



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

TASK 1: POLICY PAPER ON INNOVATION

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EXECUTIVE SUMMARY

Sweden is among the nations worldwide that spend most on R&D in relation to GDP. The Government presented an “innovative Sweden” strategy in 2004 that took a broad approach to innovation. This strategy has now been replaced by a number of targeted innovation strategies.

Up till now Sweden has not had a separate, explicit innovation policy. The innovation issues are integrated into research policy and to a large degree formed through initiatives taken by State agencies and research councils. A few of their programmes have an explicit regional dimension.

The Swedish Governmental Agency for Innovation Systems (VINNOVA) is responsible for RTDI. One of its programmes supports regional strategies for building internationally competitive regional systems of innovation.

Overall, more than 60% of the ERDF indicative budget is intended to be allocated to, what in the national strategy is called Innovation and renewal. There are however some differences between the regions. For example Stockholm and South Sweden indicate that 50% of the resources will be allocated to this priority while the corresponding figures for West Sweden, East Mid Sweden and Upper Norrland are between 68% and 75%.

The number of new firms and new jobs are the two main indicators used for evaluating the impact of the Swedish programmes. The evaluation completed in July 2010 highlighted that in five regions the programme has created 3,700 new firms and 5,000 new jobs which corresponds to 38% and 22%, respectively, of the targets set. The evaluations report an apparent tendency for a large project that was already running before the programme was initiated to be organised in a more professional way and to be more easily capable of mobilising regional actors and arranging co-financing. Furthermore, it seems to take longer than expected to achieve the goals or indicators set.

The main challenges facing EU Cohesion Policy Programmes in their aim to contribute to the improvement of the EU’s innovation potential are the following.

In the current programming period the role of ERDF in supporting innovation has grown substantially in Sweden. However, the organisation and the institutional framework have not been adapted to the new situation. There is, for example, a mismatch in the time horizon between innovation and Structural Funds projects. Another problem is that the indicators used to evaluate the results of the projects reflect the pre-innovation period. They are more focused on growth than on innovation.

The second challenge is the correspondence between the intentions expressed in EU strategic guidelines and the content of the concrete co-financed projects of the programmes. A study of the projects financed as part of the programmes shows that quite a few projects seem to be reformulated versions of old ongoing projects. This may indicate that the capacity to formulate

new ideas and to develop them into new projects is a severe bottleneck. A significant gap between the rhetoric in the policy document and the practice in the projects financed under the programme is emerging. A study of the financed projects indicates the existence of such a gap even if it is not possible to estimate its size. However, one major challenge for a programme-based policy is to reduce the gap between the words in the policy documents and the practice in the projects.

1 NATIONAL AND REGIONAL INNOVATION POLICY AND THE CONTRIBUTION OF ERDF

1.1 NATIONAL AND REGIONAL INNOVATION POLICY

Introduction: actors, national and regional dimension of innovation

Sweden is one of the nations worldwide that spends most on research and development (R&D) in relation to GDP. Expenditures on R&D 2008 was 3.6% of GDP with the business sector accounting for approximately 75% of the expenditure and the higher education sector for 21%¹. Companies fund their own research but receive some contribution from the central government and from abroad.

The public sector finances R&D through grants paid directly to higher education institutions and through support for research councils and sectoral research agencies. In addition, several research foundations provide funding in excess of SEK 1 billion annually. The Minister of Higher Education & Research is responsible for overall coordination of research policy in the Government Offices. The greatest share of public funded research in Sweden is conducted via universities while Research institutes outside of higher education account for only a small share.

The former Swedish government presented an “Innovative Sweden” strategy in 2004. The strategy took a broad approach, even if the emphasis was mainly on issues in the education, research trade and industry policy areas.² The strategy was influenced by the Triple Helix concept and stressed that a cohesive policy aimed at facilitating renewal requires cooperation and interaction between people, enterprises, the education system and the public sector at national, regional and local levels.

The 2006 election produced a new majority and a new government, which has not presented any novel comprehensive national strategy for innovation. At the moment Sweden has only a number of targeted innovation strategies. A strategy for service innovations is one of them.³ The point of departure for this strategy is that Sweden has a strong tradition in the manufacturing sector while globalisation gives new opportunities to export also services in areas in which Sweden is weaker.

¹ Swedish National Research Portal, www.forskning.se

² Ds 2004:36 Innovative Sweden. A strategy for growth through renewal.

³ Näringsdepartementet “En strategi för tjänsteinnovation” Stockholm 2010..

The government considers innovative services the key to success in managing future challenges in Sweden. Thus, the conclusion is that Sweden does not have a separate explicit innovation policy. The innovation issues are integrated into research policy and to a large degree formed through initiatives taken by state agencies and research councils.

