

EFFECTIVENESS OF THE EU PROGRAMMES FOR SERBIAN SMES

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Abstract: *For several years Serbia has gained access to and is integrated into the main EU support programmes for research, innovation and competitiveness such as the Competitiveness and Innovation Programme (CIP), Enterprise Europe Network (EEN) and Seventh Framework Programme (FP7). Meantime, Serbia has successfully set up the infrastructure to manage EU-based programmes. In this paper we are discussing the effectiveness of these programmes on improving technology transfer and linkages between the R&D sector and SMEs, as crucial components of a national innovation system in Serbia.*

Keywords: *national innovation system, EU programme, FP7, EEN, evaluation*

1. INTRODUCTION

Technological development is a result of a complex interaction between business organizations, R&D institutes, universities, professional associations, educational and information infrastructure, financial institutions and public agencies. This network represents the National Innovation System (NIS) (Lundvall, B. A. (ed.) 1992). According to Porter, Furman and Stern, National Innovativeness Capacity (NIC) is capability of nation to produce and commercialize new technologies in long term. NIC includes developed innovativeness infrastructure, developed innovativeness environment in industrial clusters, and relationship between those two. According to that, one of the most important strategic goals of economic development in Serbia should be creating positive environment for encouraging and developing stronger interaction between organizations' development and scientific-research development (SRD).

In economies in transition, the creation of these complex networks is more complicated than in developed, because a lot of the aforementioned elements of the network are undeveloped or do not exist. Therefore, scientific and technological policies for developing countries must be different from those for developed countries (Kutlača D. 2008). The main tasks and objectives of national innovation system of Serbia are technology development as a main condition for overall economic and social development and creation of framework for building of knowledge based economy and society (Kutlača Đ. and Semenčenko D. 2004).

2. PROGRAMMES SUPPORTING TECHNOLOGICAL DEVELOPMENT IN SERBIA

In recent years there is considerable breakthrough in promotion of innovation as a main driven factor of the economy and society with intention to Serbia become a knowledge based society. The policy frame is set by the Serbian Law on Innovation Activity, last amended in March 2010¹ and implemented by MoES/MoSTD. The Law on Innovation Activity regulates basic principles, goals and organization of application of scientific knowledge and inventiveness, for the purpose of creation and realization of new and improved products, processes and services to serve as a driving force for the development of the Republic of Serbia. Based on the legal frame, the government has developed the Strategy for Scientific and Technological Development of the Republic of Serbia for the period 2010-2015.

The Strategy for the Development of Competitive and Innovative Enterprises was adopted in 2008 and implemented by the MoERD; it is a strategic policy document for development of small and medium-sized enterprises and entrepreneurship, which defines key priorities and the way they will be implemented. The Strategy is based on five pillars, further developed in modules and measures, corresponding to the priorities in SME development and aimed to contribute to improving the performance of the entrepreneurs through all stages of start-up, growth and development of SMEs.

Specific support to technological development and innovation through national programmes is provided both, by the Ministry of Education and Science and the Ministry of Economy and Regional Development, as well as government of Autonomous Province Vojvodina. Currently are in progress the following programs:

1. "Programme supporting Basic Research for the Research Cycle 2011-2014" ("BR Programme")
2. Programme supporting Research in the Field of Technological Development for the Research Cycle 2011-2014 (TD Programme)
3. Programme of Co-Funding of Integrated and Interdisciplinary Research for the Research Cycle 2011-2014" ("IIR Programme")
4. "Programme of Providing and Maintaining Scientific Research Equipment and Scientific Research Facilities for the Research Cycle 2011-2014" ("SREF Programme")
5. Mini Grants financing Program
6. Matching Grants Program
7. Financing Of Short-Term Projects With A Special Interest For Sustainable Development in Vojvodina
8. "RIGHT" at the first chance
9. Plants for application of new technologies in AP Vojvodina
10. SMEE Competitiveness Support Programme
11. Programme for Innovative Cluster Development
12. SME Innovation Support Program.

For several years Serbia has gained access to and is integrated into the main EU support programmes for research, innovation and competitiveness such as the Competitiveness and Innovation Programme (CIP), the Enterprise Europe Network (EEN) and the Seventh Framework Programme (FP7). Meantime, Serbia has successfully set the infrastructure up to manage EU-based programmes.

The Serbian government's strategy for development of SME Sector was defined as a short-term priority within the National Programme for the Integration of the Republic of Serbia in EU with reference to the "Small Business Act". The EU framework, guiding entrepreneurship support and promotion, has been taken into account in developing the Serbian SME strategy. In total nine innovation support programmes and measures, targeting for improved competitiveness of the SME sector, were assessed to measure the programmes' impacts.

