 projects with approximately 2.56 million euros), Kosovo established a good basis towards the associated status in HE, which was formalised during 2021. During 2022, MESTI re-staffed the NCP team, and established a team for the Programme Committees, which started to regularly attend meetings of the respective committees. Several trainings were provided for the NCP team, as well as for the researchers, academia, and representatives of the private sector and civil society organisations in the project preparation for HE.

Kosovo has several bilateral agreements in place with for example Austria, Germany, Hungary and the USA to support measures in science, technology and innovation collaboration. In this regard, collaboration with Austria has been going on for more than two decades through the Austrian Development Agency. It focuses on capacity building for the respective Government departments (on policy development and implementation) for higher education and science development on the one hand and with universities and their development on the other hand.

Kosovo has seen increased participation in the Erasmus+ programmes for higher education, VET, youth and sports (see Chapter 2, under priority 2a). Other collaboration instruments for higher education and researchers include the CEEPUS programme, and several bilateral programmes supporting scholarships in all three study cycles for studying at European and international universities, such as cooperation agreements with the Austrian, Hungarian, and Japanese governments, and the University of Sheffield from the UK (renewed annually between 2009-2022).

All universities in Kosovo have developed internationalisation strategies, which were significantly supported by the Erasmus+ funded project “Quality development of international cooperation and project management” (QUADIC)⁴³. The project has also provided training for academic personnel and project support offices to write and prepare international collaboration projects.

As noted under priority 1, Kosovo is not listed in Scopus, making it impossible to also estimate ERA Priority 6 headline indicator (International co-publications with ERA partners and with non-ERA partners).

2 Horizon Europe participation and financial contribution

Kosovo started to participate in the European Framework Programme for Research and Innovation around the midst of the Seventh Framework Programme (FP7), as an international cooperation partner country (ICPC), with seven projects awarded. In Horizon 2020, Kosovo’s participation has been more successful, with 21 projects awarded, reaching an EU net contribution of 2.56 million euros.

⁴³ <https://quadic.net/>

Figure 2: Participation across European Framework Programmes

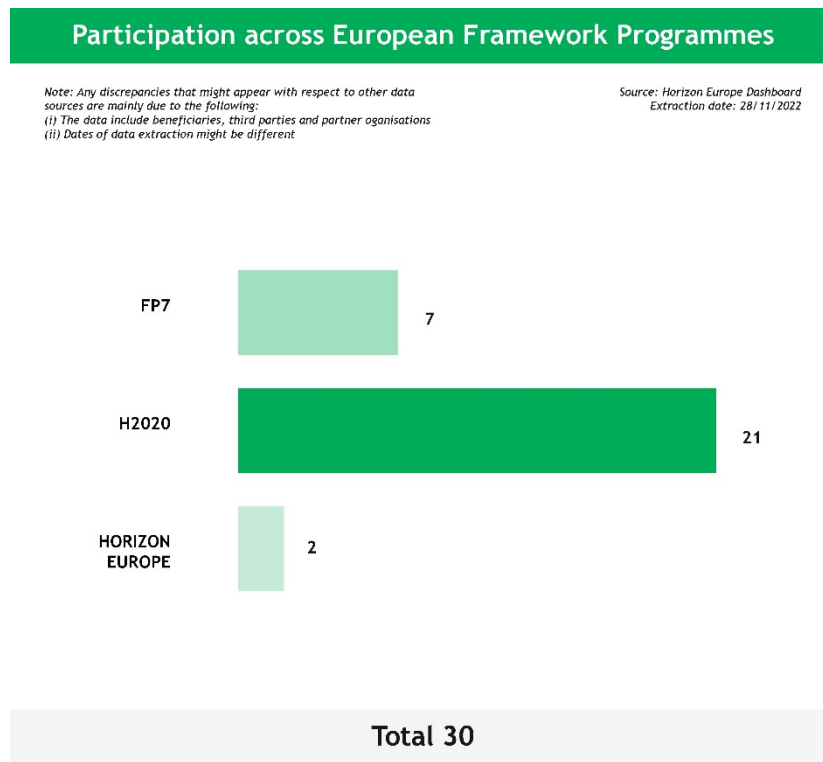
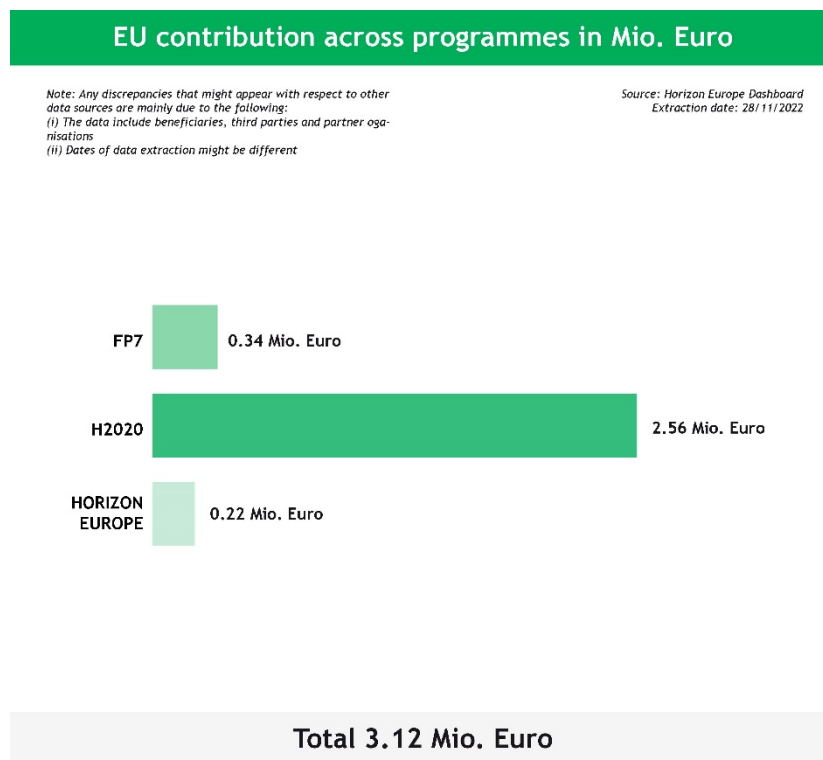


