

# 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 IV A Deutschland - Nederland (Germany - The Netherlands)

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)

2016 EN

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Luxembourg: Publications Office of the European Union, 2016

ISBN 978-92-79-61798-0 doi: 10.2776/94056

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# **Acknowledgements**

Andrea Zenker and Patrick van Bunnen wish to thank the Ministry for Economic Affairs, Energy and Industry of the State of North Rhine-Westphalia which is the Managing Authority for this programme, the Joint Technical Secretariat and the State Chancellery of Lower Saxony for their support in organizing and preparing the field work and for their insights into the programme and its achievements. We would like to further thank all our interview partners from the Office for Regional Development (*Amt für regionale Entwicklung*) Weser-Ems and the leaders of various projects that have been visited.

Their willingness and openness was highly appreciated and the information gathered through personal exchanges was an essential and valuable source of information used in this evaluation report.

# **Executive Summary**

The programme area represents nearly the whole of the Dutch-German border region. The two parts of the programme area share many aspects, both in geographic, economic and environmental terms. Cross-border cooperation has a long tradition in this area, starting in the 1950s. The first Interreg programme was approved in 1991. The cross-border Operational Programme has a total budget of EUR 276 million, to which the European Union contributes with an ERDF sum of EUR 139 million.

Of the 52 cross-border programmes considered, the Deutschland-Nederland programme ranks second in terms of the budget foreseen for research, development and innovation. Amongst the 354 projects referenced in the KEEP database, 84 projects can be classified under the "R&D, innovation and entrepreneurship" theme. They account for 48% of the budget. The case study therefore focuses on this theme.

The 2007-2013 period is also characterized by **two important changes toward a more strategic approach** 

- First, 35% of the programme funding was ear-marked for 'major structuring projects' (see page 12 and annex 1). 'Major structuring projects' are defined as large-scale projects both in terms of financial volume and territorial coverage with high quality and expected impacts.
- Second, a strong focus was placed on the SMEs located in the programme area and their needs, with very concrete R&D and innovation activities in parallel to networking and knowledge transfer activities.

The programme can be described as mature and has produced clear effects. These not only refer to increased strengthening and institutionalisation of formerly created structures, but also to the extensive involvement of SMEs from both sides of the border. This has also led to a high leverage effect on private funds (the total number of private investments is more than 6.5 times higher than initially expected), particularly through the high interest and large involvement of SMEs. Also, the cross-border programme has helped to build and establish excellence in the programme area (e.g. in clusters) that will support the future development of the region.

Implementation of Interreg IV also showed that the concept of 'major structuring projects' was very ambitious. Indeed, the management and implementation of those very large projects encountered various challenges, so that Interreg V refers now to "strategic initiatives" within priority axes (*in targeted sectors*).

The Managing Authority perceives cooperation as a base and pre-condition for all projects conducted in the Interreg IV A programme frame, and its enhancement a result of the cross-border projects. The merging of two formerly separated programmes and the concept of 'major structuring projects' lay the foundations for enhancing critical mass, for the joint development of new innovations and the broadening of the horizons of all partners with a specific focus on cross-border aspects and opportunities.

**Interreg has a triggering effect** and acts as incentive **for cross-border cooperation**. Indeed, most projects would not have been realised without Interreg funding. Particularly SMEs lack the necessary pre-conditions for cooperation, mainly in

terms of funding and research capacities. **One of the crucial achievements** of Interreg IV A **was the consolidation of network structures** whose foundations were created in preceding phases.

A specific value-added connected with cooperation is the strengthening of partners' self-confidence and thus the establishment of a significant base for engaging in further bi- and multinational cooperations. This is particularly important for SMEs, strengthening their knowledge beyond their immediate regional boundaries. Further important achievements were gained in reducing mental barriers through trust-building and better knowledge of the general culture and the specific cooperation partners on the other side of the border.

# Learning has occurred on various dimensions:

- (1) At programme management level, various procedures are in place which enable the efficient approval and implementation of the programme,
- (2) At project level, knowledge regarding the specific theme of cooperation, including required technological knowledge and intercultural aspects, was generated, as well as learning concerning management of cooperation projects of varying sizes,
- (3) At programme management and project levels: experience of working across the border was enhanced ('meta knowledge').

Knowledge exchange is realised at the inter-personal level (besides co-funded projects in the above-mentioned action field). But **links between the different co-funded projects can rather be described as incidential** and triggered by individual persons.

The future and sustainability of learning and cooperation depends on the individual project contexts. In general, a number of cooperations will continue in the future since participants are aware of the positive effects of cooperation. Some cooperation will continue in Interreg V A, some others will continue without EU cofunding (in "daily business" or in the context of other programmes). In any case, mentality shifts have taken place through Interreg that have generated the base for sustainable cooperation. The leverage effects, notably in terms of private funds mobilised, is also an encouraging factor for the future of cooperation.

The preparation of the Operational Programme for **Interreg IV A took national and regional programmes into account.** The objectives of cross-border, national and regional programmes partly overlap, but the specific and complementary focus of Interreg is clearly on the cross-border cooperation dimension. Coordination between different programmes is largely achieved at different levels (Managing Authority, Joint Technical Secretariat) and through individual persons. At project level, coordination with regional priorities is realised in the project proposal phase. However, an objective evaluation of synergies is hardly possible yet.

Investigating the budget allocation for the INTERREG IV A Programme and the Lower Saxony ERDF regional programme shows a **fundamental difference in the approach of each programme**. Indeed, the **Interreg programme was intentionally very open to cover all relevant opportunities for cooperation**. The initial budget was thus distributed evenly among the 12 thematic codes under review. But implementation has been characterized by a high concentration of

resources allocated to only 2 thematic codes (79% in final compared to 26% in the initial budget). Conversely, the mainstream Lower Saxony programme was from the start more clearly focused on these same two thematic codes, which already accounted for 77% of the original budget.

The **monitoring system** is relatively conventional. The main weaknesses are: (1) indicators do not approach the specific dimensions of cross-border cooperation nor the sustainability dimension; (2) indicators have not been precisely defined from the beginning, the reliability of data is therefore clearly not guaranteed; (3) target values have clearly been underestimated, thus indicators far exceed the target (the values of a third of indicators are already more than 4 times greater than targets); (4) the use of indicators for strategy building remains limited.

Support from INTERACT has been used and is highly appreciated by the interviewees.

# 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, widely known as INTERREG) with view to creating synergies and European value-added by eradicating internal borders and capitalising on the existing assets of the whole territory of the Union, widely known as INTERREG. It is one amongst 9 case studies of programmes aimed at cross-border cooperation (Strand A of INTERREG).

The purpose of the 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, which complements a first documentary analysis and an interview with the Joint Technical Secretariat previously carried out in Task 1 of the evaluation.

The present case study provides an assessment of the Interreg IV A Programme Deutschland-Nederland'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. The Interreg IV A-Programme Deutschland – Nederland belongs to the programmes in strand A that place highest priority on this theme since it is ranked second of all 52 cross-border programmes in terms of budget allocated to this theme (the two other priority themes for this evaluation being on the one hand, capacity building, and on the other hand, environmental protection).

# 1.1. Main features of the programme

The programme area and its adjoining parts represent nearly the whole of the Dutch-German border region (see figure 1; Operational Programme, page 13ff.). About 53% of its total surface (46,737 km²) is located in the Dutch and about 47% in the German part of the area. Both sub-regions have a rather peripheral geographical position in their national contexts.

The programme area is constituted of parts of the German federal states (*Bundesländer*) of North-Rhine Westphalia and Lower Saxony, as well as the Dutch provinces of Friesland, Groningen, Drenthe, Flevoland<sup>1</sup>, Overijssel, Gelderland, Noord-Brabant and Limburg. The programme area has 12.3 million inhabitants (annual average population based on NUTS 3 regions in 2011; data source: Eurostat), who are almost evenly distributed between the Dutch and the German parts: 52% live on the Dutch and 48% on the German side of the programme area. Population density is higher in the southern part of the programme area. As the Operational Programme shows, 2.5% of the value-added in 2003 was produced by the agricultural sector; this share is higher than the average both in the Netherlands and in Germany. Equally, the programme area has a higher share of value-added generated in the manufacturing

Note that in INTERREG IV a part of Flevoland was eligible for funding as one of the 'adjacent' regions, but the province was not a partner of the programme. In the current Interreg V, the whole of Flevoland belongs to the programme area and also is a programme partner.

sector (29.2%) compared to German and Dutch averages, and accordingly a comparatively lower share of service value-added (68.3%). The business sector is dominated by small and medium-sized enterprises, besides some large companies such as Essent (Arnhem), Bayer (Krefeld, Dormagen) and Volkswagen (Emden).



Figure 1. Map of the eligible area

Source: OP INTERREG IV A Deutschland – Niederlande 2007 – 2013, page 17

Figure 2 indicates the economic development of the programme area since the beginning of the 2000s in terms of gross domestic product per capita (based on the GDP and number of inhabitants in NUTS 3 regions belonging to the INTERREG IV A programme area), compared to the national levels and the EU-27. It shows that both parts of the programme area have witnessed positive developments, although with lower increasing figures in the second part of the 2000s. Nevertheless, both the Dutch and German parts of the programme area are below their respective national averages, but above the EU-27 level. In total, the Dutch figures are higher than the German ones, particularly since 2007.

€/inhab.
40000
35000
25000
25000
15000
10000
5000
2007
2011
■Dutch part programme area ■German part programme area EU-27 Netherlands ■Germany

Figure 2. GDP/inhabitant in the Dutch and German parts of the programme area, EU-27, the Netherlands and Germany

Source: Eurostat, 12/01/2016, own calculations

Figure 3 gives an insight into unemployment rates in the programme area. Data at NUTS 3 level is not available, so NUTS 2 is considered an approximation. It shows some interesting aspects: First of all, Germany and the considered NUTS 2 regions had higher unemployment rates than their Dutch counterparts at the beginning of the 2000s. However, the picture has changed over the course of time, and the unemployment rates of the German areas were below the Dutch figures in 2014. In 2000 and 2007, the German NUTS 2 regions' unemployment rates were below the national level, which cannot be confirmed for all Dutch NUTS 2 regions. However, in 2011 and 2014, Düsseldorf's rate exceeded the German national figure, while on the Dutch side, particularly Flevoland shows a high unemployment rate in 2014.

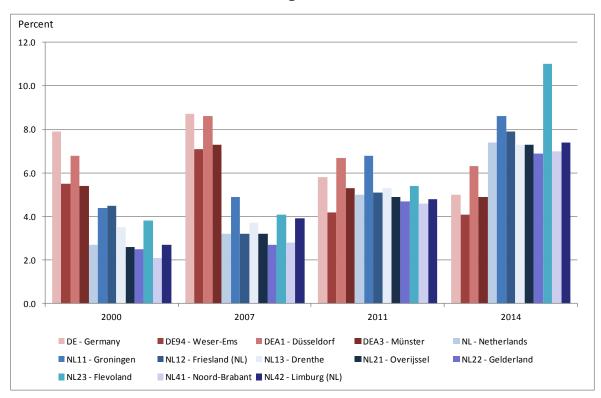


Figure 3. Unemployment rates in the Netherlands, Germany and NUTS 2 regions

Source: Eurostat, 12/01/2016

The programme area hosts about 760,000 companies, 99% of which have less than 250 employees. Around 60% of them are located in the Dutch part of the programme area. The area has about 5.4 million employees, with the largest shares in the public sector, in gastronomy/ transport/ trade and industry/ energy. In fourth position are business-related services; these four sectors cover 83% of employment in the programme area (figures for 2010, see Buck Consultants International/MCON Consulting 2013, page 7).

This case study report specifically targets the research and development (R&D) and innovation theme. Figures 4a and 4b give an overview of R&D expenditures (all sectors, EUR/inhabitant) for the relevant Dutch and German NUTS 2 regions, both compared to the respective EU figures. They show that the R&D situation in the different parts of the programme area is heterogenous: while the German NUTS 2 regions all have below-average figures compared to the national average and the Dutch NUTS 2 regions differ in their performance. With the national average being constantly higher than the EU average, Noord-Brabant in particular had a positive development, especially between 1999 and 2007, before a slow downward trend and a recovery by 2013 is visible. However, a high share of R&D and innovation activities can be attributed to Philips, which is located outside the programme area (see also the Regional Innovation Report North Brabant written in the frame of the Regional Innovation Monitor). Both Friesland and Drenthe (which fully belong to the INTERREG IV A programme area) have by far the lowest R&D expenditures, which additionally did not significantly increase between 2007 and 2013.

They are located in the northern part of the programme area, which is rather sparsely populated and followed the national trend of increasing unemployment rates between 2007 and 2014 (see figure 3). To sum up, particularly the northern part of the programme area on both sides of the border shows below-average performance in R&D and innovation so that the focus on this theme by supporting programmes seems coherent.

€/inhab.
1,200.0
800.0
600.0
400.0
1999
2007
2011
2013
EU28 □DE-Germany □DE94-Weser-Ems □DEA1-Düsseldorf □DEA3-Münster

Figure 4a. Total R&D expenditure (GERD) in relevant German NUTS 2 regions (all sectors, EUR/inhabitant)

Source: Eurostat 13/01/2016, own presentation. (1999 Figures: Data for EU-28 from 2000)

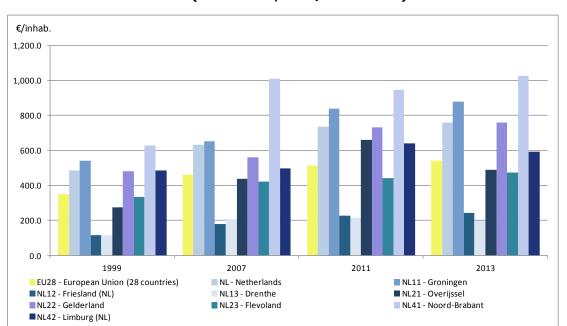


Figure 4b. Total R&D expenditure (GERD) in relevant Dutch NUTS 2 regions (all sectors, EUR/inhabitant)

Source: Eurostat 13/01/2016, own presentation. Data for EU-28 from 2000

Concerning the R&D intensity, i.e. the share of intramural R&D expenditures of the gross domestic product, Eurostat data for 2011 shows that the German NUTS 2 regions are below the national average with Weser-Ems, having an R&D intensity of 0.73%, followed by Münster (1.04%) and Düsseldorf (1.8%; national average: 2.79%). On the Dutch side, the picture is more heterogeneous, with Drenthe (0.8%), Friesland (0.82%), Flevoland (1.48%) and Groningen (1.65%) showing below-average performance compared to the national average (1.9%) and Limburg (2.02%), Overijssel (2.06%), Gelderland (2.23%) and Noord-Brabant (2.41%) having aboveaverage R&D intensities. This shows that despite generally increasing R&D intensities, the situation has not significantly changed compared to 2003 (see Operational Programme, page 23). The governance structure of the INTERREG IV A programme includes the Managing Authority (Verwaltungsbehörde), the Joint Secretariat (Gemeinsames Sekretariat), the Monitoring Committee (Begleitausschuss), regionalSteering Committees (Lenkungsausschüsse), Regional Programme Managements (regionale Programmmanagements) and Certifying and Auditing Authorities (Bescheinigungsbehörde, Prüfbehörde) (see Operational Programme, page While the Managing Authority is responsible for the programme implementation, the Monitoring Committee is in charge of programme monitoring and steering of the strategy, supported by the 4 regional Steering Committee who decide on the projects in their respective areas and monitor their progress.

The Ministry for Economic Affairs, Energy and Industry of the State of North Rhine-Westphalia acts as Managing Authority for the programme area. As a specificity of this INTERREG programme, the Monitoring Committee decides on 'major structuring projects' (for further information see below). Regional programme managements and the Joint Secretariat execute specific tasks related to the INTERREG programme, particularly technical and administrative aspects. The Regional Programme Management structures are the Secretariats of the regional Steering Committees and are the regional contact point for the projects. They accompany the projects from the early stage of application onwards and provide advice on technical and administrative matters. The Joint Secretariat is more focused on horizontal tasks. As the Joint Technical Secretariat, Regional Programme Managements may also initiate 'major structuring projects'. Besides initiating and accompanying this type of project, the Joint Technical Secretariat supports the Managing Authority and the ministries of the participating regions, ensures communication with the European Commission, and is in charge of reporting, monitoring and evaluation as well as public relations, quality management, coordination and further tasks. Finally, the Certifying and Auditing Authorities are responsible for financial tasks, surveying and control of programme execution.

Cross-border cooperation has a long tradition in this area (Operational Programme, page 10). Already in the 1950s, first initiatives were made through local stakeholders. Their positive effects led to the foundation of Euregios in order to institutionalise cross-border cooperation. The first Euregio in Gronau was established in 1958, followed by the Euregios Rhein-Waal (1968), Ems-Dollart-Region (1977) and Euregio Rhein-Maas-Nord (1978). Cross-border cooperation received a significant impetus through the launch of INTERREG programmes. The first INTERREG programme was approved in 1991, though diverging from the latest one in its territorial definition.

