



European Territorial Cooperation

Work Package 11

*Ex post evaluation of Cohesion Policy programmes
2007-2013, focusing on the European Regional
Development Fund (ERDF) and the Cohesion Fund
(CF)*

Contract: 2014CE16BAT047

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June 2016



EUROPEAN COMMISSION

Directorate-General for Regional and Urban Policy
Directorate B - Policy
Unit B.2 Evaluation and European Semester

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Case study: Interreg IVA North

Ex post evaluation of Cohesion Policy programmes
2007-2013, financed by the European Regional
Development Fund (ERDF) and Cohesion Fund (CF)
European Territorial Cooperation (Work Package 11)

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Luxembourg: Publications Office of the European Union, 2016

ISBN 978-92-79-61808-6

doi: 10.2776/67640

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Acknowledgements

Claire Nauwelaers (author of the case study) and Nelli Mikkola (contributor to the case study) wish to thank the Managing Authority of the Interreg IVA North programme for their cooperation in organizing the field work, as well as all individuals who gave their time for the interviews underpinning this case study. Their willingness to cooperate with the evaluation work has been highly appreciated and insights provided by conversations held during the visits greatly helped to shape this evaluation report.

Executive Summary

The Interreg IVA programme North covers a large area with 1.5 million people, including the northernmost regions of Finland, Sweden and Norway. These share common challenges as well as opportunities related to their peripheral and sparsely populated character combined with specific geographical conditions (harsh climate, long distances, unique natural resources).

The programme has a small budget in comparison with other programmes from the A strand: the allocated EU contribution amounts to EUR 36 million, which is complemented by a total contribution from Norway of EUR 20 million.

The **strong orientation of the programme towards “Research, technological development, innovation and entrepreneurship”** (the focus of this evaluation) is reflected in the following figures: 34% of projects and 53% of programme expenses are devoted to this theme.

Cooperative applied research, gathering public research institutes and firms in the various countries, is the most frequent activity supported by the programme. Technological development and innovation are an important focus under the “economic development” priority (Priority 1), while business development is well integrated under the “R&D” priority (Priority 2). Innovation promotion and fostering entrepreneurship are also present within the Sápmi sub-programme, even if this represents a small share of projects.

Interreg IVA North has been successful in stimulating cross-border cooperation among enterprises: 241 companies have increased their turnover and 172 companies have started a new cross-border business as a consequence of the programme. “Enlarging the home market of companies” thanks to delivery of innovative products is a main benefit of this cross-border programme. The main benefit for companies involved in the projects consists in acquiring new contact networks and new collaborative partners.

Universities exploited complementarities in knowledge and skills over the border. Cooperating at this level is a stepping stone towards Nordic cooperation or EU Framework programme-type of cooperation.

The figures collected by the programme monitoring system provide concrete evidence on the results and impacts of the programme, such as: 126 new products; 21 new methods; 52 new services; 22 new products and services from Sami people; 67 new enterprises; 26 new enterprises by Sami people; 9 applications have been submitted and 2 approved to the EU Framework Programme; 6 new joint education programmes. The programme also collects figures on new and lasting jobs created as a direct result of the programme’s funded projects: 63 new jobs in Priority 1, 28 new jobs in Priority 2, 10 new jobs in Priority 4. Even if there are problems with attributing such impacts to programme activities only, they are helpful to ascertain the strong focus of the programme on economic value creation through R&D, innovation and entrepreneurship.

Two factors were key to generating these impacts: **the appropriate strategic focus** of the programme on a few domains where cross-border added-value is expected to be highest, and **its selective character** (50% of submitted projects selected).

The programme has continued to bring together the northern regions, and further accentuate cross-border cooperation between stakeholders. According to most interviewees, a learning curve is at play amongst actors in the programme area: collaboration has evolved from a "getting to know each other" phase experienced in Interreg III towards a phase of "working together to achieve concrete results" during Interreg IV.

The value-added from cross-border cooperation experienced by project partners is clearly related to the presence of the programme: in an enquiry, 85% of project managers thought that the cross-border dimension helped to a high or very high degree to achieve results from the projects, while 50% of companies state the same. Most interviewees indicate that projects achievements could not have taken place without support from Interreg.

The reasons for achieving good results in terms of cross-border cooperation are linked to the favorable context of the North programme: there is a strong agreement throughout the area that cooperating across borders is beneficial. Actors clearly identify the value-added for cross-border cooperation in terms of building critical masses and exploiting complementarity through cooperating across borders. This means that projects submitted to the programme respond to real and well identified needs from project leaders and partners: the projects are less likely to be artificial than in regions where the cross-border value-added is less well identified.

There are success conditions for the programme to enhancing cooperation: an important one is the openness of universities and research organisations to businesses and their responsiveness to businesses' needs.

There are also limits to the action of the Interreg programme in fostering cooperation across borders: the geographical definition of eligible zones; the limitations with respect to eligible costs; and payment delays, which all impede the programme from delivering full contribution.

Four barriers to cooperation have been alleviated by the programme:

1. Lack of resources and reluctance of small companies to collaborate cross-border, alleviated through projects supporting cross-border partnerships.
2. Difficulties in identifying relevant partners over the border on the public research side, alleviated through the creation of network and bridging activities.
3. Different intensities of relationship between academic organisations and industry in the different countries: this barrier has been removed through projects supporting cooperative research.
4. Physical distance barriers: these are hard to tackle, but they are accepted as a necessary feature in sparsely populated areas. Active cross-border collaboration / Interreg collaboration has contributed to the establishment of new airline connections between three main cities (Oulu, Luleå, Tromsø) in the northern cross-border area.

The main beneficiaries of the programme, seen from the angle of research and technological development, innovation and entrepreneurship, are: companies, universities and colleges, people living in the cross-border areas and public authorities:

- **Companies are the main beneficiaries at the core of the programme:** they have been very active in both Priority 1 and 2: a total of 211 companies participated in the programme's funded research efforts. Under Priority 1, companies are mostly SMEs, while Priority 2 involves large firms, primarily in basic industries. A specificity of the North programme is that it has succeeded to engage private actors directly in projects: this makes the transfer of knowledge and capacity to large and small firms possible as a direct result of the projects.
- **Universities and colleges are the second type of beneficiary:** they have been heavily engaged in projects with a business development focus, reflecting their good linkages with industry.
- **People living in the cross-border area** have been beneficiaries of the new learning created by the programme: 3168 persons were involved in cross-border exchanges of experience and knowledge related to innovation activities, entrepreneurship and/or innovation environment.
- **Public authorities** (municipalities and regional public organisations) are more active in Priority 1 than in Priority 2: they are often involved in initiatives targeting business development support or network promotion.

Swedish partners are better represented in the cross-border cooperation activities than partners from the two other countries, with the exception of Priority 2, where Finnish project leaders come on par with Swedish leaders. Overall, cooperation has been more intense between Swedish and Finnish partners, while the interaction with Norway was less natural due to several factors (long distance, impossibility to lead projects). However an increase in participation of Norwegian partners has been observed over the programming period thanks to the introduction of a priority criteria for projects involving the three countries.

The beneficiaries are mainly active in the fields of ICT and technology, and product and services within a sustainable energy system. **The field of cooperation between the base industry and SMEs has also been an important beneficiary.**

The programme shows good prospects for lasting cooperation:

- Business networks created on the basis of joint interest identification and trust created are likely to last thanks to joint business opportunities.
- Cooperation networks involving academia need the continuous support of public funding sources for their research activities from national or international sources. Involvement of users of research results in projects raises the likelihood of future funding to continue the cooperation. Another factor for ensuring sustainability is the clarity of projects' objectives.

Four specific characteristics of the North programme contribute to the high likelihood of continuation of the cross-border learning and cooperation mechanisms supported by the projects: 1) the favorable conditions and appetite for cross-border cooperation; 2) the economic orientation of the programme and the presence of private co-financing; 3) the focus on young people; and 4) the use of adequate selection criteria emphasising continuity.

In R&D, innovation and entrepreneurship, the continuation of projects takes the following forms, all of which imply future EU financing:

- 1) new projects in the form of further applied research collaboration between partners under Interreg V North;
- 2) continuation of cooperation under other EU-funded programs of the Interreg family: Interreg may act as seed money for testing partnerships with neighbours, extending projects further in the second step under the framework of trans-national programmes such as Baltic Sea, Northern Periphery and the Kolarctic programme;
- 3) submission of projects to the EU R&D Framework Programme: this is an option only available for a very limited number of projects.

The option of public national/regional funding sources taking the baton for Interreg interregional projects is not seen as realistic, as national money does not flow across borders. Besides, there is a consensus on the idea that the existence of Interreg projects, with their timeline and explicit actions and responsibilities formalised in a contract, is key to ensure tangible cross-border action (beyond good intentions).

Interreg IVA North plays a significant role in developing and implementing partnership projects with a cross-border dimension: all the interviewed lead partners are of the opinion that their projects would either not have taken place at all, or would have taken a place in a much more limited fashion, if they had not received an Interreg grant: domestic funding sources do not accommodate for such international partnerships, and combining these sources into a single project is a much too difficult task. The significant role played by the programme in implementing cross-border partnerships and projects can be evidenced thanks to impact indicators measuring achievements "that wouldn't exist without the project".

The North programme has a good monitoring system. It is one of the few programmes in Strand A that appropriately incorporates the three levels of indicators (outputs, results and impacts), connects them to the programme's objective and structure, defines realistic but ambitious targets, and includes indicators on sustainability and additionality, which are important quality criteria for an Interreg programme. There are also some weaknesses in the system:

- The robustness of some indicators can be questioned (e.g. there is an attribution problem with the indicator "new jobs and new enterprises creation", and a confidentiality barrier to collecting the indicator "cross-border business relationships");
- Important "soft" achievements of the programme cannot easily be incorporated into indicators (improvement of mutual knowledge between people over the border, evolution of mentalities becoming more favourable to cooperation).

Coordination with other Structural Funds programmes as well as programmes of the Interreg family is ensured:

- The Managing Authority has included the issue of coordination with other Structural Funds programmes and national/regional programmes in its procedures. This is valid both at the preparation stage (where the relevant regional authorities are involved) and at the implementation stage.
- The programme management takes into consideration the contribution of the programme to the EU Strategy for the Baltic Sea Region by ensuring that the range of selected projects contributes to that strategy.

The two programmes – the ERDF-funded regional programme for the region of Norrbotten in Sweden and Interreg programme North – display similarities, differences, and complementarities:

- The programmes are similar in terms of their focus on innovation and entrepreneurship and their strong business orientation.
- They differ in the nature of activities funded as far as the mainstream programme funds infrastructure while the Interreg programme does not. Another main difference between the two programmes, which is likely to generate a very different impact on the R&D, innovation and entrepreneurship theme, is budget size: the mainstream programme has a much larger budget than the Interreg programme. Furthermore, another (logical) difference is that the mainstream programme does not include any investment, project or initiative with a cross-border dimension. Also, the mainstream programme is easier to access than the Interreg programme because there is less competition.
- The complementarity between the two programmes is organized as follows: the mainstream programme helps actors to build capacity and enables them subsequently to enter into cross-border partnerships and develop projects to be funded by Interreg: the goal is that the mainstream programme creates “Interreg spin-offs”.

1. Introduction

This case study is part of the ex-post evaluation of all programmes in the period 2007-2013 aiming at promoting European Territorial Cooperation (ETC), also known as Interreg, with view to creating synergies and European value-added by eradicating internal borders and capitalizing on the existing assets of the whole territory of the Union. It is one amongst 9 case studies of programmes aiming at cross-border cooperation (Strand A of Interreg).

The purpose of this case study work in the overall evaluation is to deepen the analysis of the contribution of cross-border programmes to cooperation and to economic and social integration between European regions. This Task 2 of the overall evaluation is performed through a field analysis with a variety of programme stakeholders, complementing the first documentary analysis and interview with the Managing Authority previously carried out in the first Task of the evaluation.

The present case study provides an assessment of the North programme's main achievements, the cooperation mechanisms put in place, and their effects in terms of reducing barriers to cooperation and taking advantage of common opportunities. It also aims to identify the added value of such a programme in comparison with mainstream programmes at play in the same area.

This case study focuses on the R&D, innovation and entrepreneurship theme, which is one of the three themes in the overall Interreg evaluation.

1.1. Main features of the programme

The Interreg IVA programme North covers a large area with 1.5 million people, including the northernmost regions of Finland, Sweden and Norway (Figure 1)¹, which share common challenges as well as opportunities related to their peripheral and sparsely populated character combined with specific geographical conditions (harsh climate, long distances, unique natural resources).

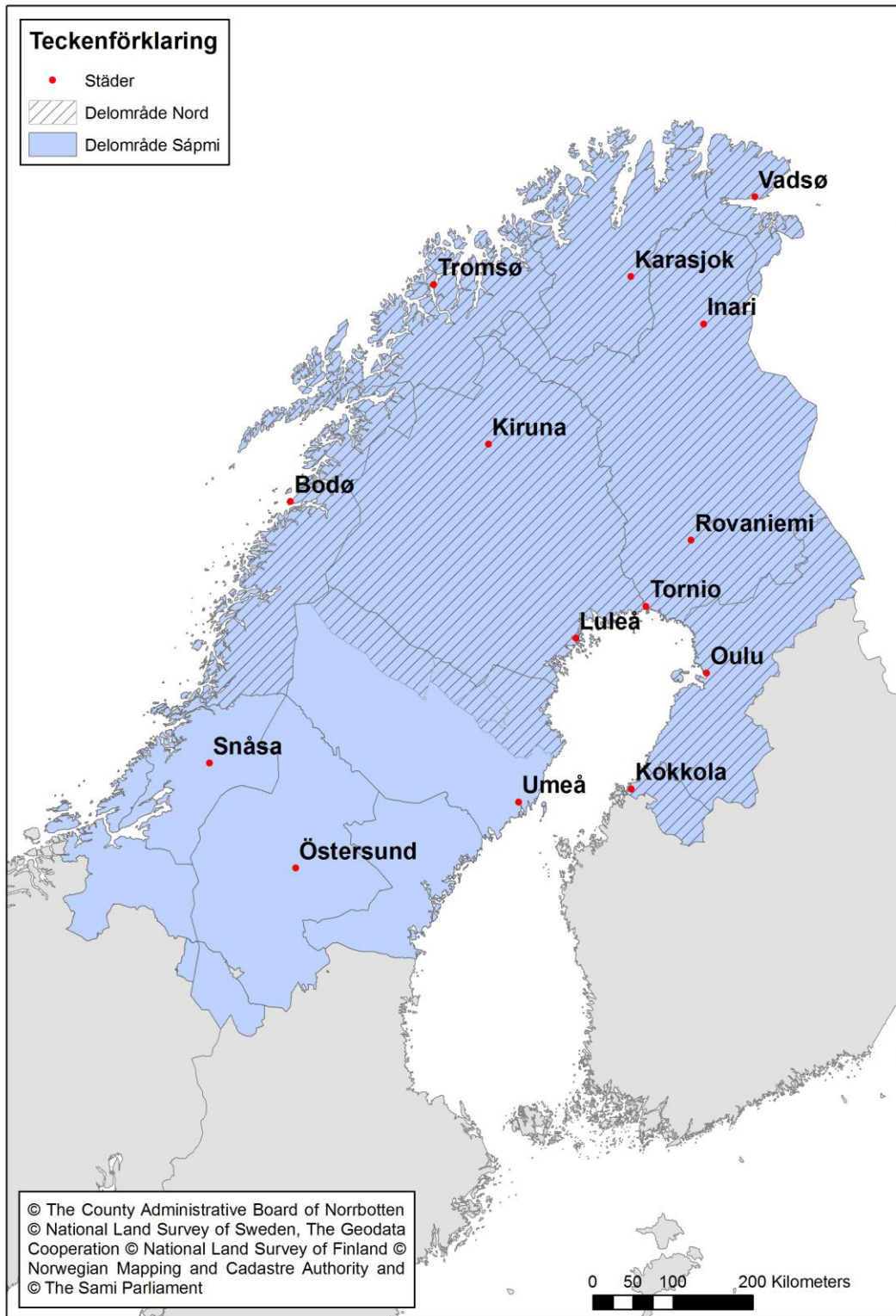
The North programme is divided in two sub-programmes:

- A main programme (North) dedicated to the promotion of regional development in the North area;
- A Sápmi sub-programme dedicated to the preservation and development of the Sápmi culture, trade and industry.

The most remarkable contextual conditions for this programme are: the low density, low connectivity and relatively high diversity of the area (Table 1).

¹ This includes: in Sweden, the whole county of Norrbotten and the municipalities of Skellefteå, Sorsele, Malå and Norsjö in the county of Västerbotten (other parts of Västerbotten are "adjacent areas"); in Finland, Lappland, Northern Österbotten and Central Österbotten; in Norway, the counties of Finnmark, Troms and Nordland.

Figure 1: Map of the eligible area Interreg IVA North



Source: Interreg IVA North OP.

Table 1 : Contextual conditions in Type 1 cross-border cooperation programmes

Type	Operational programme	Border	History	Institutionalisation	Development	Institutional power	Density	Connectivity	Diversity
Type 1 Old internal borders High degree of cooperation	Euregio Meuse-Rhin	Internal	Old	Institutionalized	Balanced	Mixed	High	High	Average
	Deutschland/Bayern - Austria	External	Old	Institutionalized	Balanced	Decentralized	Different	Low	Average
	Spain - Portugal	Internal	Old	Not institutionalized	Unbalanced	Mixed	Different	Average	Low
	Germany-The Netherlands	Internal	Old	Institutionalized	Balanced	Decentralized	Different	High	Average
	Öresund-Kattegatt-Skagerrak	External	Old	Institutionalized	Balanced	Mixed	Different	Low	Average
	Italy-France Alps	Internal	Intermediate	Institutionalized	Unbalanced	Decentralized	Different	Average	Average
	Northern Ireland, Border region Ireland and Wes	Internal	Old	Institutionalized	Balanced	Mixed	Low	Low	Low
	Syddanmark-Schleswig-K.E.R.N.	Internal	Old	Institutionalized	Balanced	Decentralized	Low	Average	Low
	France, Wallonia, Flanders	Internal	Old	Partly institutionalized	Unbalanced	Mixed	Different	High	High
	Sweden - Norway	External	Old	Partly institutionalized	Balanced	Decentralized	Different	Average	Low
	Alpenrhein-Bodensee-Hochrhein	External	Old	Partly institutionalized	Unbalanced	Decentralized	Different	Average	Average
	Botnia-Atlantica	External	Old	Institutionalized	Balanced	Mixed	Low	Low	Average
	North	External	Intermediate	Partly institutionalized	Unbalanced	Mixed	Low	Low	High
Upper Rhine	External	Old	Institutionalized	Unbalanced	Mixed	High	Average	Low	

Source: ADE expert team, Task 1 evaluation

The programme has a small budget in comparison with other programmes from the A strand: the initial allocated EU contribution amounts to EUR 34 million, which is complemented by an initial total contribution from Norway of EUR 17,3 million.² The respective figures at the end of 2014 are higher: EUR 36 million and EUR 20 million respectively. The level of financing of ERDF is 60%, with the exception of the Sápmi priority, which is financed at a rate of 65% by EU money.³

The programme is structured along the following 4 main priorities (and a fifth technical support line):

Priority 1: Trade and industry development (27% of EU contribution): this priority focuses on the development of new products and services; cross-border networks and business relations; and expansion of markets.

Objective: The region's enterprises shall in 2013 include more numerous and stronger companies operating in both new and established industries, regardless of administrative boundaries.

Target 1: Small and medium enterprises are developing new products and services within strategic development areas.

Target 2: Cross-border networks and business relationships are created between small and medium-sized enterprises.

² This figure includes co-funding.

³ Technical assistance is funded at a 50% rate.

Target 3: Small and medium-sized companies expand their markets within strategic development areas.

