



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

**TASK 1: POLICY PAPER ON INNOVATION**

**BULGARIA**

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## 1 EXECUTIVE SUMMARY

Bulgaria has not yet developed a regional dimension to its innovation and research policy, although by 2008 all six NUTS II regions had developed Regional Innovation Strategies. The Structural Funds are also coordinated at national level and EU-funding is not directed to specific regions, but rather to the applicants with the highest success rate.

The total **ERDF funding** allocated for Bulgaria for the period 2007 – 2013 is EUR 5 488 168 381, of which **10,1%** (EUR 554 991 087) is the share of ERDF support earmarked for innovation. All of the funding is allocated under the Convergence Objective. There is no EU financing to Bulgaria under the Competitiveness and Employment Objective. ERDF innovation support is channelled through a single national level vehicle – the Operational Programme Development of the Competitiveness of the Bulgarian Economy (OP Competitiveness). Operational Programme Regional Development has innovation as a horizontal priority but not specific measures targeted at innovation. So far Bulgarian authorities have contracted some 25% of OP Competitiveness, while disbursements have been below 4% – the lowest among operational programmes in the country. In effect not enough projects have been completed to allow for an evaluation of results and/or impacts. However, ERDF funding for innovation is likely to have a substantive impact on Bulgarian economic development as it will roughly equal the annual public spending on innovation and R&D of the national government.

There are many different reasons for the low disbursement of innovation ERDF funds under OP Competitiveness, which can be summarised in several key points:

- Bulgarian enterprises (especially SMEs) and individual researches often encounter **difficulties** in the preparation and implementation of innovation projects for ERDF support due to the lack of own financial resources, needed for project preparation, pre-financing, and financing of current project costs;
- Administrative capacity in the managing authority and the intermediate body of OP Competitiveness is persistently low compounded by higher than usual staff turnover, red-tape, substantial delays in reimbursements, cumbersome checks and audits;
- There is little understanding of the characteristics of innovation among Bulgarian enterprises, intermediate organisations and Bulgarian authorities, which hampers innovation planning and the design and implementation of adequate innovation support measures for the Bulgarian economy.

Public innovation support, including through ERDF, is also hampered by the lack of an updated national strategic document. Bulgaria's National Innovation Strategy dates back to 2004, when economic conditions were very different. There is no regional component of national innovation

policy although all six planning regions of the country have prepared Regional Innovation Strategies through FP 6 supported projects.

Another challenge is that the focus of OP Competitiveness is on physical infrastructure rather than on services and the available infrastructure may not be used to its full extent. The two national instruments – the National Innovation Fund and the National Science Fund – are not sufficiently consistent with the OP Competitiveness. The three instruments needed to establish joint priorities or at least share closely information to ensure continuity of support and diversification of funding availability to the economy. It is necessary to strengthen cooperation between the business (especially SMEs) and the research community, including universities and introduce a system and instruments for productive interaction between the public and the private R&D sector.

## 2 NATIONAL AND REGIONAL INNOVATION POLICY AND THE CONTRIBUTION OF ERDF

### 2.1 NATIONAL AND REGIONAL INNOVATION POLICY

The current **National Innovation Strategy of Bulgaria** was adopted in 2004. It set the following objectives: (1) to stimulate R&D and cooperation between science institutes, universities and companies; (2) to increase public financing for innovation; (3) to encourage companies to introduce new technologies; (4) to encourage establishment of clusters; (5) to support innovative start-ups; (6) to build up mechanisms for attracting foreign investments in science, etc. The National Innovation Fund, a programme of the Ministry of Economy and Energy, is the primary public financial instrument for the implementation of the National Innovation Strategy. The programme was set up to provide financing for applied research projects and/or feasibility studies, implemented by commercial enterprises in Bulgaria. Other **instruments** to support innovations introduced by the strategy have been – voucher schemes, scientific competitions for student's, technology companies, etc. The National Innovation Strategy has not been updated since Bulgaria's accession to the European Union in 2007, which has resulted in a patchy and *ad hoc* strategic framework for innovation support. Thus, though the National Strategic Reference Framework and the National Reform Programme (2008–2010) (see Annex D)<sup>1</sup> also envisage measures in support of innovation these are not based on national strategic documents. The oldest national financial instrument for support of R&D, the Bulgarian **National Science Fund** at the Ministry of Education, Youth and Science, has operated without national strategic guidelines in the past five years. All other innovation policy objectives and/or measures have been developed either to respond to EU requirements or without a strategic framework, e.g.: at the end of 2008 the Bulgarian Development

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<sup>1</sup> Source: ERAWATCH website, National Reform Programme (2008–2010) profile, <http://cordis.europa.eu/erawatch/index.cfm?fuseaction=policy.document&uid=ACE0B977-CCC6-54FF-0C96007A6F1D6AF0>

Bank started supporting innovative projects of SMEs; in 2008 and 2009 an initiative was started to modernise and integrate the Bulgarian research–education network<sup>2</sup>; as part of a PHARE–programme project a draft National Strategy and an action plan for creating and developing clusters in Bulgaria in the period 2007–2013 has been elaborated; etc.

The Bulgarian government adopted a very ambitious GERD target of 2% of GDP in the framework of the Europe 2020 strategy, which can only be made possible through efficient use of EU funds, and ERDF in particular. So far the EC estimations (based on linear extrapolation) show that if Bulgaria does not change its innovation policy by 2020 it will reach a GERD of 0.55% of GDP<sup>3</sup>. Achieving higher efficiency by 2020 requires a substantial increase in evaluation capacity, reform in the research and innovation systems, sectoral restructuring towards higher innovation intensity, redirection of EU funds towards innovation and research and the establishment of an innovation culture to stimulate business R&D investments.