In addition to the government, some of the public agencies that are responsible for innovation, research, regional and industrial policy have their own strategies. The Swedish Governmental Agency for Innovation Systems (VINNOVA) is responsible for innovation linked to research and development. In their strategy the agency focuses on innovation in SMEs, innovation-based start-ups and regional mobilisations of resources and actors for innovation and competitiveness.⁴ One of its programmes, Regional Growth through Dynamic Innovation System, aims at promoting sustainable growth by developing internationally competitive research and innovation environments in specific growth fields in selected regions. The programme takes the form of a competition for regions and the 12 winning regions receive funding of up to SEK 10 million per year for a period of 10 years. VINNOVA states that regional strategies should, to a significant extent be aimed towards investments in innovation and that regions, when working out their strategies, should carefully consider combining national money with ERDF resources. A number of these initiatives are also supported by regional programmes under the competitiveness objective.

As a complement to VINNOVA's support of need-driven research the Swedish Research Council supports basic research of the highest quality in academic disciplines such as humanities & social sciences, medicine, natural and engineering sciences. Their strategy aims at supporting research in order to promote quality of life and innovative capability and economic growth⁵. Annually the Research Council allocates approximately 4 billion SEK (around EUR 420 million) to funding research and research information. Sectoral research agencies fund R&D aimed both at meeting the knowledge needs of individual sectors and at fostering the development of society. In all of Sweden there are 20 sectoral research agencies with resources for R&D. County councils and municipalities also fund research, mainly in health care and social services. Jointly with regional R&D units, the municipalities and county councils allocate about SEK 2.7 billion (around EUR 285 million) a year to R&D.

In addition to VINNOVA, with its focus on research based innovations, there is a state agency responsible for enterprises and competitiveness. The Swedish Agency for Economic and Regional Growth (Tillväxtverket) aims at increasing the number of enterprises, promoting growing enterprises as well as sustainable competitive business and industry throughout Sweden. Stimulating and encouraging more innovation is one of measures to achieve this. The regional dimension is present in most of the activities of Tillväxtverket. This agency is also the Managing

⁴ Vinnova Research, Development and Innovation: Strategy Proposal for Sustainable Growth, Stockholm 2009.

⁵ Vetenskapsrådet forskningsstrategi 2009–2012 Stockholm. 2007

Authority for the Structural Funds. The priorities are decided by the eight Structural Fund partnerships, one for each of 8 NUTS2 regions.

In addition to the targeted strategies mentioned above the Swedish government has also presented The National strategy for Regional Competitiveness, entrepreneurship & employment⁶, which is the basis for the regional programmes financed by ERDF. Innovation and Renewal is one of the four priorities in this strategy. The Government stresses in particular the importance of an Innovative Environment and Entrepreneurship as key areas in the national strategy.

The National Strategy For Regional Competitiveness

In the National strategy for regional competitiveness, entrepreneurship & employment 2007–2013⁷, the Swedish government states that the overall national growth is dependent on the growth generated locally and regionally. Therefore, competitive regions are seen as a prerequisite for Sweden as a whole to become competitive and the national strategy aims at creating competitive regions in all parts of Sweden. In order to achieve this the government identified a series of priorities for the period 2007–2013. This national strategy forms a basis for implementing the Structural Funds in Sweden and provides guidance for regional growth programmes and for national authorities.

The following five priorities are described in the National Strategy:

1. Innovation and renewal
2. Improvement of skills and improved labour supply
3. Accessibility
4. Strategic cross border cooperation
5. Sparsely populated regions in Northern Sweden and city conditions

In the innovation and renewal priority the government emphasises Innovative environments and entrepreneurship as particularly important areas. They consider a strong capacity for innovation and renewal as crucial for regional competitiveness and entrepreneurship. A successful interaction between research, business, the public sector and political institutions is seen as a key requirement for an effective innovative regional environment. The underlying view is that innovations are rarely isolated chances, but rather tend to come about when a number of players collaborate. That means that a region's ability to develop innovations depends on how well different players interact with each other. Such interaction is considered of the utmost importance in developing successful regional systems of innovation and innovative clusters,

⁶ En nationell strategi for regional konkurrenskraft, entreprenörskap och sysselsättning 2007–2013

⁷ En nationell strategi for regional konkurrenskraft, entreprenörskap och sysselsättning 2007–2013

The strategy also recognises the fact that Sweden has few growing SMEs and considers that further improvement in the climate for entrepreneurship is needed. Because entrepreneurship and innovation are considered closely related in the strategy, efforts to increase entrepreneurship are also expected to encourage innovation.

Based on the national strategy of Innovative environments and entrepreneurship, 18 guidelines for regional structural fund programmes were identified: These guidelines can be summarized into 5 macro categories.

- Promoting cooperation between research and development, industry and the public sector within innovation systems and clusters.
- Encouraging the capacity for innovation in industry
- Promoting knowledge transfer between universities and industry and in networks of enterprises
- Exploiting the opportunities in the transition to sustainable development
- Promoting entrepreneurship.

