



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

TASK 1: POLICY PAPER ON INNOVATION

SLOVENIA

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DAMJAN KAVAŠ, INSTITUTE FOR ECONOMIC RESEARCH, LJUBLJANA

MAJA BUČAR, UNIVERSITY OF LJUBLJANA

A report to the European Commission

Directorate-General Regional Policy

CONTENTS

1	EXECUTIVE SUMMARY	3
2	NATIONAL AND REGIONAL INNOVATION POLICY AND THE CONTRIBUTION OF ERDF	4
2.1	NATIONAL AND REGIONAL INNOVATION POLICY	4
2.2	ERDF CONTRIBUTION ACROSS POLICY AREAS.....	8
3	EVIDENCE AVAILABLE ON THE PERFORMANCE OF INNOVATION MEASURES CO-FINANCED BY ERDF	10
4	CONCLUSION: MAIN CHALLENGES FACED BY COHESION POLICY PROGRAMMES	11
	REFERENCES.....	14
	ANNEX A – BACKGROUND DATA ON EU COHESION POLICY SUPPORT TO INNOVATION.....	15
	ANNEX B – CLASSIFICATION OF INNOVATION POLICY AREAS, INSTRUMENTS AND BENEFICIARIES.....	17
	ANNEX C – CATEGORISATION OF EXPENDITURE TO BE USED FOR CALCULATING EU COHESION POLICY RESOURCES DEVOTED TO INNOVATION	19

1 EXECUTIVE SUMMARY

As Slovenia is a unitary state with two tiers of administration – central government and municipalities – national strategy is translated at the regional level to a very limited extent. The current concept of the innovation policy is defined at the national level only. The regional perspective comes into the foreground in specific conditions such as participating in different public calls, where applicants from the so-called less developed areas enjoy special benefits. That was especially true during the 2004–2006 period but much less so in the 2007–2013 period.

According to the EIS 2009 data, Slovenia is making slow, but continuous progress in its innovation performance. It belongs to the group of *innovation followers*, with several indicators close to or at the EU average. Slovenia needs to improve its innovation performance. This requires support to business investment in R&D (especially in times of economic crisis), promotion of cooperation between the academic sphere and business sector and, in the long run, innovation support focused on technological priorities of the country, defined in the strategic documents. Special treatment is needed for non-innovative SMEs.

The additional financial resources through the Structural Funds have been of great importance for the Slovenian R&D system, especially for the business sector. The insufficient integration in the overall RTDI policy system could be considered a deficiency of the current measures, supported through the Structural Funds. The complicated coordination scheme of the Structural Funds Programme and the on-going institutional changes in the overall Slovenian R&D and innovation system in terms of distribution and/or coordination of policy and measures, make it difficult to present a transparent scheme of all support measures. The complexity of the preparatory and implementation phases of the projects supported by the ERDF surprised many applicants and caused several administrative complications and delays. This is due to the lack of administrative capacity in the business sector and in the smaller public research institutes.

The evidence available on the results from ERDF co-financed programmes is extremely limited, because most of the supported projects are still in the implementation phase and none of evaluations conducted for the period 2007–2013 are related to innovation oriented measures. According to our experience and opinion, partly based on interviews and informal talks with Managing Authority, Intermediate bodies, agents and beneficiaries the contribution of ERDF to the innovation policy measures has been substantial in terms of additional financial resources and the results achieved so far:

- In the time of economic crisis, ERDF funds helped the government to prevent a slow down of the business sector investment in research and development (R&D).
- The additional funding promotes restructuring of the Slovene business sector. Nevertheless a more focused approach should be implemented in the next years. We propose to move from supporting investments into new equipment into supporting of R&D projects, from

supporting existing (ordinary) activities of companies into supporting more radical R&D projects (completely new projects, using existing technology in other sectors), from supporting broad range of activities into supporting technological priorities (concentration), from using predominantly non-repayable aid in the case of investments into new equipment to using repayable aid (loans, interest subsidies, guarantees). Stronger support of non-technical innovation (industrial design, new business models) is needed.

