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DELIVERING POLICY ANALYSIS ON THE PERFORMANCE OF COHESION POLICY 2007-2013

TASK 1: POLICY PAPER ON INNOVATION

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A report to the European Commission

Directorate-General Regional Policy

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1 EXECUTIVE SUMMARY

The Dutch innovation policy is directed to establishing optimal conditions for innovation. It comprises general policy packages aimed at stimulating innovative activities in general and programmatic packages directed towards specific innovative industrial clusters. Likewise, regional economic policy is aimed at stimulating innovative activities in specific regional industrial clusters. The central problem of the Dutch innovation policy is what is called the Dutch Innovation Paradox: strong in production of scientific knowledge and patents, weak in application and commercialisation. This provokes a fundamental discussion about the way innovation should be stimulated. Recent proposals emphasize more transparency and openness. Several assessment reports of innovation progress and policy in The Netherlands distinguish possibilities for improvement in (i) stimulating innovative SMEs, (ii) the attractiveness of The Netherlands as a location for knowledge intensive activities, (iii) innovation through strong and internationally leading innovation clusters and (iv) establishing an excellent climate for both learning and research.

The ERDF is used as a means to co-finance the regional economic innovation policy. There are four regions administered by four management authorities. There is a good match between the ERDF-innovation police guidelines and the regional priorities for enhancing and boosting innovation. Furthermore, the ERDF innovation measures fit quite well in both the national and regional agenda to stimulate industrial clusters and improve innovation in SMEs.

According tot the operational programs of the four regions, almost 45% of the total ERDF-funds are prioritized to innovation policy. This amount is equally allocated to the three lines of innovation: 'boosting applied research', 'knowledge transfers and poles' and 'innovation friendly environment'.

The information gathered from the four regions describes the situation until the end of 2009.

1. The total amount of money committed to innovation projects in the period 2007-2009 is € 676 mln. Of this amount 31% is financed by ERDF, 48% stems from regional and 22% from national sources.
2. Looking at the ERDF targets, 'Boosting applied research' is most popular with 81% commitment in projects. This is for a major part related to the fact due to projects in FOI-code 9: 'Other measures to stimulate research and innovation and Entrepreneurship in SMEs (124%) and in FOI-code 1: 'R&TD activities in research centres' (92%). The commitment of projects in 'knowledge transfer and poles?' is with 72% on schedule. The measure most often used is code 3: 'Technology transfer and improvement of cooperation networks' (112%). The 'Innovation friendly environment' is the least used so far with a total of 17% of committed projects by the end of 2009.

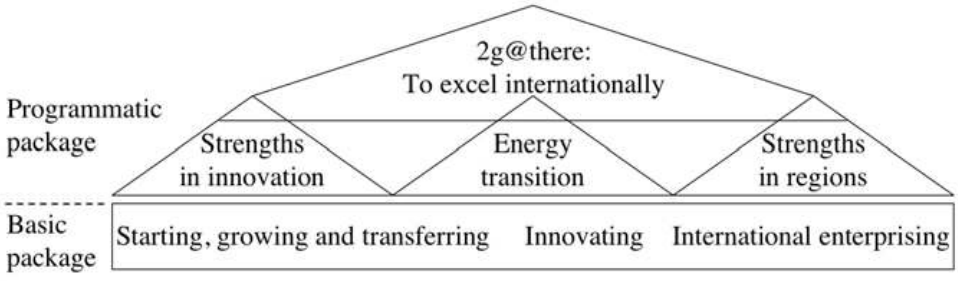
There are substantial differences between regions, but on the whole these general conclusions hold.
It is not possible at this moment to report results and outputs of the 2007-2013 Cohesion Fund program. Only one region reported some preliminary outputs, but this is too small to make general conclusions. Evaluation reports for the 2007-2013 program are not available at this moment. Evaluation reports from the previous 2000-2006 program cannot be used to approximate output in the current program either, because of incomparability of projects, priorities and goals between the two programs.
From the year reports of the four regions we can conclude that de program is still on track and apart from technical problems (information systems, judicial and definition problems) there are no substantial problems to be reported.

The main challenge that is reported by the regions, has to do with the terms of demands of the European guidelines. These are strict and the bureaucracy (procedures, protocols, paper work) sometimes deter organisations to file an applications. Moreover, this 'bureaucracy' argument also refers to one of the weaknesses of the innovation system in the Netherlands where large-scale projects rarely blossom because of bureaucracy.