The Regional Programmes for Regional Competitiveness and Employment

In the national strategy the government states that due to the fact that the regional conditions for growth varies considerably between regions each region is expected to develop a programme that based within the framework represented by the national strategy, but on its own unique features. A policy adapted to the specific regional conditions is seen as a prerequisite for making entrepreneurs and businesses able to succeed in their efforts. The National strategy for regional competitiveness, entrepreneurship and employment has been implemented at the regional level in each regional programme taking into account the situation prevailing in each NUTS 2 region. The national strategy expects each region's specific conditions for regional development and its comparative advantages to be considered in the programmes. However, in reality, in most of the programmes little attention is paid to what they consider to be the unique features. From this point of view, the program for Stockholm is an exception. It is based on the fact that Stockholm is a metropolitan region and looked upon as Sweden's engine of growth. The characteristic of the Stockholm programme is that it is highly focused on efforts to promote the competitiveness of SMEs. The unique elements of the different regions play a less prominent part in the other programmes, at least when it comes to objective and priorities.

The SWOT-analysis undertaken by each of the NUTS 2-regions was a tool for identifying the comparative advantages of the different regions. However, the method used to define strengths and weaknesses are not described. In most cases the approach is subjective and impressionistic. The strengths are factors considered so by the persons involved in the work on the programme. One surprising result of the method used is that six of the seven regions that carried out a SWOT-

analysis consider top universities and research milieus as strengths. Only Stockholm, which in fact has the largest and strongest research milieu in Sweden, does not include this factor among the strengths.

As can be expected, all programmes are strongly influenced by the national strategy, both when it comes to the concept used and the priorities made. In all regional Swedish Structural Funds programmes, innovation and renewal is considered the single most important element for increasing regional competitiveness. The dominant view is that there is a need for joint cooperation in the innovation system with a Triple Helix perspective. The importance of closer relations between university, society and industry to establish an interesting research environment and to contribute to the development of new innovative products and services is also stressed. In one of the regional programmes it is mentioned that they are preparing a Regional Innovation Strategy. In some other Swedish regions they have established traditions of collaboration between Academy and Businesses.

The main idea of the intervention, as expressed in the programmes, is to strengthen the innovation capacity of existing businesses, stimulating the growth of new businesses and attracting skills, capital and companies to the region. The regions see a need to strengthen and establish embryonic and innovative environments and contribute to increased commercialization of research results and contribute to the development of new products and services by developing the innovation infrastructure and skills.

Table 1 (Annex A) shows that 60% of total ERDF resources of the eight operational programmes are allocated to innovation. In total about €123 million, approximately 50% per cent from ERDF, has been allocated to innovation measures. It is worth noting however that a relatively broad definition of innovation is used in this paper and all measures for stimulating entrepreneurship and supporting collaboration are included in the innovation category. Nevertheless, some of these measures, aiming at strengthening the competitiveness of the regions may not focus directly on innovation. One of the evaluators sent a questionnaire to the project leaders for all the projects in the regions they assessed asking if they thought that the project they were responsible for was about improving the conditions for innovation. The answers illustrate the difficulties encountered in identifying innovation projects. 73 per cent of the respondents in Scania–Blekinge answered that their project aimed at improving conditions for innovation. A detailed analysis came to the conclusion that a significant number of respondents had misunderstood the question. Correcting the misunderstandings the number of innovative projects were reduced to 65 per cent.⁸

⁸ Tillväxtverket. *Följeforskning i programområde Skåne–Blekinge. Stockholm 2010.*

For each of the NUTS2–regions there is a regional programme for the structural funds. In each regional programme the Innovative portion is predominant with a total share of 60 % of the total expenditures.

In the regions Upper Norrland, Mid Norrland and East Central Sweden 30–40 per cent of the innovation projects are focused on research at universities, 50–70 percent of the projects are in the commercialization phase, a majority of them being commercialized by existing firms.

In the regions North Mid Sweden and East Central Sweden 84 per cent of the projects have SMEs as a primary target group and the main approach is to build social infrastructure, such as arenas for meetings and social networks, and to support cooperation with local universities.

The programme for the Stockholm region is less focused than the other programmes. The resources from ERDF are rather evenly distributed over the three priority areas. 40 per cent is allocated to Innovative milieus in the region, 32 per cent to business development and 24 per cent to accessibility.⁹ The main efforts to strengthen the Stockholm region as an innovative milieu takes the form of stimulating collaboration between firms and between firms and universities and the support of networks.

About half of the projects in Smaland and the Islands concern innovations. This is significantly lower than in Scania–Blekinge and West Sweden¹⁰. It reflects the industrial structure in the region that is dominated by a large number of SMEs with low R&D investments and few relations with universities. The assessment group concludes that the innovation projects focus on what they call “concrete development activities”.¹¹

The allocation pattern in Scania–Blekinge shows some similarities with the one in Stockholm. Less than 50 per cent of ERDF resources are used for stimulating innovation. Most of the resources (52%) are used to improve accessibility in the region and for specific efforts in the Malmö region.