3. EFFECTIVENESS OF THE EU PROGRAMESS SUPPORTING INNOVATIVNESS IN SERBIA

Between the other, the Improved SME Competitiveness and Innovation Project (ICIP), financed by the EU aims at improving the competitiveness of Serbian SMEs and increasing levels of innovation in SMEs. The project also envisages related needs to strengthen the institutional capacity and support framework for increased level of innovation in enterprises, upgrade of innovation support services, build of capacities of innovation stakeholders and strengthen links between education, research institutes and business.

To support these aims ICIP has undertaken an in-depth analysis of the innovation and competitiveness support programmes in Serbia to raise awareness for strong policy coordination among main stakeholders to further adapt the support tools in accordance with needs of enterprises and innovation service providers (ICIP, 2011). In total nine SME innovation and competitiveness support programmes have been evaluated that are implemented by the Government of Serbia and managed by the Ministry of Economy and Regional Development (MoERD), Ministry of Science and Technological Development (MoSTD) – since March 2011 integrated within the Ministry of Education and Science (MoES) – and the National Agency for Regional Development (NARD). The assessment of the innovation and competitiveness support programmes is done against the government strategy for development of competitive and innovative small and medium-sized enterprises and the related policy aims and expected intermediate results. Detailed reports are produced by a team of experts for each assessment result.

The following programmes were assessed by ICIP under the activity 2.1 "Assessment of Innovation Support Programmes": Project for Supporting SMEs to Invest in Innovation, Project for Supporting the Development of Competitiveness of SMEs and Innovation, Project EEN - Enterprise Europe Network - in Serbia 2009-2010, CIP/EIP Programme in Serbia 2009-2010, Competition for Best Technology Innovation, EU FP7 Programme, Business Incubator Network, Innovation Fairs, Innovation Projects.

Reports were produced on each of the assessed programme and support activity, including main findings and recommendations. The assessment of the programmes consists of two approaches: firstly, sample groups of enterprises, which have participated in innovation support programmes and received grants for the purpose of the improvement or development of new products/ services/ processes were given questionnaires; secondly qualified interviews were held with persons from the MoERD, MoES, NARD and other government organizations responsible for managing the programmes.

In further discussion will be analyzed in detail effectiveness of programmes EEN - Enterprise Europe Network and FP 7 EU programme in Serbia. The main findings are results of research that was conducted within Improved SME Competiveness and Innovation project (ICIP), in which the experts from Mihajlo Pupin Institute were included⁴.

4. ENTERPRISE EUROPE NETWORK (EEN)

EEN project have started in Serbia in 2009. Within EU, national EENs were heritage of the former Innovation Relay Centers (IRC) and Euro Information Centers (EIC), and resulted from their merge, inside the frame of EEN project in the beginning of 2008 (2011, Semencenko, Mosurovic). The main purpose of the project in Serbia is internationalization of Serbian businesses and R&D results, and increase of the competitiveness of SME sector through greater access to information and business and technology connection at the EU level. Enterprise Europe Network became one of the basic tools for encouraging innovativeness of small and medium enterprises in Serbia. The staff of the EEN consortium in Serbia is highly professional, with previous background partly in academia sector involved in different kind of NIS research, and the other from public institutions who are dealing with administrative, technical and other kind of service support to SMEs. Being in that way trained and skilled, they can come out to meet demand of clients at all times. One significant advantage of EEN services is that they are free of charge to all interested companies. By establishing EEN in Serbia, it would be possible to motivate companies to think about improving innovation through new forms of business and technological cooperation as well as advisory services, not only through financial support from government and other funds.

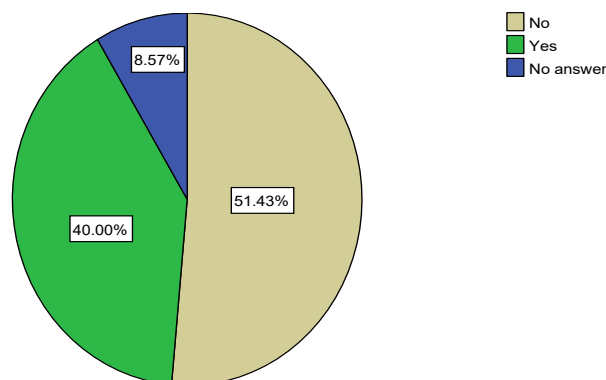
More than 40 experts within EEN project in Serbia are engaged in order to help Serbian SMEs to identify their needs and potential. The main task of EEN project is to improve competitiveness of Serbian SMEs :

- To develop their business in new markets
- Source or license new technologies
- Access EU finance and EU funding.

