WBCInno

Methodology for mapping of universities' innovation potential

Acronym: WBCInno

Project title: Modernization of WBC universities through strengthening of structures and services for knowledge transfer, research and innovation

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Revision Sheet

Release No.	Date	Revision Description	Responsible partner
Rev. 1	21/01/2013	Creation of document	UNS
Rev. 2	23/01/2013	Contribution by Coordinator and PST team	UKG
Rev. 3	04/02/2013	Some changes accepted and additional contribution	UNS
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List of abbreviations or Acronyms

BI	Business Incubator
EU	European Union
HTML	HyperText Markup Language
PC	Programme Committee
RDS	Regional Development Strategy
SC	Steering Committee
STP	Science and Technology Park
UB	University of Brighton
UBL	University of Banja Luka
UIP	University Innovation Platform
UKG	University of Kragujevac
UNS	University of Novi Sad
UM	University of Montenegro
UZ	University of Zenica
WBC	Western Balkan Country

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1. WBCINNO OBJECTIVES

As a response to challenges and perceived problems in the Western Balkan region, the WBCInno project has a wider objective to contribute to the modernization of WBC universities through the strengthening of its management structures and services for cooperation with the world of business, in the areas of knowledge transfer, research and innovation. This in turn has the ultimate goal of creating strong entrepreneurial universities and innovative regions. Hence, five specific objectives are set:

1. To develop Regional University Innovation Platform (UIP),
2. To reinforce existing and to establish new university structures, in line with UIP
3. To support the development of BIs/STPs in the WBC region,
4. To develop a Methodology for innovation management based on collaborative software tools, and
5. To facilitate the creativity of students and involvement of stakeholders based on the Triple helix model.

2. WORKPACKAGE 1 – BRIEF DESCRIPTION

Workpackage 1 is entitled: “Design and development of the Regional University Innovation Platform (UIP) at five WBC universities”.

The WBC universities will participate in mapping their innovation potential which should result in elaboration of five catalogues of innovation potential of WBC universities as a printed and HTML published reviews, easily accessible for all interested parties. This activity is a prerequisite for the development of UIP which will be suited to the WBC environment and identified needs and constraints.

The University of Brighton (UB) is the workpackage leader, but all partners are involved. Development of UIP should be managed by Program Committee of 15 members (2 university staff and 1 representative of students from each WBC university) with advisory support of EU partners. Its final adoption will occur by M13 at the 2nd SC meeting having first been the subject of a public debate at WBC universities (200 questionnaires). Printed and electronic versions will be disseminated throughout the WBCs. Its implementation will be monitored and tuned throughout the project. It will finally define priority research areas, focusing on the identified needs of the region, as well as providing a set of strategic measures for:

- capitalizing of university knowledge and research potential

- commercialization of research results and their transformation in innovation,
- development of cooperation between universities and enterprises,
- encouraging students/researchers to establish start-ups and spin-offs, and
- strengthening the university capacity to support the development of BIs and STPs.

3. MAPPING OF INNOVATION POTENTIAL AT WBC UNIVERSITIES

Mapping of innovation potential at WBC universities will be conducted in terms of identifying/collecting data on research infrastructure, laboratories, centres, research teams with noteworthy results, developed technologies and knowledge, offered commercial services and training, licenses, patents etc.

UNS will lead this task and UKG, UBL, UZ, UM will participate. Results of the mapping of innovation potential at WB universities will be presented in the form of 5 regional catalogues of innovation potential of UKG, UNS, UBL, UZ, UM, in printed and HTML version for easy access of interested parties. The Catalogue will include well-structured information about available capacities and capabilities to be involved in knowledge transfer, applied research and its transferring into innovations on the market.

