





EXPERT EVALUATION NETWORK DELIVERING POLICY ANALYSIS ON THE PERFORMANCE OF COHESION POLICY 2007–2013

TASK 1: POLICY PAPER ON INNOVATION

SLOVAKIA

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A report to the European Commission
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CONTENTS

1	EXECUTIVE SUMMARY	3
1.1	NATIONAL AND REGIONAL INNOVATION POLICY	4
1.2	ERDF CONTRIBUTION ACROSS POLICY AREAS	6
	EVIDENCE AVAILABLE ON THE PERFORMANCE OF INNOVATION MEASURES CO-	8
2.1	ACHIEVEMENTS UNDER THE CONVERGENCE OBJECTIVE	9
2.2	ACHIEVEMENTS UNDER THE COMPETITIVENESS OBJECTIVE	.11
3	CONCLUSION: MAIN CHALLENGES FACED BY COHESION POLICY PROGRAMMES	.12
REFERE	NCES	.14
INTERV	IEWS	.15
ANNEX	A - BACKGROUND DATA ON EU COHESION POLICY SUPPORT TO INNOVATION	.15
	B - CLASSIFICATION OF INNOVATION POLICY AREAS, INSTRUMENTS AND	.18
	C - CATEGORISATION OF EXPENDITURE TO BE USED FOR CALCULATING EU COHESION RESOURCES DEVOTED TO INNOVATION	.20

1 EXECUTIVE SUMMARY

Along with national innovation policy there are individual regional innovation strategies elaborated in the scope of the 5th and 6th framework programme. The innovation activities in regions, based on these strategies are specific for each region, but are out-dated and the implementation of these strategies is unsatisfactory and difficult to evaluate in most regions. The innovation performance of the Slovak economy is very low. In the present programming period several operational programmes address the support of research and development and innovation. For this purpose several strategic documents were elaborated with specific measures and objectives. The Innovation policy and Strategy adopted by the government provides a good starting point and framework for improving the poor innovation performance of the Slovak economy. Furthermore, the link between national and regional policies is rather weak, due to centralised management of Structural funds. The progress of implementation is limited due to competence struggles and institutional instability (institutional changes related to the competences of managing authorities), insufficient financial resources for co-financing, administrative barriers, low level of transparency, bureaucracy, rent - seeking, lack of experience on the regional level with implementation of regional innovation policies (out-dated innovation policies in all NUTS III regions), low level of absorption capacity, few businesses able to elaborate and implement projects.

The programmes (projects) financed by ERDF represent the majority of financial resources for national and regional innovation policies due to insufficient financial resources from the domestic public and private sectors, representing the second lowest share on GDP compared to other EU 27 countries. Most of the support is currently being focused on building the necessary infrastructure and purchase of technologies and machinery. Demand for projects focused primarily on innovation activities in enterprises is negligible (this is the case in the OP Bratislava region). On the contrary, demand in the OP R&D related to building R&D innovation infrastructure and support of centres of excellence exceeds the financial allocation of the OP.

Evaluations related to present programming period are being planned in the near future, due to low level of expenditure incurred in the majority of OPs. Each managing authority elaborated an evaluation schedule, which is going to be implemented in the coming years. Currently, there is no available evidence on performance of innovation support measures co–financed by ERDF in 2007 – 2013 due to low expenditure on relevant projects. Although there are some examples of successful innovative enterprises, it is still important to gradually eliminate the above mentioned barriers in order to improve the potential for growth of innovative enterprises, interconnect the academic and business environment and allocate the necessary financial resources from regional, national as well as European levels. Several projects addressing these issues are being implemented. However, due to long-term insufficient financing and obsolete infrastructure the impact of these projects can only be evaluated in the long-term.

SK_EvalNet_Final draft Innovation paper_August 2010

national and regional innovation policy and the contribution of erdf

1.1 NATIONAL AND REGIONAL INNOVATION POLICY

There is no coherent National Innovation System (NIS) in Slovakia and the development of NIS is considered a major precondition for building a knowledge based economy in Slovakia. Being aware of this negative development, the government elaborated a series of strategic documents in order to improve the innovation output of the Slovak economy. These documents establish the framework for innovation support and outline the basic objectives, priorities, measures and tasks planned or being undertaken to overcome the above mentioned deficiencies.

