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Mini Country Report/Serbia

under Specific Contract for the Integration of INNO Policy TrendChart with ERAWATCH (2011-2012)

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Thematic Report 2011 under Specific Contract for the Integration of
INNO Policy TrendChart with ERAWATCH (2011-2012)

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Author: Djuro Kutlaca, "Mihajlo Pupin" Institute, Belgrade

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Preface

The European TrendChart on innovation is the longest running policy benchmarking tool at European level. Since its launch in 1999 it has produced annual reports on national innovation policy and governance, created a comprehensive database of national innovation policy measures and organised a series of policy benchmarking workshops. The databases of INNO Policy TrendChart and ERAWATCH have been merged and a joint inventory of research and innovation policy measures has been created by the European Commission with the aim of facilitating access to research and innovation policies information within Europe and beyond.

With a view to updating the innovation policy monitoring, the European Commission DG Enterprise and Industry commissioned a contract with the objective to provide an enhanced overview of innovation and research policy measures in Europe and to integrate the INNO Policy TrendChart with the complementary ERAWATCH platform. This contract is managed by the ERAWATCH Network asbl. (<http://www.erawatch-network.com>) coordinated by Technopolis Group (<http://www.technopolis-group.com>).

During each of the two years of this specific contract three reports will be produced to complement data collection and to update the research and innovation policy measures: a trend report on innovation policy in the EU, an overview report on innovation funding in the EU and an analytical thematic report (the selected theme for 2011 is demand-side innovation policies). To this end, the objective of the present mini country report is to furnish those three reports with country specific information.

Executive Summary

According to the Innovation Union Scoreboard 2010 (IUS2010), Serbia is one of the modest innovators with a below average performance. Relative strengths are in human resources, open, excellent and attractive research systems and outputs. Relative weaknesses are in intellectual assets and innovators.

There is still no national innovation strategy, but the recently adopted “Strategy of Scientific and Technological Development of the Republic of Serbia 2010-2015” has mentioned the development of a national innovation system as a key priority for the development of a knowledge economy. Another key challenge for innovation policy is the question of how to increase R&D and innovation activities in the business enterprise sector.

Until 2011 there were three main public funding sources supporting R&D and innovation activities, namely: (i) the Ministry of Education and Science (MES), (ii) the Ministry of Economy and Regional Development (MoERD), and (iii) the National Agency for the Regional Development (NARD). A new funding source for innovation activities is the recently established Innovation Fund.

The total budget in 2010 for all categories of research and innovation measures amounted to €107.5m, with the vast majority of funds allocated to research and technologies. The situation in 2011 has improved slightly with a planned budget of €109m, the increase due to the Innovation Fund with funds provided under the EU funded IPA programme. Grants are the only form of support and the only innovation measure with a sectoral focus is the Innovation Fund grant scheme.

Both the MoERD and NARD have grant schemes, which to some extent embrace demand-side innovation policy tools such as pre-commercial public procurement and standardisation. Otherwise, there are no national guidelines issued in any fields of demand-side innovation policy.

1. Innovation policy trends

1.1 Trends and key challenges for innovation policy

Despite two attempts since 2000, innovation in Serbia is overshadowed by the fact that no innovation policy or strategy has been formally adopted to date by government.

According to the Innovation Union Scoreboard (IUS) 2010, Serbia is one of the modest innovators with a below average performance. Relative strengths are in human resources, and open, excellent and attractive research systems and outputs. Relative weaknesses are in intellectual assets and innovators. High growth is observed for public-private co-publications, Community trademarks and license and patent revenues from abroad. A strong decline is observed in business R&D expenditure, Community designs and sales of new products. Growth performance in linkages and entrepreneurship, intellectual assets and outputs is above average. In the other dimensions it is below average.

The MES has implemented the “Law on Innovative Activities” and “Law on Intellectual Property Rights (IPR)” in order to create mechanisms for more intensive linkage of research and innovation with the economy. The laws stipulate among others things: strategic changes to the method of funding, partly oriented to the private sector as the driver of innovation projects; regulation of IPR protection, under joint projects between the business sector and R&D organisations; and the formation of joint investment funds for financing innovation projects.

