



Ex Ante Evaluation of the Northern Periphery & Arctic Programme 2014-2020

FINAL REPORT



Report to the County Administrative Board of Västerbotten



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Ex Ante Evaluation Report: Executive Summary

This report comprises the ex ante evaluation of the Northern Periphery and Arctic Programme (NPA) 2014-2020 undertaken by the European Policies Research Centre (EPRC) and Kontigo AB for the NPA Managing Authority. The ex ante evaluation is being conducted in accordance with DG REGIO Guidelines on Evaluation Methods. The main tasks of an ex ante evaluation are grouped into key components, covering (for example) programme strategy, contribution to the Europe 2020 strategy, indicators, monitoring and evaluation, and consistency of financial allocations. The evaluation team offered input into various elements of the programming process in support of the drafting team. This process allowed the evaluation process to be carried out in an interactive, supportive and constructive way. Overall, the Programme preparation process has progressed with considerable purpose and pace. Throughout the Programme development process the NPA has taken a proactive, strategic and considered approach to discussion and engagement with key stakeholders.

Programme strategy - The Programme is required to set a strategy for the cooperation programme's contribution to the Union strategy of Smart, Sustainable and Inclusive Growth. The Programme's strategy has been modified and refined over time, taking into account points raised by the ex ante team. The Programme draft sets out a robust 'intervention' logic. The strategy is well defined, with a logical structure, and clear objectives and priorities. The Programme's overall vision draws on and articulates the aspirations and ambitions of the Programme partners, based on the characteristics of the area, and set within the wider policy context. This is translated in to more concrete objectives, which address specific needs and opportunities in the region and focus on areas where the NPA can add value through transnational territorial cooperation, and deliver tangible results. Overall, this evaluation of the Programme's strategic approach is positive. However, the evaluation highlights a number of (relatively minor) areas that could be improved.

Priority axes and specific objectives - The priority axes are rooted in the analysis of the Programme area's strengths and weaknesses. The priorities draw on key characteristics of the Programme area and target many of the development challenges facing the region, such as the specific development needs of remote and peripheral regions. The focus on selected common and shared development challenges in the Programme area means that it has a strong focus on transnational cooperation and building cooperation and cohesion across the Programme partners. The priority axes and specific objectives fit within relevant thematic objectives and investment priorities. They also can work well together supporting complementary, but not overlapping, interventions. The Programme sets out clear expectations for projects in terms of quality objectives, and in particular a focus on tangible outputs and results in the form of products and services. It also identifies clear target groups, aiming to extend its partner base and secure the greater involvement of SMEs.

Horizontal principles - The overall approach to integrating the horizontal principles has been carefully considered. The Programme has looked beyond the regulatory requirements and considered the specific relevance of these principles. Horizontal principles have been drawn from the Programme strategy and are referred to in priority axes and specific objectives. Taken together, these processes take the overall approach of the Programme beyond a simple the 'tick box exercise' and make the horizontal themes more visible, embedded and productive.

Internal and external coherence - The Programme has the potential to sit well within surrounding policies and strategic frameworks. There is a good fit between well established areas of NPA activity,

EU 2020 and the Cohesion policy regulations. There is a thematic overlap in a number of areas with existing NPA activities. In terms of domestic policy, an ongoing focus on transnationality and remote and peripheral regions would keep the Programme distinct from domestic policy interventions and territorial cooperation arrangements. The scope for the NPA to engage in the Arctic is of strategic importance. A key point emphasised in the evaluation is the scope to maximise Programme impacts and effects through productive links with other interventions. A number of countries in the NPA area attach particular importance to territorial cooperation and engagement with Arctic developments. Links to other programmes and strategies will evolve and thus the Programme should consider structures and processes to monitor the external policy environment, particularly in relation to the Arctic (e.g. making it part of the ongoing evaluation; dedicated staff that monitor external policy environment or support a wider coordination and monitoring mechanism).

Results and outputs - The evaluation team note the significant challenges in establishing sensitive, reliable indicator frameworks for the NPA programme. Nevertheless, the Programme now has a useful framework of indicators structure, which has been the subject of discussion, feedback and comments from the Programme Preparation Group (PPG), the ex ante team and also from the Evaluation Unit in DG Regio. Overall, the ex ante team recognises the considerable progress made by the Programme and acknowledges the fit between the Programmes aims and objectives and the indicators and targets set. The aim in developing the indicator and performance frameworks has been to balance rigour and realism. The indicator structure has been refined during the preparation work, which has resulted in a pragmatic and principled framework of indicators. The decision to identify results indicators which are close to the specific objectives, even though no data are available, is considered by the ex ante team to be a good approach. Where possible, useful milestones and targets are already set and draw on a solid analysis of past experience, Programme aims, and stakeholder input. Monitoring and evaluation will be dependent on qualitative research, as using preexisting quantitative data will not provide relevant indicators for the Programme. It is also recognised that there will be considerable work to set methodologies, baselines and targets for the results indicators following Programme submission. The establishment of rational, well-reasoned output and result indicators also means that the Programme establishes the final links it its interventional logics.

Delivering results: management and implementation - The proposed management and implementation structures and systems for the 2014-2020 Programme build on the effective administrative structures and procedures established in the 2007-2013 programme and reflect experience of the programming authorities. They also take into account new regulatory requirements, including simplification. The ex ante evaluation concludes that the proposed implementation systems are appropriate to deliver the objectives of the Programme. In developing the operational systems for the NPA, the approaches do draw on well established structures and approaches in the 2007-2013 NPP. However, simplification and harmonisation have been at the heart of the planning process and a number of actions have been planned as a result, and are set out in the Operational Programme (OP). However, it must also be acknowledged that transnational territorial cooperation programmes remain inherently complex to administer and that the support provided to beneficiaries should remain sensitive to this and processes should be evaluated and monitored on an ongoing basis.

Strategic Environmental Assessment - Prepared in accordance with Directive 2001/42/EC, the objective of the SEA is to compile a report that improves the environmental dimension of the new programme. Working with competent authorities in each participating country, relevant environmental themes were highlighted in baseline data and trends, culminating in an Environment SWOT analysis,

from which four strategic environmental issues were identified for the programme area: climate and arctic change, land-use management, energy and resource efficiency, and marine pollution. The programme's Vision and Priorities were assessed for their conformity with the Europe 2020 Strategy and the EU Seventh Environmental Action Programme, demonstrating a clear compatibility between the EU policies and the NPA programming document, and each Objective was assessed for its potential impacts on the strategic environmental issues. A broad scope was identified for significant positive effects, but attention was also given to the risks of creating significant negative environmental effects. To minimise negative impacts, possible mitigation measures were highlighted for each Objective. A range of potential environmental indicators was provided, four of which were subsequently adopted by the programme. A full executive summary of the Strategic Environmental Assessment Report is also provided.

Conclusion - It is the view of the ex ante evaluation team that the NPA has all the fundamental elements for a well designed intervention logic in place. This is reflected throughout the draft OP. The Programme is in line with Community guidelines and priorities, addresses particular development needs in the NPA area, and is in a position deliver results for the Programme area and towards Europe 2020 targets.

Strategic Environmental Assessment: Executive Summary

The Northern Periphery and Arctic Programme 2014-2020 aims to generate vibrant, competitive and sustainable communities by harnessing innovation, expanding the capacity for entrepreneurship, and by seizing the unique growth initiatives and opportunities of the Northern and Arctic regions in a resource-efficient way. The eligible regions are located in Finland, the Republic of Ireland, Northern Ireland, Sweden, Scotland, Greenland, Iceland, the Faeroe Islands and Norway.

The current INTERREG IV Northern Periphery Programme, which concludes in 2013, aims to strengthen the synergies between environmental protection and growth by addressing challenges to sustainable development, as identified in the Gothenburg agenda. The unspoiled natural environment is recognised as a significant asset, and it is acknowledged that the sustainable development of natural resources can contribute to the economy and stimulate innovation, as well as facilitating balanced and sustainable growth. The development of renewable energy is highlighted as of special relevance for the Northern Periphery. The Operational Programme 2007-2013 states that positive environmental impacts form a key element of the programme's implementation, and that high environmental standards and requirements will be integrated into project guidance and monitoring. The Final Evaluation Report noted that NPP regions are developing and applying highly innovative responses to combat climate change and to adapt to changing economic, climatic, marine and physical conditions.

The new Northern Periphery and Arctic Programme 2014-2020 has four thematic Priorities: Using Innovation to maintain and develop robust and competitive communities; Promoting Entrepreneurship to realise the potential of the programme area's competitive advantage; Fostering Energy-secure Communities through the promotion of renewable energy and energy efficiency; and Protecting, Promoting and Developing Cultural and Natural Heritage. The new programme aims to expand regions' horizons, building on concrete outcomes, and enabling the NPA area to be a first-class region in which to live, study, work, visit and invest.

Each country or region within the NPA programme area has a distinctive environmental profile that conditions and supports programme development, and relevant environmental themes are highlighted in the baseline data and trends. Insofar as possible, these factors have been identified in collaboration with competent authorities in the participating countries, culminating in an Environment SWOT analysis that summarises the principal environmental strengths, weaknesses, opportunities and threats to be considered within the programming process. From this methodology, four strategic environmental issues are identified.

Climate and Arctic Change is associated with a range of potential impacts, including drier summers, increased pressure on biodiversity, changes in sea temperatures, more extreme weather events, and increased coastal and inland flooding. At the same time, greater accessibility is bringing other stressors to the region, and pollution from both long-range transport and local sources threatens the health of Arctic species and ecosystems. Nevertheless, there are benefits as well as challenges from climate change impacts on the Arctic environment, as Greenland has new opportunities related to the growth of crops and vegetables, and shorter sea routes already offer savings in time and fuel.

Land-use Management relates to continuing pressures on biodiversity which result in loss or damage to natural habitats, for example from the exploitation of natural resources, energy generation,

infrastructure enhancement, and agricultural and forestry practices. Clearing woodlands and overgrazing have also resulted in soil erosion and desertification, and agriculture has proved to be a key source of diffuse pollutants, with nutrient enrichment from agricultural run-off, and there are concerns about the impacts of mining (and other extractive industry) on water resources, soil, the landscape and biodiversity in general. However, there have also been positive impacts within the programme area, as nature conservation efforts have improved biodiversity in lakes, watercourses and wetlands.

With regard to Energy and Resource Efficiency, there is a clear need and considerable scope to develop renewable natural resources, promote ecological sustainability and gain social acceptability for these activities within the NPA programme area. Recent trends in emissions indicate that the participant countries have recorded significant improvements in relation to 1990 levels, but further behavioural change is required. With effective promotion of low-carbon activities in all sectors, countries that take a pro-active role in developing a sustainable green economy are more likely to be successful in the future global economy.

Lastly, with regard to Marine Pollution, source and diffuse pollution in coastal and transitional waters constitutes a key pressure, alongside marine litter and invasive species, with nutrient enrichment a principal cause of water pollution. Even within marine areas included in the Natura 2000 network, tackling marine eutrophication is regarded as a major challenge. Fish farming is the largest source of nutrient inputs to the Norwegian Sea, the Barents Sea and the North Sea. Ocean acidification presents threats for ecosystems and marine wildlife, as well as for commercial fisheries and the Arctic tourism industry and economy. New Marine Protected Areas (MPAs) and mechanisms for the protection of priority sites for marine conservation represent efforts to ensure clean, safe, productive and biologically diverse seas.