The West Sweden region has the highest share of innovation projects in Sweden. Projects dealing with development of new production processes are more salient than in the other Swedish regions, which may reflect the industrial structure in the region.

1.2 ERDF CONTRIBUTION ACROSS POLICY AREAS

Overall

From the point of view of the categories of expenditure which help to measure the contribution that programmes and projects co–financed by the EU Cohesion Policy make towards creating

⁹ Tillväxtverket Regionalt strukturfondsprogram för regional konkurrenskraft och sysselsättning i Stockholm. Stockholm 2007.

¹⁰ Tillväxtverket Följeforskning I programområde Småland och öarna. Stockholm 2010.

¹¹ Ibid. page 36.

growth and jobs (see annex C), research and technological development (RTD), innovation and entrepreneurship is the most important priority theme. In total, it gathers more than 90% of EU Cohesion Policy resources. 9% are allocated to information society and the remaining one 1% is used for developing human potential in the field of research and innovation (human capital).

Looking at allocation from the point of view of the three policy areas used in the present study (see annex B) –innovation friendly environment, knowledge transfer and support to innovation poles and clusters, boosting applied research and product development – we find that the policy area boosting applied research and product development will receive 36 per cent of the total resources. In this area, other measures to stimulate research and innovation and entrepreneurship in SMEs is the largest category (43% of the total) followed by investment in firms directly linked to research and innovation (23%), research and technological development in research centres (18%), assistance to SMEs for the promotion of environmentally–friendly products and production processes (16%).

Knowledge transfer is the second largest policy area which will receive 35% of the resources from ERDF. Nearly half of these are allocated to technology transfer projects, 31% to R&D assistance and 22% to R&D infrastructures and centres of competence in specific technologies.

Innovation friendly environment is the smallest policy area and receives only 30% of the total resources. Most of the resources in this area (55%) are used to finance support services for firms and groups of firms. The remaining 45% are devoted to the development and use of information technology; primarily to projects concerning services and applications for SMEs (3/4) and citizens (1/4).

Regional breakdown

Based on data from Tillväxtverket, considering innovation projects approved by the Regional Funds Partnerships until July 2010, a picture of the regional profiles can be shown.

At the national level resources are relatively evenly distributed between the three policy areas. The regional picture seems to be radical different. Two regions allocate more than half of the total resources to one single policy area. Two regions allocate less than 10 per cent to one of the policy areas. These differences reflect different regional conditions, different perspectives on how to stimulate innovations and entrepreneurship, and different strategic approaches.

Exhibit 1. Allocation of innovation related support in the NUTS 2 regions in Sweden (percentage of resources to innovation in each of the region)

	Environment	Knowledge transfer	Boosting applied R&D
Upper Norrland	42	30	28
Mid Norrland	43	21	36
North Mid Sweden	10	45	45
East Central Sweden	15	39	46
Stockholm	57	21	18
West Sweden	23	42	34
Smaland & Islands	31	8	61
Scania & Blekinge	48	26	26
Sweden	29	36	35

In Mid Norrland efforts to strengthen the competitiveness of existing industry are the most important priority. The innovation projects in Mid Norrland are focused on existing firms and collaboration between industry and the universities is supported as a means to strengthen the knowledge base in existing firms. The innovation projects are primarily oriented towards the early stages of the innovation process. Initiatives taken to build regional systems of innovation in this stage have taken the form of efforts to expand the research capacity at the universities. This is reflected in the fact that the local university has received more than 30% of the allocated resources. One typical example of such a project is “The forest as a resource”, which is one of the profile areas of the local university. The research project financed by ERDF has a broad approach aimed at supporting the forest industry and interrelated industries in the region. It is worth noting that the regions of Upper Norrland, Mid Norrland and North Mid Sweden do not only have more money, compared to the other Swedish regions, but as regions belonging to the former objective 6 area, they also have extensive experience of the structural funds programmes.

Region North Mid Sweden and East Central Sweden are use a low proportion of the resources for the policy area “Innovation friendly environment”. Both regions also give substantial support to two of the winning initiatives in Vinnova’s Vinnväxt competition – Fiber Optic Valley in North Mid Sweden and Robotic Valley in East Central Sweden.

The high figures for knowledge transfer and boosting applied R&D in West Sweden shows that the program is highly integrated into the already existing regional innovation system which are built on on-going long-term collaboration between academia, a well-developed research sector and an R & D-intensive industrial sector dominated by transnational corporations.

