

From Research to Market – what is needed in WBC?¹

Traditional modes of funding in research and higher education sector are in the process of change across Europe, including the higher education institutions in Western Balkan region. Public resources are being reduced in many countries while becoming more demanding and competitive at the same time, thus funding efficiency and financial sustainability are high on the agenda of the national, regional but also EU policy-makers. The trend related to modernisation of universities is clearly away from purely educational institutions towards entrepreneurial universities. The relevance of the topic was confirmed during the final conference of WBCInno project, held in Novi Sad on September 18, 2015. In words of Prof. Dr. Goran Stojanovic² from the University of Novi Sad:

“The topic “Modernisation of universities” is important topic bearing in mind that in this era, universities should be not only educational and research institutions, but also institutions which should establish close links with business sector, providing new opportunities for employment of students. Universities in WB region especially should improve this so-called third mission and they should take role also to create new working places through opening spin-offs or through cooperation with industrial sector. In situation when industrial sector in WBCs is not well developed, such as in the most developed countries in Europe and worldwide, university should educate students, should try to create job opportunities and to create new innovative values on the market. It seems that we expect from universities to be ALL IN ONE, but bearing in mind that the most educated persons are on our universities, it is realistic that universities can perform above mentioned complex roles and responsibilities.”

The purpose of the conference was to provide an international forum for the exchange of useful information over the broad spectrum of fields covered by entrepreneurship, knowledge/technology transfer, and university and business cooperation, so Prof. Stojanovic.

“The above-mentioned topics have resulted in 35 papers being submitted and reviewed, with 93 authors from 8 countries. Accepted papers were presented through 23 oral presentations and 12 posters sessions.”

Conference proceedings are published and also online available.³

WBCInno project, which focused on modernisation of WBC universities through strengthening of structures and services for knowledge transfer, research and innovation, collected a number of data related to research and innovation potential at five universities from the region as well as related to existing business support structures. Furthermore, several analytic reports and strategic papers addressing necessary steps towards improved cooperation between university and industry were published. Many of those documents are also available

¹ Article written by Ines Marinkovic, wbc-rti.info project coordinator and does not necessarily reflect the opinion of the Austrian Federal Ministry of Science, Research and Economy (BMWFW), nor European Commission.

² Interview with Prof. Goran Stojanovic, University of Novi Sad, September 18, 2015.

³ Conference proceedings: Modernisation of universities through strengthening of knowledge transfer, research and innovation. Online: <http://wbc-rti.info/object/document/14488>

in local languages; catalogues are also available in online version and are constantly updated. Please find below some of very useful publications⁴:

- Catalogue on Research and Innovation potential of the University of Kragujevac
- Catalogue of Research and Innovation potential of the University of Novi Sad
- Catalogue on Research and Innovation potential of the University of Montenegro
- Catalogue on Research and Innovation Potential of the University of Zenica
- Catalogue on Research and Innovation Potential of the University of Banja Luka
- Strategic Development Plan for Business Incubators and Science and Technology Parks in Western Balkan Region
- Business Support Offices of five WBC universities
- User Manual for Inno Platform
- Knowledge And Technology Transfer Between Science And Business: Academic KTT Offices` Experience And Good Practise
- Western Balkans Regional University Innovation Platform
- Methodology for Innovation Management
- Sustainability strategy for Universities in the Western Balkan Region
- Conference Proceedings

Some findings on business support structures in WBC

"Improving the links between universities and BIs and STPs necessary"⁵

The valorization of research results is considered an important topic for innovation and competitiveness; in Western Balkans, the awareness on the commercialization potential of scientific findings needs to be further increased in the scientific community and a closer cooperation between research institutions, business support structures and industry is required. As researchers are not always familiar with issues such as Intellectual Property Rights (IPR), standardization, technology-transfer matters, business plan writing and marketing, support mechanisms are important to guide them on their way to bringing products to market. Furthermore, the education system in this region does not encourage entrepreneurial culture and creativity among pupils and students at satisfactory level. Specific direct and indirect measures would help to foster also the entrepreneurial culture in WBC at earlier stages, improve the perspective of young generations and subsequently contribute to long-term knowledge-based economic growth in the region as suggested by SEE2020 (South East European 2020 Strategy).