- a) The Innovation Strategy for the Slovak Republic for 2007-2013
- b) The National Reform Programme of the Slovak Republic for 2008-2010
- c) The Innovation Policy of the Slovak Republic from 2008 to 2010

The Ministry of Economy has elaborated the Innovation Strategy for the Slovak Republic for 2007–2013. The strategic objective of this strategy is defined as follows "Innovation will become one of the main instruments for the development of knowledge based economy and provide high economic growth in Slovakia which will allow to catch up with the economic level of the most developed economies of the EU."

The strategy formulates several priorities and subsequent measures that need to be implemented in order to overcome the unfavourable situation and negative development in the innovation environment in Slovakia. Some of the priorities and measures are interconnected with the National Strategic Reference framework priorities and measures in the respective operational programmes.

Priority 1 – Highly developed infrastructure and effective system for the development of innovation (allocation from State Budget 4,73 mil. €)

Measure 1.1 - Financial support for the creation of innovation centres is connected to OP Competitiveness and Economic Growth (OP CaEG) measure 1.2 - Support of common services in enterprises. The measure is focused on the improved cooperation between the private sector (SMEs), universities, and researchers and should lead to product development.

Measure 1.2 - Building a central information portal providing support for business innovations is connected to measure 1.2 in the OP CaEG. The main objective is to create a central point for research, development and innovation, provide examples of good innovative strategies as well as possibilities for raising the necessary financial resources.

Measure 1.3 – Adoption and implementation of high-quality legislation for development, support and evaluation of innovation. For this purpose an Act on Innovation is going to be adopted by the government.

Measure 1.4 – Implementation of regular benchmarking (evaluation) of innovation–supportive environment. The objective of this measure is to implement an evaluation system for public innovation policies.

Measure 1.5 - Establishment of an implementation agency for the support and development of innovation. For this purpose the Slovak Energy and Innovation Agency was established in 2008.

Priority 2 - High-quality human resources (allocation from State Budget 0,71 mil. €)

Measure 2.1 – Support to communication policies for innovation marketing. This is oriented towards the raising of public awareness in the field of innovation by promoting international exchange of experience and by creating an annual prize for innovative products or services.

Measure 2.2 – Support to growth of human capital through education, mobility and knowledge transfer is connected to measure 1.2 of OP CaEG. The main area of support is international mobility of researchers, students and entrepreneurs via grants, fellowship programmes and education support.

Priority 3 - Efficient innovation policy tools (Allocation from State Budget 21 mil. €)

Measure 3.1 – Innovations and technology transfers. This measure is oriented towards the creation of schemes supporting technology transfer and the development of venture capital schemes for innovative enterprises. It is connected to measure 1.1– Innovation and technological transfers in the OP CaEG.

Measure 3.2 – Support to common services for entrepreneurs is oriented towards the development of business infrastructure in brown–field industry parks, business and innovation incubators, business centres promoting cooperation between universities, research and development institutions and business sector. It is connected to measure 1.2 – Support of common services for entrepreneurs of the OP CaEG.

Measure 3.3 – Support to innovation in the business sector. The main objective of this measure is to elaborate a grant scheme for know – how transfer, intellectual property protection, introduction of quality management systems, certification of enterprises and support of spin-off activities between business and academia. This Measure is linked to Measure 1.3 – Support of innovation activities in enterprises of the OP CaEG.

Another important document prepared for the European Commission and European Council is the *National Reform Programme for 2008 – 2010*, which is linked to the Lisbon Strategy objectives. Besides other recommendations, it also emphasises the importance of Regional Innovation Centres, which should provide an important link between academia and business sector and provide various types of innovation support measures in Slovak regions.

In order to implement the objectives of the Innovation Strategy for 2007 - 2013, the Slovak government adopted the Innovation Policy for 2008 - 2010. This document was elaborated with

the participation of relevant stakeholders and outlines thirteen measures of innovation policy, six financed by the Structural Funds (ERDF, ESF) and co-financed by the State budget:

- a) Building Regional Innovation Centres Competence Centres
- b) Innovation and technological transfers
- c) Supporting innovative activities in enterprises
- d) National information infrastructure
- e) INTERREG IVC
- f) Financial engineering tools for innovation

Along with national innovation policy there are individual regional innovation strategies elaborated in the scope of the 5th and 6th framework programme. The innovation activities in regions, based on these strategies are specific for each region, but are out-dated and the implementation of these strategies is in most regions unsatisfactory and difficult to evaluate.