Figure 3: EU contribution across programmes in Mio. Euro



At the beginning of Horizon Europe, legal entities from Kosovo participated in 50 proposal applications, of which 40 were in eligible applications. Only 2 were selected for funding, with an EU net contribution of 0.22 million euros. This corresponds to a success rate below the EU average success rate.

Figure 4: Data for signed grants up to 28/11/2022

Data for signed grants up to 28/11/2022

Note: Any discrepancies that might appear with respect to other data sources are mainly due to the following:

(i) The data include beneficiaries, third parties and partner organisations
(ii) Dates of data extraction might be different

Source: Horizon Europe Dashboard
Extraction date: 28/11/2022

Kosovo	
Total number of participations	2
Total net EU contribution	0.28 Mio. Euro
Number of applications	50
Number of EIC participations	0
Number of MSCA participations	0
Number of Seals of Excellence	0
Number of SME participations	0
Number of signed grants	2
Number of eligible proposals	40

Of the two projects awarded to Kosovo applicants, one belongs to the HE Pillar 2 (Global Challenges and European Industrial Competitiveness), with an EU net contribution of 7,000 euros, and the other was financed under the Pillar “Widening participation and Strengthening the European Research Area” with an EU net contribution of 21,000 euros. Although the number of applications has increased in the last years, the success rate still remains low. Thus, Kosovo’s applications need to increase their qualitative competitiveness both in project proposals as well as in the consortium selection.