One of the best ways to transform the research into innovations on the market, when ideas come from university staff, researchers and students is to incubate them in Business Incubators (BI) or Science and Technology Parks (STP). The development of BIs and STPs is at the same time one of the most efficient instruments for boosting the local economic development. In Western Balkan countries, there are a number of BI that are active and successful in providing the support to young innovative companies and a number of STPs in the establishing phase.

⁴ Theme in Focus: From Market to Research. Collection of related documents is available here: <http://wbc-rti.info/theme/19>

⁵ Findings based also on interviews with Prof. Vesna Mandic, coordinator of WBCInno project, and Djordje Celic, director of Business Incubator Novi Sad.

In Bosnia and Herzegovina there are 15 business incubators, 23 in Serbia and two in Montenegro. Some of them are only partially functional, others are registered but not working and several are in preparation phase. Table below gives an overview of performance of incubators in Bosnia and Herzegovina, Montenegro and Serbia since their establishment. Data was collected within WBCInno project in 2014.

Table 1: Performance of BIs since establishment

Country	Incubator	Year of establishment	No. of firms incubated	No. of new businesses created and supported	No. of jobs created at client or graduate companies
SRB	Subotica	2006	32	32	60
	Novi Sad	2010	12	13	43
	Zrenjanin	2005	24	30	82
	Beograd	2006	35	35	200
	Kragujevac	2008	31	9	100
	Užice	2008	32	6	80
	Kruševac	2008	51	-	-
	Prokuplje	2007	11	13	45
MNE	Vranje	2006	24	20	123
	Podgorica	2009	15	12	30
BH	Bar	2009	-	-	-
	Banja Luka	2010	32	-	-
	Modriča	2005	11	-	-
	Prijedor	-	7	-	-
	Zenica	2004	56	40	500
	Mostar	2011	4		
Trebinje	2009	8	6	12	

Table 2 shows the main economic activities in BI expressed in percent. As it can be seen, the most tenants of interviewed BI are active in the field of information and communication technologies. The University of Novi Sad is in particular successful in this area. Professors/researchers have an active role in establishing companies upon their research. As a result, over 100 spin offs have been established so far, creating direct and indirect jobs (honorary engagements, internships, fellowships, contracted R&D, etc.). Predominately, these spin offs are in the ICT sector and come from the Faculty of Engineering (aka Technical Sciences).”

Table 2: Main economic activities of BIs in B&H, Montenegro and Serbia

Country	Incubator	Main economic activities of the tenants								
		Sales, marketing and distribution	Business and financial services	Advanced manufacturing	Information & Communication Technologies	Research & Development (for others)	Biotechnology/ Pharmaceuticals	Knowledge-based industries	Other Manufacturing Activities	Other Service Activities
SRB	Subotica	15%	4%	43%	0%	4%	0%	4%	15%	15%
	Novi Sad	10%	0%	0%	80%	0%	0%	10%	0%	0%
	Zrenjanin	10%	10%	0%	60%	0%	0%	10%	0%	10%
	Beograd	0%	0%	14%	43%	6%	3%	23%	0%	11%
	Kragujevac	0%	12%	0%	45%	0%	0%	18%	0%	25%
	Užice	0%	0%	0%	0%	0%	0%	17%	83%	0%
	Kruševac	9.6%	14.2%	0.0%	19.0%	4.7%	4.7%	9.6%	14.2%	24.0%
	Prokuplje	25%	25%	0%	0%	0%	0%	0%	0%	50%
Vranje	0%	0%	60%	0%	0%	0%	5%	35%	0%	
MNE	Podgorica	10%	0%	0%	50%	10%	0%	0%	0%	30%
	Bar	0%	30%	0%	30%	0%	0%	0%	0%	40%
BIH	Banja Luka	no valid data								
	Modriča	no valid data								
	Prijedor	no valid data								
	Zenica	0%	0%	39%	43%	0%	0%	0%	0%	18%
	Mostar	0%	0%	0%	50%	0%	0%	0%	0%	50%
	Trebinje	no valid data								