The Serbian research system is centralised and governed by MES. The MES was established in March 2011, and is a legal successor of the previous Ministry of Science and Technological Development. Following obligations defined in the Science law (“Law on Scientific and Research Activities”), a new national “Strategy of Scientific and Technological Development of the Republic of Serbia 2010-2015” (“Science Development Strategy”) was adopted by the Government on 25 February 2010, defining seven national priorities in the domain of science and technology. The main contribution of the new strategy for support to innovation activities is recognition of the need for a national innovation system for establishment of a knowledge-based economy and society.

The Science Development Strategy was prepared following a top-down approach with contributions from informal panels in selected Science and Technology (S&T) fields. Some of the main goals of S&T policy are: (1) the current 55-45% ratio of financing basic as opposed to applied research should change to 60% in favour of applied science in the next five years; (2) partnership within the R&D system through rationalisation of the R&D network and close cooperation between research institutes and university faculties; (3) partnership with industry through an Innovation Fund, a new legal framework for intellectual property, and incentives and support for innovation activities; and (4) increasing and diversifying R&D expenditure: the goal is to reach 1% of GDP for science by 2015, not including investments in infrastructure. A €400m investment programme in research infrastructure commenced in 2011 and is expected to be completed in 2015. The strategy also envisages taxation and budgetary incentives for investment in science and research in cooperation with the Ministry of Finance. Other proposals include: project investments by companies involving research organisations and co-financed by MES will be free of corporation tax; private sector employment of young researchers in MES registered projects entitles firms to two years salary free of contributions and taxes; should an enterprise choose to fund an employee’s doctoral studies the MES would contribute up to one half of the costs; young researchers registered by the MES who establish their own company would be exempt from paying income and profit tax up to the age of 30; and the MES would cover the costs of patent applications and other forms of IP protection for co-financed projects.

A crucial challenge is the question of how to increase R&D and innovation activities by the business sector. Official figures showed that the BERD share in GERD was only 14.3% in 2009, compared to 62% in the EU. Recent R&D and innovation surveys support different findings, i.e. investments in R&D and innovation by the business sector are comparable to publicly funded activities. Further investigations to reveal the true extent of R&D and innovation investments by the private sector are required.

1.2 Innovation governance

The first level of innovation governance in Serbia is the National Parliament. The Parliamentary Committee for Science and Technology (S&T) Development reviews and proposes laws regulating the areas of science, technology and innovation.

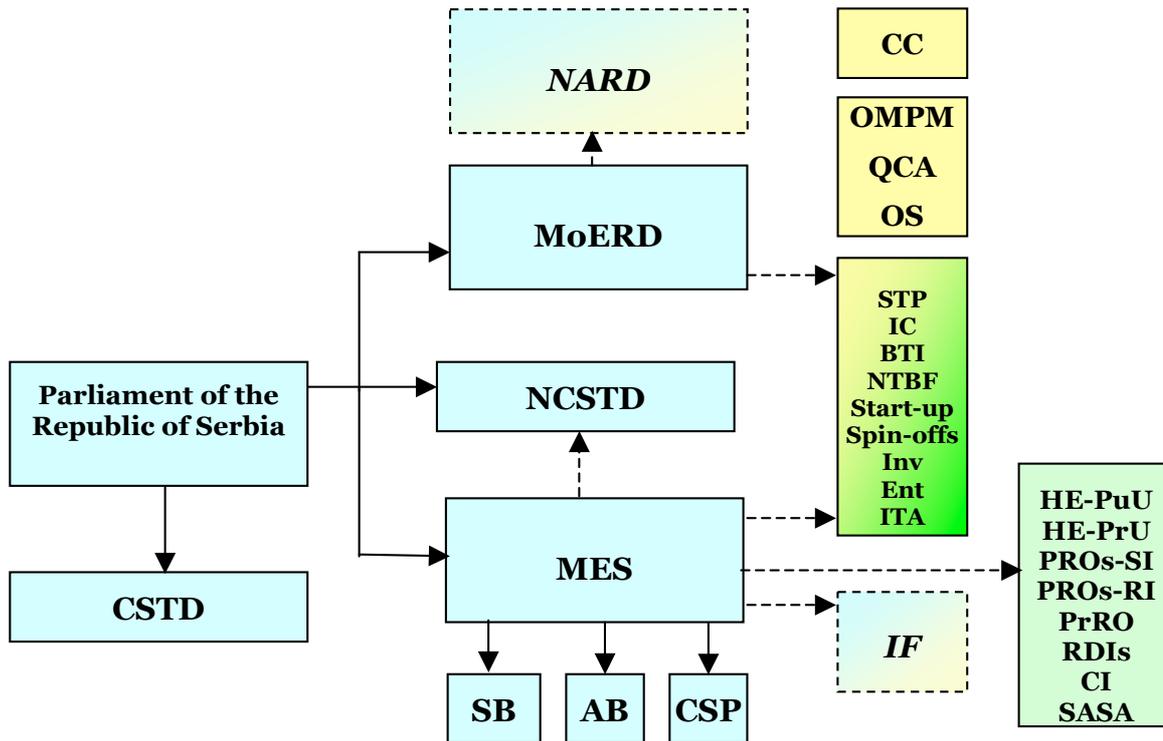
Relevant Ministries include: (i) the Ministry of Economy and Regional Development (MoERD), responsible for supporting innovation activities and creating a national innovation system; and (ii) the Ministry of Education and Science (MES) governing the functioning and development of S&T.