In the strategic environmental assessment, the programme's Vision and Priorities are considered for their conformity with the Europe 2020 Strategy and the EU Seventh Environmental Action Programme. This analysis demonstrates a clear compatibility between the EU policies and the NPA programming document. Thereafter, each of the Objectives is assessed for impacts on the strategic environmental issues. With regard to significant positive effects, the potential environmental benefits could be long-term and cumulative in nature, for example as innovation systems promote R&D and green technology transfer, so reducing the impacts of climate change and improving resource efficiency amongst SMEs, with business support strategies supporting the transition to a resource-efficient and competitive low-carbon economy, reducing waste generation, halting the loss of biodiversity and ecosystem degradation. Other potentially significant positive impacts could include a sectoral focus for clusters in the development and transfer of marketing concepts and models that specialise in products that address environmental problems. Lastly, development of an integrated approach to protecting, promoting and developing the cultural and natural heritage could considerably enhance resource efficiency, sustainable management of natural resources and the constructive use of wastes and residues, as well as reducing impacts on marine and coastal waters.

Significant negative environmental effects would relate to unanticipated impacts, indirect effects or where projects are mismanaged or environmental conditions not fully observed. Risks to human health are anticipated as minimal, particularly since the partner countries have robust systems of environmental control and planning, and the transboundary nature of cooperation is likely to produce a better understanding and exchange of experience with regard to environmental control.

Nevertheless, expanding industries such as the tourism and experience industries may generate negative environmental impacts, damaging the natural and cultural heritage through lack of awareness on how to manage this resource, and cruise tourism contains potential risks for negative impacts, especially as increased traffic will bring associated environmental burdens that need to be estimated and prevented or appropriately managed. Achieving higher energy efficiency and greater security also could involve negative environmental impacts, depending upon the type of energy generated. There is also a risk of failing to meet sustainability principles, for example if resources are drawn only from other areas and building materials are not based on natural products from the programme area.

To mitigate negative impacts, the programme must convey a clear message that positive environmental impact is a key element of the programme's strategy, and that competitiveness should be based on high environmental standards and environmental management techniques. Innovation should be understood to include environmental excellence as a means of fulfilling the vision that the NPA programme is pursuing. Development of the tourism and experience industries within the natural and cultural heritage should incorporate the transfer and development of models and solutions containing appropriate and adequate training on best practice. Natural resources must be exploited in a sustainable manner, avoiding risks of further pollution, with greater awareness of sustainability thresholds and the capacity of various environments to accommodate greater loads to avoid threatening natural resources and habitats or polluting air, water or land. During implementation, appropriate monitoring and feedback will be required regarding the impacts of completed initiatives.

Monitoring indicators are required to determine environmental effectiveness. In practice, these indicators should not only encapsulate effectiveness in addressing the strategic environmental issues but should also contribute to measuring the effectiveness of the NPA programme overall. A range of potential indicators is provided, with suggestions for the division between Priorities and Objectives.

Preface

This report is the final report of the Ex Ante Evaluation of the Northern Periphery and Arctic Programme 2014-2020 (NPA). The evaluation has been undertaken by a research team from the European Policies Research Centre at the University of Strathclyde in Glasgow and Kontigo AB, Stockholm. The aim of the ex ante evaluation is to provide an external perspective on the preparation of the new Programme with a view to improving and strengthening its final quality and optimising the allocation of resources. Within EPRC, the evaluation of the NPA is being managed and undertaken by the following team:

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NORTHERN PERIPHERY AND ARCTIC PROGRAMME EX ANTE EVALUATION: DRAFT FINAL REPORT

The purpose of this ex ante evaluation is to improve and strengthen the quality of the Programme under preparation, and to optimise the allocation of resources. Cohesion Policy programmes for the 2014-2020 period are expected to be strongly oriented towards results, which reinforces the role of the ex ante evaluation in ensuring that the Operational Programme (OP)¹ clearly articulates its intervention logic and demonstrates its contribution to the Europe 2020 strategy.

This Final Report of the ex ante evaluation of the 2014-2020 Northern Periphery and Arctic Programme (NPA) provides an evaluation of the draft NPA programme (March 2014). The report draws on a synthesis of a series of papers prepared by EPRC and Kontigo, and a critical evaluation of the Programme drafts. The report also covers the Strategic Environmental Assessment (SEA), which was an integral part of the ex ante and programme development process.

The report is based on the final drafts of the OP document (March & April 2014). It is therefore based on a full version of the OP agreed by the Programme Planning Group and sent out for approval by Member State authorities. The document contains the text which will be used to populate the template required for submission to the European Commission. It is acknowledged that a small number of additions/revisions may be made to the text in the in the lead up to submission, as a result of final inputs from Member States and working the text into the required templates.

The structure of the report is as follows.

Part 1 - Approaches and Methodology

- Section 1 outlines the organisation and approach of the ex ante evaluation, including the
 overall aims, the evaluation process and the evaluation outputs produced by EPRC and
 Kontigo.
- Section 2 reviews the NPA programme development and drafting process.

Part 2 – Programme components

- Section 3 outlines the development of the Programme strategy.
- Section 4 focuses on the Programme's priority axes and specific objectives.
- Section 5 examines the horizontal themes.
- Section 6 considers the external coherence of the Programme.
- Section 7 reviews the Programme's approach to outputs and results indicators and their relation to the intervention logic of the Programme.
- Section 8 assesses the implementing provisions proposed for managing, monitoring and evaluating the NPA. This section also provides a description of the key institutions involved in the management and implementation of the Programme and details a range of operational issues.

Part 3 - Strategic Environmental Assessment

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¹ Throughout this report, the term 'Programme' is used to refer to the NPA Programme 2014-2020 itself. The term 'Operational Programme' or 'OP' refers specifically to the document which defines the Programme

- Section 9 provides an introduction to the objective of the report, the programme context and the report structure.
- Section 10 reviews the environmental context of the Northern Periphery and Arctic Programme. This includes consideration of the environmental performance of the current INTERREG IVB Northern Periphery Programme, an overview of the priorities of the INTERREG VB programme for 2014-2020, and a review of relevant environmental strategies, programmes and policies.
- Section 11 examines the environmental baseline conditions and trends within the countries participating in the NPA programme area.
- Section 12 identifies strategic environmental issues, grouped into the four themes of climate and Arctic change, land-use management, energy and resource efficiency, and marine pollution.
- Section 13 presents an environmental assessment of the new programme. Following a
 description of how alternative scenarios were considered within the programming process, the
 programme Vision, Priorities and Objectives are subjected to an environmental appraisal.
 Thereafter, the report discusses likely significant effects on the environment, measures
 envisaged in preventing adverse effects, and potential indicators for monitoring environmental
 effectiveness.

Part 4 - Conclusions

- Section 14 draws together the conclusions of the overall ex ante evaluation.
- Section 15 annex

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Ex Ante Evaluation of the Northern Periphery and Arctic Programme 2014-2020	
PART 1 – APPROACHES AND METHODOLOGY	

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Part 1 – Approaches and Methodology

1. EX ANTE EVALUATION APPROACH AND METHODOLOGY

1.1 Evaluation approach

The ex ante evaluation has been conducted in accordance with DG REGIO Guidelines on Evaluation Methods.² The new guidelines for the 2014-2020 period follow the 'theory of change' approach.³ This requires programme development to consider four key questions:

- What does the programme aim to influence/change (objectives expressed as outcomes)?
- How can it be ensured that interventions will contribute to achieving the objectives of the programme?
- How does the programme contribute to intended or observed outcomes?
- How will it be evident whether and when the programme has been successful?

The work undertaken by the evaluation team is based on the following elements:

- submission of briefing notes and evaluation reports;
- · constructive participation in PPG meetings;
- liaison with environmental authorities in each of the participating countries (for the SEA);
- participation in Programme's annual conference and consultation event;
- · critical assessment of the various elements of the programme document; and
- ongoing liaison between the EPRC/Kontigo project team and the NPA drafting team.

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² CEC (2013a) Monitoring and Evaluation of European Commission Policy: Guidance on Ex Ante Evaluation, CEC: Brussels http://ec.europa.eu/regional_policy/sources/docoffic/2014/working/ex_ante_en.pdf

³ Barca, F and McCann, P (2011) Outcome Indicators and Targets Towards a New System of Monitoring and Evaluation in EU Cohesion Policy, CEC: Brussels

http://ec.europa.eu/regional_policy/sources/docgener/evaluation/performance_en.htm

Formal, written outputs from the ex ante produced to date are as follows.

- Inception report (February 2013)
- Strategic review (February 2013)
- Thematic briefings
 - o Thematic objectives and the NPP (February 2013)
 - Developing an intervention logic (February 2013)
 - o Programme implementation (April 2013)
 - SME participation (April 2013)
 - o Results focus and its impact in implementation (February 2014)
- Ex ante status report (June 2013)
- First draft SEA report (June 2013)
- Ex ante update notes (August 2013)
- Draft final evaluation (November 2013)
- Draft final SEA report (November 2013)
- Final draft evaluation (March 2014)
- Final draft SEA report (April 2014)

The evaluation papers form the basis of the final ex ante evaluation report and are informed by documentary analysis, research interviews and comparative sources. They bring together lessons from previous programmes, research on regional development in the NPA area, contextual information on EU, national and regional policies, and formal requirements for OPs and informal Commission guidance. They also offer critical feedback and analysis of programme drafts, which have been raised throughout the programme drafting process.

In terms of the overall structure of the OP, guidance on the content of an ETC Operational Programme is available. Accompanying guidance is available on the ex ante evaluation process.⁴ However, the information requirements set out in the available templates are very much oriented to the needs of the European Commission, as opposed to Programme partners and stakeholders. NPA discussions on the presentation and preparation of the final OP document have indicated that there was a need for a more user-friendly version of the OP, which is accessible to a broad range of stakeholders. Based on feedback from project partners, such an approach was seen as extremely valuable. This evaluation is based on a full OP text prepared by the drafting team, the text of which will be used to populate the OP templates provided by the Commission. As a result, some of the points raised in the following sections of this ex ante evaluation report may not be issues for the 'technical OP', but may be reflected in supporting documentation.

As has been noted, the ex ante evaluation of the 2014-2020 NPA was an iterative and interactive process⁵ that accompanied the design of the Programme and appraises its different components. This process allowed the evaluation process to be carried out in a supportive and constructive way, while at the same time challenging the Programme and raising critical points at relevant stages. This approach, and the fact that key recommendations were addressed during the drafting process, means that the final OP is line with the expectations of the evaluation team. As a result, as well as offering

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⁴ CEC (2013a) op. cit.

⁵ DG Regio (2006) *op. cit.*, p.7.

final conclusions on the final OP text the evaluation report also charts progress during the drafting process noting critical debates, discussions and ways in which the evaluation has challenged and questioned, as well as supported the development of the text.

1.2 Intervention logic

DG Regio guidelines on ex ante evaluations, and the EU regulations, place particular emphasis on programme delivery of results in line with the Europe 2020 Strategy, and the need for a clear 'intervention logic'. The purpose of intervention logic is to explain the theoretical design of a programme (i.e. the intervention) and consists of several layers and dimensions. In its simplest form, the logic can be set out as in Figure 1, where a particular need (or opportunity) is identified, and addressed by the intervention, producing a change in the conditions which caused the need or opportunity.

Figure 1: The basic form of intervention logic



Informing the intervention logic are identified needs (or opportunities), which draw on an analysis of the:

- programme area Strengths, Weaknesses, Opportunities and Threats;
- relation to Europe 2020;
- type of programme (e.g. its size, whether it is a transnational or territorial cooperation, or a regional programme) and its potential to affect the change desired; and
- relation to other European, national or regional strategies and programmes.