2 NATIONAL AND REGIONAL INNOVATION POLICY AND THE CONTRIBUTION OF ERDF

2.1 NATIONAL AND REGIONAL INNOVATION POLICY

The Dutch innovation policy can be characterized as 'creating the conditions for innovation'. It builds on two foundations: (i) support of innovation in the private sector and (ii) financing research and science (Dutch Scientific Council, 2008). The instruments to achieve this are coordinated by several government departments: Ministry of Economic Affairs, Ministry of Education, Culture and Science and the Ministry of Agriculture, Nature and Food Quality. The policy-mix can be illustrated by figure 1, which is clarified below (source: Inno-Policy Trendchart, 2009).



Since 2005 the innovation policy-mix consists of three main support "packages":

1. Basic package for enhancing more (technological and non-technological) innovations in more companies and the stimulation of new company start-ups. The main instruments are: Fiscal facilities for enhancing R&D, Innovation Performance Contracts (IPC), Innovation

Vouchers and Credit Facilities. The basic package is accessible to all entrepreneurs and includes instruments for all phases of the company's lifecycle. Also the first steps towards innovating and international enterprising are stimulated.

2. The programmatic package consists of three modules: strengths in innovation, strengths in regions, and energy transition. For the strengths in innovation so-called areas of excellence are selected: Water technology; Chemical industry; High-tech Automotive Systems; Life Science & Health; Logistics & Supply Chains; Maritime; Service Innovation & ICT (see http://www.senternovem.nl/innovatieindialoog/innovatieprogrammas/index.asp).
3. The strengths in regions comprise a programmatic package called the 'Regional-based Economic Opportunities' which contains stimulation of economic growth and innovation in regional economic clusters. In The Netherlands there are two of such programs: the Peaks in the Delta, which contains six area-based programs, and its successor 'Strong regions', which contains four area-based programs.

There is a general and fundamental discussion in The Netherlands whether the innovation policy mix at hand is the right one (Scientific Council for Government Policy, 2008). The background for this is the so-called Dutch innovation paradox – strong in production of scientific knowledge and patents, but weak in applying and commercialising these new products (see also, NSR, 2007). According to the Dutch Scientific Council this is due to insufficient commitment to cooperation, lack of ambition and transparency and too much obstacles for innovation. A recent analysis of the Dutch Innovation Platform (2010) sums up the strengths and weaknesses. Firstly, The Netherlands has a number of strong points, like internationally solid, innovative sectors or key areas, well-developed service industries, many international corporations that are based in the Netherlands and a relatively high level of exports. Secondly, The Netherlands encounter a number of significant problems at the same time. Dutch companies invest relatively little in R&D, there are only a very few rapidly growing companies and the Dutch culture is not adequately geared towards enterprises and entrepreneurship. In addition, the quality of the Dutch educational system is in doubt, on average Dutch workers have the shortest hourly working week in Europe and large-scale projects rarely flourish to their full extent because of the bureaucratic rules and regulations. In addition, Inno-Policy Trendchart (2009) sums up three points for improvement for the Dutch Innovation system:

- raise the number of innovative SMEs, not only in manufacturing, but also in service industries,
- improve the attractiveness of The Netherlands as a location for knowledge intensive activities and innovation. An important aspect in raising this attractiveness is the presence of strong and internationally leading innovative clusters

- create a climate of excellence for both learning and research to secure a sufficient supply of new graduates.

In 2006 the main focus in the regional-based programs has shifted from diminishing economic arrears to stimulating economic opportunities. This national strategy is now translated into policy at the regional level in the 'Area-based Economic Opportunities'. These comprise two instruments:

1. Peaks in the Delta. In six regional programs for the period 2007-2010, there has been close collaboration between regional governments, large cities, regional development organizations and industries (so-called: Knowledge Clusters). The aim of this collaboration is to stimulate economic opportunities (the 'Peaks') in six regions:
    a. North wing of the Randstad: directed to the clusters Creative Industry, Life Sciences, Logistics and Trade, International Services, Tourism;
    b. South wing of the Randstad: directed to the clusters Harbor and Industrial complex, Greenhouse farming, Life sciences and the International position of The Hague
    c. North-Netherlands: directed to the clusters Water, Energy and Sensor Technology
    d. East-Netherlands: directed to Food & Nutrition, Health and Technology
    e. Southeast Netherlands: directed to High-Tech systems and Materials, Food & Nutrition, Life sciences and medical technology
    a. Southwest Netherland: directed to Tourism, Logistics and Process industry.
2. The Peaks in the Delta-programme is followed in 2010 by a regional programme called 'Strong Regions', in which the aim is to additionally stimulate economic opportunities in four regions: Randstad-region, Energy-junction Groningen, Brainport Eindhoven and Food & Nutrition East-Netherlands

There is a regional dimension to national innovation policies in terms of regions having aims in different economic industries. Regions differ in their clusters of innovative industries. On the other hand, the composition of these regional clusters was made at the national level so that regions would not compete for the same clusters and regional diversification was possible. The overall purpose of regional innovation policies is to improve the economic growth potentials of the region.