4. METHODOLOGY FOR MAPPING OF UNIVERSITIES' INNOVATION POTENTIAL

4.1 Ways of collecting data

The first task is to create an appropriate Questionnaire for mapping of universities' innovation potential, including Annex 1 which is designed for collecting data from selected University Centres / Laboratories / Offices / Teams. After adoption of these forms by all WBCInno partners, they will be distributed to the contact persons and team members of the five WBC universities: University of Kragujevac, University of Novi Sad, University of Banja Luka, University of Zenica and University of Montenegro. The required data in the framework of the Questionnaire forms should be fulfilled by representatives of selected University units.

The ways of collecting data should be:

- electronically (by email)
- using face-to-face interviews (on the field)
- by telephone
- by browsing web-sites of selected University units (if any).

The electronic method implies sending the Questionnaire forms using email to selected representatives and giving a deadline for sending back filled in forms. If it is necessary, the follow-up contacts are foreseen in order to obtain higher response rate. In the case that the mapping is realized on the field, then interviews with the representatives of University units will be scheduled and forms will be filled in on site by Project Team members from the University. In order to provide high quality of questionnaires and collect sufficient amount of data, additional efforts will be put into collecting necessary information by browsing University units' web-sites or by telephone.

The questionnaire forms are designed as open-ended questions which allow the selected respondents to answer the question in their own words. Questions are placed in a logical order.

During this procedure, WBCInno contact persons from five WB universities should be available for any suggestions, help and guidelines to the surveyed University units.

In order to facilitate the whole process and have unified approach in WBC region, within this methodology an invitation letter is designed as Annex 2 to accompany the Questionnaires. The signatory of the invitation letter should be at least the contact person (with contact details for further correspondence) and if possible a representative of university management team as well, which is highly recommended.

4.2 Identification of entities with respectable results

Designed Questionnaires should be distributed to the leaders of the centres, laboratories, offices and teams within involved Universities from WB region and with activities related to targeted areas of knowledge transfer, high-level research and innovation. Moreover, they should have respectable results in their work, such as:

- international projects (FP7, CIP, TEMPUS, ERASMUS, LLL, COST, EUREKA, etc.);
- development of prototypes, products, services, concepts, strategies, methodologies, etc. ;

- patents or other research valorization means;
- important resources, modern equipment, software and test facilities;
- commercial services for third parties (e.g. consulting, training seminars, etc.).

In order to have better presentation of collected data in catalogues (especially its HTML version), appropriate classification will be applied during collecting and presenting those data in the catalogue, in accordance with the Annex 3 (SCL-Field of science and technology classification 2007),

http://ec.europa.eu/eurostat/ramon/nomenclatures/index.cfm?TargetUrl=LST_NOM_DTL&StrNom=CL_FOS07&StrLanguageCode=EN&IntPcKey=&StrLayoutCode=HIERARCHIC.

This will be especially useful for further capitalization and focus on limited number of research areas within a University, particularly in accordance with national and regional strategies for science and technological development in Serbia, Bosnia & Herzegovina and Montenegro. For example, science and technological development strategy of the Republic of Serbia (2010-2015) proposed seven national priorities:

- Biomedicine and human health
- New materials and nanosciences
- Environment protection and climate change
- Agriculture and food
- Energy and energy efficiency
- Information and communication technologies
- Improvement of public policy making processes and affirmation of national identity.

The main criteria for selection of the research teams from University of Kragujevac, University of Novi Sad, University of Zenica, University of Banja Luka and University of Montenegro are presented in Table 1.

Table 1. Criteria for selection of research teams

No.	University	Team members	Papers in ISI jour. (annually)	Ongoing projects	Prototypes/ products	Patents	Equipment (EUR)
1	UKG	> 5	≥ 5	≥ 2	≥ 2	≥ 1	≥ 100000
2	UNS	> 5	≥ 5	≥ 3	≥ 2	≥ 1	≥ 200000
3	UZ	> 5	≥ 5	≥ 1	≥ 2	≥ 1	≥ 100000
4	UBL	> 5	≥ 5	≥ 1	≥ 2	≥ 1	≥ 100000
5	UM	> 5	≥ 5	≥ 1	≥ 2	≥ 1	≥ 50000

Those research teams which have satisfied 4 out of 6 criteria from Table 1 will be considered to be chosen to fulfill questionnaire form.