However, there is room for improvement among BIs in Western Balkans. There are several reasons why the BIs in the WBC region are not developed at the satisfactory level:

- They were created ad hoc, since there was no strategic plan for their establishment and development taking into consideration geographical and economic aspects, and even regional development.
- Within the structure of the incubators, "production" incubators are prevailing, especially in the sectors of low and medium technology level.
- A small number of incubators are connected with universities and support the development of start-up companies in the high tech sector.
- Since there is no state program or fund for BI support, this resulted in incubators failing to develop adequate management teams that could provide good services to tenants.
- There is lack of understanding of the importance of BI development on a national, regional and local level
- The brain-drain from the whole region causes the lack of high-tech businesses initiated by young people as possible tenants in BIs.

The main goal for the establishment of a Science and Technology Parks (STP) is to increase the number of small and medium knowledge-based enterprises. Developing countries, which are lacking the knowledge in the field of high technologies, can use the STPs to attract the foreign investments, to enhance the regional competition, and also, the state competition, and to ensure new jobs and increase the state budget. A very important reason for creating a STP is to keep the best young professionals, while they will be provided the opportunity to do the attractive jobs, which are well paid, in their country. A STP can significantly influence the

process of transformation from the “lecturing” to an “entrepreneurial” university. The STP Belgrade has just recently published its first call for admission of new members.

Conclusions

In particular confronted with huge youth unemployment (up to 60% in some WBC) and severe brain drain, policy-makers in WBC should put the youth policies much more in focus and provide environment that encourages young people to recognise and take advantage of opportunities given in their own country. Starting a project or designing and launching one’s own business are exceptions, not the rule in most young people’s experience – not only in Western Balkan countries. Encouraging and giving young people the opportunities to learn how to start a project or conceptualize own ideas into businesses is extremely important not only for shaping their personality and possible carriers but also to foster entrepreneurial culture within one country and increase the number of innovative solutions to ever growing number of social problems. Motivation, creativity and in particular cooperation are indispensable components for change, also social change.

Summarizing, there are the following challenges to overcome in the region:

Challenge #1.

Increasing level of understanding of the roll and importance of business/technology incubators and science parks among states and local decision makers. Getting better understanding of importance of innovations for developing knowledge-based economy.

Challenge #2.

Motivate young and well educated people to invest their energy and potentials in starting new jobs in their native regions, preventing brain drain.

Challenge #3.

Prepare and adopt legal framework for strong development of innovative companies and their export possibilities and system of subsidies for developing innovation projects.

Challenge #4.

Improvement of networking at all levels (local, national, WBC and Europe): a) among business incubators; b) between BIs and STPs; c) between BIs/STPs universities and schools.

Challenge #5.

Improvement of visibility and promotion of existing BIs using of power of electronic and social media. Preparing and advertising calls for tenants supported by on-line applications, forming waiting list, wider range of information availability, downloadable promotional material / newsletters / brochures etc.

Challenge #6.

University support through development and implementation of courses in area of entrepreneurship, BIs, STPs, start-ups and spin-offs.

Challenge #7.

Establishment of Creativity Development Committee (CDC) and development of mentoring program for inventive students whose ideas can be incubated in BIs; their ideas can be elaborated within their graduation or master thesis, and afterwards presented to CDC, which can recommend them to join BIs/STPs

Challenge #8.

Establishment of the evaluation system for monitoring of BIs/STPs performances.

Challenge #9.

Organisation of joint competitions and awards: a) for the best BIs in the country or / and region, b) for the best tenant ideas on national/regional level.⁶

Note:

If you would like to contribute to this topic, if you have published some interesting papers you would like to share with the community, or you have some other related news or documents - please contact us at office@wbc-rti.info.

⁶ Further readings: "Strategic Development Plan for Business Incubators and Science and Technology Parks in Western Balkan Region. Online: <http://wbc-rti.info/object/document/14458>