



[FOCUS ARTICLE]

Regional promoter scheme for Research Infrastructures - By POLICY ANSWERS

Research Infrastructures (RI) 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 Western Balkans (WB) is that the outgoing mobility is higher than the incoming mobility due to, among other reasons, underdeveloped research infrastructures and a lack of first-class research facilities and access to the newest technologies in the region. Research infrastructures create a scientific and technological momentum which resonate widely and most effectively develop the **European Research Area (ERA)**. ‘They can improve anything from geopolitical tension, brain drain and limp economic growth’. To deliver this vision, the importance of the Research Infrastructures for the Western Balkans needs to be continuously emphasised and promoted systematically. This is indeed one of the objectives of the [POLICY ANSWERS](#) project.

Promoters of Research Infrastructures

The concept of this task is to identify and reward high level ‘RI ambassadors’ for the region and together with them develop a platform for the promotion of Research Infrastructures. This platform should include stimulating components of various opportunities and best examples in the region with the goal of raising awareness among policy makers about the benefits of Research Infrastructures based on newest technologies. This platform should promote the existing facilities in the region as well as those under development, but also the benefits of the participation of researchers, organizations and companies from the Western Balkans in existing leading core European research infrastructures, e.g via the European Strategy Forum on Research Infrastructures ([ESFRI](#)) or European Research Infrastructure Consortia ([ERICs](#)).

Some of the examples of RIs which deserve visibility and special place on this platform are highlighted here.



1) ANTARES - Transformation of the BioSense Institute¹ in Novi Sad, Serbia into an European Centre of Excellence (CoE) - a highly competitive Research infrastructure

The power of [Teaming for Excellence calls](#), part of the EU Programme for Research and Innovation (Horizon 2020 and now Horizon Europe) which strives to support CoE as role models to stimulate institutional building, is best illustrated with the [ANTARES](#) project worth 28 mio. Euro. The ANTARES project is a CoE for Advanced



Technologies in Sustainable Agriculture and Food Security, which helped transforming the [BioSense Institute](#) into a market-oriented European Center of Excellence. Evolving BioSense into such a European Center of Excellence required construction of a new building and acquiring state-of-the-art research equipment. This is an excellent example of how to effectively create an ecosystem and an environment which attracts the best talents world-wide, stimulates entrepreneurship and employment at the regional level and boosts collaborations with the private sectors and the civil society.

However, ANTARES is still the only example of the Teaming for Excellence Projects in the Western Balkans. The social benefits of ANTARES and the return of investments for society should be widely promoted in order to stimulate policy makers to allocate dedicated budgetary supplements (e.g. national or funds of the Instrument for Pre-Accession Assistance), given that complementary funding is necessary for participation in Teaming projects.

2) SEEIIST² - International Large-scale Research infrastructure of pan-European dimensions initiated by Montenegro in 2017 for the region of South East Europe

While the time scale of the first foundation of large-scale research infrastructures



was similar in the Western Balkans to that in Western Europe, unfortunately about 70 years have passed without establishing any new large-scale research infrastructure based on newest technologies in the region of the WB, while Western Europe is flourishing with them. This is why the Western Balkans, via the Government of Montenegro, have officially initiated a pan-European Research

¹ <https://biosens.rs/en>

² <https://seeiist.eu>

Infrastructure for Cancer Therapy and Biomedical Research with protons and heavy ions in March 2017 - the [SEEIIST](#) Project. With its double task, to treat cancer patients and to perform research, SEEIIST would present one of the best examples of a 'Science for Society' project. In the spirit of Science Diplomacy, another important objective is to build international cooperation as well as the scientific and industrial capacity in the South East Europe. The SEEIIST requires 250 mio. euro investments. The project received recognition from the European Commission (DG RTD) and the first 6.5 mio. euro from the EC for a state-of-the-art Design Study, accompanied by strong support from the major European players in the medical and the associated scientific community. In 2020, SEEIIST became one of the 6 leading EU-WB Projects in the Innovation Agenda for the Western Balkans, and via this WB Agenda SEEIIST became part of the Economic and Investment Plan for the Western Balkans (EIP) as the only research and medical infrastructure.

The SEEIIST project has by now created its roots. However, in order to ensure a bright perspective, the promotion of importance of such a 'Medical CERN' in the WBs is crucial.

