



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

TASK 1: POLICY PAPER ON INNOVATION

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ACRONYMS

COMPETE	Competitiveness Factors Operational Programme
CSF	Community Support Framework
ERDF	European Regional Development Fund
EU	European Union
ICT	Information and Communication Technologies
INTERVIR+	Madeira Economic Potential Valorisation and Territorial Cohesion Operational Programme
NIS	National Innovation System
NSRF	National Strategic Reference Framework
NSTS	National Scientific and Technological System
NUTS	Nomenclature of Territorial Units for Statistics
OP	Operational Programme
POCTI	Operational Programme for Science, Technology and Innovation
PRIME	Programme of Incentives for the Modernization of the Economy
PROCONVERGENCIA	Azores Operational Programme for Convergence
R&D	Research and Development
R&TD	Research and Technological Development
SME	Small and Medium Enterprises
TP	Technological Plan

1 EXECUTIVE SUMMARY

The regional dimension of public administration in mainland Portugal remains restricted to the State's decentralized administration bodies and to groups of municipalities. The main public policies and strategies for sectoral development essentially result from national guidelines and do not have a truly regional dimension. The same is the case for policies for R&D, innovation and entrepreneurship, which are inseparable from the scope of the successive CSFs and the current NSRF.

An historical analysis of these policies identified the separation between science and enterprise policies as one of their main weaknesses. Efforts to reconcile these two led to the development of a true innovation policy, as a Government priority in the form of the Technological Plan (TP) introduced in 2005. Knowledge, Information Society, Technology and Innovation priorities set for the NSRF since then have been in line with TP priorities, and the NSRF gives financial expression to many of the TP measures.

COMPETE is the OP with most ERDF resources for support of innovation policy. But, contrary to previous CSFs, SME innovation incentives schemes now also have a significant role in regional OPs. However, although over the past decade the Government has given priority to the development of innovation policies, the actual contribution of ERDF to this has been limited and, in the current programming period, the results are still not very visible, in terms of both physical and financial implementation and concrete results and achievements.

The most recent and available information on the performance of ERDF support in the current programming period is still very limited, and, essentially, this report has to be focused on earlier achievements and on progress in implementing the OP.

Under COMPETE, more than 100 National Science and Technology System (NSTS) organisations have been certified as providers of innovation and R&TD services in return for vouchers given to companies. Eleven Competitiveness and Technology Poles and 8 Clusters have also been recognised and funding of around EUR 2 billion allocated to them. Under the Convergence regional OPs, EUR 149 million of ERDF support had been allocated to "Strategic Programmes for Urban Networks for Competitiveness and Innovation", and proposals to establish 32 of these networks have already been submitted. In the Lisbon OP (a Competitiveness region), 119 research and technological development, innovation and entrepreneurship projects have been approved, with ERDF support of around EUR 41.3 million.

After a promising initial period of NSRF implementation, since 2008 the economic and financial crisis has imposed serious challenges to innovation policies. Companies have struggled to obtain credit from financial institutions, so being unable to fund their share of co-financed investment. Changes in the regulations governing incentive schemes have widened the range of what is considered "productive innovation", resulting in a reduction in project selectivity. Some NSRF management procedures also obstruct the implementation of innovation projects. However, a lack of coordination

between companies and other members of the National Innovation System remains one of the biggest challenges to the development of innovation policies in Portugal.

2 NATIONAL AND REGIONAL INNOVATION POLICY AND THE CONTRIBUTION OF ERDF

2.1 NATIONAL AND REGIONAL INNOVATION POLICY

The Portuguese State has one of the most centralized public administrations in Europe, without an intermediate territorial dimension of political power between central and local government – with the exception of the two Autonomous Regions established in 1976, in the Azores and Madeira archipelagos, where there are regional governments. The regional dimension of public administration in mainland Portugal lacks political weight and remains relegated to the State's decentralized administration bodies (regional directorates, regional coordination and development commissions) and groups of municipalities, which in the current National Strategic Reference Framework (NSRF) were forced to adjust to the boundaries defined by NUTS II and III regions, as “inter-municipal communities”. In practice, the need to adjust to the instruments of EU regional policy is perhaps the most critical factor underlying the current configuration of the regional dimension of the Portuguese public administration, in terms of both Structural Funds management and the promotion and implementation of projects.

Given this, it appears that the main public policies and strategies for sectoral development are essentially the result of national guidelines, and most of them do not have a truly regional dimension, that is, they rarely consider specific strategies or approaches for regional development. This is also the case for policies promoting R&D, innovation and entrepreneurship developed over recent decades, which are indistinguishable from the scope of successive Community Support Frameworks (CSFs) and the current NSRF for the 2007–2013 period.

A study conducted five years ago on R&D, innovation and entrepreneurship in the 2007–2013 period (GODINHO, M.M., SIMÕES, V.C., 2005) presented an historical analysis of these policies in Portugal and identified its main weaknesses, amongst which the clear separation between science and enterprise policies was considered the most significant. This separation, common to the first three CSFs, was a result of the “appropriation” of the economy and science Operational Programmes (OPs) by their respective ministries, as well as of the difficulty in defining an integrated and transversal innovation policy.