Priority 2: Research, development and education (27% of EU contribution): this priority promotes cooperation between research and education institutions, and between these institutions and the private sector with view to strengthening research and innovation beneficial to economic development.

Objective: The region's research and educational institutions should by 2013 have built up joint research and education environments that reinforce the region's competitiveness in the areas of strategic development and actively participate in the European research and education environment.

Target 1: The region's educational institutions are developing cooperation in strategic training areas.

Target 2: The region's research institutes develop joint research environments in business supporting research and innovation activities.

Target 3: The region's business community, public sector and research/educational institutions shall increase their knowledge about the mechanisms behind entrepreneurship, innovation and successful innovation environments.

Priority 3: Regional functionality and identity (27% of EU contribution): this priority focuses on cross-border solutions that facilitate exchanges and interactions within the area.

Objective: Cohesion in the region will have been strengthened through more cross-border connections and contacts, which aim to facilitate information transfer and movement of persons, services and goods across borders and to develop long-term cooperation relationships.

Target 1: Public and private actors jointly develop cross-border solutions that facilitate the transfer of information and movement of people and goods in the program area.

Target 2: Municipalities, agencies and organizations develop and deepen the cross border cooperation within services, infrastructure and authorities.

Target 3: Local and regional actors involved in cross-border activities stimulate cultural experience and knowledge in the program area.

Priority 4: Sub-programme Sápmi - borderless development (13% of EU contribution): this priority supports the establishment of cross-border networks and activities to develop the Sami economy and highlight and/or preserve the Sami culture.

Objectives: The Sami region 2013 will have strengthened Sami culture and industry by providing the conditions for broader and more structured business cooperation and focusing on the development of common solutions which are unique to the Sami culture.

Target 1: Increase enterprises by strengthening the traditional industries while developing new Sami economic activities.

Target 2: Develop cooperation through interaction between both Sami and other actors at local, regional and central level to coordinate resources and create enduring alliances.

Target 3: Highlight Sami conditions and living conditions in Sápmi and thereby help increase the world's knowledge of the Sami.

Target 4: Strengthen the Sami language.

Target 5: Develop cross border training, research and documentation for creating linguistic, cultural and entrepreneurial conditions.

The first three priorities receive almost equal budgetary weight in the programme. When Norwegian contribution is taken into account, the most important priority is Priority 1 (trade and industry development) (Table 2).

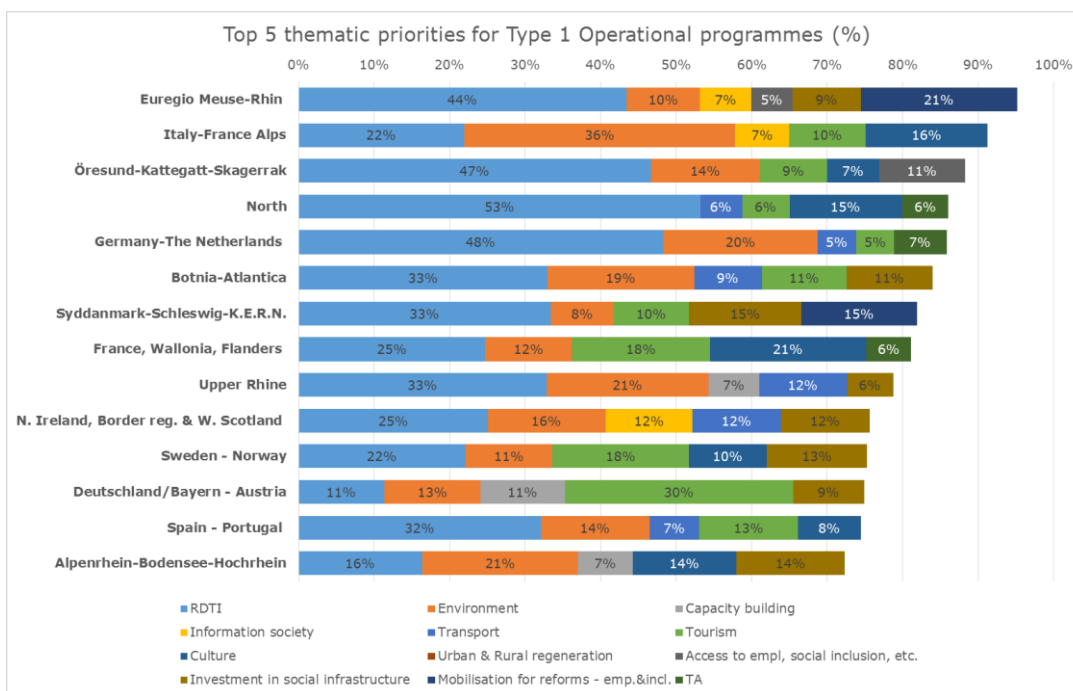
Table 2 : Priority axes and initial budgets in Interreg IVA programme North

Priority Axis	EU Investment (a)	National Public Contribution (b)	Total Public Contribution (c=a+b)	Norway (d)	Total including Norway (e=c+d)
1: Trade and industry development	EUR 9,095,705	EUR 6,063,803	EUR 15,159,508	EUR 5,678,832	EUR 20,838,340
2: Research, development and education	EUR 9,241,454	EUR 6,160,969	EUR 15,402,423	EUR 3,973,236	EUR 19,375,659
3: Regional functionality and identity	EUR 9,241,454	EUR 6,160,969	EUR 15,402,423	EUR 3,973,236	EUR 19,375,659
4: Sub-programme Sápmi borderless development	EUR 4,349,845	EUR 2,342,224	EUR 6,692,069	EUR 3,649,636	EUR 10,341,705
Technical assistance	EUR 2,037,988	EUR 2,037,988	EUR 4,075,976	-	EUR 4,075,976
TOTAL	EUR 33,966,446	EUR 22,765,953	EUR 56,732,399	EUR 17,274,940	EUR 74,007,339

Source: Interreg IVA North OP.

In terms of thematic orientation, the North programme is characterized by a strong dominance of the theme "R&D, technological development and innovation" (Figure 2). Priority 1 (Trade and industry development) and Priority 2 (Research, development and education) together account for 54% of planned funds distribution, reflecting a major focus on the programme on knowledge-based economic development. The only other theme that receives a higher than average priority as compared to the other Type 1 programmes is "culture", and this is due to the presence of the sub-programme Sápmi which places a high emphasis on this theme.

Figure 2 : Thematic priorities for Type 1 programmes in Strand A



Source: ADE, based on "Final version of the database produced under the WP13 of ex-post evaluation ERDF 2007-2013, DB_WP13_july_BE"

The governance of the programme is organized as follows. The County Administrative board of Norrbotten in Sweden (Luleå) acts as the Managing Authority for the programme. The programme secretariat is based at this body with an information office at the Regional Council of Lapland in Rovaniemi and a secretariat for Norway at the municipal council of Troms county: the latter are responsible for ensuring good participation of actors from these countries to the programme and act as brokers for project promoters looking for adequate partners. The secretariat for the sub-programme Sápmi is attached to the Sami Parliament of Sweden (Sametinget) based in Kiruna, Sweden. The Monitoring Committee, which meets at least once a year, includes an equal number of representatives from the three countries as well as a Managing Authority's representative. There are two Steering Committees, one for the North programme and one for the Sápmi sub-programme, they include representatives of the regional and local authorities from the programme area, report to the Monitoring Committee and are in charge of establishing prioritised lists of projects and of providing information about the programme.

1.2. Organization of the report

This report starts in Section 2 with the methodology adopted for the case study.

Section 3 is the core of the report. It is structured according to the evaluation questions as mentioned in the terms of reference (the order of the first two questions has been switched compared to the terms of reference). Each sub-section responds to each evaluation question in turn.

- Section 3.1 assesses what has been delivered by the programme and its impacts. It also provides an analysis of resources spent and types of activities supported (evaluation question b).
- Section 3.2 deals with impacts of the programme on cooperation practices in the area (evaluation question a).
- Section 3.3 appraises achievements in terms of learning and capacity and knowledge transferred (evaluation question c).
- Section 3.4 discusses sustainability of cooperation and learning and the extent to which these achievements are dependent on EU funding sources (evaluation question d).
- Section 3.5 discusses the issue whether the projects would have happened without the existence of EU funding, if there were no prior CBC programmes (evaluation question e).
- Section 3.6 assesses the quality of the programme monitoring system (evaluation question f).
- Section 3.7 investigates the value-added of the INTERACT programme to support the implementation of this programme (evaluation question g).
- Section 3.8 appraises the extent to which the objectives of this programme have been coordinated with those of other regional and national programmes active on the same territory (evaluation question h).
- Section 3.9 compares this programme with another programme in the mainstream of Cohesion policy – the Norrbotten Competitiveness programme in Sweden - and discusses how the two programmes differ in practice (evaluation question i).

2. Methodology

The team has developed a methodology to address the evaluation questions that takes into account the general finding from Task 1, namely that the quality of indicators and information in the Operational Programmes and Annual Implementation Reports is not sufficient to robustly assess the achievements of the programme. The main way to tackle this challenge lies in collecting additional qualitative information from the Managing Authorities, stakeholders in the cross-border region, and from people and organisations involved in projects funded by the programme. Deepening the analysis of the allocation of resources spent and of the types of activities supported, and carrying out an analysis of the projects database with a focus on R&D, innovation and entrepreneurship, will also contribute to an assessment of the results achieved by the programme. This will help to create a qualitative picture of results achieved by the programme, in the form of a narrative rather than of verified indicators.

A field visit of 5 days, from 24 to 28 August 2015, has taken place in order to collect additional documents and data and to interview the Managing Authorities of the programme and of one ERDF programme, as well as some of the main stakeholders involved in implementation or as project beneficiaries. The selection of projects was carried out before the visit through an analysis of the projects database and documentation from the programme, with the help of the Managing Authorities. The cooperation of the programme Secretariat has been very helpful to organize the schedule of visits and get the commitment of stakeholders. The full list of interviewed people as well as the field visit schedule are in [Annex 2](#).

3. Answers to the evaluation questions

This section responds to the evaluation questions listed in the introduction.⁴ Each subsection starts with the question copied from the terms of reference and then includes the analysis of the issue treated in the evaluation question.

3.1. Achievements and impacts of the programme

EVALUATION QUESTION

b) What has been delivered via cooperation, and what is its impact (e.g. in terms of R&D and innovation, enhanced administrative capacity, or better environmental status)?

3.1.1. What has been delivered via cooperation?

In total, the North programme funded 165 projects. Projects targeting R&D, innovation and entrepreneurship are concentrated under Priority 1 (development of trade and industry) and Priority 2 (research, development and education). Some relevant projects are also present, but with a more limited budget, under Priority 4 (the Sápmi sub-programme).

According to the KEEP database,⁵ 47 out of 139 projects,⁶ or **34% of projects, can be classified under the "R&D, innovation and entrepreneurship" theme**, taken in a broad sense. [Annex 1](#) provides an overview of those projects supported under this theme.

At the end of 2014, the programme had allocated EUR 19.2 million (EU funding) to this theme, out of its total allocated budget (EU funding) of EUR 36.1 million, that is **53% of the programme budget allocations**. Both figures concerning number and budget allocated to projects confirm the intention of the **programme to devote priority attention to the "R&D and innovation and entrepreneurship" theme in the range of cross-border cooperation activities**. Projects under this theme tend to be of larger size than projects under other priorities. This is especially true under

⁴ As mentioned in Section 1, the order of questions a) and b) has been switched in order to first provide an analysis of programme's achievements and impacts, which can be referred to when discussing impacts on cooperation more specifically.

⁵ In order to define the basis for analysis, the evaluation team has identified the "R&D, innovation and entrepreneurship" projects by retaining those projects characterized by the following keywords in the KEEP database: "Innovation capacity and awareness-raising"; "Knowledge and technology transfer"; «SME and entrepreneurship"; "Scientific cooperation"; "Clustering and economic cooperation. Projects that, despite being classified under the "SME and entrepreneurship" or "clustering and economic cooperation" keywords, did not present an innovation or entrepreneurship dimension were eliminated from the list. Conversely, some projects which were relevant for the theme according to their description, but without the keywords were added to the list. The comparison of this method based on project descriptions with the method using official Commission codes shows that they converge: the first method generates a figure on funding for the theme of EUR 18.5 million, the second EUR 19.2 million.

⁶ The KEEP database only includes 139 projects amongst the 165 projects that received funding from the programme (according to the latest AIR 2014).

Priority 2 (research, development and education), in which projects listed in [Annex 1](#) have an average size of EUR 475,000 compared to EUR 272,700 for Priority 1.

The programme supported the following types of activities (Table 3):

- Priority 1: cooperative applied research; establishment of technology platforms; support services to SMEs, entrepreneurship and business networking;
- Priority 2: collaborative applied research, technology diffusion in companies, support to entrepreneurship; joint education; technology platforms;
- Priority 4: promotion of innovative Sami business and entrepreneurship.

The examination of the portfolio of projects generates the following insights:

1. While Priority 1 focuses on business development and Priority 2 on research and education, similar projects are found under the two priorities, especially those projects **fostering cooperative applied research**. This type of project is the most frequent under both priorities. In all cases, the projects involve both research organisations and companies, but the role of public research actors is likely to be more important under Priority 2 than Priority 1, while the reverse is likely to be true for the role of companies. The same can be said for the projects of a **"technology platform"** type, present under both priorities. The above hypothesis is confirmed by data on private co-funding: private co-funding equals 17% of planned EU funding under Priority 1, while the respective figure is 4% under Priority 2. Despite these differences in emphasis, it is interesting to note that **technological development and innovation are an important focus under the "economic development" priority (Priority 1), while business development is well integrated under the "R&D" priority (Priority 2)**. This is well in line with the overall focus of the programme *"to be business-oriented and contribute to new and / or existing companies that manage to grow in competition with other companies, in the region and in other parts of the world"* (North Annual Report 2014).
2. **Promoting entrepreneurship** is the explicit focus of three projects under Priority 2, all of which target entrepreneurship within the education sector. Promotion of entrepreneurship under Priority 1 is integrated into larger initiatives aiming at supporting SMEs competitiveness and business development in general. While the major focus of these initiatives in Priority 1 is the promotion of cross-business trade, most of them also support innovation and entrepreneurship.
3. The fact that projects tend to be of a smaller size under Priority 1 compared to Priority 2 is explained by the fact that **many "economic development" projects deliver soft support to companies, while many "R&D" projects also include funding for equipment**.
4. Innovation promotion and increase in entrepreneurship is also present within the **Sápmi sub-programme**, even if this represents a small share of projects.

Table 3 : Types of intervention in Interreg IVA programme North in R&D, innovation and entrepreneurship

Intervention codes	Share in total budget
01: R&TD activities in research centres	18.7%
03: Technology transfer and improvement of cooperation networks	14.1%
04: Assistance to R&TD, particularly in SMEs (including access to R&TD services in research centres)	21.1%
05: Advanced support services for firms and groups of firms	28.9%
06: Assistance to SMEs for the promotion of environmentally-friendly products and production processes	0.1%
09: Other measures to stimulate research and innovation and entrepreneurship in SMEs	14.1%
72: Design, introduction and implementation of reforms in education and training systems	3%
TOTAL R&D, innovation and entrepreneurship	100%

Source: North Programme Annual Report 2014

The output indicators collected by the programme display quantitative information on what has been delivered by the programme (Table 4, extracted from [Annex 3](#)).

Table 4 : Outputs of Interreg IVA programme North in R&D, innovation and entrepreneurship

Priorities	Indicators	Target	Value
OUTPUT indicators, targets and values achieved			
Priority 1 Business development	Business directed actions to enhance competence development (total/female/male)	500/200 /300	4502/1445 /3057
	Cross-border networks for service and product development	10	58
	Cross-border exchanges of experience and knowledge connected to regional business development (number of participants/female/male)	500/200 /300	7951/2223 /5728
Priority 2 Research, development and education	Development of joint education programmes	10	6
	Development of joint research environments within applied research	30	21
	Exchange of experience and knowledge connected to innovation activities, entrepreneurship and/or innovation environments (number of participants/female/male)	300/120 /180	3168/1541 /1627
Priority 4 Sub-programme Sápmi	Activities increasing competence in business (total/female/male)	80/30/5 0	689/397/2 92
	Cross-border networks for development of methods and products	5	2
	Development of joint research and/or education environments	8	5

Source: indicators list communicated by Interreg North Programme Secretariat (16 September 2015)

3.1.2. What is the impact of the programme in terms of R&D and innovation and entrepreneurship?

An external evaluation of the programme carried out at mid-term shows that the **Interreg IVA North has been successful in stimulating cross-border cooperation among enterprises** (Kontigo 2012). The study revealed that, at the time, 100 companies had increased their turnover and 78 companies had started a new cross-border business. The updated figures for such impacts are 241 and 172 at the end of the programme (see Table 5 below).

This evaluation confirms those earlier findings: the programme delivers concrete results due to the fact that firms participate and contribute to the projects, and the fact that the programme has established linkages (complementarities) among firms in the region and complementarities in business functions in the fields of technology and knowledge. **“Enlarging the home market of companies”**, i.e. the opening of new markets in one country to companies in the other countries in the programme area thanks to the delivery of innovative products, was singled out by most of the interviewees during the present evaluation as a main benefit from this cross-border programme (see the example of the COBS project in Box 1). Creating new business relationships is an important result of the programme: many projects have a strong focus on **creating cross-border meeting points for companies**.

For **universities**, the major achievement is the creation of new knowledge thanks to exploitation of complementarities in knowledge base and skills. The new partnerships built through Interreg-funded projects help the institutions make steps towards wider international cooperation: according to many interviewees involved in research funded by the programme, Interreg acts as a **stepping stone towards Nordic cooperation or EU Framework programme type cooperation**.

The final figures collected by the programme through result and impact indicators provide supplementary evidence on the results and impacts of the programme (Table 5). It should be noted that not all indicators visibly incorporate the cross-border dimension although this is more a question of wording than reality: e.g. “new products created” refers, according to MAs, exclusively to new products as a result of the cross-border cooperation activities (and not to firms’ regular innovation activities). The figures below look quite high when put in perspective with the limited budget allocated to the programme.

Concerning impacts in terms of **innovation**:

- 126 new products have been created thanks to innovation in enterprises;
- 21 new methods have been created thanks to innovation in enterprises;
- 52 new services have been created thanks to innovation in enterprises;
- 22 new products and services from Sami people have been created thanks to innovation in enterprises.

Concerning impacts in terms of **entrepreneurship**:

- 67 new enterprises have been created thanks to the programme: many of those companies have been created in the audio-visual sector;
- 26 new enterprises have been created by Sami people thanks to the programme.

Concerning impact in terms of **R&D and education**:

- 9 applications have been submitted to the EU Framework Programme;
- 2 applications have been approved by the EU Framework Programme;
- 6 new joint education programmes have been created.

To sum up, in this programme, **borders are seen as opportunities** to enhance R&D and innovation and entrepreneurship through the exploitation of the “critical mass” and “complementarity” benefits. Borders are much less seen as problems due to the barriers they create to interaction.

**Box 1. Innovative product created thanks to Interreg IVA North:
The intelligent conveyor belt from the COBS project**

The Conveyor Belt Sensors – COBS- project is a Swedish-Norwegian collaborative applied research project led by Luleå University of Technology and including a partnership with the Narvik Science Park and two high-tech SMEs, one Swedish, one Norwegian, plus a reference group of two large mining companies to ensure a user-driven approach and to prepare for selling the product. It has received an EU grant of EUR 306 437.