For the elaboration of regional economic policies, instruments and financial opportunities, each region has its own regional program organisation and regional policy guidelines. Within the boundaries of the national guidelines, the regions do make their own do decisions although national co-financing of regional projects also gives the national government a substantial and decisive influence (Wintjes, 2006; Berenschot, 2010).

The Peaks in the Delta contributes to translate national strategy into policy at regional level and had an influence on the NSRF and the OPs. The adoption of a "key-area" approach (selection of

'sleutel-gebieden' key technological/sectoral fields of national importance) translated into territorial policies and the distinction, in the OP South, between two sub-regions (south-east and south west) instead of the NUTS2 region of North-Brabant are examples of this influence.

Role of ERDF

The contribution of the ERDF in the national innovation policy is substantial. An evaluation of its role in the previous period 2000-2006, including an assessment of the main strategic orientations, concludes that the value-added of the Structural Fund interventions as regards RTDI mainly consists in the increased innovativeness and economic performance of the SME sector (especially in the East and the South), and in the strategic importance of innovation policy at regional level. According to this evaluation, regional innovation policy in the Netherlands would probably not have survived without the Community funding (Wintjes, 2006).

The total national budget on innovation has recently been estimated at 1872 mln. euro for 2010 (Ministry of Finance, 2010). With a total of 366 mln. euro of prioritized ERDF resources on innovation, the ERDF share is 20% of the national budget.

All of the ERDF resources for innovation are directed towards regional programs. The innovation support as percentage of the total ERDF varies from 41% in the South to 47% in the West. From the total of 366 mln. almost 57% has already been committed in projects at the end of 2009. This varies form 36% in the South to 98% in the North.

2.2 ERDF CONTRIBUTION ACROSS POLICY AREAS

According to the National Strategic Reference program 2007-2013 the main focus of support of the ERDF is on enhancing competitiveness of the Dutch economy. The focus lies on the same priorities as in the Communitarian Strategic Guidelines, i.e. enhancing innovative power and entrepreneurship, attractiveness of regions and social and economic vitality of cities.

In terms of priorities for the regions, the goal is to enhance the economic growth in all regions and not just to reducing the economic differences between regions, which are relatively small in The Netherlands anyway. The focus is on stimulating smart developments in regions. This implies ERDF is primarily used on a regional scale.

From a total of 830 mln. euro's on ERDF, 44.1% (€ 366 mln.) is allocated to innovation. From this budget almost identical parts are allocated to 'Boosting applied research' (€ 129 mln.), 'Innovation friendly environment' (€109 mln.) and 'Knowledge Transfer and Poles' (€ 127 mln.).

The main recipients for funding are the four regions (North, West, South en East) of The Netherlands. Each region is represented by a regional programmatic organisation, in which provinces, cities and specific industries are working together. Every region has its own management-authority. At the end of 2009 they initiated a total of 123 projects, comprehending almost 57% of the ERDF means for innovation. There is no systematic overview of main recipients

and beneficiaries at this moment. It varies from universities, colleges of higher education, (forms of cooperation between) municipalities and provinces, public knowledge institutes, public and private foundations and private companies. From the total of project costs at the end of 2009 31% is financed by ERDF, 22% by the national government and 48% by regional parties. From this regional share almost 46% is privately funded. Table 1 shows the total and committed means (in projects) over the FOI-codes.

Table 1: Total and committed means for innovation in The Netherlands, until the end of 2009.

Policy Area (objective 2)	FOI codes	Total ERDF	Committed end 2009	In %
Assistance to SMEs for the promotion of environmentally-friendly products and production processes (...)	06	17.747.000	1.858.360	10%
Investment in firms directly linked to research and innovation (...)	07	31.276.000	11.823.393	38%
Other measures to stimulate research and innovation and entrepreneurship in SMEs	09	56.145.000	69.386.714	124%
R&TD activities in research centres	01	23.712.000	21.318.558	90%
Boosting applied research Total		**128.880.000**	**104.387.025**	**81%**
Advanced support services for firms and groups of firms	05	27.271.000	2.545.319	9%
Developing human potential in the field of research and innovation, in particular through post-graduate studies ...	74	14.941.000	5.410.548	36%
Information and communication technologies (...)	11	15.912.000	353.115	2%
Information and communication technologies (TEN-ICT)	12	5.718.000	0	0%
Other measures for improving access to and efficient use of ICT by SMEs	15	16.553.000	0	0%
Services and applications for citizens (e-health, e-government, e-learning, e-inclusion, etc.)	13	10.847.000	752.000	7%
Services and applications for SMEs (e-commerce, education and training, networking, etc.)	14	18.194.000	1.729.610	10%
Innovation friendly environment Total		**109.436.000**	**10.790.592**	**10%**
Assistance to R&TD, particularly in SMEs (including access to R&TD services in research centres)	04	34.353.000	13.172.502	38%
R&TD infrastructure and centres of competence in a specific technology	02	39.622.000	18.972.467	48%
Technology transfer and improvement of cooperation networks ...	03	53.440.000	59.602.157	105%
Knowledge transfers and poles Total		**127.415.000**	**91.747.126**	**69%**
Total Objective 2		**365.731.000**	**206.924.743**	**56%**

A summary of the policy initiatives in each of these regions will be presented below, based on the operational programs, the annual reports and information from interviews.

