

Policy Briefing Paper

RESEARCH AND INNOVATION ECOSYSTEM IN KOSOVO – CHALLENGING THE STATUS QUO

Introduction

Research and Innovation (R&I) are essential for the creation of sustainable new jobs and for the development of highly skilled human resources capable of carrying out the economic and social development in Kosovo. However, current key performance indicators for Research and Innovation in Kosovo are unsatisfactory and require immediate action from the policymakers and research performers. Failure to ACT NOW to improve the R&I ecosystem in Kosovo will result in a under-developed economy characterised by low competitiveness in the region, inefficient second-rated Higher Education System, high unemployment, and overall low social prosperity in Kosovo.

The current policy brief builds on the findings from the Higher Education, Research and Applied Science (HERAS) Kosovo programme and the input from the wide consultations with the R&I stakeholders in Kosovo, to provide a concise list of recommendations for strengthening the R&I ecosystem in Kosovo. The recommendations are aimed at policymakers, both within the Government of Kosovo (GoK) and Universities, to address *the R&I Governance, Implementation and Performance*.

1. Status-quo of R&I in Kosovo

The proposed R&I recommendations build on two main sources of information which encompass both the published studies in this topic and the stakeholders' input. The Concept Document “Mapping of the Research and Innovation System in Kosovo”¹, published by the HERAS programme, provides a thorough and objective overview of several key studies available on R&I legal and implementation framework in Kosovo. Its findings were then discussed during the roundtable event “*Status quo of Research and Innovation development in Kosovo: Thoughts for Kosovo’s future R&I*”², organised by HERAS Kosovo on 15th of November 2019. The roundtable event brought together around 50 representatives from R&I stakeholder institutions in Kosovo to discuss the findings from the Concept Document, as well as to share the best practices from countries such as Montenegro, Austria and the UK. The Concept Document discussion also extended after the roundtable event, through direct communication with relevant stakeholders.

¹ H. Qeriqi and B. Gallopeni, Concept document Mapping of the Research, Science and Innovation (RSI) System in Kosovo, https://www.heraskosovo.org/publications/Concept_document_Mapping_of_the_Research_and_Innovation_System_in_Kosovo.pdf

² “Status quo of Research and Innovation development in Kosovo: Thoughts for Kosovo’s future R&I”, a roundtable and workshop organised by HERAS Kosovo, funded by the Austrian Agency for Development, 15 November 2019, Prishtina, Kosovo

1.1. Research Performance

The current R&I in Kosovo is failing to keep up with the regional and international increasing pace of research and technology development. Although the level of research funding by law in Kosovo is set to 0.7 % of GDP¹, the funding allocated is much less, and the lowest in the region (Figure 1). However, the evidence so far shows⁴, that even this low level of funding could not be absorbed by the research community in Kosovo, with only less than half of the budget being used.

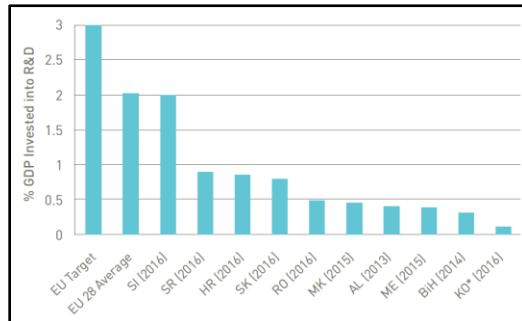


Figure 1. Research and Development country budget, expressed as % of GDP³

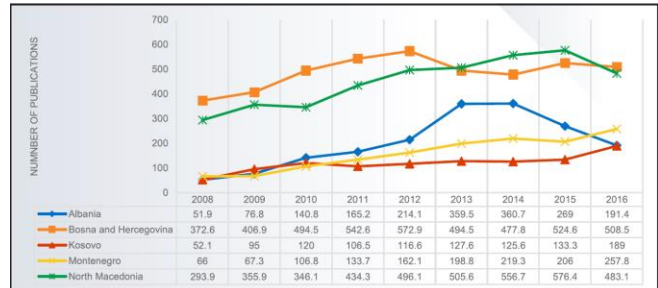


Figure 2. Number of scientific publications in peer-reviewed journals for Balkan countries

The current R&I performance in Kosovo is the lowest in the region, as evidenced by the number of peer-reviewed scientific publications shown in Figure 2. Another very important concern for Kosovo is the lack of growth of the number of research publications over the years, indicating that the current R&I system is not fit-for-purpose.

The Concept Document¹ identifies several aspects that define the R&I system in Kosovo: a) Institutional Framework, b) Research and Innovation Policies, c) the Level of Funding, d) Research Infrastructure and e) the Participation in Regional and International R&I Partnerships. These, together with the seven thesis for improving the research system in Kosovo⁴, are summarised in the following section as **Key Challenges in Governance, Implementation and Performance**.

