

SCIPROM

FIRST SEE REGIONAL SCIENCE
PROMOTION CONFERENCE
BELGRADE, SERBIA, OCTOBER 2nd - 3rd, 2013

ANNEX I:

CONCLUSIONS AND RECOMMENDATIONS FROM THE FIRST SOUTHEAST EUROPE REGIONAL SCIENCE PROMOTION CONFERENCE – SCIPROM 2013

The First SEE Regional Science Promotion Conference brought together more than 300 participants and 90 panelists from the SEE region, Europe and the world. There were 14 sessions: 3 keynote sessions, 10 parallel panels, a poster session (with 25 presentations) and 6 side events.

One of the main impressions the participants had at the Conference was that each of the panels' themes could be a conference topic for itself and that they therefore should be further elaborated at future SCIPROM regional gatherings. In that sense, these panel conclusions should, on one hand, help us define topics for future discussions and, on the other hand, provide a more detailed argumentation for the overall Conference conclusion that science promotion needs to be higher on the agenda in each of the participating countries and we have to put in more effort in order to secure sustainability of wider engagement of science in society.

Distinguished keynote speakers and panelists brought up the following conclusions and recommendations for the joint action and cooperation:

1. KNOWLEDGE ECONOMY: SCIENCE, INNOVATION AND ECONOMIC PROSPERITY

Convenor:

Ana S. Trbovich, Dean, Faculty of Economics, Finance and Administration, Serbia

Panelists:

- **Irina Anghel**, Secretary-General, The SEE Private Equity and Venture Capital Association, Romania
- **Howard Ockman**, Chief of Party, USAID Sustainable Local Development Project, Serbia/USA
- **Danica Ramljak**, Member of the World Bank Team for Research and Development Strategy for Innovation in the Western Balkans
- **Janet Traub**, Program Manager, Google NYC, USA
- **Miodrag Stojkovic**, Founder of Spebo Medical and the President of the Committee for Education, Science, Technological Development and Information Society of the Parliament of the Republic of Serbia
- **Branko Kovacevic**, Dean, Faculty of Electrical Engineering University of Belgrade, Serbia

Innovation is not only about disruptive innovation and start-up firms in government-financed incubators attached to universities, but it is also about the ability of existing firms to maintain and grow market share through innovation. Further, economic conditions in Serbia and the region, where unemployment is devastating, dictate more concentration on promoting the innovative capacity of existing, proven firms to retain and grow their markets and work force, than on expensive development of new companies that are high-risk, unproven and will be employers only in the distant future.

The panelists discussed venues of bridging the science/business gap:

1. Different model of science/engineering: The academia and research institutes should be focused on participating in the economy by helping business find practical solutions to market needs for innovative products and efficient production processes. The University of Bologna is a regional innovative resource for SMEs, as are some regional universities in UK and the US. A regional example is the Impuls Center at the Kraljevo Faculty of Mechanical Engineering. University equipment and laboratories should be made available to the R&D needs of firms.

2. Venture capital is yet to come to the region in a meaningful way and for this to occur a better understanding of the education and research opportunities needs to be attained. This could in part be reached by involving the diaspora, especially those who return to research in the region.

3. Economic and Education Policy to further innovation should concentrate on establishing business/science connection nodes at local levels to manage the dialogue between existing business and the science/engineering faculties. Such dialogue should be concentrated on finding specific solutions for business to meet market needs. Start with simple meet and greet between the relevant sectors of the

business and science/engineering communities to learn about each other; expand to formal consultation hours where the faculty serves as consultants; give graduate students credit for working inside firms with particular innovative needs; allow undergraduate students to receive credit for practical clinics in applied science, which are linked with firms in the region. Some universities in the region have taken steps in this direction but system reform should be instituted.

4. Balance the innovation rhetoric in the policy debate. Innovation is also about firms moving step-by-step with better products and better processes to make gain in established markets and thereby employ people.

Commercializing university science and engineering must not be just about developing the fantastic ideas of professors; commercializing a nation's science and engineering must also be about coordinating with existing businesses to help them find solutions to their real business innovation needs.