North (provinces of Groningen, Friesland and Drenthe and the cities of Groningen, Leeuwarden, Emmen and Assen)

In the Northern region the central aim is to promote the transition of the northern economy to a knowledge-based economy in which the development and implementation of innovation and technology go hand in hand with reinforcing the spatial quality in cities and surroundings. This central aim is divided in several sub-goals like the development and implementation of knowledge and innovation, stimulating and facilitating entrepreneurship, development of clusters in several industries, development and growth of the knowledge and educational infrastructure.

In terms of development, the Northern region focuses on key areas and industries, like Energy, Water and Sensor Technology. In addition, several sectors are prioritized because of their above average innovation potential: Agribusiness, Chemical industry, Life sciences, Shipbuilding/Metal industry and Tourism.

From a total of 77 mln. euro of ERDF resources for innovation, 44% is allocated to 'Boosting Applied Research', 16% is allocated to 'Innovation Friendly Environment' and 40% to 'Knowledge transfer and poles'.

East (provinces of Overijssel and Gelderland and five urban networks)

In the Eastern-region, two main policy directions are launched. First, the reinforcement of knowledge clusters Food & Nutrition and Health and Technology, through better use of existing knowledge in companies, knowledge-institutions and valorisation. Second, the strengthening of innovative power and competitive position of businesses by stimulating innovation in products, processes, services and market development, through knowledge exchange and improvement of knowledge in existing companies.

From a total of 67 mln. euro of ERDF resources for innovation, 34% is allocated to 'Boosting Applied Research', 29% is allocated to 'Innovation Friendly Environment' and 27% to 'Knowledge Transfer and Poles'.

West (provinces of North-Holland, South Holland, Utrecht, Flevoland and cities of Amsterdam, Rotterdam, Utrecht and The Hague)

The ambition of the Western region is to bring de Randstad back into the top-5 of European metropolitan areas by 2015. The way to do this is to develop strong clusters, improve knowledge exchange en collaboration between companies and knowledge institutions and enhance the match between supply and demand on the labour market. The western region focuses on clusters like Transport, Logistics and Trade, Food & Flowers, Creative industry, Life Sciences, Medical

Technology, Bioscience and Environmental Technology, Tourism, Petrochemical industry, Maritime and Delta Technology, Geomatica and Composite.

From a total of 134 mln. euro of ERDF resources for innovation, 34% is allocated to Boosting Applied Research, 28% is allocated to Innovation Friendly Environment and 37% to Knowledge transfer and poles.

South (provinces of North-Brabant, Limburg and Zeeland and several large cities)

The south of The Netherlands wants to characterize itself at a European level in the area of innovation and economic dynamics by the stimulation of knowledge intensive and sustainable growth, in which the region wants to obtain a frontrunners position in The Netherlands. The central aim is divided in several sub-goals like an increase of economic returns of the knowledge economy, more innovation, especially in SMEs, and more entrepreneurship through change of attitudes en facilitation of start ups. The Southern region focuses on High-Tech systems, Materials and Machines, Food & Nutrition and Medical Technology & Life sciences.

From a total of 87 mln. euro of ERDF resources for innovation, 30% is allocated to Boosting Applied Research, 45% is allocated to Innovation Friendly Environment and 26% to Knowledge transfer and poles.

According to the challenges of the Dutch innovation policy (see section 2.1) and the National Strategic Report 2009, the focus of support and the type of measures are coherent with the national and/or regional policy. Considering the three main points for improvement (raise the number of innovative SMEs, improve the attractiveness of The Netherlands as a location for knowledge intensive activities and innovation and create a climate of excellence), it is clear that the initiated projects as well as the focus on clusters fit quite well with the national and regional agenda. For instance, measures to stimulate innovation, research and entrepreneurship in SMEs is the most popular measure in the whole programme. Furthermore, as shown above, each region has its own specific clusters of innovative industries which they promote, stimulate and invest in. This also corroborates the Dutch innovation policy. It is not surprising therefore that, considering the success of the innovation paragraph, the conclusion from the National Strategic Report 2009 is that the right strategic choices have been made.