Under CSF III (2000–2006), research policies were carried out essentially through the OP for Science, Technology and Innovation (POCTI) managed by the Ministry of Science and Technology, while the main enterprise policy instrument was the OP for the Economy, transformed in the meantime into Programme of Incentives for the Modernisation of the Economy (PRIME), both managed by the Ministry of Economy. The logic underlying POCTI was based on the principle of a “linear model”, according to which investment in research would sooner or later be transformed into innovation.

However, while the POCTI mid-term evaluation identified positive performance in research, it also concluded that, in technology and innovation, the results were modest. On the other hand, PRIME results were also less than expected: although PRIME included a diverse set of incentive schemes to stimulate R&D, innovation and entrepreneurship, the OP mid-term evaluation also considered that the programme's impacts and outcomes were generally less than it had promised to achieve.

In view of these shortcomings, in the past few years, the Government has made an effort to reconcile these two policies also to foster a more coordinated and systemic approach to innovation policy. This has been pursued through the Technological Plan (TP) launched in 2005, the reduction of the number of OPs under the NSRF 2007–13, and the concentration of key innovation policy measures in a single OP – the Competitiveness Factors OP (COMPETE).¹

Apart from defining a broader framework for an integrated policy and encompassing both science and enterprise policies, the TP is also intended to be an agenda for social change, mobilizing companies, families and institutions to meet the challenges of modernizing the country. Accordingly, the Government saw the TP as a policy priority with three main axes:

- Knowledge – to upgrade the skills of people so as they can profit from the opportunities opened up by the knowledge society;
- Technology – to overcome scientific and technological backwardness;
- Innovation – to provide new impetus to innovation and facilitate the adaptation of the economy to the requirements of globalization.

The priorities set for the NSRF as regards education, the Information Society, technology and innovation were inspired by, and are consistent with, the priorities of the TP, and the NSRF gives financial expression to many of the measures included in the TP.

The total R&D expenditure in Portugal has been increasing consistently since the late 1990s, from 0.59% of the national GDP in 1997, to 1.2% in 2007. In this last year, for the first time, institutional² sector R&D expenditure was surpassed by the business sector expenditure. Of the total institutional expenditure, 45% was destined to “applied research”, 36% went to “fundamental research” and 19% was used in “experimental development”. Provisory data for 2008 confirm the positive trend of these indicators, as the total national R&D expenditure represented already 1.5% of the GDP.

Under NSRF (Annex 1), COMPETE is the largest programme focused on innovation policy support (70.5% of ERDF resources are allocated to this) and is also the one with the largest volume of ERDF

¹ Source: European Commission, Enterprise Directorate-General, INNO-Policy TrendChart – Innovation Policy Progress Report – Portugal 2009

² Includes the State, universities (public and private) and non-profit private institutions.

resources for innovation (nearly EUR 2.2 billion). This represents around 38%³ of the total Portuguese institutional R&D expenditure (as an annual average).

Contrary to the previous CSF, the 2007–2013 NSRF introduced a novelty in regional OPs, assigning to these the management of SME innovation incentive schemes. For this reason, innovation support now plays a significant role in these OPs, around 30% on average in the Convergence regions.

However, the Azores PROCONVERGENCIA OP is an exception, the finance allocated and the relative weight of the support being smaller. This reflects the fact that this is an Outermost Region, where the size of businesses and scientific and technological institutions makes it more difficult for them to benefit from ERDF innovation support. The same reasoning applies to the Madeira Intervir+ OP, another Outermost Region which is now a Competitiveness region, but where innovation support is also relatively small (13% of the total).

By contrast, in the other Competitiveness region – Lisbon –the regional OP includes the largest amount of ERDF resources for support of innovation (46%), reflecting the fact that is the largest metropolitan area in the country where many National Innovation System (NIS) bodies are concentrated.

2.2 ERDF CONTRIBUTION ACROSS POLICY AREAS

The distribution of ERDF resources to innovation support in the 2007–2013 NSRF (see Annex 2) reflects a clear focus on incentives for boosting applied research, in Convergence (45% of the resources) as well as Competitiveness regions (56%). However, in Convergence regions, the resources allocated to investment in firms directly linked to research and innovation are particularly large, 28% of the total.

This can be considered coherent with the distribution of total institutional R&D expenditure, being that, in 2007, 64% of this expenditure was assigned to applied research and experimental development.

The main measures in these policy areas consist, essentially, of support for the creation of technology poles and clusters and incentive grants to companies, either in the form of direct grants or innovation vouchers, which can be used to acquire technology and innovation and R&D services from a network of pre-certified NIS institutions, the funds, therefore, being redirected to universities and other research centres.

Nevertheless, companies are clearly the main beneficiaries of these funds, not only in the above areas but also as regards measures designed to promote an innovation friendly environment or the promotion of knowledge transfers and poles. In these areas, support to technology transfer and improvement of cooperation networks and advanced support services for firm are prominent, representing, respectively, 15% and 12% of support for innovation in Convergence regions. This

³ Source: Portuguese National Statistics Institute. Data refers to 2007.

distribution of resources is consistent with the priority given in the NSRF to the intensification of entrepreneurial innovation as well as to the promotion of interaction between businesses and research centres.