The aim of the project is to develop and launch a supervision system which increases the availability and performance of conveyor belt transport in primary industry. The research and development necessary to develop the system has been performed in close cooperation between academic partners, SMEs and the mining industry, using complementary but fragmented expertise across borders, in Swedish and Norwegian research institutes and companies. The core of the system is the “Intelligent conveyor belt roller”: a composite based roller that holds embedded electronics and sensors allowing measurement of critical performance parameters such as bearing temperature, vibrations, rpm etc. The data are transmitted wirelessly to plant monitoring, allowing preventive maintenance as well as immediate recognition of roller failures. This reduces downtime in the plant due to unexpected failures, thus increasing availability, increasing plant throughput, and reducing the cost for maintenance. The system also has improved environmental properties, with reduced noise levels and excellent corrosion resistance.

The COBS is a patented innovative product implemented in companies as a result of the project, extending companies’ markets over the national borders. Interreg money was necessary to set up the project, which could not have been funded by domestic sources due to its trans-border character (multiple parallel applications to domestic funding sources are too cumbersome).

The COBS project is considered by its partners as a “mini-FP7” project, which could expand into applications to Horizon2020 projects.

Source: North programme OP, the portfolio of projects; an interview with and documents from the COBS Norwegian partner

**Table 5 : Results and impacts of Interreg IVA programme North in
R&D, innovation and entrepreneurship**

Priorities	Indicators	Target	Value
RESULT indicators, targets and values achieved			
Priority 1 Business development	Products created as a result of the innovation activities of enterprises	20	126
	Methods that arise as a result of the innovation activities of enterprises	10	51
	Services that arise as a result of the innovation activities of enterprises	10	52
	Number of new cross-border business relations	30	541
	Market surveys and market activities for enterprises with international direction (Number of enterprises that have started a market expansion/owned by women/owned by men/mixed ownership)	35/10/20/5	286/67/172/47
	Enterprises that participate in business development projects that have been funded by the programme (number of enterprises/owned by women/owned by men/mixed ownership)	300	2533/435/1184/914
	Young (16-28 years) innovators/entrepreneurs that participate in cross-border projects on business development (number of youth/women/men)	60/25/35	304/109/195
Priority 2 Research, development and education	Implementation of joint education programmes	5	7
	Number of persons that participate in joint education activities (Number of participants/female/male)	100/40/60	573/228/345
	Number of applications to FP7, CIP, CRAFT (total, FP7, CIP, CRAFT)	16/5/6/5	9/9/0/0
	Research activities within applied research that have been funded by the programme	20	23
	Participating enterprises in research activities funded by the programme (number of enterprises/owned by women/owned by men/mixed ownership)	250/125/125	211/8/59/144
	Projects that stimulate cross-border contacts of youths (16-28 years) through education cooperation (total/woman/men)	150/75/75	342/200/142
Priority 4 Sub- programme Sápmi – borderless development	Products/services that are created as a result of the innovation activities of enterprises	5	22
	Methods that are created as a result of the innovation activities of enterprises	5	0
	Sami enterprises that participate in business development projects funded by the programme (number of enterprises/owned by women/owned by men/mixed ownership)	40/8/12/20	100/23/17/60
	Youths (16-28 years) that participate in cross-border development projects (number of youths/female/male)	100/50/50	803/475/328
	Activities within applied research that has been funded by the programme	4	1
	Number of implemented joint education programmes	5	4
IMPACT indicators, targets and values achieved			
Priority 1 Business development	New job opportunities in the company/organisation that have been created as a consequence of the activities of projects that remain directly after the support from the Interreg IVA North has been terminated and that	50/20/30	63/19/44

	wouldn't have existed without the project (Total/female/male)		
	New enterprises (Number of enterprises/female/male/mixes ownership)	9/3/5/1	67/16/39/12
	Increased turnover in participating companies (Companies with increased turnover/owned by women/owned by men/mixed ownership)	35/10/20/5	241/44/184/13
	New businesses activities (Number of companies that started new cross-border business activities/owned by women/owned by men/mixed ownership)	15/6/8/1	172/37/54/81
	Projects with activities that contribute to increased entrepreneurship and employment for women	15	14
	Projects with activities that contribute to increased diversity in cross-border business development	3	8
	Number of companies that have taken part in efforts to raise corporate environmental awareness and / or promote the development of environmentally friendly products and production methods (total/owned by women/owned by men/mixed ownership)	200	458/34/101/323
Priority 2 Research, development and education	New job opportunities in the company/organisation that have been created as a consequence of the activities of projects that remain directly after the support from the Interreg IVA North has been terminated and that wouldn't have existed without the project (Total/male/female)	40/20/20	28/9/19
	Joint education programmes that have been created as a direct consequence of the activities of projects that remain directly after the support from the Interreg IVA North has been terminated and that wouldn't have existed without the project	5	6
	Number of approved applications to FP7, CIP, CRAFT (total/FP7/CIP/CRAFT)	6/2/2/2	2/2/0/0
	Projects that include activities that contribute to breaking traditional gender roles within education/research	6	5
	Projects that include efforts that contribute to an increased diversity within education/research	3	3
	Projects that contribute to development of more effective and environmentally friendly forms of energy and technologies	8	6
	Projects that contribute to development of methods for sustainable use of the natural and cultural values of the region	3	0
Priority 4 Sub- programme Sápmi – borderless development	New job opportunities in the company/organisation that have been created as a consequence of the activities of projects that remain directly after the support from the Interreg IVA North has been terminated and that wouldn't have existed without the project (Total/male/female)	5/3/2	10/5/5
	New enterprises (number of new enterprises/owned by women/owned by men/mixed ownership)	4/2/1/1	26/15/11/0
	New information channels that remain directly after the support from the Interreg IVA North has been terminated and that wouldn't have existed without the project	3	0
	Lasting cross-border cooperation between actors that remains after the support from the Interreg IVA North has been terminated and that wouldn't have existed	6	12

	without the project		
	Projects that actively contribute to efforts made to increase gender balance	3	4
	Projects that contribute to development of methods for sustainable development of the environment	5	0

Source: indicators list communicated by Interreg North Programme Secretariat (updated 16 September 2015)

Amongst its impact indicators, the programme also collects figures on **new and lasting jobs created** as a direct result of the programme's funded projects. While these figures mostly relate to business development activities rather than to R&D and innovation-oriented projects, it is difficult to disentangle the share of job impact that can be assigned to the latter type of projects, as both Priority 1 and 2 included projects promoting innovation, as mentioned above:

- 63 new jobs created as a result of "business development" projects: this figure also includes new jobs that have been created by scientists and engineers from the universities that have become employees of SMEs;
- 28 new jobs created as a result of "R&D and education" projects: most of these concern jobs for graduate students;
- 10 new jobs created as a result of "Sápmi" projects.

The above figures should be taken with caution because programme authorities themselves acknowledge the difficulty in assigning jobs created to specific projects (attribution problem): job creation is often dependent on a large number of factors other than the project, which in most cases is only one amongst many contributing factors. This caveat is also made with respect to new company creation (see section 3.6 below).

Beyond these indicators, two characteristics of the programme play a positive role in ensuring that selected projects can deliver high impacts:

1. **Selectivity:** the fact that the programme has attracted many applications (327) given its limited size means that there has been a selection procedure that could retain those projects with the highest expected impact, which was a major selection criterion (the selection rate is 50%);
2. **Focus:** according to the Managing Authorities and to stakeholders interviewed, there is a large difference between the Interreg III and Interreg IV programmes: the objectives of the IV programme are clearer and more focused. The IV programme has also been more strategic when it comes to the industries and targeted development topics: under Priority 1, seven strategic development areas have been defined (base industry, ICT industry, creative industry and tourism, renewable energy and cleantech, car test industry, sustainable energy systems, service sector). In the previous programme, all sectors were eligible for support.

Also, the extension **of the programme area** to the South to cover the Oulu region (compared to the situation for Interreg III programme) is seen by many stakeholders and by the MA as beneficial with the perspective of creating critical mass as well as for finding partners with complementary expertise and skills, because the Oulu region host many companies and research institutes relevant for cross-border partnerships.

3.2. Impacts of the programme on cooperation

EVALUATION QUESTION

a) To what extent has cooperation been enhanced? What barriers to cooperation have been removed? What is the evidence for the contribution of Interreg programmes?

3.2.1 To what extent has cooperation been enhanced?

Interviews carried out during the field work of this evaluation converge on the point that the North programme benefits from a **favorable context in terms of rationale for cross-border cooperation**:

- there is a strong agreement throughout the area that cooperating across borders is beneficial for the area as a whole;
- Crossing the border is seen as natural in this northern region;
- Given the great distance from the capital regions, East-West relationships are seen as beneficial to compensate for the long-distance North-South relationships where the periphery tends to be at a disadvantage;
- Many people have common roots across the borders, so that they see borders as opportunities, not so much as problems. A frequent opinion is that *"we have more in common than we have differences"*.

The following elements can be highlighted as **challenges** for the area as a whole, applying in particular to the domain of R&D, innovation and entrepreneurship. They create a good basis for identifying areas of mutual and joint interest where cooperation is likely to bring benefits:

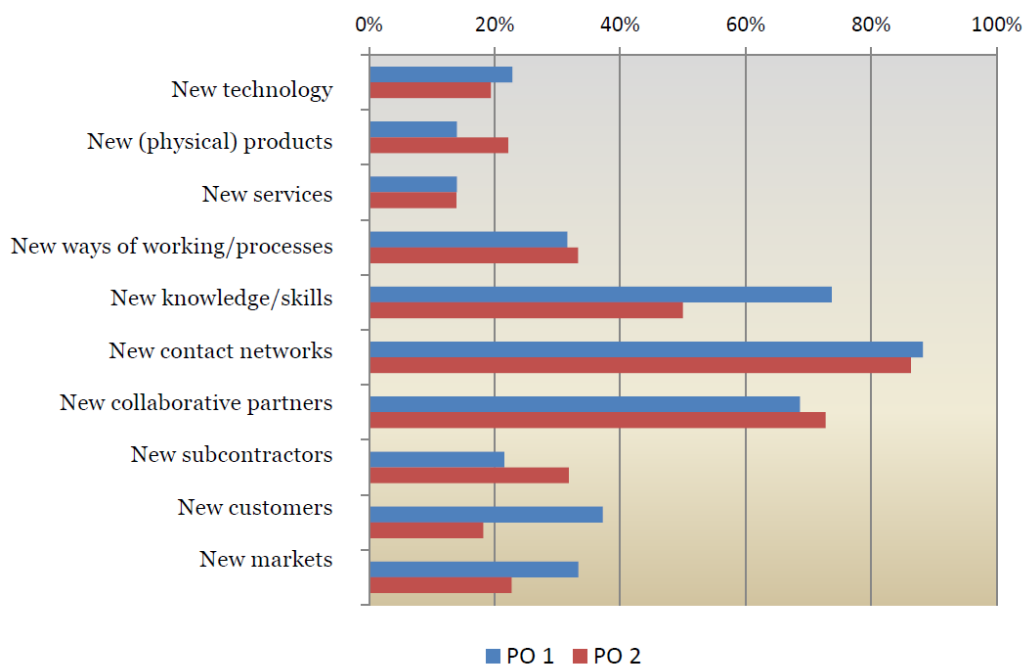
- **Sparse economic structures and lack of critical mass in young entrepreneurs, knowledge and innovation**: this creates a need for innovation in networks rather than in clusters. Hence the programme has a strong focus on cross-border network creation, which responds to a need identified by actors (firms, education institutions, research institutions);
- **Too small domestic markets**: these can be extended by crossing the border;
- **Shared need to re-invent the traditional base industry** (mining, forestry) which is crucial for economic development in the three countries: actors acknowledge that renewed forms of entrepreneurship and technological upgrade through collaboration between science and industry, and a shift towards more sustainable and ecological processes and methods are needed and can be fostered by cross border collaboration and learning;
- **Joint challenges in developing the Sami enterprises sector**, which is by definition an issue that demands cross-border cooperation for a population with settlements and traditions crossing the borders of the three countries;
- **An ambition to bring together universities and knowledge institutions**, which are of small size and with complementary expertise, in order to make the region more active in and attractive to international research and international collaborations.

In other words, there is a **clearly identified value-added for cross-border cooperation, in terms of building critical masses and exploiting complementarity** through cooperating across borders: *"we are small and we can*

only be good on a narrow range of things. Together we are stronger” (interviewee from Lapland University of Applied Science). The strong innovation dimension and business-orientation of the programme from the outset help to maintain a focus on cross-border value-added for innovation purposes. The favorable context implies that **projects submitted to the programme respond to real and well identified needs from project leaders and partners: the projects are less likely to be artificial than in regions where the cross-border value-added is less well identified.**

The above-mentioned 2012 external evaluation (Kontigo 2012) showed through an enquiry that the main benefit for companies involved in the projects consists in acquiring new contact networks and new collaborative partners (Figure 3). This indicates that **cooperation has been enhanced by the programme, from the point of view of companies.** This benefit is more prominent than the benefits of new products or services generated by the collaboration, as reported by the monitoring system.

Figure 3 : Benefits for companies involved in Interreg IVA programme North



Source: Kontigo 2012. Response from companies: percentage of companies which state that participation in projects has given results (Priority 1 n=57; Priority 2, n=36)

Interviews carried out during this evaluation reveal that an (intangible) result of the programme is that it has **continued to bring together the northern regions, and further accentuated cross-border cooperation.** The programme helps to create connections between actors working in isolation but sharing similar needs and possessing complementary expertise useful to develop joint solutions (see the example in Box 2). In this programme period, the collaboration has moved from the “getting to know each other” phase towards establishing what concrete results are necessary – and how to reach them. MAs indicated that in Interreg III there was a difficulty to attract projects, while in Interreg IV this was not a problem anymore as new partnerships had been created. There is an expectation with Interreg V that competition will further increase due to the growing appetite to submit cross-border

projects proposals. This positive evolution in the depth of cooperation is not measured, but it is a general perception of people interviewed.

Box 2. Harsh Weather Testing Network: enhancing cooperation and diffusion of knowledge and expertise on a cross-border basis

The Harsh Weather Testing Network project was led by the Finnish Institute of Occupational Health, with partners in Norway (NORUT research institute) and Sweden (Municipality of Arvidsjaur and County Council of Västerbotten). The project received EU funding of EUR 327 240.

The improvement of living and working in a cold environment as well as harsh weather testing is of great interest in Northern Finland, Sweden and Norway, and there are many organizations working in the field of cold testing and cold climate technology. The areas of expertise of these organizations cover research of human responses to cold and its effects on health, health care related to coldness, patient transportation over long distances, protection against cold with clothing, and applied research on the behaviour of materials, vehicles and structures subjected to low temperatures, wind, snow and ice. These organizations aim at providing citizens, SMEs and industry good quality services by developing innovative new products and other technical methods in the field of harsh weather testing.

However, harsh weather testing know-how is scattered around in the area of Northern Scandinavia and necessary knowledge may not be found in a particular country: the aim of the "Harsh Weather Testing Network" is precisely to address this fragmentation problem.

The main result of the project is a transnational and multidisciplinary network which can deliver solutions and services for research organizations, enterprises, industry, authorities, and other possible customers who are acting in harsh weather conditions in different countries. Thanks to the network, information and knowledge have been spread among organizations, research institutes, SMEs, etc., which has provided additional business opportunities. The project also developed new and more effective models for the analysis of needs and requirements. The project partnership was broad and balanced, which offered good opportunities for effective dissemination and advocacy. The mutual exchange of information and experience, and transfer and adaptation of successful models between countries or regions has been continuous. The lasting benefit of the project is the network created between partners with mutual knowledge, a result that could not have been achieved without the Interreg project.

The main difficulty experienced by the network is the huge diversity of competencies and target groups concerned. This situation creates a risk for the continuity of the network as a whole. However, based on the relationships created, members of the networks are planning to develop proposals for the extension of operations into more focused selected fields.

Source: North Programme Annual Report 2014, the portfolio of projects and an interview with the project manager

There are success conditions for the programme to deliver these benefits: an important one is the **openness of universities and research organisations to businesses and their responsiveness to businesses' needs**. This is a key factor explaining the success in creating joint knowledge between these institutions and companies on a cross-border basis.

There are also **limits to the action of the Interreg programme** in fostering cooperation across borders:

- The geographical definition of the cross-border area is often experienced as a limitation: when suitable partners are located outside of the eligible area, this may lead to projects that are sub-optimal as they lack necessary input or expertise;
- Project leaders are also experiencing limitations with respect to eligible costs, which may also hamper projects in achieving their full potential;
- Payment delays are also seen as limitations to fully incorporate partners such as SMEs or small research actors, which cannot cope with these delays.

3.2.2 What barriers to cooperation have been removed?

Several cooperation barriers have been targeted and successfully alleviated -though to differing degrees - by the programme:

1. Lack of resources and reluctance to cooperate across borders by SMEs;
2. Difficulty for research organizations to find relevant partners across borders;
3. Language barriers;
4. Physical distance barriers.

First, the main barrier for small companies to collaborate across borders is that they lack the resources to do so and are reluctant to engage in such activities: *"SMEs find operating across borders too complicated; they don't have time to look for partners: money, time and distance are the main barriers"* (Nordic Business Links partner). This is especially true in traditional sectors such as mining, where the mindset is more turned to secrecy than to open collaboration. Barriers to responding to public call for tenders over borders are also high due to ignorance and differences in rules and regulations. Many projects funded by Interreg North **aim precisely at tackling these barriers by facilitating exchanges and providing platforms to help find partners across borders** (Box 3). The goal is to find complementary expertise which is present in border regions and/or create critical mass by pooling resources with view to developing innovative products, processes or services. With this aim, many projects focus on network creation and on awareness-raising with respect to potential in neighboring markets.

Second, while finding partners across borders is more natural for public research organizations, which are used to working internationally, several project leaders mentioned nevertheless that the Interreg frame helped to develop research partnerships within the cross-border area, especially with Norway, which tends to be less known by Finnish and Swedish researchers. The difference in intensity of the relationship with industry on the side of academic organizations in Norway, Finland and Sweden (this intensity tends to be less developed in Norway) is also a cooperation barrier that has been alleviated by those projects focusing on public-private cooperative research.

Another barrier to cooperation with Norway is the perception that the economy in the northern part of this country, with its focus on oil and gas, is too different from the economy in the north of Finland and Sweden. Projects focusing on a variety of sectors or activities where the three countries have complementary expertise helped to alleviate this barrier through better knowledge of potential partners.

Box 3. Nordic Business Links: tackling barriers to cross-border cooperation faced by SMEs

The Nordic Business Link project gathers together the business development companies of Oulu, Luleå and Tromsø, and is led by the Chamber of Commerce of the region of Norrbotten, where Luleå is located. It received two successive EU grants of EUR 429 963 and EUR 436 319.

The objective of Nordic Business Link is to foster cross-border business and increase the export capacity of regional small and medium sized companies in the North of Norway, North of Finland and North of Sweden.

Nordic Business Link 2.0 established a structure that provides support to companies with a view to increasing trade in the region. This involves events and initiatives to exchange business profiles through collaborations between business support operators (Chamber of Commerce and city development actors) in the three regions. The structure is sustainable and functional and provides support to companies on a permanent basis. As many as 80 companies have indicated that their turnover is positively affected by the project's activities. Increase of turnover comes mainly from the start of new cross-border business.

The concept of Nordic Business Link remains operational even after the project has officially ended: after the necessary boost provided by Interreg projects – without which the collaboration could not have taken place – the collaboration between economic operators of the three main cities continues. For example, the city of Oulu has opened an office in Tromsø and in Luleå. The establishment of an air connection between the three cities has also been facilitated by the enhanced business perspectives emerging between those three locations.

Source: North Programme Annual Report 2014, the project portfolio and an interview with the project manager

Third, **language barriers** are sometimes mentioned as a problem for small companies, but less so for public research operators or for high-tech or large companies. It has, however, been mentioned as a problem for cooperation between Finland and Sweden within the framework of the Nordic Mining School (see Box 10 below) due to the lack of availability of material in Swedish or English and of courses in English at Oulu university: this barrier has been alleviated thanks to the Interreg-funded project, which pushed that university to provide more material in English.