As became apparent in the course of on-site visits, the two parts of the programme area share many aspects, both in economic and environmental terms. Similar

geographical conditions lead to various complementary areas of activity such as the maritime industry or agrobusiness.

A specific characteristic of the 2007-2013 funding period is 'major structuring projects'. These are defined as large projects – both in terms of financial volume and territorial coverage - with high expected impacts. On the other hand, the programme also includes small and very small projects that are implemented under the umbrella of 'framework projects'.

The programme has a total budget of EUR 138.7 million of EU contribution. Among the type 1 regions, the R&D, innovation and entrepreneurship has high priority compared to the other Operational Programmes and thematic priorities (Figure 5). The main goal of the programme targets the development of the programme area towards an integrated European region in which the border does not impair cohesion, encompassing economic, ecological and societal development. Following this holistic concept, the programme takes a broad approach. It is structured along the following three main priorities (see also Table 1):

**Priority 1: Economy, technology and innovation** with the main aim of improving innovation performance, strengthening business cooperation and networks and improving labour qualification. These aims are substantiated in three action fields:

- Supporting technology and knowledge transfer between research and businesses,
- · Supporting economic networks and cross-border business cooperation, and
- Supporting qualification in enterprises to improve innovation potential.

**Priority 2: Sustainable regional development** targets the sustainable use of natural resources, the protection of eco-systems and the preservation of biological diversity, and also the infrastructure needed for sustainable regional development. Diverging norms and standards on both sides of the border hamper sustainable development and the full exploitation of existing potentials in the whole programme area. This priority includes the following action fields:

- Supporting renewable energies and development of energy efficient technologies,
- Supporting cross-border development of infrastructure, and
- Supporting cross-border nature and environmental protection.

**Priority 3: Integration and society** targets integration and the strengthening of a common identity within the whole programme area. Central themes are health and consumer protection and the ultimate goal of a common living and business area across the border. Four action fields were defined for this priority:

- Supporting cross-border health protection and consumer protection,
- Supporting cross-border labour market/ commuters,
- Supporting integration through education and culture, and
- Supporting cross-border cooperation in internal security.

**Priority 4,** finally, refers to the **Technical assistance** of the programme (Operational Programme, page 55ff).

According to the typology developed for this project, the INTERREG IV A programme Germany-Netherlands belongs to Type 1 of cross-border programmes, i.e. it encompasses regions with old internal borders and a high degree of cooperation (table 2).

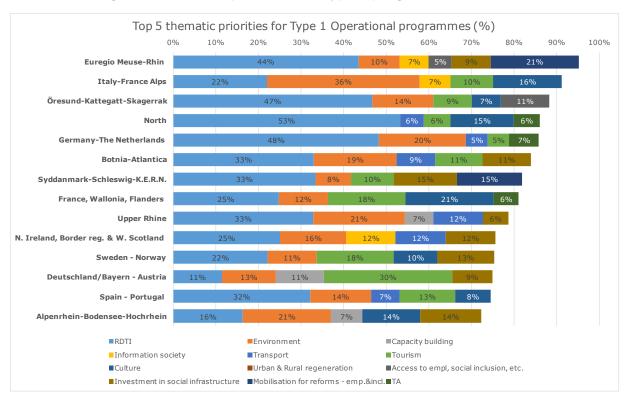


Figure 5. Thematic priorities for Type 1 programmes in Strand A

Table 1. Priority axes in the INTERREG IVA programme

Deutschland-Nederland

Priority Axis	EU Investment	National/Regional Public Contribution	Total Public Contribution
Economy, technology and innovation	EUR 80.4 million	EUR 79.4 million	EUR 159.8 million
Sustainable regional development	EUR 25.0 million	EUR 25.0 million	EUR 50.0 million
Integration and society	EUR 25.0 million	EUR 24.0 million	EUR 49.0 million
Technical assistance	EUR 8.3 million	EUR 9.3 million	EUR 17.6 million
Total	EUR 138.7 million	EUR 137.7 million	EUR 276.4 million

Source: INTERREG IV A Deutschland-Nederland Operational Programme 2007-2013, page 79

Туре Operational programme Average Euregio Meuse-Rhin Internal Old Institutionalized Balanced Mixed High High Deutschland/Bayern - Austria Internal Old Institutionalized Balanced Decentralized Different Low Average Spain - Portugal Internal Old Not institutionalized Unbalanced Mixed Different Average Decentralized Germany-The Netherlands Internal Old Institutionalized Balanced Different High Average Öresund-Kattegatt-Skagerrak External Old Institutionalized Balanced Mixed Different Low Average Type 1 Italy-France Alps Internal Intermediate Institutionalized Unbalanced Decentralized Different Average Average Old internal borders Northern Ireland, Border region Ireland and Wes Internal Old Mixed Institutionalized Balanced Low Low Low High degree of 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 cooperation Sweden - Norway External Old Partly institutionalized Balanced Decentralized Different Average Low Average Average Alpenrhein-Bodensee-Hochrhein External Old Partly institutionalized Unbalanced Decentralized Different Botnia-Atlantica External Old Institutionalized Mixed Balanced Low Low Average External Intermediate Partly institutionalized North Unbalanced Mixed Low Low High Upper Rhine External Old Institutionalized Unbalanced Mixed High Average Low

Table 2. Contextal conditions in Type 1 cross-border cooperation programmes

# 1.2. Organization of the report

Section 1.1 provides an analysis of the main features of the programme, which is helpful to understand the specific situation of the area and of the programme, before section 2 refers to 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 the impact 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 the 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 of 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 Lower Saxony ERDF Competitiveness and Employment
  programme 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 which takes into account the general finding from Task 1 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 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 an analysis of the projects with a focus on R&D, innovation and entrepreneurship will also contribute to an assessment of the results achieved by the programme. This helps us 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 from 29 September to 1 October 2015 in North-Rhine Westphalia and Lower Saxony, complemented by personal exchanges on the phone (22 and 23 September, see Annex 2), has taken place in order to collect additional documents and data and to interview the Managing Authorities from the programme and from one ERDF programme, the Joint Technical Secretariat and some of the main stakeholders involved in programme 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. The cooperation of the Programme Secretariat has been very helpful to organise the schedule of visits and get the commitment of stakeholders. The full list of interviewed people as well as the field visit schedule are listed in Annex 2.

# 3. Answers to the evaluation questions

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

Based on the socio-economic analysis of the programme area, the Operational Programme defines "Economy, Technology and Innovation" as a core field with high importance for the strategic development of the cross-border area, besides "Infrastructure and Environment" and "Social Integration". These three thematic fields lead to the priority axes of the programme (see table 1). With respect to economic development, technology and innovation, the Operational Programme identifies specific weaknesses in the programme area. These relate to the insufficient endowment of parts of the programme area with knowledge providing and technology transfer institutions, suboptimal research-industry cooperation, SME networks and cross-border exchange as well as the expandability of cooperation potentials in various sectors (Operational Programme, page 22ff.). In its structural analysis of 2013, Buck Consultants International and MCON Consulting find limits concerning the innovation capacities of companies located in the programme area, particularly SMEs. The main barriers are related to limited growth efforts, insufficient linkages to knowledge institutions as well as lacking means and personnel. Studies further mention limited investments in innovation due to the economic crisis, and limited effects of public measures (Buck Consultants International/MCON Consulting 2013, page 10).

The INTERREG IV A-Programme funded a total of 697<sup>2</sup> cross-border projects. The programme covers a large variety of projects of different sizes; small and very small projects were resumed in larger framework projects (*Rahmenprojekte*). The KEEP database<sup>3</sup> refers to those framework projects and lists 354 projects. A further specificity are 'major structuring projects', which are large-scale projects of high quality and expected sustainability covering a large part of the programme area, involving significant input, engagement and a considerable share of financial contribution of the partners (see also Operational Programme, pages 45 and 76).<sup>4</sup> 35% of the programme funding for priorities 1 to 3 is ear-marked for this type of

Based on the EC monitoring system. MA mentioned that there would be a difference on defining and counting small and very small projects. According to the monitoring system of MA, there are 681 projects.

<sup>&</sup>lt;sup>3</sup> The KEEP database of projects is maintained by the INTERACT programme, which collects the information provided by the Managing Authorities of the various INTERREG programmes.

<sup>&</sup>lt;sup>4</sup> 'Major structuring projects' (majeure Projekte) in the definition in this specific programme, in contrast to major projects supported by the ERDF and/ or Cohesion Fund.

projects. This corresponds to a total budget of EUR 109.5, from which EUR 45.7 million is EU contribution (see KEEP database). All of this EU budget was allocated to the 11 'major structuring projects'.

The project database considers all co-funded activities and presents a total of 697 projects (see table 3).

Priority	Priority 1: Economy, technology and innovation	Priority 2: Sustainable regional development	Priority 3: Integration and society	Technical assistance	Total
Number of projects	119	61	512	5	697
From these: 'major structuring	8	1	2	0	11

Table 3. Number of projects in priorities

Source: Project database at <a href="https://www.deutschland-nederland.eu/projekt-datenbank/">https://www.deutschland-nederland.eu/projekt-datenbank/</a>.

Among type 1 regions, the Interreg IV A-programme Deutschland-Nederland places highest priority on the research, technological development and innovation theme (see figure 5 in Section 1.1).

From the total of 354 projects referenced in the KEEP database, projects belonging to the "R&D, innovation and entrepreneurship" theme are mainly found under the "Economic development" topic, but there are also projects aiming at cross-border cooperation under the "Quality of life", the "Environment and climate change" and the "Accessibility" topic (see KEEP database). The 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 awarenessraising"; "Knowledge and technology transfer"; « SME and entrepreneurship"; "Scientific cooperation"; "Clustering and economic cooperation". According to this database, 84 projects can be classified under the "R&D, innovation and entrepreneurship" theme, as defined above. In total, the programme has allocated EUR 66.9 million to this theme, out of its total budget of EUR 138.4 million, 6 which is **48% of the total programme budget.** With 24% of projects belonging to the theme, this means that they have a comparatively higher size than the other projects: indeed, the two largest projects belong to the "R&D, Innovation and entrepreneurship" theme (9% of total budget), and of the 11 'major projects', six belong the "R&D, structuring to innovation and entrepreneurship" theme as defined here.

The KEEP database does not include individual small projects, which explains the difference between the 697 projects listed in table 1 (monitoring) and 354 projects listed in the KEEP database.

Those figures are computed based on the DG Regio database, using the codes 1, 2, 3, 4, 5, 6, 7, 9, 62, 63, 72, 74, which are used in this evaluation to define the "R&D, innovation and entrepreneurship" theme.

<u>Annex 1</u> provides an overview of projects supported under the "R&D, innovation and entrepreneurship" theme.

The examination of this project portfolio, complemented by on-site visits and interviews, generates the following insights:

- 1. The KEEP database classifies 45 projects under the "economic development" topic, 30 as "quality of life", 8 projects under "environment and climate change" and one project under the topic of accessibility.
- 2. The "Economic development" topic comprises a variety of activities, both in different technologies and subjects - such as for instance energy, materials, micro and nanotechnologies, food, maritime technologies, creative industries, mechatronics, medical technologies, health and care, mechanical engineering, agri- and horticulture, sensorics/ robotics, horse sector - but also transversal aspects like networking or internationalization of the cross-border labour market. This topic also includes a framework project 'Focus Innovation' which provides the context for co-funding small projects (max. EUR 25,000 EU funding) in Priority 1 of the programme. The budgets (in terms of EU funding) vary from about EUR 15,000 to abour EUR 7.3 million. There is a diversity of lead partner institutions: the latter comprise universities as well as Euregios, Chambers of Commerce, Competence and Technology Centres, municipalities, etc. Projects classified under the "Quality of life" topic also cover a broad range of activities, for instance related to education and qualification, networking education-business, music and language, health and care, culture and schools, tourism, or civil defence. Budgets vary between about EUR 10,000 and EUR 3.4 million of EU co-funding. Among the project leaders are regional municipal actors, knowledge and educational institutions. "Environment and climate change" topic is mainly represented by lead partners from knowledge and technology institutions, but also the Technische Betriebe Rheine (Technical Operations of the City of Rheine). Important subjects are related to energy, agriculture, biomass and water management; EU co-funding ranges from EUR 25,000 to EUR 3.4 million.
- 3. In terms of lead partners, German actors are strongly represented in the "economic development" topic: 29 projects are managed by stakeholders from North-Rhine Westphalia or Lower Saxony, while 16 lead partners are located in the Netherlands. In the "quality of life" topic, this proportion is, with 16 Dutch and 14 German lead partners, rather balanced, while the "environment and climate change" topic has a slight overrepresentation of Dutch lead partners (five compared to three from the German side). The project under the "accessibility" topic is managed by a German actor (EU budget: EUR 44,500). Projects strongly refer to the SMEs located in the programme area. Often, they address very concrete R&D and innovation activities in parallel to networking and knowledge transfer activities. This means that besides the exchange of information and knowledge, precise innovation projects are defined by cross-border collaboration.

Cross-border cooperation has a long tradition in the programme area, and cross-border cooperation in the Dutch-German programme area has evolved in various steps since Interreg I (see also Operational Programme, page 45). While in the first phase, "getting to know each other" and the infrastructure dimension were at the core, Interreg II A focused on strengthening cooperation and on value-added

through the specific cross-border perspective. In the following phase, the initiation of networks, intensified research-industry collaboration and larger "flagship" projects were targeted. These latter led to the concept of 'major structuring projects' in Interreg IV A. Existing structures are strengthened and structural networks are established in this phase, and the focus on R&D and innovation is enhanced. In total, the Interreg IV A programme could strongly benefit from experience gained in preceding periods which are now professionalised and consolidated. In parallel, the 2007-2013 period saw a merger of two formerly separated programmes and now includes four Euregios. This is viewed positively in the programme area, since it broadens opportunities for cooperation and paves the way for generating critical mass through focusing on west-east and north-south axes of cooperation.

A total budget of EUR 75.4 million of EU funds was foreseen for R&D, innovation and entrepreneurship (codes 1-7, 9, 62, 63, 72, 74), which represents 54.4% of the total programme budget.<sup>7</sup> Investigating the indicative breakdown of the community contribution by categories at a later stage of programme implementation (allocated budget) reveals that by far the largest share of the total of EUR 75.4 million of EU-funds in R&D, innovation and entrepreneurship (53.9%) is spent on supporting technology transfer and cooperation networks (code 3), followed by other measures to stimulate research, innovation and entrepreneurship in SMEs (code 9; 24.9%). Both dimensions are over-subscribed, while no allocations are listed for codes 2, 5, 6, 7, 63 and 74 (see table 4). **This shows that the final budget allocation was more concentrated on individual themes than initially foreseen**.

<sup>&</sup>lt;sup>7</sup> Data from Operational Programme, pages 108/109 and table 4.

Table 4. INTERREG IV A Deutschland-Nederland: Decided and allocated budget in thematic codes related to R&D, innovation and entrepreneurship

Thematic	Full name	Decided budget	Allocated budget	% allocated to R&D, innovation, entrepreneurship
code		2008	2014	2014
		EUR million	EUR million	%
1	R&TD activities in research centres	3.83	2.20	2.91%
	R&TD infrastructure (including physical plant, instrumentation and high-speed			
2	computer networks linking research centres) and centres of competence			
	in a specific technology	0.49		0.00%
	Technology transfer and improvement of cooperation networks between			
	small businesses (SMEs), between these and other businesses and			
3	universities, post-secondary education establishments of all kinds, regional			
	authorities, research centres and scientific and technological poles (scientific			
	and technological parks, technopoles, etc.)	8.10	40.66	53.90%
4	Assistance to R&TD, particularly in SMEs (including access to R&TD services in			
4	research centres)	11.46	4.31	5.72%
5	Advanced support services for firms and groups of firms	7.18		0.00%
	Assistance to SMEs for the promotion of environmentally-friendly products			
6	and production processes (introduction of effective environment managing			
О	system, adoption and use of pollution prevention technologies, integration of			
	clean technologies into firm production)	8.10		0.00%
	Investment in firms directly linked to research and innovation (innovative			
7	technologies, establishment of new firms by universities, existing R&TD			
	centres and firms, etc.)	7.18		0.00%
9	Other measures to stimulate research and innovation and entrepreneurship in SMEs	11.46	18.76	24.87%
	Development of life-long learning systems and strategies in firms; training			
62	and services for employees to step up their adaptability to change; promoting			
	entrepreneurship and innovation	3.35	0.65	0.86%
	Design and dissemination of innovative and more productive ways of			
63	organising work	3.35		0.00%
	Design, introduction and implementation of reforms in education and training			
	systems in order to develop employability, improving the labour market			
72	relevance of initial and vocational education and training, updating skills			
	of training personnel with a view to innovation and a knowledge based			
	economy	4.24	0.30	0.40%
	Developing human potential in the field of research and innovation, in			
74	particular through post-graduate studies and training of researchers, and			
	networking activities between universities, research centres and businesses	6.70		0.00%
	Grand Total	138.65	138.40	
	R&D, innovation, entrepreneurship total	75.44	66.89	

Source: EC/ DG Regio (internal database and data workpackage of ex post evaluation), own calculations

Indicators are measured at programme level and differentiate between priorities. Outputs for Priority 1 (dedicated to business, technology and innovation) are compiled and illustrated in table 5. It is obvious that **targets for all indicators were overachieved**, often many times over initial targets. The Managing Authority and the Joint Technical Secretariat are well aware of this and give the following reasons:

 When designing the programme, the main planning source and criteria were the preceding programme and its achievements, and targets were compiled on this basis. Real developments may differ and cannot be fully anticipated in advance (to give an example: the Fukushima nuclear accident and the German exit from nuclear energy (*Energiewende*) led to a higher than anticipated evolution of the "energy" field during the programme period);

- Defining targets was based on a careful planning process, finally leading to clear under-estimations of various indicators. <u>Section 3.6</u> (quality of monitoring system) details the reasons for this underestimation of target values. As with many other Interreg programmes, one of those reasons is that partners explicitly decided to keep a very open programme at the beginning in order to catch all opportunities of cooperation under the priority;
- Indicators and their definition were not adapted during the programme period.