Having in mind organizational structure of universities in the region, which are consisted of faculties, departments, research centres, laboratories, the contact persons from each university will in the first stage conduct preliminary selection of university units, in accordance with their activities (knowledge transfer, Longlife Learning, IPR protection, Consulting services, etc.), research (in accordance with SCL classification) and available resources that can serve for applied research and innovations.

After review of filled in questionnaires and performed interviews with the representatives of these units, collected data will be analyzed and only selected entities will be included in the innovation potential catalogues.

Well-structured Catalogues will be available as HTML version, and they will be updated regularly and posted on the WBCInno web site (www.wbc-inno.kg.ac.rs). Printed versions will be distributed to all partners as well as universities authorities and other stakeholders in the field.

The catalogues should be very useful as a part of broader efforts to improve consistency and relevance of national information on innovation potentials and to make the comparability within the WBCs. This can be also a part of reports related to the science for countries which would like to be a part of EU in the near future as well as for better inclusion of the WBC universities in HORIZON’2020.

5. QUESTIONNAIRE

A) University from WB region - Contact data

University name	
Address	
City	
ZIP/Postal code	
Country	
Rector	
Phone	
Fax	
E-mail	
URL	
Contact person responsible for this Questionnaire	
E-mail	
Phone	

B) Structures and mechanisms for support of knowledge transfer, research and innovation

B1. Please give a short overview of existing supportive structures and mechanisms for knowledge transfer, research and innovation within your university.
B2. Please give the names of successful laboratories at your university, describing their main research/innovation activities and any interaction with commercial enterprises. If possible, please give the web site and team leader contact data.
B3. Please give the names of any research centres of excellence at your university. Please give the web site and team leader contact data.

B4. For the research teams from your university that are successful in the relevant field, please give the names of the research team leaders and contact data.
B5. Please give the names of successful centres/offices at your university which offer training and services for university staff and enterprises, describing their main knowledge transfer activities. Please give the web site and team leader contact data.
B6. Please briefly describe the process or procedure for submitting patent applications at your University. Please include details of any offices or bodies which provide help to the researchers in this process.

B7. Do you have a unit at the University dealing with IPR protection and providing consultancy in that field? If yes, please provide short description of their activities.
B8. Please give a short overview of any established clusters, technological and science parks, business incubators or other related organizations within your university or region.
B9. Does your university participate in the organization of events devoted to innovation? Please briefly describe this participation and the nature of the events.

C) Success stories - innovations transferred in products, services, software on the market at the University

C1. Please select one good practice case of innovative product (hardware) developed at your University, which found a place on the market. (max ½ page)
C2. Please select one example of good practice in terms of innovative service developed at your University, which found a place on the market. (max ½ page)
C3. Please select one example of good practice in terms of innovative software developed at your university, which found a place on the market. (max ½ page)

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C4. Could you estimate an average elapsed time from innovative idea to placing product, service, software, etc. on the market for researchers at your university?
C5. Please give the names and business focus of the most successful spin-off or start-up (up to 3) companies which have originated from your university? If possible, please give web site of these companies.
C6. Which offices within the University and/or organizations outside of the University support innovation in your case?

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D) Suggestions

D1. Please use the space below to express your suggestions for increasing innovation potential at your University, with neither financial limits nor space constraints.