2. SCIENCE CAMPS

Convenor:

Martin Lindner, Full-time Professor, Martin Luther University, Halle, Germany and Coordinator of the Comenius project Science Camps in Europe

Panelists:

- **Nikola Bozic**, Petnica Science Center, Serbia
- **Neva Margetic**, Society for Out-of-frame Education, Croatia
- **Hanne Hautop**, Science Talenter, Denmark
- **Jovan Mirkovic**, Lovcen Science Camp, Montenegro
- **Dubravka Vejnovic**, DNK Childrens' Science Camp, Serbia
- **Rade Marjanovic**, Astronomy Camp Letenka, Serbia

Leaders of different EU and regional science camps shared experience and gave some practical hints how to organize and finance a science camp. Participants pointed out funding as the main issue in organization. Panelists also discussed different approaches and concepts: camps for all children from various backgrounds and camps for "talented children only". The participants were invited to become part of the SciCamps in Europe Network, established as a part of the COMENIUS project that was presented as one of the leading European projects in this field.

3. SCIENCE CENTERS AS BEACONS OF SCIENCE PROMOTION

Convenor:

Dobrivoje Lale Eric, Center for the Promotion of Science, Serbia

Panelists:

- **Robert Firmhofer**, Director, Science Center Copernicus, Poland
- **Domingo Escutia**, EU HETIP Expert and Former Director in Valencia Science Center, Spain
- **Miha Kos**, CEO, House of Experiments (Hisa Eksperimentov), Slovenia
- **Davor Komericki**, Project Manager, ZEZ, Croatia
- **Aref Al-Husseini**, Founder and Director, Al-Nayzak, Palestine
- **Wolfgang Tschapeller**, Architect, CPN/TWA, Austria

Although working in very different conditions and ambiances, with different structures and ways of financing, science centers around the world share the same ideas, values and passion for their work in bringing science closer to the public. All panel participants stressed the importance of continuous exchange of ideas and programs among these institutions in the region and with the other colleagues from Europe, Middle East and other parts of the world and the readiness to engage in future joint projects. The new links established as the result of this Conference will help science centers build strong coalitions in the process of applying for regional and European science promotion projects and other international funds. Special accent was given to the position of science centers as extraordinary public spaces and their use for alternative programs and activities that give those institutions additional social value.

4. INFORMAL SCIENCE EDUCATION

Convenor:

Nikola Bozic, Petnica Science Center, Serbia

Panelists:

- **Korado Korlevic**, Visnjan School of Astronomy, Croatia
- **Danel Solabarrieta**, Elhuyar Fundazioa, Basque country, Spain
- **Srdjan Verbic**, Institute for Education Quality and Evaluation, Serbia
- **Susana Chaves**, Fundacao de Juventude, Portugal
- **Ivan Novosel**, Summer Science Factory, Croatia
- **Dragan Jevtic**, Chair of the Society of Environmental Toxicology, Jagiellonian University, Poland

Science communication and science promotion are segments of informal and lifelong learning education. It is important to have a good definition of target groups for science promotion in order to choose the best methodologies and concepts for each activity. Informal science education targets not only kids and youth but also adults. Opening communication channels between and establishing networks of different institutions dealing with informal education will encourage bigger exchange of different proven models and approaches. Joint projects of even small initiatives may have more influence over the broad public than activities organized by a single entity. The major issue that needs to be further elaborated at one of the next meetings of this new regional network of informal education is how to measure and evaluate results of these activities.

5. MEDIA AND SCIENCE

Convenor:

Slobodan Bubnjevic, Head of Communication Department at the Center for the Promotion of Science and the journalist of magazine "Vreme", Serbia

Panelists:

- **Istvan Polugaj**, Editor of science-technology desk, Népszabadság, Hungary and Former President of the European Union of Science Journalists' Associations (EUSJA)
- **Fabio Turone**, President, Science Writers in Italy
- **Bora Zivkovic**, Scientific American, Director of ScienceOnline.com, USA
- **Mico Tatalovic**, SCiDev Network, UK
- **Dejan Donev**, University "St. Cyril and Methodius", FYR Macedonia
- **Marija Nikolic**, CPN Elementarium, Serbia

As a back-to-back program of South East European Science Journalism School organized by the UNESCO Venice Office, on the second day of First SEE Regional Science Promotion Conference, Center for the Promotion of Science organized parallel session Media and Science, with aim to share experiences and information about scientific topics of SEE regional media. Some of the most famous science editors in the SEE region participated in the discussion. Questions such as how to improve the quality of science reporting and how to maintain trust between science and journalism were brought out at the panel. The panelists emphasized the importance of critical reporting on scientific results in order to achieve the watchdog role of journalism in this area. One aspect of the discussion was linked to social media science reporting and science blogs. The main challenge emphasized at the session was how to communicate with non-scientific public in SEE region.