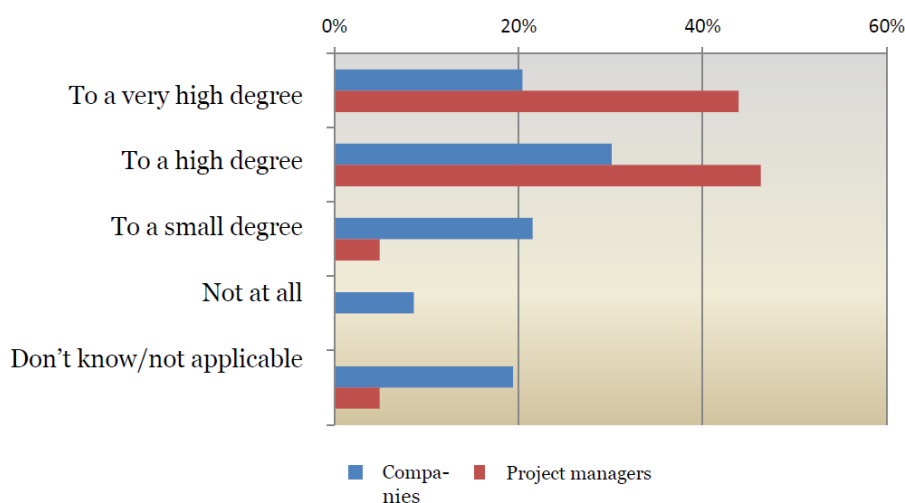
Fourth, the **physical distance barriers are hard to tackle**. However, it should be noted that **distances do not have the same signification in such sparsely populated areas as they do elsewhere** in Europe: it is more natural in such places to travel long distances and/or to make use of distance communication tools such as Skype in daily work. Nevertheless, in the Harsh Weather Testing Network (see Box 2 above), for instance, contacts between Finland and Norway have been much more limited than those between the other countries for this reason. Distance between research teams is less considered a problem: when the right expertise is identified and seen as useful, distance is not seen as a major problem. The establishment of a new air connection across the area, facilitated by the increase of exchanges through the Interreg project, is an important improvement in this respect (see Box 3 above).

3.2.3 What is the evidence for the contribution of Interreg programmes?

The main evidence for the contribution of the Interreg North programme to enhancing cross-border cooperation in research, innovation and entrepreneurship comes from feedback from project beneficiaries. The above-mentioned evaluation (Kontigo 2012) enquired about the perception of the value-added of the cross-border collaboration brought about by the programme, from the point of view of project managers and companies. The results were extremely positive: 85% of project managers thought that the cross-border dimension helped to a high or very high degree to achieve results from the projects, while 50% of companies stated the same (Figure 4). This is confirmed in the present evaluation: as mentioned below in section 3.5, most interviewees in our evaluation indicated that project achievements could not have taken place without the support from Interreg. These are indications that the **value-added of cross-border cooperation experienced by project partners is related to the presence of the programme.**

The “project” status given to the cooperation helped it to reach far beyond a loose cooperation framework and to really achieve the specific goals set for the projects, which were all framed in the context of obtaining higher value-added thanks to the cross-border dimension. As an interviewee summarised it: “*cross-border cooperation is definitely an asset in creating critical mass*” (Lapland University interviewee).

Figure 4 : Value of cross-border cooperation for companies and project managers involved in Interreg IVA programme North



Source: Kontigo 2012. Response from companies and project managers regarding the extent to which the borderless way of working has contributed to the projects' capacity to create concrete results. (n=93 for companies and n=35 for project managers)

3.3. Impacts on learning, knowledge transfer and capacity building

EVALUATION QUESTION

c) What learning has been generated during the implementation of the CBC programme? Who has benefited? From which stakeholders to which other stakeholders has knowledge and capacity been transferred?

3.3.1 What learning has been generated during the implementation of the CBC programme?

Interviews carried out during this evaluation indicate that, compared to the previous period (Interreg III), the Interreg IV programme North has **moved from a stage of “getting to know partners over the borders” towards “producing content together”**. Many interviewees are of the opinion that such a learning curve is at play amongst actors in the programme area.

As mentioned in section 3.1, a large portion of projects consist of applied research (technological development, testing) carried out in partnership between research institutions and companies: through such projects, **technological and technical knowledge has been created and transferred** through the implementation of the North programme, to the benefit of companies (see example in Box 4). Many project leaders and partners have acknowledged the value of having been able to pursue applied research and development over the border: this cooperation has added value in terms of complementary skills and development of business networks. The learning concerns the **development of methods to combine different types of expertise as well as the development of stronger linkages between research and industry**.

Box 4. Increasing Energy Efficiency in Buildings: creating and diffusing technical knowledge on a cross-border basis to enhance companies' markets

The project IEEB (Increasing Energy Efficiency in Buildings) is a large project funded under Priority 2 of the North programme, covering the three countries. Its total budget is EUR 1 676 369 and it received an EU contribution of EUR 619 669 along with EUR 227 373 of funding from Norway. The project is led by Oulu University of Applied Sciences, and the partnership includes the research partners Luleå University of Technology, Umeå University and NORUT Narvik, the City of Oulu, the Building Supervision Office for Finland, a technical centre for building, and 22 companies from Finland and Norway. The fact that the universities were working in a close relationship with companies was a decisive factor for the companies to participate in IEEB.

The aim of the project is to build a Nordic network in the field of energy efficiency, to develop new knowledge and competence in the field of passive housing and to develop a method for predicting energy performance. The project has collected, documented and studied the existing knowledge and methods for measuring air density and energy consumption and then made field measurements where it obtained new knowledge on how external factors, such as wind and temperatures, affect energy consumption. The project also worked to measure energy consumption in single family homes in wood.

A key driving force behind the project was to expand markets for companies in the three countries: better knowledge of regulations at play in Finland, Sweden and Norway gained through the project is expected to help businesses overcome the limitations of their internal markets by selling over the borders.

The project has achieved its goals: it has delivered recommendations and knowledge to improve housing structure, design and maintenance strategies and a method to conduct life cycle cost analyses. A total of 269 people have taken part in awareness raising activities implemented by the IEEB project, 23 scientific papers and 20 theses have been published, and new cross-border business is taking place for Finnish companies in Sweden and Norway.

The absence of Building Supervision Offices from Sweden and Norway, as well as of Swedish companies, is a weak point of the project design. This explains why the major benefits are experienced by Finnish companies.

The cooperation continues between Swedish and Finnish universities in the framework of projects funded by Interreg A, Kolarctic and the Baltic Sea programme. The partnership is planning two new projects to be submitted to Interreg V (expanding the partnership to address the above deficiencies) and to the Northern Periphery programme.

Source: North Programme Annual Report 2014, the portfolio of projects and an interview with the project manager

Within the business sector, learning generated by the programme relates to the **development of innovative business models which take into account the potential across borders** (Box 5). In several projects, competence-raising efforts focus on the competence to manage innovations for commercialisation and licensing across the border, thus fostering commercial innovation.

**Box 5. Generating new knowledge for innovative business models:
the Cross-Biz project**

The project Cross-Biz is led by Internet Bay AB and works with partners Dimes RY and Bothnian Arc Association. It has received an EU grant of EUR 275 953.

The project's main focus is to develop new collaborative relationships between local regional suppliers on a cross-border basis, with view to increasing the proportion of purchases by industrial customers in northern Sweden, northern Finland and northern Norway from local / regional suppliers in Sweden and Finland, and in this way to strengthen cross-border business relationships and secure a greater share of investments made by industrial customers with the local / regional suppliers. The goal has been to offer industrial customers in Sweden, Norway and Finland in-depth information about the solutions that local / regional suppliers in Finland and Sweden provide. It has also worked to create synergies between different parts of the industrial value chain, where local / regional SME suppliers in Finland and Sweden, together with industrial clients create competitive solutions based on new business models developed in light of the needs of the industrial customers.

Source: North Programme Annual Report 2014 and the portfolio of projects

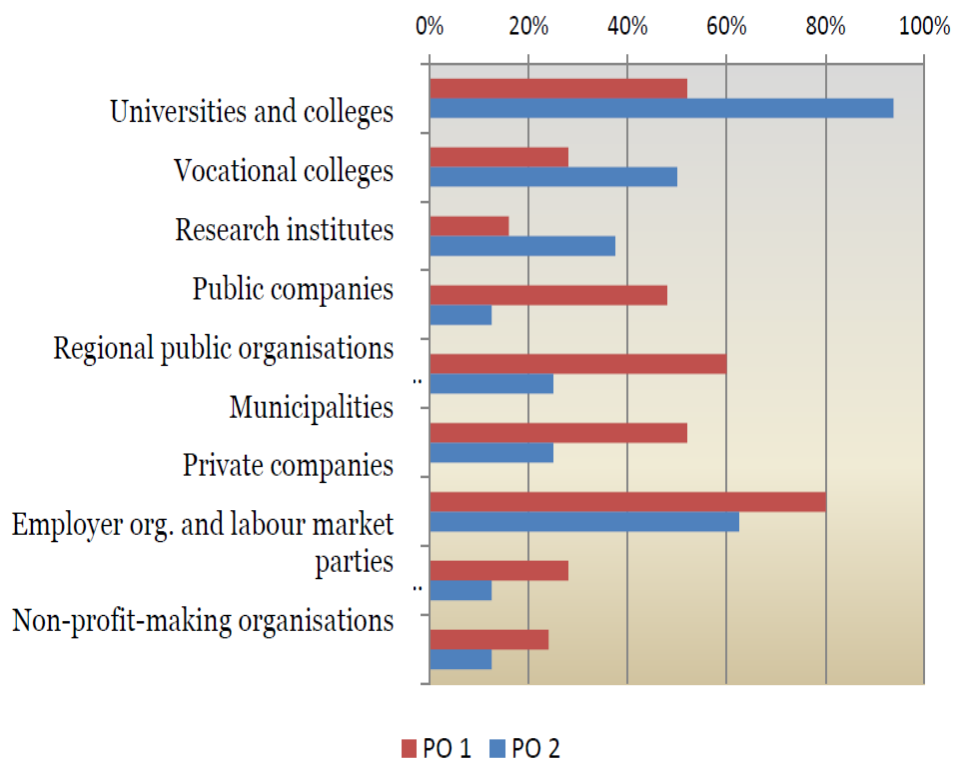
3.3.2 Who has benefited?

People living in the cross-border area have benefited from the new learning created thanks to the programme, mainly through the Northern Innovation Network and Cross-Biz projects (Box 5). People participated:

- in actions to enhance their competences (4502 persons);
- in cross-border exchanges of experience and knowledge related to business development (7951 persons), and in innovation activities, entrepreneurship and/or environments of innovation (3168 persons, see also Table 5).

According to the 2012 Kontigo enquiry, **companies** have been very active in both Priority 1 and 2 (Figure 5). A total of 211 companies participated in programme-funded research efforts during the programme period, as recorded by programme indicators.

Figure 5 : Most active participants in projects in Interreg IVA North

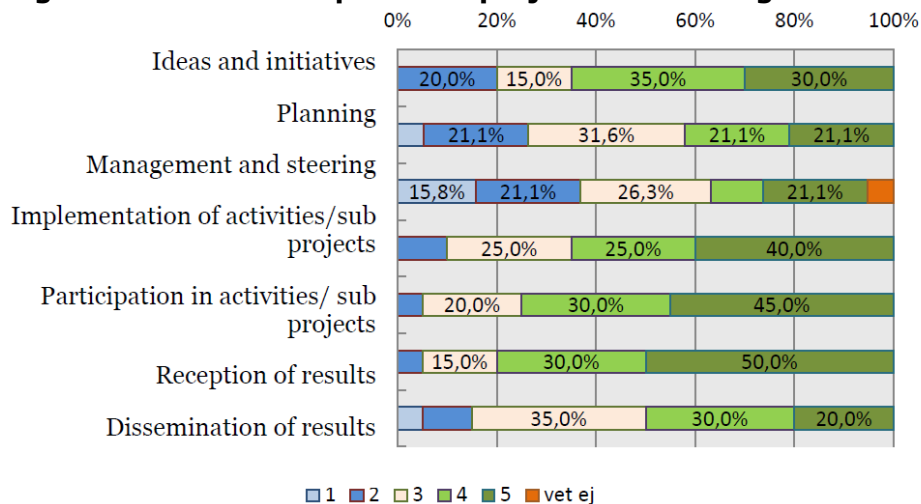


Source: Kontigo 2012

Under **Priority 1, companies are mostly SMEs**, while **Priority 2 involves a higher proportion of large firms, primarily in basic industries**. The two types of company are involved, with different roles, in the projects. According to the 2012 evaluation: *“larger businesses in the region as a rule take greater responsibility for the projects and are involved at an earlier stage to a greater extent than the small businesses, i.e., during the initial phase, in planning and implementation. The small businesses primarily make up target groups in the various projects and seem to see this as their role in the projects, but despite this there is still a relatively large proportion of even these companies which are involved in the project’s management, planning and implementation”* (Kontigo 2012).

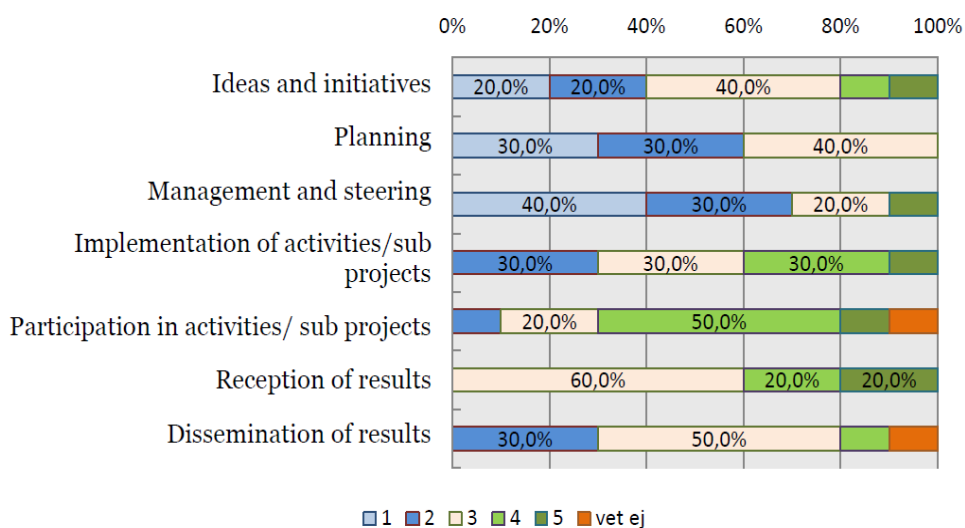
The same enquiry reveals that companies are, logically, more often recipients of project results under Priority 1 than 2 (Figures 6 and 7). Under Priority 2, universities and colleges are also main recipients of projects results. Universities and colleges are (not surprisingly) very active in Priority 2, but also, more interestingly, in Priority 1: thus **universities and colleges have been heavily engaged in projects with a business development focus, reflecting their good linkages with industry.** Universities and colleges take a major or very large role in both types of project but under Priority 2 they take more responsibility in terms of initiating, planning and implementing projects than under Priority 1. Nevertheless, there are many projects under Priority 1 which have an important R&D and innovation dimension, as mentioned in section 3.1, and in those projects universities and colleges take a similarly strong role. Vocational colleges and research institutes are more active in Priority 2 but less so in Priority 1 (Kontigo 2012).

Figure 6 : Role of companies in projects in Interreg IVA North (Priority 1)



Source: Kontigo 2012. Response from project managers: "To what extent have partners in the form of private companies taken part in the different phases of the projects?" (1 = not at all, 5 = to a very high degree) (n=20)

Figure 7 : Role of companies in projects in Interreg IVA North (Priority 2)



Source: Source: Kontigo 2012. Same question as Figure 4 (n=10)

Interviews carried out during this evaluation confirmed the above picture delivered by the 2012 evaluation: **projects carried out in the North programme jointly benefit to public research organizations and companies**, since the two types of actors have long-standing close relationships and projects selected reflect this business-orientation of applied research projects.

Public authorities (municipalities and regional public organisations) are more active in Priority 1 than in Priority 2: they are often involved in initiatives targeting business development support or network promotion.

Swedish partners are the most represented in the cross-border cooperation activities supported by the North programme, compared to partners from the two other countries. The following facts explain that situation:

1. Swedish actors are located at the centre of the cooperation area between Finland and Norway: distance to partners is shorter for the Swedes;
2. Norwegian partners cannot act as lead partners;
3. the Secretariat of the programme is located in Luleå.

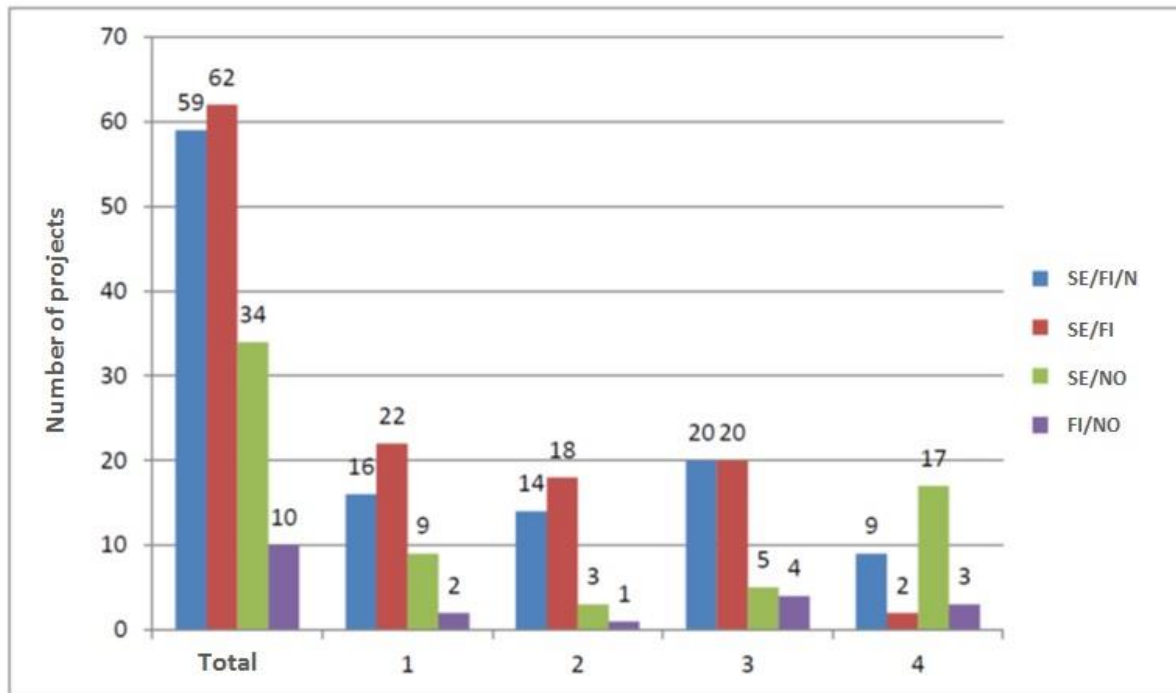
The programme management has investigated the degree to which each country participates in the projects supported by the programme. According to Figures 8 and 9, for the whole programme, the most frequent partnerships involve first, Sweden and Finland, and second, the three countries. The most infrequent partnerships gather Finnish and Norwegian partners. Swedes are more often project leaders than Finns. The same is true for Priorities 1 and 2 (the focus of this evaluation), with a higher dominance of Swedish-Finnish partnerships than in the programme as a whole. Finnish partners acting as lead partners are however relatively over-represented under Priority 2, coming on par with Swedish partners.

The evaluation cited above confirms this analysis: a large majority of interviewed project managers state that they have companies involved either from Finland or Sweden (9 out of 10, 8 out of 10 respectively), but only a minority (4 out of 10) from Norway.