The National Agency for Regional Development (NARD) and the Innovation Fund are also involved in funding innovation policy measures.

The main task of the National Council for S&T Development is to design and propose to the government a strategy for S&T development and to monitor its implementation.

Also at the operational level there are intermediary and funding organisations such as the Office for Intellectual Property Rights, Office for Standardisation, Office for Measurements and Precious Metals, Quality Certification Agencies, Chambers of Commerce and the Information Technology (IT) and Internet Agency. The system also consists of various innovation centres, business and technological incubators, and science and technology parks.

Figure 1 Innovation Governance in the Republic of Serbia



Legend:

Political Level:

CSTD – Committee for S&T development
MES – Ministry of Education and Science
NCSTD –National Council for Science and Technological Development
AB – Accreditation Board
SB – S&T Boards
CSP – Committee for Scientific Promotion
MoERD – Ministry of Economy and Regional Development
NARD – National Agency for the regional Development
IF – Innovation Fund

Operational Level:

OIPR – Office for Intellectual Property Rights
OS – Office for Standardization
OMPM – Office for Measurements and Precious Metals
QCA – Quality Certification Agencies
CC – Chambers of Commerce
NARD – National Agency for Regional Development
IC – Innovation Centres
BTI - Business and Technological Incubators
STP – S&T Parks
ITA – IT and Internet Agency

Innovation and Research Performers:

Ent – Entrepreneurs
Inv – Inventors
NTBF – New Technology Based Firms
HE-PuU – Higher Education, Public Universities
PROs-SI – Public Research Organisations-Scientific Institutes
PROs-RI – Public Research Organisations-Research Institutes
RDI – Research and Development Infrastructures
SASA – Serbian Academy of Sciences and Arts
HE-PuU – Higher Education, Private Universities
PrRO – Private Research Organisations
CI – Corporate Institutes

1.3 Recent changes in the innovation policy mix

R&D and innovation activities in Serbia in 2011 are structured around the following policy measures:

1. Innovation policy measures:

- Programme for Supporting SMEs and Entrepreneurs to Strengthen Innovation Activities (responsible institution is NARD)

This measure, providing grant support up to €10,000, is more oriented to support non-technological innovation activities. The focus is on service and organisational innovations as well as efficient adoption of quality standards.

- MINI GRANTS Programme (responsible institution is the Innovation Fund)

Programme objectives are to stimulate creation of innovative enterprises and expand employment opportunities for young graduates by providing financing for market-oriented innovative technologies and services with high commercialisation potential.

The scheme, providing support of up to €100,000 per grant, stipulates that applicant companies must be engaged in the development and commercialisation of products or services in one of the following sectors: (1) lifesciences, (2) new materials and nanotechnologies, (3) environmental and climate protection, (4) energy and energy efficiency, (5) food and agriculture, and (6) information and communication technologies (ICT). These are priority sectors also identified in the Science Development Strategy. The focus on the same sectors by the Innovation Fund and the MES's R&D programmes should strengthen the national efforts to increase competitiveness in these targeted sectors.

Applicants have to be microenterprises and SMEs, incorporated in Serbia in the last two years, and have a significant technological innovation with strong IPR value and a clear market need.

- Programme for co-financing innovation projects (responsible institution is the MES, providing support of up to €50,000 per grant)

2. R&D policy measures launched by the Ministry of Education and Science (MES):

- "Programme supporting basic research for the research cycle 2011-2014" ("BR Programme")

- "Programme supporting research in the field of technological development for the research cycle 2011-2014" ("TD Programme")

- "Programme of co-funding of integrated and interdisciplinary research for the research cycle 2011-2014" ("IIR Programme")

IIR is a new programme to support the integration of basic, applied and development research as well as to fully utilise R&D resources, emphasising commercialisation of R&D activities and results.