Bulgaria has not yet developed a regional dimension to its innovation and research policy. The country has only recently begun to cultivate a regional element in its innovation policy through the EU's Regional Innovation Strategies (RIS) mechanism. By 2008 all six Bulgarian regions (NUTS II level) had developed RIS.<sup>4</sup> The six Bulgarian RIS provide specific recommendations for each region and for the management of Structural Funds (ERDF and ESF). Although some of their recommendations have been taken up in Regional Development Plans, RIS documents have remained largely “on paper”. The main obstacle to RIS implementation is that Structural Funds, including ERDF support are coordinated at national level in Bulgaria, with little or no authority of regional administrations in the distribution of funds.

There have been only a few studies assessing innovation performance at regional level, with similar conclusions, i.e. research and innovation performance is highly concentrated in the South–West Planning Region and in particular in the capital city of Sofia<sup>5</sup>.

### ***Role of ERDF***

Operational programme Development of the Competitiveness of the Bulgarian economy 2007–2013 supports innovation through all of its five priority axes. Priority Axe 1 Development of a Knowledge Based Economy and Innovation Activities specifically targets innovation. It is co-financed by the European Regional Development Fund (85%) and the National Budget of the

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<sup>2</sup> Source: PROINNO Europe, Bulgaria Country Report 2009, [http://www.proinno-europe.eu/page/extranet/upload/countryreports/Country\\_Report\\_Bulgaria\\_2009.pdf](http://www.proinno-europe.eu/page/extranet/upload/countryreports/Country_Report_Bulgaria_2009.pdf)

<sup>3</sup> Source: Ministry of Finance, Framework Position of Republic of Bulgaria regarding the definition of national objectives for Europe 2020 strategy, <http://www.minfin.bg/document/8030:1>

<sup>4</sup> Source: ERAWATCH Country profile for Bulgaria.

<sup>5</sup> See for example, *Innovation.bg 2009*, Applied Research and Communications Fund, Sofia, 2009; Annual Report on the National Innovation Policy 2006 and 2007, The Ministry of Economy, Energy and Tourism, Sofia, 2008, etc.

Republic of Bulgaria (15%). Measures under the programme include: (1) support for the creation and development of innovative start-up companies; (2) support for the creation of technological parks; (3) support for the adoption of innovative products, processes, and services in production, etc.

The horizontal priority of Operational Programme Regional Development 2007–2013 is innovation though specific measures targeting innovation are very few and include: elaboration of innovation and risk prevention strategies, exchange of innovation experience and best practices, study visits and networking; implementation of innovative approaches (pilot projects), etc.

Table 1 of Annex A presents data on ERDF resources allocated to innovation policy by programme. All ERDF funding in Bulgaria falls under the Convergence Objective and is disbursed through two operational programmes:

1. Operational Programme Development of the Competitiveness of the Bulgarian Economy (€ 551 588 378 ERDF resources for innovation, i.e. 55,8% of the total ERDF support to the Programme);
2. Operational Programme Regional Development (€ 3 402 709 ERDF resources for innovation, i.e. 0,3% of the total ERDF support to the Programme).

## 2.2 ERDF CONTRIBUTION ACROSS POLICY AREAS

The thematic focus of ERDF support under the Convergence Objective is on: a) Innovation friendly environment; b) Boosting applied research; and c) Knowledge transfers and poles; for more information see Table 2 in Annex A.

**Operational Programme Development of the Competitiveness of the Bulgarian Economy 2007–2013** aims at raising R&D expenditures by 0.64% up to the level of 1.15 % by 2013. The total budget of the programme for all its activities, including promoting innovative start-ups and efficiency of the enterprises, for the period 2007–2013 is €1 162 mln. (€988 mln EU financing and €174 mln national co-financing). From 2007 to 2009 a total of 692 contracts were drawn up for BGN392m (~€200 mln)<sup>6</sup>. The Report to the State Budget 2010, Ministry of Finance<sup>7</sup> envisages allocation of additional BGN 472.1 mln (€241.3 mln) for the implementation of OP Competitiveness in 2010. The main beneficiaries of OP Competitiveness are the Bulgarian enterprises, InvestBulgaria Agency, Bulgarian Small and Medium Enterprises Promotion Agency, Bulgarian Institute for Standardization, as well as other state agencies and institutes, business angels and other organizations, which invest in SMEs.

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<sup>6</sup> Source: ERAWATCH: Bulgaria Country profile

<sup>7</sup> Report to the State Budget 2010, Ministry of Finance, <http://www.minfin.bg/document/7240:1>

**JEREMIE** – In June 2010, under Priority Axis 3 Financial Resources for Developing Enterprises of OP Competitiveness, the OP Managing Authority made a payment of €199 mln<sup>8</sup> to the European Investment Fund to set up JEREMIE Holding Fund under the JEREMIE Initiative<sup>9</sup> of the EC. It provides funding to financial intermediaries, including banks, institutions providing guarantees and venture capital funds in accordance with the investment plan approved by the Managing Authority of OP Competitiveness. It is expected that it will contribute BGN 400 mln (€ 204 mln) to the development of SMEs in Bulgaria. The Fund will provide support to enterprises within the framework of three equity funds: a) venture capital fund for starting micro enterprises (with capital of €30 mln; €21 m from JEREMIE and €9 mln from other investors); b) fund to increase the capital of small operating enterprises (with capital of €60 mln of which €30 mln from JEREMIE and €30 mln from other investors) and c) Mezzanine Fund that will operate both as equity participation and lending instrument (€60 mln of which €30 mln from JEREMIE and €30 mln from other investors).