The programme management introduced a selection criterion giving priority to projects involving Norwegian partners in order to compensate for the above factors that are hampering their participation.

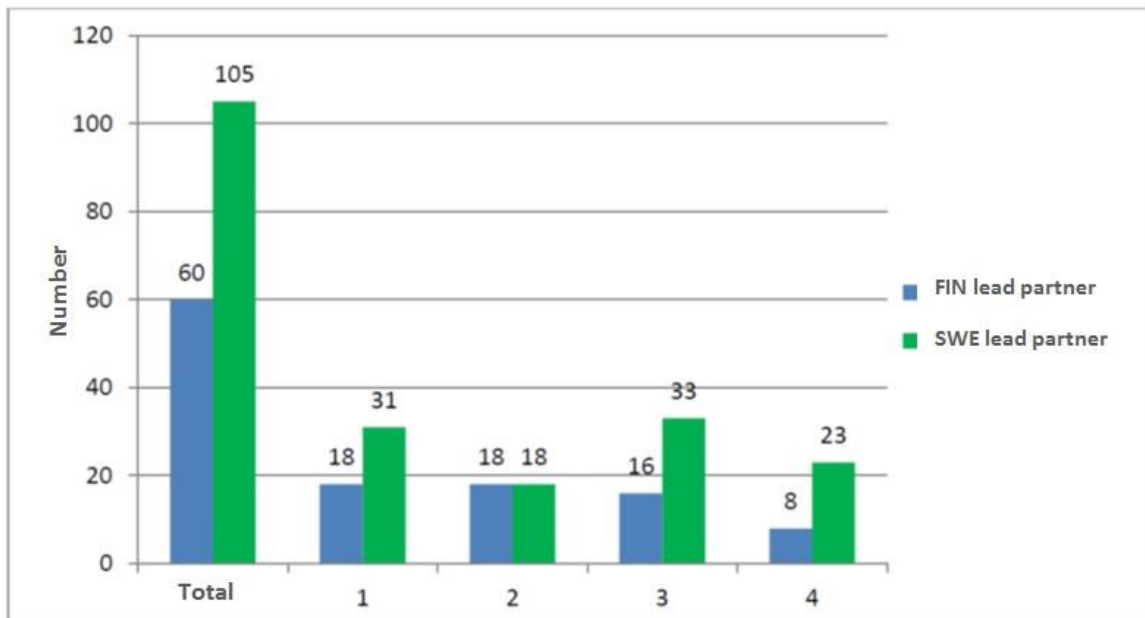
In terms of sectors, the programme has identified 8 **areas of strategic development** for cross-border cooperation in research and education. Budgetary allocations to projects under Priority 2 indicate that the main beneficiaries are active in the fields of **ICT, on the one hand, and technology, product and service companies within a sustainable energy system**, on the other hand (Figure 10). The field of **cooperation between the base industry and SMEs** has also been an important beneficiary.

Figure 8 : Multilateral and bilateral character of projects in Interreg IVA North



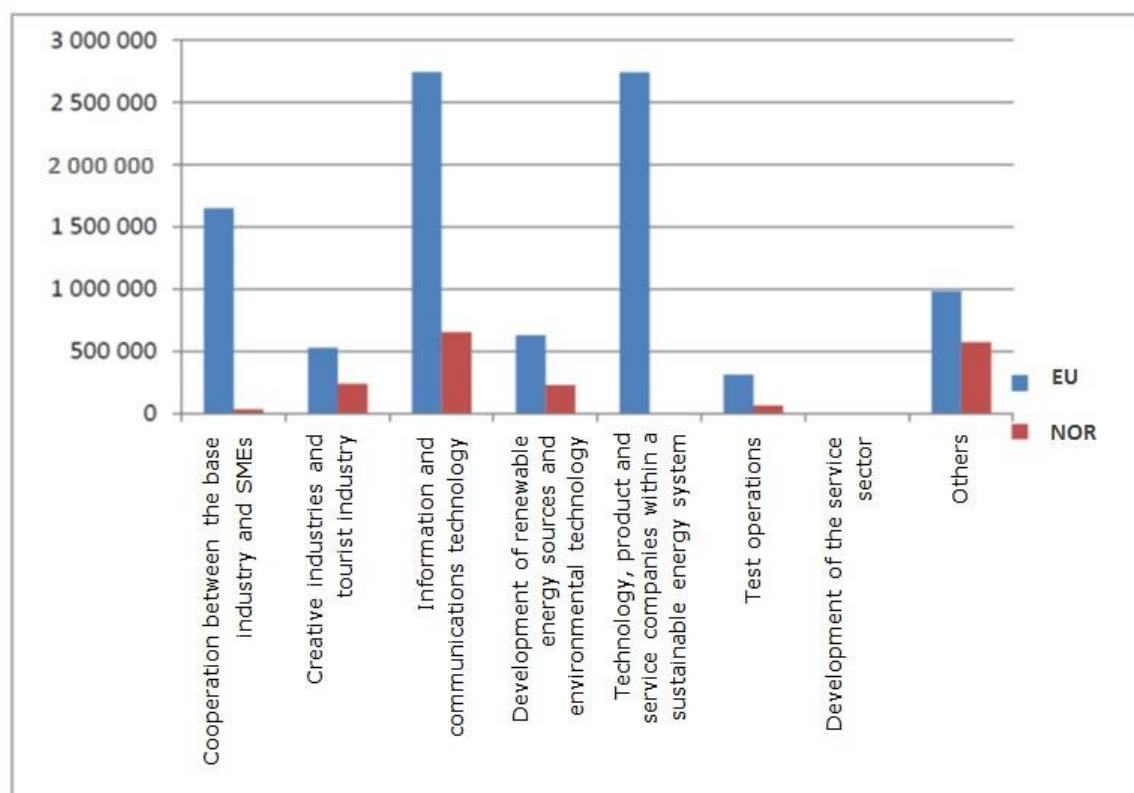
Source: Interreg North annual report 2014

Figure 9 : Nationality of lead partners of projects in Interreg IVA North



Source: Interreg North annual report 2014

Figure 10 : Strategic development area beneficiaries of projects in Interreg IVA North



Source: Interreg North annual report 2014.

The programme places priority on ensuring better **gender equality**, as this is viewed as a fundamental right and a precondition for achieving growth, employment and social cohesion. Many sectors in the area are male-dominated and the programme aims at contributing to a better gender balance by promoting equal opportunities for women and men. In particular, participation of women in research and innovation activities, and female entrepreneurship are given special attention. This dimension is prioritised at project selection, implementation and final report stages. Many output, result and impact indicators are split for women and men (see [Annex 3](#)). In general, despite this gender equality objective of the programme, **the main beneficiaries of the programme are men**, who are over-represented for almost all indicators. This is notably true for women-owned enterprises participating in research activities (only 8 out of a total of 211⁷), for new enterprise creation and for the various indicators on new jobs created, where figures for men are much higher than for women. However, women are better represented in the following indicators:

- Participants in exchanges of experience and knowledge connected to innovation activities, entrepreneurship and/or innovation environments (gender balance 50/50);

⁷ In this result indicator: total number of enterprises participating in research activities funded by the programme is 211, amongst which 8 are owned by women, 59 by men, and 144 with mixed ownership.

- Projects that stimulate cross-border contact of youths through education cooperation (gender balance 60/40 in favor of women);
- In the Sami sub-programme, women-owned enterprises are better represented than men-owned enterprises, and job creation is equally split between men and women (with low figures, however).

Project leaders are in 57% of cases men and in 43% of cases women for the programme as a whole. The share of women is lower in Priority 1 (38%) and 2 (40%).

3.3.3. From which stakeholders to which other stakeholders has knowledge and capacity been transferred?

The research activities funded by the programme were required to demonstrate a clear business orientation and a focus on growth to ensure that they benefit the region's development. Furthermore, the targeted research domains needed to be well entrenched among academies in the region and within the strategic development areas proposed by the program. This programme set up results in **knowledge transfer between research institutes, on the one hand, and between research institutes and industry on the other hand**. Collaboration between large and small firms, together with knowledge institutions, led to successful cooperation in developing regional innovation "platforms" (Box 6).

One specificity of the North programme is that it has succeeded to **engage private actors directly in projects**: this makes the transfer of knowledge and capacity to large and small firms possible as a direct result of the projects.

Box 6. VSB Vision Systems Business Development Platform: knowledge transfer between research institutes and large and small companies

The Vision Systems Business Development Platform (VSB) project is led by Luleå University of Technology, in partnership with Kemi-Tornio University of Applied Science. It has received an EU grant of EUR 349 887.

The VSB project's goal is to provide excellence and innovation to support business development of SME's products in the areas of image analysis and optical measurement technology process control in the mining industry. The project builds on earlier research and aims at the creation of commercialisation opportunities based on this research. It also aims to promote and disseminate the project results to generate business opportunities and interest from industry and suppliers and to build further on this cooperation. Collaboration took place with Finnish and Swedish small businesses and major mining companies.

The work resulted in two product concepts and a number of new development opportunities for further work:

- Together with the company MBVSystems, partners built a reference installation for online particle size measurement (3DPM) at a mining company. One statement was obtained from the client regarding system added value, which could be used in product marketing. The project built a prototype on the lab scale for particle size measurement combined with the detection and automatic shredding of large boulders (skut) at the primary crusher. The concept was also tested in the field in Finland.
- VSB established a relationship with a large global supplier of processing equipment, introducing the 3DPM system into their international portfolio. This gives access to the supplier global sales network, as 3DPM can be integrated with their existing control services. The project has helped to achieve commercial sales of a 3DPM system by pooling MBV-Systems a

client company in Finland. The system is now installed at a Finnish pigment factory where it is used for automatic process control.

VSB organized dissemination events to further diffuse the results achieved: an industry workshop in Chemistry with 18 participants from small businesses, mining companies and equipment suppliers to the mining industry (including LKAB, Talvivaara, Metso, MBV-Systems, ABB, Outokumpu); a 2-day research symposium in Luleå with about 80 participants, which gave the opportunity for local small businesses and project partners to expand their network of contacts with other Nordic researchers in imaging and optical metrology.

Source: North Annual report 2014, the portfolio of projects and an interview and documents shared by the lead partner

3.4. Sustainability of learning and cooperation

EVALUATION QUESTION

d) What is the likely future for such learning mechanisms and cooperation? Will its sustainability depend on future EU financing?

3.4.1. What is the likely future for such learning mechanisms and cooperation?

Four specific characteristics of the North programme contributed to the high likelihood of continuation of cross-border learning and cooperation mechanisms supported by the projects:

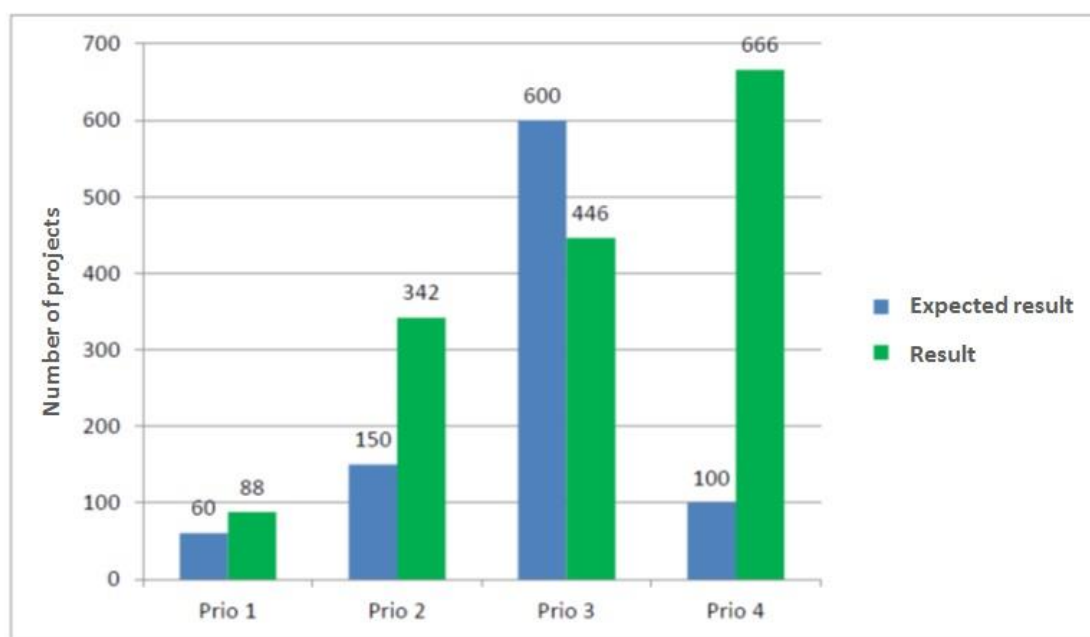
1. **Favourable conditions and appetite for cross-border cooperation:** cross-border openness is quite "natural" in the programme area, which is a good pre-condition for continuation of cross-border cooperation after the end of the projects. The various elements of this favourable environment have been explained in section 3.2;
2. **Economic orientation of the programme:** the programme has a focus on economic development and the involvement of businesses. It succeeded in attracting many business-oriented projects under Priorities 1 and 2 in particular. When private co-funding is present in an Interreg-funded project, there is a higher chance that the learning and cooperation mechanisms supported by the project will continue after the funding period with the support of private funds. The North programme **has attracted private co-financing** of EUR 3.2 million from Sweden and Finland, and an additional amount of EUR 650K from Norway (Table 6);
3. **Focus on young people:** the programme has been successful in integrating this target group into projects, especially in Priority 2, R&D, innovation and entrepreneurship (Figure 11). This is a favourable element to ensure continuity of the projects.

Table 6 : Total and private co-funding in Interreg IVA programme North

Allocated funding (a)	Allocated national co-funding (b)	Private co-funding (c)	Private co-funding as a share of total co-funding (c)/(b)
European Union			
EUR 36m (ERDF)	EUR 27m	EUR 3.2m	12%
Norway			
EUR 9.1m	EUR 10.7m	EUR 650K	6%

Source: Interreg North Annual Report 2014 and Operational Programme

Figure 11 : Number of young people participating in Interreg IVA programme North, by priority



Source: Interreg North Annual Report 2014.

4. **Adequate selection criteria:** the programme Monitoring Committee adopted a list of joint prioritization criteria, which apply to those projects that pass the threshold of "minimum criteria"⁸ (Table 7). While all criteria are very relevant, three of them were particularly conducive to ensuring continuation of cross-border cooperation after the end of projects funded by the programme:

⁸ Project: is in line with the programme ; has secured co-financing; is clearly beneficial for border regions; has partners from at least two countries; does not distort competition; observes the horizontal criteria (environmental, and equality and integration/diversity).

- **The orientation towards the creation/preservation of employment opportunities:** this ensures that the job creation objective of the programme is not limited to temporary positions created in projects funded by the programme, but includes jobs created through the market extension and creation made possible by projects;
- **The demonstration of the capacity to install long-term cross-border cooperation practices:** this criterion directly addresses the sustainability issue;
- **The inclusion of a “considerable” share of private co-funding:** this criterion is rarely found in Interreg IVA programmes, which tend to fund projects co-funded by public or semi-public authorities. As mentioned above, the programme was indeed successful in attracting private funds to co-finance projects funded by the programme.

Table 7 : Joint prioritization criteria for project selection in programme North

<ul style="list-style-type: none">• Contributes to sustainable development (economic, social and environmental)• Contributes to improved equality• Leads to the creation of new employment opportunities and/or preservation of existing ones• Innovative element• Enlists new actors in the cooperation• Contributes to the strengthening of identity• Multinational element• Contributes to the long-term maintenance of contact and cooperation between countries• Considerable share of private financing
--

Source: Interreg IVA North OP

Business networks created on the basis of joint interest identification and trust created **are likely to last thanks to joint business opportunities.**

Cooperation networks involving academia need continuous support of public funding sources for their research activities from national or international sources. Involvement of users of research results, such as municipalities as in the NIMO project (Box 7), raises the likelihood of future funding to continue the cooperation. Another factor for ensuring sustainability is the clear focus of projects: too diverse projects find it more difficult to ensure their sustainability (see the examples of the Harsh Weather Testing Network in Box 2 and Cross-Border Innovation in Box 8).

Box 7. Future of NIMO Nordic Interaction and Mobility Research Platform

The NIMO - Nordic Interaction and Mobility Research Platform – project is led by the Luleå University of Technology, in partnership with Oulu University, University of Lapland and the municipality of Skellefteå. It received an EU grant of EUR 702 000. Co-funding came from the universities and the municipality.

The goal of the project is to establish a common research platform on interaction and mobility in the cross-border area, through leveraging existing resources and networks and performing joint cross-border research, development, innovation, and deployment activities. The driving force behind the project was to create critical mass, to be “stronger together”. E-services for citizens, community-based elderly care, and pervasive games are targeted application areas. It allows

companies in the ICT industry to collaborate with universities in both North Sweden and North Finland and to market their products and services in the home market and also in other parts of the region across national borders. The project also has the ambition of establishing European networks to form the basis for future funding from the EU Framework Programme and increase the number of active researchers in the region in the targeted area (measured by number of dissertations, number of senior researchers, number of PhD students).

The NIMO platform has generated a lot of interest, and is likely to continue thanks to further commitment from partners and beneficiaries of the platform and follow-up activities. The resulting Virtual Oulu 3D model has brought together a large number of stakeholders in the context of the 3D Internet, research and education organisations, companies and the City of Oulu, and has provided a joint and visible landmark for the 3D Internet competence cluster in the Oulu region. The Oulu3D virtual model launched by the NIMO project is being exploited by several other ongoing projects and funding applications for new projects:

- The University of Oulu granted a EUR 798 000 strategic research infrastructure grant ("Oulu3Dinfra") to expand the initial model created in the NIMO project into an open 3D Internet city laboratory for the community. These stakeholders have already utilized the 3D model in a wide range of activities, and new exploitations are being planned. Resources for subsequent development are planned to be obtained from upcoming R&D programs such as ITI/6Aika and Horizon 2020.
- The University of Lapland sent a new project proposal to Tekes with VTT and Rovaniemi University of Applied Sciences on the theme developed in the NIMO project.
- An application is being prepared for Interreg V North, extending the collaboration to new partners, notably in Norway, and focusing on services for the elderly.

Source: North programme Annual Report 2014, the portfolio of projects, and an interview with the project manager

Box 8. Cross Border Innovation: the challenge of sustainability

The Cross Border Innovation project has been led by the public organization supporting business development in Sweden, ALMI Företagspartner Nord AB, with partners in Sweden (VINN) and Norway (Research Park Narvik AS). The size of the EU grant was EUR 174 000.

Starting from the observation that there is too little cross-border cooperation between business and research institutions across the two countries, the aim of the project was to establish a network that could increase collaboration and skills transfer across borders, broadening the work of those intermediary organizations tasked with promoting business and academia-business cooperation in their country to incorporate a cross-border dimension. The target groups of the project were: inventors, innovators, inventors' associations, small and medium sized companies, industrial companies, academy and incubators.

The projects deployed matchmaking efforts in the following forms:

- Creation of a database on actors involved in innovation in Northern Sweden and Northern Norway, based on each organization's files and through visits, calls and mailings;
- A major cross-border Innovation event in Sweden to gather 123 participants from both countries around 138 pre-arranged matchmaking sessions;
- Awareness-raising seminars where participants received information

about commercialisation.

Despite the success of the main event, which was highly appreciated by the participants, there is little continuity of this project, as resources are not made available by the leading organizations to repeat such types of matchmaking event nor to maintain the database. The lack of focus of the initiative (which covered all sectors) is partly responsible for this lack of continuity.