All the five Territorial Cooperation OPs in which Portuguese regions participate⁴ include strategic priorities related to the promotion of entrepreneurship, innovation, R&D and the information society, in general with a wide range of beneficiaries (public authorities, NIS bodies and companies) and primarily intended to promote cross-border and transnational cooperation networks in these areas. The ERDF amounts involved in this policy area total around EUR 200 million (shared between the various participants in the different countries) and range from EUR 18 million in the Azores–Madeira–Canarias OP to EUR 64 million in the INTERREG IV Spain–Portugal OP.

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

At the time of preparing this report, the most recent available information on the performance of ERDF financial instruments in the current programming period comes from the 2008 Annual Implementation Reports (AIR), in which implementation levels still reflected the initial phase of the 2007–2013 NSRF. Information on the results of innovation support measures is therefore still very limited, and, accordingly, this report has to be focused on some earlier achievements and on progress in implementing the OPs.

Some indicators outlined in the latest Technological Plan Progress Report, dated July 2009, also make it possible to obtain more detailed information on the implementation of certain operations financed by the ERDF, complementing and updating the information provided in the 2008 AIRs. Another source of information on ERDF innovation support measures is the National Strategic Report, published by the NSRF Observatory in December 2009.

As already noted, one of the NSRF innovations in relation to CSF III was the greater relevance attributed to the regional OPs in the management of innovation support schemes directed to SMEs. In all the mainland Portugal regional OPs, Axis 1 is dedicated to the promotion of "Competitiveness, Innovation and Knowledge", which comprises most of the support measures for the promotion of research, product development, knowledge exchange, creation of poles and clusters. Although these instruments are related to national priorities set out in the TP and embodied in the national Thematic Agendas, there are some slight differences in each region in terms of priorities and the dynamics of the investment generated.

3.1 ACHIEVEMENTS UNDER THE CONVERGENCE OBJECTIVE

Innovation friendly environment

⁴ Portuguese regions take part in the following Territorial Cooperation Programmes: SUDOE, MED, Madeira–Azores–Canaries, INTERREG IV Spain–Portugal and the Atlantic Area.

"Axis 3 – Financing and Innovation Risk Sharing" and "Axis 4 – An Efficient and Qualified Public Administration" of COMPETE are the main contributions in the NSRF to his policy area. The first represents a significant innovation to the instruments for supporting SMEs, effectively facilitating access to bank financing as well as reducing the cost. The second is intended to support structural changes aimed at reducing the so-called "public costs of context" in the dealing of public authorities with individuals and companies, which has already led to the creation of 16 multi-services centres and 41 single contact points (Internet, telephone or in person), and to an increase in electronic billing.

In this policy area, it is also worth noting the Norte Regional OP initiative of promoting "industry doctorate studies" (as opposed to more conventional academic type doctorates) and creating a scholarship system for masters and doctorate studies in sectors considered strategic for regional development.

Knowledge transfer and support for cluster and poles

Under its "Priority Axis 1 – Knowledge and Technological Development", the COMPETE OP provides enterprise incentives schemes and support to National Scientific and Technological System (NSTS) organisations, promoting the development of, and participation in, R&D projects, either individually or jointly. In 2008, measures under this axis had already exceeded all the initial objectives, particularly those relating to the increased importance of investing in business R&D and in consortia, as well as in terms of the increased support for the commercialisation of the results of R&TD activities.

In this regard, the "Introduction of innovation vouchers" project should be noted. This was foreseen in the Technological Plan and is implemented through two similar instruments: the Innovation Voucher and the R&TD Voucher, included, respectively, in the Qualification and Internationalization of SME Incentives Scheme and the R&TD Incentives Scheme. The support involved amounts to a non-refundable grant of 75% of the cost of employing an organisation from the NSTS, certified as being qualified to provide the services required. In July 2009, more than 100 organisations from the NSTS had been certified.

In addition, COMPETE' "Axis 5 – Networks and Collective Actions for Business Development" provides support for the implementation of Collective Actions and Collective Efficiency Strategies to Competitiveness and Technology Poles and other Clusters.

Although the low density and lack of connection between those involved in the NIS was a weakness that has long been identified (at least since the Porter Report of the early 1990s), it was only with the NSRF that a cluster policy was defined and began to be implemented. With the objectives of achieving scale and efficiency gains, mobilization of knowledge and skills, risk-sharing and promotion of innovative experience of governance, the NSRF supports two incentives measures – Competitiveness and Technology Poles and Other Clusters – aimed, respectively, at:

- *“creating innovation networks, reflected in integrated partnerships by enterprises and relevant support institutions, namely institutions for I&DT, higher education and vocational training, which share a strategic vision based on innovation activities directed towards the development of projects of high technological intensity and with a strong international orientation and visibility;”*
- *“creating and developing national partnerships between companies or groups of companies with educational and training centres, entities in the SCT, entities of the financial system, municipalities, associations of municipalities or other relevant stakeholders.”⁵*

These “Collective Efficiency Strategies” are a coherent and strategically justified set of initiatives contained in an Action Programme, aimed at the innovation and modernization of enterprises at national, regional and local level, by realising economies of agglomeration through cooperation and networking between companies, and between these and other relevant actors.

