

## **Building capacities for advancing R&I ecosystems of the WB region**

*Interview with Minister of Science of Montenegro, Sanja Damjanovic*

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## **In Focus: RTDI capacity in WBC and capacity building opportunities**

### **Building capacities for advancing R&I ecosystems of the WB region**

Research conditions and environment still significantly differ among the six WB countries even if research capacity presents also common characteristics. In such a framework, despite weaknesses and constraints, motivated and successful individual researchers represent the potential for improvement of research capacity; individuals could therefore play an important role in change management. This is what emerged from a [Study on research capacity at higher education institutions in the WB6](#) that is conducted under the SPHERE project and is aimed at providing recommendations to national and EU level policy makers for improvement. The study was recently presented at the 6<sup>th</sup> Ministerial joint meeting of the [Western Balkans Platforms on Education & Training and Research & Innovation](#) (Belgrade, September 2017). Preliminary results related to weaknesses include: Persistent and long lasting lack of funding for research, Weak strategic research planning, no clear research policy, Outdated research infrastructure, Low level of administrative support, Research subordinate to teaching, Out-of date and inadequate development of young researchers, Low level of internationalization, Low collaboration with private sector. Preliminary recommendations, on the other hand, invite WB6 to develop adequate administrative support for research, provide training for proposal writing and project management, enable transversal and entrepreneurship training at all levels, better define the role of teaching and research while recognizing the relevance of research for academic promotion, assess and value international collaboration alongside career development. In such a context, an interesting example of support to research capacities building has been represented in recent years by the Regional Research Promotion Programme in the Western Balkans (RRPP) active in the period 2008 – 2017. Recently the RRPP released a report titled "[Impact on Building Research Excellence and Cooperation Networks in the Western Balkans](#)". The report highlights how research capacities have been enhanced and first thematic regional research networks created.

Discussions at the Ministerial meeting in Belgrade have led to the general conviction that **participation of the WB6 in Horizon 2020 could still improve thanks to a better H2020 promotion, adequate training of researchers and equipment, easier administrative procedures, and prompt national funds.** The attending WB delegations agreed therefore that **research capacity in the WBC should be given therefore greater national priority.**

In parallel, **regional cooperation was recognized as a crucial factor in enhancing this capacity and encouraging excellence by creating regional centers of excellence.** With this regard, there is a very promising initiative that would radically provide the opportunity to carry out an actual economic, scientific and technological transformation of the countries of the SEE Region and finally make it competitive with the rest of Europe. It is the **International Scientific Institute in South East Europe (SEIIST)** that was recently presented at **the Forum on New International Research Facilities for South East Europe** (Trieste - Italy, 25-26 January 2018) and that sees now first actions by its Steering Committee with decision-making role about all future scientific and political steps necessary for the implementation of the Institute.

**WBC-RTI.INFO took part in the Forum and had recently the pleasure of interviewing Ms. Sanja Damjanovic, Minister of Science of Montenegro.** The conversation has ranged from the Minister's brilliant scientific background to those measures for creating a proper environment for quality research in Montenegro, that have recently led to an incredible increase of the H2020 success rate and to a net positive return on investment as well. **As Minister Damjanovic said: "The WB region needs to evolve its economy towards a knowledge-based and innovation-dominated model. In order to do that capacity building, development of infrastructure and new skills are required".** While speaking with Minister Damjanovic we understood that the recent actions and successes derive from the benchmark between Montenegro's system and that of other small countries, such as Malta for instance. They are, so to say, the result of an institutional capacity building activity...



**Find below our interview:**

*Q1: I read about your brilliant scientific background and I got to know that you have played a major role in the creation of the first cooperation agreement between Montenegro and CERN, in 2007. Ten years later, it must be a personal satisfaction to be at this Forum today speaking as Minister about the importance of international cooperation for science and the International Institute for Sustainable Technologies in South East Europe that is based on the CERN model. Would you kindly tell us more about this regional project? How will it affect the economic development of the countries in the Region?*

"This Project is one of the nicest examples of 'Science for Society'. It will be based on the latest technologies and will make a real transformation of the Region, which so far was a grey zone for science and technology. The Project will trigger the development of the whole Region. The central goal is to enable first class research and thus become competitive to the rest of the Europe. A real international cooperation, bringing people together in the spirit of 'Science for Peace', would contribute to develop the economic situation, to improve the standard of living, to produce attractive jobs, in particular for young people, and to revert 'brain drain' which is one of our largest problems in the Region. The institute would promote collaboration between science, technology and industry, but would also provide platforms for the development of the education of young scientists and engineers based on knowledge and technology transfer from European laboratories, like CERN and others. The Project will also help a certain 'industrialization' of the Region based on sustainable technologies and will trigger development of complementary technologies."

*Q2: A new Strategy of Scientific Research Activity was recently passed by Your Government, could you kindly explain us more about the measures and instruments envisaged for next years? What's your vision for a future Montenegrin R&I ecosystem?*

"We acknowledged our challenges and we are aware that problems of small countries need different solutions compared to those countries with 1+, 10+ million inhabitants. Although the relative number of our researchers normalized to the total population is not different compared to the other countries, the absolute numbers and thus the critical mass is very small. We knew that our Strategy had to be rather focussed. I will mention two most **important new instruments and measures**. The first one is **Internationalization, teaming up with large infrastructures**. Up to 2017, Montenegro was not a member of any of the international research institutes. **Joining international research projects opens the possibility for transferring knowledge, accessing new technologies, networking, boosting participation in the EU H2020 program**... This is important for all countries, and small countries like Montenegro don't even have an alternative. Being aware of the great importance of internationalization, I used my first year to strongly improve the situation. By now Montenegro is a full member of EMBL and EMBO (the largest European institutions in the field of live sciences) and of one of the largest LHC projects at CERN, the CMS experiment. The first steps towards cooperation with ESA have also been taken. Another important goal of our Strategy is to **strengthen the innovative ecosystem**. We were encouraged by progress made by other small countries in Europe like Malta, Island, Cyprus, some of them even smaller than Montenegro. We have analysed the national policies of these countries and we have recognized some important measures missing in our system. Here the most important one is **tax incentives for innovative start-ups**. Last year we applied for a special instrument 'Policy Support Facility' which is introduced by the EC to develop a start-up national policy. I am sure that with the help of EC experts and with the first Science Technology Park which is presently in preparation, we will attract young people and get competitive on the global market."