Another element of the intervention logic is a focus on how change is produced, as illustrated in Figure 2. For any specific objective in a programme, an intended result should be expressed (and drawn from the analysis). The intended result should express the (realistic) change in needs (or opportunities) that the programme wishes to deliver *through* its intervention. For any specific objective the intended results will be obtained by making use of the allocated input to the programme, and attaining targeted outputs.

Figure 2. Programme intervention logic, at level of specific objective

For any specific objective



Figures 1 and 2 illustrate programme intervention logic in its simplest form. It is the role of monitoring and evaluation to follow up on programme input, output and results and to produce a record of *actual input, achieved outputs, and actual results* (see Figure 3). It is also the role of evaluators to try and establish the change in actual results which can be attributed to the intervention (i.e. the impact of a programme).

Figure 3: Programme intervention logic, from the point of monitoring and evaluation



The intervention logic also relates to the programme structure, or programme strategy. This means that for each specific objective there shall be one or at most two specific priorities, which will be formulated using appropriate results indicators. Each of the specific objectives may contain different *supported actions*. The output of each specific objective should be measured in relation to a set of common output indicators.

In relation to assessing the intervention logic, this ex ante evaluation will focus on the following exercise:

Analysing the consistency of programme objectives with the identified needs – The evaluation team will examine how the selected thematic objectives, investment priorities and specific objectives are reflected in the NPA Programme analysis, and are identified as needs or opportunities in the Programme analysis section. It is important that the Programme analysis is explicit in terms of why certain needs are addressed and others are not. Any 'gaps' or 'leakages' (major identified needs which are not met by the Programme in terms of selected thematic objectives, investment priorities and strategic objectives' or on the contrary, strategic objectives, investment priorities or thematic objectives which are not motivated by the programme analysis) will be highlighted. It is important that Programme objectives are clearly supported by Programme analysis.

Intervention logic dictates that there are two important aspects to the programme analysis. Firstly, it must address the needs (i.e. the problems and opportunities) of the programme area. Secondly the analysis must address the strategic relations of the Programme (i.e. needs which are best tackled by this particular programme (intervention) and why other issues are not addressed. Together this means that the programme analysis must be able to guide a selection of objectives, in order to allow for enough resources to be spent on each. Furthermore the programme analysis must also produce programme objectives (specific objectives) which are relevant, realistic and possible to evaluate.

- Relevant the specific objectives shall be such that they effectively capture changes identified
 as needs. Where specific objectives are achieved, this should mean that the change(s)
 needed have occurred. It is a common mistake to select objectives that do not wholly address
 the needs of the Programme area.
- Realistic Programme objectives must be realistically attainable. It is an equally common
 mistake to select objectives which are out of reach for the programme in question. There is of
 course a certain trade-off between objectives being both relevant and realistic.
- Possible to evaluate the Programme's objectives should be possible to evaluate, i.e. it must
 be possible to agree whether or not the objectives have been met. This is not to say that all
 objectives must be measurable with quantitative data. Qualitative assessment may be more
 appropriate in some circumstances.

Analysing the internal and external coherence of Programme - The ex ante team will also address the internal and external coherence of the Programme. Internal coherence concerns the relationship between the constituent parts of the Programme. For example, the role of the evaluation will be to identify possible synergies between different specific objectives and investment priorities. Such synergies should be reflected in the formulation of specific objectives and results indicators. For external coherence, the ex ante evaluation will focus on the identified synergies between the Programme and other European, national or regional strategies. Here, the Programme strategy is expected to be more explicit than just mentioning other programmes and strategies. The Programme should ideally describe how selection of a certain investment priority and specific objective relates to other programmes in related areas. Particular reference should be made to why any other programme addresses the same needs.

Analysing the link between programme objectives and programme output, and between supported actions – expected output – intended results – The evaluation will assess the connection between the concrete output of Programme activities and objectives. The idea is that the activities funded by the Programme will produce specific outcomes for those engaged on projects. Separating outputs from results in programme objectives is a difficult issue. So in terms of the intervention logic, there is a requirement to ensure that the outputs being produced by the Programme are influencing the specific objectives.

The analysis of links between supported actions and results is perhaps the key section of the ex ante evaluation of the intervention logic. The regulations stress the need for the Programme to demonstrate the logic of the intervention much more clearly and strongly than in previous programme periods. The Programme shall demonstrate how targeted outputs can realistically impact upon results. This element of the intervention logic will build on evidence such as theoretical and empirical research or past programme experience and evaluation reports. The proposed links will be examined by the ex ante evaluators.

2. PROGRAMME DRAFTING AND DEVELOPMENT

The overall process of developing the 20014-2020 NPA Programme has been positive, well planned, focussed and structured. At the same time, debates and discussion were open and productive and partner input formed a core element of the programming process.

The programme drafting process is led by the Programme Planning Group (PPG), comprising of national⁶ and regional representatives of all of the participating countries, representatives of the Secretariat and Managing Authority (MA), the Programme's European Commission desk officer, members of the ex ante evaluation team, observers from NORA⁷, observers from a number of relevant authorities in Russia and Canada, and the Arctic Council Indigenous Peoples Secretariat. The composition of the PPG ensures a balance of national and regional views. The direct involvement of the Secretariat and MA also means that the programming process draws on considerable direct operational expertise and experience. The work of the PPG supports, and is supported by, a Programme drafting team based at the Programme Secretariat for the 2007-2013 NPP. A core writer leads the drafting team and is able to monitor overall progress in developing the Programme, as well as draft key sections of the Programme.

Key to driving the programming process forward is the sequence of regular PPG meetings. The majority of meetings have been held in Copenhagen (see Figure 4) which has helped facilitate the participation of partners travelling large distances to attend meetings. Careful planning of structure and content and the preparation of meeting papers means that the PPG has worked through a wide range of issues, giving them due consideration and debate.

Figure 4: PPG meetings

2012	14	November	Derry/Londonderry
2012	14	November	Derry/Londonderry
	4	December	Copenhagen
2013	14	February	Copenhagen
	25	April	Copenhagen
	18 & 19	June	Kirkwall
	4 & 5	September	Copenhagen
	31	October	Copenhagen
	11 & 12	December	Copenhagen.
2014	28	March	Copenhagen

⁶ Further, the PPG comprises representatives of each of the participating countries. Committee members also act as a National Contact Persons, responsible for organising and coordinating national and regional views.

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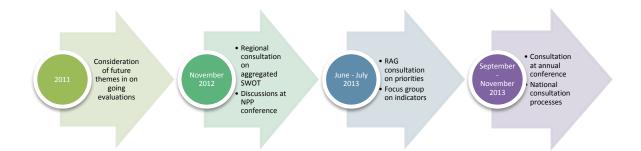
⁷ Nordic Atlantic Cooperation (NORA).

Partner consultation forms another key element of the Programme development process. The Programme has taken a proactive, strategic and considered approach to progressing discussions and engaging with key stakeholders. Key elements of the process are set out in Box 1. Crucially consultation events and opportunities were carried out throughout the programming process (see Figure 5). Minutes of PPG meetings record how input from consultation has shaped thinking on some key issues. In addition, in order to ensure full transparency, overviews of input received from the ex ante team and from wider consultation were made publically available during the OP consultation period (20th September - 15th October 2013).

Box 1: Consultation elements

- The inclusion of regional and national representatives on the PPG brings a broad range of views and expertise into the heart of the programme development process.
- Locally and thematically-based events were hosted by regional and national authorities.
- Stakeholder views on future directions for the Programme were sought, as part of work on the ongoing and ex ante evaluation.
- Papers on potential future/interests for the Programme were presented and discussed at the Programme's annual conference in Derry/Londonderry 2012.
- Early drafts of priority axes were circulated to the Programme's Regional Advisory Groups (RAGs).
- An online questionnaire on key aspects of management and implementation was circulated to lead partners.
- Online consultation on draft OP chapters took place.
- Regional Contact Points (RCPs) organised consultation events in partner countries, (20th September and 15th October 2013).
- External partners from Russia and Canada were given 'observer' status at PPG meetings.
- A preparatory project on the 'Arctic Dimension of the NPA' has drawn upon input from a wide range of current and potential partners on a key theme for the future Programme.
- A consultation event took place in September 2013, linked to the NPP annual conference.
- Partners had the opportunity to comment on a draft OP as part of the formal consultation process required by the EU regulations.
- A public consultation of the SEA Report was held between 13 January and 28 February 2014. The SEA
 Report was published on the NPP website, together with an updated Operational Programme document
 and an introductory note, containing a non-technical summary of the report.
- Final Member State approval process

Figure 5: Partnership and consultation processes (November 2013)



As these examples suggest:

- The Programme Authorities have undertaken a number of activities and events in order to gain partner input.
- Input has informed decisions on key elements of the Programme. As well as informing strategic decisions on key areas of Programme focus, consultation has also been used to help 'fine tune' aspects of the Programme such as clarity of wording and understanding of terms.
- The consultation process has been a useful 'test' for the draft Programme to see how project promoters' ideas could fit with the future Programme, and could help to lead into the 2014-2020 programme period with some momentum.

In addition, it should be highlighted that representatives of the evaluation team were invited to meetings, relevant information was freely circulated to the evaluators, and ad hoc exchanges and meeting were easily arranged. The information provided by the evaluation team, either through formal reporting or ad hoc advice, was considered thoroughly and was generally taken into account.

The 2007-2013 NPP authorities gathered a strong base of critical analysis and evaluation of the 2007-2013 Programme and issues for the future. For instance, issues such as an 'Arctic Dimension', expanding external links, successful fields of intervention, and simplification were all considered in some detail.⁸ This work was complemented by information emerging from the 2014-2020 strategic area analysis and the ex ante evaluation's Strategic Review. Drawing on this base of information, productive discussion and debates on key strategic issues were initiated early in the Programme development process and progress has continued at considerable pace

⁸ McMaster, I *et. al* (2012) The Ongoing Evaluation of the Northern Periphery Programme 2007–2013, final evaluation report, EPRC; McMaster, I (2009) Final Report of the Ongoing Evaluation of the 2007-2013 NPP, report to the NPP Managing Authority, EPRC, University of Strathclyde: Glasgow

PART 2 - PROGRAMME COMPONENTS

Ex Ante Evaluation of the Northern Periphery and Arctic Programme 2014-2020
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Part 2 - Programme Components

3. PROGRAMME STRATEGY

3.1 Context

The Programme is required to set a strategy for the cooperation programme's contribution to the Union strategy of smart, sustainable and inclusive growth. This must include an identification of needs addressing the challenges within the Programme area and a justification of its choice of thematic objectives and corresponding investment priorities.⁹

The 2014-2020 NPA Programme strategy states that the Programme aims to 'expand regions' horizons, building on concrete outcomes and enabling the NPA area to be a 1st class region to live, study, work, visit and invest. To counteract overwhelming challenges the Programme will help to generate vibrant, competitive and sustainable communities, by harnessing innovation, expanding the capacity for entrepreneurship and seizing the unique growth initiatives and opportunities of the Northern and Arctic regions in a resource efficient way. This will be achieved through:

- Using innovation to maintain and develop robust and competitive communities.
- Promoting entrepreneurship to realise the potential of the Programme area's competitive advantage.
- Fostering energy-secure communities through promotion of renewable energy and energy efficiency.
- Protecting, promoting and developing cultural and natural heritage 10

3.2 Evolution of the programme strategy

The strategy is the foundation of the NPA. This suggests that it should be one of the first elements of the Programme to be agreed. However, in practice the strategy was refined over time and returned to as the Programme drafting process progressed. Over time the drafting team and PPG have drawn on analyses of needs in the Programme area, lessons from past programme experience, Member State and partner inputs and views, and assessments of the position of the Programme within the wider policy environment to refine and develop the Programme's thematic focus, strategy and objectives (see Figure 6).