- "Programme of providing and maintaining scientific research equipment and scientific research facilities for the research cycle 2011-2014" ("SREF Programme")

This is also a new programme for improving the material foundation of basic, applied and development research as well as for fully utilising R&D equipment and infrastructures.

1.4 Internationalisation of innovation policies

So far there are no cross-border public procurement platforms or venture capital funds or any similar policy measures with other countries. The only areas of co-operation with other countries are in the area of design/creation of innovation policy instruments and measures through mainly EU funded programmes such as the Instrument for PreAccession Assistance (IPA), the Competitiveness and Innovation Programme (CIP) and the Europe Enterprise Network (EEN).

Since 2004, IPA and its predecessor (the CARDS Programme) have supported the government and private sector with various institutional building programmes. One such initiative is the 30 month IPA funded “Improved SME Competitiveness and Innovation Project” (ICIP) launched in May 2010 that provides assistance to MoERD and NARD. The primary purpose of the project is to improve the quality, range and availability of business support services to the SME sector, support a business environment and associated institutional capacity that will foster the development of innovative and competitive SMEs and strengthen links between education, research institutes and business.

Another important initiative is EEN, the Enterprise Europe Network, having the potential to further develop the innovation support infrastructure towards European and international partnerships. EEN is well known as a business and innovation network organised by the European Commission. The EEN Serbia project commenced activities in June 2009. It provides assistance to SMEs in access to international business and technology, legal services and individualised skill improvements. An ongoing evaluation of innovation programmes and mechanisms in Serbia has showed that Serbian partners consider organisation of business linkages and company missions as the most effective ways of linking with potential partners. EEN is seen as a gateway for international business and technology networking.

1.5 Evidence on effectiveness of innovation policy

The mentioned “*The Improved SME Competitiveness and Innovation Project*” (ICIP) has undertaken an assessment of innovation and competitiveness support programmes in Serbia. Nine support programmes were evaluated with preliminary findings as follows:

- a number of innovation support programmes and facilities have been established, but a central programme where research meets business is still missing;
- supported firms sought out a range of innovation support infrastructure, including business and technology incubators, science and technology parks and other high-tech support facilities;
- widespread geographical access to support structures across the country is needed;
- access to (substantial) finance is an obstacle to innovation for SMEs;
- accessibility of information on innovation assistance needs to be increased;
- ‘Competence Centres’ in thematic fields are required; and
- the creation of a national strategy for science, education, research and innovation is a crucial step for developing a National Innovation System.

Case 1 Good practice example of an innovation policy measure: Competition for Best Technology Innovation

The project “Competition for Best Technology Innovation” was initiated by the Ministry of Science in 2005. The aim of the competition was to promote entrepreneurship and assist potential and existing entrepreneurs. The basic idea of the competition is that the combination of innovation and entrepreneurship is a recipe for competitiveness for companies, universities and the state. Apart from receiving awards all participants who pass the first round have access to some expertise through training and consultation to create an innovation strategy.

From 2005 to 2010, results were as follows:

- The number of registered innovations by end 2010 was 1,615, the total number of innovations that passed the first round of review was 970;
- A total of 5,360 competitors have participated, 234 trainings were held, 476 teams developed a business plan for setting up a business based on their inventions and 115 teams drafted a marketing plan;
- More than 350 reviewers from Serbia and abroad participated in the competition; and
- 44 enterprises were established.

The main obstacle for sustainable continuation of the competition is the irregular funding. The recommendation is to allocate appropriate longer term funding together with adequate monitoring and an assessment of the effectiveness and performance of the competition.

For further information: <http://www.inovacija.org> (in Serbian language)

2. Innovation policy budgets – an overview

2.1 Trends in funding of innovation measures

Until 2011, three main public funding sources supported R&D and innovation activities: the Ministry of Education and Science, the Ministry of Economy and Regional Development and the National Agency for Regional Development. The recent establishment of the Innovation Fund has added a new source of funding.

The total budget in 2010 for all categories of research and innovation measures amounted to €107.5m (see Figure 1 below). The situation in 2011 has improved slightly with a planned budget of €109m, the increase due to the Innovation Fund with funds provided under the EU funded IPA programme (€1.5m under the MINI GRANT Programme). Overall, 98.6% of the financing of R&D and innovation activities in 2011 came from the public budget.