Figure 5: Participation in Horizon Europe programmes by thematic priority

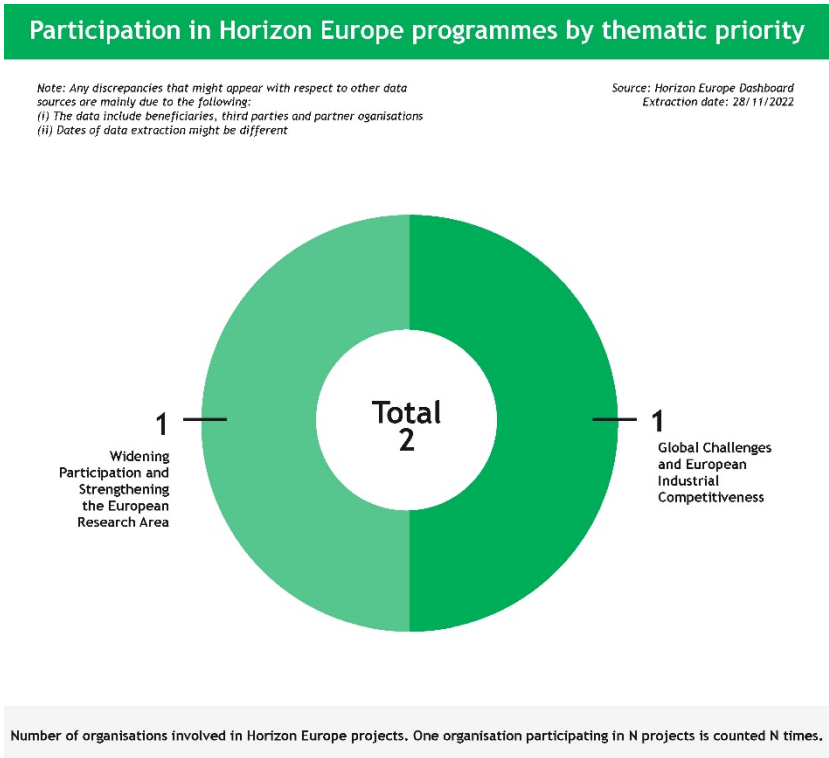
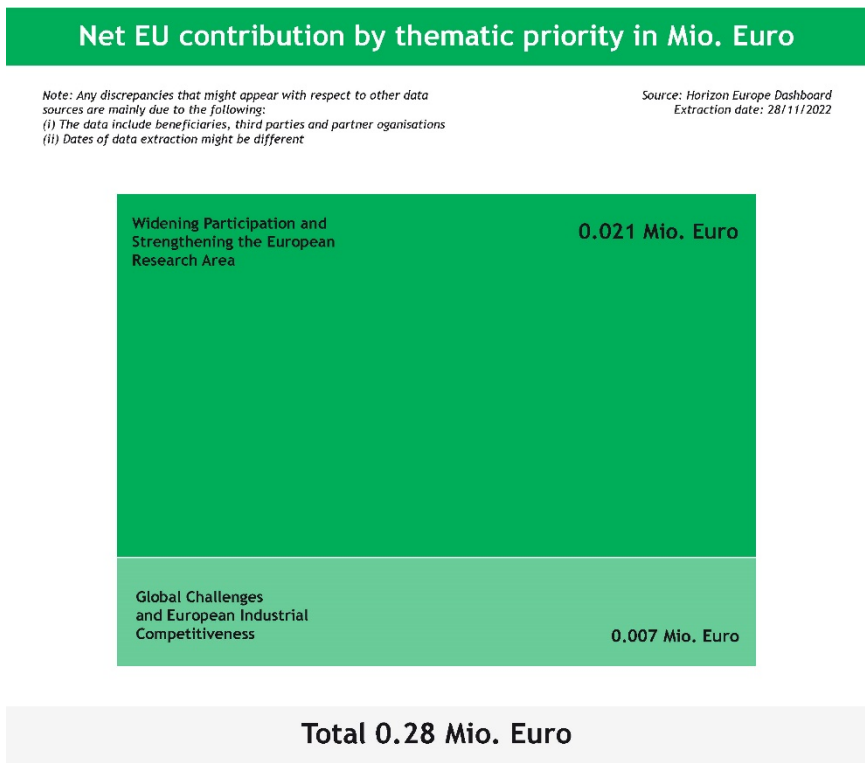


Figure 6: Net EU contribution by thematic priority in Mio. Euro



3 Smart Specialisation Strategy

Under the coordination of the Prime Minister's Office (PMO), the Office of Strategic Planning (OSP) respectively, Kosovo started to develop a Smart Specialisation Strategy (S3) in 2018. For this purpose, in the same year the PMO established an inter-ministerial working group, which was extended to a National Team (NT) in 2020, following the EC Joint Research Centre's (JRC) guidelines for this purpose. Under the coordination of the OSP, the NT prepared a working plan, setting out the actions to be undertaken and the timetable for the development of the S3.

Based on the JRC S3 development guidelines, Kosovo has reached the 5th step of S3 development in 2022, namely the stakeholder dialogue, which followed the completion of two main processes: the quantitative mapping in 2020, and the qualitative mapping that ended in May 2022.