1.2 Kosovo's R&I Key Challenges

Key Challenge I. R&I Governance: Institutional Framework

a) Institutional Framework. The National Science Council (NSC) has a leading role in establishing and supporting the scientific research in Kosovo, however it is not fully functional. In terms of innovation, the Scientific Innovation Council is not established yet. The R&I legal infrastructure in Kosovo exists⁵ (laws on research, higher education and innovation), however the progress is limited because of the lack of leadership vision on how to grow research and

³ SPHERE, Support to the Higher Education Reform Experts. Research Capacity in Western Balkans, 2017

⁴ K. Schuch, Preliminary thoughts for improving the system of research funding in Kosovo, HERAS workshop, 15 Nov 2019

⁵ Law (No. 04/L-135) on Scientific Research Activities; Law (No.04/L-037) on Higher Education in the Republic of Kosovo; Law (No. 06/L-049) on Scientific Innovation and Transfer of Knowledge and Technology

incorporate innovation in the economy development⁶, as well as largely inefficient policy implementation structures⁷.

b) R&I Policies. The National Research Programme (NRP) was approved in 2010 and has not been updated since then. The NRP is essential to define the roadmap for developing scientific research in Kosovo, including guidance on priority research areas (Smart Specialisation), development of institutional scientific infrastructure, development of human resources and internationalisation of research. Despite the R&I featuring in almost every strategy related to the economic development of Kosovo¹, their impact on actual research and innovation outputs is almost inexistent. This is largely due to limited budget allocation for R&I policy implementation, but also due to the dysfunctionality of implementing structures.

Key Challenge II. Implementation: R&I Delivery Mechanisms

a) R&I Funding Administrative Structure. Best practices from regional and European countries^{1, 7}, highlight the need for the development of an independent, transparent and fair R&I funding mechanism. This can be done through a Department within MEST (current model), or an independent Research Funding Agency (Austrian and UK model). Kosovo is part of several European and regional programs and initiatives that make researchers from Kosovo eligible to apply for research grants in Horizon2020, Erasmus+ and COST. However, they can be competitive for this funding only if they can offer distinctive internationally-recognised research, which currently is not the case (Figure 2).

b) R&I Funding Process. The research funding schemes administered by MEST are characterised by small grants, no transparency during allocation of grants and bureaucratic application procedures⁷. This has led to scientific researchers being discouraged from applying⁷. During the workshop, the benefits of grant applications peer-review and panel evaluations were demonstrated⁸, in which the right of applicants to respond to the reviewers is essential, both as a way of feedback as well as for the identification of conflict of interest. Universities in Kosovo provide limited administrative support for research projects⁷.

c) Research Human Capital and Physical Infrastructure. MEST is responsible for licensing research institutions, however that is not done so far¹. As a result, there is *no database of research institutions, the number of researchers and the available research infrastructure in Kosovo*. High-value research equipment is available in some governmental services⁷, but there is no mechanism to make that equipment accessible to the rest of research community in Kosovo, resulting in poor utilisation of the currently available research equipment. Kosovo lacks statistical data on scientific research and innovation activities generated in Kosovo.

⁶ A Morina, The research and innovation system in Kosovo: An external perspective, HERAS workshop, 15 November 2019

⁷ A conclusion from roundtable discussion: An enhanced system for research evaluation in Kosovo, HERAS workshop, 15 November 2019

⁸ D. Sturn, Different modes of peer review and panel evaluation in Europe, HERAS workshop, 15 November 2019

Key Challenge III. Research and Innovation Performers

a) Universities and Research Institutes. In Kosovo, the Universities are the main research performers, especially in natural sciences and engineering. However, currently, research is not a priority for Universities in Kosovo. This is largely driven by the financial model adopted by the Universities, which focuses mainly on teaching. There is a tendency for the academic staff to increase the number of teaching hours so they can achieve an immediate financial benefit. However, that reduces their time available for research and results in low research performance. This, in turn, leads to low performance in teaching too, resulting in producing graduates with inadequate skills for the current job market. In public HEIs, the publication of research papers is seen only as a requirement for academic promotion. This has led to some undesirable effects such as i) academic staff publishing in journals with questionable reputation for a fee and ii) academic staff not being motivated for continuing to do research once they get promoted³.

b) Postgraduate Research Training. Doctoral training is one of the main mechanisms for performing scientific research while training the next generation of researchers capable of contributing to economic development. In Kosovo, the postgraduate research training is largely managed between the mentor and the candidate, with limited support from the Universities. There is no distinctive partnership developed with international universities and/or industry as a way to improve the quality of doctoral training in Natural Sciences and Engineering. MEST provides a funding scheme for PhD students, however the funding is considered to be too low to have any meaningful impact⁷.

2. RECOMMENDATIONS

An efficient R&I system requires i) a clear vision with an accompanying strategy, ii) strong governance structure, iii) adequate funding, iv) transparent and fair mechanisms for implementation and performance monitoring and v) capable research performing institutions. The recommendations are:

RECOMMENDATION 1. STRENGTHEN THE R&I GOVERNANCE

R1.1 GoK to develop the long-term Strategy for R&I in Kosovo

Key features of this strategy will be the strengthening of Kosovo's R&I performance to be involved in the European Research Area actively and enable them to energise the economic development.