⁹ CEC (2013b) Regulation (EU) No. 1299/2013 of the European Parliament and of the Council of 17 December 2013 on specific provisions for the support from the European Regional Development Fund to the European territorial cooperation goal, Article 8.2

¹⁰ NPA (2014) Draft Operational Programme, March 2014, p.10

Figure 6: Strategy development



In refining the Programme strategy, the drafting team and PPG faced a number of challenging questions, such as, for example: To what extent should the Programme change? How can the Programme deliver change? In a congested policy environment, how should the Programme add value? What themes should the Programme focus on? To what extent should there be an explicit Arctic dimension to the Programme? With these questions in mind, as the strategy developed, ex ante input:

- Noted the new requirements for Programmes in the 2014-2020 period.
- Supported the refinement of the area analysis through editorial inputs and comments on content.
- Noted links to Europe 2020 and other relevant frameworks and policies, and commented on how these links were conveyed in the text of the Programme.
- Identified key areas where past experience could inform Programme content and development.
- Reviewed stakeholder input and conducted additional interviews where relevant for the evaluation.
- Fed into discussions on the role of the Arctic on the NPA programme, through in particular EPRC's involvement in an NPP preparatory project on the issue.¹¹
- Through a strategic review, noted the distinct character of the NPA and the Programme's scope for synergies and links to other policies and programmes.
- Prepared a briefing note on potential programme links to key thematic objectives and contributed to discussions on thematic concentration.
- Assessed the strategy in terms of its focus on relevant areas of activity and capacity to deliver results.

¹¹ van der Zwet, A, McMaster, I, Gaskell, F and Bachtler, J (2013) The Arctic Dimension in the Northern Periphery: Perspectives from Scotland Ireland and Northern Ireland, final report, EPRC, University of Strathclyde: Glasgow and Integritas Liaison: Inverness

In addition to points of detail, feedback provided by the ex ante team and wider input from the PPG placed particular emphasis on the:

- scope for the Programme to take forward its focus on delivering products and services and contribute to Programme area change;
- value in retaining its distinct focus on peripherality;
- importance of maintaining focus on a 'results focus' and strong intervention logic;
- need for selectivity and focus;
- importance of engaging with the external policy environment; and
- the strategic role and position of the NPA in relation to the Arctic.

The result is that the Programme has considered a wide range of relevant concerns, issues and debates, and in doing so the strategy has been tested, debated, challenged and refined.

3.3 Ex ante assessment

Throughout the evaluation process key questions have been:

- Is the strategy rooted in the needs of the Programme area?
- Does the strategy engage with Europe 2020 and align with relevant frameworks and agreements?
- Does the strategy draw and build upon past experience and progress?
- Does the strategy reflect stakeholder input?
- Does the Programme have a clear, strategic focus which forms the basis for a solid 'intervention logic'?

The following sections consider how the final draft of the OP (Version 1-14 March 2014) now meets these key considerations.

3.3.1 Rooted in area analysis

• The Programme strategy is rooted in relevant area strengths, weaknesses, opportunities, and threats.

The development of a thorough and in-depth assessment of the Programme's geographic area was a key pillar of the Programme development process. The drafting team worked to develop a detailed, practical analysis of the Programme area. However, as has been the case in the past, 12 this was challenging in the case of the NPA given the large Programme area, the range of development problems, and the combination of EU and non-EU Member State partners. The scale and scope of the NPA programme also meant the analysis had to be pragmatic and selective, to prevent it from becoming a broad and general review of all available data with little value for making strategic choices. In many cases, data availability and comparability were restricted because the area comprises EU Member States, non-EU Member States, and regions. Additionally, not all of the participating regions correspond to NUTS II boundaries. This limited the potential usefulness of, for example, ESPON and EUROSTAT databases, although these could still be used to fill data gaps.

 $^{^{12}}$ McMaster, I *et al.* (2006) Ex Ante Evaluation of the 2007-2013 Northern Periphery Programme, EPRC: Glasgow

As with the overall strategy, the analysis has been developed and refined as the drafting process has progressed. However, well developed drafts of the area analysis and SWOT were made available during the initial stages of the drafting process, and an early draft of the SWOT analysis was circulated to key stakeholders for comment. In addition, the drafting team benefited from active contributions from the PPG, having circulated draft versions of the analysis on a regular basis. Early discussion and agreement on key development needs, opportunities, strengths and weaknesses in the region have been a major factor supporting the development of coherent and cohesive Programme. To support the process, feedback on the analysis was also provided on an ongoing basis by the evaluation team, see Annex 1. A summary of the main issues addressed during the drafting process is provided in Figure 7. Points raised by the evaluation team were taken into account by the drafting team.

Much of the Programme's area analysis will be provided in an annex to the OP document. Thus, the assessment of the Programme area included in the OP template is merely a summary of a more substantial piece of work. Overall, the analysis:

- is developed in line with EU strategic frameworks, most notably Europe 2020, and is focussed
 in particular on development concerns linked to smart, sustainable and inclusive growth in the
 region;
- covers a wide range of relevant issues, but also focuses on issues of particular relevance to transnational cooperation; notably geography, population, accessibility, heritage, economy, labour market, and the environment;
- identifies development commonalities as well as the contrasts in development potential and needs which, via a SWOT analysis, underpin a coherent, unifying and logical strategic framework for intervention;
- is comparative and comprehensive in its area coverage; and
- is well referenced and researched.

As such the analysis has:

- provided a key step in the decision making process, by providing a base of information for informed decision making and for securing early agreement between stakeholders on the prioritisation of key issues for the Programme; and
- formed a basis for the overall intervention logic of the Programme by highlighting shared/complementary opportunities and challenges and, in particular, areas in which transnational territorial cooperation can make a notable contribution to promoting Europe 2020 goals in the region.

Crucially, as Figure 7 illustrates, it is possible to identify broad thematic links between the specific elements of the strategy and aspects of the area analysis, which illustrate elements of the coherence of the Programme and its intervention logic.

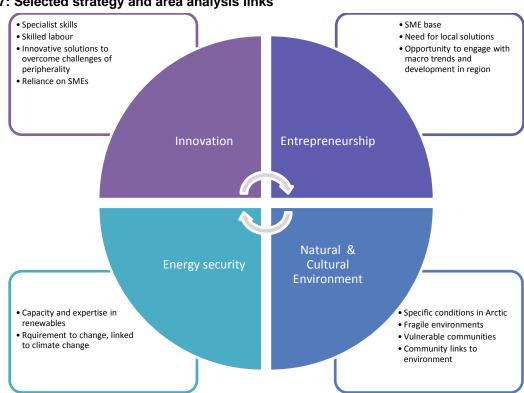


Figure 7: Selected strategy and area analysis links

However, it is important to note that the region is subject to ongoing economic, social and environmental change. As a result, the Programme should consider this analysis a 'starting point' and monitor and adapt to relevant change throughout its lifespan.

3.3.2 Europe 2020

• The programme strategy is in line with and can contribute to Europe 2020 and associated frameworks, agreements and regulations.

In terms of the integration of EU strategic frameworks, regulations and guidance, the NPA has taken: key documents as an anchor point for the strategy development process; a considered strategic practical approach; and an active approach to ensuring strategic coherence.

A focus on the role of the NPA and its links to, for example, Europe 2020, has been maintained throughout the strategy development process and is reflected in the Programme text. For example, a Strategic Review of key strategies and frameworks was carried out by the ex ante evaluation team and was used by the drafting team to inform its work. The Programme's area analysis focuses on key issues in relation to smart, sustainable and inclusive growth. Section 3.2.3 of the draft OP outlines how the Programme is working within key thematic objectives set out in the CSF. Section 3.2.4 sets out specific ways in which the Programme links to smart, sustainable and inclusive growth (Table 1). This analysis draws upon and corresponds with the findings of the ex ante evaluation.

Table 1: Engaging with Europe 2020

EUROPE 2020	Examples of NPA objectives
in p	oporting initiatives targeting cooperation and increased interaction between SMEs. Micro-enterprises particular receive high attention here. Opporting cooperation between SMEs and larger firms, e.g. in combination with research institutes.
ਵਿੰ ⊊ ⊦ Proj	ovation of new products and services in which the sustainability dimension is integrated. lects addressing higher energy efficiency. lecty building.
- Mor	atives to encourage under-represented groups. e efficient and innovative public and private service provision, so that acceptable living conditions be maintained in peripheral areas.

Source: NPA (2014) Draft Operational Programme, March 2014

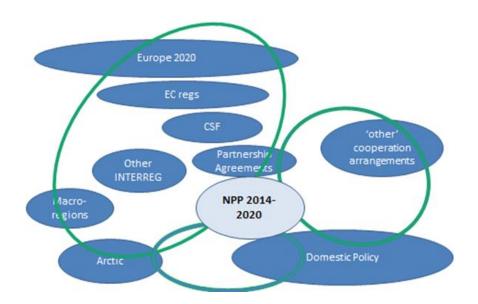
Crucially, as the evaluation has stressed, the NPA recognises that in order to maximise its contribution and relevance it needs to be selective in its focus, by considering where the Programme can effect positive change, and where it can retain its distinct identity and links to the needs of the Programme area. In doing so, the Programme strategy and objectives have been developed in line with the overall objectives of Europe 2020, yet they still reflect key areas where the Programme can make a valued contribution to development in its area.

3.3.3 'Fit' with external policy environment

• The Programme strategy reflects the Programme's capacity to make productive links with its external policy environment.

The NPA programme will be operating in a dynamic and congested policy environment (Figure 8) and has to 'set itself apart'.

Figure 8: Strategic frameworks and the NPA



However, the Programme can also maximise its influence and results through synergies and by actively engaging with its policy environment. With this in mind, the Programme has also assessed thematic links across a number of areas of activity, as discussed in Section 7 of this report and Annex 2. The Programme strategy also sets out plans for how to productively engage with other policies and programmes, e.g. by ensuring that stakeholders are more engaged within wider frameworks, considering coordinated decision-making and calls where relevant. The broader strategic issues of how to engage with evolving actions and debates on the Arctic are also considered.

The text included in the draft OP on these issues is relatively brief. However, it is supported by more in-depth analyses, in part linked to the ex ante evaluation process. Crucially, the Programme is considering how to operationalise and carry forward synergies and links, with the aim of maximising the impacts of projects and the Programme.

3.3.4 Lessons from past programmes?

• The Programme strategy builds on key lessons and strengths from past programme periods.

Drawing on lessons from past experience was another important element in the strategy development process. The evaluation team highlighted a key development 'resource' within the Programme areathe long-standing experience of cooperation between partners. Of particular note is the fact that partner regions have a tradition of cooperation and partnership that pre-dates and goes beyond their involvement in EU Programmes (Annex 3).¹³

As part of the ongoing evaluation of the 2007-2013 NPP, the Programme has also considered key evaluations and analyses of European Territorial Cooperation programmes as a whole.¹⁴ More specifically, lessons from the Programme's own evaluations have been drawn upon. As well as highlighting areas where the Programme can improve, evaluations and internal assessments of the current and previous evaluations Northern Periphery Programmes have noted the following experiences and issues (Table 2):

Table 2: Drawing on past experience¹⁵

Strengths to build on

• The value of a strong, distinct 'identity' and rationale. A strong thematic focus has successfully linked together the Programme's large geographic area.