The insufficient coordination and cooperation among the ministries as well as among the intermediary support organisations remain one of the key challenges for the Slovenian innovation policy in the next years. The most difficult challenge for the Slovenian government will on the one hand be the removal of the above mentioned incoherence aspects in the organisation and implementation of R&D and innovation policy measures and on the other hand, a much more difficult task, sustaining the current level of support to R&D. While the full impact assessment of the new measures, co-financed by Structural Funds, is not possible, since at the moment there is little data on the indicators since most of the projects only began in 2009 and the reports will not be available until the closure of the projects and programmes at the earliest. The majority of the projects are not short-term. The Centres of Excellence and Strategic research-investment projects are, for example, two new measures, which necessitate a long-term source of financing even after the current financial perspective, if full impact of these measures is to be achieved. If these turn out to be one-time-only measures, the resources invested will not have the expected additional effect.

2 NATIONAL AND REGIONAL INNOVATION POLICY AND THE CONTRIBUTION OF ERDF

2.1 NATIONAL AND REGIONAL INNOVATION POLICY

Looking at the EIS data (EIS, 2010), Slovenia is making slow, but continuous progress in its innovation performance. It belongs to the group of *innovation followers*, with several indicators close to or at the EU average. This is also the outcome of the Community Innovation Surveys, where the number of innovation active enterprises has increased from 27% during the 2002–2004 period to 35% during 2004–2006 (SURS, 2008). However, according to the preliminary data of the Statistical Office of the Republic of Slovenia (SURS) published in May 2010 the share of innovation active enterprises with technological innovations has slightly decreased in recent years. The share was 34.4% in the 2006–2008 period, 0.7 of a percentage point lower than in the previous 3-year period (2004–2006). The level of research and development (R&D) investment in Slovenia in recent years has been around 1.5% of the Gross Domestic Product (GDP), with an increase in 2008 to 1.66% or 617 million EUR (SURS, November 2009). The business sector share of total investment in R&D is 62.8%, followed by government sources (31.50%) and sources from abroad (5.5%). Slovenia introduced the Lisbon and Barcelona targets into its R&D policy and was hoping to achieve a 3%

investment in R&D by 2010, yet due to the trends in 2008, the official postponement of the target was made to 2013. The target was set more as a mobilisation target than a realistic one, since its achievement is not only a matter of financial resources, but the lack of human resources and absorption capacity as well.

An increased investment in R&D has been a clearly stated priority in all the main policy papers (National Research and Development Programme 2006–2010 (NRDP, 2005), Slovenian Development Strategy 2005–2010 (IMAD, 2005), National Reform Programme 2005–2010 (Republic of Slovenia, 2005). Several support measures, introduced to stimulate business R&D investment, proved to be insufficient to achieve Lisbon targets. The reason lies partly in the fragmentation of policies, where the numerous and changing instruments to stimulate business R&D spread the resources too thinly. Also, the already high concentration of business R&D expenditure in certain industries shows that the most problematic segment of the business sector are R&D and innovation in-active enterprises, particularly SMEs. These have only recently become the target of the support measures.

Slovenia has established a complex national innovation system with several bridging institutions to promote innovation in the business sector. Several different measures were set up in the past, but the lack of systematic evaluation and upgrading of these measures represent a significant weakness of the system (Breitfuss, Stanovnik, 2007). The impact of so called Europeanization of the policy and the measures has over the years prompted the introduction of the measures, observed as good practice in EU. Since the number of measures and the amount of available funds for innovation and entrepreneurship are increasing, especially thanks to the application of structural funds, the challenge for the Slovenian innovation system consists in applying these resources effectively and further improves the coordination of the different agents in the national innovation system (EIS, 2009).