**Operational Programme Regional Development 2007–2013** proposes a set of integrated measures designed to contribute to the territorial factors of economic growth. The Report to the State Budget 2010, Ministry of Finance<sup>10</sup> allocates BGN 423.4 mln (€216.4 mln) for the implementation of Operational Programme Regional Development in 2010. The main beneficiaries include: ministries, state agencies, municipalities, associations of municipalities, municipal and state-owned companies, public transport enterprises and other public bodies, district administrations, joint stock companies with special purposes, National Fund Road Infrastructure, as well as non-governmental organisations.

It is difficult to assess how ERDF support to innovation development fits into national and regional policy. The latter are patchy with little analyses of regional and sectoral needs for innovation<sup>11</sup>. However, in general terms, ERDF support follows the broad guidelines of support outlined by the National Innovation Strategy of Bulgaria, 2004. OP Competitiveness is more focused on physical infrastructure than on services, this may give rise to a misbalance between infrastructure availability and its usage in the future. Furthermore, there is a lack of coherence of OP Competitiveness with the National Innovation Fund and National Science Fund resources. Joint priorities of the three instruments or at least of information sharing need to be established to

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<sup>8</sup> Source: Ministry of Finance, <http://www.minfin.bg/en/news/2010-6-29>

<sup>9</sup> The JEREMIE Initiative enables the EU Member States and Regions to put money from the structural funds and also national resources into holding funds to finance SMEs in a flexible and innovative way.

<sup>10</sup> Report to the State Budget 2010, Ministry of Finance, <http://www.minfin.bg/document/7240:1>

<sup>11</sup> In fact, the only national source of regular innovation performance assessment is the annual *Innovation.bg* report of the Applied Research and Communications Fund. The first report was published in 2006.

ensure continuity<sup>12</sup> of support and diversification of their funding. The links between industry, educational institutions, and public research centres remain weak<sup>13</sup>.

There is no evidence so far that the financial assistance provided by ERDF supports inter-regional cooperation in innovation policy. It is directed towards support to infrastructure, regional development, environment, etc.

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

Bulgaria lacks a coherent national innovation policy framework<sup>14</sup>. Its policy documents are prone to adhocery and there is lack of coordination between the policy priorities of the two main government bodies involved in innovation financing – the Ministry of Economy, Energy and Tourism and the Ministry of Education, Youth and Science. In 2010 a Minister for EU Funds has been appointed. The role of the minister is to monitor and enhance the management of EU funds and implement overall coordination between the ministries and managing authorities.

Many deficiencies in the research and innovation systems still have to be addressed, such as the weak and/or hidden (unofficial) collaboration between the business and the research community, and the lack of instruments for efficient interaction between the public and the private R&D sector. Bulgaria has failed to achieve the primary target set by its National Innovation Strategy (2004) – its total R&D expenditure has remained almost unchanged at 0.5% of GDP since the adoption of the strategy.

Accordingly, ERDF innovation support has not featured prominently in Bulgaria. Only 10.1% of the total ERDF funding has been allocated to innovation-related measures, which is comparatively low among new member states. In addition Bulgaria has been somewhat slow in absorbing EU funds. All operational programmes are weighed down by cumbersome administrative procedures and the responsible bodies find it difficult to implement them, especially as they follow the rules to the letter rather than the spirit of verification, certification and auditing regulations. As a result three years after EU accession, the payments are below 2 % of the total operational programs' value, with the Competitiveness OP, designed to support economic innovation, lagging behind most significantly<sup>15</sup> – until 31 July 2009 disbursements under OP Competitiveness reached 0.07%<sup>16</sup>.

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<sup>12</sup> The draft R&D strategy for the period 2008 – 2018 proposes that the two funds merge in a single national fund for research and innovation. The R&D strategy for the period 2008 – 2018 has still not been passed by the National Assembly.

<sup>13</sup> Source: ERAWATCH Policy Mix Reports 2009: Bulgaria.

<sup>14</sup> *Innovation.bg 2010*, Applied Research and Communications Fund, Sofia, 2010.

<sup>15</sup> Source: *Innovation.bg 2010*, Applied Research and Communications Fund, 2010, Sofia.

<sup>16</sup> State of EU Funds Absorption in Bulgaria till 31 July 2009, Brussels, 16. 10. 2009.



Weak collaboration between publicly funded institutions, and lack of a coherent national strategic framework with clear R&D priorities, decreases the impact of direct public aid for R&D.<sup>17</sup>

So far the Bulgarian government has not undertaken an evaluation of the results and impact of ERFD funding – in general or specifically in relation to innovation support measures. Most evaluations of the OPs, evaluation plans for future evaluations or monthly briefs<sup>18</sup> focus on procedures rather than impact. In January 2010 the Ministry of Regional Development and Public Works published a Summary Review of the First Opened Schemes under OP Regional Development 2007–2013<sup>19</sup>. The document provides a review of the processes of preparation, project selection and contracting as well as the systems and procedures for the monitoring of the implementation of 14 schemes opened in 2007 and 2008. The document focuses on the shortcomings in the application and monitoring procedures of the implementation of projects, **not the achieved results**. It also provides recommendations for changes in regulations concerning the implementation of OPs. A similar evaluation is to be completed under OP Competitiveness by the end of 2010.

