

TERMS OF REFERENCE

INDIVIDUAL CONSULTANT SERVICES FOR “MAPPING OF RESEARCH INFRASTRUCTURE AND ESTABLISHMENT OF NATIONAL REGISTER”

PHASE I

(DESIGNING THE METHODOLOGY, TRAINING AND PILOTING)

Project: R&I POLICY making, implementation AND Support in the WEsteRn BalkanS- POLICY ANSWERS”

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1. BACKGROUND INFORMATION

1.1. Partner country

Republic of Albania.

1.2. Contracting authority

The National Agency for Scientific Research and Innovation (NASRI/AKKSHI) on behalf of POLICY ANSWERS project.

1.3. Country background

The project R&I POLICY making, implementation and Support in the Western Balkans supports the policy dialogue including formal meetings, monitoring and agenda setting, capacity building and implementation of the EU's Western Balkan Agenda, as well as the aligning of thematic priorities. It implements regional pilot activities and upgrades an information hub based on the wbc-rti.info platform. The project is being implemented from 14 partner organisations, representing network nodes in the region and EU expert organisation, support policy dialogue through ministerial meetings, Steering Platform meetings and ad-hoc policy meetings. POLICY ANSWERS project also allows for tailored and targeted capacity building activities in the Western Balkans as well as regional alignment 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, youth, promotion of research infrastructures and increased innovation skills in all areas.

Research infrastructures are proven to have a powerful social and economic impact, helping to solve global challenges, but also to attract the best talents. One of the challenges in the WB is that outgoing mobility is higher than incoming mobility, due to underdeveloped research infrastructures (RI) in the region.

Albania is committed to advancing its research infrastructure and aligning its scientific capabilities with those of developed countries in order to facilitate access to research resources and further integrate into the European Research Area (ERA). Investments in research infrastructure are vital for accelerating the country's integration process into the ERA, fostering knowledge and technology transfer, and enhancing macro-regional cooperation to grow research capacities.

In Albania, there has been significant investment in research infrastructure throughout the higher education sector over the last 5 years. Facilitating the widest possible access to this research infrastructure is essential in order to achieve the greatest return on investment and value for money for the state and for the research community in general.

How the mapping and screening of NRI will enhance resilience of research system in Albania?

First, a clear and full picture of NRI will Improve Albania's research commercialization and internationalization further by better harnessing underpinning human and infrastructure capacities, as well as identifying qualitative infrastructure required for cutting-edge researches, both nationally and internationally.

Second, it will help to promote the open access and facilitate mutual use of research infrastructure by researchers, students and innovators, across the region and beyond

Third, it will create a good opportunity for a better cooperation of HEIs with industry through generating:

- Better visibility - making sure industry is aware of NRI and its benefits;
- Better access - providing pathways for industry to access NRI equipment, services, data and expertise;
- Better co-operation - bringing work cultures, practices, priorities and timings into alignment
- Better protections - preserving intellectual property rights and commercial sensitivities;
- Better co-ordination - establishing consistent standards, processes and quality controls;

Fourth, to avoid duplication of effort for RIs funding and to reduce fragmentation of the research and innovation ecosystem

1.4. Current situation in the sector

Albania's research and innovation sector is evolving, with growing recognition of the importance of investing in scientific research for the country's economic and social development. However, the sector faces several challenges, including limited funding, outdated infrastructure, and a lack of collaboration between academia, industry, and government. The existing research infrastructure often lacks coordination and comprehensive mapping, making it difficult for researchers to access necessary resources.

The mapping and screening of NRIs in Albanian HEIs must be conceptualised, designed, operated and managed as a strategic capability, with a long-term view and in a co-creation manner – involving HEIs, industry, government' entities. Applying this approach can help improve governance, enable collaboration, foster innovation, improve operation, reduce duplication and enhance regulatory compliance and policymaking.