Table 5 shows the targets defined in the OP document for all three action fields and the degree of achievement in 2014. The involvement of regional companies (especially SMEs), particularly, is higher than expected, a positive outcome of the cooperation programme. Also, the number of supported networks and clusters – i.e. the support of regional stakeholders – in the cross-border perspective is higher than initially expected.

Table 5. Outputs of Interreg IV A Deutschland-Nederland in Priority 1 "Economy, technology and innovation"

Priority 1: Economy, technology and innovation							
Indicator	Target (as defined in the OP)	Value 2014 (absolute and %)					
Action field 1: Supporting technology and knowledge transfer between research and businesses							
No of cross-border cooperations between R&D organisations (higher education and other research organisation), associations, Chambers of Trade and Commerce, enterprises	620	785 (127%)					
No of participating SMEs	1,100	3,510 <i>(319%)</i>					
No of advisory services and development projects between R&D organisations and enterprises	615	1,203 (196%)					
Action field 2: Supporting economic networks and cross-bord	Action field 2: Supporting economic networks and cross-border business cooperation						
No of supported cross-border networks and clusters	66	632 (958%)					
No of participating SMEs	2,230	12,747 <i>(572%)</i>					
No of activities in SMEs	490	2,904 <i>(593%)</i>					
Action field 3: Supporting qualification in enterprises to improve innovation potential							
No of training operations in companies	33	41 (124%)					
No of participating companies	180	967 <i>(537%)</i>					
No of participants in the enterprise training operations	610	1,042 (171%)					
No of women participating in enterprise training operations	190	228 (120%)					

Source: Operational Programme, Annual Implementation Report 2014, own calculations

## **3.1.2. What is the impact of the programme?**

The Interreg IV A programme intensively relies on and uses results, capacities and structures from the former programmes, and the long-standing experience in conducting cross-border programmes is evident. Efficient procedures to consult, manage and accompany joint projects are in place. The institutional structures are well developed, operate in an efficient and coordinated way and the persons involved have long experience and a deep understanding of the topic at stake and of the programme philosophy. In their understanding, Interreg targets

cross-border cooperation at the core, which is based on "bringing people together". The R&D, innovation and business promotion perspective is anticipated as crucial, but not as an exclusive target. In this line, the significance of the "people-to-people" component was considered pivotal in many interviews, mainly related to "lowering mental borders" or "paving the way for future collaboration" (e.g. school exchanges or students' integration in cross-border projects). In total, the programme is considered as advanced in its overall organisation and management.

An important new aspect and challenge in the 2007-2013 period was the introduction and management of 'major structuring projects'. The initial aim was to further develop "flagship projects" from the preceding period. In fact, some of the larger projects in Interreg III had shown positive effects with respect to integration of the programme and synergy effects beyond the individual sub-regions in which the projects were conducted. In Interreg IV, 'major structuring projects' were thus conceived as projects with high anticipated effects in the whole programme area. In order to be classified as a 'major structuring project', the following requirements were necessary: long-term orientation, sustainability, high degree of engagement on both sides of the border.

The implementation of Interreg IV showed that the concept of a 'major structuring projects' was very ambitious. Indeed, the management and implementation of those very large projects encountered various challenges, so that this concept is not further pursued in Interreg V. Main points mentioned in the interviews referr to the high efforts concerning initiation and preparation, and project administration (e.g. with a certain number of "sub-projects" in the frame of one 'major structuring project' which proved to be a challenge for the administration and monitoring system) and the large scale of the programme area (meaning long distances between participants and accordingly different interests). Interreg V refers now to "strategic initiatives" within priority axes (in targeted sectors) in addition to regular projects and framework projects.

Further relevant characteristics of this programme compared to preceding ones are the **strong focus on SMEs and the orientation towards their specific needs** related to R&D, technology and innovation. These latter aspects are partly mirrored in the output indicators, however some of them cannot be interpreted unambiguously, e.g. the interpretation of "company participation".

The allocation of funds in priorities is principally based on **assessments of individual project propositions**. The criteria for successful project propositions are clear (and implemented through "check-lists"). The **programme follows a broad approach** which enables the involvement of different types of projects. As a consequence, it is **flexibly implemented on a content basis**.

In order to capture quantifiable effects, the Operational Programme defined **output**, **result and programme indicators** (see <u>Annex 3</u>). These figures are the aggregation of project leaders' assessments. In order to support a common understanding of the individual indicators, the Joint Technical Secretariat prepared a manual of indicator definitions. However, their implementation could not be reviewed, so the reliability and comparability of their results cannot be fully guaranteed. In addition, these effects **do not cover the full range of impacts** achieved through the cross-border activities. In order to also refer to qualitative impacts, the Annual Implementation Reports contain narratives of selected projects under the heading "What we achieved in our project...", which illustrate the **impacts achieved in individual activities and hence** 

complement the quantitative information. These narratives cover the broad range of activities that are co-funded under the Interreg IV A programme and focus on the main topic and objectives, the cross-border dimension and specific achievements. When considering the broad variety of co-funded projects, this procedure helps to get an insight into achievements within the range of individual projects.

Since not all, but the large majority of projects under the "R&D, innovation and entrepreneurship" them are co-funded under Priority 1 (see above), the quantifiable results for this priority can be used as an indication of achievements and impacts in this area (see also <u>Annex 3</u>). Basically, these refer to (Annual Implementation Report 2014, see also table 6):

- 551 new or improved products or processes in companies, and 1,186 companies with improved production processes. These figures by far surpass the initial targets as envisaged in the Operational Programme and mirror the strong focus on concrete R&D and innovation endeavours addressed through the cooperation projects. An important aspect in this respect is the contacts established between universities and SMEs, leading to new product developments;
- Accordingly, the number of networks and clusters with a formal cooperation agreement for further cooperation also by far exceeds the initial targets which might have been too careful;
- The **number of created or sustained jobs** is also higher than expected. This holds for the total number of jobs and also for jobs created or secured for female employees. A comparison of result indicators for Priority 1 and the programme indicators (see <u>Annex 3</u>) shows that all new/ secured jobs reported for the whole programme can be traced back to Priority 1. Although defining new and maintained jobs generated exclusively through this programme is an issue to be considered, the impact of Interreg IV A on regional development and the labour market becomes obvious.

Table 6. Results of the Interreg IV A programme Deutschland-Nederland in Priority 1 "Economy, technology and innovation"

RESULT indicators, targets and values achieved					
	<b>Target</b> (as defined in the OP)	Total value 2014 (AIR 2014), absolute and %			
Priority 1: Economy, technology and innovation					
No of new /refined products /processes for companies	64	551 (861%)			
No of companies with improved production processes	280	1,186 (424%)			
No of created /extended (sustainable) networks and clusters (Sustainability is achieved when a written cooperation agreement on future collaboration exists)	41	1,235 (3,012%)			
No of created /secured jobs	1,780	3,747 (211%)			
No of created /secured jobs for women	472	1,279 (271%)			

Source: Operational Programme, Annual Implementation Report 2014, own calculations

The programme can be described as advanced and has produced important effects. These not only refer to increased strengthening and institutionalisation of formerly created structures and intense cooperation on all levels (programme management, project level), but also to a high involvement of SMEs from both sides of the border. This also led to a high (and higher than expected) degree of private funds mobilization (particularly through the great interest and large involvement of SMEs and an unexpectedly high number of projects); those high funds invested by the partners have a leverage effect and are evidence for the added value and positive effects of the programme. As table 7 shows, private contributions were higher than expected in all three priorities. Private funding is particularly high in projects realised in the first priority (business, technology and innovation), which is highly related to R&D, innovation and entrepreneurship: the total of private investments is more than 6.5 times higher than initially expected. This shows notable effects by the end of 2014; further mobilisation effects can be expected in the mid-term. Also, the cross-border programme helped to **build and establish** excellence in the programme area (e.g. in clusters) that support the future development of the region.

Table 7. Comparison of private funding in priorities as foreseen and realised by 2014

	Funding as foreseen in the Operational Programme (EUR)				Private
Priority	Total funding	Thereof: EU contribution	Thereof: National/ regional public contribution	Thereof: National private contributio n	funding as realized (Annual Implementat ion Report 2014; EUR)
Business, technology and innovation	176,478,624	80,419,235	79,420,927	16,638,462	112,681,410
Sustainable regional development	49,915,388	24,957,694	24,957,694	0	3,014,763
Integration and society	49,915,388	24,957,694	23,959,386	998,308	2,490,882
Technical assistance	17,636,768	8,319,230	9,317,538	0	0
Total	293,946,168	138,653,853	137,655,545	17,636,770	33,764,097

Source: Operational Programme (page 79), Annual Implementation Report 2014 (page 12)

Further qualitative impacts in the programme area refer to **branding and regional attractiveness**. Examples are "Das andere Holland" ("The other Netherlands") in tourism or the label of "green shipping" in maritime industries. Finally, various interview partners stated that the border is to a lower extent perceived as a (physical) barrier. Though certain border-related obstacles persist, intense and efficient cooperation of all participating bodies as well as the consideration of economic, ecologic and social/ cultural objectives helped to increase integration as well as economic development and innovation. Interviewed persons in the frame of this study very positively perceived the participating project partners that made cross-border cooperation efficient and gainful. The interviews also showed that existing competencies from both sides of the border could be merged in successful projects, leading to significant benefits through cross-border cooperation. The efficient preparation of project proposals through intense cooperation between project partners and programme management contributed to these positive effects.

### Box 1. MariTIM: Maritime technologies and innovation - German-Dutch model region

Based on the existing capacities and strengths of maritime branches in the German-Dutch area, this 'major structuring project' targets a cross-border model region for maritime research and development. Research, development, the introduction of new technologies and innovation are a "must" for this industry in order to maintain its competitiveness. This was addressed through bringing together existing potentials from both sides of the border and enhancing cooperation in order to address common challenges.

MariTIM was realised through three innovation activities which are at the core of the new cross-border cooperation. The project embraced companies and knowledge organisations of all sizes

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See <a href="http://shop-das-andere-holland.de/uber-uns">http://shop-das-andere-holland.de/uber-uns</a>, <a href="http://www.maritim-de-nl.eu/cms\_uploads/files/maritim-projektbroschu%CC%88re-deutsch-web.pdf">http://www.maritim-de-nl.eu/cms\_uploads/files/maritim-projektbroschu%CC%88re-deutsch-web.pdf</a>.

under the leadership of the Maritime Competence Centre MARIKO. MariTIM was funded under Priority 1, action field "Supporting economic networks and cross-border business cooperation" with an EU contribution of EUR 3 million (total budget: EUR 8.8 million). The innovation areas comprised (1) new propulsion systems: Sub-project "ECO<sup>2</sup> Inland Vessel", (2) development and analysis of liquefield natural gas (LNG) technologies: Sub-project "LNG Passenger Vessel", and (3) development of a new generation of wind sail systems: Sub-Project "Wind Hybrid Coaster" (wind assisted motor vessels).

In total, 35 partners were involved in the cross-border cooperation. Its value-added is evident in concrete developments: Five ships could be realised – a result that would not have been possible on a mere national scale. For about three quarters of the participating companies and universities, the project led to their first engagement in cooperation activities. The project helped to perceive the value-added of cooperation through trust-building, an indispensable precondition for revealing know-how (which was considered an obstacle in the initial phase). This led to a higher than expected positive response to the project initiatives. As a consequence, the targets for the self-defined indicators were over-achieved.

Company, including regional SMEs and knowledge institutions, could be involved. Through these cooperations, comparable challenges on both sides of the border could be addressed. Compared to the situation before INTERREG IV A, strengths, competencies and stakeholders could be brought together, which is considered essential for addressing current challenges. This resulted in research and development activities, as well as concrete innovations. Mere regional or even national activities are not sufficient to cope with the existing challenges of the industry (cost pressure, need for replacing fossil energy sources, increased exhaust emission standards), so a European set-up of maritime industries is necessary. Personal exchanges proved to be at the core of realising cross-border cooperation; as a consequence, this component was strengthened over the course of the project.

The main success factors, as perceived by the lead partner, were the awareness of value-added through the cooperation for participants, as well as the high technological orientation and focus on concrete R&D and innovation activities. Flexibility and support by the programme management was conducive to achieve the above-mentioned results. Participating project partners collaborated beyond the Interreg IV A programming period and initiated follow-up activities (partly also in the framework of Interreg V A). The Interreg IV A programme was thus the stimulus and trigger of new innovations and new cooperations which would otherwise not have been possible. Particularly the focus on SMEs is considered significant.

The project results are visible through the technology leap towards "green technologies" in propulsion systems. This led to the establishment of the brand "green shipping" for the Dutch-German cross-border region.

Source: KEEP project database, interview with project leader, brochure "Green Shipping: Von der Vision zum Schiff"

Partners: NOM - Investerings- en ontwikkelingsmaatschappij voor Noord-Nederland, Energy

BV, Jens Werner Coaster Service, Scheepswerf Gebroeders Kooiman B.V., Lloyd's Register, Germanischer Lloyd SE, Electric Ship Facilities BV (ESF), and CHEMGAS BARGING S.ar.l.

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Valley, MARIN, DST, Hanze University Groningen, University of Applied Science, TechnologieCentrum Noord-Nederland (TCNN), Hochschule Emden/Leer, Universität Duisburg-Essen, Rondvaardij Princenhof, Aktien-Gesellschaft "EMS", Cofely West Industrie BV, Cofely Experts BV, NHL Hogeschool, Maritima Green Technology, Wärtsilä Netherlands B.V., Koedood Dieselservice B.V., Kooimann B.V., Reederei Deymann Management GmbH & Co. KG, TNO, LAIS Nord GbR, Ralf Oltmanns Entwicklung und Vertrieb von regenerativen Antriebstechniken, VUYK Engineering Groningen B.V., MFH Marine- und Faserverbundtechnik Haring GmbH & Co. KG, SEC GmbH & Co. Shipservices KG, Wessels Reederei GmbH & Co. KG, Dirks Elektrotechnik GmbH, Stichting Projecten Binnenvaart, Harms Elektromaschinen, BOMA Maschinenbau GmbH, JPW Jens Peter Wolters Privattreuhand GmbH & Co. KG, Shipco

# 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?

The joint and cross-border dimension was given high priority by this programme and could be achieved through the project selection and consulting process during the project preparation phase. This was already anticipated in the Operational Programme: the target for assessing the cross-border dimension was defined as 95% of project proposals fulfilling at least two of the four criteria (joint project development, joint project implementation, joint staffing, joint financing). The clear joint and cross-border dimension is a specific requirement for receiving cofunding, which is clearly communicated within the programme area. A well-developed system of project design and consulting during the different phases of project development is in place that guarantees the implementation of cross-border collaboration. Accordingly, project concepts lacking the cross-border dimension would be rejected in the first phase of assessment and thus not lead to full proposals. The implementation of the cross-border dimension is facilitated by agreements on budget management through one single account. This enables the programme to co-fund projects according to their specific contribution, independently from the location of the participating partners. Those budget management agreements date back to the year 1991. They were concluded before launching the first Interreg programme, and this approach became a pattern for implementing cross-border programmes in various other European regions (see also Operational Programme, page 6).

In this line, the Managing Authority perceives cooperation both as the basis and pre-condition for all projects conducted in the Interreg IV A programme framework, and its enhancement also as a result of the cross-border projects. The cross-border cooperation programme is perceived as providing unique possibilities of cooperation.

The extension of the programme area through merging two formerly separated programmes and through a further territorial extension under the framework of Interreg V (related to the inclusion of further knowledge and higher education organisations) layed the foundations for **enhancing critical mass, and also for the joint development of new innovations** through bringing together available knowledge and know-how in regional fields of activity. The programme led to the **broadening of the horizons of all partners** with a specific focus on cross-border aspects and opportunities, while the thematic priorities as such do not show significant variations from mainstream programmes. A further indication of programme success is the **publicity of the programme**: Interreg is well known in the programme area. This is supported through the activities of the regional ministries, business promotion agencies, Chambers of Commerce, intermediaries, universities, etc. As a consequence, in every new phase of cross-border cooperation, **new actors enter the scene**.