Stockholm and Scania-Blekinge focus their programmes on the policy area ‘innovation friendly environment’. Stockholm allocates almost 60 per cent of the resources to that area and Skåne-Blekinge almost 50 per cent. It should be underlined that Stockholm has, in economic terms, the smallest programme in Sweden which makes it necessary to concentrate the efforts. In this programme the policy-makers conclude that Stockholm, as a metropolitan region, has the density and variety that is necessary for an innovative climate. In addition there is a strong concentration

in the region of excellent research centres, which creates a good access to knowledge and competence. Based on these initial circumstances the main priority in the programme is to create better conditions for international competitive clusters and system of innovation and to support development of new regional profile areas and specialisation. One project that exemplifies the profile of the Stockholm programme is “Stockholm Med Tech Growth”. The project offers MedTech-firms with international growth potential support in relation to export promotion and development of strategies for internationalisation. Efforts are also made to support cooperation between industry, universities and research hospitals in order to improve the conditions for clinical research and testing and to speed up the process.

The profile of the programme for Smaland and the Islands differs from that of the other regions. About 60 per cent of the resources are used for boosting applied research and product development while only 8 per cent are allocated to knowledge transfer and support to innovation poles and clusters. These priorities reflect the industrial structure of the region dominated by a large number of SMEs with low R&D investments and local universities not used to interacting with industry. Based on this, there is a need for efforts to bring the universities and the industry in the region in closer contact and to strengthen applied research relevant to existing industries in the region.

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

2.1 ACHIEVEMENTS UNDER THE COMPETITIVENESS OBJECTIVE

Our study is based on the reports from the on going evaluations and research reports from Sweden's eight NUTS2 regions. The three assessments groups¹² evaluating the eight regional programmes will publish in total five reports. Up till now three reports have been published, the first one in December 2009, the second one in March 2010 and the latest report, published in June 2010, includes a special study of the Innovative parts of the eight regional programmes, partially funded by the ERDF.¹³

¹² Ledningskonsulterna i Stockholm AB evaluates Upper Norrland and Mid Norrland, IM-gruppen/PwC North Mid Sweden, Stockholm, and East Central Sweden and SWECO Eurofutures West Sweden, Smaland-Islands and Scania-Blekinge.

¹³ Tillväxtverket *Utvärdering av den Europeiska regionala utvecklingsfondens program för Övre Norrland, Mellersta Norrland, Norra Mellansverige, Stockholmsregionen, Östra Mellansverige, Västsverige, Småland med Öarna, Skåne-Blekinge. Delrapport 1.* Stockholm 2009; Tillväxtverket *Utvärdering av den Europeiska regionala utvecklingsfondens program för Övre Norrland. Mellersta Norrland, Norra Mellansverige, Stockholmsregionen, Östra Mellansverige, Västsverige, Småland med Öarna, Skåne-Blekinge. Delrapport 2.* Stockholm 2010; Tillväxtverket *Utvärdering av den Europeiska regionala utvecklingsfondens program för Övre Norrland, Mellersta Norrland, Norra Mellansverige, Stockholmsregionen, Östra Mellansverige, Västsverige, Småland med Öarna, Skåne-Blekinge. Delrapport 3.*

The aim of these assessments is to describe, analyse and evaluate the implementation and the outcomes of the programmes. The work is based on documentation analysis, questionnaires and personal interviews. This approach has some limitations when it comes to the results of the assessment. The documentation analysis is used to describe the content of the programmes and to assess if the projects supported are consistent with the intentions of the operational programme. Typically the standard conclusion in the evaluations is that the programme, to date, is being developed in accordance with the intentions determined in the governing documentation. The questionnaire and personal interviews are used to get information on the progress of the projects and on the project leaders expectations about the outcome of the project. Thus the assessments focus on the correspondence between ongoing activities in the program and the operational programme documentation. The evaluations give no detailed information about the specific measures used in different projects.

One problematic factor in using the evaluation reports is the differences in the approaches used by the three assessment groups, which to some degree hamper comparisons between them. The mainly qualitative approach of the assessment makes it difficult for the reader to evaluate the empirical base for the evaluator's conclusions and recommendations.

The aim of this section is to analyse the performance of the innovation measures. The logical way to organise this discussion would be to start from the three policy areas (Innovation friendly initiatives, knowledge transfer and boosting applied research) and summarize what the evaluations say about them. The problem with such an approach is that the material in the Swedish evaluations is not organized in a way that makes this possible. The Swedish projects are classified in two main groups – innovation and renewal and accessibility. We may assume that we can find the innovation project in the first category. This category can be further divided into subgroups. Two of the subgroups – entrepreneurship and innovative milieus – can be found in all programmes, while, in addition to this subgroups, some programmes have added unique priorities like promotion of growing enterprises, energy, social integration, international cooperation and regional attractiveness. The two main subgroups contain a wide spectre of different projects. For example, ICT Blekinge 2, a project in the subgroup entrepreneurship, aims at stimulating IT and telecom enterprises in Blekinge to spin off business ideas that do not belong to the core activity of the enterprise. The projects offer the potential entrepreneurs that are willing to take the chance to develop these ideas resources and support. The project attracts persons employed in it and telecom enterprises and persons that have been laid off from such firms. The project Genius Loci – the talent of a place is about making use of its unique characteristics. The focus is to stimulate entrepreneurship based on unique local resources like nature, culture and experiences. The e-factory is a project aiming at stimulating entrepreneurship in rural areas. The e-factory offers a platform on which entrepreneurs can develop web shops and an incubator that can offer coaching, financial support and advice about business plans etc. Universities play a central role in many projects in the innovative milieu subgroup. Two examples of this are Processes and relations in Sweden, draft version October 2010