**Table. Financial data: Budget 2007–2009**

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<sup>17</sup> Source: ERAWATCH Policy Mix Reports 2009: Bulgaria.

<sup>18</sup> For example the Evaluation Plan of OP Regional Development, [http://www.bgregio.eu/FCKeditor/UserFiles/File/Plan%20za%20Ocenka%20na%20OPRR\\_fin\\_en.ppt](http://www.bgregio.eu/FCKeditor/UserFiles/File/Plan%20za%20Ocenka%20na%20OPRR_fin_en.ppt), Implementation of the Structural funds in Bulgaria Monthly brief, June 2010, <http://www.eufunds.bg/en/page/783>, Indicative Plan for Assessment of OP Transport: <http://www.optransport.bg/page.php?c=140&d=234>, Plan for Evaluation of OP Technical Assistance, <http://www.minfin.bg/document/5600:2>, Presentation on the implementation of OP Technical Assistance, 26.05.2009, <http://www.minfin.bg/document/6573:4>, Evaluation of the implementation of OP Technical Assistance 2008 (presentation), <http://www.minfin.bg/document/6577:2>, Presentation on the Review and analysis of projects funded under priority axis 1 of OP Environment, available at: <http://ope.moew.government.bg/bg/docs>, Summary of the Review of the First opened schemes under OP Regional Development 2007–2013, Ministry of Regional Development and Public Works, January 2010, <http://www.bgregio.eu/Content.aspx?menu=left&pid=97>

<sup>19</sup> Review of the First Opened Schemes under Operational Programme Regional Development 2007–2013, [http://www.bgregio.eu/FCKeditor/UserFiles/File/Pregled%20parvi%20shemi\\_RESUME\\_en.pdf](http://www.bgregio.eu/FCKeditor/UserFiles/File/Pregled%20parvi%20shemi_RESUME_en.pdf)

Instrument	Outlays (granted funds) (2007–2009) (in million euro)	Advance payment by the EC (2007–2009) (in million euro)	Interim payment requested from Bulgaria (2007–31.7.2009) (in million euro)	Interim payment, made by the EC (2007–31.7.2009) (in million euro)	Number of operational programmes with QMS <sup>20</sup> , presented by Bulgaria/approved by the EC (in million euro)
ERDF	1,038.931	<b>288.462</b>	1.305	0	5/0 <sup>21</sup>
Cohesion Fund	747.716	<b>239.719</b>	0.019	0	2/0 <sup>22</sup>

Source: Level of EU funds absorption in Bulgaria until 31 July 2009, Brussels, 16. 10. 2009.

The evaluations for correspondence of the Management control systems<sup>23</sup>, submitted by Bulgaria in 2008 and 2009 for all Operational programmes, were rejected twice by the Commission due to flaws in the Integrated Information Management and Surveillance System, and due to a lack of correspondence between the conclusions of the audit and the complete audit stand. In order to guarantee the correct establishment of the management control systems, the Commission keeps a close contact with Bulgaria<sup>24</sup>. The setting up of management control systems in Bulgaria is being closely monitored by the Commission.

### 3.1 ACHIEVEMENTS UNDER THE CONVERGENCE OBJECTIVE

So far there have not been any formal evaluations of achievements under the Convergence Objective in Bulgaria. Research and technological development funding represents 2% of the total amount allocated to Bulgaria under the Convergence aim of the EU Structural Funds in the period 2007–2013. In a statement released in 2007 the Bulgarian Academy of Sciences claimed that the minimal amount of funding necessary to revitalise the Bulgarian research system would be at least 10% of the total amount of Structural Funds allocated to the country<sup>25</sup>. The reasons for the low level of absorption of funds, especially in OP Competitiveness, varies between the administrative

<sup>20</sup> QMS – Quality Management System

<sup>21</sup> Including two Operational Programmes, co-financed by ERDF and the Cohesion Fund.

<sup>22</sup> Operational Programmes, co-financed by ERDF and the Cohesion Fund.

<sup>23</sup> The Audit of EU Funds Executive Agency to the Ministry of Finance is responsible for the compliance assessment of the management and control systems according to Article 71 of Regulation 1083/2006 and Article 25 of Regulation 1828/2006. The evaluations however are not publically available, except an Audit of the management systems of the EU Structural and Cohesion Funds for the period 01.01.2006 – 30.06.2008 by the Bulgarian National Audit Office, available at: [http://www.bulnao.government.bg/files/\\_en/Doklad-ES-SU-fondove-2006-2008\\_ENGLISH-ed%5B1%5D.doc](http://www.bulnao.government.bg/files/_en/Doklad-ES-SU-fondove-2006-2008_ENGLISH-ed%5B1%5D.doc) and the Report on the compliance of management systems and controls of OP Technical Assistance, <http://www.minfin.bg/document/6142:3>

<sup>24</sup> State of EU Funds Absorption in Bulgaria till 31 July 2009, Brussels, 16. 10. 2009.

<sup>25</sup> Source: ERAWATCH: Bulgaria Country profile.

burdens, co-financing and guarantee requirements<sup>26</sup> and the lack of experience in innovation practices, technology transfer centres, business incubators and clusters<sup>27</sup>. By the end of the year the Ministry of Economy, Energy and Tourism is planning to prepare an assessment of the situation in order to change the innovation policy focus to tackle the 'bottlenecks' in this area. According to the interviews<sup>28</sup> the main challenges are: need of clearer strategy, wider definition of the term 'innovation' to allow more enterprises to receive financial support, focused information campaign to encourage businesses to apply to OP Competitiveness. Accordingly most of the "achievements" reported by the authorities under the Convergence Objective so far lie in the opening up of grant schemes or the contracting of resources. For more information on the **financial progress for 2009 by priority**, see Annex A.