A further specific value-added to cooperation which is hardly quantifiable is labelled by one interview partner as "Jointly to the world": the Interreg IV A programme and mastering specific bilateral innovation endeavours creates knowledge both in the technical and the cultural sense, but also **strengthens the partners' self-confidence and thus establishes a significant base for engaging in further bi-**

**and multinational cooperations**. This is particularly important for SMEs and the strengthening of their knowledge beyond their immediate regional boundaries.

To sum up, the programme philosophy of joint activities across the border was clearly communicated by the programme management and perceived as a core aspect of the conducted projects. The way of realising this differed across the various projects: while some of them already started on a cross-border base, others developed "pre-phases" with individual participants that were then paired with participants from the other side of the border under the umbrella of a joint project. This specific process was used in the "Network GMA" project (see box 2): The first interaction with businesses could involve interested companies from both sides of the border, but also be conducted in parallel, before suitable partners were brought together. It became apparent that the active backing of the first phase of implementation through the Chamber was of high significance.

# Box 2. Netzwerk GMA (Machinery and plant engineering without borders: Towards flexible manufacturing)

The Network GMA project develops a holistic approach to address significant challenges for the supplier industries in the globalisation context. This approach is realised through three areas: (1) Market and marketing, (2) process innovation, and (3) human resources, with a focus on the integration of innovative approaches in production processes. Essential is the focus on companies: about 500 businesses are at the core of the network (Dutch and German participants roughly evenly spread). Both the core group of participants and their needs were well-known from preceding projects and experiences.

The project is managed by the Chamber of Crafts in Münster and is funded under Priority 1, action field "Supporting qualification in enterprises to improve innovation potential", with a total budget of EUR 7.8 million from which EUR 3.5 million was EU contribution. Project partners were:

- Stichting Stodt, Praktijkcentrum voor Geavanceerde Technologie,
- Verenigde Maakindustrie Oost (VMO),
- · Handwerkskammer Osnabrück-Emsland,
- Kamer van Koophandel (ehemals Stichting Syntens), and
- Stichting STODT, Praktijkcentrum voor Geavanceerde Technologie.

The main achievements are seen in innovation processes related to the application of new technologies and process innovations. Regarding product innovations, the GMA Network project closely cooperated with the Mechatronics SME project (see box 4), initiated through explicit contacts between project leaders. In total, the network initiated 30 cooperations in the supplier industry.

Efficient programme management, good communication and discussion of the first project ideas helped to define the project so as to precisely address the challenges and needs of regional companies.

During project implementation, the project leader encountered expected and unexpected effects of the cooperation. A positive and not anticipated effect was the joint presentation of participants at fairs, an important issue for this industry.

A small follow-up activity with ten precise cooperation examples could be launched in the framework of the programme, resulting in a brochure that summarises meta results and focuses on the success factors of strategic partnerships. This project could involve small and medium-sized enterprises from both sides of the border and elaborate a set of recommendations for cross-border cooperation.

The sustainability of the project can be measured through the future use of qualification and plant technology, through the development of new ideas and

definition of a new project in the frame of Interreg V A, and through the continuation of working groups in specific themes (without EU funding). Also, the GMA network could initiate contacts to further networks in Germany (Wind Energy, Mecklenburg-West Pomerania), France and Italy. A small project-internal survey with 20 participating companies showed that more than 800 contacts could be generated (634 for German and 222 for Dutch interviewees). The respondents stated that 343 (German interviewees) or 111 (Durch interviewees) projects could be initiated through Interreg, and that EUR 13.5 million turnover could be generated. Although this survey is not representative, it gives an idea of the effects generated by the cross-border cooperation project.

Source: KEEP project database, interview with project leaders, brochure "Von der Kooperation zur strategischen Partnerschaft / Van samen – werkingsverband tot strategisch partnerschap", and further information material provided by the project leader

# 3.2.2 What barriers to cooperation have been removed?

During the visits, two general cross-border cooperation barriers became apparent. The first, rather generic, one relates to different legal or governance-related aspects, rules and norms such as laws and regulations, mentalities, cultural aspects or tradition. These make up the superordinate context of cross-border cooperation and can only partially be influenced by cross-border cooperation programmes and projects. However, **they can be made explicit** and – at least to a certain extent – exploited for generating added value. The second dimension is closer to the specific situation, often project or technology/ theme specific and the obvious point of intervention on the project level. Both dimensions are linked to each other, and results are achieved on both of them. Interview partners not only referred to theme-specific processes and achievements, but also to facts like "reduction of mental barriers". Language was also brought forward in all interviews; though most respondents quote it as barrier, specific ways and processes were in place to handle this aspect.<sup>10</sup>

Referring to the first dimension, important achievements were gained in reducing mental barriers through trust-building and better knowledge of the general culture and the specific cooperation partners on the other side of the border. Depending on the specific innovation project, some interview partners had to take into account different national rules and regulations. However, these could be used to gather new knowledge, based on specific experience of how to research, develop and innovate under diverging legal framework conditions. To illustrate this, the poject "Fuzzy-gestützte Abwassersystembewirtschaftung" (Fuzzy-based management; cooperation of Technical Operations of Rheine and Oldenzaal, see box 3) helped to promote the waste water management systems of both partners through integrating diverging experiences of water management under different legal framework conditions. This led to the implementation of new innovative approaches, followed by a reduction of investment costs. To give another example: the project Network GMA (box 2) took into account differences in the education systems and certification processes when developing cross-border qualification measures.

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Generally, knowledge of the "neighbour's language" is better on the Dutch than the German side, and generally, "everyone speaks his or her own language" – a proceeding which has proved efficient in the course of time. In some specific cases, simultaneous translations are used, while switching to English is rather the exception.

Also, project leaders became aware of different cultural conditions and mentalities and **exploited them for the benefit of the project** through collecting examples and making the differences explicit. In this line, information material and brochures that explicitly target those points and are used within and beyond the specific projects in question.

Specifically related to R&D, innovation and entrepreneurship, **important technological barriers were reduced** through integrating know-how, experience and equipment from all partners. On the business side, the reluctance of companies to invest in cooperation endeavours was also strongly reduced: companies developed an open attitude, became aware of advantages based on cooperation and engaged in the projects. **Involving regional companies' needs and specifically integrating SMEs, and opening market opportunities** for regional companies can be considered as achievement in barrier reduction. Particularly, the increased involvement of SMEs is perceived as important evidence of the removal of barriers to cooperation.

To sum up, becoming aware of barriers, making them explicit and exploiting them can be considered as a significant result of the programme. Of course, some barriers to cooperation still exist, mainly in the legal domains, but these barriers cannot solely be addressed by cross-border programmes. Further barriers, mentioned by most of the respondents, refer to administrative procedures. These are (partially) addressed by INTERREG V A.

With the launch of Interreg V A, a **survey on the perception of border-related barriers was conducted in the programme area.**<sup>11</sup> The results show that both citizens and organisations (administration, private businesses, and education and research organisations) **perceive legal and administrative aspects as the most important barriers**. Concerning the group of organisations, sociocultural aspects such as language, rules and norms were mentioned.

# Box 3. Fuzzy waste water system – Introducing a fuzzy-based waste water management in the cities of Rheine and Oldenzaal

Activities to cooperate in waste water management date back to the mid-1990s. Cross-border cooperation in this area faces similar external challenges (climate change and increasing occurrence of heavy precipitation, demographic change and under-utilisation of canal networks), but also different framework conditions, especially in water law. Fuzzy technologies in waste water management systems provide smart control systems that allow the introduction of various dependent factors and thus the better adaption of processes to specific requirements.

The lead partner of the project is the Technical Operations Rheine; partners are Waterschap Regge en Dinkel, Gemeente Oldenzaal, and INFA-ISFM e.V. The project is funded under Priority 2 (Sustainable regional development), action field "Supporting renewable energies and development of energy efficient technologies". Its total budget amounts to EUR 900,000, with an EU contribution of EUR 405,000. Interreg enabled the project to implement new innovative approaches on a large scale. This, in turn, led to decreased investment costs and also to energy saving. Using the experience gained at the respective other side of the border (similar technology, similar external conditions, but diverging national

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See <a href="https://www.deutschland-nederland.eu/home/aktuelles/article/umfrageergebnis-die-grenze-als-barriere/">https://www.deutschland-nederland.eu/home/aktuelles/article/umfrageergebnis-die-grenze-als-barriere/</a>, ERAC/ Radboud Universiteit Nijmegen (2015): page 28ff.

regulation and control concepts) resulted in high knowledge gains that were immediately exploited.

Core success factors are the participating persons, the openness towards cooperation and the support on all levels of the corporations (management and operative levels). The successive projects from Interreg II to IV are advancing based on preceding achievements. Further important aspects are the equal contribution of the partners: all of them bring their own competencies. Cooperation with the Euregio is very valuable; further project-programme interrelations or exchange with other co-funded projects do not exist.

The sustainability of the project is guaranteed through a new project proposition with a change in the lead partner role (to support equality). EU co-funding is very important for this type or project, since municipalities can hardly invest in such approaches.

Source: KEEP project database, interview during programme evaluation, project documentation provided by the project leader

## 3.2.3 What is the evidence for the contribution of INTERREG programmes?

In the context of a large programme such as Interreg IV A Deutschland-Nederland, many achievements – both on the quantitative and the qualitative dimension – can be cited. Not all of them are quantifiable, but important evidence is the **high awareness** of the cross-border dimension of participating persons and organisations at all levels. This awareness led to a focus on young people and on the people-to-people dimension, in order to pave the way for future cooperation and the further reduction of barriers, e.g. in the labour market.

In a transversal manner covering all activities, the following main evidence is given:

- Contacts across the border were established; firms and knowledge actors got to know each other;
- Networks were established, regional stakeholders gained knowledge about available competences on the other side of the border;
- Regional actors identified efficient cooperation partners;
- Interaction was successively based on cooperation instead of competition which yielded higher results;
- As a consequence, product and process development was strengthened;
- The programme was demand-driven: approved projects to a high extent referred to the specific demand of regional actors (mostly businesses and partly also their "hidden demand"), and the project approval process was based on regional demand rather than the initial planning;
- A high number of events were conducted and presentations on the European scale were given in various project contexts. This contributed to the presentation of the programme area as a "show room" and example for further activities, and to induce follow-up activities;
- The joint cross-border dimension was clearly communicated and incorporated into programme and project implemention from the beginning.

Evidence for these points can be found in the monitoring system (see below).

In addition, and in a more cross-cutting perspective, the programme contributed to **capacity building in cross-border aspects**. This includes for instance knowledge about the neighbouring region and its stakeholders, project management on the other side of the border, etc., but also knowledge about market opportunities in the whole

programme area. As mentioned by various interview partners both on the project and the programme management level, 'soft factors' like trust-building and "getting to know each other" are considered crucial in this cross-border perspective; however, these can hardly be mirrored in quantitative figures (at least not in the short-term). Successive territorial enlargements and the implementation of large-scale 'major structuring projects' evidence efforts towards generating critical mass.

A further indication of the contribution of the programme is the large interest of stakeholders in engaging in cross-border projects. This refers particularly to universities and other knowledge organisations, as well as to private businesses including small and medium-sized enterprises, and shows that the programme has met the needs of regional actors. The programme also induced secondary effects in some of the co-funded projects. An example is the 'major structuring project' Mechatronik KMU (see box 4), which primarily focused on SMEs, but induced a secondary network of external service providers in the cross-border perspective. Also, in the context of the same project, graduates and students were integrated into crossborder projects, which - in the mid to long term - will have positive effects on the cross-border labour market. On the industrial dimension, an important secondary and initially unanticipated effect is the common visits to and representations at fairs and exhibitions. This can be illustrated with the Netzwerk GMA project (box 2). Based on the networks induced by the INTERREG project, Dutch and German companies engaged in two fairs, an effect which is considered significant for the supplier industry. Secondary effects were not included in the programme monitoring, but the interview partners were aware of these effects. Also, the programme gave impetus for further cooperation requests on the national and supra-national (mainly European) scale, a further indication of induced effects, promoted through the communication and diffusion of successful project results.

#### Box 4. Mechatronik für KMU - Mechatronics for SMEs

This project targets the introduction of mechatronics in small and medium-sized enterprises in order to enable them to engage in development and innovation, hence to strengthen their competitiveness and growth perspectives. The main focus of the project is to empower all participating actors – companies and universities – to share and develop knowledge in mechanics, electronics and informatics across the border.

The project is conceived as a 'major structuring project', with a total budget of EUR 18.4 million, and an EU contribution of EUR 7.3 million. The project leader is Euregio e.V. in Gronau. In terms of budget, it is the largest project of the programme. The project involves the following partners:

- Landkreis Grafschaft Bentheim
- Stichting Stodt, Praktijkcentrum voor Geavanceerde Technologie
- Stichting EUREGIO Crossborder Consultancy
- Fachhochschule Münster via Steinfurt
- Universiteit Twente
- Kamer van Koophandel (ehemals Stichting Syntens)
- Deutsche und niederländische KMU
- TechnologieCentrum Noord-Nederland
- Emsland GmbH
- Wirtschaftsförderungsgesellschaft für den Kreis Borken mbH
- Gesellschaft für Wirtschaftsförderung im Kreis Warendorf mbH
- Westfälische Hochschule Abt. Bocholt
- Universität Duisburg-Essen, Fakultät für Ingenieurswissenschaften
- Stichting Hogeschool van Arnhem en Nijmegen

- Stichting STODT, Praktijkcentrum voor Geavanceerde Technologie
- Kamer van Koophandel Centraal Gelderland, and
- Kamer van Koophandel.

It is funded under the Priority 1 (business, technology and innovation), action field "Supporting technology and knowledge transfer between research and businesses". It is based on preceding activities and infrastructure established in Interreg II and III that focused on technology transfer, knowledge institutes and establishing cooperation structures, but now specifically targets SMEs as a new focus. Various potentials - partially not directly visible - exist in the programme area. Important barriers are represented by the different languages, including technical language. The project included a total of 257 (124 Dutch and 133 German) companies, the large majority of them SMEs. Splitting the whole process of project development into various phases enabled the project to develop approaches with realistic implementation chances. In sum, 106 development and innovation projects, jointly conducted by SMEs and knowledge institutions, accompanied by Euregio and business promotion agencies, resulted from this activity. This helped to further use of the available technology transfer potentials in the programme area and to embed this type of cooperation more strongly in daily business.

The project addressed and lowered various barriers to cooperation: besides exploiting formerly unused technological transfer resources, it enabled regional SMEs to get acquainted with R&D and innovation and to develop an open attitude to cooperation across the border (confidentiality being a pivotal issue for them). Also, awareness and recognition of the various stakeholders in the programme area were raised. Further, the integration of students and graduates into the cooperation projects is considered as the basis for future joint activities and as preparation for a cross-border labour market (this is still confronted by various barriers, differences in social insurance systems, to cite just one). Barriers to collaboration between research and industry were lowered by defining concrete challenges and specific projects.

In the conception phase, the project developed indicators to measure the process of developing cooperations and conducting joint projects. About 2.5 years after launching the project, the initial indicators were assessed and partially modified in order to give a more realistic picture. All of them are over-achieved today, with the exception of the jobs indicator which will be reached during the coming years. As a secondary and initially not anticipated effect, a network of 168 external service providers (engineering companies, universities and other knowledge providers) in the cross-border region was established. In total, the main achievements of the project are related to SME involvement and their engagement in concrete innovation activities, as well as network effects between companies, knowledge institutes and service providers in the cross-border perspective.

As part of the project, the project leader conducted an internal evaluation during the final phase of implementation. This survey showed that 50% of the companies plan to pursue their cooperation, a further 35% plan to carry on the cooperation on demand. 74% assessed the Interreg IV A programme as very important. Concerning jobs, 85 jobs were secured in the sample of 46 projects (of which 21 were for women), 43 newly created (of which 7 were for women) and 116 future jobs are envisaged.