Among the main challenges for research policy in Slovenia, the following were identified in the ERAWATCH research inventory report: SLOVENIA, prepared in 2008:

1. The adjustment of budgetary resources to sufficiently support the declared priorities needs to be intensified. Slovenia declared its intention to raise R&D investment to 3% of GDP in the near future (originally it was planned by 2010, later postponed until 2013).
2. The implementation of policy documents, particularly in view of the fact that the past record was seriously deficient in this area. Several past policy documents have set similar objectives, but the specific measures were either underfinanced or did not address the set policy priorities (for example, the restructuring of public financing towards applied and development projects).
3. The coordination of instruments and measures among different ministries and other support institutions to enable the smooth functioning of the national R&D and innovation

system. This coordination is especially important with the current organisational scheme in which science and technology issues are within the Ministry of Higher Education, Science and Technology, while the Ministry of Economy is in charge of entrepreneurship, including segments of innovation policy (support for technology parks university and business incubators, for example). Along with the two ministries, three public agencies are involved in financing R&D at the operational level: the Slovenian Research Agency, the Public Agency for Technology of the Republic of Slovenia (TIA), the Public Agency for the Promotion of Entrepreneurship and Foreign Investment (PAEFI). In addition, the Ministry of Defence is becoming an increasingly important player in the R&D field, in particular for industrial R&D. The Government office for European affairs and growth is to coordinate the implementation of the Slovenian Development Strategy and the National Lisbon Reform Programme. The presence of so many different stakeholders calls for a clear R&D governance scheme with a well-specified division of tasks. This has not yet been fully implemented.

4. The development of closer cooperation between public R&D institutions, universities and the business sector within set priorities is a challenge recognised in current policy documents (National Research and Development Programme, Slovenian development strategy, National Reform Programme).

Regional dimension

Because Slovenia is a unitary state with two tiers of administration – central government and municipalities – national strategy is translated at the regional level to very limited extent. There are 210 municipalities, which deal with issues of local importance and matters allocated to them by statute. At the NUTS-3 level only statistical regions exist (12). Since these regions are only statistical and not administrative, they have almost no implications on innovation policy. The National Research and Development Programme has no specific regional focus. R&D and innovation (CIS) indicators are available for Slovenia as a whole (as a single region) and some at the level of statistical regions, but only if the survey on statistical regions takes them into account.

The current concept of the innovation policy is defined at the national level, due to the absence of the intermediate level (provinces). The regional perspective comes to the foreground in specific conditions when participating in different public calls, where applicants from so-called less developed areas enjoy special benefits. That was especially true during the 2004–2006 period, when the least developed A and B regions had access to indicative allocation of 60% of available EU funds. Also, the available R&D tax subsidy is more favourable in less developed regions.¹

More pronounced regional approach is developed in the new financial perspective 2007– 2013, where the Operational programme ‘Strengthening Regional Development Potentials’ includes a

¹ Corporate income tax subsidy of 40% of R&D expenses, but can be increased to 50–60% if investment is carried out in less developed parts of Slovenia.

special development priority “Development of Regions”, where Slovenia plans to spend almost 619.500.000 EUR to support regional development, but support is not focused on innovation-related projects.

Different regions and local communities are introducing their own entrepreneurship support measures, often co-financed indirectly through Structural Funds. One of the popular measures is the establishment of a local business zone, where physical infrastructure is provided for new enterprises. Some of the larger communities also have different entrepreneurship support centres (regional development agencies, local development agencies), which help the SMEs with information and often also with advice on different national/ EU support schemes, technology parks (4), regional entrepreneurial incubators, university incubators (3).

Role of ERDF

Slovenia's strategic thematic and territorial priorities for 2007–2013, as set out in the National Strategic Reference Framework (NSRF), are to: promote entrepreneurship, innovation and technological development; improve the quality of the education system, training and research and development activities; improve labour market flexibility and guarantee employment security in particular through job creation and the promotion of social inclusion; ensure conditions for growth by providing sustainable mobility, improving the quality of the environment and by providing the appropriate infrastructure; promote a balanced regional development. Emphasis is also given to the improvement of institutional and administrative capacity, in particular of the public sector, as this is a necessary condition in order to accelerate economic growth in Slovenia. Table 1 in Annex A provides information on the main innovation-related measures being undertaken as part of the Operational Programmes. According to the programming documents ERDF resources devoted to innovation (859.253.292 EUR) represent 25.7 % of all ERDF resources (3.345.349.266 EUR).