According to the 2009 National Strategic Report, by July 2009, the formal process of recognising 11 Competitiveness and Technology Poles and 8 Other Clusters was completed, with available funding of around EUR 2 billion, of which about a quarter has been allocated to supporting projects, involving over 500 organisations, mostly companies, but also research and technology centres, training organisations, business associations and public agencies.

This is a new measure that, because of its features and objectives as regards innovation and networking, is generating high expectations in relation to the results it is set to achieve in its implementation phase and the practical effects on the NIS that it could have afterwards. Currently, these poles and clusters are still at an early stage in terms of the preparation of projects. However, it is recognized by the COMPETE management that there are poles which are less dynamic and may never achieve the necessary conditions for being successful. A deadline of two years was established, up until July 2011 to assess their performance.

In addition to COMPETE, all Convergence regional OPs include, in their Priority Axis 1, measures and initiatives intended to promote knowledge transfer and to provide support to innovation poles and clusters.

The Norte Regional OP defines as priorities improvement in infrastructure, a strengthening of the capacity for scientific and technological research, the creation of inter-regional and international cooperation and exchange activities in R&TD, the development and consolidation of “emerging clusters” and the creation of centres for research and technological development.

In addition to supporting the creation of clusters, the Centro Regional OP is also aimed at supporting the creation of science and technology networks and locations for business innovation, including the creation of conditions for technology transfer

⁵ Source: NSRF Observatory – NSRF 2009 Strategic Report

The Alentejo Regional OP is intended to promote the development of cooperation projects between companies and organisations from the science and technology system, as well as the creation of reception areas for business innovation (incubators and science and technology parks).

The Algarve Regional OP is aimed at strengthening the broadband regional infrastructure, ensuring links to technology centres and supporting logistics areas and rural and urban poles of excellence.

In the Azores, Axis 1 of PROCONVERGENCIA is aimed at developing partnerships between scientific institutions and companies, supporting the creation and development of scientific infrastructure projects and RTD activities. Support is also given to broadband, as well as the creation and development of innovative products and services designed to improve access to ICT for people with disabilities. By 2008, there had been approval of projects to promote network infrastructure and support services for companies (11 approvals and EUR 7.2 million of ERDF investment) and to improve administrative efficiency (2 approvals and EUR 3.1 million of ERDF).

A measure to be highlighted under the regional OPs is the "Urban Networks for Competitiveness and Innovation" initiative, which is aimed at promoting the formation of urban networks with sufficient critical mass to attract and develop new urban functions and innovative activities and to strengthen factors of competitiveness. Under the regional OPs, EUR 149 million of ERDF support has already been allocated to "Strategic Programmes for Urban Networks for Competitiveness and Innovation" and proposals submitted to establish 32 Urban Networks. The Centro, Alentejo and Algarve Regional OPs have already approved the funding for 8 Urban Networks, two of them inter-regional. A first evaluation of this policy measure is due to be carried out, while the programme continues to be implemented to encompass 31 urban networks (or cities) by 2015.

Boosting applied research and product development

The COMPETE' "Priority Axis 2 – Innovation and Renewal of the Business Model and Specialization Pattern" provides support for the development of new products and services or significant upgrading of current production, for the expansion of productive capacity in areas of technological content and for investment projects of strong innovative intensity and of a structuring nature.

The Norte Regional OP provides support for the development of technology-based companies and the promotion of technological and non-technological innovation in companies engaged in "traditional activities". In 2008, support to 68 technology-based companies in the region and around EUR 83.9 million in ERDF support for R&TD, innovation and entrepreneurship had already been approved.

The Centro Regional OP gave priority to the introduction of new technology for existing products and to the launching of new products and the registration of patents. By end-2008, 273 companies had received support and around EUR 67.7 million of ERDF funding had been approved for investment in innovation and support of RTD entrepreneurship.

The Alentejo Regional OP provides support for the creation and development of innovative micro and small enterprises (start-ups and spin-offs), with special attention to those set up by women, and 'business angel' consultancy. By the end of 2008, 31 projects in this area had been accepted, with ERDF support of EUR 11.8 million.

The Algarve Regional OP assists the development of new products, services, systems and processes and of new forms of management, production and business organization. By the end of 2008, 33 applications had been approved, representing an ERDF investment of around EUR 9 million.

3.2 ACHIEVEMENTS UNDER THE COMPETITIVENESS OBJECTIVE

In the 2007–2013 programming period, two Portuguese regions were eligible for funding under the Competitiveness objective: Lisbon and Madeira (the latter is a "phasing in" region). As in the case of Convergence regions, innovation support initiatives are included in Lisbon and Madeira regional OPs (in Axis 1, "Competitiveness, Innovation and Knowledge" in the former and "Innovation, Technology and Knowledge Society" in the latter and in Axis 2 "Regional Economic Basis Competitiveness" in Madeira).