Source: North Programme Annual Report 2014 and the portfolio of projects and an interview with the project manager

3.4.2. Will its sustainability depend on future EU financing?

In R&D, innovation and entrepreneurship, **the continuation of projects take the following forms, which all imply future EU financing:**

- **New projects in the form of further applied research collaboration between partners under Interreg V North.** Most projects visited during this evaluation plan to continue the cooperation implemented during the project funded by Interreg IVA North. This situation was also found by the 2012 evaluation, which revealed that 85% of project managers state that a new project is planned as a continuation of the project funded by the programme, for the most part with the same partners (Kontigo 2012). In many of the visited projects, the source of funding for a future project is Interreg. The fact that companies have become eligible as project partners (and thus will be able to receive Interreg funds) in the successor programme Interreg V has been noted as a very positive point by several lead partners interviewed in this evaluation. This will help to ensure even better integration of companies in the projects and further increase private co-funding. Such a situation will make projects less dependent on Interreg funding in the future.
- **Continuation of cooperation under other EU-funded programs of the Interreg family:** the trans-national programmes Baltic Sea and Northern Periphery are the most natural candidates for continuation of several projects: many partners intend to submit similar projects as those funded by Interreg North, but with an extended partnership covering new areas; the Kolarctic programme (of the European Neighbourhood and Partnership Instrument for Cross-Border-Cooperation), covering the same area and parts of Russia, is also considered favourably by those projects interested in additional cooperation with Russia. Interreg may act as seed money for testing partnerships with neighbours, while extending it further in a second step (e.g. the Nordic Mining School, see Box 9).
- **Application to the EU R&D Framework Programme:** a very limited number of projects have reached the stage where they can envisage an application to FP7 or Horizon2020. Interreg projects may act as a first step towards accessing the European Framework Programme (FP). While a few projects reported attempts in this direction, this is likely to be insufficient to ensure the continuation of the learning supported by Interreg North (9 applications have been recorded by the programme). The goal of the EU FP is quite different and for many the step is too high to take; the previously mentioned sources are seen as more appropriate for the sustainability of cross-border cooperation.

Public national/regional sources of funding taking up the baton of Interreg for funding interregional projects is not seen as a realistic option (so far): all interviewees stated that those sources, including ERDF-funded programmes, do not allow funds to flow across borders, and that this is not likely to happen even to

support the continuation of cross-border projects which have proven successful. Project partners are left with the possibility of funding their activities with domestic resources in parallel, with the danger that differences in timing and funding regimes will hamper the conduct of a truly joint inter-regional project. Even the legal possibility for regional ERDF programmes to use up to 15% of funds outside of the region is not likely to be activated, according to all interviewees.

There is a consensus amongst project leaders met during this evaluation on the idea that **the “project” context offered by Interreg, attached to funds, is necessary to ensure real cross-border action.**

Box 9. A sustainable project: The Nordic Mining School

The Nordic Mining School is a partnership between Luleå University of Technology and Oulu University aimed at establishing a transnational training programme in metallurgy and mining. The project has received an EU grant of EUR 596 000, and is co-funded by the two universities and the county council of Norrbotten.

The rationale behind the project is to create a critical mass of education and research of relevance to the metallurgy and mining industry, which is present in both countries. Concretely, the project has increased the supply of courses thanks to combining courses at both universities and establishing a double degree agreement between Luleå University of Technology and Oulu University. In addition to the courses created specifically for the Nordic Mining School project, the universities agreed to make a large number of other courses available to each other's students. In total, 196 students used the opportunity to attend courses developed by the project or attended courses made available at the other university. Another key part of the project has been the establishment of a joint professorship in entrepreneurship. Cross-border value-added is clearly identified: a larger and richer range of courses has been offered to students through the collaboration; students and staff have gained the possibility to meet and work together across borders.

There is a strong will among project partners to continue cooperation after the end of EU support. The long-term financing of the joint training programme is anchored in the universities so that course and study exchanges, as well as the dual degrees, are maintained on a permanent basis. The waiving of tuition fees for Nordic students is a facilitating factor for such joint courses. However, the joint entrepreneurship course has been stopped, as the two universities have not found the resources to fund it after the Interreg project ended.

An observation from the project is that student volume, especially when it comes to exchange studies, is low: this questions the relevance of the scope defined for the project. The flow of students is also biased, with more Finnish students following courses in Sweden than the reverse. It is therefore concluded that there is an interest in the courses organized and made accessible through the Nordic Mining School, but that the student base at the two universities is too small to achieve sufficient volume in more prolonged exchanges (6 months or longer). This finding led to the planning of the Expanded Master Cooperation, which in addition to Luleå and Oulu will involve collaborators from Iceland (University of Iceland), Greenland (Base Tassel Kolen Sisimiut), Denmark (Denmark's Technical University / Centre for Arctic Technology) and Norway (NTNU and the University Tromsø). This developmental work is funded by the Nordic Council of Ministers and has been ongoing since January 2013. The European Institute of Technology (there is a co-location centre at Luleå University of Technology) may also support travel costs.

Source: North Programme Annual Report 2014 and portfolio of projects and an interview with the project manager

3.5. Significance of Interreg programme

EVALUATION QUESTION

e) If there were no prior CBC programmes, would the projects co-financed through the programme have happened without the existence of EU funding?

All lead partners interviewed during this evaluation are of the opinion that **their projects would either not have taken place at all, or would have taken place in a much more limited fashion, if they had not received the Interreg grant:** "Interreg ties the actors together" (Narvik Research Park interviewee); "Without Interreg, there would be some cooperation but one would lose the opportunity to work in interdisciplinarity and form new consortia with new cross-border dimension" (Interview from Northern Research Institute NORUT).

This is because domestic funding sources do not accommodate for such international partnerships, and combining these sources into a single project is a much too difficult a task (even taking into account the formal possibility for ERDF-funded programmes to allocate up to 15% of their budget outside of their jurisdiction, which is seen so far as politically too difficult, as mentioned in the previous section).

Hence, **Interreg IVA North has a significant role in developing and implementing partnership projects with a cross-border dimension.**

The question of the significance of the Interreg programme for the existence of projects has been addressed in the monitoring system of the programme (see question 3.6) through a number of **impact indicators that measure certain types of achievements "that wouldn't exist without the project"** (Table 8). Despite difficulties experienced with the collection of such indicators, they point towards an important role played by the programme in implementing the cross-border projects.

Table 8 : Indicators measuring the significance of programme North

Priorities	Indicators	Target	Value
IMPACT indicators, targets and values achieved			
Priority 1 Business development	New job opportunities in the company/organisation that have been created as a consequence of the activities of projects that remain directly after the support from Interreg IVA North has been terminated and that wouldn't have existed without the project (Total/female/male)	50/20/30	63/19/44
Priority 2 Research, development and education	New job opportunities in the company/organisation that have been created as a consequence of the activities of projects that remain directly after the support from Interreg IVA North has been terminated and that wouldn't have existed without the project (Total/male/female)	40/20/20	28/9/19
	Joint education programmes that have been created as a direct consequence of the activities of projects that remain directly after the support from Interreg IVA North has been terminated and that wouldn't have existed without the project	5	6

Priorities	Indicators	Target	Value
Priority 4 Sub-programme Sapmi – borderless development	New job opportunities in the company/organisation that have been created as a consequence of the activities of projects that remain directly after the support from Interreg IVA North has been terminated and that wouldn't have existed without the project (Total/male/female)	5/3/2	10/5/5
	New information channels that remain directly after the support from Interreg IVA North has been terminated and that wouldn't have existed without the project	3	0
	Lasting cross-border cooperation between actors that remains after the support from Interreg IVA North has been terminated and that wouldn't have existed without the project	6	12

Source: indicators list communicated by Interreg North Programme Secretariat (16 September 2015)

3.6. Quality of monitoring system

EVALUATION QUESTION

f) Which programmes have the best monitoring systems and which have the worst?

The North programme has a **monitoring system of good quality**. It is one of the few programmes in Strand A that **incorporates the three levels of indicators**- outputs ("shows activities which will be implemented"), results ("shows the primary results that can be established") and impacts ("shows the long-term effects of the projects")- and demonstrates a good understating of the difference between these types of indicators. The full list of indicators by priority and by type, including target values set at the outset of the programme and achievements by September 2015 is appended in [Annex 3](#).

For all priorities, the sub-goals are clear and operational, and they are linked to a large extent to output, result and impact indicators. **The level of ambition of these indicators can be qualified as high**, especially when it comes to impact indicators. The programme notably includes the following impact indicator under each priority:

"New job opportunities in the company/organisation that have been created as a consequence of the activities of projects that remain directly after the support from Interreg IVA North has been terminated and that wouldn't have existed without the project (Total/male/female)"

As indicated above, such indicators reflect a concern for two important quality criteria for an Interreg programme, namely the sustainability (section 3.4) and additionality of the programme (section 3.5). Also, as mentioned in section 3.3, many important indicators are also split between male and female to reflect an overarching goal of promoting gender balance across all activities, and capture the specific category of youth.

It should also be noted that, according to the Managing Authorities, despite the fact that the titles of indicators do not explicitly mention the cross-border dimension, it is well agreed with project leaders (in charge of collecting the relevant data) that only the results which can be assigned to the cross-border cooperation should be reported.

Despite these remarkable achievements, the North programme monitoring system also presents some weaknesses:

1. **The relevance of some indicators can be questioned:**
 - Impact indicators include several indicators of the type “number of projects that contribute to a specific goal” (such as more environmental friendly forms of energy and technologies) which would be better placed as output indicators;
 - Indicators concerning applications and approval of projects to the EU Framework Programme are quite ambitious, given the high selectivity of these programmes. Other indicators reflecting new research funded by national or Nordic R&D funding sources as a result of the Interreg North programme could have been added to depict the increase in cross-border research capacity as a result of the programme.
2. **The feasibility of collecting some indicators is limited**, according to interviewees. This applies to:
 - New job and enterprise creation: there is an attribution problem as job and enterprise creation depends on many factors other than the projects funded by Interreg;
 - Cross-border business relationships: there is a confidentiality problem which prevents project leaders from accurately capturing the business impacts of Interreg-funded projects.
3. Most **importantly, several key achievements of the programme cannot easily be incorporated into indicators**: improvement of mutual knowledge between people across the border and making individuals more favourable to cooperation are two key achievements of the programme that are not captured by the monitoring system.
4. Finally, **not all indicators have a baseline value** that would help track the improvement of the cooperation from one period to the other.

3.7. Value-added of INTERACT

EVALUATION QUESTION

g) What has been the added value of the INTERACT programme to the effective functioning of the CBC programme?

The participation of the Managing Authorities in activities organized by INTERACT has been very limited. This is explained by distance (meetings are often organized far away from the MA’s location) and time constraints. The availability of effective networks gathering together Swedish authorities involved in EU programmes is also an explanatory factor for the lack of use of INTERACT, given the limited time resources of the MA.

The main expectation from the MA as to the value-added of INTERACT is in **translating the EU guidelines and rules into operational concepts and practices** for running the programmes.

The Managing Authorities have found some operational documents produced by INTERACT (such the lead partner contract) useful and have used them in their practice. They also value highly the possibility of getting support from INTERACT on the issue of indicators and monitoring systems, which they find most challenging.

3.8. Coordination with national and regional programmes

EVALUATION QUESTION

h) To what extent were the programme objectives coordinated with those of national and regional programmes? Can synergies be objectively evaluated?

3.8.1. To what extent were the programme objectives coordinated with those of national and regional programmes?

The managing authority (MA) has **included the issue of coordination with other Structural Funds programmes and national/regional programmes in its procedures**. This is valid both at the preparation stage (where the relevant regional authorities are involved) and at the implementation stage. To ensure such coordination, the Managing Authority is continuously involved in meetings with the Managing Authority of the national and regional fund programmes, including with the Agriculture Funds program for Rural Development and the Fisheries Fund National Strategic Plan.

Coordination with other programmes of the Interreg family is also ensured:

- Cooperation with the programs Botnia-Atlantica, Sweden-Norway and Öresund Kattegat-Skagerrak takes place through physical meetings, and also via regular telephone and e-mail communications;
- The Managing Authority is represented in a broader network for the exchange of experiences with all INTERREG programs that Sweden participates in;
- The Managing Authority is represented in the Subcommittee for the Baltic Sea program and RAG (Regional Advisory Group / Regional assessment group) for the Northern Periphery programme.

The programme management also takes into consideration the **contribution of the programme to the EU Strategy for the Baltic Sea Region**: a total of 112 approved projects from the North programme, with a value of EUR 27.1 million of European funds are contributing to the implementation of the various priorities of the EU Strategy for the Baltic Sea region. In addition, the programme has a contact person who participates in a network for the EU Strategy for the Baltic Sea region. Within this network, information is exchanged with other regions and programmes.

3.8.2. Can synergies be objectively evaluated?

Assessing synergies between Interreg North programme and regional/national programmes would deserve an in-depth analysis of projects funded under the various programmes. There is a need to go beyond broad objectives and **look at concrete actions funded** by the various programmes to detect synergetic effects. This type of analysis is beyond the scope of the present evaluation.

The analysis in section 3.9, however, indicates that a division of work takes place between the two types of programmes, based on differences in budget size and a focus on projects with or without cross-border character.

3.9. Comparison with regional programme

EVALUATION QUESTION
The contractor will compare for the theme of the case study the selected programmes with a programme financed from the national/regional ERDF budgets to understand the difference between the different programmes as regards their impact on the theme and on cooperation.

The ERDF-funded regional programme for the region of Norrbotten in Sweden (the “mainstream” programme) has been chosen in order to compare its features with those of Interreg North. The two programmes show both differences and similarities, as shown in Table 9.

Table 9 : Differences and similarities between Interreg IVA programme North and the regional ERDF programme for the region of Norrbotten 2007-2013

	Interreg IVA programme North	ERDF programme for the region of Norrbotten
Differences	Small budget, smaller projects funded Focus on projects with CB dimension No funding of infrastructure Not easily accessible (high rejection rate) Sustainability difficult	Large budget, larger projects funded Does not fund projects with CB dimension Funding of infrastructure Easily accessible Sustainability more straightforward
Similarities	Strong focus on innovation and entrepreneurship Similar projects funded	

Sources: Interreg North and ERDF programme Norrbotten Operational Programmes

The first main difference between the two programmes, which is likely to generate a very different impact on the R&D, innovation and entrepreneurship theme, is budget size: **the mainstream programme has a much larger budget than Interreg** for the theme under focus. If Priorities 1 and 2 of Interreg North are aggregated⁹ this delivers a budget of EUR 18.3 million for Interreg North compared to EUR 177 million for Norrbotten. Thus, the Interreg budget available for the two regions in Finland and Sweden only amounts to 10% of the budget available for the Swedish region only in the mainstream programme (Table 10).

⁹ This is an over-estimation of funding allocated to the theme because it also includes business development activities without an innovation dimension.

Table 10 : Priority axes and initial budgets in Interreg IVA programme North and regional ERDF programme for the region of Norrbotten 2007-2013

Priority Axes North	EU Investment North	Priority Axes Norrbotten	EU Investment Norrbotten
1: Trade and industry development	EUR 9,095,705	1: Innovation	EUR 177,125,070
2: Research, development and education	EUR 9,241,454	2: Accessibility	EUR 55,806,529
3: Regional functionality and identity	EUR 9,241,454		
4: Sub-programme Sápmi - borderless development	EUR 4,349,845		
Technical assistance	EUR 2,037,988	Technical assistance	EUR 9,705,483
TOTAL	EUR 33,966,446		EUR 242,637,082

Source: Interreg IVA North OP 2007-2013 and Övre Norrland OP 2007-2013

The second (logical) difference is that the **mainstream programme does not include any investment, project or initiative with a cross-border dimension**: the division of work is very clear in this respect between the two programmes, and the Managing Authorities of the two programmes collaborate to re-orient projects to the appropriate programme according to this fundamental criterion, and to avoid cases of double funding.

Third, while the two programmes have a similarly strong focus on innovation and entrepreneurship and a strong business orientation, the nature of activities funded differ as far as **the mainstream programme funds infrastructure whilst the Interreg programme does not**. Otherwise, the two programmes also fund similar projects, with a domestic dimension for the former and a cross-border dimension for the latter, and larger projects (in budgetary terms) for the domestic programme.

Fourth, there is also a **difference in accessibility** between the two programmes: the rejection rate of projects is lower in the mainstream programme (10% compared to 50%), and, indeed, project leaders interviewed during this evaluation were of the

opinion that the mainstream programme is easier to access than the Interreg programme because there is less competition.

Finally, the **sustainability challenge** is likely to be more difficult to address for the Interreg programme: projects funded under this programme need to take into account possibilities and strategies from several regional programmes if they want to benefit from further public funding outside of Interreg, while the future of projects funded under mainstream programmes has to be assessed from a unique funding environment point of view.

Resultantly, the complementarity between the two programmes is organized as follows: the mainstream programme helps actors to build the capacity and enables them subsequently to enter into cross-border partnerships and develop projects to be funded by Interreg: **the goal is that the mainstream programme creates Interreg spin-offs**, since an overall goal of the latter programme is to promote internationalisation. Nevertheless, there is no mechanism set in place in the mainstream programme to identify those initiatives that have an "Interreg potential": more interactions between the two programme's Managing Authorities might help create such types of synergies.

References

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Länsstyrelsen Norrbotten (2007), Interreg IVA North Operational Programme.