ERDF has played an extremely important role in innovation promotion. Since 2008 almost all innovation related measures have been financed from Structural Funds, especially from the ERDF, only few “small scale” measures have been financed from national funds only (Innovation vouchers, Promotion of R&D projects in SMEs, Co-financing of start-up of innovative companies, Financial assistance to institutions supporting innovation activity, etc.). The funds devoted to the promotion of technological development and support of IKT project in the year 2009 were more than 10 times higher than in the year 2006, especially due to ERDF funds (ERDF funds represented more than 85 % of the budget of the Ministry of the Economy devoted to innovation-related measures and more than 70 % in the case of the of Ministry of Higher Education, Science and Technology).

It is important that ERDF innovation-related measures should be planned to solve the main challenges of Slovene research policy (underfinanced innovation-related measures, lack of cooperation between public R&D institutions, universities and the business sector, lack of concentration on technological priorities). However, the real role (impact) of ERDF innovation-related measures will be assessed at the closure of the Operational Programme at the earliest.

2.2 ERDF CONTRIBUTION ACROSS POLICY AREAS

Innovation related measures represent a substantial part of the OP SRDP. According to the OP SRDP policy areas “Knowledge transfer and poles” should receive the majority of ERDF funds (63%), followed by “Boosting applied research” (32.5%) and “Innovation friendly environment” (4.5%). See Table 2 in Annex A.

Knowledge transfer and poles

Policy area “Knowledge transfer and poles” received the majority of ERDF funds (50.5%) until the end of 2009. In the framework of the policy area the following measures are implemented:

- R&D centres of excellence (public tender of Ministry of Higher Education, Science and Technology in May 2009, when 8 R&D centres of excellence were selected by the Ministry, based on the evaluation by international and national experts),
- Strategic research projects (public tender by Public Agency for Technology of the Republic of Slovenia),
- Subsidies for investment in new technical equipment for enterprises with 1–9 employees and subsidies for investment in new technical equipment for other SMEs, tendered by the Slovene Enterprise Fund,
- Co-financing of economic development–logistics centres (so far only 2 : Tehnološki park IN PRIME, Podjetniški inkubator Podbreznik), inter-entrepreneurial education centres (10),
- Investment into development of higher education as well as research infrastructure of national importance (2 projects supported until the end of 2009).

Main recipients of funding are:

- enterprises, groups of enterprises and research organizations, linked with enterprises and other subjects of innovation environment in research centres of excellence and other forms of networking (taking into account priority research and technology areas), education/research organisations.

Spending in the policy area “Knowledge transfer and poles” is satisfactory, except financing of economic–development–logistics centres where implementation problems occurred due to the following reasons: i) unrealistic planning of economic–development–logistics centres (planned in the framework of the Resolution on National Development Projects up to 2023) with too many locations (9); ii) unrealistic assessment of demand, iii) lack of experience in setting up public–private–partnerships; iv) very strict tender documentation (Koman et al., 2007). In addition, the current economic crisis has lowered private sector investments.

Development of Centres of Excellence, Strategic research projects and Subsidies for investment in new technical equipment for SMEs are very important innovation–related instruments:

- **Development of Centres of Excellence:** the measure supports the development and functioning of Centres of Excellence in priority areas as defined by the Resolution on National Research and Development Programme (NRDP) and the work of Slovenian technology platforms (measure Promoting the establishment of Slovene technology platforms). The Centres of Excellence represent a tool that will enable the concentration of high-quality research in priority areas and horizontal integration of all stages in knowledge development: from basic research to the development of commercial application. They aim at bringing together the critical mass of knowledge and research infrastructure to allow for the potential scientific break-through at the international level and enable participation of Slovenian scientists in the international networks of excellence. At the same time they should be concentrated in the areas where strengthening of scientific resources would also result in increased technology transfer and development of new technologies for Slovenian industry. Total funds allocated: 77,553,986.35 in EUR.
- **Strategic research projects for business sector** are the measure operated by TIA. It is one of the largest programmes specifically developed for promoting business R&D with a focus on (for Slovenian circumstances) relatively large projects to be implemented by a group of companies in cooperation with public R&D institutions. The size of the projects approved is between 1 to 3 million EUR, with 26 million EUR allocated to this measure for the calls in 2009.
- **Subsidies for investment in new technical equipment for enterprises** with 1–9 employees and **subsidies for investment in new technical equipment for other SMEs** tendered by the Slovene Enterprise Fund: the measure supports investment of SMEs in new technology. The main goals are: technological restructuring and modernisation of SMEs, growth of value added per employee, increase in the number of employees. More than 550 projects were awarded in the years 2008 and 2009 and almost 84,000,000 EUR were allocated.