- A Programme strongly rooted in the needs of the Programme area. As such, it is valued by partners and stakeholders and has scope to make a positive impact.
- Strong, focussed priorities and themes.
- Evolving and attracting new partners.
- Responding to challenges and changes, and being innovative. NPP transnational cooperation has also been able to develop, evolve and innovate. For instance, the 2007-2013 programme adapted to radically changed economic conditions. The Programme authorities have demonstrated their capacity to respond to critical feedback and address challenges in Programme implementation.
- Innovative transboundary products and services. The 2007-2013 NPP's focus on delivering tangible outputs, results and impacts is a key area in which the Programme has 'pushed the boundaries' of ETC programmes.

Lessons to draw on

- Broader themes/measures have been more popular than those with a narrow focus.
- Projects with SME partners have had high levels of achievement.
- High value in proactive and strategic management of programme and projects.
- There is an ongoing need to maintain a strong focus on 'transnational' character of the programme.
- There are concerns that there are barriers to the participation of some groups, such as private sector and civil society groups.
- High value in clearly defined management and implementation roles.
- High value in a tight Programme focus.
- A need to build in scope for the Programme to adapt to major external change.
- A need for support to project partners when encouraging a new programme focus, e.g. on products and services.
- The key role of RCPs and RAGs as sources of information and ideas.
- Links to other forms of cooperation can be improved.
- It is beneficial to identify strategic clusters of projects early on in the life of the Programme.

¹³ McMaster, I *et al.* (2013) Strategic Review of the Northern Periphery and Arctic Programme, EPRC and Kontigo

¹⁴ Panteia *et al.* (2010) INTERREG III Community Initiative (2000-2006) Ex-Post Evaluation http://ec.europa.eu/regional_policy/sources/docgener/evaluation/pdf/expost2006/interreg_final_report_2306201_0.pdf; Euroreg *et al.* (2012) European Territorial Cooperation as a Factor of Growth, Jobs and Quality of Life, ESPON.

¹⁵ McMaster, I et al. (2012) op. cit.

In terms of strategy development, key issues to be drawn from the assessment are:

- the value of a strong, distinct 'identity' and rationale;
- a focus on tangible outputs;
- value in having a tight, practical programme focus; and
- emphasis on needs in the Programme area.

It is also useful to highlight the strategic benefits and challenges faced by INTERREG programmes more generally. The evaluation team noted the following key issues in particular: scope for improving the effectiveness of fund interventions through greater strategic focus and results orientation, with programmes seeking to ensure that projects remain sustainable (or even become self-sustaining) after the end of EU funding; and scope for strategic coherence and alignment across funds and interventions in order to develop beneficial links and avoid overlaps.¹⁶

As has been discussed, the Programme has drawn lessons from past experience. However, as well as retaining strong elements of the past programme, the NPA also demonstrates a commitment to progress and move forward by acknowledging success in key areas (e.g. ICT and tourism) whilst recognising the need to focus future support upon weaker areas in the NPA economies.

3.3.5 Reflecting stakeholder input

The Programme strategy captures and reflects key aspects of stakeholder input.

The inclusive nature of the consultation during the strategy development process means that key stakeholders were closely engaged with the Programme from an early stage. As discussed, partner and stakeholder input was sought at various points and in various ways throughout the Programming process. It is important to note that input has also come from a wide variety of sources, including programme practitioners, confirmed and prospective project partners, final beneficiaries and individuals/organisations representing strategic national interests. The input received from these groups has been wide ranging and valuable. Within this report, it is not possible to fully reflect the detail and extent of the input received. However some of the strategic issues most widely referred to by partners are listed.

Value attached to key strategic themes.

Recurring and widespread references are made to core themes, in particular:

- peripherality,
- sustainability and quality of life for local communities, and;
- applied products and services.

An emphasis on peripherality has been at the heart of previous and current NPP programmes. The potentially greater emphasis on the 'human dimension' of the Programme and the application/adoption of project outputs represent advances in Programme strengths. Agreement on

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¹⁶ Panteia *et al.* (2010) *op. cit.*; DG Regio (2010) European Territorial Cooperation, High Level Group Reflecting On Future Cohesion Policy, DG REGIO: Brussels; European Commission (2010) Investing in Europe's Future: Fifth Report on Economic, Social and Territorial Cohesion, Publications Office of the European Union: Luxembourg; European Commission (2010) Conclusions of the Fifth Report on Economic, Social and Territorial Cohesion: The Future of Cohesion Policy, COM(2010) 642 final, European Commission: Brussels.

these strategic themes has been widespread across the Programme area and amongst stakeholders, and is reflected in the Programme strategy

Emerging consensus around key areas of intervention.

Stakeholder input has been broadly supportive of the recently emerged focus on innovation, SMEs, low carbon and environmental protection. A call for preparatory projects in Spring 2013 has already demonstrated high levels of interest among potential partners, with a number of applications coming in in relevant areas.

Importance of the Arctic dimension.

The Arctic dimension was highlighted as being of particular importance by stakeholders in advance of, and during, the Programme preparation process. Preparatory work with stakeholders found that many potential and current partners were interested in cooperating with Arctic partners.¹⁷ Many already have well-established links and experience of working in partnership with organisations in the Arctic. However, there is a variable level of knowledge on Arctic issues and some capacity issues around engagement with Arctic partners.

Interest in working with 'external' partners.

Interest was expressed in boosting links with neighbouring regions in Canada and Russia, which could offer significant gains for the NPA. Previous NPP programmes already have experience of working with Canadian and Russian partners, although their involvement in the 2007-2013 Programme been limited, with only a few Canadian partners and no Russian partners. Looking to the future, environmental change and related geopolitical shifts mean that development challenges and opportunities in the NPA are closely linked to developments in specific regions of Russia and Canada; namely the Atlantic and Arctic provinces in Canada, and Russian regions along the border with Finland and Norway.

3.3.6 Strategic focus?

• The Programme has refined its focus, drawing on a solid base of analysis, debate and consultation.

The processes and analyses outlined in the preceding sections were used to inform discussions and debates on the overall Programme strategy, and specifically which thematic objectives and investment priorities the Programme will work within. As will be discussed, the need for a strong results orientation has been taken into account. However, the need to allow some flexibility to respond to changing conditions must also be recognised, particularly given the rapidly changing situation in the Arctic.

Each option was considered in detail. Ultimately, the decision was taken not to pursue thematic objectives 2, 5, 7, 8, 9, 10 and 11 (see Figure 9). However, the Programme opted to develop priority axes in line with thematic objectives 1, 3, 4, and 6. This decision was based on an open debate, past

¹⁷ van der Zwet, A, McMaster, I, Gaskell, F and Bachtler, J (2013) The Arctic Dimension in the Northern Periphery: Perspectives from Scotland Ireland and Northern Ireland, final report, EPRC, University of Strathclyde: Glasgow and Integritas Liaison: Inverness

Programme experience and an analysis of the Programme area. Key considerations informing the decision not to pursue these themes include:

- the scale of the financial resources available to the Programme;
- the need for the Programme to deliver tangible results;
- a desire to focus on themes which are common/complementary across the Programme area;
 and
- the imperative to focus on issues where the Programme can add value and avoid overlap with other Programmes.

In addition, feedback on the thematic objectives was provided on an ongoing basis by the evaluation team. The evaluation noted the following points:

Choice between thematic objectives 4, 5 and 6.

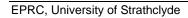
The choice between thematic objectives 4 (low carbon economy), 5 (climate change) and 6 (environment) was particularly challenging, especially for the NPA where the environment and primary resources are at the heart of community economies. Based on past Programme experience and analysis of the Programme area, the low carbon economy and energy efficiency will be key areas of interest, especially for remote and rural communities. Similarly, with the environment and environmental protection representing elements important to local economic activity it is logical that this is embedded in the Programme. In relation to thematic objective 5 (climate change), the Programme's geographic coverage, emerging Arctic focus, and needs on the ground suggest that this could also have been an important element. However, it is understandable that partners could be 'put off' as this is 'too big' an issue for a single territorial cooperation programme to address. 18 The Commission's requirement for the Programme to 'demonstrate results' adds weight to this concern. It was also noted that under both thematic objective 5 and 6 the investment priorities focus on "investments", and under thematic objective 6 many investment priorities focus on urban areas, which are not suitable for the NPA. The evaluation team noted that the decision not to pursue theme 5 in particular had to be carefully justified, as questions may be raised about a programme with 'Arctic' in its title which does not explicitly mention climate change. As has been noted above, justifications are provided. It was also noted that the Programme still has considerable scope in this area through its support for actions such as innovation, renewable energy, carbon reduction technologies, and actions supporting adaptation to change, as proposed in the Commission's Draft Climate Action factsheet for ETC programmes.¹⁹

¹⁸ In addition, in the most recent round of preparatory projects there was little direct interest in developing projects under this thematic objective. However, it should be noted that the preparatory projects have to be in line with the current Programme's priorities, so cannot realistically reflect any 'new' angle, such as climate change.

¹⁹ CEC (2013c) Potential for Climate Action (ETC), Publications Office of the European Union: Luxembourg http://ec.europa.eu/clima/publications/docs/04-climate_mainstreaming_fact_sheet-etc_en.pdf

Figure 9: NPA and the thematic objectives

Territorial cooperation objectives	Territorial cooperation objectives and the NPA			
Strengthening research, technological development and innovation.	Focus of Priority Axis 1.			
3. Enhancing the competitiveness of small and medium-sized enterprises.	Focus of Priority Axis 2.			
4. Supporting the shift towards a low-carbon economy in all sectors.	Focus of Priority Axis 3.			
6. Protecting the environment and promoting resource efficiency.	Focus of Priority Axis 4.			
5. Promoting climate change adaptation, risk prevention and management.	(i) The scale of the climate change issue means it is challenging to the Programme, which has limited resources to engage and deliver substantial results. However, the general issue of climate change is likely to be a recurring issue for projects funded under other priority axes.			
2. Enhancing access to and use and quality of information and communication technologies.	(ii) There is a view that ICT solutions are increasingly embedded in the Programme and Programme area, and will form part of project activities without explicit /additional support.			
7. Promoting sustainable transport and removing bottlenecks in key network infrastructure.	(iii) There is a focus on urban areas and major TENs networks - not a good 'fit' for NPA. The size of the Programme area and comparatively modest financial resources of the Programme make it difficult for the NPA to make a measurable contribution in this area.			
8. Promoting employment and supporting labour mobility.	While the Programme does have scope to promote employment, its impact in terms of numbers of jobs is not likely to be substantial. Avoiding overlap with ESF programmes is also an issue.			
9. Promoting social inclusion and combating poverty.	(iv) The NPA can impact upon relevant themes, particularly in relation to provision of services. However, relevant activities for the NPA can still be funded through other themes. Avoiding overlap with ESF programmes is also an issue.			
10. Investing in education, skills and lifelong learning.	Improving skills and know-how are part of the Programme. However, the key focus is on tangible products and services.			
11. Enhancing institutional capacity and an efficient public administration.	There could be scope to explore and develop cooperative links with other forms of territorial cooperation through this theme. However, these links will be pursued through other approaches.			



Strong focus on SMEs.

The selection of thematic objective 3 (enhancing the competitiveness of SMEs) has to be carefully considered. The Programme can represent an important tool for many participating regions in terms of shifting their focus from large public sector organisations to developing the role of the private sector. It is therefore worth examining how private sector partners, and specifically SMEs, may be more actively engaged in the future Programme. On a more cautionary note, before the Programme chose to pursue a strong emphasis on SMEs it was important to recognise the significant challenges involved in developing and implementing projects which involved private sector partners.

Arctic dimension of the programme.