1.2 ERDF CONTRIBUTION ACROSS POLICY AREAS

The support focus of the ERDF is outlined in the above-mentioned Innovation Strategy and Innovation policy. The main recipients are micro, small and medium size enterprises. There is a clear link between documents and priority axes and measures outlined in the NSRF. However, the implementation of these measures is slow.

Regional dimension of innovation support is still lagging behind national innovation policies and is caused by delays in building Regional innovation centres, insufficient regional administrative capacities, lack of experience with cohesion policy and insufficient financial resources for cofinancing.

What is the focus of support of the ERDF?

The focus of ERDF support is on innovative activities in enterprises. For this purpose, a series of calls were launched in 2008 and 2009 via the Slovak Innovation and Energy Agency in OP CaEG. In comparison with previous calls the last call for proposal launched in April 2010 is designed as a continuous call. It allows the applicants to submit the project proposal over a longer period and provides more time for project preparation.

In the OP Research and Development the main measures currently being implemented relevant to innovation support are oriented towards large national projects for building the necessary infrastructure (see paragraph 3.1).

In OP Bratislavský kraj the main focus is on the second priority axis - Knowledge-based economy. According to interviews, the main measures are financed in the scope of de minimis aid and mainly oriented to purchasing innovative technologies and IT infrastructure for SMEs.

What are the main measures used and who are the main recipients of funding?

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The main recipients of funding in OP CaEG are enterprises in the framework of the de minimis and state aid schemes. The first call was launched at the end of 2008, and the implementation of the approved projects is still in progress. The outcomes of these projects can be evaluated after 2011.

Changes adopted by the Ministry of Economy in the implementation of measure 1.3 – Support of innovation activities in enterprises should improve the application process. The following changes have been introduced:

- The period of the last call is from April 26th 2001 to January 24th 2011. The period of previous calls was four months. Referring of potential projects will be carried out in September 2010 and January 2011.
- Costs incurred during project implementation are eligible from the date of submission of the project.
- The restriction on the aid to large enterprises has been lifted.
- The aid intensity has been increased to a maximum of 70 % for small enterprises, 60 % for medium enterprises and 50 % for large enterprises in the field of industrial research.

In the OP Research and Development (OP R&D) the main focus is on supporting R&D infrastructure and projects at the Institutes of Slovak Academy of Sciences, Slovak Centre of Scientific and Technical Information and Slovak universities.

In the OP Informatisation of Society (OPIS) support is focused on large national projects. The main recipients are the Ministry of Finance, the Ministry of Interior, the Statistical office of the Slovak republic, the Government office of the Slovak republic and Social Insurance Agency. The financial implementation of this respective OP is highly inadequate and has been delayed.

In the OP Bratislava region, the main measures are financed under Measure 2.1 – Innovation and technological transfers. The main recipients of funding are SMEs.

How coherent is the focus of support and the types of measures supported with national and/or regional policy?

The link between national and regional policy is rather weak. The majority of regional strategies were elaborated before the present programming period and financed from different sources (5th or 6th Framework Programme). The implementation of regional strategies in the respective regions is also unsatisfactory due to lack of human and financial resources for co-financing as well as low innovation potential of regions especially in the eastern and central parts of Slovakia.

The majority of national and local R&D and innovation-oriented support is financed by the Structural Funds. The total share of domestic financial resources (central and regional government spending) is rather small (0,15 % of GDP)¹. Similarly, the research and development expenditure of

¹ Data for 2008.

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the business enterprise sector is according to latest Eurostat data only 0,2 % of GDP. The overall spending in 2008 was 0,47 % of GDP, which is the second lowest in EU 27.

Does any of the financial assistance provided by the ERDF go to supporting inter-regional cooperation in respect of innovation policy? If so, its form, purpose and relative importance.