Source: KEEP project database, interview with project leader, project documentation provided by the project leader

## 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?

Learning has **occurred on various dimensions**, both at the level of individual cooperation projects and at the management level, and also in connection with themerelated knowledge, as well as with meta-knowledge referring to cooperation-specific aspects. The following examples illustrate this:

- Programme management level: various procedures are in place which enable the efficient approval and implementation of the programme. The preparation and approval of cooperation projects, for instance, follows a structured proceeding that is based on clear criteria (a check-list), advice and feed-back processes, as well as explicit support for project development. Communication and information exchange between the different levels of programme management (the regional programme management located at the Euregios, the Joint Technical Secretariat, the Managing Authority) facilitate the process of sharing knowledge on current activities and their results. Gathering experience and learning is also generated through exchange and feed-back processes during programme implementation (e.g. concerning the definition of indicators, their targets and achievements or experience of administrative procedures and ways to efficiently handle them);
- Programme implementation: extensive experience and learning in managing projects of varying sizes was generated. Very large projects were conducted as 'major structuring projects', very small projects were managed under the umbrella of framework projects. Experience gained in 'major structuring projects' showed difficulties in the whole process of managing and implementing those large-scale projects (high number of partners, large scale of funds, difficulties and high time requirement in handling). As a consequence, this concept is not continued in the 2014-2020 period. The concept of small projects, on the other hand, will be continued and even made easier for applicants;
- Project level: knowledge referring to the specific theme or technology of cooperation, including required technological knowledge, was generated. Knowledge flows between the different partners were induced, for instance between universities and SMEs, which were given a nearly unique opportunity for cooperation (since there are often institutional barriers to cooperation between these specific actors). In addition, knowledge of intercultural aspects could be generated. As mentioned by one of the 'major structuring project' leaders, the collaboration in concretely defined research and development tasks was significant for establishing successful cooperation and generating value-added;
- Programme management and project levels: experience in working across the border was enhanced ('meta knowledge'), measurable for instance in vocational training, educational measures or specific advice on cross-border issues. Experience of "how to work on a cross-border basis"

mostly automatically led to further activities. Learning how to approach and implement projects is appreciated and helpful in further programmes and contexts;<sup>12</sup>

• Learning effects also occurred over time and in the different "generations" of cross-border programmes. Experience from former programmes was continually used to improve further programmes. To give an example for the strategy building level, strengthened coordination of different programmes (cross-border, ERDF, regional programmes) within the Lower Saxony State Chancellery (see below) is being established and will be further developed.

The diffusion of learning and knowledge is promoted through communication, e.g. in brochures and public relations activities, but also through project examples published in the Annual Implementation Reports. Further communication channels are specific events or projects fairs where results are presented.

In total, stakeholders from all levels benefitted from the programme and resulting learning effects, including 'soft' aspects. Project and programme cooperation evolved into real, efficient partnerships that are highly appreciated by participating stakeholders. Several commitments for further cooperation – both in the context of and beyond INTERREG – were mentioned by the interview partners.

#### 3.3.2 Who has benefited?

The Operational Programme defines beneficiairies and target groups on all priority axes and action fields (Operational Programme, page 58ff.). For the "Economy, Technology and Innovation" priority, companies, particularly SMEs, as well as knowledge providers (universities, research institutes) and technology transfer agencies, technology and innovation centres and incubators, and local and regional public actors (among them business promotion agencies, Chambers of Industry and Commerce, Chambers of Trades, and associations) are targeted. The third action field also includes the target group of education and qualification facilities.

As shown above, all participating stakeholders at all levels of programme development and implementation benefited from the programme. Knowledge transfer was envisaged at all levels and anticipated in the Operational Programme (see Priority 1, action field 1). Specific institutions or mechanisms for knowledge transfer are not in place; **knowledge exchange is rather realised at the inter-personal level** (besides co-funded projects in the above-mentioned action field). Mechanisms like events, workshops and public relations are used. Various project leaders emphasised the high importance of personal interchanges; mutual visits and excursions were very important in creating and strengthening mutual understanding. These aspects proved to be more important than initially expected and induced follow-up activities such as student competitions.

In total, a broad range of actors benefitted from the cross-border cooperation programme: Besides project leaders and economic actors located in the programme area, knowledge providers (universities, research institutes) and competence centers (such as MARIKO for maritime technologies, see box 1) are to be mentioned. Further

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Leading for instance to specific brochures such as "Arbeiten in den Niederlanden. Kulturunterschiede im Nachbarland – Werken in Duitsland. Cultuurverschillen in het Buurland"

beneficiaries are knowledge and technology transfer organisations as well as regional and local public actors including Euregios.

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

As interviews in the framework of on-site visits have shown, linear and one-directional knowledge flows are the exception. Rather, all participating partners benefit from knowledge, learning and exchange. In the project preparation phase, knowledge exchange between project and programme levels was realised through intensive consulting processes. During implementation, links between project and programme levels existed on the base of progress reports of projects (provided twice a year) and on the level of individual exchanges between project and programme levels. Links between the different co-funded projects can rather be described as incidential and triggered by individual persons.

At the project level, knowledge and technology transfer gained significance with the Interreg IV A programme. Although important bases for cooperation were already generated in preceding periods, their potential was not fully exploited and technology transfer was not a natural matter of course. Being aware of intercultural differences, but being at the same time open to learning and transfer, contributed to the positive impacts of the programme. This may be illustrated by the specific case of regional SMEs, which are often very small and rather reluctant to innovation, but nevertheless open towards new developments. SMEs from both the Dutch and the German parts learned from each other; knowledge flowed in both directions. To give an example: as became apparent in the Mechatronics SME project (box 4), technology-specific knowledge flowed from the German to the Dutch side, while knowledge and experience in industrial design flowed in the opposite direction, leading the partners to jointly "create beautiful machines". Again, initial knowledge divergences can be traced back to intercultural differences: Germans are considered as rather functional while the Dutch culture to a higher extent targets visual and aesthetic aspects. The combination of both elements generated new focal fields through cross-border cooperation. Interrelated and reciprocal flows of knowledge also occured between knowledge institutions and companies.

## 3.4. Sustainability of learning and cooperation

#### **EVALUATION OUESTION**

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?

Economic development, technology and innovation is one of the three core priorities of this cross-border cooperation programme. This priority line is related to the Lisbon Strategy and the "3% objective", against the background that the NUTS regions of the programme area showed below-average figures in this respect (Operational Programme, page 22ff.). The generally modest performance in R&D input is coupled with a significant heterogeneity within the programme area, the southern part of which shows higher figures on both sides of the border than the northern, more rural and less densely populated part (see also section 1.1). As the Operational Programme shows, the programme area has important knowledge providing institutions with significant advantages in future-oriented technologies and themes. This gap between knowledge production and innovation indicates a weaknesses in the transfer of knowledge and technologies as well as in private businesses' innovation endeavours. Since both the Dutch and German parts of the programme area have similar structural characteristics, the bundling of competences and resources through cross-border cooperation seems more than coherent and promising. Enhancing research and innovation-oriented cooperation is approached in this programme through various channels: (1) Knowledge and technology transfer between research organisations and industry, (2) Networking and cooperation of companies in a transborder perspective, and (3) enhancing companies' innovation potentials through the support of qualifications. These action lines are the result of relevant topics for cross-border cooperation, SWOT analyses on the basis of individual themes and the underlying strategy for enhancing cohesion of the Dutch-German programme area (Operational Programme, pages 22ff. and 54ff.). On the strategic level, development concepts and position papers were produced at regional and local levels; developed project proposals were then aligned with these strategic positions in order to guarantee programme implementation in coherence with the underlying strategy. The process of involving all partners in strategy development and of aligning strategies with supported projects can be considered as an important aspect with regard to the implementation of the programme in a coherent and sustainable way. This proceeding was facilitated by experience and contacts generated in former periods, which contributed to the lowering of border-related barriers. Over the course of the various cross-border cooperation programmes, successful cooperations were continued on the one hand and new cooperation initiatives were developed on the other hand. This ensured a certain degree of continuity and widened cooperation structures so that the level of integration was continually enhanced. From this, it follows that the sustainability of economic and innovation-related activities occurs both from a top-down (strategic) and a bottom-up (operative) perspective.

As indicated above, the programme follows a broad approach though with a strong focus on the first priority, thus on economic development, technology and innovation. The goal of a knowledge and technology-based economic development of the programme area should be reached through using and developing the indigenous potentials of the area. This includes actors and competencies as well as existing cross-

border structures. In this respect, **sustainable cross-border structures are of high pertinence** to the cross-border strategy. They establish the basis for projects of different structures (orientations, sizes) to be successfully conducted.

Both the preceding and the succeeding programmes have a high focus on this innovation-related topic. The attribution of high pertinence to these goals is thus an indication of strategically focusing on innovation-led regional development in the programme area through the use of cross-border potentials. Also, the process of conceiving, designing and implementing large-scale projects (from flagships to 'major structuring projects' to strategic initiatives) can be considered as a sustainable way to foster large-scale, highly visible initiatives with high significance for the programme area and beyond.

In the research and innovation context at the project level, sustainability can be considered under organisational/ institutional and content-related viewpoints. While organisational/ institutional aspects refer to the establishment and maintenance of cooperation structures, content-related aspects refer to the generated results and their further development. As on-site interviews have shown, **there is a high degree of continuity** on behalf of persons involved in programme management and implementation. Learning effects can thus be used and turned into opportunities, and sustainability of knowledge creation is guaranteed. Knowledge and experience is to a considerable extent of a tacit nature and can be maintained in a sustainable way through continuity. As interviews have shown, initiatives were also further developed in cases where key stakeholders left the programme area (e.g. due to retirement) though it should be emphasised that successfully launching and implementing cross-border initiatives benefits highly from individual key persons and their engagement.

As far as the future of learning at the project level is considered, universal and allcomprising general statements can hardly be made, since the future of learning depends on the individual project contexts. However, as could be seen in the framework of on-site interviews, sustainable learning effects are highly probable. The high level of experience and engagement, as well as the continuity of strategically orienting the Dutch-German cooperation towards the research, technology and innovation component, contribute to the generation of sustainable effects. Also, networks and clusters have a high degree of mid and long-term orientation and consequently contribute to sustainably triggering positive effects. The following indications for the sustainability of generated effects can be cited: participants are aware of the positive effects of cooperation, and a number of cooperations will continue in the future. This becomes apparent through the propositions of networks in Interreg V A. Often, these networks integrate new actors and thus broaden their partner base. Clearly, the main effects of the programme are crossborder cooperation and the establishment of sustainable network structures and exchange processes across the border. The fact that the INTERREG IV A programme is carried out in a stable institutional background and promoted by a high willingness of policy actors to push cross-border integration is a further significant, yet indispensable factor for sustainable cooperation structures.

#### 3.4.2. Will its sustainability depend on future EU financing?

The sustainability of generated effects as a function of EU funding is also project-specific: some cooperations will continue in Interreg V A, some will continue without EU co-funding (in "daily business"), others will continue in the context of other programmes. A small share of cooperations might not be pursued after the termination of the specific project. In any case, mentality shifts have taken place through Interreg that have generated the basis for sustainable cooperation. Especially in cultural activities (e.g. school exchanges), few alternative funding sources are available, so INTERREG creates a significant basis for inducing positive effects. Of crucial importance in all types of cooperation are individual key persons that act as motivator for cooperation activities.

**EU** co-funding was essential for the majority of cooperation projects within this programme. It not only provided incentives for cooperation, but also delivered the framework for joint activities to take place and to jointly address a specific problem. Also, experience in cross-border cooperation opened the door to new options in the internal business culture of participating companies, particularly SMEs. As such, EU contribution is considered by most of the interviewed persons as a **trigger for cross-border cooperation**. This trigger led to the identification of partners and the establishment of cooperation structures that might then be further developed in the context of EU, national, or regional programmes or on the daily basis (e.g. without public funding). Thus, EU co-funding is considered pivotal for initiating cooperation, since there would not have been alternative funding sources for setting up cooperation structures.

In total, various cooperation networks were established, leading to the generation of critical mass in the programme area. This was quantified in the monitoring system: 1,235 sustainable networks and clusters with cooperation agreements could be initiated through the programme (see Annex 3). Further evidence refers to incidental information on the project level, provided by the project leaders. **The monitoring system does not mirror sustainable effects on the basis of follow-up activities**. However, trigger and leverage effects were observed in the visited projects, notably in terms of private funds mobilised (see above). Nevertheless, further public funding seems to be necessary to promote R&D and innovation in the pre-competitive phase.

#### 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?

The cross-border perspective allows companies – particularly SMEs – to develop new products or processes, thus to address specific problems, and to engage in an enlarged market. Very often, SMEs located in the programme area are active in market niches, so that the extension of their activity radius and sales market is an important opportunity and asset.

Most projects would not have been realised without Interreg funding. INTERREG has thus had a triggering effect and acts as an incentive for cross-border cooperation. Particularly SMEs lack the necessary pre-conditions for cooperation, mainly in terms of funding and research capacities. For institutes of the higher education sector, cooperation projects enlarge their opportunities for research in collaboration. The fact that all parties – SMEs and the local (districts) and regional (federal state) levels – contribute to the overall funding shows the high importance attributed to the cooperation activities. In total, Interreg programmes are considered as an important stimulus for SMEs and knowledge institutes to engage in cross-border cooperation activites.

One of the crucial achievements of INTERREG IV A was the consolidation of those network structures whose foundations were created in preceding phases. This enables the programme to address specific challenges in the whole programme area, i.e. specific challenges beyond national borders, which can be jointly addressed. Examples are in economic and industrial structures (bioeconomy, agrofood, tourism). In this context, different mentalities are used for learning and jointly dealing with common challenges. Also, when considering legal and administrative barriers, Interreg is considered as an important driver for engaging in cooperation, even despite these obstacles.

These arguments show that the INTERREG IV A programme is of high significance for the programme area since it helps local actors to broaden their view and include "the other side of the border" to create joint advantages. This cooperation has helped engage actors to identify common and also diverging challenges and to jointly develop solutions on the basis of joining competencies. More specifically, as mentioned by the interviewees, the cross-border cooperation programme has unique specificities and advantages leading to opportunities which cannot be addressed in other programme contexts. Apparently, these relate primarily to cooperation activities across the border, but INTERREG has further specific advantages: Unlike most national and regional programmes, INTERREG does not have a specific sectoral focus, which enables it to pursue activities beyond specific targeted limits. Further, starting interregional and international cooperation on a bilateral basis opens new opportunities for engaging in further and even larger international contexts. This effect of enhancing experience, of generating learning and of increasing knowledge is considered an important step and source of value-added gained through cross-border cooperation. These aspects also lead to the enhanced visibility of project results through diffusion and dissemination activities including conference participation, etc. and were mentioned by some project leaders as a significant step towards internationalisation. These effects can be clearly traced back to INTERREG IV A and could not have been achieved in national or regional programmes.

To sum up, the European Territorial Cooperation programmes address aspects that are not covered by other programmes and trigger effects of a sustainable nature. They are

European Commission - Ex post evaluation of Cohesion Policy programmes 2007-2013 financed by the European Regional Development Fund (ERDF) and Cohesion Fund (CF)

considered as triggers and enablers of activities which are highly valued and appreciated in the programme area.

#### 3.6. Quality of monitoring system

#### **EVALUATION QUESTION**

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

The **monitoring system is relatively conventional**. The system consists of fifty indicators (outputs, results and impact indicators),<sup>13</sup> including twenty which focus on the theme of research, innovation and entrepreneurship. The full list of indicators by priority and by type, including target values and achievements, is appended in <u>Annex</u> 3.

For 2007-2013, the interviewees underline **two significant developments in the monitoring system**:

- Firstly, the programme has developed its **own integrated monitoring system**. This individual web-based system<sup>14</sup> registers all the project data (financial data, projects description, specific amount spent, etc.) and is constantly available to all partners.
- Secondly, there was a clear willingness from the beginning to define a limited number of indicators (output, result, and impact) in order to keep the system operational. Thus, the challenge was to find the equilibrium between what is needed and the complexity of interventions, or in other word, a limited set of indicators that are both relevant, useful and applicable to the diversity of projects under each priority.

Even though the indicators are rather relevant to the theme, **certain weaknesses nevertheless remain**:

1) Cooperation or sustainability dimensions: the indicators used focus almost entirely on the theme (Entrepreneurship and RTDI), without approaching the specific dimensions of the cross-border cooperation, particularly the measurement of the depth and the specific effects of cross-border cooperation. Nevertheless, the Joint Technical Secretariat specifies that cross-border aspects are checked intensively at the beginning (projects not truly of a cross-border nature are not financed) and also during the implementation of projects. Qualitative information is thus available twice a year in progress reports, but they admit the difficulty in measuring it.

The **sustainability dimension is not covered** in the range of indicators, except for the clusters ("sustainability is achieved when a written cooperation agreement on future collaboration exists", but questions arise on values). There are also **no "far-reaching" indicators that could serve for strategy making**.

<sup>&</sup>lt;sup>13</sup> Under the heading of "programme indicators", see <u>Annex 4</u>.

See handbooks: <a href="https://www.deutschland-nederland.eu/uploads/media/100901\_20Handbuch\_20Antrag\_20Lead\_20Partner\_de.pdf">https://www.deutschland-nederland.eu/uploads/media/100901\_20Handbuch\_20Fortschritt\_20Lead\_20Partner\_de.pdf</a>.