The Programme has carefully considered how the Arctic dimension should be reflected within it. The 2007-2013 NPP funded a preparatory project on this issue, which mapped the position of the NPA within Arctic strategies and policies, and identified possible areas of activities for the NPA (see Section 6.3.4). As part of this process a variety of options were considered, including: having an Arctic theme as a separate priority; thematic objective 11 being used to develop institutional linkages and capacity on this issue; and an Arctic focus to be addressed through the 'mainstream' priorities. A separate priority would provide clarity in terms of the budget reserved for Arctic themes, and could provide a strategic focus. However, stakeholder and Member State preferences were for a Programme in which Arctic issues are addressed through its main priorities. As opposed to making the Arctic a distinct theme, it was felt that all partners from all regions should remain fully engaged in all aspects of the Programme in order to ensure their full commitment, rather than splitting the Programme by making some interventions more/less relevant to some areas than others.

Programme remains sensitive to 'other' thematic objectives.

Focussing on just a few themes does 'leave out' some themes which could address development concerns for the NPA area. For example, the programme analysis and partner feedback highlight the ongoing importance of accessibility (including transport and access to ICT) and social inclusion (including equal opportunities). However, as was highlighted by the evaluation team, projects within these areas of activity may still be a part of the NPA, as elements funded under the main priorities. For example, a project funded under an innovation priority could address aspects of social inclusion. Thus, the Programme need not be closed to activities in these areas.

3.4 Overview

The Programme strategy has been modified and refined over time, taking into account the following points raised by the ex ante team. The current OP draft sets out the basis for a robust 'intervention' logic. The strategy is well defined, with a logical structure, clear objectives and priorities.

The Programme's overall vision draws upon and articulates the aspirations and ambitions of the Programme partners, based on the characteristics of the area and set within the wider policy context. This is translated into more concrete objectives, which address specific needs and opportunities in the region and focus on areas where the NPA can add value through transnational territorial cooperation and deliver tangible results.

The range of information used to develop the strategy means that the Programme is anchoring itself firmly to the needs of and opportunities in the Programme area, and is applying lessons learned in order to progress and evolve, as opposed to simply looking at the list of proposed thematic objectives and investment priorities as a 'shopping list' to choose from. This logical, well-reasoned approach establishes an important pillar of the Programme's overall intervention logic.

Overall, this evaluation of the Programme's strategic approach is positive. However, it is important to highlight a number of (relatively minor) areas that could be improved.

- Developing a logical flow (rationale and argument) in the Programme's strategy has been challenging, primarily due to the demands of the required OP template. In an effort to comply with the required elements of the template, the clarity of argument in the strategy has, in some places, been weakened.
- It has been challenging for the Programme to reflect the sheer volume of information considered and to introduce all the elements required in a concise and thorough manner.
 Word limits in the OP template mean that a large volume of detail and analysis will be provided in annexes to the main document.
- The Programme has the needs of remote and peripheral communities at its heart, but this is not explicitly referred to in the Programme vision.
- More diagrams, tables and bullet points could be used to convey a large amount of information in a concise way, e.g. in relation to external links.
- The 2007-2013 NPP funded a preparatory project on NPP and the Arctic. The relevant findings from the final report of this project could be referred to in the OP text, when they are available. This could help to further strengthen coverage of the 'Arctic' in the programme strategy.

4. PRIORITY AXES

4.1 Context

The OP document is required to set out a description of each of the Programme's priority axes and accompanying specific objectives. The priority axes must fit within one thematic objective, as a general rule.²⁰ The specific objectives must be consistent with and 'fit within' the selected investment priority of the relevant thematic objective. They must also be shown to be necessary to address the specific development needs in the programme area. As such, the specific objectives are key to the 'intervention logic' of the Programme, as they formally establish the results which are sought.

As well as establishing and justifying its specific objectives, the Programme must set out a description of the type and examples of actions to be financed, and their expected contribution. This involves a description of the types of interventions planned and how these interventions will contribute to the specific objectives, including, e.g. the identification of the main target groups, specific territories, and types of beneficiary. A brief description of how operations will be selected should also be included.

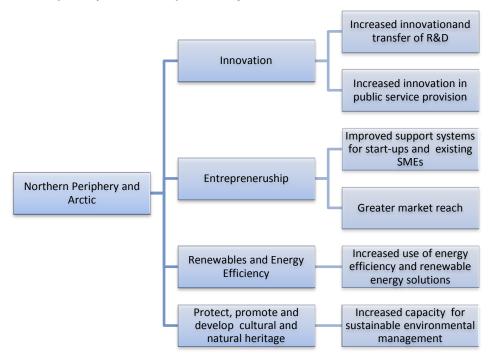
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²⁰ 'A priority axis may, in duly justified cases, combine one or more complementary investment priorities from different thematic objectives in order to achieve the maximum contribution to that priority axis' CEC (2013) Regulation (EU) No. 1299/2013 of the European Parliament and of the Council of 17 December 2013 on specific provisions for the support from the European Regional Development Fund to the European territorial cooperation goal, Article 8.2(d)

The principles applied should help to ensure the selection of good quality operations which will help to meet the programme's objectives and deliver results.

The NPA has four priority axes and six specific objectives - see Figure 10.

Figure 10: NPA priority axes and specific objectives



In addition, the OP text on priority axes details the guiding principles for the selection of operations, performance framework, main target groups and types of beneficiaries.

4.2 Evolution of the priority axes

In agreeing the priority axes a number of issues had to be considered: How can the priority axes and specific objectives best reflect focus on outputs and results? How to manage the balance between focus and capacity to generate sufficient numbers of good quality project applications? How to build on existing strengths and be open to new opportunities and possibilities? How to combine aspirational goals and a focus on realistic, practical results? How to capture and convey the specific focus of the Programme on peripherality and engage clearly with Europe 2020? To what extent to 'target' private sector partners, in particular SMEs? How to establish clear selection criteria and target groups?

To support the work of the drafting team and development of the Programme the ex ante evaluation team:

- Provided detailed, regular feedback on draft priority axes and specific objectives as they
 evolved.
- Drew on analysis of emerging indicator frameworks to support the refinement of specific objectives.
- Prepared a paper on the possible role of SMEs in the Programme.

In addition to points of detail, broader discussion and feedback provided by the ex ante team placed particular emphasis on the:

- Need for clear and precise wording in the priority axes and specific objectives in order to maintain a robust and clear intervention logic throughout.
- Scope for simplification Guidance on the content of the OP recommends keeping the number of specific objectives to a minimum. It is a natural part of the drafting process to begin with broad objectives, and to subsequently narrow and refine options. Thus the NPA priority axes and specific objectives have been refined over time. Linked to this was the need to avoid any overlaps between specific objectives, which may pose problems for monitoring and reporting. The final draft OP has significantly reduced the number of specific objectives and developed a clear focus and target for each. In addition, the Programme does not have mixed objectives. An initial proposal was to combine investment priorities from thematic objectives 1 and 3 into a single priority axis. However, ultimately the decision was taken to develop separate priority axes under each thematic objective.
- Results focus how best reflect the results focus of the Programme was subject to considerable debate. In order to attempt to deliver measurable programme level results, the Programme has built in a focus on 'awareness-raising'. Awareness-raising is an important dimension of NPA activities, which could help illustrate programme level results. However, a point of debate has been how the concept could also change a priority/objective's overall character and focus towards more policy-oriented goals.
- Need to present a clear focus for all priorities Priority Axis 4 was one of the last priorities to be finalised. The ex ante team and PPG members noted that the focus of the initially proposed priority was not clear and the link to the investment priority (6c) was not immediately apparent. As a result, the investment priority has been reviewed and appropriate amendments have been made to its wording and focus. A related point is that explicit reference to 'remote and peripheral' in priority axes 'titles' This helps to highlight the Programme's specific focus. Many of the priority axes and specific objectives now include 'remote and peripheral' in their titles and descriptions.

4.3 Ex ante assessment

As well as ensuring technical compliance with the requirements set out in Commission guidance, the ex ante evaluation highlights the following broad requirements and key questions.

- Focussed? Are the priority axes sufficiently selective and focussed on key areas where the Programme can deliver outputs and results? Is the Programme targeting areas where it can deliver meaningful change?
- Relevant? Are the priority axes and specific objectives in line with the identified needs in the programme area?
- Aligned? Is there alignment with the relevant thematic objectives and investment priorities?
- **Coherent?** Are the priority axes and specific objectives 'internally coherent'? Are there complementarities and synergies? Could there be negative overlaps?
- **Selective and targeted** Is there a robust description of the principles applied to ensure the selection and targeting of good quality projects?
- Well communicated? Are the priority axes and specific objectives clear and easily understood?

4.3.1 Focussing NPA priority axes

• The Programme has developed and refined the focus of its priority axes with a view to developing a clear intervention logic, outputs and results.

As highlighted in relation to the development of the overall strategy, there has been broad consensus on the general areas that the Programme seeks to work within. However, the precise focus of the priority axes and specific objectives has been the subject of debate and discussion and has been refined over time

The development of the Programme priorities and specific objectives was informed by the same inputs and analyses as the Programme strategy, and flow directly from it. However, at this stage the focus of the interventions had to be narrowed significantly. Key steps in this process are outlined in Figure 11.

Well developed paper prepared by darfting team to initiate discussion and feedback

Targeted consultation

Nider consultation issues/themes

RAG consultation

Input from PPG

Input from ex ante throughout

Figure 11: Drafting priorities and specific objectives

The need to focus very strongly on key areas of intervention and to deliver outputs and results coupled with the relatively limited financial resources of the Programme mean that some challenging trade-offs and choices have had to be made. The drafting team were faced with the additional challenge of having to work with 'evolving' Commission guidelines on key issues, such as the content of investment priorities. Yet, while there was debate on the priority axes and specific objectives, no serious barriers were faced in securing broad consensus and agreement on the specific focus on this crucial element of the Programme. In large part this has been facilitated by:

- the advance preparation of a thorough analysis of the Programme and Programme area;
- work undertaken by the drafting team to prepare useful discussion papers for meetings, which highlight key issues, thus helping to inform and focus discussion;

- the capacity of the PPG to challenge and drive the programming process, yet at the same time remain practical and pragmatic;
- productive engagement and input from stakeholders; and
- ongoing dialogue with the ex ante team.

4.3.2 Relevant?

• The priority axes and specific objectives are in line with needs of the programme area

The priority axes and specific objectives are in line with needs in the Programme area. The focus on SMEs/micro enterprises, diversification based on local strengths, the innovative provision of services, low carbon, and the protection of the natural and cultural environment have particular resonance across the Programme area (see Table 3). Also worth noting is the fact that the 'cross-cutting' Arctic theme is highlighted at relevant points in the priority axes. For each priority axis, examples of how the Programme can address Arctic issues are provided. Although the Arctic dimension and possible activities feature in all priority axes, some include more concrete proposals than others.

Table 3: Selected SWOT & Programme priority links

Selected SWOT themes	Priority Axes	Specific Objectives
Innovative clusters Arctic expertise Triple helix in some regions	Innovation	Objective 1.1
Small innovative public sector		Objective 1.2
High proportion of SMEs Weak access to international markets Challenge of distance to markets High transport costs Dependence on primary sector	Entrepreneurship	Objective 2.1
Small customer base Low rate of new firm formation New economic development opportunities linked to changing environments		Objective 2.2
Huge potential for renewable energy production Well educated population Extreme costs of adaption to climate change Natural disasters linked to climate change New employment opportunities linked to investment in renewables & green products	Renewables and Energy Efficiency	Objective 3
Loss of bio-resource base Unspoilt nature and environment Failure to exploit natural resources in sustainable way Natural and cultural assets as basis for quality of life, recreation & tourism Green products and service development	Protecting, promoting and developing cultural and natural heritage	Objective 4

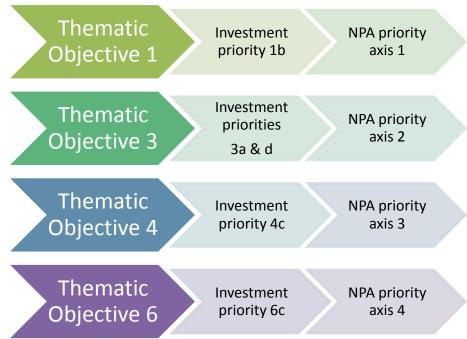
4.3.3 Aligned with investment priorities

• The programme's priority axes and specific objectives are aligned with selected investment priorities.