The main instrument for inter-regional cooperation is INTERREG IVC (Priority 1 – Innovation and Knowledge–Based Economy). In the Slovak context, the successful implementation of this programme could improve the regional innovation capacity and inter-regional cooperation. It addresses the most pressing problems in the regions in the field of human resources, provides exchange of experience, examples of good practice and success stories among relevant stakeholders, cooperation between R&D and the business sector etc. It is important to push ahead these measures in order to improve the potential for implementation of regional financial support in the future. In addition, the INTERACT II programme provides the necessary institutional background.

The link between national and regional policies is rather weak. The implementation of regional strategies in the respective regions is also unsatisfactory, due to low absorption capacity, lack of experienced and skilled staff at the regional level and insufficient financial resources for cofinancing.

2 EVIDENCE AVAILABLE ON THE PERFORMANCE OF INNOVATION MEASURES CO-FINANCED BY ERDF

In the previous programming period, a series of evaluations related to completed interventions was carried out. The majority of reports focused on the Sectoral Operational Programme Industry and Services. The main methods used in these evaluations are ex-post analysis of implementation efficiency and identification of bottlenecks in the implementation process. The reports are focused on the evaluation of specific policy measures:

- Assistance to SMEs Scheme (ASMES).²
- Business Incubators, Technology Parks and R&D Centres Scheme (BITPRDC).³
- Business Incubators, Technology Parks and R&D Centres Scheme (BITPRDC).⁴
- Support for Purchase of Innovative Technologies and Creation of Quality Management Systems Scheme.⁵

² http://www.proinno-europe.eu/sites/default/files/SK09_T1_Appraisal_Report.pdf

³ The main beneficiaries eligible for funding were Higher Education Institutions and its affiliated research centres. Source: http://www.proinno-europe.eu/sites/default/files/SK10_T1_Appraisal_Report.pdf

⁴ The main beneficiaries eligible for funding were other non-profit organisations (not higher education institutions). For more information see http://www.proinno-europe.eu/sites/default/files/SK10_T1_Appraisal_Report.pdf

SK_EvalNet_Final draft Innovation paper_August 2010

Support of Industry Research and Pre-Competitive Development (SIRPCD).6

Evaluations related to present programming period are being planned in the near future, due to low level of expenditure incurred in majority of OPs. Each managing authority elaborated an evaluation schedule, which is going to be implemented in the years to come.

In present programming period, only limited evidence is available on performance of innovation support measures co-financed by ERDF due to low expenditures for relevant projects. The effects of interventions will be evaluated according to an adopted evaluation plan. The Ministry of Education, Science, Research and Sport published an evaluation of OP Research and Development in November 2009⁷. The evaluation focuses on:

- The evaluation of objectives of the OP R&D and its priority axes with respect to the real demand of the applicants/beneficiaries and their implementation in the scope of the activities of the OP R&D.
- The evaluation of quantified targets at programme and project level.
- The evaluation of complementarity and synergy with other OPs.

2.1 ACHIEVEMENTS UNDER THE CONVERGENCE OBJECTIVE

The low level of implementation of the Operational programmes makes it difficult to present any relevant achievements of innovation initiatives. Although a series of calls has been carried out in all relevant OPs, the rate of implementation is still very low.

INNOVATION FRIENDLY ENVIRONMENT

Supporting innovative activities in enterprises

One call was launched in 2008 ending in 2009. Thirty-five projects fulfilled the formal criteria and are now in the evaluation process. The total allocation for non-refundable aid amounts to 33,7 mil. €. Other preliminary calls are currently being prepared.

The implementation of support activities related to information and communication technologies, services and applications for citizens and SMEs is progressing slowly. The first results are expected at the end of 2010.

Innovation vouchers

The main objective of this measure is to connect SMEs and universities and national research institutions. The vouchers are provided by the Slovak Innovation and Energy Agency to businesses for the "purchase" of services from certified research institutions. The innovation vouchers are

 $^{^{5}\} http://www.proinno-europe.eu/sites/default/files/SK02_T1_Appraisal_Report.pdf$

⁶ http://www.proinno-europe.eu/sites/default/files/SK08_T1_Appraisal_Report.pdf

⁷ Ministerstvo školstva Slovenskej republiky (2009)

currently being piloted in the Prešov region. The project is being implemented in scope of the RAPIDE project (Regional Action Plans for Innovation Development and Enterprise) and is financed by the INTERREG IVC programme.