Boosting applied research

Until the end the 2009 policy area “Boosting applied research and product development” received 47% of ERDF funds. In the framework of the policy area the following measures have been implemented:

- Direct subsidies for joint development–investment projects (two public tenders of the Public Agency for Technology of the Republic of Slovenia– TIA),
- R&D projects in companies tendered by the Public Agency for the Promotion of Entrepreneurship and Foreign Investment – PAEFI.

Main recipients of funding are:

- enterprises,

- research organisations.

Direct subsidies for joint development investment projects are considered the most important innovation-related instrument. The measure is to provide co-financing of development-investment projects, where the core activity relates to the development of new products and/or services or the development of significantly improved products or/and services with higher value added. The investment in trial production of the new product/service, resulting from the development process is also supported. The measure is part of the programme for improving the competitiveness of enterprises and increased/more dynamic transfer of research results to the production phase. Almost 60 projects were awarded in the years 2008 and 2009 and more than 145,000,000 EUR were allocated.

Innovation friendly environment

Until the end of the 2009 policy area “Innovation friendly environment” received 2.5% of ERDF funds. In the framework of this policy area the following measures are implemented: Co-financing of R&D projects in e-services and e-content, support for the construction and maintenance of broad-band networks in local communities (public tender by the Ministry of the Economy – 12 municipalities supported).

Main recipients of funding are:

- enterprises, especially SMEs,
- municipalities,
- research organisations.

Inter-regional cooperation in respect of innovation policy

ERDF supports cross-border cooperation in relation to innovation policy (OP Slovenia–Austria, OP Slovenia–Italy), but only in the form of projects, including supporting institutions (OP Slovenia–Austria). The selection of OP Slovenia–Italy projects in the framework of the first call was delayed. Selected projects could have limited effects in the cross-border area, nevertheless it seems that synergy between selected projects is limited and companies are not directly involved in the projects. Inclusion (financing) of companies in selected innovation-oriented projects could strengthen results and impacts of the inter-regional cooperation in the period after 2013.

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

The disbursements of funds, allocated to the development priority ‘Competitiveness and research excellence’ are developing well. Until the end of the year 2009 almost all funds available were allocated. The situation is much worse in the development priority ‘Economic-development infrastructure’, where measures need to be changed.

The evidence available on the results from ERDF co-financed programmes is extremely limited. Only 2 evaluations for the period 2007–2013 and 8 for the period 2004–2006 have been conducted, but none of them related to the innovation oriented measures. Therefore the information has been gathered through Annual Implementation Reports as well as interviews and informal talks with the Managing Authority, Intermediate bodies, agents and beneficiaries.

As regards the period 2007–2013, one tender for framework contracts for ongoing evaluations of Operational Programmes was published at the end of 2009. At the moment the tender is subject of revision and evaluation work is expected to start in summer this year.

There are only two evaluations related to the innovation-related instruments available:

- Evaluation of publicly supported business R&D projects: It was conducted in the consortium led by Bučar Maja (co-author of this paper) and included experts from the Institute for Economic Research². The main conclusion of the evaluation is that for every EUR of public support companies were able to increase their income by EUR 6.7 and increase value added by EUR 3.9. Public support of R&D projects also had positive effects on the number of people employed.
- The evaluation of the impact of Centres of Excellence on business sector in the period 2004 –2006 (Mešl, Bučar, 2008) showed that in many centres cooperation with the business sector intensified, especially in the joint exploitation of the research equipment. This opened the door to more intensive contacts and in several cases resulted in improved collaboration between partners. All these positive changes are expected to have, if the support is maintained over a longer period of time, spill-overs and improve the technological level of the business sector.