Innovation friendly environment

The Lisbon OP provides support to businesses through financial engineering schemes alongside non-refundable grant schemes. Some 425 cases have been considered, amounting to EUR 161 Million, 70% of which are in industry and distributive trades. This OP also supports instruments (organizational and others) to monitor and facilitate the development of regional public policies, as well as access to the "Regions for Economic Change" Community initiative.

The Madeira OP also includes several measures to support venture capital funding and improvement in the business environment, notably through the modernization and streamlining of bureaucratic procedures in public administration and the promotion of e-government.

Knowledge transfer and support to clusters/poles

A specific objective of the Lisbon OP is the development of the science and technology system and increasing the access of institutions and companies to resources and international R&D, which covers the restructuring of research centres and state laboratories and the transfer of technology from NSTS organisations to businesses.

Boosting applied research and product development

The Lisbon OP identifies as priorities the development of science and technology systems, increasing access to international R&D resources and international programmes and support for technology-based start-ups and for creative industries. Examination of approvals by priority theme shows that by end-2008, 119 projects had been approved in the area of research and technological development, innovation and entrepreneurship, with ERDF support of around EUR 41.3 million.

The Madeira OP is aimed at increasing expertise and innovation in the regional economy, developing science, technology and the knowledge society and improving the quality and effectiveness of the regional administration. By end-2008, 16 projects had been approved with ERDF support of around EUR 1.5 million, but only one relate to RTD activities in research centres.

4 CONCLUSION: MAIN CHALLENGES FACED BY COHESION POLICY PROGRAMMES

Over the past decade, the Portuguese Government has given priority to the development of innovation policies, particularly under the TP, which has led to the introduction of dozens of measures and projects of modernization and promotion of innovation, many of which are internationally recognized and considered good practices⁶. However, the contribution of the ERDF to this has been limited and, in the current programming period, the results achieved are still not very visible, in terms of both physical and financial accomplishment and, above all, concrete achievements⁷.

Even taking account of the time lag in indicators becoming available and that these relate to the initial NSRF period, there is evidence of a general delay in the implementation of OPs. Although the past year witnessed a marked acceleration in implementation, by September 2009 the NSRF overall rate of implementation (disbursed/programmed) was just 6.6%, and the rate of implementation of ERDF OPs was even lower, 4.4%. This situation – which is not unique to Portugal – is related to the following factors:

- The overlap between the start of the 2007–2013 NSRF and the end of the 2000–2006 CSF III, with the latter accounting for a significant expenditure in 2007 and 2008;
- The effects of the global financial and economic crisis, which seriously affected the ability of the private sector to invest, and also led to public spending cuts and limits to its borrowing capacity, leading to the interruption or delay in the implementation of many projects.

After an initial period of NSRF implementation, which was very promising in terms of the number of proposals presented and the quality of projects, the effects of the crisis since 2008 have seriously constrained the development of innovation policies, particularly in relation to businesses. Companies

⁶ Beyond the recognition by the EU of the Technology Plan as good practice, seen in several evaluation documents, other international institutions (as OECD) and experts have recognized initiatives of innovative and good practice nature, such as the Technology Plan for Administrative Modernisation (SIMPLEX), the “e.escola”, “Magalhães” or “Empresa na Hora” programmes.

⁷ “Looking at Portugal’s innovation performance, as shown by the European Innovation Scoreboard (EIS), two main findings emerge: (1) a weak overall performance, with most indicators below the EU average, especially with regard to education and skilled human resources, business R&D involvement and intellectual property, and (2) some recovery, but at too slow a pace to enable a fast catching-up. To overcome the main challenges, there is a need for a committed and systemic innovation policy. This requires namely the fostering of linkages and collaboration among the main players of the National Innovation System, the strengthening of human resources skills, the promotion of companies’ in-house capabilities and a significant increase in public administration productivity.” Source: European Commission, Enterprise Directorate-General, INNO-Policy TrendChart

have therefore found it difficult to obtain credit from financial institutions – which are particularly averse to investment risks at this time and especially, to risks associated with innovation – to cover their share of the co-funding of Structural Fund projects. A measure being studied to overcome these difficulties is to reduce the direct support to investment, redirecting financial resources to investment funds (such as the newly established Fund for the Internationalization of Portuguese Companies, backed by the State Budget in partnership with financial institutions).

Other measures implemented in response to the crisis should also be mentioned, including the changes to the national framework of incentive schemes to companies. These changes apparently aimed at increasing the flexibility of these measures and their potential to stimulate investment and create jobs, in reality they served to widen the range of what is considered “productive innovation”. This resulted in a reduction in project selectivity and, consequently, “innovation” support was given to businesses and production lines that had significant effects on production, exports, employment and technological development⁸.

Another challenge to be overcome is related to the need for improvement in NSRF management procedures, that in some situations have obstructed the development of projects in this area. This “bureaucratic bottleneck” affects mainly three aspects:

- difficulties of meeting deadlines in the selection process and in accelerating the process of granting funding for innovation, which results in delays and loss of competitive advantage (for example, in areas such as virtual reality, with a fast rate of technological development and marketing of new products);
- The lack of technical capacity in the management and monitoring of OPs to assess more technologically advanced innovation projects (although project selection is generally supported by panels of external experts);
- The priority given to ensuring that application and selection criteria are respected, instead of giving more attention to the potential outcomes and impacts of projects.