In 2013, the prolonged lack of finalised EU regulations for ETC left the Programme drafting team in a difficult position when it came to identifying precise links to investment priorities. In the course of debates over the regulations, the exact wording, number and focus of some of the proposed investment priorities changed. In order to progress the NPA drafting process and anchor the Programme to some fixed reference point, the decision was taken take to focus on the needs of the Programme area, taking into account the broad parameters likely to set by the regulations back in 2013 (prior to their finalisation), and to consider detailed links to specific priorities at a later stage in the drafting process. Such an approach was a pragmatic and productive response to a challenging situation. However, at a general level, it was stressed by the evaluation team that it was important to regularly return to the draft investment priorities and ensure that the specific objectives still fitted within the overall frameworks which were emerging. Links can now be reassessed based on the finalised regulations.

Based on the guidelines, it was possible to conclude that the priority axes are closely aligned to relevant thematic objectives and investment priorities (see Figure 12). However, as previously noted, the evaluation team had some concerns in relation to draft Priority Axis 4, which was broadly defined and was not clearly embedded in investment priority 6c. Priority axis 4 has now been redrafted and is much more in line with the 'spirit' of thematic objective 6.

Figure 12: Investment priority links



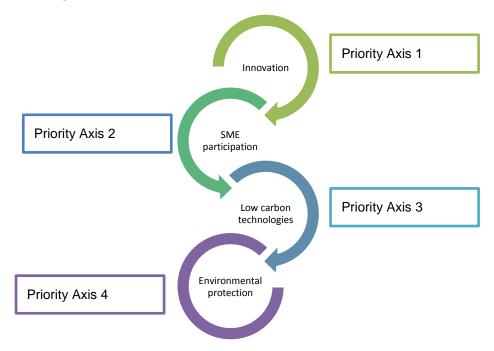
4.3.4 'Internal coherence'21

• Coherence between interventions.

The evaluation is required to assess the relationship between the specific objectives of each priority axis, and between the specific objectives of the different priority axes. The aim here is to ensure that one area of intervention is not working against another and that possible synergies are recognised.

Issues around potentially negative overlaps have been noted by the ex ante evaluation team in their feedback. As a result, the drafting team has sought to clarify and to 'separate' the priorities. For example, potential overlaps with the proposed innovation investment priority were discussed. Thus, in the current OP draft the NPA priorities and objectives are well defined and distinct. However, they are strongly linked by their basis in the needs of the programme and the goals of Europe 2020. Therefore, they can be expected to work together in a complementary and coherent manner (see Figure 13).

Figure 13: Example of NPA internal coherence



²¹ In this context internal coherence is understood as the relationship between the specific objectives of each priority axis, and between the specific objectives of the different priority axes.

4.3.5 Targeted

 Actions are clearly targeted, providing useful examples of actions supported, an outline of key selection criteria and notes of target groups.

Actions supported – The evaluation noted that it is useful to set out examples of actions to be supported. However, this should be kept in proportion. Too much detail could be seen as leading, and may be interpreted too literally by beneficiaries (i.e. as a prescription of what the intervention will/ will not support).

Selection – The evaluation noted that the current (NPP) selection process is well established and is generally viewed as effective, efficient and not excessively long. However, there is scope to refine the process and there are new challenges to bear in mind. The Programme's proposed guiding principles for the selection of operations have been considered useful in terms of being fit to inform the expectations and understandings of project developers. However, it was also noted that the list was lengthy and could be potentially off-putting for potential project partners. Similarly, a number of suggestions were made regarding how to reduce the list of objectives, and adaptations have been made to the quality objectives set out in the draft OP.

Targeting - Each priority as outlined in the OP is expected to specify its target groups. In an early stage into the programming process, the evaluation team noted that the Programme would have scope to maintain a geographically even balance of partners across the programme partner countries, to extend and refresh partnerships, and to include a range of partner types. Additional points which were raised related to engaging with SMEs. As will be discussed at greater length in Section 9, this group can be challenging for ETC programme to directly engage with. This may be because of the limited capacity for SMEs to participate, the particular difficulties for SMEs to secure even basic operational funding in some parts of the Programme area, the non-profit nature of projects, and State Aid constraints (although the Commission is introducing some actions to reduce these). As a result, the Programme has been pragmatic and practical in its approach to targeting. Target groups include organisations representing SMEs and intermediary organisations as well as other key groups such as public authorities and universities.

4.3.6 Well communicated?

• The Programme is developing a clearly worded and understandable text.

Ideally, an individual with no prior Programme familiarity would be able to quickly grasp what the priority axes and specific objectives are about. The priorities and objectives also must be well defined in order to avoid ambiguities in the scope for the programme to have a 'concrete' tangible impact. They must clearly distinguish the NPA programmes from other Structural Funds programmes, publicising the Programme and generate partner interest, and develop appropriate results and impact indicators.

Ex ante advice and input was provided on the wording of the specific objectives in particular. This input was acted upon by the drafting team, and on occasions upon which original elements were retained this was explained and justified. Key points raised include the need to:

²² McMaster. I et al. (2012) op. cit.

- Be precise as was highlighted in a number of cases, the choice of wording can make the
 difference between a specific objective having a clear, focused and realistic objective or an
 unrealistic aim.
- Avoid jargon the exact meaning of 'seizing new business opportunities based on ... placebased opportunities' may not be immediately clear to project partners.
- Balance there is a need to strike a good balance between providing enough information, but not overwhelming a reader with too much.

4.3.7 Financial allocations and interventions

The proposed balance of financial allocations is set out in Figure 14.

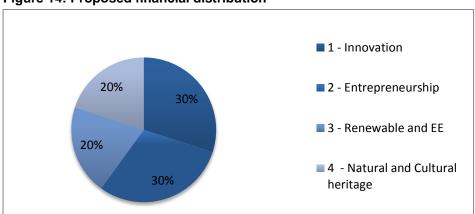


Figure 14: Proposed financial distribution

The resources are in line with the needs identified, aims of the Programme and results targeted. The allocations also take into account past experience and likely demand, as indicated through partner consultation exercises and a round of preparatory project funding.

At the time of writing, an analysis had been prepared on the impact of different intervention rates for Priority Axes 1-4 on the total available budget for project funding, using budget scenarios based on an assumed increase in budget of 43% compared to the 2007-13 period. This analysis takes into account past experience and the anticipated challenges of securing national match funding in some Member States. A proposed rate of 65% has been agreed for priorities 1-4. For SMEs an intervention rate in line with the GBER stipulates a maximum intervention rate of 50%, this has been noted by the Programme. The option to have differing intervention rates in some non EU Member States was also discussed, along with the right to change intervention rates.

- Faroe Island and Greenland agreed to a 65% intervention rate for projects.
- Iceland agreed to a 60% intervention rate for projects.
- Norway agreed to a 50% intervention rate for projects.

As well as the four thematic priority axes, the Programme has agreed priority axis 5, technical assistance (TA). The Programme has estimated a 6% limit will apply for Programme TA. The costs to the Programme of the anticipated higher project numbers, pressures of monitoring and reporting, introduction of new IT systems, and the existing costs involved in travel across such a large Programme area are all being taken into account when finalising the TA budget for the Programme.

Based on these figures and the accompanying analyses, these allocations are in line with the identified challenges and needs, which places particular emphasis on innovation and SMEs in the region.

The opportunities to use e.g. financial instruments, -major projects and integrated territorial investment were assessed by the drafting team, evaluators and PPG. Based on a number of factors, including administrative complexity, the scale and scope of the programme, and project types, the decision was taken not to pursue these options at this stage.

4.4 Overview

As the Programme drafting process has progressed, the wording of the priority axes and specific objectives has been refined to improve their focus and clarity.

The priority axes are rooted in the analysis of the Programme area's strengths and weaknesses. The priorities draw on key characteristics of the Programme area and target many of the development challenges facing the region, such as the specific needs arising from remoteness and peripherality. The focus on selected common and shared development challenges in the Programme area means that it has a strong focus on 'transnational' cooperation and building cooperation and cohesion across the Programme partners.

The priority axes and specific objectives fit within relevant thematic objectives and investment priorities, yet their content remains well-adapted to the specific needs of the Programme area. They can also work well together in supporting complementary, but not overlapping, interventions. The Programme sets out clear project expectations in terms of quality objectives, and also in particular in terms of a focus on tangible outputs and results in the form of products and services. It also identifies clear target groups, aiming to extend its partner base to include greater numbers of SMEs.

Similarly to the Programme strategy, the ex ante evaluation of the Programme priority axes and specific objectives is positive. However, the following points should be kept in mind:

- The wording of some of the quality objectives could be changed to make the style more consistent. Some quality objectives are just statements, e.g. main project outputs are recognisable, whereas others are set out more as requirements ('the projects should...').
- Some small changes to the wording in the text are proposed.

5. HORIZONTAL PRINCIPLES

5.1 Context

The OP is required to set out a description of specific actions to specify how sustainable development, equal opportunities and non-discrimination will be taken into account in the selection of operations and of specific actions to promote equal opportunities and prevent discrimination.

According to Commission regulations, ERDF funds are expected to work in support of the Union's aim to protect and improve the environment. Programme authorities are expected to undertake actions to avoid or reduce environmentally harmful effects of interventions throughout the programme lifecycle, and to ensure results in net social, environmental and climate benefits through:

- directing investments towards the most resource-efficient and sustainable options;
- avoiding investments that may have a significant negative environmental or climate impact, and supporting actions to mitigate any remaining impacts;
- taking a long-term perspective when 'life-cycle' costs of alternative options for investment are compared; and
- increasing the use of green public procurement.²³

With this in mind, programmes are required to include a description of specific actions accounting for environmental protection requirements, resource efficiency, climate change mitigation and adaptation, and risk prevention and risk management in the selection of operations.²⁴

According to Article 7 of the Common Provisions Regulation for Cohesion Policy 2014-2020, ²⁵ equality between men and women and the integration of gender perspectives must be promoted in the preparation and implementation of programmes. This generally implies that both specific actions and the mainstreaming of the gender perspective are necessary. In addition, discrimination based on sex, racial or ethnic origin, religion or belief, disability, age or sexual orientation must be prevented during preparation as well as implementation of programmes. In terms of programme content, the programme is expected to include a description of the specific actions to promote equal opportunities and prevent discriminations during the design and implementation of the cooperation programme and in particular in relation to the access to funding. ²⁶

The Programme sets out its overall approach to the horizontal principles in Section 3.3. of the draft OP. The Programme highlights that its own vision to be a 'first class region to live, study, work, visit and invest, with the ambition of generating vibrant competitive and sustainable communities' is inherently linked to equal opportunities and environmental sustainability. The Programme then goes on to detail how these principles are addressed throughout the Programme and Programme implementation processes.