KNOWLEDGE TRANSFERS AND CLUSTERS/POLES

INTERREG IVC

The contribution of the project was mentioned in paragraph 2.2. Although this project is part of the European territorial cooperation objective, its contribution to overall regional innovation performance is significant. One third of the approved projects focus on support to small and medium enterprises.

Innovation and technological transfers

Since the beginning of the present programming period, eight calls have been launched in this particular measure. The first four calls were launched in 2008 and the other four calls a year later. The majority of project is financed by ERDF. However, due to ongoing implementation of these projects it is difficult to assess the impact of these projects on the innovation environment.

National information infrastructure

The project was financed by SOP Industry and Services in the previous programming period. In the scope of this measure, eleven information-science centres have been established and upgraded in existing libraries.

In the present programming period, the Agency of the Ministry of Education, Science, Research and Sport⁸ is financing four national projects in OP Research and Development:

- NISPEZ project (National Information System for R&D support). The main objective of this
 project is to provide general access to electronic information sources (for example
 ProQuest Central, Knovel, ScienceDirect, Scopus, SpringerLink, Web of Science etc.) for R&D
 staff.
- National Infrastructure for Support of Technology Transfer (NIIT),
- Slovak Infrastructure for Supercomputing,
- Datacentre for R&D.

Building Regional Innovation Centres

The implementation of this measure is proceeding gradually. There have been a lot of difficulties related to financing, lack of coordination between relevant ministries, problems related to long

⁸ The Ministry of Education, Science, Research and Sport founded the Agency of the Ministry of Education of the Slovak Republic for the Structural Funds, on January 1, 2007. Its main objective is to provide assistance for the implementation process of EU Structural Funds, in the present period 2007 – 2013. The name of the Agency was changed on July 1st 2010 with the amendment of Law No. 575/2001 (the so called Competences Law) with Law No. 37/2010.

SK_EvalNet_Final draft Innovation paper_August 2010

term sustainability of the project and issues related to Council Regulation 1083/2006. Insufficient implementation of this measure postpones the expected positive results on national as well as regional level and does not contribute to the improvement of innovation capacities.

Due to ongoing difficulties with building Regional Innovation Centres, the Ministry of Education has launched a call focused on support for building Competence centres. The call was launched on June 2nd 2010 and aims to support the creation of integrated Competence Centres oriented to the cooperation of private and public (academic) sector equipped with high technology research infrastructure. The call is expected to close on September 13th 2010.

Modernization and building of technical infrastructure for research and development

The main recipients of support are universities, national research institutions (Institutes of the Slovak Academy of Sciences, Slovak Centre of Scientific and Technical Information⁹). The Centres of Excellence at these Institutes as well as research centres affiliated to Universities are quite successful in the implementation of the above mentioned projects as they are the sole eligible beneficiaries of the support.

BOOSTING APPLIED RESEARCH

Financial engineering tools for innovation.

Support for SMEs in this measure is financed via the JEREMIE initiative. The initiative should become operative in the near future.

Support of networks of excellence in research and development as the pillars of regional development and support to international cooperation

The main recipients of support are again universities, national research institutions (Institutes of the Slovak Academy of Sciences, Slovak Centre of Scientific and Technical Information). The Centres of Excellence at these Institutes as well as research centres affiliated to Universities are quite successful in the application for projects. The projects are financed under Priority axis 2 of the OP R&D in the convergence regions.

2.2 ACHIEVEMENTS UNDER THE COMPETITIVENESS OBJECTIVE

Knowledge transfers and clusters/poles

Under the competitiveness objective only Bratislavský kraj is eligible for support from Structural Funds. The main policy initiatives launched in OP Bratislavský kraj related to innovation are the following:

⁹ The SCSTI is the national information centre and specialized scientific library of the Slovak republic focused on all branches of technology and selected areas of natural and economic sciences. http://www.cvtisr.sk/index/go.php?id=33

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- 2.1. Innovation and technological transfers and
- 2.2 Information society.