According to the survey that Mihajlo Pupin Institute conducted in 2010, the services of EEN are recognized among Serbian SMEs (Semenčenko D. and Mosurović M. 2011). The main purpose of survey was to see how clients who received services from EEN in Serbia evaluate it. The statistical analysis of the survey was reflecting awareness of SMEs in Serbia about Enterprise Europe Network services and their satisfaction with those services. More than half respondents (51.43%) couldn't find other service providers offering the same or similar services as EEN in Serbia; 40.00% could, while 8.57% did not express any opinion on this issue (picture 1).

Picture 1. EEN and other service providers offering the same or similar services

When looking for support services, were there other service providers offering the same or similar services?

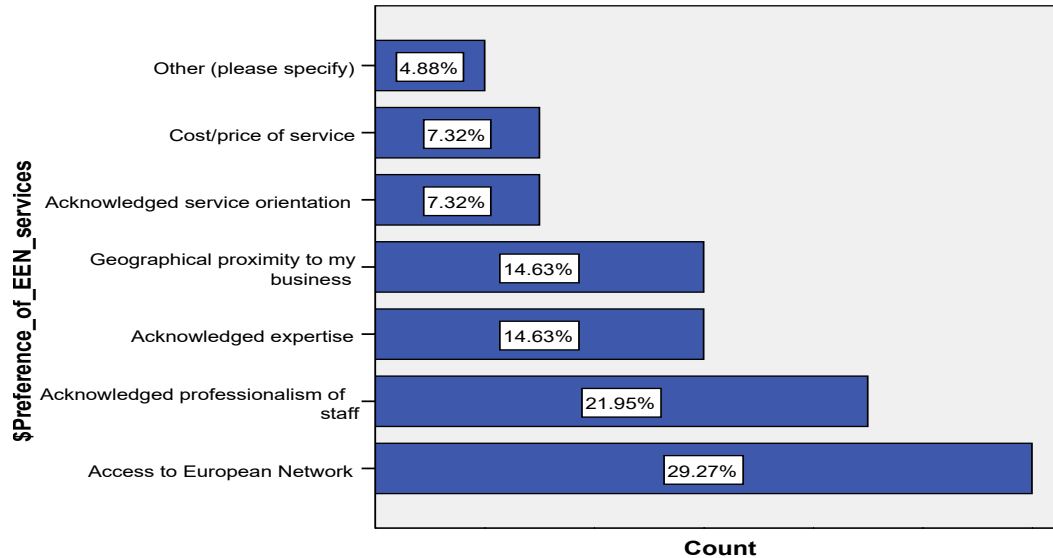


Source: Semenčenko D. and Mosurović M. (2011).

⁴ Detailed reports are produced for each assessment result by a team of experts in ICIP project, SE Prof. Dr Djuro Kutlaca and JE Sanja Popovic-Pantic, M.Sc, as well as team members, Dusica Semencenko Ph.D, as MPI expert and technical support of Marija Mosurovic M.Sc. and Zorica Mitrovic (ICIP, 2011).

Respondents preferred the Enterprise Europe Network’s services more than services of other providers who were offering the same or similar services, primarily because of the possibility of access to European Network (29.27%), as well as the acknowledged professionalism of staff (25.7%) (picture 2.).

Picture 2.The reasons companies preferred the Enterprise Europe Network’s Services



Source: Semenčenko D. and Mosurović M. (2011).

Only (4.88%) respondents listed other reasons besides those mentioned in the question:

All respondents (100%) were aware that the Enterprise Europe Network was an initiative of the European Commission and is supported by European Union budget. Almost 90% of enterprises reported that the Programmes met their expectations. 25% of enterprises have applied an innovation strategy for the first time with the support of the Programmes. The survey found strong evidence of increased technical and non-technical innovations in enterprises; 68% claimed that the participation in the Programmes provided the basis for contribution to organizational changes and development of their business model and 65% reported that the Programmes allowed them to focus on their innovation capacities based on their own resources and supported by innovation collaboration with external partners.

The Programmes contributed significantly to the cooperation between research and economic entities. Almost 70% of enterprises have established innovative partnership through the Programmes, although only 12% organized it with R&D institutions or universities (28%) while the majority (43%) cooperated with consulting firms. The majority of them (65%) evaluated the cooperation as very good or excellent; consequently, 75% of enterprises will develop in the future new innovative activities in cooperation with external partners. Regarding future plans, 90% of enterprises reported to plan investments in innovation also for the coming years.