There was no significant funding from any other source such as private sector co-financing, EU Structural Funds (for EU27) or international donors (e.g. World Bank, European Investment Bank-EIB, etc.). However, there are ongoing discussions between the World Bank, EIB, and the European Commission for funding in the period 2011-2014. An amount of €75.5m has been mentioned.

The only sectoral like innovation policy measure is the MINI GRANT Programme under the Innovation Fund.

There are no changes in the form of support with grants being the only form.

The MoERD and the NARD expenditure for innovation grants totalled €1m in 2010. The planned budget for 2011 remains the same.

Total expenditure by the MES in 2009 and 2010 on R&D activities was €78m and €96.14m, respectively, and €1.4m on innovation activities in 2009. The MES planned budget for 2011 is almost doubled (to €213m), of which €100m is allocated for investments under the SREF programme. The budget for R&D activities is envisaged to remain unchanged in 2011 and no budget is envisaged for innovation measures.

Public-private partnerships as well as transnational or inter-regional funding as a complement to national funding of innovation activities do not yet exist.

Figure 2 Broad share of available budgets by main categories of research and innovation measures in Serbia

Broad category of research and innovation policy measure	Approximate total annual budget for 2010 (in euro)	Commentary
1. Governance & horizontal research and innovation policies	Total MES budget allocated for the category was €4.77m	<ul style="list-style-type: none"> Total MES budget was €112m in 2010
2. Research and Technologies	Total budget allocated was €96.14m	<ul style="list-style-type: none"> Investments in R&D in Serbia from public sources are prioritised and budgeted in the framework of multi-annual plans to ensure stability and long term impact. Project financing based on open competition for R&D projects is a decades-long practice in Serbia, with competitive rather than institutional funding of R&D activities. Infrastructure and equipment – no investments in 2009-2010, new programme for 2011-2014 launched, approximately €400m over four years.
3. Human Resources (education and skills)	Total budget allocated was €5.59m	<ul style="list-style-type: none"> The MES programme for development of human resources in R&D consists of the following sub-programmes: <ul style="list-style-type: none"> development of human capital, programme of return of Serbian researchers from diaspora, "Petnica" research centre and mathematical high school campus buildings, and new science and innovation centre in Belgrade (for popularising science among the youth and public at large). The MES programme for development of human resources in R&D for the period 2011-2014 is approximately €33m.
4. Promote and sustain the creation and growth of innovative enterprises	No budget in 2010	<ul style="list-style-type: none"> The MINI GRANT Programme has up to €1.5m in 2011. The cost-sharing grant awarded under the MINI GRANTS Programme will cover 85%, (up to €85,000) of the total approved project cost.
5. Markets and innovation culture	Total budget allocated for this category was €1m	<ul style="list-style-type: none"> MoERD grant scheme - €0.4m NARD grant scheme - €0.6m MoERD and NARD cover 50% of the grant. The last call of the MES programme was in 2009 with a budget of €1.4m, no calls in 2010, new call is announced for September 2011.

2.2 Departmental and implementing agency budgets for innovation policies

The main public funding sources for support of R&D and innovation activities in Serbia are:

- the Ministry of Education and Science (MES),
- the Ministry of Economy and Regional Development (MoERD),
- the National Agency for the Regional Development (NARD), and
- the Innovation Fund.

Figure 3 below presents data on staffing and managed budgets within the four funding sources.

Figure 3 Innovation budgets of the main government departments and agencies

Name of the organisation (with link)	Number of staff responsible for innovation measures (% of total)	Innovation budget managed	Estimated share of budget earmarked for specific policy measures
The Ministry of Education and Science (MES)	<ul style="list-style-type: none"> • 3 (0.67%) (or 6.8% within sector in charge for S&T&Innovation) 	<ul style="list-style-type: none"> • €1.4m in 2009 	<ul style="list-style-type: none"> • approx. €1.4m earmarked for the Programme for co-financing of the Innovation projects in 2011, probably will be realised in 2012 (situation in mid November 2011).
The Ministry of Economy and Regional Development (MoERD)	<ul style="list-style-type: none"> • 2 (0.58%) 	<ul style="list-style-type: none"> • €0.4m in 2010 	<ul style="list-style-type: none"> • Programme for Supporting SMEs to Strengthen Innovation Activities in 2011
The National Agency for the Regional Development (NARD)	<ul style="list-style-type: none"> • 2 (3.17%) 	<ul style="list-style-type: none"> • €0.6m in 2011 	<ul style="list-style-type: none"> • approx. €0.6m earmarked for the Programme for Supporting SMEs and Entrepreneurs to Strengthen Innovation Activities in 2011
Innovation Fund (IF)	<ul style="list-style-type: none"> • 5 (100%) 	<ul style="list-style-type: none"> • €1.5m in 2011 	<ul style="list-style-type: none"> • €1.5m in 2011 for new programme starting in 2011