For this purpose, four calls (two calls for each measure) were launched in 2008 and 2009. At the end of March 2010 the share of financial implementation on the overall allocation for 2007 – 2013 in the OP Bratislavský kraj reached 6,57 %. The majority of innovation related spending was used for the purchase of new technologies and machinery, licences, information and communication technologies in SMEs. The projects implemented in SMEs under measure 2.1 are focused on the implementation of quality management certificates (ISO 9000 and 14000), acquisition of innovative technologies and purchasing of licences. At this stage, it is difficult to evaluate the impact of this expenditure on innovation output.

The majority of projects financed under the Convergence objective from OP Research and Development is financed in the Competitiveness objective. The main beneficiaries are relevant institutions in the convergence regions as well as in competitiveness region Bratislava. Due to predominant concentration of R&D, innovation and education institutions in the Bratislava region the above mentioned national projects (National Infrastructure for Support of Technology Transfer (NIIT), Slovak Infrastructure for Supercomputing and Datacentre for R&D) are simultaneously financed by the OP R&D under both objectives¹⁰.

Innovation friendly environment

Under measure 2.2 – Information society – twelve enterprises are currently implementing projects related to building complex information systems, e-commerce applications and computer aided manufacturing.

Boosting applied research

The projects in the public (academic) sector are currently being implemented under measure 4.1 – Support of networks of excellence in research and development as the pillars of regional development and support to international cooperation in the Bratislava region of the OP R&D. The main beneficiaries are Centres of excellence affiliated to Institutes of the Slovak Academy of Sciences and Universities.

3 CONCLUSION: MAIN CHALLENGES FACED BY COHESION POLICY PROGRAMMES

Taking into account the priorities, measures and tasks included in the strategic documents, the ERDF provides besides national resources substantial funding for innovation activities. Some features of the Slovak innovation strategy, which emerge from the analysis, are the following:

¹⁰ The main recipients are already mentioned in paragraph 3.1.

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- There is a clear link between the strategic documents and the NSRF.
- The objectives are well formulated and supported by quantitative targets.
- The documents present the first coherent strategy, although focused mainly on the national level; the implementation on regional level is still lagging behind (depending on the respective self-governing regions).
- The Innovation Strategy is based on the exoerience and best practices of successful countries. However, these experiences are not being efficiently applied by the national decision making institutions.
- The regional innovation strategies are out-dated and should be updated with respect to present programming period objectives and measures.

It is still difficult to find any significant evidence of ERDF contribution in the present programming period. The financial implementation of already approved projects represents a rather small share of the overall allocation. Although, there are many projects in the implementation phase, the impact of these projects can be thoroughly evaluated only in the long-term.

The Innovation policy and strategy adopted by the government provides a good starting point and framework for improving the poor innovation performance of the Slovak economy. However, it is essential to increase the efforts and make serious commitments related to the implementation of these policy documents. The evaluation of Innovation policy for 2008 – 2010 shows significant delays in the implementation of planned measures. The building of Regional innovation centres, which is considered the key component of the innovation policy is lagging behind, due to competence struggles between relevant ministries, frequent institutional changes, difficulties related to financial resources (insufficient national co–financing), lack of experience and internal reorganisation of relevant ministries.

The regional innovation policies are only weakly linked to national innovation policy. The national strategic documents are not linked to regional innovation strategies and vice versa (some of the regional innovation programmes have been elaborated with the financial assistance covered by the 6th framework programme). The current financial crisis further increased the difficulties related to co-financing of innovation policy measures as the regional budgetary balances deteriorated dramatically.

In order to improve the innovation output of the Slovak economy it is necessary to:

- Consistently implement the above mentioned strategy and policies with adequate funding and administrative support.
- Concentrate the managing of R&D and innovation support in one selected Ministry (currently the R&D, innovation and information and communication development policies are shared between three Ministries) thus eliminating the existing internal competition.

- Support innovation capacities at the regional level through education, vocational training, and exchange of experience among regional stakeholders.
- Provide the necessary financial resources for co-financing from the State budget.
- Increase transparency and eliminate existing rent seeking and bureaucracy.

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INTERVIEWS

- Ministry of Economy,
- · Slovak Innovation and Energy Agency,
- Business Innovation Centre Bratislava,
- Ministry of Construction and Regional Development OP Bratislavský kraj,
- Ministry of Education, Science, Research and Sport Agency of the Ministry of Education,
 Science, Research and Sport of the Slovak Republic for the Structural Funds of the EU.