Overall conclusion of the panel was that numerous science journalism projects in the Region are mainly driven by enthusiasm of the particular science journalist or editor. Therefore, it is crucial to strengthen local projects, expand the network of science journalists and increase the role of media in the promotion of science and education.

6. SCIENCE COMMUNICATION FROM RESEARCH AND EDUCATIONAL INSTITUTIONS

Convenor:

Zoran Markovic, Director, Mathematical Institute of the Serbian Academy of Sciences and Arts, Belgrade, Serbia

Panelists:

- **Rolf Landua**, Head of Education, CERN, Switzerland
- **Aleksandar Bogojevic**, Deputy Director, Institute of Physics, University of Belgrade, Serbia
- **Mariano Marziali Bermudez and Irene Gorosito**, FCEN, University of Buenos Aires, Argentina
- **Ljiljana Damjanovic**, Vice-Dean, Faculty of Physical Chemistry, University of Belgrade, Serbia
- **Dejan Vinkovic**, Professor, University of Split and Founding Director of "Science and Society Synergy Institute", Croatia
- **Vesna Crnojevic-Bengin**, Assistant Professor, Faculty of Technical Sciences University of Novi Sad, Serbia

Different local and regional research institutions had opportunity to share their experiences in science promotion. The main impression is that similar problems in communication from research and educational institutions exist in the whole region. It is due to low level of understanding and low level of appreciation of its significance for the development of the countries and of science itself among general population and among politicians in particular. Another general observation of the panel was that such activities are taxing the resources of scientific institutions (both human and material) and that a part of this burden should be transferred to a specialized institution competent for the promotion and popularization of science.

7. SCIENCE FESTIVALS

Convenor:

Kosta Jovanovic, Research Assistant, Faculty of Electrical Engineering, University of Belgrade, Serbia

Panelists:

- **Miha Kos**, Sciencetival (Znanstival), Slovenia
- **Laszlo Lengyel and Gizela Seles**, Science Road (Put nauki), Corvinus University Budapest, Hungary
- **Jelena Filipaj**, Zagreb Science Picnic, Croatia
- **Milena Milunovic**, Podgorica Science Festival, Montenegro
- **Tijana Prodanovic**, Novi Sad Science Festival, Serbia

- **Jovan Markov**, School Science Festival, Serbia

Representatives from different institutions - schools, universities, private companies, NGOs and government shared their best practices in organizing science festivals in the region. Therefore, a complete overview of the topics relevant for science festivals organizing was made from different perspectives. The main conclusion of the panel was that since most countries in the region still do not have science centers, science festivals are one of the essential forms of promotion of knowledge economy, science and technology. As main obstacles in organizing science festivals in the region the participants recognized the lack of funds and very limited support from private sector. These problems are also linked with the low level of scientific literacy in our societies. However, the obstacles are compensated with high enthusiasm of people involved in organization of popular science events. It was also pointed out that science festivals within the Region have quite high media coverage. Therefore, it was concluded that the recent rise of science festivals in the region and constant growth of number of participants and visitors of those regularly organized points to a significant value of this resource for science promotion. To preserve and further enhance this trend it is necessary to get systematic support from the institutions in charge for the promotion of science and universities.

8. SCIENCE AND GENDER

Convenor:

Natasa Gopic, Full-time Professor, Faculty of Transport and Traffic Engineering, University of Belgrade and Member of the Womens' Government, Serbia

Panelists:

- **Tatjana Parac Vogt**, President, Belgium Women in Science, Member of EC COST genderSTE and Professor at the KU Leuven, Belgium
- **Clarisse Behar Molad**, Fulbright Scholar, Montenegro / USA
- **Jasminka Laznjak**, Professor, University of Zagreb, Croatia
- **Svenka Savic**, Professor Emeritus, University of Novi Sad, Serbia
- **Ivana Gadjanski**, Pubsonic and TEDxBelgradeWomen
- **Aleksandra Drecun**, Director, Center for the Promotion of Science and COST GenderSTE Member of the Management Committee
- **Divna Vuckovic**, Member of EC COST genderSTE, Co-founder of Equal Opportunities and CPN ICT and Innovation Coordinator, Serbia

Several important issues were raised at the panel: Which policies and practices are effective in promoting gender diversity in science disciplines and in technical careers, as well in promoting women scientists? How to initiate and support a structural change in research institutions to enhance excellence, gender equality and efficiency? How do work-life balance policies and practices affect the attraction and retention of talented women employees? What are the role models for girls to choose their carries in technical sciences, what is a role of media?