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Annexes

ANNEX 1. Projects supported by programme North in R&D, innovation and entrepreneurship

Project name and EU funding	Project description
Priority 1: Development of trade and industry	
Cooperative applied research	
<p>Application of natural reinforced composites in harsh environments ANACOMPO EUR 492.159</p>	<p>The project aims to fill the lack of knowledge that is an obstacle for using renewable raw materials in composite materials. The project will stimulate cooperation between Finnish and Swedish R&D and industries in the Northern region. The research is directed to developing ecological effective light weight composites as well as spreading knowledge to the companies. The number of companies in the project is seventeen, nine companies from Sweden and eight from Finland. The aim is to get relevant data for biological based fibre available for composite industries. Through the project expertise in the region will be strengthened through a closer cooperation between Finnish and Swedish researchers and companies. Knowledge about biological based composite material will stimulate development of new products. By using biological based components the possibilities of recycling are increasing. By events arranged within the project network and partnership between Finnish and Swedish companies will be established. Experience gained in this project will also stimulate participation in other international projects.</p>
<p>COBS EUR 306.437</p>	<p>The project aims to develop and launch a supervision system which will increase the availability and performance of conveyor belt transports in primary industry. The base in the system is the "Intelligent conveyor belt roller"; a composite based roller that will hold embedded electronics and sensors allowing measurement of critical performance parameters such as bearing temperature, vibrations, rpm etc. The data will be transmitted wirelessly to plant monitoring, and will allow preventive maintenance as well as immediate recognition of roller failures. This will reduce downtime in the plant due to unexpected failures, thus increasing availability, plant throughput, and reducing the cost for maintenance. To achieve the objective, the project will aim towards: 1) The development of a system which is commercially marketable; 2) Research and development performed in close cooperation between academic partners, SMEs and mining industry and 3) The completion of a pilot installation of 100 units in a mill.</p>
<p>Oil analysis EUR 486.600</p>	<p>The aims of the project are: 1) to carry out interdisciplinary research within the following spheres: a. Lubrication and wear of machine part with focus on particle generate. b. System for optical particle analysis. c. Built-in system for tough environment including communication. d. Interaction between human being – machine; 2) to develop a demonstration system based on results from research; 3) to develop at least one industrial pilot installation of the demonstration system; 4) to make cooperation possible between companies with focus on product development; 5) to make use of possibility to develop new products and services; and 6) to establish a well-developed cross border innovation system between the organisations.</p>
<p>Intelligent Road</p>	<p>The aim of the project is to come up with the concept of a sustainable Intelligent Road System that would offer updated local information as to the road surface</p>

<p>EUR 445.019</p>	<p>conditions for those who are on the road. Such a system should also be easy to promote from a marketing point of view. Another aim is to support the development of the traffic operating environment in the northern parts of Scandinavia, to improve the traffic safety related to climate conditions and to make the international exchange of experiences between Finland and Sweden more efficient. The objective is to support the development of business in Northern Scandinavia through testing and improving the available innovative products that aim at ameliorating traffic safety in Nordic climate conditions. The objective is to create a test-version of the Intelligent Road System that will be subject to further marketing and that would promote the development of the above-mentioned sectors as well as support and generate benefits for the other sectors (e.g. logistics, car manufacturing and car testing).</p>
<p>BERRY EUR 218.959</p>	<p>The aim of the project is to combine berry industry processes into an energy and resource efficient integrated process, optimizing the quality, and generating simultaneously juices, juice concentrates, berry skins and seeds and other mechanically derived ingredients. The long-term objective is to raise all the industry's competitiveness and refinement level in the global marketplace and enable the development of new products. The project's steps are: 1. Evaluation of new (but existing) processes, 2. Evaluation of new technologies and processes in the production of juices and other products, 3. Optimization the whole process system to higher resource and energy efficiency, 4. Further develop and implement pilot sub-tests, 5. Development of parameters quality and product, 6. New berry products and ingredients from berries for food.</p>
<p>ECEH- Efficient Control of heat & ventilation in low Energy Houses for single families EUR 211.700</p>	<p>The project aims to improve the competitiveness of the house manufacturers in the region by creating efficient energy management in low-energy buildings. It also aims in common with the house industry and industry on energy management to develop a concept for efficient community use of energy, heating and ventilation in small low-energy buildings by designing models for automated management system that strengthens the competitive advantage of building low-energy and meet future customer requirements, new standards and regulations.</p>
<p>UNELMA EUR 221.149</p>	<p>The project aims to develop research and analysis activities of companies operating in Northern Finland and Sweden, and to focus especially on the different imaging techniques used in materials research. The goal of this project is to disseminate information to industry on the co-applicants tangible opportunities to analyze materials, and collect data on the business needs today and to develop different imaging modalities in such a way that the analysis of products and materials work right from a macro-scale to a micro-and nanoscale.</p>
<p>Glued Truss type Structures in Construction EUR 42.810</p>	<p>The project aims to find new ways to use roof truss similar structures, study the possibility of using adhesives and jointing techniques in civil engineering, to study the possibilities of using new materials in the production of roof trusses. The project will lead to new development in the enterprise and between enterprises and other actors. The overall project objective is to help increase the competitiveness of the region wood cluster.</p>
<p>Vision Systems Business Development platform VSB EUR 356.387</p>	<p>The purpose of the project is the business development of products in the field of optics. The project's goal is to provide excellence and innovation to support business development of SME's products in the field of optics. It also aims to promote and disseminate the project results to generate business opportunities and interest from industry and suppliers and build on cooperation.</p>

Technological platforms	
<p>Center of Expertise for Energy in Cold Climate</p> <p>EUR 63.560</p>	<p>The project shall through mapping; networking and cooperation among present actors within the energy sector create a platform of expertise within the field of developing energy in the North Calotte area. The long-term aim is that there should be strong development surroundings in North Calotte with high skills in renewable sources of energy.</p>
<p>Joint Test Service Platform for High Tech Industries (JoHTo)</p> <p>EUR 420.000</p>	<p>The aims of the project are: 1) Collecting and collating relevant information about the joint network of expertise and equipment; 2) to increase knowledge of test and development opportunities within the program area in several industries (eg electronics, ICT, chemicals, metals); 3) The development of new services based on such data collection. The idea of the project is that joint cross-border test and skills network creates new services that support the development of new business in the companies, which encourages the creation of new companies to invest in the region, mainly in high technology and product owners.</p>
<p>SMAE</p> <p>EUR 235.077</p>	<p>The project aims to improve small and medium sized manufacturing firms' ability to actively manage and lead product development, thus enhancing competitiveness in the program area. The project aims to stimulate SMEs' skills by providing a platform for test and evaluation of modern processes, tools and methods. The platform provides access to the project's expertise in product development methodologies, modelling and simulation demonstrators, and information and automation technologies.</p>
Support to SMEs and entrepreneurship and business networking	
<p>Barents Entrepreneur Advice</p> <p>EUR 122.500</p>	<p>Barents Entrepreneurial Advice aims to serve as a proactive partner organization of three sister organizations. The project aims to encourage greater cooperation and mutual trade in the Arctic. Barents Entrepreneur Advice will work to establish business networking among entrepreneurial configurations, be a catalyst for the SMEs to the region's major investment and procurement, to provide adequate information about potential investments, collect information and knowledge of regulations and border barriers, work to SMEs actively involved and cooperate in the bidding, work on internationalization, provide adequate service and advice to SMEs and offer professional development in cross-border issues.</p>
<p>Business Network over the Northern Borders</p> <p>EUR 73.950</p>	<p>The objective is to develop competence in international trade among companies and municipalities in the region as well as promoting networks among actors. Special notice will be addressed to more smoothly handling of different cross-border problems. The project will contribute to: Increasing businesses contacts and broaden market for small- and medium sized companies in this northern part; Increasing knowledge in cross-border trade in the region; Strengthen of network within trade and industry between the countries.</p>
<p>CIFA – Connect Interreg North Business accelerator</p> <p>EUR 509.658</p>	<p>The project's main goal is that 200 companies will take note of "Företagsacceleratorn" during the project period. This goal will be reached by GAP analysis conducted in the northern Norwegian and Swedish regions, 800 small and medium-sized businesses are offered the opportunity for activity. 240 of these growth companies are more likely to implement the GAP analysis and the analysis phase of "Företagsacceleratorn", this involves analysis of meetings with various partners, skills and mentoring meetings before the act phase. CIFA project structure with the skills partners and mentors / coaches have been established in northern Scandinavia. The project will also have the following</p>

	<p>impact objectives: Growth companies shall within 12 months after beginning "Företagsacceleratorn" have increased their turnover and number of employees by 20%; The companies shall, within 24 months after beginning "Företagsacceleratorn" have increased their turnover and number of employees by another 40%.</p>
<p>Client-driven process for cross-border business "Cross-Biz" EUR 275.953</p>	<p>The goals of the project are: 1) To offer industrial customers in Sweden, Norway and Finland in-depth information about the solutions that local / regional suppliers in Finland and Sweden provide; 2) To create synergies between different parts of the industrial value chain, where local / regional suppliers from Finland and Sweden, together with industrial clients create competitive solutions based on new business models developed in the light of the needs of the industrial customer, and thereby increase sales of local / regional suppliers (SME's) for industrial customers in the region; 3) To strengthen providers' competitiveness by increasing their ability to test and deploy business models of existing products and services through user-driven development methods; 4) Making the work procedures and processes undertaken within the framework of this project to the commonly accepted models even after the project ends.</p>
<p>Nordic Business Link 1 EUR 429.963</p>	<p>Companies in the region are depending on capacity and possibility to reach new clients and work on new markets for their future growth. The project comprises analysis; acquisition of knowledge and networking activities in order to increase export and make it easier for companies to meet new business partners. The project will take care of the opportunities created through the regions strategic international work. The cooperation will be close to the companies and focus on concrete business activities.</p>
<p>Nordic Business Link 2.0 EUR 436.319</p>	<p>The objective of Nordic Business Link 2.0 is to increase the export capacity of regional small and medium sized companies and their stake in commodity circulation thus increasing trade in the north of Norway, north of Finland and north of Sweden. Nordic Business Link 2.0 aims at establishing a structure that would provide support to companies with a view to increase trade in the region. The structure should be sustainable and functional and would provide support to companies on a permanent basis as to increase their export capacity and their stake in commodity circulation. Furthermore, the idea is that the concept of Nordic Business Link remains operational after the project is finished.</p>
<p>Bothnian Arc Steel & Metal Industry EUR 443.193</p>	<p>The project aims at enhancing the competitiveness of SMEs and at ensuring their economic growth in the selected sector that is linked to the steel and metal industry as well as to the mining and energy sectors. The project also aims at identifying resources available within the industry, society and the academic world in the Bothnian Arc area and at disseminating information about their activities and operations so as to establish effective partnerships.</p>
<p>Northern Innovation network (crossborder innovations) EUR 174.000</p>	<p>The aim of the project is to enhance competitiveness among innovators and industry in the Arctic area by establishing a network that can increase collaboration and skills transfer across borders. The expected result is an enlarged cross network between established players to address innovations for commercialization and licensing across the border between entrepreneurs, academia and research institutes.</p>
<p>Forum for industrial future</p>	<p>In order to achieve the overall objective of establishing an internationally competitive regional manufacturing industry, the project has the following objectives: 1) Conduct a number of high-quality seminars enabling the experts to</p>

<p>EUR 403.801</p>	<p>meet representatives of small and medium Swedish and Finnish enterprises. The seminars should result into an "Agenda for the industrial future"; 2) Conduct a number of welding workshops with a view to instruct and train operators, develop new administrative forms, try various managing systems, create synergies with the other activities that will be implemented within the framework of the "Agenda for the industrial future"; 3) Implement 20 working programs, one for each enterprise to try to apply the Agenda with the help of a trained operator. The objective is to improve the economic turnover by 15 % and to reduce the impact on the environment by 15 %; 4) Organise an international closing seminar. The project's vision is to ensure that the region's manufacturing industry can be seen as one of the most advanced in the world when it comes to ICT culture. Based on the advanced high technology, it is possible to develop innovative high quality products that also ensure ecological sustainability. The methods for gender equality are developed as to contribute to breaking the traditional skewed gender structure within the industry.</p>
<p>Business Services Haparanda –Tornio EUR 98.542</p>	<p>The project aims to strengthen cities and local area, common business services by strengthening the competitiveness of enterprises, cross-border advisory services that promote business start-ups and investment, and create networks between business, government and university networks. Planning and implementing a common business strategy and shared business services HaparandaTornio will be implemented together with entrepreneurs.</p>
<p>Priority 2: Research, development and education</p>	
<p>Technology diffusion in companies</p>	
<p>Digital Integrated Manufacturing DIM EUR 375.914</p>	<p>The purpose of this project is to increase competence in labour in the small and medium sized companies and strengthen their competitiveness as well as building common innovations and education environment that can offer trade industry in the area and other actors competence in product and production development. The project aims to increase global competitiveness among small and medium sized manufacturing companies by using information technology within the whole chain from marketing/selling, product planning/design to manufacturing.</p>
<p>Harsh Weather Testing Network EUR 312.386</p>	<p>The purpose of the project is to create a novel transnational network between the project partners and their clients (SME's) and find and activate other organizations that give testing services to join the network. The meaning of the network is to create a totally new system for developing and strengthening the harsh weather testing activities in the northern periphery region. During the project the partners of the network will develop: 1. New innovative testing, planning, problem solving and consulting services which provide preconditions for SME's and industry working in the field of harsh weather conditions. 2. New methods and products for measurements and testing of people, materials, vehicles etc. operating in harsh weather conditions. 3. Means to promote available harsh weather testing and problem solving services to SME's and industry, organize workshops to advance information exchange and develop methods for distribution of information and awareness for other end users. The main objective of the project is that in the future there will be a functional transnational harsh weather testing network delivering solutions and services for research organizations, enterprises, industry, authorities, inhabitants and other possible costumers in different countries.</p>
<p>Increasing Energy Efficiency in</p>	<p>The project has the following objectives: 1. Technological development of low-energy solutions in housing 2. Transfer of knowledge about energy solutions to</p>

<p>Buildings (IEEB) EUR 619.669</p>	<p>the construction industry and the society 3. Measurement techniques to decrease energy consumption in both new and existing buildings 4. Measuring the energy consumption in existing buildings through the energy signature 5. Contribute in equalising standards and technical solutions for energy efficiency, thus leading to better prerequisites for international trade. The project will reach these objectives through the following activities: 1. Build up a Nordic network for promoting energy efficiency of buildings. 2. Develop new competence, know-how and expertise in measuring energy loss to advance design of passive level houses. 3. Develop a method to characterise and predict the precision in energy performance. New solutions can then be proposed that decrease the variation in energy performance for the existing building stock. 4. Pick up best practices and recommendations, based on measurements and real-life information about energy consumption both for prefabricated private houses and public buildings. 5. Transfer this knowledge to building professionals, such as developers and designers of new buildings, but also building inspection authorities in the municipalities.</p>
<p>Innovative services in the sphere of e-maintenance for industry and small/medium sized companies EUR 330.000</p>	<p>The purpose of the project is: 1) to develop and establish innovative services in the sphere of e-maintenance for increasing productivity and accessibility in technical system as well as reducing cost for maintenance; 2) research, develop and suggest a model for a platform for maintenance services with focus on operation and maintenance processing; 3) develop a network in view of working in relation to the incoming European Research Programme.</p>
<p>Collaborative applied research</p>	
<p>Fatigue durability of laser clad components – FATLASEEUR EUR 189.370</p>	<p>The purpose of this project is to increase knowledge about the applicability of laser cladding of metal components are exposed to dynamic loads. This will be done through a comprehensive testing program of surface components in laboratory environments. When research and test results are available, it is less risky for the metal and engineering companies to apply the method. In the long run is the purpose of this project to enhance business competitiveness and to build joint innovation and educational organizations that offer programs area's business community and other stakeholders' excellence in product and production. The goal of this project is to increase knowledge about laser finishing metal components withstand dynamic loads and the factors affecting sustainability. Based on this knowledge, and documented data, criteria, recommendations and design rules are created for designers and end users of metal that has been finishing surface with laser treatment. In addition to scientific objectives the intention is to use this project to start a firm and close cooperation between the two leading materials research (Lulea, Kokkola) in finishing surface treatment in the North.</p>
<p>Material Testing of Nanocomposite Structures (NAKOMATE) EUR 462.573</p>	<p>The project aims to work across the Nordic borders (northern Sweden and Finland) to develop and evaluate opportunities with the use of nanocomposites and nanocomposite reinforced composites. It is intended that the project will encourage cooperation between both research providers and industry. The project will jointly carry out research and disseminate results to the composite industry that can utilize the results by using these innovative materials and composites in commercial products, thereby contributing to both economic growth and environmental benefits. The industry will benefit from the project by the availability of qualified skills in areas such as materials testing and simulation will be improved. In addition, a better understanding of the possibilities of</p>

	nanocomposites and their properties is expected as a result. Such skills will improve industry's competitiveness in the international market. There is also a possibility that the project will generate spin-off effects and ideas into commercial products in industries such as electronics and metrology.
PROLAS- Process Optimization and Fatigue Behaviour of High Strength Steels using High Power Fibre- and Disc Lasers EUR 469.323	The project aims to develop laser-welding technology with fibre and disk lasers and encouraging the use of laser welding and high strength materials in the region's manufacturing industry. PROLAS would also like to develop cooperation between Luleå University of Technology (LTU) and Oulu University (OU) and the region's companies to better utilize the resources available; investigate and document the laser welded joints fatigue resistance; develop guidelines to produce optimized laser welding of materials; disseminate and transfer laser welding expertise to the region's businesses The goal is to strengthen the competitiveness of manufacturing companies and to enhance the laser welding knowledge of the region.
Highbio EUR 900.000	The project aims to develop alternatives for a high refinement of bio energy for local using of raw material through processing. Processing can partly be done through local entrepreneurs and energy cooperative that can develop and apply experiences from the project. In the project different refinement processes and types of purification techniques can be followed and evaluated through techno economic analysis. The project aims to contribute to developing methods and techniques for handling bio energy and refinement through gasification, in an environmental friendly way. With more knowledge conditions will be improved in view of creating new and increased local activities for refinement and using of bio energy raw material in the projects field of activities.
Highbio 2 EUR 720.240	The project aims to: 1) Contribute to the development of clean and efficient technologies for bio energy production; 2) Contribute to the development of bio-based fuels and raw materials for chemical industry; 3) Through research and development support small-scale heat and power at local level. The goal of this project is to develop methods by which the use of biomass can be made more versatile than before. The aim is also to expand the region's energy self-sufficiency and develop methods by which to reduce dependence on fossil fuels. The technical objective of this project is to develop the gasification process of biomass (especially wood and logging residue) with different types of gasification and the development of treatment and the use of syngas for the production of biofuels and biochemical.
II City V2 EUR 600.000	The goal of this project is to: - Study audio modality and physical user interfaces in context-aware and pervasive applications - Through active prototyping perform research and verify and utilize research results - Create technically based opportunities for new companies and product development - Empower and help individuals through new technology, both in special needs groups and in main stream applications - Attract young people to come to/stay in the region by creating interesting job opportunities.

Support to entrepreneurship	
InnoPrenneurship EUR 228.000	The project aims to build competence among teachers in universities to educate entrepreneurial pedagogy within university fields but with the emphasis on technique, business developing and teacher education. The aim of the project is as follows: 1. By analyzing present condition of things in education round entrepreneurship within partner universities we will be able to a. Exchange knowledge and experience b. Renew methods, content and pedagogic 2. Create an overall view on education linked to entrepreneurship in the Nordic. 3. Facilitate for fully certificated students to set up new companies as well as develop already existing in our region. 4. Produce scientific research in the sphere of entrepreneurship linked to education.
InnoPrenneurship 21 EUR 190.711	The objective of the project is to increase the knowledge as to the role and the significance of entrepreneurship between the participating high schools and other public institutions in Northern Scandinavia, and influence the attitudes and the culture of the participating high schools and their regional partners favouring a more "entrepreneurial" way of thinking and pattern of behaviour.
Border crossing entrepreneurship EUR 207.879	Through a well-functioning cooperation and involvement between trade and industry and the schools the project aims to strengthen the border crossing approach where schools and trade can complete each other. Through the entrepreneur way of looking in school the project will be a foundation stone for a wealthy cross border trade and industry in the future.
Joint education	
Nordic Mining School EUR 596.000	In order to increase the level in mineral and mining research, Lulea Technical University and Oulu University intend to start a strong and leading platform with focus on following areas: 1) Strengthen effectiveness and quality in education and research; 2) Stimulate contacts in order to make cross border moving easier; 3) To have a developing role in mineral and mining and its present and future companies; 4) Form a collective cross border and attractive education environment; 5) Become an attractive research partner from an international perspective.
Research and Technology Platform	
NIMO Nordic Interaction and Mobility Research Platform EUR 702.000	The overall goal of the project is to establish a common research platform within interaction and mobility in the region. It should be accomplished through leveraging existing resources and networks and performing joint cross-border research, development, innovation, and deployment activities. E-services for citizens, community-based elderly care, and pervasive games are targeted application areas. In addition the project will establish European networks in the targeted area to form the basis for future funding from the framework programs. The project also aims to increase the number of active researchers in the region in the targeted area (measured as number of dissertations, number of senior researchers, number of PhD students).