ANNEX A – BACKGROUND DATA ON EU COHESION POLICY SUPPORT TO INNOVATION

The data on the ERDF resources allocated cover the FOI codes defined as relevant for the support of RTDI, or, more precisely, those that cover the bulk of resources devoted to innovation (see annex B for the list of codes). Experts should assess the appropriateness of this common definition and, if necessary, adjust the coverage to the national case in consultation with the core

team. Note: experts should complete the final column only in respect of the National and Regional programmes totals and not for each regional programme.

Table 1 - Total ERDF resources allocated per programme (2007-2013)

Programme	Total ERDF resources for innovation	Total ERDF	Innovation support as % of total ERDF	Main initiatives implemented
OP Research and Development	976 761 158	1 209 415 373	80,8%	Building of Regional innovation centres (RIC) including the support of education and counselling for subjects participating in the RIC (not yet implemented but planned). A more viable solution is currently being carried out in the recent call related to building Competence centres. Upgrading of R&D infrastructure in the Institutes of the Slovak Academy of Sciences and Universities Datacentre for R&D National Information System (NISPEZ) Infrastructure for supercomputing Support for centres of excellence in research and development National Infrastructure for Support of Technology Transfer (NIIT),
Total Objective 0	976 761 158	1 209 415 373	80,8%	
OP Information Society	886 276 574	993 095 405	89,2%	Electronisation of public administration and development of electronic services on the central level (the majority of expenditure incurred in this OP is related to technical assistance). The financial implementation of measures is negligible.
OP Environment		1 800 000 000	0,0%	n/a
Regional Operational Programme		1 445 000 000	0,0%	n/a
OP Transport		3 206 904 595	0,0%	n/a
Operational Programme Health		250 000 000	0,0%	n/a
	332 840 240	772 000 000	43,1%	Financial support for the creation of innovation centres Creating a central information portal providing support for business
OP Competitiveness and Economic Growth				innovations Support to growth of human capital by education, mobility and knowledge transfer Innovations and technology transfers Support to common services for entrepreneurs
				Support to innovation in business sector

OP Technical Assistance		97 601 421	0,0%	
Total Objective 1	1 219 116 814	8 564 601 421	14,2%	
OP Bratislava Region	32 523 460	87 000 000	37,4%	R&TD activities in research centres Assistance to SMEs for the promotion of environmentally-friendly products and production processes Information and communication technologies Services and applications for SMEs R&TD infrastructure (including physical plant, instrumentation and high-speed computer networks linking research centres) and centres of competence in a specific technology. Technology transfer and improvement of cooperation networks between small businesses (SMEs), between these and other businesses and universities, postsecondary education establishments of all kinds, regional authorities, research centres and scientific and technological poles (scientific and technological parks, technopoles, etc.)
Total Objective 2	32 523 460	87 000 000	37,4%	
Overall total	2 228 401 432	9 861 016 794	22,6%	

^{*} The term initiatives should be understood in a wide sense covering measures, projects, actions and so on co-financed by the ERDF. Among these, experts should identify the main kinds of intervention.

Source: core team on EC data.

Table 2 - ERDF contribution to innovation by policy area (2007-2013)

a - Convergence Objective

	Categorisation of		%	
Policy area	expenditure (corresponding FOI codes)	Total ERFD	Regional share	National share
	05	175 817 007		
	11	945 258 344		
	12			
Innovation friendly environment	13			
	14			
	15			
	74			
Knowledge transfer and support	02	527 451 027		
to innovation poles and clusters	03	108 830 590		
	04			
	01	273 493 124		
Boosting applied research and	06	165 027 880		
product development	07			
	09			

Source: core team on EC data.

b - Competitiveness and Employment Objective

	Categorisation of		%	
Policy area	expenditure (corresponding FOI codes)	Total ERFD	Regional share	National share
	05	12 410 400		
	11			
	12			
Innovation friendly environment	13			
	14			
	15			
	74			
Knowledge transfer and support	02	8 045 224		
to innovation poles and clusters	03			
	04			
	01	12 067 836		
Boosting applied research and	06			
product development	07			
	09			

Source: core team on EC data.