Few data exist on the on-going projects, since most are in the implementation phase and the results will be reported at the closure of the projects and programmes (in some cases) at the earliest. With the measures implementing priority guideline 1.1, 197, new jobs were created and 133 projects supported until the end of the year 2009 (2009 Annual Report of OP Strengthening Regional Development Potentials).

4 CONCLUSION: MAIN CHALLENGES FACED BY COHESION POLICY PROGRAMMES

In our opinion, based on our knowledge, experience and interviews with the Managing Authority, Intermediate bodies, agents and beneficiaries, the availability of additional financial resources through the Structural Funds has been of great importance for the Slovenian R&D system,

² Bučar Maja et al.: Učinkovitost ukrepov Ministrstva za visoko šolstvo, znanost in tehnologijo za spodbujanje inovacij in tehnološkega razvoja v slovenskih podjetjih v letih 2005–2007, 2010.

especially for the business sector. Further support to innovation-related measures fits well with the present situation, due to the following reasons:

- The Slovenian enterprise (corporate) sector is facing significant structural problems. Nearly a third of value added in manufacturing sector is still produced in low technology activities. In order to make a breakthrough in competitiveness and make the economic growth sustainable in the long run, it is necessary to move towards technological restructuring based on higher investment in R&D, ICT, innovation in general and an increased role of the knowledge-based services. Current R&D and innovation measures, co-financed with Structural Funds, support restructuring of the Slovene business sector. Nevertheless, a more focused approach should be implemented in the next years. We propose to move from supporting investments in new equipment to further strengthening support for business R&D projects, from supporting existing (ordinary) activities of companies to supporting more radical R&D projects (completely new projects, use of existing technology in other sectors), from supporting broad range of activities to more concentrated support for selected technology priorities, from using non-repayable aid in the case of investments in new equipment to offering subsidised loans, interest subsidies and credit guarantees. Stronger support of non-technical innovation (industrial design, new business models) is needed.
- In the time of economic crisis, ERDF funds enabled the government to prevent a slow down of the business sector investment in research and development (R&D). According to the OECD Innovation Strategy in times of reduced potential output growth, rising unemployment, soaring public debt, stagnating or declining populations, diminishing returns from labour inputs and investment in physical capital future growth must increasingly come from innovation-induced productivity growth (Ministerial report on the OECD Innovation Strategy, 2010).
- In many ways, the Slovenian RD& innovation framework needs certain stability in terms of measures and instruments. This would give the companies a chance to get used to the offered support, which is available to them on a regular, sustained basis. It would provide an opportunity to analyse the impact of the measures over a medium-term period and see where the barriers to its efficiency are most pronounced.

In the period from 2008 to 2009 several new/modified instruments and measures were introduced by different actors in RD&I policy. While each of them responds to a particular need in the RD&I community, they also point to the unresolved problem of the support measures' fragmentation and frequent changes in their implementation. These relate especially to the support measures focused on the innovation environment, like technology parks/ incubators, technology centres, platforms and the new idea of the logistics-research-development centres. In spite of a relatively clear division of labour between the Ministry of Higher Education, Science and Technology (MHEST)

and Ministry of Economy in the area of R&D and innovation, this does not translate well into the programmes of their respective implementation agencies – the Slovenian Technology Agency (TIA) and the Public Agency for Promotion of Entrepreneurship and Foreign Investment (PAEFI). In particular, the latter has increased its activity in innovation policy with instruments, which would be more suitable if coordinated by TIA. The insufficient coordination and cooperation among the ministries as well as among the intermediary support organisations remain one of the key challenges for the Slovenian innovation policy; this was observed also in the first Organisation for Economic Cooperation and Development (OECD) Report on Slovenia (OECD, 2009).

In the future, the most difficult challenge for the Slovenian government will be on one hand the removal of the above mentioned in-coherences in the organisation and implementation of R&D&I measures and on the other, provide the sustainability of the current level of financial support to R&D. While the full impact assessment of the new measures, co-financed by Structural Funds, is not possible, several of them are not short-term in nature, but are promising significant results. The Centres of Excellence and Strategic research-investment projects are, for example, two such new measures for which a long-term source of financing needs to be provided even after the current financial perspective, if the full impact of these measures is to be achieved. If these turn out to be one-time-only measures, the resources invested will not have the expected additional effect!