It will be interesting to see whether the evaluations on the implementation of OPs – currently underway for almost all OPs – will identify these problems and propose solutions where necessary. This is particularly important for Regional OPs, given the possible need to further adapt innovation measures in the programmes to different regional features and development paths.

However, despite the slowdown in the development of innovation policies as a result of the crisis, one of the major challenges in this area continues to be the need for increased coordination between companies and other members of the NIS. The limited results of measures such as innovation and R&D vouchers show that putting responsibility for the initiative on companies – which are mainly

⁸ Source: European Commission, Enterprise Directorate-General, JNNO-Policy TrendChart – Innovation Policy Progress Report – Portugal 2009.

SMEs, most of which are not yet able to compete in international markets – clearly is not sufficient, and that it is almost certainly necessary to strengthen the role of other actors. Nevertheless, the “Competitiveness and Technology Poles and Other Clusters” Collective Efficiency Strategy, although at an early phase of development and an innovative initiative (with the potential to achieve interesting results) does not seem to be, by its nature, the most suitable measure to overcome the problem.

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INTERVIEWS

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- Cláudia Domingues, Executive Director of InovCluster – Centre’s Agro-Industrial Cluster (Competitiveness Poles and Technology and Other Clusters Collective Efficiency Strategy).

EVALUATIONS THAT EXPERT IS WORKING ON (2007–2013)

Evaluation of the Implementation of Mais Centro – Regional Operational Programme of the Centre – in the Context of the NSRF Strategy for 2007–2008, for the Commission for Regional Coordination and Development of the Centre.

Evaluation of the Implementation of the PROCONVERGÊNCIA OP – in the Context of the NSRF Strategy for 2007–2008, for the Regional Directorate of Planning and Structural Funds of the Azores.

EVALUATIONS THAT EXPERT HAS WORKED ON (2000–2006)

Ex-Post Evaluation of INTERREG III 2000–2006 (INTERREG III A Spain–Portugal), for the European Commission.

Ex-Post Evaluation of European Social Fund 2000–2006, with Red2Red Consultores, for the European Commission.

Ex-Post Evaluation Study for the Rural Development Programme for Mainland Portugal (RURIS), for the Directorate–General for Agriculture and Rural Development.

Ex-Post Evaluation Study of INTERREG III 2000–2006 Community Initiative, with PANTEA and CSES, for the European Commission.

Ex-Post Evaluation of Cohesion Policy Programmes 2000–2006 financed by the European Regional Development Fund (Objective 1 and 2). Work Package 1: Coordination, Analysis and Synthesis, with ISMERI Europa, APPLICA and WIIW, for the European Commission.

Análisis de los Proyectos Incluidos en el Programa Operativo INTERREG III A de Cooperación Transfronteriza España– Portugal 2000– 2006 y Preparación de un Documento de Divulgación, with QUASAR Investigaciones y Asistencia Técnica, for the Ministerio Economía y Hacienda.

Elaboration of the Atlantic Area Transnational Co–operation Operational Programme in the Programming period 2007–2013 (Portugal, Spain, France, Ireland and United Kingdom), for the Conseil Regional de la Region Poitou–Charentes.

Evaluation of the Impact of the aids granted by State on the Development of the European Union’s Ultra–peripheral Regions (Guiana, Guadalupe, Martinique, Reunion, Azores, Madeira e Canary), with Quaternaire Portugal, for the Vice–Presidency of the Home Government of Madeira.

Elaboration of the Transnational Cooperation Operational Programme of the European Southwestern Space in the Programming Period 2007–2013, with QUASAR Investigaciones y Asistencia Técnica, for the Gobierno de Cantabria.

Ex-Ante Evaluation and Environmental Strategic Evaluation of the Azores–Madeira–Canary Cooperation Programme in the framework of the Objective 3 – European Territorial Cooperation, with QUASAR Investigaciones y Asistencia Técnica, for the Joint Programming Group (GPC) Azores–Madeira–Canary.

Mid–Term Evaluation Study Updating for the Community Initiative Programme INTERREG III A 2000–2006 Transfrontier Cooperation Portugal–Spain, with QUASAR Investigaciones y Asistencia Técnica, for the Ministerio de Hacienda, Spain.

Mid–Term Evaluation Study Updating for the Community Initiative Programme INTERREG III B 2000–2006, Azores–Madeira–Canary, with QUASAR Investigaciones y Asistencia Técnica, for PROEXCA S.A.

Update of the Mid-Term Evaluation Study for the Centre Region Operational Programme (PROCENTRO), with Quaternaire Portugal and QUASAR Investigaciones y Asistencia Técnica, for the Commission for Regional Coordination and Development of the Centre.

Update of the Mid-Term Evaluation Study for the North Region Operational Programme (ON), with Quaternaire Portugal, for the Commission for Regional Coordination and Development of the North.