3) Bioeconomy Hub³ - BIO4 Campus, multidisciplinary R&D complex for life Science - Belgrade, Serbia



Another example of a powerful Research Infrastructure on the horizon, which will create an ideal ecosystem for innovation that attracts the best talents, boosts excellence and offers attractive jobs, is the Bioeconomic Hub in Belgrade, Serbia. The [BIO4 Campus](#) will occupy almost 20 hectares of land, focusing on four key topics: biotechnology, biomedicine, bioinformatics,

biotechnology and biodiversity. The development phase of the BIO4 Campus has already begun, and the expectation is that the BIO4 Campus will be in operation in 2025.

4) Tech4Green Research Infrastructure - High Performance Computing Center initiated by the City of Sarajevo, Bosnia and Herzegovina

Within the City Missions, a call was recently launched under the Horizon Europe Programme, and Sarajevo was selected among 112 climate-neutral and smart cities by 2030. These cities will develop Climate City Contracts with their regional stakeholders which would include an overall plan for climate neutrality across all sectors. On the other hand, the Green Agenda for the Western Balkans is seen as a new growth strategy. In particular, air pollution is one of the largest challenges for

³ <https://www.bio4.rs>

Sarajevo which was ranked among the top 5 most polluted cities in the world. As a consequence, diseases of the respiratory system are the most common reason for residents of Sarajevo to come to health care facilities.

The Tech4Green research infrastructure is not driven by researchers, but by the needs of the city Sarajevo to ensure a local impact on the city. The scope of Tech4Green is to create a framework for research and innovation investment, which is able to bring all actors together - and they team up with researchers to address the issues that are important for the cities in the first place. Tech4Green will promote modern digital solutions and the application of digital technologies in all aspects of the society in Bosnia and Herzegovina. It will capitalize on knowledge to move forward towards an inclusive, thriving, climate-resilient and sustainable city of the future. The project can significantly contribute to establishing synergies for achieving the goals of the Green Agenda for the WBs, the SDGs and the digital transformation of Bosnia and Herzegovina.



It is worth to promote this example of a research infrastructure that can enable policy makers, empower policy implementers and engage researchers - with the citizens as beneficiaries. This is indeed in-line with the concept of the European partnerships.

5) ESS ERIC⁴ - European Social Survey - European Research Infrastructure



Research infrastructures are also the best way to train young scientists and engineers in various fields of science and technology, and are the best generators of spin-offs and start-ups as well as creators of new innovative and technological solutions. The participation of several WB economies in the [ESS ERIC](https://www.europeansocialsurvey.org) nicely illustrates the impact on the local innovation system by fostering knowledge sharing and 'brain circulation' when accessing first-class international European research infrastructures. One of the goals of the ESS RI is to provide high quality data, measuring change over time within and between European countries in their living conditions, social structure, public opinion and attitudes and to facilitate training in the effective use of ESS data. Access to data is free and open, and it allows researchers and scholars to publish articles in peer-reviewed journals, as well as the use of data in teaching at HEIs across the region. Data collected under the ESS methodology are also contributing to national knowledge and data systems and have the effects on evidence-based policy making.

⁴ <https://www.europeansocialsurvey.org>



It is necessary to raise awareness of policy makers of the benefits from supporting participation fees for accessing state-of-the-art European research infrastructures such as the European Organization for Nuclear Research ([CERN](#)) or the European Molecular Biology Laboratory ([EMBL](#)). The large spectrum of benefits to be promoted should include improving skills of a wide user community including industrial users, opportunities to develop coherent national hubs around leading core international research infrastructures with the chance to scale-up, accessing equipment of multi-million values, training for tenders local industry and thus enhancing the potential for developing RIs in WBs.

To conclude, the aim of the Regional promoter scheme for Research Infrastructures is to foster visibility of all presently ongoing efforts and activities in developing Research Infrastructures in the WB region, all in line with the EU main policy - Green, Digital and Health. They are also in line with the strategic priorities of the Smart Specialization Strategies (either already adopted or in preparation) as well as with flagships of the Economic and Investment Plan for the WBs. One of the important steps in this Regional promoter scheme is to foster improvement of access to all potential funding sources for RIs, awareness of their benefits for society and clear return of such investments.