The general conclusion from the panel is that women do not have adequate access to professional and income opportunities in science, technology and economy. Enormous potential that women represent is not well used because they do not participate equally in the decision-making processes that shape science and technology sectors. Consequently, that affects the life of current and future generations in our societies. To improve the relevance of gender equality in science and technology new policies should be created, best practice (such as women in biotechnology and Gendered Innovations project) should be copied in other fields and higher visibility given to women in science. Also, it is crucial to initiate new projects for motivating girls to choose their careers in science and to secure access to legal protection, capital and to markets for female innovators and researchers. The activities under the EC COST policy-driven network GenderSTE should be disseminated to large researchers' community in order to initiate the structural changes in research institutions promoting excellence through diversity and improving research by integrating a gender perspective.

9. INTERNATIONAL NETWORKS AND PROJECTS IN SCIENCE PROMOTION

Convenor:

Srdjan Krco, EC FP7 Smart Santander Project (Presentation)

Panelists:

- **Branimir Ackovic**, TEDxBelgrade
- **Vladan Joler**, SHARE Foundation, SHARE Conferences
- **Jan Riise**, PLACES, ECSITE
- **Zeljko Tekic**, EU Researcher's Night Project, Faculty of Technical Sciences, Novi Sad, Serbia
- **Stevan Jokic**, EU Fibonacci Project
- **Igor Stankovic**, Enterprise Europe Network

The main topic of the session was development of better networks in order to promote existing and future projects and establishment of new alliances for the promotion of science. Through presentation of their various projects and initiatives, the panelists presented a range of approaches to science promotion and outreach activities. Outreaching to general population was identified as being of great importance for promotion of scientific results and more general for increasing the profile of researchers. Means of achieving this are different though. Ones are relying on the power of a brand known for excellent coverage of selected topics, while others are putting more emphasis on, in a sense, crowd sourced organization of topics, attractive accompanying program mixed with individual

motivation and enthusiasm of both organizers and participants. Financial support for organization of such promotion events is often a stumbling block and the lack of it requires adaptation and imagination to achieve the goals.

With the increased focus on the social aspects of research, ensuring the buy-in of the general population is becoming very important. Actively involving the society, the citizens, into scientific activities and highlighting the resulting benefits a community, a city or a region have, are an excellent approach towards successful promotion of the science and its importance for sustainable development of the society.

10. SCIENCE PROMOTION IN AND FOR SCHOOLS

Convenor:

Dubravka Vejnovic, Center for the Promotion of Science, Serbia

Panelists:

- **Srdjan Ognjanovic**, Director, Mathematical Gymnasium, Serbia
- **Marija Jelic**, Principal of School for Business Skills for Students of Belgrade University
- **Marina Drndarski**, Eco-musketeers, Serbia
- **Toni Milun**, International Institute for Science and Education, Croatia
- **Sonja Pavlovic**, "Little DNA School", Serbia
- **Kresimir Canic**, Co-founder and president of Croatian Urban Network, Croatia
- **Sanja Rajic and Aleksandra Ivanovic**, "Experience Science", Smederevska Palanka, Serbia

The panel provided an opportunity for networking and exchanging the experiences and new beginning of cooperation among participants and the audience. Several types and examples of good practice in promotion of different fields of science were presented at the panel, such as mathematics, meteorology, ecology, physics and molecular genetics. Furthermore, several concerns were addressed that call for further elaboration of potential answers:

1. Lack of support among other colleagues from the school while setting up School Science Festival,
2. Difficulties in funding the School events,
3. Dilemma: is it better to motivate children to participate in school competitions or to support their opportunity to do actual science and experience how it is to be a part of real research,
4. On-line lectures were not well accepted by some teachers.