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

3.1 ACHIEVEMENTS UNDER THE COMPETITIVENESS OBJECTIVE

In general

For The Netherlands, from a total of 366 mln. euro available for innovation from the ERDF for the period 1007-2013, 56% is committed by the end of 2009. Table 2 shows that the regions differ in

their score of commitments in projects. The North has already reached its maximum, but this is due to an oversubscription of projects in 'Boosting Applied Research'. Over the three areas of innovation we can conclude that 'Boosting Applied Research' is the most common investment in innovation, followed by 'Knowledge Transfer and Poles'. Investments in an 'Innovation Friendly Environment' has at this moment the least attention in the regions. On the whole and according to the annual reports of the regions, there is widespread agreement on the success of the innovation paragraph: the number of applications for subsidies is on schedule and in some regions (the North and the South) there was even a temporary stop because of overwhelming interest.

Table 2: Approximate figures of allocated and committed ERDF funds for innovation in The Netherlands and Dutch regions, situation until end of 2009.

Approximate figures	Total	North	West	East	South
Total costs of committed Innovation projects	675 mln.	278 mln.	126 mln.	126 mln.	88 mln.
Total ERDF funds for innovation, period 2007-2013	366 mln.	77 mln.	134 mln.	67 mln.	87 mln.
Total committed ERDF funds at the end of 2009 (in % of ERDF funds)	207 mln. (57%)	75 mln. (98%)	60 mln. (45%)	40 mln. (59%)	31 mln. (36%)
Real expenditures at the end of 2009 (in % of total costs)[1]	68 mln. (12%)[1]	14 mln. (5%)[2]	20 mln. (11%)	34 mln. (27%)	n.a.
Of what is Public Finance	54 mln. (80%)[1]	11 mln. (14%)[2]	17 mln. (87%)	26 mln. (75%)	n.a.

[1] Excluding the Southern region.

[2] Expenditures until may 2010.

A different way to look at the success of the innovation paragraph is to look at the output measures (number of R&D-projects, private and public investments, supported SMEs etc.). We don't have the information at FOI-level, but when we look at the priority axis 1 (innovation, entrepreneurship and knowledge economy), all of the targets have been exceeded in terms of commitments (see table 3).

Table 3: Targets and realisations priority 1. Source: NSR: 2010

Approximate figures	Targets	Committed in projects	%
Number of R&D projects	486	1.081	222%
R&D investments (private) mln. euro	178 mln.	209 mln.	118%
R&D investments (public) mln. euro	50 mln.	69 mln.	137%
Provoked private inv.(mln. euro)	56 mln.	195 mln.	348%
Support of start-ups (nr.)	728	3.357	461%
Support of SME (nr.)	4.785	13.937	291%

Number of collaborations	463	1.062	229%
Gross employment creation (FTE)	7.030	14.376	204%

Innovation friendly environment

Initiatives launched

By the end of 2009, 11 projects have been developed under the heading of Innovation friendly environment. Most of the projects are centred round FOI-code 74: 'Developing human potential in the field of research and innovation, in particular through post-graduate studies ...'. These include the establishment of the Carbohydrate Competence Center (CCC) in the North, a project aimed at combining knowledge and research in the area of carbohydrate (http://www.cccresearch.nl/index_en.htm), and the Venture Lab Twente in the East, a business development support programme for ambitious individuals and teams, who want to start, or reorganize their venture into a high-tech, high-potential venture (http://www.venturelabtwente.com).

Expenditure incurred

As table 3 shows, there is only 10% committed in projects in Innovation Friendly Environment at the end of 2009. The regional variation is substantial. The actual expenditures are quite small.

Table 3: Approximate figures of allocated and committed ERDF funds for innovation in Innovation Friendly Environment in The Netherlands and Dutch regions, situation until end of 2009.

Innovation friendly environment					
Approximate figures	**Total**	**North**	**West**	**East**	**South**
Total costs of Innovation projects	38 mln.	24 mln.	5 mln.	6 mln.	1,8 mln.
Total ERDF funds 2007-2013	109 mln.	13 mln.	38 mln.	20 mln.	39 mln.
Total committed at the end of 2009 (in % of ERDF funds)	11 mln. (10%)	6 mln. (51%)	1,5 mln. (4%)	2 mln. (11%)	0,7 mln. (2%)
Actual expenditures at the end of 2009 (in % of total costs)[1]	1,3 mln. (4%)[1]	1 mln. (4%)[2]	0,3 mln. (10%)	0,02 mln. (0,3%)	n.a.
Of what is Public Finance	1,2 mln. (93%)[1]	0,9 mln. (91%)[2]	0,3 mln. (98%)	0,01 mln. (79%)	n.a.

[1] Excluding the Southern region.

[2] Expenditures until may 2010.