Currently, Horizon Europe program, the most important program for supporting research and innovation, does not include provisions for RIs development as they focus, predominantly, on the implementation of research projects. The only source for supporting RIs are public budget through the program managed by NASRI “Research Infrastructure Projects”. This dependence on public budget must change as it has implications for the development, sustainability, resilience and science systems strengthening in Albania. Addressing the many gaps identified in our findings require interventions on many fronts and active collaborations.

Collaboration in this sense must go beyond HEIs but also involve an invitation to the private sector. In addition, there is a need to develop and promote an online platform, (ACRIS) which can help to provide information and access to researches in the availability of RIs, whenever it could be accommodate, and encourage collaboration among universities or among universities and industry.

There is a need for a comprehensive assessment of the existing research infrastructure to identify gaps and opportunities for improvement. By strengthening research capabilities and promoting innovation, Albania aims to accelerate its integration into the European Research Area (ERA) and enhance its competitiveness in the region.

Researchers in Albania face challenges in accessing research equipment across different institutions due to a lack of information. Establishing an online portal containing details about existing research facilities, available services, and contact information will enhance the visibility of research infrastructure and improve access for researchers.

Adequate RIs are vital for Albanian participation in Horizon Europe, that contributes to addressing national and global challenges. Therefore, the development, management and governance of RIs in Albania must be at the core of the national and regional efforts to advance Albania and other economies on the economic, social and environmental areas.

To this end, the National Agency for Scientific Research and Innovation (AKKSHI) seeks to engage three independent experts to create a comprehensive mapping and screening of research infrastructure in Albania and support the development of this online portal.

1.5. Related programmes and other donor activities

Albania is actively engaged in various European research and innovation programs, including Horizon Europe, which offers significant opportunities for collaboration and funding in scientific research. The country has also participated in other EU-funded projects, such as those under the Instrument for Pre-Accession Assistance (IPA), which support capacity-building and the modernization of research infrastructure.

Other international donors and organizations have also contributed to the development of Albania's research and innovation sector. These include the United Nations Development Programme (UNDP), the World Bank, and other international agencies that support projects aimed at strengthening research capacities and promoting sustainable development.

Collaborations with neighbouring Western Balkan countries have also been established through regional initiatives, which aim to foster knowledge exchange and joint research projects. These collaborations play a vital role in enhancing the research capabilities of Albania and facilitating its integration into the wider European research community.

2. OBJECTIVES & EXPECTED OUTPUTS

2.1. Overall Objective

The overall objective of this assignment is to comprehensively map, assess, and document the National Research Infrastructure (NRI) in Albanian Higher Education Institutions (HEIs) and enhance accessibility for researchers and innovators through a dedicated online platform. This initiative aims to improve governance, foster collaboration, and support strategic investment in research infrastructure.

2.2. Specific Objectives

The specific objectives (outcomes) of this contract are as follows:

1. **Develop a Comprehensive Methodology for Mapping and Screening:** Establish a standardized methodology, including a manual and a structured questionnaire, to systematically map and assess research infrastructure. The methodology will provide detailed insights into existing research facilities, available services, and key contact points.

2. **Pilot and Validate the Mapping and Screening Methodology:** Implement and refine the methodology through structured consultations and meetings with research institutions across 4 public and 1 private HEI, ensuring its effectiveness and applicability.
3. **Strengthen Institutional Capacities on Mapping and Screening:** Conduct 5 capacity-building training sessions for HEI staff to enhance their ability to map, assess, and report on research infrastructure effectively.
4. **Identify Gaps and Prioritize Future Investment Needs:** Assess current research infrastructure to identify gaps, set priorities for future investments, and inform national strategic planning.
5. **Enhance Collaboration and Co-Investment Opportunities:** Identify potential co-investment opportunities to optimize the impact of research infrastructure funding provided by NASRI, fostering stronger collaboration among HEIs, industry, and policymakers.