The technical and non-technical innovation effects are likely to increase based on the positive evaluation of enterprises, but could be positively influenced by availability of a central database with all eligible R&D institutions, university departments, consulting firms and laboratories acting as Business and Innovation Support Organizations (BISOs) for SMEs, which is under development.

By establishing EEN in Serbia, the direct and indirect users are in position to gain information about the requirements for entering and conducting business operations in EU (relevant legislation, directives, etc.), export opportunities, public procurement possibilities, innovative technologies, potential innovative partners, EU RTD possibilities and programs, and gain access to the innovative technologies in one place (one-stop-shop). Right information and right innovative solutions to the problems of SMEs contribute to the business development of Serbian SMEs and their survivability on today’s dynamic and open markets. Also, the EEN can provide evaluations of company’s financial situation and help in order to find the best possible source for funding support.

The main recommendations and proposed corresponding actions are:

1. EEN consortium and policy makers should promote the activities of EEN in Serbia with higher intensity among enterprises in Serbia in order to improve their innovation capacity.
2. It is clear that Enterprise Europe Network must continue its work with more joint efforts and must create an even larger client base in order to reach its goal and become a stronger support to SMEs and Serbian economy.
3. It is recommended to establish robust monitoring, evaluation and impact assessment Monitoring and Evaluation (M&E) system for this Programme support
4. In order to make SMEs motivated to be more responsive on the EEN activities, it is important to organize meetings where the achieved results will be promoted. Presentation of "Best practice in EEN Serbia: How to use access to EU market at your doorstep" might be appropriate form to get SMEs together and keep them informed on the regular basis on the benefits EEN can provide to them.

5. THE SEVENTH FRAMEWORK PROGRAMME FOR RESEARCH AND TECHNOLOGICAL DEVELOPMENT - FP7

The Seventh Framework Programme for Research and Technological Development (FP7) has the main aim to improve scientific and technological basis at EU level. There is intension to encourage SMEs, research centers and universities in their research and technological development activities.

The integration of Serbia's R&D system into the European Research Area (ERA) system is a need, desire and the destiny of the vast majority of researchers in Serbia. The results of survey present the facts why it is good that the creative sector of Serbia becomes part of the European Research Area and thus contribute to the development of national economy and society as a whole. This good spirit and motivation of national science can, and should be used as a motivational factor for the faster integration into European Union and all other sectors and countries as a whole.

Process of integration of National innovation and research system (NIRS) of Serbia in the ERA is primarily a process of people, working together - local researchers with their counterparts from the EU. Serbian participation in EU projects should be improved. The number of FP7 projects where Serbia was included as a coordinator is too low, but in general number of projects is in increase (table 1), comparing with other countries the number is similar with the new EU member countries.

Table 1. The success rate of Serbian projects in FP7

		Number of Applicants (main listed)	Number of Proposals (main listed)	Sum of Number of Applicants:	Sum of Number of Proposals:	Success rate (based in main listed proposals)
Capacities	Activities of International Cooperation	8	4	33	20	24.24 %
	Regions of Knowledge	1	1	21	6	4.76 %
	Research for the benefit of SMEs	4	3	66	39	6.06 %
	Research Infrastructures	11	10	29	26	37.93 %
	Research Potential	22	18	238	216	9.24 %
	Science in Society	7	7	47	45	14.89 %
	Support for the coherent development of research policies	1	1	4	3	25.00 %
Capacities	Sum:	54	44	438	355	
Cooperation	Energy	10	8	44	31	22.73 %
	Environment (including Climate Change)	11	9	67	53	16.42 %
	Food, Agriculture and Fisheries, and Biotechnology	16	11	80	65	20.00 %
	Health	3	3	78	67	3.85 %
	Information and Communication Technologies	27	20	164	129	16.46 %
	Nan sciences, Nanotechnologies, Materials and new Production Technologies - NMP	3	3	9	9	33.33 %
	Security	1	1	14	12	7.14 %
	Socio-economic sciences and Humanities	1	1	98	81	1.02 %

	Space			7	3	0.00 %
	Transport (including Aeronautics)	6	6	41	33	14.63 %
Cooperation	Sum:	78	62	603	484	
EURATOM	Nuclear Fission and Radiation Protection			2	2	0.00 %
EURATOM	Sum:			2	2	
Ideas	ERC	1	1	8	8	12.50 %
Ideas	Sum:	1	1	8	8	
People	Marie-Curie Actions	12	9	77	60	15.58 %
People	Sum:	12	9	77	60	
	NA			2	1	0.00 %
	SP2-ICT PSP (ICT Policy Support Programme)	2	2	2	2	100.00 %
	Sum:	2	2	4	3	
TOTAL FP7 (20. 12.2010)		147	118	1,132	912	12.99 %

Source: Kutlača Đ., Semenčenko D., Nedović V., Kolić J. (2011).