According to MESTI, the process is still in the stage of defining S3 priorities, which will continue during 2023. Currently, the first thematic areas identified through the qualitative and quantitative mapping process for S3 include the following five main themes, with their respective sub-themes:

1. Information and Communication technologies (ICT) sector
 - Software Development (sub-area)
 - Computer Programming Services (sub-area)
 - Telecommunication Services (sub-area)
 - Advanced ICT services including IOT, AI, Machine Learning (potential sub-area)
2. Green Energy
 - Renewable Energy Sources (sub-area)
 - Energy Efficiency Measures (sub-area)
3. Creative Industry
 - Marketing and Digital Creation Services (sub-area)
4. Food Processing
5. Wood Processing

Currently, as of the writing of this report, intensive workshops are being organised within the Entrepreneurial Discovery Process (EDP) for each thematic area to engage relevant stakeholders. The purpose of these workshops is to gather input from stakeholders on policy measures that align with strategic goals, preferred policy actions, and performance indicators. However, no reviewed documents provide any indication of the expected timeline for the completion of the S3 development in Kosovo, except for the government's commitment to develop the S3 strategy as outlined in the ERP 2022-2024.

4 Conclusion

Kosovo is moving towards a more advanced policy framework for STI. The NRC has reconvened to develop new research development objectives and priorities for the drafting of the Kosovo Research Programme for 2023-2028. The NRC has proposed ambitious measures to advance research activities in Kosovo over the next six years. Additionally, the NRC has recommended a tenfold increase in the research budget within the NRP budget, starting with 0.32% of the national budget in 2023 (approximately 10.27 million euros)⁴⁴. These measures indicate a significant change in the government's priorities, specifically supporting research initiatives.

⁴⁴ Note: This percentage number from the NRP budget is planned according to the National Research Council to effectively implement the NRP, but varies from the percentage number that is actually being allocated by the government (see chapter 1.1).



Nevertheless, challenges remain in the administrative capacities of MESTI to implement the NRP measures concerning the planned budget and financing schemes, including a peer-review project evaluation practice, as well as in the capacities of universities and research performing organisations to prepare qualitative applications to utilise these funds.

Innovation activities in Kosovo remain only marginally framed in the policy documents, a result of fragmented planning. While the Law on Scientific Innovation and Transfer of Knowledge and Technology provides some regulations for innovation activities, a solid basis for establishing the structure, instruments and implementation mechanisms of an Innovation Fund does not yet exist. The Kosovo Economic Reform Programme 2022-2024 aims to address identified gaps, with anticipated impacts in the next two years. The government's objective to achieve membership in the European Innovation Scoreboard by 2024 is welcomed, as it will enable better development guidance for Kosovo's R&I system.

One of the primary challenges is that Kosovo has yet to organise measures for research and innovation (R&I), which is essential for implementing the S3. The current efforts to develop a research policy document (NRP) and subsequently an innovation strategy make it difficult to provide systematic R&I integrated measures. With the inclusion of education, science, technology and innovation under the MESTI mandate, Kosovo should progress towards establishing a joint umbrella strategic framework for R&I, encompassing both legislation and policy framework, and incorporating a single national fund that includes respective financing instruments for R&I. This will enable the better coordination and administration of policy implementations whilst also facilitating the mainstreaming of financial support for R&I performers. Furthermore, it is necessary to develop additional legislative and policy measures that support initiatives among performers of research and innovation activities.



ABOUT POLICY ANSWERS

POLICY ANSWERS (R&I POLICY making, implementation ANd Support in the WEsteRn BalkanS) supports policy coordination in the Western Balkans and with the EC and the EU. 14 partner organisations, representing network nodes in the region and EU expert organisations, support policy dialogue through formal meetings (such as ministerial and steering platform and ad-hoc policy meetings), monitoring and agenda setting, capacity building and implementation of the EU's Western Balkan Agenda, as well as the alignment of thematic priorities. The project implements regional pilot activities and offers an information hub based on the westernbalkans-infohub.eu online information platform. The partners provide analytical evidence via monitoring and mapping activities of the stakeholder ecosystem, of the implementation of the Western Balkans Agenda and of the Western Balkans' integration into the European Research Area as well as via strategic foresight. POLICY ANSWERS also allows for tailored and targeted capacity building activities in the Western Balkans as well as regional alignment of priorities in relation to the digital transformation, the green agenda and towards healthy societies. Pilot activities provide learning opportunities on policy and programme level and reach out to final beneficiaries related to improved academia-industry cooperation, researcher mobility, inclusion of youth in policy processes, promotion of research infrastructures and increased innovation skills in all areas.