Under **Operational Programme Regional Development 2007–2013** the following initiatives have been launched:

- Priority topic 53: Risk Prevention (including elaboration and implementation of plans and measures to manage natural disasters and technological risks).
- Priority topic 43: Energy efficiency.
- Procedure Support for interregional cooperation and exchange of good practices, Deadline: 30.10.2008, Received project proposals: 126. Approved projects: 55 for BGN 11.6m (€5.9 mln) with 100% financing.

Under **Operational Programme Development of the Competitiveness of the Bulgarian Economy 2007–2013** the following initiatives have been launched:

- Procedure "Support for the creation and development of innovative start-up companies".
- Procedure "Support for the commercialization of innovative products, processes and provision of innovative services".
- Procedure "Support for the establishment of technology parks".
- Procedure "Development of innovative start-up enterprises through support for the introduction of innovative products, processes and services".
- Procedure "Technological modernization of enterprises".
- Procedure "Meeting internationally recognized standards".
- Procedure "Covering of internationally acknowledged standards".
- Procedure "Upgrade of technologies in small and medium-sized enterprises".

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<sup>26</sup> Joint opinion from the interviews.

<sup>27</sup> Interview.

<sup>28</sup> Interview.

- Procedure "Upgrade of technologies in large enterprises".

**Table. Financial data for 2008 on the Implementation of Operational Programme Development of the Competitiveness of the Bulgarian Economy 2007–2013**

	Total budget (euro)	Negotiated grant (euro)	Payments made	Ration between the negotiated amount and the total value (%)	Ration between the amount paid and the total value (%)
Priority Axis 1 "Development of a Knowledge-based Economy and Innovation Activities"	246 500 000	1 940 453.80	0	0.79	0
Priority Axis 2 "Increasing efficiency of enterprises and promoting supportive business environment"	593 837 780	28 660 650.84	0	4.83 %	0

Source: Annual Report for 2008 on the Implementation of Operational Programme Development of the Competitiveness of the Bulgarian Economy 2007-2013, Ministry of Economy and Energy, Sofia, 2009.

According to the data issued by the Monitoring Committee of the National Strategic Reference Framework in the Strategic Report of the Republic of Bulgaria for 2009, till 30 September 2009 the results achieved under **OP Development of the Competitiveness of the Bulgarian Economy** until 30 September 2009 were mainly in the number of issued certificates to supported enterprises (362), R&D projects (40), support of the business sector (62) and improving the ICT in the enterprises (7), supported innovative start-ups (30), supported R&D projects by in-market phase (30), for their launching in the market (10), increase in the number of researchers hired in enterprises (73), support of SMEs for introducing new technologies or products (26). For more information on the achieved results under OP Development of the Competitiveness of the Bulgarian Economy up to 30 September 2009, see Annex F.

No data is available for **OP "Regional Development"** due to the fact that the interim reporting of the indicators was implemented after the end of 2009.

### 3.2 ACHIEVEMENTS UNDER THE COMPETITIVENESS OBJECTIVE

There is no EU financing to Bulgaria under the Competitiveness objective.

## 4 CONCLUSION: MAIN CHALLENGES FACED BY COHESION POLICY PROGRAMMES

In the 2007–2009 ERDF, the Operational Programme Development of the Competitiveness of the Bulgarian Economy, and to a much smaller extent the Operational Programme Regional Development supported innovation in the Bulgarian economy. In particular, the **OP Development of the Competitiveness of the Bulgarian Economy** supported high tech start-ups, technological modernization of enterprises to meet internationally recognized standards, technological upgrading in small and medium-sized as well as in large enterprises. In addition ERDF supported the implementation of adaptive policies of Risk Prevention (including elaboration and implementation of plans to tackle and mitigate the impact of natural disasters and of technological risks) as well as energy efficiency initiatives

Bulgaria has not yet developed a **regional dimension** to its innovation and research policy, although by 2008 all six Bulgarian regions (NUTS II level) had developed their Regional Innovation Strategies (RIS). The Structural Funds are coordinated at national level, and not at regional level. Hence there has been no analysis as to whether the ERDF/Cohesion Fund support corresponds to the RIS and the regional needs. Moreover, Bulgaria lacks a clear and integrated mid- and long-term innovation policy. The current Nation Innovation Strategy, adopted in 2004, is in need of updating and clearer R&D priorities should be set. Consequently, the structure of the ERDF and Cohesion Fund support has to be designed to fit updated national priorities.

National innovation and R&D policy-making is fragmented with **shared responsibility** between the Ministry of Education, Youth and Science and the Ministry of Economy, Energy and Tourism. More precise channelling and coordination of national R&D funds with Cohesion and Structural funds of the EU and with other European programmes is needed.

Although ERDF funding via the operational programmes is significant, they are replete with cumbersome **administrative procedures** and the responsible bodies often do not have the capacity to implement them in Bulgaria. In 2010, three years after EU accession, the payments made are under 2% of the total operational programme's value, with the Competitiveness OP, designed to support innovation, lagging behind most significantly.