Output and results

At this moment no evaluation reports are available, nor are there data about realizations. Approximating outputs from comparable projects in the 2000-2006 ERDF program could not be

made because projects were incomparable due to a broader focus than just innovation and a set of different goals.

Knowledge transfer and support to clusters/poles

Initiatives launched

By the end of 2009, 56 projects have been developed under the heading of Knowledge transfer and poles. Most of the projects are centred round FOI-code 03: Technology transfer and improvement of cooperation networks. The largest projects are: Sensor city in the North, a project in which an urban network is realized in with practical applications for complex sensor systems can be developed (http://www.sensorcity.nl/); an investment arrangement for Creative Industry in the West; a stimulus for SMEs in the South to make use of the facilities of Syntens, an innovation network for promoting cooperation between SMEs and knowledge institutes; a research program in the East that generates high quality and high speed of the engineering process for innovative security solutions (http://www.iseti.eu/).

Expenditure incurred

From a total of 127 mln. euro almost 92 mln. is already committed in projects.

Table 4: Approximate figures of allocated and committed ERDF funds for innovation in Innovation Friendly Environment in The Netherlands and Dutch regions, situation until end of 2009.

Knowledge transfer and support to innovation poles and clusters					
Approximate figures	**Total**	**North**	**West**	**East**	**South**
Total costs of Innovation projects	331 mln.	99 mln.	142 mln.	56 mln.	32 mln.
Total ERDF funds 2007-2013	127 mln.	30 mln.	50 mln.	25 mln.	22 mln.
Total committed at the end of 2009 (in % of ERDF funds)	92 mln. (72%)	18 mln. (60%)	48 mln. (97%)	15 mln. (60%)	11 mln. (48%)
Real expenditures at the end of 2009 (in % of total costs)[1]	26 mln. (9%)[1]	4,5 mln. (4,6%)[2]	12,5 mln. (9%)	8,8 mln. (16%)	
Of what is Public Finance	21 mln. (81%)[1]	4,2 mln. (93%)[2]	11,9 mln. (96%)	4,8 mln. (54%)	

[1] Excluding the Southern region.

[2] Expenditures until may 2010.

Output and results

At this moment no evaluation reports are available, nor are there data about realizations. Approximating outputs from comparable projects in the 2000-2006 ERDF program could not be made because projects were incomparable due to a broader focus than just innovation and a set of different goals.

Boosting applied research

Initiatives launched

By the end of 2009 48 projects have been developed under the heading of Boosting applied research. Most of the projects are centred round FOI-code 09: Other measures to stimulate research and innovation and entrepreneurship in SMEs, and FOI-code 01: R&TD activities in research centres. The largest projects are: Company directed arrangements for stimulating innovative projects, economic activity and the professionalization of personal management in the North and East (Investeringspremieregeling, Innovatiefondsen); The Incubator Matrix VI, the establishment of laboratories and office facilities for SMEs and starting entrepreneurs in the field of life sciences in the West (http://www.scienceparkamsterdam.nl/en/); the redevelopment of the De Gruyter Factory, in a business facility for creative entrepreneurs with the preservation of cultural inheritance in the South (http://www.degruyterfabriek.nl/).

Expenditure incurred

From a total of 129 mln. euro almost 104 mln. is already committed in projects.

Table 5: Approximate figures of allocated and committed ERDF funds for innovation in Innovation Friendly Environment in The Netherlands and Dutch regions, situation until end of 2009.

Boosting applied research					
Approximate figures	**Total**	**North**	**West**	**East**	**South**
Total costs of Innovation projects	308 mln.	155 mln.	36 mln.	63 mln.	53 mln.
Total ERDF funds 2007-2013	129 mln.	34 mln.	46 mln.	23 mln.	26 mln.
Total committed at the end of 2009 (in % of ERDF funds)	104 mln. (81%)	51 mln. (151%)	10 mln. (22%)	23 mln. (101%)	20 mln. (77%)
Real expenditures at the end of 2009 (in % of total costs)[1]	41 mln. (16%)	8 mln. (5%)	7 mln. (20%)	26 mln. (40%)	n.a.
Of what is Public Finance	32 mln. (79%)	6 mln. (76%)	5 mln. (71%)	21 mln. (82%)	n.a.

[1] Excluding the Southern region.

[2] Expenditures until may 2010.

Output and results

At this moment no evaluation reports are available, nor are there data about realizations. Approximating outputs from comparable projects in the 2000-2006 ERDF program could not be made because projects were incomparable due to a broader focus than just innovation and a set of different goals.

4 CONCLUSION: MAIN CHALLENGES FACED BY COHESION POLICY PROGRAMMES

The contribution of the ERDF in the national innovation policy is substantial. The total national budget on innovation is recently estimated at 1872 mln. euro for the year 2010 (Ministry of Finance, 2010). With a total of 366 mln. euro on prioritized ERDF means on innovation, the ERDF share is 20% of the total national budget.