REFERENCES

1. 2007 Annual Report of OP Strengthening Regional Development Potentials.
2. 2007 Annual Report on the implementation of the Single Programming Document of the Republic of Slovenia for the programme period 2004–2006.
3. 2008 Annual Report of OP Strengthening Regional Development Potentials.
4. 2009 Annual Report of OP Strengthening Regional Development Potentials.
5. Breitfuss Marija, Stanovnik Peter: Monitoring and analysis of policies and public financing instruments conducive to higher levels of R&D investments: The “Policy Mix” project: Country review: Slovenia, 2007.
6. Bučar Maja: Erawatch Country profile Slovenia, 2008.
7. Bučar Maja: TrendChart Country reports for Slovenia 2008 and 2009.
8. Bučar Maja et al.: Učinkovitost ukrepov Ministrstva za visoko šolstvo, znanost in tehnologijo za spodbujanje inovacij in tehnološkega razvoja v slovenskih podjetjih v letih 2005–2007, 2009.
9. Bučar Maja: Strategic Evaluation on Innovation and the Knowledge Based Economy in relation to the Structural and Cohesion Funds, for the programming period 2007–2013: Country Report: Slovenia, 2005.
10. Koman Klemen et al.: Študija dobrih praks partnerskega vzpostavljanja gospodarsko razvojne infrastrukture in možnost prenosa le teh v okvir izvajanja evropske kohezijske politike v Sloveniji, 2007.
11. Mešl Mateja in Bučar Maja: Evalvacija gospodarske relevance rezultatov in programov centrov odličnosti, 2008.
12. Ministerial report on the OECD Innovation Strategy: Innovation to strengthen growth and address global and social challenges: Key Findings, May 2010.
13. National Development Programme (NDP).
14. National Strategic Reference Framework Slovenia 2007–2013. Government Office for Local Self-government and Regional Policy. Unofficial translation of the NSRF approved on 18 June 2007.
15. OECD: Economic Survey on Slovenia: Executive Summary, 2009. Available at [http://www.oecd.org/document/40/0.3343.en_2649_33733_43173288_1_1_1_1.00.html](http://www.oecd.org/document/40/0,3343,en_2649_33733_43173288_1_1_1_1.00.html) .
16. OP Strengthening Regional Development Potentials.
17. Slovenia’s Development Strategy.

18. Spatial Development Strategy.

19. Spremembe operativnih programov kohezijske politike Cilja 1 v Sloveniji: predstavitev z utemeljitvijo in vrednotenjem. Government Office for Local Self-government and Regional Policy, April 2010.

20. Strateško poročilo o izvajanju Nacionalnega strateškega referenčnega okvira v Sloveniji za obdobje 2007–2013 za leto 2009. Government Office for Local Self-government and Regional Policy, 2009.

KEY STAKEHOLDERS AND EXPERTS CONSULTED

Peter WOSTNER	Managing Authority (Government Office for Local Self-Government and Regional Policy): Deputy Director
Iba ZUPANČIČ	Evaluation (Managing Authority)
Barbara ZALAR, Vanda RODE, Andrej CVELBAR	Intermediate body and S&T policy (Ministry of Higher Education, Science and Technology: Directorate for Technology)
Mateja TILIA	Intermediate body (Ministry of Education and Sport)
Franc GIDER	Agent (Public Agency for Technology of the Republic of Slovenia): Director
Maja TOMANIČ VIDOVIČ	Agent (Slovene Enterprise Fund): Director

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

The data on the ERDF resources allocated cover the FOI codes defined as being relevant for support of RTDI, or, more precisely, those that cover the bulk of resources devoted to innovation (see annex B for the list of codes).