<p>MEDIA EUR 484.844</p>	<p>The project's objective is to cooperate across the Nordic borders (northern Sweden and northern Finland) with a view to strengthen the quality of education and research as well as to increase the cooperation with media enterprises. The overall objective of the project is to establish a platform for the industry-oriented research within the field of media in the region. The aims of the project are as follows: 1. Establish a joint transnational high quality research platform. 2. Develop a well-functioning cross-border network between the universities and media enterprises. 3. Establish conditions to strengthen concerned enterprises by showing a good example and apply research results to media production enterprises. 4. Obtain research results that can be published and can be used by media enterprises. 5. Stimulate an increased cooperation between media enterprises as well as between media enterprises and universities. 6. Expand the network internationally and thus establish conditions for participating in the EU framework program (FP7/FP8).</p>
<p>Priority 4: The Sàpmi programme</p>	
<p>Indigenous Entrepreneurship EUR 228.055</p>	<p>The aim of the project is to include indigenous people in the development of the region, creating strong business relationships between indigenous entrepreneurs in the Barents region, creating jobs for people belonging to indigenous peoples in their communities, strengthening cooperation between indigenous peoples in the Barents region, and promoting indigenous culture and traditions inside and outside the Barents region for indigenous peoples' own conditions. Project participants will through innovation find new ways to use indigenous traditions and traditional knowledge in the creation of small businesses, finding a meeting place for indigenous young entrepreneurs, thus creating business cooperation across state borders. The goals are that a minimum of 60 young indigenous entrepreneurs pursue project development, at least 30 indigenous companies develop positively, 10 cross-border collaborations with at least two or more IE-business will have been established at the end of the project and that a network of businesses owned by indigenous people is established with the purpose to develop and promote indigenous industries inside and outside the Barents region.</p>
<p>Industry development in the boundless region of Sami EUR 217.374</p>	<p>The project aims to provide participants in the Sami product production in Norway and Sweden theoretical and practical knowledge on how to build and lead a product market. The project aims to develop existing and new products and markets where the Sami regions of Norway and Sweden are represented with their heritage, traditions and distinctiveness.</p>
<p>Small projects and feasibility studies (under all priorities)</p>	
<p>Borderless business developing EUR 10.000</p>	<p>The purpose of the feasibility study is to examine the conditions for a Norwegian/Swedish business development project in the border region (Priority 1).</p>
<p>North practice EUR 5.000</p>	<p>The pilot study aims to investigate conditions and to do a needs analysis to implementation of a main application with the North Internship as project idea. The goal of the North Practice is to develop methods to stimulate entrepreneurship and mobility internationally, primarily in the Arctic, the labor force is examined from the post-secondary vocational education (Priority 1).</p>

<p>Success factors for female entrepreneurship EUR 7.200</p>	<p>The objective with the feasibility study is to find collaboration partners to make an application for a main Interreg project. This feasibility study will be carried out together with the northern part of Finland and the northern part of Sweden because there are both similarities and differences among attitudes towards female entrepreneurship. Also there is a need to find co-financiers for the main project. The goal with the main application is to find success factors for female entrepreneurship in both Finland and Sweden within the Interreg area (Priority 1).</p>
<p>Potential development and demonstration of new technologies in the field of environment)-friendly small-scale hydropower plants EUR 10.000</p>	<p>The main objective of the project is to explore the possibilities of developing technologies for small-scale hydropower plants in the North Calotte area that would be environment-friendly, in line with the existing legislation and that would not impede natural fish migration. The technology will first and foremost be used for renovation of the existing hydropower plants to bring them in line with the existing ecological requirements, as well as for rebuilding of spillways in the existing dams that are lacking fish tunnels and do not produce energy (Priority 1).</p>
<p>Increasing Energy Efficiency in Buildings (IEEB) – prestudy EUR 10.000</p>	<p>This preparatory project will create a plan for a real project to study various energy saving measurement ways, methods and equipment, to be used in buildings. By studying and comparing existing measurement methods and new mobile/wireless systems for various construction materials the project could define best practices and recommendations for energy saving (Priority 2).</p>
<p>Meän Koulun EUR 10.000</p>	<p>This preliminary study aims at investigating possibilities for developing technical programme education for basic industry as well as mining industry both in Sweden and Finland, to be given on a cross border basis. In this study prioritized directions will be identified. The education will make cross border movement easier and it will be possible to use part of it for further education (Priority 2).</p>
<p>Industry development in the boundless region of Sami – prestudy EUR 10.000</p>	<p>Participants and companies in Sami product segment express a large wish that the college in Harstad starts a competence development project within industry development in Sami area. Actors wants that focus in the project will be on innovation, product developing and building trademark. The preliminary study will make an overview of companies in Norway and Sweden that carry on trade in production and sale of Sami products within the segment “from sea to vast expanses” (Priority 4).</p>

Source: KEEP database, documentation from the programme and information from visits.
Headings by the author.

ANNEX 2. Programme of Interviews and Visits

OULU, 24 August

Time	Interviewee/Project	Location
08:30- 10:00	Mr. Antti Haapalahti <i>Project Manager, Oulu University of Applied Sciences</i> IEEB – Increasing Energy Efficiency in Buildings	Oulu University of Applied Sciences, School of Engineering Kotkantie 1, 90250 Oulu Antti tel: +358 50 5909 689 antti.haapalahti@oamk.fi
10:00- 11:30	Mr. Heikki Aalto Bothnian Arc	Oulu City Hall Kirkkokatu 2 A, 90100 Oulu Heikki tel: +358 44 7031331 heikki.aalto@ouka.fi
11:30- 13:00	Lunch	
13:00- 14:30	Mr. Ville Hyvärinen <i>Occupational hygienist, Finnish Institute of Occupational Health</i> Harsh Weather Testing Network	Finnish Institute of Occupational Health, Oulu Regional Office Aapistie 1, 90220 Oulu Ville tel: +358 43 8241274 ville.hyvarinen@ttl.fi
14:30- 16:00	Ms. Sanna Savolainen <i>Project manager, BusinessOulu</i> Mr. Jukka Olli <i>Project manager, BusinessOulu</i>	Business Oulu/City of Oulu Yrttpellontie 6, 90230 Oulu Sanna tel: +358 44 703 9760 Sanna.L.Savolainen@businessoulu.com
16:00- 17:30	Mr. Ari Alatossava <i>Mayor of Ii, Former Director of Ii Micropolis Oy</i> Ms. Irja Ruokamo <i>Project participant</i> NAKOMATE - Material testing of nanocomposite structures	Yrttpellontie 6, 90230 Oulu Ari tel: +358 40 5676 700 ari.alatossava@ii.fi
Drive to Rovaniemi (around 2,5hrs), accommodation at City Hotel Rovaniemi (Pekankatu 9, 96200 Rovaniemi)		

ROVANIEMI, 25 August

Time	Interviewee/Project	Location
09:00- 10:00	Ms. Paula Mikkola <i>Secretary General</i> Regional Council of Lapland and North Calotte Council	Regional Council of Lapland Hallituskatu 20 B 96100 Rovaniemi Paula tel: +358 40 711 8380 paula.mikkola@lapinliitto.fi
10:00- 11:30	Ms. Anna-Mari Auniola <i>Interreg Coordinator</i> Regional Council of Lapland	Regional Council of Lapland Hallituskatu 20 B 96100 Rovaniemi Anna-Mari tel: +358 400 762 372 anna- mari.auniola@lapinliitto.fi
11:30- 12:30	Lunch	
12:30- 14:00	Mr. Ari Karjalainen <i>Arctic Power, team leader</i> <i>Senior Specialist, Cold and Winter Technology</i> Lapland University of Applied Science Intelligent Road	Lapland University of Applied Science/Arctic Power Innokaari 10, 96930 Rovaniemi Ari tel: +358 40 510 8427 ari.karjalainen@arcticpower.fi
14:00- 15:30	Mr. Harri Malinen <i>Director of International Relations</i> University of Lapland	University of Lapland Yliopistonkatu 8, 96300 Rovaniemi Harri tel: +358 40 572 0778 harri.malinen@ulapland.fi
15:30- 17:00	Mr. Seppo Saari <i>Head of RDI</i> Lapland University of Applied Sciences InnoPreneurship & IP 21 JoHTo, Joint Test Service Platform for High Tech Industries VSP-Vision System Research Platform	Lapland University of Applied Sciences Jokiväylä 11 C, Main entrance 96300 Rovaniemi Seppo tel: +358 40 543 0249 seppo.saari@lapinamk.fi
Drive back to Oulu, accommodation at Finlandia Hotel Airport Oulu (Vihiluoto 10, 90440, Kempele)		

LULEÅ, Wednesday 26 August

Time	Interviewee/Project	Location
08:25- 08:05	Flight Oulu-Luleå Luggage drop-off to Hotel Naran in Luleå	Naran Hotell Hermelinsgatan 10 97234, Luleå
09:30- 11:00	Ms. Kristiina Starck Enman <i>Advisor,</i> ALMI Företagspartner Crossborder innovations	ALMI Företagspartner Nord Stationsgatan36, 972 32 Luleå Kristiina tel: +46 70 314 79 03 kristiina.starck.enman@almi.se
11:00- 12:30	Mr. Sean Black <i>Processing officer for entrepreneurship,</i> The Swedish Agency for Economic and Regional Growth, MA for ERDF	The Swedish Agency for Economic and Regional Growth Residensgatan 17, 971 28 Luleå Tel: +46 8 681 91 00 sean.black@lansstyrelsen.se
12:30- 14:00	Lunch	
14:00- 15:30	Karl Andersson <i>Associate Professor</i> Luleå Technical University NIMO - Nordic Interaction and Mobility Research Platform	Luleå Technical University, 97187 Luleå, Center for distance spanning technology, A building Karl tel: +46 70 819 5484 karl.andersson@ltu.se
15:30- 17:00	Bertil Pålsson, <i>Senior Lecturer</i> Anders Sand, <i>Senior Lecturer</i> Luleå Technical University Nordic Mining School	Luleå Technical University, 97187 Luleå Entrance F13, meeting room F744 Anders tel; +46 (0)920 49 13 13 anders.sand@ltu.se
Sleepover at Naran Hotell Luleå		

LULEÅ, Thursday 27 August

Time	Interviewee/Project	Location
08:00- 10:30	Ms. Lena Anttila <i>Head of Unit</i> Iiris Mäntyranta Managing Authority Interreg North County Administrative Board of Norrbotten	County Administrative Board Norrbotten Stationsgatan 5 97186 Luleå Tel: +46 10 225 52 32 lena.anttila@lansstyrelsen.se Tel: +46 10 225 52 78 Veronica.Estling@lansstyrelsen.se
Train		
10:47 Luleå C - 18:02 Narvik		
Sleepover at Scandic Narvik (Kongensgate 33, 8501Narvik)		

NARVIK, Friday 28 August

Time	Interviewee/Project	Location
08:00- 09:30	Mr. Fred R. Johansen <i>Senior Advisor, Project Leader</i> Narvik Research Park COBS - The intelligent conveyor belt roller	Forskningsparken i Narvik Teknologiveien 12 , 8512 Narvik Fred tel: +47 991 28 380 fred@fpn.no
09:30- 11:00	Ms. Wei Deng Solvang <i>Professor</i> Narvik University College DIM-Digital Integrated Manufacturing	Narvik University College Lodve Langesgate 2, 8514 Narvik Wei tel: +47 99367877 weideng.solvang@hin.no
11:00- 12:30	Mr. Bård Arntsen <i>Research Director</i> Mr. Rune Nilsen <i>Researcher</i> NORUT (Northern Research Institute) IEEB, Harsh Weather Testing Network	Technology Park Rombaksveien E-6 47 8517 Narvik Bård tel: +47 97 03 20 31 baarda@tek.norut.no
12:30- 14:00	Lunch	
14:00- 15:30	Mr. Magne Beddari <i>Senior Advisor</i> VINN Northern network climate change, Network and Centre of expertise Energy in cold Climate	VINN, Teknologiv. 10, 8517 Narvik Magne tel: +47 903 65 163 magne@vinn.no

ANNEX 3. List of indicators for the programme

(updated in September 2015)

Priorities	Indicators	Target	Value
OUTPUT indicators, targets and values achieved			
Priority 1 Business development	Business directed actions to enhance competence development (total/female/male)	500/200/300	4502/1445/3057
	Market surveys and/or market activities for companies with international direction (Number of participating companies/owned by women/owned by men/mixed ownership)	50/15/30/5	1697/336/927/434
	Cross-border networks for service and product development	10	58
	Cross-border exchanges of experience and knowledge connected to regional business development (number of participants/female/male)	500/200/300	7951/2223/5728
Priority 2 Research, development and education	Development of joint education programmes	10	6
	Development of joint research environments within applied research	30	21
	Exchange of experience and knowledge connected to innovation activities, entrepreneurship and/or innovation environments (number of participants/female/male)	300/120/180	3168/1541/1627
Priority 3 Regional functionality and identity	Development of cross-border infrastructure	15	4
	Development of cross-border cooperation between governmental authorities	8	3
	Development of joint public services and/or infrastructure	8	8
	Making the culture of the region visible and work for preserving it	10	12
	Exchanges of experience and knowledge connected to cross-border development (number of participants/women/men)	3000/1500/1500	6043/3056/2987
	Development of new channels/methods for dissemination of information	3	0
	Small scale youth projects that have been initiated by youths (number of participants/women/men)	600	915/255/660
Priority 4 Sub-programme Sápmi – borderless development	Activities on increasing competence in business (total/female/male)	80/30/50	689/397/292
	Market surveys and/or market activities for Sami enterprises (number of participating enterprises/owned by female/owned by men/mixed ownership)	30/7/8/15	78/42/23/13
	Cross-border networks for development of methods and products	5	2
	Development of joint research and/or education environments	8	5
	Making Sami culture visible and work for its preservation	8	14
	Development of new channels/methods for dissemination of information	4	1
	Development of networks with at least three actors	6	9
RESULT indicators, targets and values achieved			
Priority 1 Business development	Products created as a result of the innovation activities of enterprises	20	126
	Methods that arise as a result of the innovation activities of enterprises	10	51
	Services that arise as a result of the innovation activities of enterprises	10	52
	Number of new cross-border business relations	30	541
	Market surveys and market activities for enterprises with international direction (Number of enterprises that have started a market expansion/owned by women/owned by men/mixed ownership)	35/10/20/5	286/67/172/47

Priorities	Indicators	Target	Value
	Number of firms that expanded their products/services based on heritage and culture	5	150
	Enterprises that participate in business development projects that have been funded by the programme (number of enterprises/owned by women/owned by men/mixed ownership)	300	2533/435/ 1184/914
	Young (16-28 years) innovators/entrepreneurs that participate in cross-border projects on business development (number of youth/women/men)	60/25/3 5	304/109/1 95
Priority 2 Research, development and education	Implementation of joint education programmes	5	7
	Number of persons that participate in joint education activities (Number of participants/female/male)	100/40/ 60	573/228/3 45
	Number of applications to FP7, CIP, CRAFT (total, FP7, CIP, CRAFT)	16/5/6/ 5	9/9/0/0
	Research activities within applied research that have been funded by the programme	20	23
	Participating enterprises in research activities funded by the programme (number of enterprises/owned by women/owned by men/mixed ownership)	250/125 /125	211/8/59/1 44
	Projects that stimulate cross-border contacts of youths (16-28 years) through education cooperation (total/woman/men)	150/75/ 75	342/200/1 42
Priority 3 Regional functionality and identity	Travellers that use the improved opportunities for cross-border traffic	5000	7500
	Investigations/studies that are the base for developing cross-border infrastructure	5	10
	New infrastructure solutions that improve the functionality of the region	2	1
	Administration- and/or cooperation plans for cross-border cooperation between government administrations	2	6
	Investigations/studies that has led to development of cross-border service and/or infrastructure between municipalities	3	12
	Cross-border services and/or infrastructure	2	5
	Preserving the culture of the region and making it visible (participants/women/men)	2000/10 00/1000	79145/471 15/32030
	New channels/methods for dissemination of information	3	0
Priority 4 Sub- programme Sápmi – borderless development	Products/services that are created as a result of the innovation activities of enterprises	5	22
	Methods that are created as a result of the innovation activities of enterprises	5	0
	Sami enterprises that participate in business development projects funded by the programme (number of enterprises/owned by women/owned by men/mixed ownership)	40/8/12 /20	100/23/17/ 60
	Youths (16-28 years) that participate in cross-border development projects (number of youths/female/male)	100/50/ 50	803/475/3 28
	Activities within applied research that has been funded by the programme	4	1
	Number of persons participating in activities to make Sami culture visible and/or preserving it (number of participants/female/male)	400/200 /200	6520/3559 /2961
	Number of activities to make Sami culture visible and/or preserving it	40	190
	Number of new channels/methods for dissemination of information	3	2
	Number of implemented joint education programmes	5	4
	Implementation of cross-border education activities	350/200	237/143/9

Priorities	Indicators	Target	Value
	(participants/female/men)	/100	4
IMPACT indicators, targets and values achieved			
Priority 1 Business development	New job opportunities in the company/organisation that has been created as a consequence of the activities of projects that remains directly after the support from the Interreg IVA North has been terminated and that wouldn't exist without the project (Total/female/male)	50/20/30	63/19/44
	New enterprises (Number of enterprises/female/male/mixes ownership)	9/3/5/1	67/16/39/12
	Increased turnover in participating companies (Companies with increased turnover/owned by women/owned by men/mixed ownership)	35/10/20/5	241/44/184/13
	New businesses activities (Number of companies that started new cross-border business activities/owned by women/owned by men/mixed ownership)	15/6/8/1	172/37/54/81
	Projects with activities that contribute to increased entrepreneurship and employment for women	15	14
	Projects with activities that contribute to increased diversity in cross-border business development	3	8
	Number of companies that have taken part of efforts to raise corporate environmental awareness and / or promote the development of environmentally friendly products and production methods (total/owned by women/owned by men/mixed ownership)	200	458/34/101/323
Priority 2 Research, development and education	New job opportunities in the company/organisation that has been created as a consequence of the activities of projects that remains directly after the support from the Interreg IVA North has been terminated and that wouldn't exist without the project (Total/male/female)	40/20/20	28/9/19
	Joint education programmes that has been created as direct consequence of the activities of projects that remains directly after the support from the Interreg IVA North has been terminated and that wouldn't exist without the project	5	6
	Number of approved applications to FP7, CIP, CRAFT (total/FP7/CIP/CRAFT)	6/2/2/2	2/2/0/0
	Projects that include activities that contributes to breaking traditional gender roles within education/research	6	5
	Projects that include efforts that contribute to an increased diversity within education/research	3	3
	Projects that contribute to development of more effective and environmental friendly forms of energy and technologies	8	6
	Projects that contribute to development of methods for sustainable use of the natural and cultural values of the region	3	0
Priority 3 Regional functionality and identity	New job opportunities in the company/organisation that has been created as a consequence of the activities of projects that remains directly after the support from the Interreg IVA North has been terminated and that wouldn't exist without the project (Total/male/female)	20/10/10	3/1/2
	Cross-border infrastructure for passenger transport that remains directly after the support from the programme has been terminated	2	1
	Increased cross-border goods traffic on roads	Increase 5%	0

Priorities	Indicators	Target	Value
		from 2005 base	
	Increased cross-border goods traffic on rail	Increase 10 % from base value in 2005	0
	New IT service deliverers that use the internet to offer services	2	0
	Cross-border cooperation of government departments	2	3
	Inhabitants that are gained by the joint cross-border cooperation between municipalities regarding service and/or infrastructure	5000	41750
	New information channels that remain directly after the support from the Interreg IVA Nord has been terminated and that wouldn't exist without the project	2	0
	Projects that contribute to exchange of experience between actors that work with issues connected to integration and diversity	5	1
	Projects on joint health care and conservation of natural and cultural assets	6	8
	Projects connected to prevention of natural and technical risks	6	2
Priority 4 Sub-programme Sápmi – borderless development	New job opportunities in the company/organisation that has been created as a consequence of the activities of projects that remains directly after the support from the Interreg IVA North has been terminated and that wouldn't exist without the project (Total/male/female)	5/3/2	10/5/5
	New enterprises (number of new enterprises/owned by women/owned by men/mixed ownership)	4/2/1/1	26/15/11/0
	New information channels that remain directly after the support from the Interreg IVA North has been terminated and that wouldn't exist without the project	3	0
	Lasting cross-border cooperation between actors that remains after the support from the Interreg IVA North has been terminated and that wouldn't exist without the project	6	12
	Projects that actively contributes to efforts made to increase gender balance	3	4
	Projects that contribute to development of methods for sustainable development of the environment	5	0
	Projects that contribute to make traditional Sami knowledge visible	5	15
	Projects that specifically promote the Sami language development	6	8

Source: indicators list communicated by Interreg North Programme Secretariat (16 September 2015)

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