R1.2 GoK to empower the National Science Council for developing the National Research and Innovation Programme

The current National Science Council should evolve into the **National Science and Innovation Council (NSIC)**⁷ to cover both scientific research and innovation. Its membership should include established academics and industrialists, internationally-recognised leaders in their field, from Kosovo, Diaspora and International. The focus on expertise, coming that from within Kosovo or abroad, will ensure the support from across the political spectre in Kosovo. The

NSIC will be responsible for developing the ***National Research and Innovation Programme (NRIP)***, which in practice will be the roadmap for R&I development in Kosovo.

R1.3 In consultation with the NSIC and the Research Funding Agency, MEST to adopt all necessary Administrative Instructions for efficient delivery, monitoring and evaluation of the agreed strategy

Administration Instructions (AIs) should provide step-by-step instructions on implementation of laws and the National Research and Innovation Programme. To ensure that the adopted AIs are efficient, it is recommended that representatives from the NSIC and the Research Funding Agency are regularly consulted during their preparation.

RECOMMENDATION 2. DEVELOP A FIT-FOR-PURPOSE R&I POLICY IMPLEMENTATION SYSTEM

R2.1 GoK to increase the R&I funding to at least the level stipulated in the Law

The GoK should ensure that funding is available for the delivery of R&I Strategy. This should involve research funds i) directly allocated to HEIs and Research Institutes to maintain the core of research infrastructure and ii) competitively distributed through international peer-review transparent and fair evaluation process.

R2.2 GoK to increase the *capacity* and *independence* of R&I policy implementation mechanism

The Research Funding Agency, or equivalent Department in MEST, should be established/empowered with appropriate resources to administer the Delivery Plan of the National Research and Innovation Programme, ensuring the highest level of independence, transparency and fairness. International peer-review evaluation process should be administered for all funding schemes, which can be funding for exceptionally talented researchers-fellowships, doctoral fees and stipends, research infrastructure, research internationalisation etc.

R2.3 Research institution licensing: Mapping of Research Human Capital and Research Infrastructure

MEST to develop a web-based Research Information System (RIS) (guided by the European standard on Common European Research Information Format - CERIF) with information on research human capital and research infrastructure capacities as well as research outputs in Kosovo. Cataloguing, mapping and recording of current research capacities and outputs will provide the reference point for informing i) future national funding decisions, ii) maximum utilisation of research facilities in Kosovo, iii) identifying the existing centres of excellence and iv) identifying the gaps on key skills and research capacities essential for the delivery of R&I Programme.

R2.4 Earmark a proportion of current funding to Public HEIs for research

To incentivise HEIs to develop their research human and infrastructure capacities, MEST should earmark a component of current funding to HEIs under Research. Allocation of this funding would be competitive, following international peer-review of the plans of how that funding will deliver the NRIP.

RECOMMENDATION 3. EMPOWER THE RESEARCH AND INNOVATION PERFORMERS

R3.1 Universities to develop their institutional research strategy

For the Universities in Kosovo to become competitive in the region, they need to up their performance in research. Universities need to develop their institutional research strategy and its delivery plan. Its evaluation should be included in the academic accreditation process.

R3.2 Universities to adapt financial models that incentivise research

Universities should adapt their financial models to reward staff's research achievements not only in their promotion but also in their annual income. However, the impact of this recommendation to incentivise research would be the greatest only after R2.4 is implemented.

R3.3 Establish internal and international University partnerships to increase the critical mass of researchers

Universities should develop formal collaborating mechanisms with established academics from Diaspora and international to develop the critical mass of researchers capable to participate in i) Horizon Europe research consortia and ii) establish Graduate Schools for post-graduate training.

R3.4 GoK to grow research performing capacities outside HEIs – establish the Science & Technology (S&T) Research Institute

The development and delivery of R&I in Kosovo is of strategic importance to the people of Kosovo, hence GoK should explore other ways to generate research, in addition to the research done by the Universities. This is especially the case for research in Natural Sciences and Engineering which have the highest potential to generate internationally-recognised publications and advanced innovations. The GoK should consider establishing the S&T Institute with a similar legal status to the Institute of History and Institute of Albanology. The S&T Research Institute will serve as a national hub that will bring together researchers from Kosovo, Diaspora and International to grow the scientific research profile of Kosovo in the region and wider.

3. Summary

Strengthening the Research & Innovation Ecosystem in Kosovo is of strategic importance for the prosperity of Kosovo. The policy brief addresses the key issues that currently undermine the research and innovation performance in Kosovo, and after a wide discussion with key stakeholders, it recommends several actions for the Government of Kosovo and the Universities. It is of historical importance for the Government of Kosovo to provide the leadership necessary to strengthen the R&I ecosystem in Kosovo. It is also a legal and moral duty for the Universities in Kosovo to develop fertile research and innovation structures and partnerships. Failure to act will have a negative impact for generations to come.

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