The best evidence of Serbian soaring involvement in EU support programmes is the opinion of managers of teams from Serbia in FP6 and FP7 projects, collected in the survey conducted during the Jun of 2009. (Kutlača Đ., Semenčenko D., Nedović V., Kolić J. 2011).

The project effects have fulfilled the expectations of their project managers. Almost three quarters of respondent were evaluated project effect as excellent. But, some of them 37.5% didn't want to be involved again in FP7 as coordinator. The main reasons for negative attitude are:

- Complexity of administrative procedures, too much time is spent on management (especially at faculties which structure are not sufficiently organized)
- As a first I need experience as a work package leader in one or two projects, and then I will be able to take over coordination of the project. Beside that there are a lot of practical obstacles in money transfer from Serbia to partners in EU.
- Insufficient resources (human and material resources),
- Administrating projects is too much demanding,
- Too much obligations, especially administrative, currently I'm a project coordinator and next time I'll gladly give it to someone else.

But, there is still missing one important link in the chain of technology transfer processes – SMEs. Facts about low participation of SMEs from Serbia in FP projects urged on action. The problem is recognized within Ministry for Science and Technology Development, Department for international cooperation and European integration and National Contact Point (NCP) system, but still stays unsolved.

By the end of 2009, in total, 107 Serbian organizations and enterprises participated in the FP6/7 programme, which is evaluated as a good result. The number of SMEs benefiting from FP7 is given by the CORDIS database as 8 (5 from the thematic field of ICT and 3 from Knowledge Based BIO-Economy). None of those companies is project leader.

The main recommendations and proposed corresponding actions are:

1. Interaction with other stakeholders within national innovation infrastructure is recommended
2. Promotion of building partnerships between R&D institutions and SMEs is desirable. In this context, dissemination of the information about FP7 among SMEs should be intensified.
3. Linkages between NCPs and Enterprise Europe Network Serbia should be more developed and encouraged.
4. It is recommended to establish robust monitoring, evaluation and impact assessment (Monitoring and Evaluation - M&E) system for this Programme support.
5. To inter-connect all relevant EU funded projects to support innovation of
6. SMEs in Serbia with the aim to make final beneficiaries (SMEs) familiar with them. As a first step, set up of the links toward the relevant web sites of the mentioned programs are recommended. Link toward the FP7 should be set up on i.e. the website of the MoERD.

5. CONCLUSIONS

The initial aim of this paper was to examine importance of EU programs as a support for SMEs innovativeness in Serbia. Our survey indicates that participation in all supporting Programmes is evident for developing innovation culture and innovation management capabilities in enterprises for both SME owners and innovation project managers.

Also, our intention for analysis of the innovation and competitiveness support programmes in Serbia was in order to raise awareness for strong policy coordination among main stakeholders.

The evaluation of innovation support programmes is done irregularly and does not follow a harmonised approach. It is proposed to undertake an impact assessment of programmes supporting innovation and competitiveness in Serbia.

The approach should make a distinction between:

- Evaluation of the programme performance against programme objectives on the basis of clearly defined, measurable key performance indicators (e.g. quantified jobs ensured or created);
- Assessment of the cost effectiveness of the programmes in terms of policy aims, expenditure which results in the engagement of business, and the take-up of programmes.
- Strengths and logic of programme linkages, though causal chains that show the relationships and pathways between different implementation measures and programmes, in order to identify both strengths and weaknesses, as well as unanticipated consequences of the measures
- Direct impact on business activities and practices and business performance (e.g. new products initiated, profitability of business or penetration of new markets), as well as indirect wider spill-over effects (including Strategic Added Value) through the involvement of research partners and stakeholders; and
- Socio-economic impact assessment, measuring the gross and net economic impacts (e.g. employment, business creation, local multiplier effects, and Gross Value Added) at national and regional levels.

It is further proposed that an impact assessment system and methodology should be established allowing the respective authorities to undertake regular evaluation of socio-economic impacts of such programmes on a comparative basis, which will also ensure that both national and regional disparities in access, take-up and impact can be clearly monitored and assessed.

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