The ERDF also boosts regional initiatives in innovation. This can be seen from the ERDF expenses of Table 2 of Annex A. The ERDF contributes about 31% of the total innovation expenses up to 2009, the regional contribution is some 48% and the national share of co-financing is 22%. For the three policy areas we distinguish, these percentage are for 'Boosting Applied Research: ERDF 34%, regions 41%, national 25%. For 'Knowledge Transfer and Poles', ERDF contributes 27%, regions 55% and national 17%. Finally for the 'Innovation Friendly Environment', ERDF contributes 29%, regions 39% and national 32%. So ERDF contributes approximately for one third in the costs of generating and stimulating regional partnerships and projects.

The question will always be whether the projects underway, would have been carried out without the ERDF contribution. This question is beyond the scope of this policy paper. Nevertheless, there appears to a huge effort in regions to develop and implement projects according to the ERDFs operational programs.

Looking at national and regional annual implementation reports of the current program, there are no results available. The projects are presumably too short underway. Approximating outcomes from projects in the previous ERDF-program of 2000-2006 was hampered by incomparability of projects.

Nevertheless, the committed projects - 123 projects, comprehending almost 57% of the ERDF means for innovation - as well as evaluations of the regional authorities and interviews with regional representatives, justifies the conclusion that the ERDF-co-financed means have indeed boosted initiatives that would otherwise not have been realized. In addition, the interests in some of the regions for submitting projects was so high, that they had to temporarily stop the possibilities to file an application. A slightly less result is that the real expenditures of 12% of the total costs is still rather low.

What can be concluded from the committed projects is that the focus lies more at boosting of applied research than on creating an innovation friendly environment. At this moment it is not sure what lies behind this imbalance in committed projects. Presumably it is caused by the company directed arrangements for stimulating innovative projects in small and medium sized companies. According to one regional representative, the ERDF co-financed means are relatively easy accessible compared to other national arrangements. Furthermore, it lowers the threshold to innovate.

In general, according to the regions, the ERDF-means do have additional value. Projects do fit in local development plans directed towards favorable clusters. Hence, the stimulation of innovative clusters receive a new impulse, even in times of economic crisis.

The main challenge that is reported by the regions, has to do with the terms of demands of the European guidelines. These are strict and the bureaucracy (procedures, protocols, paper work) sometimes deter organisations to file an applications. Moreover, this 'bureaucracy' argument also refers to one of the weaknesses of the innovation system in the Netherlands where large-scale projects rarely blossom because of bureaucracy.

REFERENCES

INNO-Policy TrendChart, Innovation Policy Progress Report, The Netherlands 2009. European Commission

Deuten, J. (2009). ERAWATCH Country Report 2009, Analysis of policy mixes to foster R&D investment and to contribute to the ERA: The Netherlands. European Commission

Ministerie van Financiën (2010). Innovatie en toegepast onderzoek: rapport brede heroverwegingen. Den Haag

Innovation Platform (2010), The Netherlands 2020: Back in the top 5. The Economic Agenda: Innovative, International, Involving. The Haque.

Nationaal Strategisch Referentiekader (2007)

Nationaal Strategisch Rapport (2009)

Regional Operational Programs for the North, East, South and West (2007)

Regional Annual Report for the North, East, South and West (2009)

Regional Annual Report for the North, East, South and West (2010)

Scientific Council for Government Policy (WRR) (2008). Innovation renewed. The Haque.

Wintjes, R. (2006), Strategic evaluation on Innovation and the Knowledge Based Economy in relation to the Structural and Cohesion Funds, for the programming period 2007-2013. European Commission, DG REGIO.

INTERVIEWS

The following persons were kind enough to help with providing information:

Jelle Wiarda and Luc Hulsman, SNN, representing region Noord

Martijn Panjer, province Gelderland, representing region East

Ruud van Raak, OBR Rotterdam, representing region West

Pieter Liebregts, Stimulus, representing region South

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

Table 1a shows the total amount of ERDF for innovation purposes in euros for the four Dutch regions and its share in the total ERDF resources for each region. The final column shows the share of ERDF money that is already implemented (committed or disbursed?) at the end 2009.