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6. ANNEX 1

1. Name of the centre / laboratory / office / team
2. Key words (for browsing on on-line catalogue)
Please provide as far as possible key words which best describe activities, research fields, expertize, trainings, projects within the centre / laboratory / office / team
3. Please describe briefly the main objectives and activities of your centre / laboratory / office / team (bullet points are favoured)
4. Please describe the most important results achieved within the centre / laboratory / office / team
5. Please describe key personnel within your team
Names, short CV, up to five the most important references

6. Please give the list of the most important projects within your centre / laboratory / office / team
International projects (FP7, CIP, TEMPUS, ERASMUS, LLL, COST, EUREKA, etc.) and national projects
7. Please give the list of the most important prototypes/products/services including also concepts, strategies, methodologies
8. Please give a list of the most important patents or other research valorization means (up to 10)
9. Please describe the most important resources, equipment, software and test facilities which can be shared with other SMEs or research teams (figures, illustrations, links on web sites for video materials, photos, animations and contact details are welcome)

10. Are there some commercial services (e.g. consulting, training seminars) offered at your centre / laboratory / office / team? If yes, please describe which services and for which targeted groups
11. Are there developed entrepreneurship/specialized/customized trainings? If yes, what trainings are offered and for which targeted groups
12. Do you have some innovative prototypes / products / services which are in the pipeline and may emerge within the next few years?
☐ No, not at all. ☐ Not at the moment, but we plan to develop some. ☐ Yes, we do.
13. Are you satisfied with the level of IPR Protection at your University? If you have some suggestions or recommendations, please describe them here.

14. Contact person (head, team leader etc.) of the centre / laboratory / office / team (name, address, tel., fax, e-mail, URL)

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7. ANNEX 2

INVITATION LETTER

To whom it may concern

Dear Sir/Madam,

as you probably know from October 2012 at our University started with the implementation TEMPUS project entitled “Modernization of WBC universities through strengthening of structures and services for knowledge transfer, research and innovation”, with the acronym WBCInno.

One of the important activities within this project is mapping of universities’ innovation potential. The first task is to select successful centres / laboratories / offices / teams from our University which should be incorporated in a Catalogue in hard copy and HTML version. This will contribute to increased visibility of the best research entities from our University.

We think that your research team deserves to be included in this Catalogue, therefore we kindly ask you to participate in our survey.

Please find enclosed the Questionnaire form and Annex 1. Please fulfill all required data in these forms and send back to us in order to collect content from the forms in the Catalogue.

Thank you in advance.

We are looking forward to receiving your replay.

Yours faithfully,

_____

Contact person

Contact details for further correspondence
Address:
E-mail:

8. ANNEX 3

Field of science and technology classification (FOS 2007)

FOS1-4 Natural sciences, Engineering and technology, Medical and health sciences, Agricultural sciences

FOS1 Natural sciences

- FOS101 Mathematics
- FOS102 Computer and information sciences
- FOS103 Physical sciences
- FOS104 Chemical sciences
- FOS105 Earth and related environmental sciences
- FOS106 Biological sciences
- FOS107 Other natural sciences

FOS2 Engineering and technology

- FOS201 Civil engineering
- FOS202 Electrical engineering, electronic engineering, information engineering
- FOS203 Mechanical engineering
- FOS204 Chemical engineering
- FOS205 Materials engineering
- FOS206 Medical engineering
- FOS207 Environmental engineering
- FOS208 Environmental biotechnology
- FOS209 Industrial Biotechnology
- FOS210 Nano-technology
- FOS211 Other engineering and technologies

FOS3 Medical and health sciences

- FOS301 Basic medicine
- FOS302 Clinical medicine
- FOS303 Health sciences
- FOS304 Health biotechnology
- FOS305 Other medical sciences

FOS4 Agricultural sciences

- FOS401 Agriculture, forestry, and fisheries
- FOS402 Animal and dairy science
- FOS403 Veterinary science
- FOS404 Agricultural biotechnology
- FOS405 Other agricultural sciences

FOS5_6 Social sciences and Humanities

FOS5 Social sciences

- FOS501 Psychology
- FOS502 Economics and business
- FOS503 Educational sciences

FOS504 Sociology
FOS505 Law
FOS506 Political Science
FOS507 Social and economic geography
FOS508 Media and communications
FOS509 Other social sciences

FOS6 Humanities

FOS601 History and archaeology
FOS602 Languages and literature
FOS603 Philosophy, ethics and religion
FOS604 Art (arts, history of arts, performing arts, music)
FOS605 Other humanities