Table 1: The main innovation-related measures being undertaken

Programmes	Total ERDF resources for innovation	Total ERDF	Innovation support as % of total ERDF	Main initiatives implemented already until the end of the year 2009
Operational programme on strengthening regional development potentials (Operativni program krepitve regionalnih razvojnih potencialov za obdobje 2007 –	859,253,292	1,709,749,522	50.3%	<ul style="list-style-type: none"> • direct subsidies for joint development-investment projects; • strategic research projects; • R&R projects in companies; • R&D centres of excellence; • subsidies for investment in new technical equipment for enterprises with 1–9 employees; • subsidies for investment in new technical equipment for other SMEs;

2013)				<ul style="list-style-type: none"> • co-financing of economic development-logistics centres; • inter-entrepreneurial education centres; • higher education and research infrastructure of national importance
OP on development of environment and transport infrastructure (Operativni program razvoja okoljske in prometne infrastrukture za obdobje 2007 - 2013)		1,635,599,744	0.0%	
Total Objective 1	859,253,292	3,345,349,266	25.7%	
Overall total	859,253,292	3,345,349,266	25.7%	

Source: core team on EC data.

Table 2: ERDF contribution to innovation by policy area (2007–2013) and achieved until the end of 2009

Policy Area	Categorisation of Expenditure (FOI codes)	Total ERDF	Total ERDF until the end of 2009
Objective 1			
Assistance to SMEs for the promotion of environmentally-friendly products and production processes (...)	6	55,634,088	69,988,247
Investment in firms directly linked to research and innovation (...)	7	55,634,088	57,808,375
Other measures to stimulate research and innovation and entrepreneurship in SMEs	9	148,666,232	25,358,666
R&TD activities in research centres	1	18,818,511	26,619,935
Boosting applied research Total		278,752,919	179,775,223
Advanced support services for firms and groups of firms	5	0	0

Developing human potential in the field of research and innovation, in particular through post-graduate studies	74	0	0
Information and communication technologies (...)	11	10,000,000	6,410,071
Information and communication technologies (TEN-ICT)	12	0	0
Other measures for improving access to and efficient use of ICT by SMEs	15	9,291,640	0
Services and applications for citizens (e-health, e-government, e-learning, e-inclusion, etc.)	13	0	0
Services and applications for SMEs (e-commerce, education and training, networking, etc.)	14	19,291,640	3,172,568
Innovation friendly environment Total		38,583,280	9,582,639
Assistance to R&TD, particularly in SMEs (including access to R&TD services in research centres)	4	141,138,828	132,795,979
R&TD infrastructure and centres of competence in a specific technology	2	84,565,681	39,929,902
Technology transfer and improvement of cooperation networks ...	3	316,212,584	20,957,493
Knowledge transfers and poles Total		541,917,093	193,683,374
Total Objective 1		859,253,292	383,041,236

Source: core team on EC data for the period 2007–2013, Managing Authority for the period 2007–2009.

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

Policy area	Short description
Innovation friendly environment	<p>This category covers a range of actions which seek to improve the overall environment in which enterprises innovate, and notably three sub groups:</p> <ul style="list-style-type: none"> • innovation financing (in terms of establishing financial engineering schemes, etc.);

	<ul style="list-style-type: none"> regulatory improvements and innovative approaches to public services and procurement (this category could notably 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. <p>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)</p>
Knowledge transfer and support to innovation poles and clusters	<p>Direct or indirect support for knowledge and technology transfer:</p> <ul style="list-style-type: none"> direct support: aid scheme for utilising technology-related services or for implementing technology transfer projects, notably 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. <p>Direct or indirect support for creation of poles (involving public and non-profit organisations as well as enterprises) and clusters of companies</p> <ul style="list-style-type: none"> direct support: funding for enterprise level cluster activities, etc. indirect support through funding for regrouping R&D infrastructure in poles, infrastructure for clusters, etc.
Boosting applied research and product development	<p>Funding of "Pre-competitive development" and "Industrial research" projects and related infrastructure. Policy instruments include:</p> <ul style="list-style-type: none"> aid schemes for single beneficiary or groups of beneficiaries (including IPR protection and exploitation); research infrastructures for non-profit/public organisations and higher education sector directly related to universities. <p>Any direct or indirect support for the creation of innovative enterprises (spin-offs and start-ups)</p>

Instruments	Short description
Infrastructures and facilities	<p>Building and equipment for laboratories or facilities for university or research centres,</p> <p>Telecommunication infrastructures,</p> <p>Building and equipment for incubators and parks for innovative enterprises</p>

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