innovative milieus and NovaMedTech. The aim for the first project is to develop and coordinate incubators with close connections to universities. The ambition is to strengthen the flow between researchers and science parks. In seminars and workshops innovators and entrepreneurs are coached in groups. NovaMedTech – new medical technical products – aims at creating a network of actors from health care, research and business that can identify innovations and make clinical tests, commercialise them and introduce them into health care. Project groups consisting of representatives from research, health care and industry undertake concrete projects. A third example of projects in the subgroup innovative milieu is ICT Southern Sweden that aims at attracting investors in telecom and information technology to south Sweden. The ambition is to market the region in order to increase knowledge about the dynamic it–cluster in the region in order to create an internationally recognised trademark.

The two main indicators used for evaluating the impact of the Swedish programmes are number of new firms and new jobs. In the July evaluation it was stated that the programmes in five of the regions had created 3,700 new firms and 5,000 new jobs which correspond to 38% and 22% of the target. One of the assessment groups has chosen to focus on the number of firms and jobs that representatives from ongoing projects assume will be created. In these three regions the expected number of firms are 3,000 and the expected number of new jobs are 9,000 which corresponds to 100% and 95% of the target. These figures must be taken carefully. It is almost impossible to judge what would happen without a programme and thus identify how many firms and jobs it created and it is even more difficult to estimate how many firms and jobs an ongoing project will create in the future. Besides, it is reasonable to assume that the project leaders are biased in their predictions.

It seems that the most common working method is to create local networks. One of the assessment groups focusing on working methods found that this method was used in 75% of the projects in the regions they studied. They also found that the number of new networks in the regions had already exceeded the target in 2009, by more than 200%.

The conclusions from the evaluations can be summarized in the following way:

- The programme achieves results to a large extent by strengthening competitiveness in existing firms and industries and the results in existing industries cannot be measured on a programme level with existing indicators (Upper Norrland, Mid Norrland).
- Firms created within the new venture creation projects are generally “better off” than those created without assistance but the results are founded on financial means that will not be available in the long–run and thus probably produce “result–bubbles” (Upper Norrland, Mid Norrland).

- Projects created on the basis of existing development processes, and with strong anchoring amongst regional companies, would appear, to a large extent, to contribute to innovations (North Mid Sweden).
- Concrete and close business related activities appear to have a positive impact on companies' ability to create innovations in comparison with a general expansion of knowledge (North Mid Sweden).
- Projects with a strong regional anchoring build upon existing structures and undertaking concrete and business related activities appear to have a greater potential to achieve measurable results (Stockholm).
- Large project that were running before the programme seems to be organised in a more professional way and can more easily mobilise regional actors and co-financing (East Central Sweden, Stockholm).
- It seems to take longer time than expect to achieve the goal/indicators. (Scania and Blekinge, West Sweden, Smaland and the islands).

3 CONCLUSION: MAIN CHALLENGES FACED BY COHESION POLICY PROGRAMMES

In the current programming period the ERDF has gained an important role in financing innovation projects. However, the organisation and the institutional framework have not been adapted to the new situation. The new focus of EU Cohesion Policy shed light on some weaknesses in the Swedish system.

There is a mismatch between innovation projects and Structural Funds projects in relation to the time horizon. Most innovation projects, especially those addressing the innovation environment, have a significant longer time horizon than Structural Fund programmes. There is an obvious threat that promising projects aimed at strengthening the innovation milieu will be interrupted just because a new period starts and before the expected achievements are reached. With the existing institutional framework the EU Cohesion Policy finances early stages of efforts to improve the innovative potential of EU. In such a context it is important that other sources of support take the role of bringing the work to a successful end.

Another issue is that the indicators used to evaluate the results of the projects reflect the pre-innovation period. They are more focused on growth than on innovation. Of course, innovation is seen as a tool for stimulating growth. The causal link from innovation to growth goes through many possible intermediary variables and as a result an improved innovative potential will not manifest itself in increased employment or new firms. There is a need for more sophisticated indicators than the ones used at the moment.