2.3 Future challenges for funding of innovation policy

Main future challenges for funding of innovation policy in Serbia are:

- Develop a national innovation policy and strategy to ensure efficient and effective allocation of resources.
- *Better coordinate funding and governance activities* between the main public funding sources. A possible solution could be mutual participation of representatives from MES, MoERD and NARD in policy related bodies (councils, committees, etc.) in order to harmonise policy and measures;
- *Increase recognition of the needs for financing of innovation activities* with a much larger budget and significantly increased financing per innovation grant. The current situation of providing small grants to companies is not enough for significant innovations. The solution is per the Innovation Fund with grants ranging from €50,000 to €300,000;
- Introduce a permanent and transparent monitoring and evaluation system. There are no evaluation standards as well as institutions responsible for evaluation. Only ex-ante evaluations of innovation activities proposed under public calls for funding from MES, MoERD and NARD are regularly organised. It is necessary to routinely organise evaluations of all innovation measures
- Develop demand-side innovation policy tools and measures.

3. Thematic report: Demand-side innovation policies

For the purposes of this report, the following categorisation of demand-side innovation policy tools is adopted:

Figure 4 Categorisation of demand-side policies

Demand side innovation policy tool	Short description
Public procurement	
Public procurement of innovation	Public procurement of innovative goods and services relies on inducing innovation by specifying levels of performance or functionality that are not achievable with 'off-the-shelf' solutions and hence require an innovation to meet the demand. ¹
Pre-commercial public procurement	Pre-commercial procurement is an approach for procuring R&D services, which enables public procurers to share the risks and benefits of designing, prototyping and testing new products and services with the suppliers ² .
Regulation	
Use of regulations	Use of regulation for innovation purposes is when governments collaborate broadly with industry and non-government organisations to formulate a new regulation that is formed to encourage a certain innovative behaviour. ³
Standardisation	Standardisation is a voluntary cooperation among industry, consumers, public authorities and other interested parties for the development of technical specifications based on consensus. Standardisation can be an important enabler of innovation. ⁴
Supporting private demand	
Tax incentives	Tax incentives can increase the demand for novelties and innovation by offering reductions on specific purchases.
Catalytic procurement	Catalytic procurement involves the combination of private demand measures with public procurement where the needs of private buyers are systemically ascertained. The government acts here as 'ice-breaker' in order to mobilise private demand. ⁵
Awareness raising campaigns	Awareness raising actions supporting private demand have the role to bridge the information gap consumers of innovation have about the security and quality of a novelty. ⁶
Systemic policies	
Lead market initiatives	Lead market initiatives support the emergence of lead markets. A lead market is the market of a product or service in a given geographical area, where the diffusion process of an internationally successful innovation (technological or non-technological) first took off and is sustained and expanded through a wide range of different services ⁷ .
Support to open innovation and user-centred innovation	Open innovation can be described as using both internal and external sources to develop new products and services ⁸ , while user-centred innovation refers to innovation driven by end- or intermediate users. ⁹

¹ NESTA (2007) Demanding Innovation Lead Markets, public procurement and innovation by Luke Georghiou

² http://ec.europa.eu/information_society/tl/research/priv_invest/pcp/index_en.htm

³ FORA, OECD: New nature of innovation, 2009, <http://www.newnatureofinnovation.org/>

⁴ Commission Communication: Towards an increased contribution from standardisation to innovation in Europe COM(2008) 133 final 11.3.2008

⁵ Edler, Georghiou (2007) Public procurement and innovation – Resurrecting the demand side. Research Policy 36. 949-963

⁶ Edler (2007) Demand-based Innovation Policy. Manchester Business School Working Paper, Number 529.