- 2) Definition of indicators: indicators and calculation methods have not been precisely defined at the beginning (e.g. number created / secured jobs, number of reached SMEs), leaving considerable room for the interpretation of stakeholders. The problem was identified by the Technical Secretariat, and a handbook with indicator definitions was prepared for Interreg V. The reliability of data is therefore clearly not guaranteed, despite significant efforts upstream. The link between outputs - results shows several inconsistencies (e.g. 423 cross-border supported networks / clusters as outputs and 835 newly created / extended networks and clusters as results). Setting of target values and over-achievements: target values have clearly been underestimated especially for result indicators. As shown in Annex 3, the values reached by most indicators far exceed the target values, often by multiplications 3, 4 or even up to more than 30 times. Among the 49 indicators, the values achieved in 2014 were already more than 4 times greater than the target value for 17 indicators, and even more than 10 times higher for 11 of them. Such a big discrepancy questions the reliability of both the target and the achievement values. Several explanatory factors are given: (1) excessive caution initially in target setting, (2) a voluntarily very open programme without clear vision on the types of projects to be financed effectively, (3) estimates based on the previous programming without taking sufficient account of the fundamental change of approach, notably the focus on SMEs, (4) definition of indicators not always clear, (5) weaknesses in the ex post control of the data, (6) issue of aggregation and risk of double counting, etc.
- 4) Use of monitoring system: monitoring is mainly used in the daily management of projects and as a centralized information source. All the information, including indicators, are consolidated and made available to all programme partners. The system is perceived as helpful from this point of view. General results of the programme are discussed at the level of monitoring committee. But the programme partners did not have major concerns on reaching the targets and the use of indicators for strategy building remains limited. Finally, the system does not allow monitoring of 'major structuring projects' in an efficient way due to their complexity and the number of stakeholders. Some 'major structuring projects' have developed their own monitoring system (e.g. Mechatronik KMU: clearer definition of indicators to improve reliability).

#### 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?

INTERACT's primary objective is to provide assistance to stakeholders that are implementing programmes under the INTERREG Objective. INTERACT offers advice on implementation issues, supports the organisation of thematic seminars, and provides good practice examples. INTERACT targets mainly Managing Authorities and Joint Technical Secretariats. INTERACT's main focus is to:

- generate and share knowledge among stakeholders;
- contribute to improving procedures and tools that will help achieve high-quality programme implementation; and
- disseminate good governance approaches to interested target groups.

**Support from INTERACT has been used and is highly appreciated by interviewees**. It provides useful information, workshops and networking opportunities. They particularly appreciate provision of information in connection with the European Commission, interpretation tools and activities focusing on the monitoring system and evaluation plans. This represents clear added value to improve programme management.

However, the Joint Technical Secretariat regrets that there was no German official participation in INTERACT in 2007-2013. But they could still use the support through the contribution of the Netherland's side of the border and they assume that INTERACT will even intensify in the 2014-2020 period. The programme has especially benefitted from exchanges with other Interreg programmmes, but also with the European Commission. The opportunity to exchange ideas with people working in the same areas and facing the same difficulties is particularly rich, even for a programmme with over 25 years of experience. Indeed, as an experienced cooperation programme, the Interreg Germany/Netherlands plays a cutting edge role and provides veteran advice to other cross-border programmes. But they still learn from other programmes, allowing them to fine tune the programme management.

The stakeholders of the Interreg IV A programme have also participated in INTERACT activities (e.g. in area of monitoring and evaluation).

#### 3.8. Coordination with national and regional programmes

#### **EVALUATION OUESTION**

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 preparation of the Operational Programme for Interreg IV A **took national and regional programmes into account, just as it did the strategic priorities of the European Union** (see Operational Programme, page 49ff.). The objectives of cross-border, national and regional programmes are partly overlapping, but the specific and complementary focus of Interreg is clearly on the cross-border cooperation dimension. Synergies in terms of objectives are obvious, for instance in the focus on innovation, or on energy and  $CO_2$  aspects.

Coordination between different programmes is largely achieved at different levels (Managing Authority, Joint Technical Secretariat) and through individual persons. These connections are realised through committee engagement or information exchanges during both programme preparation and its implementation. In the 2007-2013 period, this was not organised in a structured and strategic way, nor on a daily base. But further integration of different programme strands was prepared and will be intensified in the 2014-2020 period. The example of Lower Saxony may illustrate this: since 2013, the responsibility for INTERREG lies with the State Chancellery, which is also in charge of ERDF, ESF and EAFRD. Authorities for ERDF, ESF and EAFRD are now in the same unit, as well as all Interreg responsibilities (A, B, Europe). Both units belong to the same department. The Interreg IV A programme was coordinated with regional programmes, particularly the "Strategie Nord" for the northern part of the federal state. Analogies with specialisation fields in the regional smart specialisation strategy (RIS3), e.g. in energy or maritime industries, do exist.

Facilitated through this re-organisation, **personal exchanges are intensifying and belong to the region's strategic activities**, supported through information events. Further synergies between European and regional programmes are for instance seen in the promotion of metropolitan regions in Lower Saxony.

At project level, coordination with regional priorities is realised in the project proposal phase, i.e. **regional co-funding is directed towards cooperation projects that are in line with the strategic priorities** of the different sub-regions of the overall programme area. To illustrate this latter point: project ideas that fulfil the basic criteria for Interreg funding are discussed within the regional ministries and the departments in charge for the given topic. Compatibility with regional strategies is imperative for INTERREG co-funding decisions.

See <a href="https://www.deutschland-nederland.eu/de/home/aktuelles/article/der-neue-partner-heisst-niedersaechsische-staatskanzlei/">https://www.deutschland-nederland.eu/de/home/aktuelles/article/der-neue-partner-heisst-niedersaechsische-staatskanzlei/</a>,

http://www.stk.niedersachsen.de/startseite/themen/regionale\_landesentwicklung\_und\_eufoerderung/eufoerderung/kontakt/ansprechpersonen-und-kontakte-125414.html.

In addition to the specific cross-border aspect, Interreg IV A, compared to "mainstream" programmes, has the advantage of being broadly conceived. This enables it to involve different topics from different fields while mainstream programmes often focus on specific technologies or application fields. Thus, the Interreg programme can target a wide range of (thematic) activities in the framework of one funding guideline, which is not the case in national or regional mainstream programmes. In total, as one interviewee summarised: Interreg has a regional rather than a technical focus, which constitutes its main advantage and difference compared to mainstream programmes. Accordingly, Interreg has specific incentives, and can thus be considered as synergetic to mainstream programmes.

#### 3.8.2. Can synergies be objectively evaluated?

An objective evaluation of those synergies is hardly possible yet. This is for two main reasons: (1) indicators which would illustrate such synergies are neither conceived nor is such information gathered; and (2) coordination mechanisms on the management level are currently being introduced. They will be implemented in the 2014-2020 funding period, so that the assessment of synergy effects may be possible in future analyses.

## 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.

This section examines the regional programme of the Lower-Saxony region: the north-western part of this region is eligible under the Interreg IV A programme.

Investigating the budget allocation for the Lower Saxony ERDF programme under the regional competitiveness and employment goal shows that about 36% of its total budget was foreseen for the R&D, innovation and entrepreneurship theme – defined as explained above. Table 8 allows direct comparisons between the Interreg and the ERDF programme according to individual thematic codes.

Comparing the distribution of amounts ultimately allocated between the two programmes shows certain similarities. For each programme, nearly 80% of the amounts allocated under the theme "R&D, innovation and entrepreneurship", are under the individual codes 3 – 'Technology transfers and cooperation networks' and 9 – 'Other Measures to Stimulate Research and Innovation in SMEs'.

However, an analysis also shows a fundamental difference in the approach of each programme. As already mentioned, the Interreg programme was intentionally very open to cover all relevant opportunities for cooperation. In this perspective, the initial budget was distributed evenly among the 12 thematic codes (none under the theme exceed more than 15%). But implementation has been characterized by a high concentration of resources allocated to the individual thematic codes 3 and 9 (respectively 54% and 25% of the allocation compared to the respective share of 11% and 15% in the initial budget).

Conversely, the mainstream Lower Saxony programme was from the start more clearly focused on these same two thematic codes, which already accounted for 77% of the original budget. While some differences can be observed, the allocation of budget remains broadly in line with initial plans since these two individual codes account for 78% of amounts allocated under the "R&D, innovation and entrepreneurship" theme.

However, it must be kept in mind that the Interreg part of the table refers to the whole programme area of which Lower Saxony is only one of three sub-regions, while the ERDF programme refers to the total federal state of Lower Saxony (except the Lüneburg sub-region which is subject to the ERDF programme in the convergence objective), so comparisons must be interpreted with caution.

Table 8. Comparing Interreg IV A Deutschland-Nederland and the ERDF programme on competitiveness and employment for Lower Saxony in the R&D, innovation and entrepreneurship theme

			INTERF	REG		MAINST	REAM
Themat ic code	Full name	Decided budget	Allocated budget	% allocated to R&D, innovation, entrepreneurship	Decided	Allocated	% allocated to R&D, innovation, entrepreneurship
		2014	2014	2014	2014	2014	2014
		EUR million	EUR million	EUR million	EUR million	EUR million	EUR million
1	R&TD activities in research centres	3.83	2.20	2.91%	9.00	5.46	2.39%
	R&TD infrastructure (including physical plant, instrumentation and high-						
	speed computer networks linking research centres) and centres of						
2	competence in a specific technology	0.49	-	0.00%	14.53	18.76	8.22%
	Technology transfer and improvement of cooperation networks between						
	small businesses (SMEs), between these and other businesses and						
	universities, post- secondary education establishments of all kinds,						
	regional authorities, research centres and scientific and technological						
3	poles (scientific and technological parks, technopoles, etc.)	8.10	40.66	53.90%	89.40	68.52	30.03%
	Assistance to R&TD, particularly in SMEs (including access to R&TD						
4	services in research centres)	11.46	4.31	5.72%	17.77	10.06	4.41%
5	Advanced support services for firms and groups of firms	7.18	-	0.00%	3.10	1.86	0.81%
	Assistance to SMEs for the promotion of environmentally-friendly products						
	and production processes (introduction of effective environment						
	managing system, adoption and use of pollution prevention technologies,						
6	integration of clean technologies into firm production)	8.10	-	0.00%			0.00%
	Investment in firms directly linked to research and innovation (innovative						
	technologies, establishment of new firms by universities, existing R&TD						
7	centres and firms, etc.)	7.18	-	0.00%			0.00%
	Other measures to stimulate research and innovation and						
9	entrepreneurship in SMEs	11.46	18.76	24.87%	87.00	110.76	48.55%
	Development of life-long learning systems and strategies in firms; training						
	and services for employees to step up their adaptability to change;						
62	promoting entrepreneurship and innovation	3.35	0.65	0.86%	7.36	-	0.00%
	Design and dissemination of innovative and more productive ways of						
63	organising work	3.35	-	0.00%			0.00%
	Design, introduction and implementation of reforms in education and						
	training systems in order to develop employability, improving the labour						
	market relevance of initial and vocational education and training,						
72	updating skills of training personnel with a view to innovation and a	4.24	0.20	0.400/			0.000/
/2	knowledge based economy  Developing human potential in the field of research and innovation, in	4.24	0.30	0.40%			0.00%
	particular through post-graduate studies and training of researchers, and						
	networking activities between universities, research centres and						
71	businesses	6.70	_	0.00%			0.00%
/4	Grand Total	138.65			638.77	614.76	
	R&D, innovation, entrepreneurship total	75.44			228.16		94.41%

Source: EC/ DG Regio (internal database and data workpackage of ex post evaluation), own calculations

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## **Annexes**

# ANNEX 1. INTERREGINTERREGINTERREGProjects supported by the Interreg IV A Programme Deutschland-Nederland in R&D, innovation and entrepreneurship

### 1. Major structuring projects

Acronym // Project Name	EU Funding (EUR M)	Total budget (EUR M)	Share of the project in the total EU funding for RDTI *	Abstract	Lead Partner - Institution Name	Number of partners	Duration (years)	Main theme
Mechatronik FuE für KMU - I-1- 02=024 // Mechatronik für KMU	7,28	18,37	12,1%	In the context of automation technology, the project supports SMEs to evolve from product design to the systematization of production. This compensates for the lack of engineers faced by SMEs in developing their innovations internally.	EUREGIO e.V.	18	6	Knowledge and technology transfer
FOOD Future - I-1-01=157 // Zukunftsweisende Technologien und Innovationen für Unternehmen der Ernährungsbranche im deutsch- niederländische Grenzraum	4,94	10,97	8,2%	Within the food industry of the region, the project supports business innovation by providing the industry with a series of tools to facilitate technology transfer (in particular tools to link firms and research centers, with online databases for example) and coordinating the initiatives of the participants.	DIL - Deutsches Institut für Lebensmitteltechnik e.V.	6	5	Agriculture and fisheries and forestry
MariTIM - I-2-01=172 // Maritime Technologien und Innovationen - Modellregion Deutschland/Niederlande	2,96	8,77	4,9%	The project is specialized in developing ship propulsion systems (the project consists in 3 parts depending on the types of boats). It enables companies and knowledge institutions to work on six "test"-ships provided by the region. Finally, the project brings together the actors of the maritime sector of the region to prepare for future strategic challenges.	MARIKO Maritimes Kompetenzzentrum Leer gemeinnützige GmbH	38	4	Coastal management and maritime issues

Acronym // Project Name	EU Funding (EUR M)	Total budget (EUR M)	Share of the project in the total EU funding for RDTI *	Abstract	Lead Partner - Institution Name	Number of partners	Duration (years)	Main theme
Smartbot - I-1-01=178 // Smartbot	3,72	8,43	6,2%	The project, specializing in intelligent multi-sensor robotics systems ("Multi-Sensor-System Roboter"), brings together companies and knowledge institutions to develop, through its various sections, prototypes that can be used in agriculture, shipbuilding and industry. Knowledge exchanges are an essential part of the project (between companies and institutions etc.).	INCAS3	24	4	Knowledge and technology transfer
DIAMANT - I-1-03=170 // DIAMANT	2,97	7,92	5,0%	The goal of the project is to promote and improve partnerships (of firms and knowledge institutions) in the micro and nano-technology sector, including in particular industrial research and experimental developments in micro-electro-mechanical systems (MEMS) and in photovoltaic solar cells and battery management systems. In addition, the project implements networking and exchanges of experience in those sectors.	Oost NV	30	4	Scientific cooperation
TKV: Funktionale Oberflächen - I-1-04=167 // Deutsch- Niederländischer Technologie- Kompetenz-Verbund (TKV): Funktionale Oberflächen	3,00	7,54	5,0%	Competence-cluster with competitive advantage in the field of "functional surfaces", including 5 high-technology, innovative and application-oriented pillars (sanitation technologies, galvanization of steel against rusting, textile inkjet technology, adhesive technology and powder coating).	Hochschule Niederrhein	-	4	Clustering and economic cooperation
4-TKV Funkt.Oberfl Saeule 4 - I-1-04=167.4 // TKV FO S4 - Neuartige, verbesserte Klebstoffe u.a. für die Getränkeindustrie	0,81	1,78	1,3%	Competence-cluster with competitive advantage in the field of "functional surfaces". Pillar 4: adhesive technology.	Hochschule Niederrhein	9	4	Knowledge and technology transfer
1-TKV Funkt.Oberfl Saeule 1 - I-1-04=167.1 // TKV FO S1 - Reinigungs- u. Hygiene- Technologien	0,67	1,57	1,1%	Competence-cluster with competitive advantage in the field of "functional surfaces". Pillar 1: sanitation technology.	Hochschule Niederrhein	11	3	Scientific cooperation

Acronym // Project Name	EU Funding (EUR M)	Total budget (EUR M)	Share of the project in the total EU funding for RDTI *	Abstract	Lead Partner - Institution Name	Number of partners	Duration (years)	Main theme
2-TKV Funkt.Oberfl Saeule 2 - I-1-04=167.2 // TKV FO S2 - Microverzinkung	0,31	1,23	0,5%	Competence-cluster with competitive advantage in the field of "functional surfaces". Pillar 2: galvanization of steel against rusting.	Hochschule Niederrhein	8	4	Energy efficiency
3-TKV Funkt.Oberfl Saeule 3 - I-1-04=167.3 // TKV FO S3 - SITex Print - Inkjet- Technologien	0,29	1,05	0,5%	Competence-cluster with competitive advantage in the field of "functional surfaces". Pillar 3: textile inkjet technology.	Hochschule Niederrhein	6	3	Knowledge and technology transfer
5-TKV Funkt.Oberfl Saeule 5 - I-1-04=167.5 // TKV FO S5 - Powder-Navigator für d. Bereich d. Pulverlackentwicklung durch KMU	0,28	0,62	0,5%	Competence-cluster with competitive advantage in the field of "functional surfaces". Pillar 5: powder coating.	Hochschule Niederrhein	14	4	Knowledge and technology transfer