The second challenge concerns the correspondence between the intentions expressed in the EU's strategic guidelines and the content of the concrete projects co-financed by the programmes. The basic idea with a programme –based policy like the cohesion policy is that projects should be formed based on the directives expressed in programmes which in turn are formulated within the framework presented in the policy documents from EU. The basic idea is that the projects are developed with the ambition to transform the idea in the programmes into concrete actions. A study of the project financed in the programmes gives an impression that, among the project financed, there are a significant number of re-used projects. Quite a few projects seem to be reformulated versions of old ongoing projects. It may indicate that the capacity to formulate new ideas and to develop them into new project is a severe bottleneck. If this is the case, the guidelines for the programme work will influence the words used in the project description in the applications rather than their actual content. Writing a project proposal will mainly be a rhetoric exercise. In this way a significant gap between the rhetoric in the policy document and the practice of the projects financed in the programme is evolving. A study of the financed project indicates the existence of such a gap even if it is not possible to estimate its size. However, one major challenge for a programme–based policy is to reduce the gap between the words in the policy documents and the practical application of the projects.

REFERENCES

A national strategy for regional competitiveness, entrepreneurship and employment 2007–2013.

Stockholm

Ds 2004:36 *Innovative Sweden. A strategy for growth through renewal.*

Näringsdepartementet *En strategi för tjänsteinnovation* Stockholm 2010..

Tillväxtverket *Utvärdering av den Europeiska regionala utvecklingsfondens program för Övre Norrland. Delrapport 1.* Stockholm 2009

Tillväxtverket *Utvärdering av den Europeiska regionala utvecklingsfondens program för Övre Norrland. Delrapport 2.* Stockholm 2010

Tillväxtverket *Utvärdering av den Europeiska regionala utvecklingsfondens program för Övre Norrland. Delrapport 3.* Stockholm 2010

Tillväxtverket *Utvärdering av den Europeiska regionala utvecklingsfondens program för Mellersta Norrland. Delrapport 1.* Stockholm 2009

Tillväxtverket *Utvärdering av den Europeiska regionala utvecklingsfondens program för Mellersta Norrland. Delrapport 2.* Stockholm 2010

Tillväxtverket *Utvärdering av den Europeiska regionala utvecklingsfondens program för Mellersta Norrland. Delrapport 3.* Stockholm 2010

Tillväxtverket *Utvärdering av den Europeiska regionala utvecklingsfondens program för Norra Mellansverige. Delrapport 1.* Stockholm 2009

Tillväxtverket *Utvärdering av den Europeiska regionala utvecklingsfondens program för Norra Mellansverige. Delrapport 2.* Stockholm 2010

Tillväxtverket *Utvärdering av den Europeiska regionala utvecklingsfondens program för Norra Mellansverige. Delrapport 3.* Stockholm 2010

Tillväxtverket *Utvärdering av den Europeiska regionala utvecklingsfondens program för Stockholmsregionen. Delrapport 1.* Stockholm 2009

Tillväxtverket *Utvärdering av den Europeiska regionala utvecklingsfondens program för Stockholmsregionen. Delrapport 2.* Stockholm 2010

Tillväxtverket *Utvärdering av den Europeiska regionala utvecklingsfondens program för Stockholmsregionen. Delrapport 3.* Stockholm 2010

Tillväxtverket *Utvärdering av den Europeiska regionala utvecklingsfondens program för Östra Mellansverige. Delrapport 1.* Stockholm 2009

Tillväxtverket *Utvärdering av den Europeiska regionala utvecklingsfondens program för Östra Mellansverige. Delrapport 2.* Stockholm 2010

Tillväxtverket *Utvärdering av den Europeiska regionala utvecklingsfondens program för Östra Mellansverige. Delrapport 3.* Stockholm 2010

Tillväxtverket *Utvärdering av den Europeiska regionala utvecklingsfondens program för Västsverige. Delrapport 1.* Stockholm 2009

Tillväxtverket *Utvärdering av den Europeiska regionala utvecklingsfondens program för Västsverige. Delrapport 2.* Stockholm 2010

Tillväxtverket *Utvärdering av den Europeiska regionala utvecklingsfondens program för Västsverige. Delrapport 3.* Stockholm 2010

Tillväxtverket *Utvärdering av den Europeiska regionala utvecklingsfondens program för Småland med Öarna. Delrapport 1.* Stockholm 2009

Tillväxtverket *Utvärdering av den Europeiska regionala utvecklingsfondens program för Småland med Öarna. Delrapport 2.* Stockholm 2010

Tillväxtverket *Utvärdering av den Europeiska regionala utvecklingsfondens program för Småland med Öarna. Delrapport 3.* Stockholm 2010

Tillväxtverket *Utvärdering av den Europeiska regionala utvecklingsfondens program för Skåne-Blekinge. Delrapport 1.* Stockholm 2009

Tillväxtverket *Utvärdering av den Europeiska regionala utvecklingsfondens program för Skåne-Blekinge. Delrapport 2.* Stockholm 2010

Tillväxtverket *Utvärdering av den Europeiska regionala utvecklingsfondens program för Skåne-Blekinge. Delrapport 3.* Stockholm 2010

Vetenskapsrådet forskningsstrategi 2009–2012 Stockholm. 2007

Vinnova *Research, Development and Innovation: Strategy Proposal for Sustainable Growth.* Stockholm 2009.