⁷ COM 2005 "Industry Policy" http://ec.europa.eu/enterprise/enterprise_policy/industry/index_en.htm and Mid-term review of industrial policy

⁸ Chesbrough (2003) Open innovation. Harvard Business School Press

⁹ Von Hippel (2005) Democratizing innovation. The MIT Press, Cambridge

3.1 Trends in the use of demand-side innovation policies

The absence of an official innovation policy and strategy creates a situation in which specific programmes and actions do not have synergistic effects.

Traditionally, S&T policy is more supply-side oriented. This is the case with the latest Science Development Strategy. The main objective of the strategy is to secure financing for the R&D sector from public sources. Investments in research and innovation from the MES are prioritised and budgeted in the framework of multi-annual plans to ensure stability and long-term impact. Project financing is based on open competition for R&D and innovation projects. The strategy defines seven national priorities in the domain of S&T and proposes institutional funding at a reasonable minimum level. There are two goals within the strategy which are more demand-side oriented, namely: (1) partnership with industry through the Innovation Fund, a new legal framework for intellectual property and incentives and support for innovation activities. The present situation (as of December 2011) is that the Innovation Fund launched a first public call for innovation grants on December 5, 2011; and (2) partnership with other ministries through the participation of the scientific community in major infrastructural and other projects. Currently, there are no further developments and actions to define instruments and tools realising such partnerships with other ministries.

Among the MES activities defined by the Law of the Ministries and Innovation Law is the “*Development and improvement of the innovation system in the Republic of Serbia*”, particularly: “*development and introduction of innovative programmes in the company, especially in small and medium-sized enterprises, encouraging technology entrepreneurship*”. The policy measure responding to this requirement is the Innovation projects programme. This measure could be classified as pre-commercial public procurement. Since 2006, three calls for proposals have been launched, the last being in 2009. In total, 180 registered innovation organisations received financing totalling €6.4m. In addition, 72 individual inventors received funding of €0.48m.

Support from MoERD and NARD is more oriented to specific needs of mainly SMEs. Both have grant schemes under which innovation activities in SMEs are financially supported. There are two demand-side innovation policy tools which are to some extent embraced by these grant schemes: (i) pre-commercial public procurement, and (ii) standardisation.

Key barriers in implementing demand-side policies in Serbia, besides the absence of innovation policy are: (1) the (traditional) separation between the R&D and business sectors which has lasted for decades and become very strong (there is no confidence in other party capacities for cooperation); and (2) legal obstacles in the Innovation law in relation to the obligation for companies to be registered in the MES innovation register in order to be eligible for grant financing. Overall there are no national guidelines issued in any fields of demand-side innovation policy, neither specific studies conducted on demand-side innovation policy issues, nor definition of indicators to capture the impact of demand-side innovation policies.

3.2 Governance challenges

There are three main governance challenges: (i) the absence of a formal innovation policy leading to a situation in which the governance of innovation activities is not coherently structured, organised and budgeted within responsible ministries; (ii) lack of coordination between the responsible authorities and (iii) the concept, purpose and functioning of innovation is not sufficiently understood, developed and accepted in government, business and society. Therefore, the development of the national innovation system in Serbia is currently in a phase of conceptualisation and far from being operational and functional.

The direct consequences of such a situation are the preservation of an R&D system created in a time of a quasi-market economy. There are fragments of demand-side behaviour in governance of innovation activities, with measures, which could have elements of demand-side innovation policy.

3.3 Recent demand-side innovation policy measures

The most recent demand-side innovation policy measure is the “Project for Supporting the Development of Competitiveness of SMEs and Innovation” launched by NARD in 2010. The objective of the grant scheme is to support innovation in SMEs. Funded activities include improvement of a firm’s organisational structure, marketing innovations, ICT related innovations, development of new or improvement of existing products and services, the development and testing of prototypes, and the design of new products and packaging. Grants cover up to 50% of the total approved project cost, up to a maximum of €10,500.