## 2. Medium projects (above EUR 0,25M EU funding; not 'major structuring projects')

a. Theme: Knowledge and technology transfer

Acronym // Project Name	EU Funding (EUR M)	Total budget (EUR M)	Share of the project in the total EU funding for RDTI *	Abstract	Lead Partner - Institution Name	Number of partners	Duration (years)	Main theme
Agrobiopolymeren - I-2-01=175 // Entwicklung und Anwendung neuer Biokunststoffe/Fasern für "grüne" technischer Produkte/Konsumgüter die (letztlich) aus regional vorhandenen Rohstoffen und organischen Reststoffen hergestellt werden	2,32	5,17	3,9%	Development of biopolymers for the manufacturing and agricultural sectors, and merging of existing competence networks in the field.	Ems Dollart Region	37	4	Knowledge and technology transfer
Fokus Innovation - I-1-03=019 // Rahmenprojekt zur Förderung von kleinen Maßnahmen im Rahmen der Priorität 1 des Operationellen Programms "Wirtschaft, Technologie und Innovation" - Rahmenprojekt Fokus Innovation	0,50	1,00	0,8%	Funding instrument for SME's, universities, research institutions, focusing on innovation in the cross-border regional context	Euregio Rhein-Waal	?	7	Knowledge and technology transfer

## b. Theme: SME and entrepreneurship

Acronym // Project Name	EU Fundin g (EUR M)	Total budget (EUR M)	Share of the project in the total EU funding for RDTI *	Abstract	Lead Partner - Institution Name	Numbe r of partner s	Duration (years)	Main theme
Netzwerk GMA - I-3-02=023 // Grenzenloser Maschinen- und Anlagenbau "Auf dem Weg zur flexiblen Fertigung"	3,50	7,78	5,8%	Mechanical and plant engineering SME's (suppliers) receive support in automation, transfer of knowledge but also market strategies.	Handwerkskammer Münster	6	7	SME and entrepreneurship
RAAS - RFID Application and Support - I-1-04=120 // Euregionale RFID Initiative für KMU: Potenziale durch RFID erschliessen und konkrete Anwendung von RFID in KMU.	1,19	2,62	2,0%	The project aims to help SME's using RFID technology (radio-frequency identification), by providing them with consulting, implementation support, knowlegde transfer etc.	NV Industriebank LIOF	5	4	SME and entrepreneurship
Wohnen im Wandel - I-1- 02=074 // Wohnen im Wandel	0,99	2,08	1,6%	Development of problem-oriented tools (for SME's, planners, house owners etc.) in the field of housing and housing services, by synchronisation of the active cooperation between firms, customers and scientists of the field.	Handwerkskammer Münster	28	3	SME and entrepreneurship
2-Connect Business - I-2- 03=179 // Projekt zur gezielten Herstellung und Unterstützung von Kooperationen zwischen deutschen und niederländischen KMU in der Euregio	0,62	1,38	1,0%	The project pushes cross-border cooperation between SME's and internationalisation of SME's towards the partner regions, by offering consultancy and targeted preparation (industry-specific information).	Kreishandwerkersch aft Borken EU- Referat	8	3	SME and entrepreneurship
QC1 - I-1-02=165.9 // Micro Analytical System for Molecular Imaging	0,54	1,37	0,9%	Development of automated solutions for quality control of MI-radiopharmacology using innovative technologies, such as "Micro-Electro-Mechanical-Systems" (MEMS).	QC1 GmbH	3	4	SME and entrepreneurship
Zukunft Passivhaus - II-1- 02=038 // Passivhausbau - Technolgogietransfer und Martkbereitung für ein	0,62	1,24	1,0%	Project about "future passive houses", by know- how transfer and support to SME's, in order to introduce passive house construction in the region (preparing the market, improving the offer).	Handwerkskammer Münster	3	4	SME and entrepreneurship

Acronym // Project Name	EU Fundin g (EUR M)	Total budget (EUR M)	Share of the project in the total EU funding for RDTI *	Abstract	Lead Partner - Institution Name	Numbe r of partner s	Duration (years)	Main theme
vereinheitlichtes zukunftsfähiges Bauen in der EUREGIO durch das Passivhauskompetenzzentrum Münster/Enschede								
Steuern D - NL - I-1-02=183 // Deutsch-Niederländische Forschungsstelle zur Verbesserung der grenzüberschreitenden Besteuerungssituation für Unternehmer	0,42	0,98	0,7%	Research center advising SME's about cross border tax laws.	Universität Osnabrück, Fachbereich Rechtswissenschafte n, Institut für Finanz- und Steuerrecht	6	3	SME and entrepreneurship

## c. Theme: Clustering and economic cooperation

Acronym // Project Name	EU Funding (EUR M)	Total budget (EUR M)	Share of the project in the total EU funding for RDTI *	Abstract	Lead Partner - Institution Name	Number of partners	Duration (years)	Main theme
Wissensallianz Rhein-Waal 2020 - I-1-03=187 // Wissensallianz Rhein-Waal 2020	2,23	4,95	3,7%	"Knowledge alliance" between knowledge institutions of the region, following 6 work packages, in a context of strategic development of the region (Euregio Rhein-Waal).	Euregio Rhein-Waal	10	3	Clustering and economic cooperation
HEC - I-1-01=162 // Hansa Energy Corridor	0,54	1,20	0,9%	Development of cluster-type cooperation in the field of energy (8 themes), by strategic and practical cooperation between industry and science.	Rijksuniversiteit Groningen	9	3	Clustering and economic cooperation
PhytoSana - I-1-01=193 // Gesund und schön älter werden unter Verwendung von Kräutern für Medikamente, Kosmetika und Ernährung	0,43	1,14	0,7%	Development of pharmaceutical, cosmetic and nutraceutical products on basis of medicinal herbs.	Rijks Universiteit Groningen	16	3	Clustering and economic cooperation

## d. Theme: Innovation capacity and awareness-raising

Acronym // Project Name	EU Funding (EUR M)	Total budget (EUR M)	Share of the project in the total EU funding for RDTI *	Abstract	Lead Partner - Institution Name	Number of partners	Duratio n (years)	Main theme
MIAS - I-1-02=033 // EUREGIO Platform for medical technology for an aging society	2,99	6,92	5,0%	Cross-border platform for innovation and technology transfer in the medical field, cooperation between SME's and research institutions (thematic areas: 1. "Laser Micromachining for medical technique," 2. "Active assistive devices", 3. "Active Therapeutic Devices").	Fachhochschule Münster via Steinfurt	13	5	Innovation capacity and awareness-raising
High Tech Greenhouse 2020 - I- 1-04=188 // Innovationen in Unterglasanbau	1,55	3,39	2,6%	The projects aim is to develop an integral high-tech horticulture production process in order to obtain as sustainable products as possible. The different components of the process are run by small groups of project partners.	NV Greenport Venlo Innovation Center	21	3	Innovation capacity and awareness-raising

### e. Other themes

Acronym // Project Name	EU Funding (EUR M)	Total budg et (EUR M)	Share of the project in the total EU funding for RDTI *	Abstract	Lead Partner - Institution Name	Number of partners	Duration (years)	Main theme
Netzwerk TOEKOMST - I-2- 01=115 // Netzwerk TOEKOMST	3,44	7,64	5,7%	Competence network (tourism manager's) in order to help the development of tourism in the region (target: SME's).	Provincie Friesland (reg)	22	5	Tourism
NEND - I-2-01=129 // Nachhaltige Energie Nederland- Deutschland	3,39	7,54	5,6%	Energy cluster around 4 themes, by networking with research institutes and SME's etc.	Provincie Groningen (reg)	19	5	Renewable energy

FooDS - I-1-04=204 // Food and Delivery Solutions	1,44	3,16	2,4%	Cooperation project between research institutions, nursing homes and delivering establishments in the field of food, food delivery and care for elderly people. (Development of enriched food, ordering and delivery systems).	Hochschule Niederrhein	16	2	Demographic change and immigration
Net(z)werk - III-3-01=047 // Rahmenprojekt im Bereich Gesellschaft und Integration zur Förderung kleinerer teilprojekte, die den Wissenstransfer und die Netzwerkbildung unterstützen	1,50	3,00	2,5%	Project of networking accross the whole Interreg program, in order to facilitate knowledge transfers between the socio-economic "relevant groups", in particular for the priority fields of the program.	Ems Dollart Region	?	7	Institutional cooperation and cooperation networks
e-H@c HUPAction - II-2-03=201 // Entwicklung eines Systems zur Verbesserung des Informationsaustausches innerhalb der organisatorischen Infrastruktur im Interesse einer schnelleren Detektion, Monitorings und Beherrschung von EHEC u.a	1,20	2,40	2,0%	Scientific cooperation to gain insights about human pathogenic bacteria (HUPA) in the production chain of vegetables.	GIQS e.V.	8	3	Agriculture and fisheries and forestry
Fuzzy-Abwassersystem - II-1- 02=063 // Einführung einer Fuzzy-gestützten Abwassersystembewirtschaftung der Städte Rheine und Oldenzaal	0,40	0,90	0,7%	Holistic approach to channel network control and sewage systems control (optimizing wastewater systems), through know-how creation and know-how transmission towards operators and SME's.	TBR Technische Betriebe Rheine AÖR	4	5	Water management
Plötzlicher Kindstod - III-1-02=086 // Plötzlicher Kindstod	0,40	0,81	0,7%	University collaboration about the subject of sudden infant death.	Westfälische Wilhelms- Universität Münster, Medizinische Fakultät, Institut für Rechtsmedizin	4	4	Health and social services
Duwetech - I-1-03=093 // Verstärken (Wahl für) Technik in einem grossen Netzwerk (Schulen, Universitäten, Betriebe)	0,29	0,65	0,5%	Cooperation between universities and technical colleges to increase the students' interest in science (nature-science) and technology. "Technasiums" are created to give insights to the pupils about technical professions of the science and technology sector, by permitting them to carry out real operations with advice given by professionals.	Candea College	8	4	Education and training

## 3. Small projects (below EUR 0,25M of EU Funding)

a. Theme: Knowledge and technology transfer

Acronym // Project Name	EU Funding (EUR M)	Total budget (EUR M)	Share of the project in the total EU funding for RDTI *	Translation project name	Lead Partner - Institution Name	Number of partners	Duration (years)	Main theme
Managementkosten Projekt Net(z)werk - III-3-01=047.2 // Managementkosten Projekt Net(z)werk	0,23	0,47	0,4%	Management costs Project Network	Ems Dollart Region	?	7	Knowledge and technology transfer
Proteus - III-1-03=018.7 // Vergleich von deutschen und niederländischen Behandlungsme-thoden in der Knie- und Hüftprothesiologie	0,16	0,31	0,3%	Comparison of German and Dutch methods of treatment in the knee and hip prothesiologie	Rijnstate Ziekenhuis	3	2	Knowledge and technology transfer
ID3AS - I-1-01=212 // Grenzüberschreitender Schwerpunkt "Sensortechnologie & Anwendungen"	0,08	0,18	0,1%	Cross-border focus "Sensor Technology & Applications"	HS Osnabrück - Institut für Duale Studiengänge	2	1	Knowledge and technology transfer
Edu-Astro NL/D - III-3- 03=055.10 // Pädagogisch- astronomische Zusammenarbeit NL/D	0,03	0,05	0,0%	Educational-astronomical collaboration NL / D	Stichting Corona Borealis	2	3	Knowledge and technology transfer
Euregionaal koopstromenonderzoek Arnhem Nijmegen - III-1- 03=055.3 // Untersuchung euregionaler Käuferströme	0,03	0,05	0,0%	Investigation "euregional" buyers flows	Stadsregio Arnhem Nijmegen	5	1	Knowledge and technology transfer
Senior Apotele - III-1-03=055.35 // Pharmazeutische Fernpflege	0,03	0,05	0,0%	Pharmaceutical Remote Care	ZZG Zorggroep	5	2	Knowledge and technology transfer

Acronym // Project Name	EU Funding (EUR M)	Total budget (EUR M)	Share of the project in the total EU funding for RDTI *	Translation project name	Lead Partner - Institution Name	Number of partners	Duration (years)	Main theme
Berufsausbildung plus - III-2- 02=037.74 // Berufsausbildung plus: Regioticket	0,03	0,05	0,0%	Vocational training+: RegioTicket	Stichting Bedrijfstakschool Anton Tijdink	2	1	Knowledge and technology transfer
Bionica voor het MKB - III-3- 01=047.81 // Bionica voor het MKB	0,03	0,05	0,0%	Bionica for SME's	TechnologieCentrum Noord-Nederland (TCNN)	6	1	Knowledge and technology transfer
KomQua - III-3-02=037.19 // Kompetenzerweiterung und Qualitätssicherung im Niederländischunterricht	0,02	0,04	0,0%	Competence enhancement and quality assurance in the Dutch lessons	Fachvereinigung Niederländisch e.V.	4	4	Knowledge and technology transfer

## b. Theme: SME and entrepreneurship

Acronym // Project Name	EU Funding (EUR M)	Total budget (EUR M)	Share of the project in the total EU funding for RDTI *	Translation project name	Lead Partner - Institution Name	Number of partners	Duration (years)	Main theme
Franchise4Women - I-2-01=048 // Grenzüberschreitende Franchiseformel für Unternehmerinnen	0,22	0,48	0,4%	Transboundary franchise formula for women entrepreneurs	СМО	7	3	SME and entrepreneurship
Floriade Euregio Golf - I-2- 04=036.1 // Die Networking- und Kooperationsmöglichkeit für Unternehmer in der Grenzregio Rhein-Maas-Nord. Durch die Organisation von Golfturnieren und Themenabenden werden Unternehmer in der Grenzregion miteinander in Kontakt gebracht.	0,03	0,05	0,0%	The networking and cooperation possibility for entrepreneurs in the border Regio Rhein-Maas-Nord. By organizing golf tournaments and themed evenings entrepreneurs in the border region are brought into contact.	Stichting Euregio Golftoernooi	7	4	SME and entrepreneurship
Creative thinktank - I-2- 04=036.4 // Initiierung eines grenzüberschreitenden thinktanks im Bereich der Kreativwirtschaft	0,02	0,05	0,0%	Initiating a cross-border think tank in the field of creative industries	WFMG Wirtschaftsförderun g Mönchengladbach GmbH	2	1	SME and entrepreneurship
Franchise4woman - III-3- 01=047.220 // Franchise4woman	0,02	0,03	0,0%	Franchise4woman	Ondernermerskring Oost-Groningen	4	1	SME and entrepreneurship

## c. Theme: Clustering and economic cooperation

Acronym // Project Name	EU Fundin g (EUR M)	Total budget (EUR M)	Share of the project in the total EU funding for RDTI *	Translation project name	Lead Partner - Institution Name	Numbe r of partner s	Duration (years)	Main theme
Kompetent Arbeiten - I-1- 03=208 // Kompetent Arbeiten in der Euregio	0,22	0,48	0,4%	Competent work in the "Euregio"	ROC Nijmegen	21	2	Clustering and economic cooperation
P3 - People Planet Profit - I-2- 02=027.3 // Unternehmerische Sozialverantwortung	0,02	0,05	0,0%	Corporate Social Responsibility	DNL business Verein z. Förderung d. grenzüberschreitend en Interessen dt. und nl. Unternehmen e.V.	2	2	Clustering and economic cooperation
Zukunft Großhandel von Pflanzen - I-2-03=019.25 // Absatzförderung der Zierpflanzenproduktion durch nachhaltige Stärkung der Zukunftsfähigkeit des Großhandels mit Blumen und Pflanzen als wichtigem Wirtschaftsfaktor für die D-NL Grenzregion	0,02	0,03	0,0%	Promotion of ornamental plants production through strengthening the sustainability of the wholesale of flowers and plants as an important economic factor for the D-NL border region	Verband des Deutschen Blumen- Groß- und Importhandels e.V. (BGI)	2	0	Clustering and economic cooperation

## d. Theme: Innovation capacity and awareness-raising

Acronym // Project Name	EU Funding (EUR M)	Total budget (EUR M)	Share of the project in the total EU funding for RDTI *	Translation project name	Lead Partner - Institution Name	Number of partners	Duration (years)	Main theme
Band movies - III-3-02=037.30 // Das Videoprojekt für deutsche und niederländische Newcomerbands	0,01	0,05	0,0%	The video project for German and Dutch Newcomerbands	rocknpopmuseum	2	1	Innovation capacity and awareness-raising
Vita(I)dorf der Zukunft - III-3- 01=047.235 // Vita(I)dorf der Zukunft	0,03	0,05	0,0%	Vital Village of the Future	Gemeinde Vrees	2	2	Innovation capacity and awareness- raising
Vitaal Eems en Aa's gebied - III- 3-01=047.261 // Vitaal Eems en Aa's gebied	0,02	0,05	0,0%	Vital Eems and Aas area	DLG	?	1	Innovation capacity and awareness-raising