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

Programmes	Total ERDF resources for innovation	Innovation support as % of total ERDF	Committed	Examples of initiatives implemented at the end of 2009
Operational programme North 2007-2013	77.077.000	45,5%	98%	*Target*, the Target-project concerns establishing a sustainable economic cluster of an 'intelligent sensor network of information systems' in the North, directed towards data management of large amounts of data. The ERDF contribution is directed towards the funding of a research infrastructure for non-profit/public organizations (for example the University of Groningen). It is an example of a direct aid-scheme for utilizing technology related services or for implementing technology transfer projects. *CCC* (Carbohydrate Competence Center), which is a broadly supported innovative project aimed at combining knowledge and research in the area of carbohydrate. The ERDF is contributing through subsidies for training and education.
Operational programme West 2007-2013	134.000.000	43,1%	45%	*Biopartner Accelerator*, an incubator for young life science companies that are not ready for the commercial market. The ERDF is contributing through direct support of new infrastructure: a building that consist of flexible workplaces for life sciences companies. '*Open Innovation Alliance Great Composite North-Holland*' for support of innovations, from design to experimental development, for the development and production of Great Composite for the replacement of products that are made out of wood, steel and other materials. *Protospace Utrecht* aims at offering facilities at starters and students for the transformation of ideas and knowledge in concrete innovative prototypes with commercial opportunities. The project falls into the 'Innovation friendly environment'. The ERDF contribution is for building and equipment.
Operational programme South 2007-2013…	87.373.000	47,0%	36%	*Innomotive*, a project that is directed towards expansion, diversification and internationalization of the Dutch automotive cluster. The ERDF contribution is directed at educational activities, workshops and the development of international collaboration projects *Maastricht Forensic Institute*, the establishment of an advanced, independent and

				interdisciplinary Forensic Expertise centre. The project is a typical R&TD activity. ERDF contributes through a grant for the establishment of a research infrastructure
Operational programme East 2007-2013…	67.281.000	41,0%	60%	The '*Main Manufacturing Excellence Project*' which exist of 16 collaboration projects of innovative small companies and a coordinated management project. It is categorized as an investment in firms directly linked to innovation. The contribution concerns an aid scheme for a group of beneficiaries. The establishment of an '*International Security Experimentation & Transformation Institute (ISETI)*' that works at solutions for preventing, combating and recovering dangers to the collective security of the society. It consists of a grant aimed at direct support for utilising technology related services.
Total Competitiveness Obj.	365.731.000	44,1%	56%	
Total country	365.731.000	44,1%	56%	

Source: core team on EC data and national expert

Table 2 shows the ERDF resources for innovation, the amount (and share) that has actually been committed at the end of 2009, as well as the regional and national shares (i.e. co-financing) to innovation, for each of the policy areas.

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

Policy area	Categorisation of expenditure (corresponding FOI codes)	Total ERFD	Total ERDF committed until 31.12.2009	%	
				Regional share	National share
Innovation friendly environment	05 11 12 13 14 15 74	27.271.000 15.912.000 5.718.000 10.847.000 18.194.000 16.553.000 14.941.000	2.545.319 (24%) 353.115 (24%) 752.000 (23%) 1.729.610 (44%) 5.410.548 (29%)	61% 10% 71% 56% 20%	15% 66% 6% 0% 51%
Knowledge transfer and support to innovation poles and clusters	02 03 04	39.622.000 53.440.000 34.353.000	18.972.467 (26%) 59.602.157 (31%) 13.172.502 (20%)	64% 52% 55%	10% 17% 25%
Boosting applied research and product development	01 06 07 09	23.271.000 17.747.000 31.276.000 56.145.000	21.318.558 (29%) 1.858.360 (41%) 11.823.393 (37%) 69.386.714 (35%)	52% 55% 56% 34%	19% 4% 7% 31%

Source: core team on EC data and national expert

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

Policy area	Short description
Innovation friendly environment	This category covers a range of actions which seek to improve the overall environment in which enterprises innovate, and notably three sub groups: • innovation financing (in terms of establishing financial engineering schemes, etc.); • regulatory improvements and innovative approaches to public services and procurement (this category could notably capture certain e-government investments related to provision of services to enterprises); • Developing human capital for the knowledge economy. This category will be limited to projects in higher education aimed at developing industry orientated courses and post-graduate courses; training of researchers in enterprises or research centres. The category also covers initiatives geared towards improving governance capacities for innovation and knowledge policies (e.g. specific technical assistance funding, support for regional foresight)
Knowledge transfer and support to innovation poles and clusters	Direct or indirect support for knowledge and technology transfer: • direct support: aid scheme for utilising technology-related services or for implementing technology transfer projects, 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. Direct or indirect support for creation of poles (involving public and non-profit organisations as well as enterprises) and clusters of companies • direct support: funding for enterprise level cluster activities, etc. • indirect support through funding for regrouping R&D infrastructure in poles, infrastructure for clusters, etc.
Boosting applied research and product development	Funding of "Pre-competitive development" and "Industrial research" projects and related infrastructure. Policy instruments include: • 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. Any direct or indirect support for the creation of innovative enterprises (spin-offs and start-ups)

Instruments	Short description
Infrastructures and facilities	Building and equipment for 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