Figure 5 Key demand-side policy measures

Measure name (duration)	Short description of objectives, main activities or types of funding support, etc.	Key implementation details
Programme for Supporting SMEs and Entrepreneurs to Strengthen Innovation Activities in 2011	<ul style="list-style-type: none"> Objectives are to: support technological and non-technological innovations in SMEs; link SMEs and R&D organisations; and improve SME competitiveness not focused on specific sectors 	<ul style="list-style-type: none"> NARD is the responsible institution Total available budget from public funds is €600,000 in 2011 Applicants can be SMEs, entrepreneurs and cooperatives 50% cost-sharing grant scheme, up to a maximum of €10,500 Website of measure: http://www.narr.gov.rs/Lists/Stranice/ViewPage.aspx?ID=17#
Programme for co-financing of innovation projects in 2009	<ul style="list-style-type: none"> encourage innovation in enterprises in the area of high technologies and to create conditions for the commercialisation of innovation not focused on specific sectors 	<ul style="list-style-type: none"> MES is the responsible institution. Total available budget from public funds was €1.4m in 2009 50% cost-sharing grant scheme Applicants for the programme can be SMEs and inventors registered by the MES under the Innovation law website of measure: http://www.nauka.gov.rs/cir/index.php?option=com_content&task=view&id=900&Itemid=113

3.3.1 Sectoral specificities

Programmes for the support of innovation activities launched by MES, MoERD and NARD are not sector-specific. The Innovation Fund has recently launched a call for proposals with a sectoral focus.

3.3.2 Good practice case

The NARD launched project to support SMEs mentioned above is presented below as a good practice case of demand-side innovation policy recently implemented and regarded as a success.

Case 2 Project for Supporting the Development of Competitiveness of SMEs and Innovation –grant scheme launched by the National Agency for the Regional Development in 2010

The project objective is to increase the competitiveness of SMEs through innovations.

The 50% cost-sharing grant scheme with a maximum of up to €10,500 can be for improvement of firm organisational structure, marketing innovations, ICT innovations, development of new or improved products and services, development and testing of prototypes, and new product design and packaging.

Preliminary evaluation results showed that the aim of developing a culture of innovation at enterprise level was achieved.

Lessons learned from the case include:

- Limited budget and a lack of certified consultants are the main constraint; and
- future grants schemes should have a robust monitoring and evaluation system.

For further information:

<http://www.narr.gov.rs/Lists/Stranice/ViewPage.aspx?ID=17> (in Serbian language)

Appendix A Research and innovation policy measures for Serbia

Name of the Support measure	1 st Priority	Start date	End date	Status (CC to complete)	Estimated public budget in 2010 in euro	• Comment
“Programme supporting Basic Research for the Research Cycle 2011-2014” [“BR Programme”]		01.01.2011.	31.12.2014.	Completed	€43.3m in 2009	<ul style="list-style-type: none"> • N/A € • 3679.75 FTE approved for financing per year
“Programme supporting Research in the Field of Technological Development for the Research Cycle 2011-2014” [“TD Programme”]		01.01.2011.	31.12.2014.	Completed	€33.8m in 2009	<ul style="list-style-type: none"> • N/A € • 2637.00 FTE approved for financing per year
“Programme of Co-Funding of Integrated and Interdisciplinary Research for the Research Cycle 2011-2014” [“III Programme”]		01.01.2011.	31.12.2014.	Completed	– (new programme starting in 2011)	<ul style="list-style-type: none"> • N/A € • 2440.92 FTE approved for financing per year
“Programme of Providing and Maintaining Scientific Research Equipment and Scientific Research Facilities for the Research Cycle 2011-2014” [“SREF Programme”]		01.01.2011.	31.12.2014.	Completed	– (new programme starting in 2011)	<ul style="list-style-type: none"> • €100m are allocated for investments in 2011
Programme for Supporting SMEs and Entrepreneurs to Strengthen Innovation Activities in 2011 (responsible institution is the National Agency for the Regional Development)		01.01.2011.	31.12.2011.	CC to complete	€0.6m (RSD60m)	<ul style="list-style-type: none"> • €0.6m (RSD60m) allocated budget for 2011
Programme for Supporting SMEs to Strengthen Innovation Activities in 2011 (responsible institution is the MoERD)		01.01.2011.	31.12.2011.	CC to complete	€0.4m (RSD40m)	<ul style="list-style-type: none"> • €0.4m (RSD40m) allocated budget for 2011
The Programme for co-financing of the Innovation projects in 2011 - Public call is launched on December 16th, 2011 (responsible institution is the MES)		01.01.2011.	31.12.2011.	CC to complete	€1.4m (RSD128m) in 2009, no calls in 2010	<ul style="list-style-type: none"> • N/A €
The MINI GRANTS Programme – Public call for this programme is launched on December 5th, 2011 (responsible institution is the Innovation Fund)		01.01.2011.	31.12.2011.	CC to complete	– (new programme starting in 2011 - €1.5m)	<ul style="list-style-type: none"> • €1.5m allocated budget for 2012