### e. Other themes

Acronym // Project Name	EU Funding (EUR M)	Total budget (EUR M)	Share of the Project in the total EU Funding for RDTI *	Translation project name	Lead Partner - Institution Name	Number of partners	Duration (years)	Main theme
QC2 - I-1-02=165.11 // QC2	0,17	0,42	0,3%	QC2: Part of the 'Major Structuring Project' "Telemedicine and Personalized Care". Sub-project "Micro-Analytical System for Molecular Imaging", useful for diagnosis in nuclear medicine (e.g. cancer).	QC1 GmbH	3	1	Evaluation systems and results
D/NL-gehoorverlies - III-1- 03=018.4 // erblicher Gehörverlust	0,13	0,25	0,2%	Hereditary hearing loss	UMC St Radboud	3	3	Health and social services
Wirtschaftskraft im AgroFood - I-2-04=168 // Grenzüberschreitende Wirtschaftskraft im AgroFood	0,11	0,25	0,2%	Transnational economic power in AgroFood	Stichting Greenport Venlo	12	2	Agriculture and fisheries and forestry
Biores II - II-1-02=217 // Biores II	0,05	0,11	0,1%	Biores II	Fachhochschule Münster - Abt. Steinfurt	3	1	Sustainable management of natural resources
RKE - I-1-02=027.12 // Regionale Kleinwindkraftanlagen in der EUREGIO	0,05	0,10	0,1%	Local small wind turbines in the EUREGIO	Regio Achterhoek	4	1	Renewable energy
Detecteerbare Infra - I-1- 02=027.14 // Detektierbares Rohr	0,04	0,09	0,1%	Detectable pipe	egeplast international GmbH	2	1	Infrastructure
Hochschultage NL-D - I-1- 03=019.3 // 3. Niederländisch-Deutsche Hochschultage	0,02	0,09	0,0%	Third Dutch-German university days	Radboud Universiteit Nijmegen (Stichting Katholieke Universiteit)	2	1	Education and training

Acronym // Project Name	EU Funding (EUR M)	Total budget (EUR M)	Share of the Project in the total EU Funding for RDTI *	Translation project name	Lead Partner - Institution Name	Number of partners	Duration (years)	Main theme
Euregionales Schmiedehandwerk - III-3- 03=055.24 // Gründung eines deutsch/niederländischen Netzwerkes zum Thema Schmiedekunst	0,03	0,06	0,0%	Establishment of a German / Dutch network about Blacksmithing	Gemeinde Alpen	4	1	Community integration and common identity
Bridges 2013 - III-3-02=037.65 // Bridges 2013	0,03	0,05	0,0%	Bridges 2013	Bridges 2013	5	1	Cultural heritage and arts
Buurtaal jong leren - III-3- 02=037.88 // Junge Nachbarsprache	0,03	0,05	0,0%	Neighboring language for young people	Regio Achterhoek	3	1	Soil and air quality
E=mc2 - III-3-01=047.268 // E=mc2	0,03	0,05	0,0%	E=mc2	Hanzehogeschool Groningen	2	2	Institutional cooperation and cooperation networks
2+2+2=1 - III-3-03=055.38 // Zwei Länder, zwei Städte, zwei Verwaltungsbehörden, ein Ziel	0,03	0,05	0,0%	Two countries, two cities, two administrations, one goal	Stadt Duisburg	2	1	Cultural heritage and arts
3G - II-1-02=034.13 // Grenzüberschreitendes Gewerbegebiet Gaxel	0,03	0,05	0,0%	Transboundary industrial estate Gaxel	Gemeente Winterswijk	2	1	Energy efficiency
Burgerfeest Eemshaven - III-3- 01=047.210 // Burgerfeest Eemshaven	0,03	0,05	0,0%	Civic Party Eemshaven	Gemeente Eemsmond	2	1	Community integration and common identity
LNG an Rhein und Waal - I-1- 03=019.13 // Die Entwicklung einer LNG Infrastruktur für den Gebrauch eines alternativen	0,03	0,05	0,0%	The development of LNG infrastructure for the use of an alternative fuel for inland navigation and the heavy freight	Stichting Energy Valley	4	1	Climate change and biodiversity

Acronym // Project Name	EU Funding (EUR M)	Total budget (EUR M)	Share of the Project in the total EU Funding for RDTI *	Translation project name	Lead Partner - Institution Name	Number of partners	Duration (years)	Main theme
Kraftstoffes für die Binnenschifffahrt und den schweren Güterverkehr								
Machbarkeitsstudie - III-2- 02=037.80 // Erstellung einer Machbarkeitsstudie für ein binationales Institut	0,03	0,05	0,0%	A feasibility study for a binational institution	Westfälische Wilhelms- Universität Münster	2	2	Education and training
MINT-LAB on Tours - III-3- 03=055.48 // Studie zur Durchführbarkeit des grenzüberschreitenden "MINT- LAB on Tours"-Projektes zu Schulen und Schlössern im deutsch-niederländischen Grenzraum der Euregio Rhein- Waal	0,03	0,05	0,0%	Study on the feasibility of cross-border "MINT-LAB on Tours" project to schools and castles in German-Dutch border area of the Euregio Rhein-Waal	FörderKreis Kultur & Schlösser e. V.	5	1	Education and training
Nachbarn im Dialog - III-3- 02=037.68 // Interkultureller Dialog und interkommunale Zusammenarbeit in der EUREGIO	0,03	0,05	0,0%	Intercultural dialogue and inter-municipal cooperation in the EUREGIO	EUREGIO e.V.	3	1	Community integration and common identity
Naturwissenschaftliche Frühbildung - III-3-04=042.11 // Forscher Kids	0,03	0,05	0,0%	Researchers Kids	Berufskolleg Vera Beckers	4	1	Education and training
Region des Geschmacks - I-2- 04=036.8 // Zweck des Projektes "Region des Geschmacks" ist es, Tourismus und Agrobusiness grenzüberschreitend in der euregio rmn, über das Thema regionale Produkte, optimal	0,03	0,05	0,0%	Purpose of the project "Region of taste" is to optimally combine tourism and agribusiness across borders in the Euroregion RMN, on the subject of regional products.	Gemeente Venlo namens Regio Venlo	6	2	Community integration and common identity

Acronym // Project Name	EU Funding (EUR M)	Total budget (EUR M)	Share of the Project in the total EU Funding for RDTI *	Translation project name	Lead Partner - Institution Name	Number of partners	Duration (years)	Main theme
miteinander zu verknüpfen.								
Top Cluster Pferd - III-2- 02=037.81 // Wirtschaftsfaktor "Pferd" - Potenziale und Entwicklungsperspektiven in der EUREGIO	0,03	0,05	0,0%	Economic Factor "Horse" - potential and development prospects in the EUREGIO	Landkreis Osnabrück	7	1	Agriculture and fisheries and forestry
Vervolg partners in techniek - III-3-01=047.253 // Vervolg partners in techniek	0,03	0,05	0,0%	Continued partners in engineering	Arbeit, Bildung, Innovation	2	2	Labour market and employment
VIKING X-Regio - III-3-03=055.4  // Wiederholungsuntersuchung für Zusammenarbeit zur Verbesserung der Informationseinrichtung für großräumige Evakuierungen und Hochwasser-Management	0,03	0,05	0,0%	Repeat examination for cooperation to improve the information system for large-scale evacuations and flood management	Provincie Gelderland (reg)	2	2	Cooperation between emergency services
Wirtschaftlich Impfen - I-1- 03=019.11 // Studie zur Analyse und Bewertung wirtschaftlicher Folgeschäden durch den Einsatz von Impfstoffen im Tierseuchenfall	0,03	0,05	0,0%	Study to analyze and assess economic damages resulting from the use of vaccines in case of epizootic diseases	GIQS e.V.	2	1	Agriculture and fisheries and forestry
Brain Flows - III-2-04=042.31 // Eine Analyse der Migrationsdeterminanten von Hochqualifizierten aus der Euregio Rhein-Maas-Nord	0,02	0,05	0,0%	An analysis of the determinants of migration of highly skilled workers from the Euregio Rhine-Meuse Nord	Hochschule Niederrhein	2	1	Demographic change and immigration

Acronym // Project Name	EU Funding (EUR M)	Total budget (EUR M)	Share of the Project in the total EU Funding for RDTI *	Translation project name	Lead Partner - Institution Name	Number of partners	Duration (years)	Main theme
Zorg op afstand - III-1- 03=055.36 // Pflege aus der Ferne mittels Tablet	0,02	0,05	0,0%	Care from a distance by Tablet	ZZG Zorggroep	2	2	Cooperation between emergency services
Gemeinsam in den Beruf - III-3- 02=037.82 // Bilingualer Fachpraxisunterricht in einer bilingualen Klasse	0,02	0,04	0,0%	Bilingual professional practice teaching in a bilingual class	Berufskolleg Bocholt-West	2	1	Education and training
Geopaden/Geopfade - II-3- 03=056.7 // Geopfade auf der Stauchmoräne Nijmegen-Mook- Kleve	0,02	0,04	0,0%	Geopfade on the moraine Nijmegen-Mook-Kleve	Gemeinde Groesbeek	5	2	Institutional cooperation and cooperation networks
Memento Mori 2 - III-3- 01=047.157 // Memento Mori 2	0,02	0,04	0,0%	Memento Mori 2	Museumhuis Groningen	10	1	Community integration and common identity
Demenz ohne Grenzen - III-1- 04=042.18 // Vergleichende Bestandsaufnahme an grenzüberschreitenden Konzepten zur Integration von Menschen mit Demenz	0,01	0,03	0,0%	Comparative survey on transnational concepts for the integration of people with dementia	Stadt Krefeld - Fachbereich Soziales, Senioren und Wohnen	9	1	Health and social services
Grensoverschrijdende zorg - III- 3-01=047.112 // Grensoverschrijdende zorg	0,01	0,03	0,0%	Cross-border care	Zorgplein Noord	5	1	Education and training

<sup>\*</sup> Proportion of the EU Funding spent on the project, relative to the total EU funding spent on the 84 projects of the category "RDTI".

Source: KEEP database, own compilation and translation

## **ANNEX 2. Programme of Interviews and Visits**

<u>Phone Interview on 22 September 2015, 7:00 am:</u> Nikolaus Jansen, Amt für regionale Entwicklung (Office for Regional Development) Weser-Ems

<u>Phone Interview on 23 September 2015, 4:00 pm:</u> Katja Baumann, Managing Director MARIKO GmbH (Maritime Competence Centre), Project leader MariTIM

<u>Tuesday, 29 September 2015</u>: Project visit Rheine and Interview at Joint Technical Secretariat, Euroegio Rhein-Waal, Kleve

8:30 am: Project visit 'Fuzzy Abwassersystem' (Fuzzy sewage system), Sewage plant Rheine

- Udo Eggert, Project leader Fuzzy sewage system
- Dr. Thomas Boening, INFA Institute Ahlen

3:00 pm: Interview at Euregio Rhein-Waal, Kleve

- Ilka Meisel, Ministry for Economic Affairs, Energy and Industry of the State of North Rhine-Westphalia, Managing Authority, Head of Division 'European Territorial Cooperation'
- Peter Paul Knol, Joint Technical Secretariat
- Julia Wengert, Joint Technical Secretariat

Wednesday, 30 September 2015: Project visit Gronau

9:30 am Project visit 'Mechatronik für KMU' (Mechatronics for SME), Conference Centre TerHaar, Room "Haardkamer", Glanerbrug

• Angelika van der Kooi, Project leader ,Mechatronik für KMU'

<u>Thursday, 1 October 2015</u>: Project visit Münster, Interview at Lower Saxony State Chancellery Hannover

9:30 am: Project visit 'Netzwerk GMA' (Network GMA), Chamber of Crafts Münster

- Thomas Melchert, Deputy Director and Project leader 'Netzwerk GMA', Münster
- Mario Heinemann, Consultant, Chamber of Crafts MÜnster

3:00 pm: Interview State Chancellery Lower Saxony, Hannover

- Ingrid Möller, Interreg A, State Chancellery Lower Saxony
- Lars Wiesehahn, ERDF, State Chancellery Lower Saxony

## **ANNEX 3 List of indicators for the programme**

(according to Annual Report 2014)

	OUTPUT indicators, targets and values ach	ieved	
		Target	Total value20 14*
Priority 1	Economy, technology and innova	ation	
Supporting technology and knowledge transfer	<ul> <li>No of cross-border cooperations between R&amp;D organisations (higher education and other research organisation), associations, Chambers of Trade and Commerce, enterprises</li> </ul>	620	785
between research	<ul> <li>No of participating SME</li> </ul>	1,100	3,510
and businesses	<ul> <li>No of advisory services and development projects between R&amp;D organisations and enterprises</li> </ul>	615	1,203
Supporting economic	<ul> <li>No of supported cross-border networks and clusters</li> </ul>	66	632
networks and cross- border	<ul> <li>No of participating SME</li> </ul>	2,230	12,747
business cooperation	<ul> <li>No of activities in SME</li> </ul>	490	2,904
Supporting	No of trainings in companies	33	41
qualification in	No of participating companies	180	967
enterprises to improve innovation	No of participants in the enterprise trainings	610	1,042
potential	<ul> <li>No of women participating in enterprise trainings</li> </ul>	190	228
Priority 2	Sustainable regional developm	ent	
Supporting renewable energies and	<ul> <li>No of supported projects in the field of renewable energies</li> </ul>	8	76
development of energy	<ul> <li>No of supported projects in the field of energy- saving technologies</li> </ul>	7	44
efficient technologies	<ul> <li>No of projects through which CO2 emissions are reduced</li> </ul>	2	74
Supporting cross-border	<ul> <li>No of supported projects targeting the abolishment of cross-border gaps and</li> </ul>	12	10

development of	obstacles		
infrastructur e	<ul> <li>No of supported projects targeting cross- border mobility (e.g. public transportation)</li> </ul>	4	8
Supporting cross-border nature and environment al protection	<ul> <li>No of projects targeting the improvement of the environment and environmental protection</li> </ul>	9	41
Priority 3	Integration and Society		
Supporting cross-border	<ul> <li>No of projects in the health sector</li> </ul>	10	69
health protection and consumer protection	<ul> <li>No of projects related to consumer protection</li> </ul>	3	9
Supporting cross-border labour	<ul> <li>No of projects promoting cross-border labour market</li> </ul>	15	12
market/ commuters	No of persons receiving counselling	150,000	72,199
Commuters	No of women receiving counselling	37,500	31,967
Supporting integration	No of projects targeting cross-border education	18	255
through education and culture	<ul> <li>No of projects targeting culture / cultural tourism</li> </ul>	15	488
	<ul> <li>No of participating institutions in supported projects in the field of culture / cultural tourism</li> </ul>	103	2,699
Supporting cross-border cooperation in internal security	<ul> <li>No of projects in the field of internal security</li> </ul>	8	8
	RESULT indicators, targets and values achieved	/ed	
		Target	Total value 2014*
Priority 1	Economy, technology and innovation		
	<ul> <li>No of new /refined products /processes for companies</li> </ul>	64	551

	<ul> <li>No of companies with improved production processes</li> </ul>	280	1,186
	<ul> <li>No of created /extended (sustainable) networks and clusters (Sustainability is achieved when a written cooperation agreement on future collaboration exists)</li> </ul>	41	1,235
	No of created /secured jobs	1,780	3,747
	No of created /secured jobs for women	472	1,279
Priority 2	Sustainable regional development		
	<ul> <li>No of users of renewable energies</li> </ul>	317	124
	<ul> <li>No of organisations /companies benefitting from the new infrastructure services</li> </ul>	1,270	1,321
	<ul> <li>Surface (in ha) benefitting from activities</li> </ul>	395ha	95,878ha
Priority 3	Integration and society		
	<ul> <li>No of medical services of benefit to the population in the programme area</li> </ul>	24	86
	<ul> <li>No of additional cross-border commuters for professional reasons</li> </ul>	7,800	1,257
	<ul> <li>No of educational services of benefit to the population</li> </ul>	38	5,629
	<ul> <li>No of visitors in supported projects in the field of culture / cultural tourism</li> </ul>	108,000	465,486
	<ul> <li>No of cross-border cooperation and agreements in the field of internal security</li> </ul>	8	26
	PROGRAMME indicators, targets and values ach	ieved	
		Target	Total value 2014*
	<ul> <li>% of projects with cross-border participation of partners related to the content, organisational aspects, staffing and financial aspects above 90% of total number of projects. All projects fulfil at least 2 of the 4 mentioned criteria (Main indicator EU)</li> </ul>	95%	598
	No of innovations in SME	820	2,094
	I .		

<ul> <li>No of jobs created /secured</li> </ul>	2,440	3,747
<ul> <li>No of jobs created /secured for women</li> </ul>	800	1,235
<ul> <li>No of newly created /extended (sustainable) networks and clusters (cooperation agreement available)</li> </ul>	58	1,235
<ul> <li>No of reached SME</li> </ul>	3,827	245,400
<ul> <li>No of projects targeting the abolishment of cross-border gaps and obstacles related to territorial cross-border infrastructure, e.g. mobility, ICT (Main indicator EU)</li> </ul>	14	143
<ul> <li>No of projects in the field of environmental protection and environmental management (Main indicator EU)</li> </ul>	11	149
<ul> <li>No of projects targeting the abolishment of cross-border gaps and obstacles related to social cross-border infrastructure</li> </ul>	26	191
<ul> <li>No of participants in education and qualification measures (Main indicator EU)</li> </ul>	2,470	45,928
<ul> <li>No of cross-border-commuters for professional reasons (Main indicator EU)</li> </ul>	22,800	5,092

Source: Operational Programme, Annual Report 2014

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doi: 10.2776/94056