ANNEX B - CLASSIFICATION OF INNOVATION POLICY AREAS, INSTRUMENTS AND BENEFICIARIES

Policy area	Short description
Innovation friendly environment	 This category covers a range of actions which seek to improve the overall environment in which enterprises innovate, and notably three sub groups: innovation financing (in terms of establishing financial engineering schemes, etc.); regulatory improvements and innovative approaches to public services and procurement (this category could capture certain e-government investments related to provision of services to enterprises); Developing human capital for the knowledge economy. This category will be limited to projects in higher education aimed at developing industry orientated courses and post-graduate courses; training of researchers in enterprises or research centres. The category also covers initiatives geared towards improving governance capacities for innovation and knowledge policies (e.g. specific technical assistance funding, support for regional foresight)

Knowledge transfer and support to innovation poles and clusters	 Direct or indirect support for knowledge and technology transfer: direct support: aid scheme for utilising technology-related services or for implementing technology transfer projects, particularly environmentally friendly technologies and ITC; indirect support: delivered through funding of infrastructure and services of technology parks, innovation centres, university liaison and transfer offices, etc. Direct or indirect support for creation of poles (involving public and non-profit organisations as well as enterprises) and clusters of companies direct support: funding for enterprise level cluster activities, etc. indirect support through funding for regrouping R&D infrastructure in
Boosting applied research and product development	poles, infrastructure for clusters, etc. Funding of "Pre-competitive development" and "Industrial research" projects and related infrastructure. Policy instruments include: • aid schemes for single beneficiaries or groups of beneficiaries (including IPR protection and exploitation); • research infrastructures for non-profit/public organisations and higher education sector directly related to universities. Any direct or indirect support for the creation of innovative enterprises (spin-offs and start-ups)

Instruments	Short description
Infrastructures and	Building and equipment for laboratories or facilities for university or research centres, Telecommunication infrastructures,
raciities	Building and equipment for incubators and parks for innovative enterprises
Aid schemes	Grants and loans for RTDI projects Innovative finance (venture capital, equity finance, special bonds, etc.) for innovative enterprises
Education and training	Graduate and post-graduate University courses Training of researchers

Beneficiaries	Short description
Public sectors	Universities National research institutions and other national and local public bodies (innovation agencies, BIC, Chambers of Commerce, etc) Public companies
Private sectors	Enterprises Private research centres
Others	NGOs
Networks	cooperation between research, universities and businesses cooperation between businesses (clusters of SMEs) other forms of cooperation among different actors

ANNEX C - CATEGORISATION OF EXPENDITURE TO BE USED FOR CALCULATING EU COHESION POLICY RESOURCES DEVOTED TO

INNOVATION

FOI	
Code	Priority Theme
	Research and technological development (RTD), innovation and entrepreneurship
01	R&TD activities in research centres
02	R&TD infrastructure (including physical plant, instrumentation and high-speed computer networks linking research centres) and centres of competence in a specific technology
03	Technology transfer and improvement of cooperation networks between small businesses (SMEs), between these and other businesses and universities, postsecondary education establishments of all kinds, regional authorities, research centres and scientific and technological poles (scientific and technological parks, technopoles, etc.)
04	Assistance to R&TD, particularly in SMEs (including access to R&TD services in research centres)
05	Advanced support services for firms and groups of firms
06	Assistance to SMEs for the promotion of environmentally-friendly products and production processes (introduction of effective environment managing system, adoption and use of pollution prevention technologies, integration of clean technologies into firm production)
07	Investment in firms directly linked to research and innovation (innovative technologies, establishment of new firms by universities, existing R&TD centres and firms, etc.)
09	Other measures to stimulate research and innovation and entrepreneurship in SMEs
	Information society
11	Information and communication technologies (access, security, interoperability, risk-prevention, research, innovation, e-content, etc.)
12	Information and communication technologies (TEN-ICT)
13	Services and applications for the citizen (e-health, e-government, e-learning, e-inclusion, etc.)
14	Services and applications for SMEs (e-commerce, education and training, networking, etc.)
15	Other measures for improving access to and efficient use of ICT by SMEs
	Human capital
74	Developing human potential in the field of research and innovation, in particular through post-graduate studies and training of researchers, and networking activities between universities, research centres and businesses