Update of the Mid-Term Evaluation Study for the Algarve Region Operational Programme (PROALGARVE), with Quaternaire Portugal, for the Commission for Regional Coordination and Development of the Algarve.

Update of the Mid-Term Evaluation Study for the Operational Programme Multi-fund from the Autonomous Region of Madeira (POPRAM III), with Quaternaire Portugal, for the Institute for Management of Community Funds of the Autonomous Region of Madeira.

Update of the Mid-Term Evaluation Study for the Operational Programme Multi-fund from the Autonomous Region of Azores (PRODESA), with Quaternaire Portugal, for the Home Government of the Azores.

Update of the Mid-term Evaluation Study for the Operational Programme for Accessibilities and Transport (POAT), with Quaternaire Portugal and TIS.pt, for the Ministry for Public Works, Transports and Housing.

Action Project 2.1.5 – Territorial Impacts of European Fisheries Policy (2004–2006), with Estonia Marine Institute – University of Tartu (Estonia), Fisher & Lorenz – European Telecommunications Consultants SA (Belgium), IDEGA – University of Santiago de Compostela (Spain), IFK – Institute for Fisheries Management and Coastal Community Development (Denmark), IREPA – Institute for Economic Research in Fishery and Aquaculture (Italy), NIBR – Norwegian Institute for Urban and Regional Research (Norway), UARI – University of Akureyri Research Institute (Iceland), for the European Commission.

External Evaluation Study for the Innovating Actions Regional Programme of the Alentejo Region 2003–2004 (PRAI ALENTEJO), for the Alentejo Region Coordinating Commission.

Update of the Mid-term Evaluation Study for the Community Support Framework 2000–2006 (CSF III), for the Management Commission of the CSF III.

Mid-Term Evaluation Study for the Community Initiative Programme INTERREG III A 2000–2006 Transfrontier Cooperation Portugal–Spain, with QUASAR Investigaciones y Asistencia Técnica, for the Ministerio de Hacienda, Spain

Mid-Term Evaluation Study for the Community Initiative Programme INTERREG III B 2000–2006, Azores–Madeira–Canary, with QUASAR Investigaciones y Asistencia Técnica, for PROEXCA S.A.

Mid-Term Evaluation Study for the Algarve Region Operational Programme (PROALGARVE), with Quaternaire Portugal and QUASAR Investigaciones y Asistencia Técnica, for the Commission for Regional Coordination and Development of the Algarve.

Mid-Term Evaluation Study for the Community Support Framework 2000–2006 (CSF III), with Quaternaire Portugal and TIS.pt, for the Directorate-General of the Regional Development.

Mid-Term Evaluation Study for the Centre Region Operational Programme (PROCENTRO), with Quaternaire Portugal and QUASAR Investigaciones y Asistencia Técnica, for the Commission for Regional Coordination and Development of the Centre.

Mid-Term Evaluation Study for the Operational Programme Multi-fund from the Autonomous Region of Madeira (POPRAM III), with QUATERNAIRE Portugal, for the Institute for Management of Community Funds of the Autonomous Region of Madeira.

Mid-Term Evaluation Study for the Operational Programme Multi-fund from the Autonomous Region of Azores (PRODESA), with QUATERNAIRE Portugal and QUASAR Investigaciones y Asistencia Técnica, for the Home Government of the Azores.

Mid-Term Evaluation Study for the Operational Programme for Accessibilities and Transport (POAT), with QUATERNAIRE Portugal and TIS.pt, for the Ministry for Public Works, Transports and Housing.

Mid-Term Evaluation Study for the North Region Operational Programme (ON), with Quaternaire Portugal, for the Commission for Regional Coordination and Development of the North.

ESPO ACTION 1.1.3. Enlargement of the European Union and the Wider European Perspective as Regards its Polycentric Spatial Structure, for the European Commission.

Rendering of Services from the Technical Evaluation of projects concerning Investments in infrastructures co-financed by ERDF in CSF III, with INXL, for the Professional Training and Employment Institute.

Ex-ante Evaluation of the Operational Programme for Agriculture and Rural Development (CSF III), for the Agro-Feeding and Planning Office, from the Ministry for Agriculture, Rural Development and Fisheries.

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

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

Programme	Total ERDF resources for innovation	Total ERDF	Innovation support as % of total ERDF	Main initiatives implemented
PO Temático Valorização do Território 2007–2013	-	4.658.544.223	0,0%	
PO Assistência Técnica FEDER	-	86.087.938	0,0%	