2.1. Expected outputs to be achieved by the contractor

The expected outputs of this contract are as follows:

- **Design of the Methodology for Mapping and Screening:** A comprehensive methodology for mapping and screening research infrastructure is developed.
- **Assessment of the Existing Research Infrastructure:** A detailed analysis of current research infrastructure to identify gaps and opportunities for improvement.
- **Development of Data Collection Instruments:** Tools for gathering in-depth information on Albania's research infrastructure, covering general information, available equipment, access policies, and collaboration opportunities.
- **Engagement with Scientific Research Institutions:** Conduct 5 meetings with scientific research institutions to gather insights into available equipment and research infrastructure.
- **Delivery of the Mapping and Screening Report:** A final report summarizing findings and recommendations is prepared and submitted.
- **Capacity-Building Trainings:** Five training sessions on mapping and screening are conducted for relevant stakeholders.
- **Development of a Research Infrastructure Manual:** A guide for scientific researchers providing information about research infrastructure, standards, and distribution is prepared.
- **Establishment of an Online Research Infrastructure Portal:** A digital platform containing details about existing research facilities, available services, and contact information to enhance visibility and accessibility for researchers.

2.2. Results to be achieved

Long term results

- Establishment of a national register of all significant publicly-funded research infrastructure and equipment.
- Creation of a database of research equipment maintained by Higher Education Institutions (HEIs) in a unified online platform (integrated with a national platform maintained by NASRI).
- Development of an **Action Plan (2025-2030)** for advancing research infrastructure, supporting strategic investments, and fostering participation in European research initiatives.

- Enhanced research excellence in Albania through comprehensive mapping of the National Research Infrastructure (NRI).
- Strengthened research partnerships between industry and HEIs through improved access to research infrastructure.
- Improved governance, collaboration, and innovation in research infrastructure management.

3. ASSUMPTIONS & RISKS

3.1. Assumptions underlying the project

The experts are well informed and experiences on his/her role for the successful realization of the tasks.

Excellent and effective cooperation and interaction between parties involved in the project/ the Contracting Authority and the experts.

Execution of the tasks will be done according to the timeframe established by the project documents and the project team.

3.1. Risks

Due to the nature of the tasks to be implemented, no special risks are foreseen to occur. The risk that could affect the successful and timely completion of the tasks is the Violation of the terms and conditions of the contract leading to delays in the assignment implementation.

This risk will be mitigated through the close collaboration that will be established between the Contracting authority and the selected experts.

4. SCOPE OF THE WORK

4.1. General

4.1.1. Description of the assignment

The mapping and screening of NRIs in Albanian HEIs must be conceptualized, designed, operated, and managed as a strategic capability, with a long-term view and in a co-creation manner – involving HEIs, industry, and government entities. Applying this approach can help improve governance, enable collaboration, foster innovation, improve operations, reduce duplication, and enhance regulatory compliance and policymaking.

There is a need for a comprehensive assessment of the existing research infrastructure to identify gaps and opportunities for improvement. By strengthening research capabilities and promoting innovation, Albania aims to accelerate its integration into the European Research Area (ERA) and enhance its competitiveness in the region.

Researchers in Albania face challenges in accessing research equipment across different institutions due to a lack of information. Establishing an online portal containing details about existing research facilities, available services, and contact information will enhance the visibility of research infrastructure and improve access for researchers.

Adequate Research Infrastructures (RIs) are vital for Albanian participation in Horizon Europe, which contributes to addressing national and global challenges. Therefore, the development, management, and governance of RIs in Albania must be at the core of the national and regional efforts to advance Albania and other economies in economic, social, and environmental areas.

To this end, the National Agency for Scientific Research and Innovation (AKKSHI) seeks to engage three independent experts to create a comprehensive mapping of research infrastructure in Albania and support the organization of 5 training sessions for pilot public and private institutions.