Interest in all OPs is growing as a consequence of the economic crisis, but so is **disappointment by its actual implementation**, as payments in the first three years have either been withheld or considerably **delayed**. This problem should be tackled via the introduction of more flexible implementation and **co-financing mechanism** (e.g. in-kind contributions). Due to the crisis, EU funds – besides their intended use to modernize and restructure the economy – have become a possible source of liquid assets for implementing corporate projects. Since national contributions (from the state budget or private entities) are also required but are shrinking as the crisis

continues, the absorption of EU funds should be prioritized as a national strategy; **their structure should be streamlined to fit national priorities**<sup>29</sup>.

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<sup>29</sup> Source: *Innovation.bg 2010*, Applied Research and Communications Fund, 2010, Sofia.

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- **Operational Programme “Regional Development” 2007–2013 (<http://www.bgregio.eu>)**
- **Operational Programme Development of the Competitiveness of the Bulgarian Economy 2007–2013. (<http://www.opcompetitiveness.bg>)**
- Plan for Evaluation of OP Technical Assistance, <http://www.minfin.bg/document/5600:2>
- Presentation on the implementation of OP Technical Assistance, 26.05.2009, <http://www.minfin.bg/document/6573:4>
- Presentation on the Review and analysis of projects funded under priority axis 1 of OP Environment, available at: <http://ope.moew.government.bg/bg/docs>

- **PROINNO Europe, Bulgaria Country Report 2009.**
- Report for the absorption of EU funds for the period 01.2007 – 06.2008, National Assembly, Parliamentary Commission on European Issues, 17.05.2008.
- Report to the State Budget 2010, Ministry of Finance.
- Report on the compliance of management systems and controls of OP Technical Assistance, <http://www.minfin.bg/document/6142:3>
- Review of the First Opened Schemes under Operational Programme Regional Development 2007–2013, Ministry of Regional Development and Public Works, January 2010.
- State of EU funds absorption in Bulgaria till 31 July 2009, Brussels, 16. 10. 2009.
- **Strategic Report of the Republic of Bulgaria for 2009 by the Monitoring Committee of the National Strategic Reference Framework.**
- Summary of the Review of the First opened schemes under OP Regional Development 2007–2013, Ministry of Regional Development and Public Works, January 2010, <http://www.bgregio.eu/Content.aspx?menu=left&pid=97>

## LIST OF INTERVIEWS CARRIED OUT

- Administration of the Council of Ministers
- Bulgarian Chamber of Commerce and Industry
- Bulgarian Small and Medium Enterprises Promotion Agency to the Ministry of Economy, Energy and Tourism
- Ministry of Economy, Energy and Tourism
- Ministry of Environment and Water
- Ministry of Finance
- Ministry of Labour and Social Policy
- Ministry of Regional Development and Public Works
- Ministry of Transport, Information Technology and Communications
- National Association of Municipalities in the Republic of Bulgaria (NAMRB)
- 12 Bulgarian innovative enterprises

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

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



Programmes	Total ERDF resources for innovation	Total ERDF	Innovation support as % of total ERDF	Main initiatives* being undertaken or implemented
National/Multi-regional programme	To be provided by the core team		To be provided by the core team	To be completed by the expert
Regional programmes	NA	NA	NA	Not Applicable
<b>Total Objective 1: Operational Programmes</b>				
Operational Programme Regional Development	3 402 709	1 361 083 545	0,3%	Priority Axis 1: Sustainable and Integrated Urban Development Priority Axis 2: Regional and Local Accessibility Priority Axis 4: Local development and co-operation
Operational Programme Technical Assistance		48 296 513	0,0%	Not relevant to the development of innovation.
Operational Programme Development of the Competitiveness of the Bulgarian Economy	551 588 378	987 883 219	55,8%	<p><b>Currently undertaken initiatives:</b></p> <p>Priority Axis 1 "Development of a Knowledge-based Economy and Innovation Activities" (incl. Support for the creation and development of innovative start-up companies, 2009; Support for the creation of technological parks; Support for adopting of innovative products, processes, and services in the production) (current open calls) (€250 mln. for the seven-year period<sup>30</sup>)</p> <p>Priority Axis 2 "Increasing efficiency of enterprises and promoting supportive business environment" (incl. Upgrade of technologies in enterprises, Creation of regional business incubators, Promotion of business networking and clustering; Complying with international standards) (€600 mln. for the seven-year period)</p> <p>Priority Axis 3 Financial Resources for Developing Enterprises (FREDE) (incl. 2009 specific objective: Improvement of the access conditions to finance for small and medium-sized enterprises through instruments of financial engineering) (€200 mln. for the seven-year period)</p> <p>Priority Axis 4 "Strengthening the international market positions of Bulgarian economy" (€81 mln. for the seven-year period)</p> <p><b>Opened procedures:</b></p> <ul style="list-style-type: none"> <li>- Procedure "Support for the creation and development of innovative start-up companies".</li> <li>- Procedure "Support for the</li> </ul>

<sup>30</sup> Report for the absorption of EU funds for the period 01.2007 – 06.2008, National Assembly, Parliamentary Commission on European Issues, 17.05.2008.