*Q3: Montenegro is a small but active country; it seems on the right path towards EU economic and scientific integration. The budget of Ministry of Science for 2018 is the highest so far and was increased by 60 percent for the first time. How will this budget been invested. What challenges did you recognize, what the goals and related actions?*

"Even though the state budget for the year 2018 was increased, the absolute number is still rather low which opens the challenge how to optimize the investment. Moreover, the investment in research and development from our private sector is still rather low (only 1/3 of the total), and our goal is to try to change and motivate larger investments in R&D. On top, Montenegro had so far only very small success rates in the EU Program H2020, such that there was hardly any return, not to talk about the possibility to effectively increase the budget. Thus we decided to go into two

directions. First we will have **open national calls for innovative projects under the condition of synergies between academia and the business sector**. Second we will **open calls which will support the participation in the EU Programs H2020 and COST**. In addition, we will introduce **fellowships for young people**, mostly PhD students, and thus support their participation in research and innovative projects. This will help the employment of young people, but will also increase the number of full-time research positions which presently hardly exist at all."

*Q4: Coming to H2020 performances, Montenegro's success rate was the lowest among the European countries. In the past few months, however, this rate has increased and has reached 25%. In 2017, for the first time, Montenegro achieved a net positive return on investment as well. What actions have been put in place to support and strengthen the scientific system so as to obtain this result?*

"Since I was aware of the low success rate in the years since 2014, we put a high priority from the beginning to try to improve the situation. We were encouraged by the great success of Malta in the H2020 program. We managed to get one of Maltas most important players in this context as a consultor. We have then implemented several measures to stimulate the increase in H2020 participation in 2017. The first important action was the **establishment of a National Project Office within the Ministry of Science**, which was recognized as an important missing element in our ecosystem. The system of National Contact Points and Programme Committee members was reorganized and some funds were allocated for their active action, including their regular participation at Info days and meetings in Brussels. Based on the IPA funds of about 300 000 EUR, a series of **trainings on how to prepare a H2020 project were organized**, and about 100 researchers participated in these sessions. Our new instrument of strengthening internationalization by joining the CMS experiment, EMBL and EMBO also helped to increase the number of applications. We have opened a national call to support research teams which joined running COST and H2020 projects. Over the last few months of the year 2017 the success rate of Montenegro started to increase, culminating at 25% at the beginning of December. This was one of the reasons why the state budget for 2018 was increased."

*Q5: Reflecting on brain drain; historically, the emigration of scientists has benefitted the host countries, raising concerns about brain drains and "innovation exoduses" from the countries that scientists leave behind. But international networks of expat scientists, properly leveraged, could help drive innovation and solve problems in scientists' home regions, and improve diplomatic relations between countries." What are plans for retaining people in Your country and how are You creating a proper environment for quality research? Do you have projects for connecting the scientific diaspora to the scientific and socioeconomic development of Your country?*

"Coming back from Switzerland after 15 years in the most advanced research environment such as CERN, I could clearly see that the **conditions for research work in the institutions in Montenegro and the wider region are far from being attractive and stimulating**. The brain drain is one of the largest problems in our region, and that can only be solved by offering possibilities for 'first class research'. In case we manage to establish the South East European International Institute for Sustainable Technologies, not only that we will be able to stop, but even reverse the brain drain, at least in the respective fields. I am happy that the Forum was attended also by representatives from the diaspora. Apart from this Project, we are in parallel working on other aspects of our scientific and innovation system, some of them I already mentioned, like our attempt to create an attractive start-up innovative ecosystem, and to establish the first Science Technology Park. Becoming a member of the most important international research institutions and thus teaming up with large infrastructures, we are offering our young scientists to access the newest

technologies while remaining connected to the home institutes. We also need to significantly increase the investment in research, but in order to achieve that we need to show that research is directly linked with creating new value, like better jobs and better living conditions for many people. It is not an easy job since research can never produce quick results, but I believe that if the countries of our region accept the concept of Open Science that EU favours very much, we can speed up the progress. The Open Science concept has strong impact on creating better conditions for research and thus on the decision of young people to stay here."

*Q6: In conclusion, the new EU Framework Programme is under preparation and it seems that guiding principles will be impact, excellence, and openness. The preparation process implies discussions with different stakeholders and public consultation. Given your scientific background and your current role, would you briefly share with us your personal vision for the so-called FP9? Do you have any recommendation on how the FP9 could further support WBC integration in the European Research Area?*

"We appreciate very much that the central goal of the EU Programmes (H2020 and next FP9) is Excellence. However, **the fact that there is a gap between developed and less developed research systems in Europe asks for adequate attention**. Therefore, we are propagating continuation of the "widening actions" in FP9. This can very much help transfer of knowledge from **more developed institutions and training of our young researchers in new scientific areas**. Our region is still behind and needs to change its economy towards a knowledge-based and innovation-dominated model. In order to do that **capacity building, development of infrastructure and new skills are required**. To achieve that we need reliable partners, and we see the European Commission as an important driver in this process, through pre-accession funds, technical assistance programmes and FP9."

*Desiree Pecarz  
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