Total Objective 0	-	4.744.632.161	0,0%	
PO Factores de Competitividade 2007–2013	2.189.000.000	3.103.789.011	70,5%	Competitiveness and Technology Poles and other Clusters; Innovation Projects (support to large budget projects); FINOVA (Innovation Financing Support Fund); CITEC (Programme supporting the creation of research and technology centres in companies); SIQPME (SME Skills Collective Projects).
PO Regional do Norte 2007–2013	775.844.823	2.711.645.133	28,6%	Incentive Scheme to Companies' R&TD; Innovation Incentive Scheme; SME Qualification and Internationalization Incentive Scheme
PO Regional do Centro 2007–2013	594.466.370	1.701.633.124	34,9%	Incentive Scheme to Companies' R&TD; Innovation Incentive Scheme; SME Qualification and Internationalization Incentive Scheme
PO Regional do Alentejo 2007–2013	281.641.209	868.933.978	32,4%	Incentive Scheme to Companies' R&TD; Innovation Incentive Scheme; SME Qualification and Internationalization Incentive Scheme
PO Regional do Algarve 2007–2013	66.392.889	174.952.016	37,9%	Incentive Scheme to Companies' R&TD; Innovation Support System; SME Qualification and Internationalization Incentive Scheme; Innovation Financing and Risk Sharing Incentive Scheme
Programa Operacional dos Açores para a Convergência 2007–2013	63.850.000	966.349.049	6,6%	Quality and Innovation Development Support Subsystem
Total Convergence	3.971.195.291	9.527.302.311	41,7%	
PO Regional de Lisboa 2007–2013	142.148.845	306.689.171	46,3%	Incentive Scheme to Companies' R&TD; Innovation Incentive Scheme; SME Qualification and Internationalization Incentive Scheme; Innovation Financing and Risk Sharing Incentive Scheme
PO Valorização do Potencial Económico e Coesão Territorial da RAM 2007–2013	40.714.853	320.549.004	12,7%	Entrepreneurship and Innovation Incentive Scheme; Incentives to Innovative Actions; Support to the Scientific and Technological System
Total Competitiveness	182.863.698	627.238.175	29,2%	
Overall total	4.154.058.989	14.899.172.647	27,9%	

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

Policy Area	Categorisation of Expenditure (FOI codes)	Total ERDF
Convergence Objective		
Assistance to SMEs for the promotion of environmentally-friendly products and production processes (...)	06	115.527.324
Investment in firms directly linked to research and innovation (...)	07	1.118.269.269
Other measures to stimulate research and innovation and entrepreneurship in SMEs	09	291.875.979
R&TD activities in research centres	01	255.904.408
Boosting applied research Total		1.781.576.980
Advanced support services for firms and groups of firms	05	492.408.973
Developing human potential in the field of research and innovation, in particular through post-graduate studies ...	74	15.732.903
Information and communication technologies (...)	11	268.979.166
Information and communication technologies (TEN-ICT)	12	5.000.000
Other measures for improving access to and efficient use of ICT by SMEs	15	46.901.078
Services and applications for citizens (e-health, e-government, e-learning, e-inclusion, etc.)	13	223.982.100
Services and applications for SMEs (e-commerce, education and training, networking, etc.)	14	45.682.236
Innovation friendly environment Total		1.098.686.456
Assistance to R&TD, particularly in SMEs (including access to R&TD services in research centres)	04	290.521.674
R&TD infrastructure and centres of competence in a specific technology	02	205.248.135
Technology transfer and improvement of cooperation networks ...	03	595.162.046
Knowledge transfers and poles Total		1.090.931.855
Total Convergence Objective		3.971.195.291
Competitiveness Objective		
Assistance to SMEs for the promotion of environmentally-friendly products and production processes (...)	06	22.652.469
Investment in firms directly linked to research and innovation (...)	07	27.097.870
Other measures to stimulate research and innovation and entrepreneurship in SMEs	09	39.193.557

R&TD activities in research centres	01	12.826.235
Boosting applied research Total		101.770.131
Advanced support services for firms and groups of firms	05	8.163.117
Developing human potential in the field of research and innovation, in particular through post-graduate studies ...	74	516.312
Information and communication technologies (...)	11	1.500.000
Information and communication technologies (TEN-ICT)	12	1.000.000
Other measures for improving access to and efficient use of ICT by SMEs	15	8.065.247
Services and applications for citizens (e-health, e-government, e-learning, e-inclusion, etc.)	13	11.978.705
Services and applications for SMEs (e-commerce, education and training, networking, etc.)	14	4.065.247
Innovation friendly environment Total		35.288.628
Assistance to R&TD, particularly in SMEs (including access to R&TD services in research centres)	04	11.326.235
R&TD infrastructure and centres of competence in a specific technology	02	21.152.469
Technology transfer and improvement of cooperation networks ...	03	13.326.235
Knowledge transfers and poles Total		45.804.939
Total Competitiveness Objective		182.863.698

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, notably three sub groups:</p> <ul style="list-style-type: none"> • innovation financing (in terms of establishing financial engineering schemes, etc.); • regulatory improvements and innovative approaches to public services and procurement (this category could capture certain e-government investments related to provision of services to enterprises); • Developing human capital for the knowledge economy. This category will be limited to projects in higher education aimed at developing industry orientated courses and post-graduate courses; training of researchers in enterprises or research centres. <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.

	<ul style="list-style-type: none"> 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	Building and equipping laboratories or facilities for university or research centres, Telecommunication infrastructures, Building and equipment for incubators and parks for innovative enterprises
Aid schemes	Grants and loans for RTDI projects Innovative finance (venture capital, equity finance, special bonds, etc.) for innovative enterprises
Education and training	Graduate and post-graduate University courses Training of researchers

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

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

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