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

The data on the ERDF resources allocated cover the FOI codes defined as being relevant for support of RTDI, or, more precisely, those that cover the bulk of resources devoted to innovation (see annex B for the list of codes). Experts should assess the appropriateness of this common definition and, if necessary, adjust the coverage to the national case in consultation with the core team. Note: experts should complete the final column only in respect of the National and Regional programmes totals and not for each regional programme.

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

Programmes	Total ERDF resources for innovation	Innovation support as % of total ERDF	Main initiatives* being undertaken or implemented
Regional programmes			
Skåne-Blekinge	33 272 728	47,1	Innovation and renewal
Småland och Öarna	37 900 000	56,2	Innovation and renewal
Västsverige	47 622 944	74,9	Entrepreneurship and innovative business, collaboration initiatives and innovative environments
Östra Mellansverige	55 909 807	69,0	Innovative environments
Stockholm	16 411 130	43,7	The innovative environments of the Metropolitan area.
Norra Mellansverige	107 288 324	55,0	Business Development
Mellersta Norrland	101 096 050	57,2	Renewal of industry, energy and environment driven development
Övre Norrland	166 113 081	68,5	Innovation and renewal
<i>Total Convergence Obj.</i>			
<i>Total Competitiveness Obj.</i>	565 614 064	60,5	
<i>Total country</i>	565 614 064	60,5	

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

Source: core team on EC data.

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

Table 2 – ERDF contribution to innovation by policy area (2007–2013)***b – Competitiveness and Employment Objective***

Policy area	Categorisation of expenditure (corresponding FOI codes)	Total ERDF
Innovation friendly environment	05	88 806 209
	11	13 483 838
	12	12 786 561
	13	9 574 439
	14	25 905 368
	15	10 454 418
	74	
Knowledge transfer and support to innovation poles and clusters	02	44 476 495
	03	93 408 360
	04	60 802 816
Boosting applied research and product development	01	36 190 420
	06	33 130 626
	07	48 230 626
	09	88 363 943

Source: core team on EC data.

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

Policy area	Short description
Innovation friendly environment	<p>This category covers a range of actions which seek to improve the overall environment in which enterprises innovate, and notably three sub groups:</p> <ul style="list-style-type: none"> • innovation financing (in terms of establishing financial engineering schemes, etc.); • regulatory improvements and innovative approaches to public services and procurement (this category could notably capture certain e-government investments related to provision of services to enterprises); • Developing human capital for the knowledge economy. This category will be limited to projects in higher education aimed at developing industry orientated courses and post-graduate courses; training of researchers in enterprises or research centres. <p>The category also covers initiatives geared towards improving governance capacities for innovation and knowledge policies (e.g. specific technical assistance funding, support for regional foresight)</p>
Knowledge transfer and support to innovation poles and clusters	<p>Direct or indirect support for knowledge and technology transfer:</p> <ul style="list-style-type: none"> • direct support: aid scheme for utilising technology-related services or for implementing technology transfer projects, notably environmentally friendly technologies and ITC; • indirect support: delivered through funding of infrastructure and services of technology parks, innovation centres, university liaison and transfer offices, etc. <p>Direct or indirect support for creation of poles (involving public and non-profit organisations as well as enterprises) and clusters of companies</p> <ul style="list-style-type: none"> • direct support: funding for enterprise level cluster activities, etc. • indirect support through funding for regrouping R&D infrastructure in poles, infrastructure for clusters, etc.
Boosting applied research and product development	<p>Funding of “Pre-competitive development” and “Industrial research” projects and related infrastructure. Policy instruments include:</p> <ul style="list-style-type: none"> • aid schemes for single beneficiary or groups of beneficiaries (including IPR protection and exploitation); • research infrastructures for non-profit/public organisations and higher

	<p>education sector directly related to universities.</p> <p>Any direct or indirect support for the creation of innovative enterprises (spin-offs and start-ups)</p>
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Instruments	Short description
Infrastructures and facilities	<p>Building and equipment for laboratories or facilities for university or research centres,</p> <p>Telecommunication infrastructures,</p> <p>Building and equipment for incubators and parks for innovative enterprises</p>
Aid schemes	<p>Grants and loans for RTDI projects</p> <p>Innovative finance (venture capital, equity finance, special bonds, etc.) for innovative enterprises</p>
Education and training	<p>Graduate and post-graduate University courses</p> <p>Training of researchers</p>

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

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