4.1.2. Geographical area to be covered

Albania

4.1.3. Target groups

Research Institutions (Public and Private)

NASRI

Public institutions

Higher Education Institutions (HEIs)

Civil Society Organizations (CSOs)

Business/Private Companies

General public

International organisations

4.2. Specific work

i. Development of a Comprehensive Methodology for establishment of the national register of research infrastructure NRI:

- Design a standardized methodology for mapping and screening research infrastructure.
- Conduct a thorough assessment of existing research infrastructure to identify gaps, opportunities for improvement, and investment priorities.
- Develop structured instruments, including questionnaires and data collection templates, to systematically gather detailed information on research infrastructure in Albania, covering general information, available equipment, access policies, and collaboration opportunities.
- Pilot the methodology in 4 public and 1 private research institution to validate its effectiveness and refine the approach.

ii. Stakeholder Engagement and Data Collection:

- Organize and conduct structured meetings with scientific research institutions to gather insights into available equipment, research infrastructure, and institutional needs.
- Facilitate consultations with HEI representatives, industry stakeholders, and policymakers to ensure a collaborative approach.
- Compile findings and prepare a comprehensive mapping and screening report summarizing key insights and recommendations.

iii. Capacity-Building and Training Sessions:

- Design and deliver 5 capacity-building training sessions for HEI staff, focusing on the implementation of the mapping and screening methodology.
- Provide hands-on training on data collection, infrastructure assessment, and best practices for maintaining an up-to-date research inventory.
- Support HEIs in integrating research infrastructure mapping into their institutional processes for long-term sustainability.

iv. Development of a Research Infrastructure Manual:

- Prepare a user-friendly manual for scientific researchers, providing essential information on national research infrastructure, operational standards, access policies, and resource distribution.
- Include guidelines on utilizing the online research infrastructure portal for improved accessibility and collaboration.
- Ensure the manual serves as a practical tool for HEIs, policymakers, and funding bodies to enhance research infrastructure governance and investment planning.

4.3. Project management

4.3.1. Responsible body

National Agency for Scientific Research and Innovation (NASRI/AKKSHI)

4.3.2. Management structure

Decision-making process is regulated by Contracting Authority

4.3.3. Facilities to be provided by the contracting authority and/or other parties

Project related documents.

5. LOGISTICS AND TIMING

5.1. Location

The Experts will be located in Tirana and serve in the frame of the project targeted areas including pilot research institutions in 4 public and 1 private HEIs in Albania.

5.2. Start date & period of implementation of tasks

The intended start date is 25.06.2025 and the period of implementation of the contract will be 5 months from this date.

6. REQUIREMENTS

6.1. Staff

Note that civil servants and other staff of the public administration of the partner country, or of international/regional organisations based in the country, shall only be approved to work as experts if well justified. The justification should be submitted with the tender and shall include information on the added value the expert will bring as well as proof that the expert is seconded or on personal leave.

6.1.1. Key experts

Expert 1: IT Expert

Qualifications and Skills:

- A degree in IT, Engineering, or Natural Sciences with a background in IT.

General and Specific Professional Experience:

- Minimum of 5 years of experience in IT services for HEIs or research institutions.
- Experience in national or international projects, particularly EU-funded initiatives.
- Knowledge of software applications and platforms used in the education sector.
- Expertise in IT didactics, network/server infrastructure, and cybersecurity.

Responsibilities:

1. Development of Data Collection Instruments:

- Design a questionnaire to catalog software used in HEIs (didactic, administrative, scientific research).
 - Develop a questionnaire for assessing ICT services at universities (administrative, academic-research).
 - Structure a questionnaire on ICT infrastructure (didactic, scientific research).
- 2. Interviews and Data Collection:**
- Conduct interviews with IT department specialists to assess technology configurations and cybersecurity measures.
 - Gather user feedback on ICT services and infrastructure from students, faculty, researchers, and administrators.
 - Engage with the Board of Administration to assess funding for ICT infrastructure at various institutional levels (university, faculty, department, research group).
- 3. Analysis and Reporting:**
- Analyze collected data and provide insights for the mapping and screening process.

Expert 2: Methodology, Assessment, Mapping, and Screening Expert

Qualifications and Skills:

- Master's degree in Public Policy, Political Science, International Relations, Law, or a related field.

General and Specific Professional Experience:

- Minimum of 5 years of experience in policy analysis, methodological design, assessment research, data collection, and report writing.