				<p>commercialization of innovative products, processes and provision of innovative services".</p> <ul style="list-style-type: none"> <li>- Procedure "Support for the establishment of technology parks".</li> <li>- Procedure "Development of innovative start-up enterprises through support for the introduction of innovative products, processes and services".</li> <li>- Procedure "Technological modernization of enterprises".</li> <li>- Procedure "Meeting internationally recognized standards".</li> <li>- Procedure "Covering of internationally acknowledged standards".</li> <li>- Procedure "Upgrade of technologies in small and medium-sized enterprises".</li> <li>- Procedure "Upgrade of technologies in large enterprises".</li> </ul> <p><b>Planned initiatives:</b></p> <p>Priority Axis 5 Technical Assistance</p> <p><b>Planned open calls in 2010:</b></p> <ul style="list-style-type: none"> <li>- Support for commercialization of innovative products, processes, and services</li> <li>- Development of the scientific capacity of the Bulgarian scientific organizations</li> <li>- Creation of new and development of existing technological centers</li> <li>- Creation of new and development of existing technological transfers offices</li> <li>- Upgrade of technologies in small and medium-sized enterprises and in large enterprises</li> <li>- Achieving compliance with internationally recognized standards</li> <li>- Creation of business support organizations network</li> <li>- Creation of regional business incubators</li> <li>- Promotion of business networking and clustering</li> <li>- Introduction of energy saving technologies in enterprises; Introduction of Renewable Energy Sources</li> </ul>
Operational Programme Transport		1 624 479 623	0,0%	Not relevant to the development of innovation.
Operational Programme Environment		1 466 425 481	0,0%	Not relevant to the development of innovation.
<b>Total Objective 1</b>	<b>554 991 087</b>	<b>5 488 168 381</b>	<b>10,1%</b>	
<b>Overall total</b>	<b>554 991 087</b>	<b>5 488 168 381</b>	<b>10,1%</b>	
<b>Total Convergence Obj.</b>	<b>0</b>	<b>0</b>	<b>0</b>	Not relevant to the development of innovation.
<b>Total country</b>	<b>554 991 087</b>	<b>5 488 168 381</b>	<b>10,1%</b>	

\* The term initiatives should be understood in a broad sense of 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.

As in Table 1, experts may suggest a wider or narrower coverage of innovation in Table 2 than that defined here, which would imply adding or subtracting particular FOI codes. In this case, experts should consult the core team to explain their reasons for doing so.

**Table 2 – ERDF contribution to innovation by policy area (2007–2013)*****Convergence Objective***

Policy area	Categorisation of expenditure (corresponding FOI codes)	Total ERFD	%	
			Regional share	National share
Innovation friendly environment	05 Advanced support services for firms and groups of firms	161 454 818		
	11 Information and communication technologies (...)	3 402 709		
	12 Information and communication technologies (TEN-ICT)	0		
	13 Services and applications for citizens (e-health, e-government, e-learning, e-inclusion, etc.)	0		
	14 Services and applications for SMEs (e-commerce, education and training, networking, etc.)	31 875 000		
	15 Other measures for improving access to and efficient use of ICT by SMEs	23 233 333		
	74 Developing human potential in the field of research and innovation, in particular through post-graduate studies ...	0		
Knowledge transfer and support to innovation poles and clusters	02 R&TD infrastructure and centres of competence in a specific technology	54 400 000		
	03 Technology transfer and improvement of cooperation networks ...	20 825 000		
	04 Assistance to R&TD, particularly in SMEs (including access to R&TD services in research centres)	80 750 000		
Boosting applied research and product development	01 R&TD activities in research centres	0		
	06 Assistance to SMEs for the promotion of environmentally-friendly products and production processes (...)	23 233 333		
	07 Investment in firms directly linked to research and innovation (...)	43 775 000		
	09 Other measures to stimulate research and innovation and entrepreneurship in SMEs	112 041 894		

Source: core team on EC data.

**Table. Financial Progress for 2009 by Priority Themes**

<i>Code</i>	<i>Priority Theme Description</i>	<i>Community amount - Allocated in OP - €</i>	<i>% of total allocated</i>	<i>Community amount - Allocated to selected operations - €</i>	<i>% of total allocated</i>
01	R&TD activities in research centres		0,0%		0,0%
02	R&TD infrastructure and centres of competence in a specific technology	54 400 000	0,8%		0,0%
03	Technology transfer and improvement of cooperation networks ...	20 825 000	0,3%		0,0%
04	Assistance to R&TD, particularly in SMEs (including access to R&TD services in research centres)	80 750 000	1,2%	30 000 000	2,2%
05	Advanced support services for firms and groups of firms	161 454 818	2,4%	80 000 000	5,9%
06	Assistance to SMEs for the promotion of environmentally-friendly products and production processes (...)	23 233 333	0,3%		0,0%
07	Investment in firms directly linked to research and innovation (...)	43 775 000	0,7%	13 724 717	1,0%
09	Other measures to stimulate research and innovation and entrepreneurship in SMEs	112 041 894	1,7%	45 949 259	3,4%
10	Telephone infrastructures (including broadband networks)	13 610 835	0,2%		0,0%
11	Information and communication technologies (...)	3 402 709	0,1%		0,0%
12	Information and communication technologies (TEN-ICT)		0,0%		0,0%
13	Services and applications for citizens (e-health, e-government, e-learning, e-inclusion, etc.)	16 673 273	0,2%	911 580	0,1%
14	Services and applications for SMEs (e-commerce, education and training, networking, etc.)	31 875 000	0,5%		0,0%
15	Other measures for improving access to and efficient use of ICT by SMEs	23 233 333	0,3%		0,0%
39	Renewable energy: wind	27 760 748	0,4%		0,0%
40	Renewable energy: solar	35 641 422	0,5%	2 598 639	0,2%
41	Renewable energy: biomass		0,0%		0,0%
42	Renewable energy: hydroelectric, geothermal and other	3 089 660	0,0%		0,0%
43	Energy efficiency, co-generation, energy management	125 619 935	1,9%	3 897 959	0,3%
62	Development of life-long learning systems and strategies in firms; training and services	118 320 000	1,8%	13 082 398	1,0%

	for employees ...				
63	Design and dissemination of innovative and more productive organisation of work	48 450 000	0,7%		0,0%
74	Developing human potential in the field of research and innovation, in particular through post-graduate studies ...	51 000 000	0,8%	7 045 054	0,5%

Source: Annex 3 Financial Progress by Priority Themes of the Strategic Report of the Republic of Bulgaria for 2009 by the Monitoring Committee of the National Strategic Reference Framework.