Responsibilities:

- 1. Methodological Framework Development:**
 - Design the methodology for mapping and screening research infrastructure.
 - Develop instruments to collect detailed information on research infrastructure in Albania, including equipment, access policies, and collaboration opportunities.
 - Analyze data collected from the questionnaires.
- 2. Engagement with Research Institutions:**
 - Conduct 5 meetings with scientific research institutions to gather insights into research infrastructure and available equipment.
 - Prepare an assessment report identifying gaps and opportunities for improvement.
- 3. Report Preparation:**
 - Compile a comprehensive mapping and screening report, including findings, analyses, and recommendations.

4. Expert 3: Capacity Building Expert

Qualifications and Skills:

- Master's degree in Public Policy, Political Science, International Relations, Law, or a related field.

General and Specific Professional Experience:

- At least 9 years of experience in capacity building, policy development, or institutional strengthening.

Responsibilities:

- 1. Capacity-Building and Training Delivery:**
 - Design and conduct 5 capacity-building training sessions on mapping and screening for relevant stakeholders.
- 2. Development of a Research Infrastructure Manual:**
 - Prepare a manual for scientific researchers detailing research infrastructure, standards, and distribution.
- 3. Knowledge Dissemination and Stakeholder Engagement:**
 - Ensure knowledge transfer to key stakeholders through structured training sessions and materials.

All experts must be independent and free from conflicts of interest in the responsibilities they take on.

6.1.2. Other experts, support staff & backstopping

N/A

6.2. Office accommodation

N/A

6.3. Facilities to be provided by the contractor

The contractor shall ensure that experts are adequately supported and equipped. In particular it must ensure that there is sufficient administrative, secretarial and interpreting provision to enable experts to concentrate on their primary responsibilities. It must also transfer funds as necessary to support their work under the contract and to ensure that its employees are paid regularly and in a timely fashion.

6.4. Equipment

No equipment is to be purchased on behalf of the contracting authority / partner country as part of this service contract or transferred to the contracting authority / partner country at the end of this contract. Any equipment related to this contract which is to be acquired by the partner country must be purchased by means of a separate supply tender procedure.

7. REPORTS

7.1. Reporting requirements

The experts should submit a **Final report** which shall contain a sufficiently detailed description of the different services implemented under the contract along with the main deliverables detailed below. The final report must be provided along with the corresponding invoice.

Main deliverables of the assignment include the following:

Expert 1: IT Expert

Main Deliverables:

- Questionnaire for cataloguing software, ICT services, and infrastructure in HEIs.
- Interviews with IT department specialists and ICT service users.
- Analysis report on IT infrastructure, cybersecurity, and funding for ICT in HEIs.
- Recommendations for improving IT infrastructure and access to research resources.
- Contribution to the development of the online research infrastructure portal.

Expert 2: Methodology, Assessment, Mapping, and Screening Expert

Main Deliverables:

- Methodology framework for mapping and screening research infrastructure.
- Data collection instruments for gathering research infrastructure details.
- Assessment report identifying gaps and opportunities for improvement.
- Final mapping and screening report.
- Contribution to the development of the online research infrastructure portal.

Expert 3: Capacity Building Expert

Main Deliverables:

- Five capacity-building training sessions on mapping and screening.
- Research infrastructure manual for scientific researchers.
- Training materials and documentation.
- Contribution to stakeholder engagement and dissemination efforts.
- Support for the promotion and utilization of the online research infrastructure portal.

7.2. Submission and approval of reports

The report referred to above must be submitted to the project manager identified in the contract. The project manager is responsible for approving the reports.

8. MONITORING AND EVALUATION

8.1. Definition of indicators

Completion of the research infrastructure mapping methodology.

Number of scientific research institutions engaged.

Number of meetings conducted with HEIs and research institutions.

Delivery of the mapping and screening report.

Number of training sessions conducted and participants trained.

Development and dissemination of the research infrastructure manual.

Establishment and operationalization of the online research infrastructure portal.

8.2. Special requirements

N/A