## 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"> <li>• innovation financing (in terms of establishing financial engineering schemes, etc.);</li> <li>• 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);</li> <li>• 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.</li> </ul> <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"> <li>• direct support: aid scheme for utilising technology-related services or for implementing technology transfer projects, notably environmentally friendly technologies and ITC;</li> <li>• indirect support: delivered through funding of infrastructure and services of technology parks, innovation centres, university liaison and transfer offices, etc.</li> </ul> <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"> <li>• direct support: funding for enterprise level cluster activities, etc.</li> <li>• indirect support through funding for regrouping R&amp;D infrastructure in poles, infrastructure for clusters, etc.</li> </ul>

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"> <li>• aid schemes for single beneficiaries or groups of beneficiaries (including IPR protection and exploitation);</li> <li>• research infrastructures for non-profit/public organisations and higher education sector directly related to universities.</li> </ul> <p>Any direct or indirect support for the creation of innovative enterprises (spin-offs and start-ups)</p>
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Instruments	Short description
Infrastructures and facilities	Building and equipping laboratories or facilities for university or research centres, Telecommunication infrastructures, Building and equipping 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
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	<b>Research and technological development (RTD), innovation and entrepreneurship</b>
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
	<b>Information society</b>
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
	<b>Human capital</b>
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

## ANNEX D – MEASURES ENVISAGED IN THE NATIONAL REFORM PROGRAMME (2008–2010)

The National Reform Programme (2008–2010) envisages measures in the area of research<sup>31</sup>:

<sup>31</sup> Source: ERAWATCH website, National Reform Programme (2008–2010) profile, <http://cordis.europa.eu/erawatch/index.cfm?fuseaction=policy.document&uuid=ACE0B977-CCC6-54FF-0C96007A6F1D6AF0>



1. Increasing the quality of human capital (a new Law on School Education and a Law on Higher Education, introduction of a labour–market based educational and professional training structure, a Lifelong Learning Strategy).
2. Support for R&D and Innovations (a National Strategy for Scientific research aimed at linking the science, university and business communities, had still not been passed in March 2010 by the National Assembly, increasing the National Science Fund budget to €51 mln., providing incentives for applied research projects from the state budget).
3. Development of infrastructure with an emphasis on Information and Communication Technologies (implementation of National Program for the Development of Information Technologies and a similar program for broadband access and updating the Bulgarian internet technologies, use of the new supercomputer centre for scientific research for applied business uses, improving the business environment through electronic methods of registering and administering businesses.)

## ANNEX E – ACHIEVED RESULTS UNDER OP “DEVELOPMENT OF THE COMPETITIVENESS OF THE BULGARIAN ECONOMY” BY 30 SEPTEMBER 2009

**Table. Achieved results under OP “Development of the Competitiveness of the Bulgarian Economy” by 30 September 2009**

Indicator	Achieved result by 30 September 2009	Target value by 2010	Target value by 2013
Number of R&D projects	40	85	275
Number of collaborative projects between enterprises and research organizations	NA*	30	110
Number of created R&D working places	NA*	80	300
Number of projects for improving ICT in the enterprises	7	9	33
Number of projects for RES	NA*	75	310
Additional capacity for production of energy from RES	NA*	21 GwH	26 GwH
Number of projects for support of the business sector, the entrepreneurship and the new technologies	62	553	2219
<b>Priority Axis 1 “Development of a Knowledge–based Economy and Innovation Activities”</b>			
Number of supported innovative start-ups	30	55–65	155–165
Share of start ups which should continue in the long run	NA*	50%	70%
Innovations applied to the market	NA*	40	120
R&D projects, supported on the market	30	15–20	60–65
R&D projects, supported for launching on the	10	15–20	60–70

market			
Number of researchers, hired in the enterprises	73	80	300
<b>Priority Axis 2 “Increasing efficiency of enterprises and promoting supportive business environment”</b>			
Share of increase of the production capacity in the supported enterprises	NA*	+15%	+15%
Share of decrease of the average “age” of the technology equipment used	NA*	35.5% (over 10 years)	30% (over 10 years)
Supported SMEs, which introduce new technologies or products	26	60	160
Certificates, introduced in the supported enterprises	362	200	537
Created or updated regional business incubators	NA	20	60
Share of energy from RES in the total volume of energy used by the supported enterprises	0	5%	10%
Energy efficient technologies, processes or solutions, introduced by the enterprises	0	55	250
Number of cluster initiatives Created/already established supported	0	16	30
Number of supported laboratories	0	7	15

Source: Annex 5.5 of the Strategic Report of the Republic of Bulgaria for 2009, by the Monitoring Committee of the National Strategic Reference Framework: Value of the Indicators of “Development of the Competitiveness of the Bulgarian Economy” 2007-2013 till 30 September 2009.

\* NA – Not Available. The assessment is planned for 2010.