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²³ CEC (2013d) Regulation (EU) No. 1303/2013 of the European Parliament and of the Council laying down Common Provisions on the European Regional Development Fund, the European Social Fund, the Cohesion Fund, the European Agricultural Fund for Rural Development and the European Maritime and Fisheries Fund covered by the Common Strategic Framework and laying down general provisions on the European Regional Development Fund, the European Social Fund and the Cohesion Fund and repealing Regulation (EC) No 1083/2006, COM/2011/0615 final - 2011/0276 (COD), Article 5.2 (1a)

²⁴ CEC (2013b) op. cit., Article 8.7(a)

²⁵ CEC (2013d) op. cit., Article 7

²⁶ CEC (2013b) *op. cit.*, Article 8.7(b)

5.2 Evolution of the horizontal principles

To address these aspects of the Programme, small working 'teams' were formed from within the Programme Preparation Group to focus on developing the promotion of equality, non-discrimination and sustainable development. These groups considered the application and implementation of the horizontal principles from the Programme strategy to indicators. The groups also drew on consultation feedback, stakeholder views, and input from the ex ante team.

Key issues that were raised in feedback were the needs to:

- balance the description of threats and opportunities linked to climate change and its effects on sustainable development;
- set the context for action on horizontal principles, as the regions involved already have a high level of integration of the horizontal principles in many policy areas;
- make specific mention of indigenous minorities in the programme area;
- make specific reference to immigration trends;
- relevant strategies, such as the Roma Integration Strategies, were noted, but the applicability to the Programme area and planned interventions were limited; and
- describe sustainable development in a manner which is as accessible and understandable as possible.

In response to comments on some points of detail, a number of amendments and inclusions were made, as follows:

- amendments were made to the terminology used in the OP drafts;
- an explicit commitment was set out to respecting the rights of individuals;
- the Monitoring Committee representative can involve an appointed representative of organisations representing indigenous peoples in the Arctic; and
- a number of concerns were raised about the wording of a specific indicator from the Commission's list of common outputs and indicators. As a result, this indicator has been removed from the Programme's list of indicators.

The evaluation monitored the integration of horizontal themes into the Programme, engaged in planning group discussions on the issue and commented on draft proposals set out by the drafting team.

5.3 Ex ante assessment

For the ex ante assessment, key questions and issues are:

- How has the aim of promoting equality been taken into account in the preparation of the programme?
- How will the Programme contribute to the horizontal principles?
- What specific actions has the Programme taken to address the horizontal themes?

5.3.1 Embedding the horizontal principles

• The Programme has taken a holistic and consultative approach to the horizontal themes.

As previously noted, to address these aspects of the Programme, small working 'teams' were formed from within the Programme Preparation Group to focus on the horizontal themes.

The Programme's holistic and consultative approach has proved to be extremely useful. In particular, it was important to consider ways in which to enhance the perceived relevance and impact of the horizontal principles, making it more than a tick-box exercise. Yet, at the same time, the process of applying and monitoring the principles should not become highly burdensome for the Programme and its beneficiaries.

Looking forward, there is also a recognition that guidance and interactive discussion at programme seminars will have to be prepared.

5.3.2 Contribution

• By integrating the horizontal principles from the strategy through to results, and with its strong results focus, the programme will be in a position to make a positive contribution.

The Programme has committed to integrating the horizontal principles into each programme priority and throughout the Programme as a whole. The Programme rightly recognises that the horizontal principles are embedded in its overall vision, for example, by stating that 'Environmental sustainability, equality and non-discrimination are therefore important components of smart, sustainable and inclusive growth'.²⁷ Based around key development opportunities and challenges, the Programme incorporates the horizontal themes throughout by identifying relevant development challenges and highlighting how the priority axes and specific objectives address these issues (see Box 2).

Box 2: Development challenges and horizontal principles

- Regional vulnerability to effects of climate change projects aimed at adaptation and mitigation.
- Opportunities in the green economy, renewable energy and ecological tourism.
- Youth out-migration and aging populations options for development of new services and distance learning or homeworking, opportunities for the so-called 'silver economy'.
- Risk of discrimination linked to changes and pressures involved in 'mega-projects', tradition based economies, pressures linked to immigration – develop projects to engage local communities and protect cultural heritage.

Previous programmes have already demonstrated a strong contribution to promoting equal opportunities, non-discrimination and sustainable development.²⁸ Although the small scale of the programme's resources relative to the scale and scope of the issues it is addressing must be also

²⁷ NPA (2013) Draft Operational Programme, October 2013, p.26

²⁸ McMaster, I et al. (2006) op. cit.

borne in mind, there remains scope for the Programme to make a positive contribution to key issues such as:

- environmental protection in remote communities;
- the presence of under-represented groups in specific areas of economic activity;
- applying and sharing specialist expertise and know-how; and
- innovative solutions to specific social or environmental challenges.

Also worth noting is the fact that the horizontal principles underpin the Arctic dimension of the Programme. The environmental sustainability principle takes into account the Arctic dynamics. The inclusion and diversity principle demonstrates the NPA's ongoing extensive cooperation with organisations representing indigenous peoples in the Arctic in order to ensure that the views and interests of indigenous communities in the Arctic are taken into account.

To ensure that the Programme's role in and contribution to the implementation of these principles is monitored and recorded, a set of indicators has also been established. The programme has chosen to adopt four environmental indicators suggested by the SEA, one for each priority. The results of monitoring and evaluation will be taken into account in the framework of the programme evaluation strategy.

5.3.3 Specific actions

• The Programme has set out practical steps and actions to turn plans into meaningful action.

The NPA will undertake actions throughout the programme lifecycle to avoid or reduce any harmful effects resulting from interventions, and to ensure results through:

- directing investment towards the most resource-efficient and sustainable options;
- avoiding investment that may have a significant negative environmental or climate impact, and supporting actions to mitigate any remaining impacts;
- taking a long-term perspective when 'life-cycle' costs of alternative options for investment are compared; and
- increasing the use of green public procurement.

The programme has also identified an indicative list of activities that may be implemented in projects submitted under any chosen priority axis, which aim to encourage a reduced environmental footprint through operations and to foster behavioural changes such as green procurement procedures, a commitment to using public or 'green' transport where possible, carbon offsetting and consideration of green business models and approaches.

A similar proactive approach has been taken with equal opportunities and diversity, with the relevant actions and activities including opening opportunities for work experience and/or training on the job for young people (aged between 16-25), adopting homeworking and IT solutions, and the assessment of potential barriers to access of opportunity.

5.3.4 Acting on the Strategic Environmental Assessment

The Programme has taken an active and engaged approach to the SEA.

Throughout the structuring and development of the SEA Report, the Programme provided active assistance and was engaged in each step of the process.

With regard to data-gathering during the preparation of the regional environmental profile, assistance was provided through the identification of a panel of environmental contacts in relevant ministries and agencies in each of the participating countries. In instances where materials were slow to arrive, the Programme supported the process through direct contact with country representatives.

Following the production of the first draft of the SEA Report, the Programme formally approved the approach adopted as well as the selection of potential strategic environmental issues to be utilised for subsequent programme assessment, i.e. climate and Arctic change, land-use management, energy and resource efficiency, and marine pollution.

From the final draft of the SEA Report, the Programme adopted four of the environmental indicators from the selection proposed in the report, representing one for each priority: uptake of new technology leading to improved resource efficiency and/or reduced climate change impact (Priority 1), adoption of green business models (Priority 2), efficient consumption of natural resources (Priority 3), and utilisation of environmental management tools or methodologies (Priority 4).

5.4 Overview

Many of the activities planned can build upon existing expertise and the activities undertaken in the previous programme period. The overall approach to integrating the horizontal themes has been carefully considered. The Programme looks beyond the regulatory requirements and considers the specific relevance of these principles. The horizontal principles are integrated into the Programme through the Programme strategy, and are referred to in priority axes and specific objectives. Taken together, these processes take the Programme's overall approach to horizontal themes beyond a simple 'tick box exercise' to making them a more visible, embedded and productive element.

6. EXTERNAL COHERENCE

6.1 Context

In line with Commission guidance, the ex ante evaluation must provide an assessment of the coherence of the NPA in relation to relevant external policies. This includes the degree to which the Programme strategy aligns with relevant regional and national instruments in the individual countries participating in the NPA, as well as coherence with wider EU instruments. Coherence is a broad term and relates to the scope for positive links, awareness of potential overlaps, and the need for ongoing coordination (and even collaboration). During the programming process and on an ongoing basis through Programme implementation, 'coherence' remains central to ensuring that the Programme works well within its policy environment, adds value to existing interventions, and is in a position to deliver results.

6.2 Evolution of external coherence

The NPA programme covers a large geographic area and many individual countries. As a consequence, there have been an enormous number of relevant EU, national, regional and territorial frameworks, strategies and policies to consider (Figure 15).

Figure 15: External coherence

EU

- Europe 2020
- CSF
- Partnership Agreements (Finland, Ireland, Sweden, UK (Northern Ireland, Scotland)
- Other EU policies and interventions (e.g. Horizon 2020, TEN, National OPs...)

Domestic

- Regional Economic Development Policies and agendas (Faroe Islands, Finland, Greenland, Iceland, Ireland, Northern Ireland, Norway, Scotland, Sweden)
- · Domestic Arctic agendas and priorities

Territorial Cooperation

- Neighbouring ETC programmes
- · Macro Regional Strategies and Sea Basin Strategies
- Other forms of cooperation, e.g. NORA
- Arctic cooperation

The Programme has demonstrated a strong intent with regard to the pursuit of coherence, cooperation and coordination with the external policy environment. As part of the programme development process, the position of the Programme within the wider policy environment was considered in detail. However, the number and range of policies and frameworks meant that this review had to be strategic and balanced. The review was achieved through a variety of means:

- input from ongoing evaluation of NPP;
- ex ante 'strategic review';
- input from strategic partners, national and regional representatives;
- consultation feedback; and
- Arctic preparatory project.

In sum, this information:

- highlights connections and links to the most relevant contemporary and emerging policy frameworks at EU, national and international levels;
- reflects on approaches which the NPA can adopt to best contribute, gain from and work within this policy environment; and

• provides background information, as an evidence base for decision making and as a source document for drafting sections of the Programme.

In preparation for this element of the evaluation and to support the development of the Programme, the ex ante evaluation team developed a strategic policy review of the programme area. This input reviewed the Programme's policy context and aimed to highlight ways in which the Programme could maximise its role though developing positive synergies and managing its strategic relations with existing policies and frameworks.

Overall, this aspect of the programme drafting process can run the risk of being perceived as somewhat peripheral compared to agreeing the strategy, priority axes and specific objectives. However, the NPA has taken a highly engaged approach to this aspect of the programming process. In particular, debates and discussions around Arctic cooperation mean that the 'external policy' environment has informed and influence Programme thinking. Similarly, the results focus of the Programme means that opportunities to strengthen outputs and results through synergies have also been widely discussed.

6.3 Ex ante assessment

Key questions for the ex ante assessment include:

- Where the Programme 'fits' with other relevant policies and interventions, specifically:
 - EU strategies, programmes and policies;
 - o domestic policies; and
 - territorial cooperation arrangements.
- The Programme's analysis of and its contribution to 'other' strategies and policies; whether it takes into
 account the influence of other policies and programmes upon expected results; and how the Programme
 justifies its role?
- How coherence and coordination will be managed in a practical sense, e.g. by setting out proposals for how synergies and complementarities will be exploited to ensure effectiveness, and describing coordination mechanisms for the relevant funding sources.

6.3.1 EU Strategic Frameworks

• The 2014-2020 NPA can engage in and 'fits well' with the EU frameworks and objectives, and in doing so contributes to Europe 2020 goals.

A key reference point for the Programming process has been adherence to, alignment and coherence with relevant EU strategies, regulations, frameworks and guidance. For example, the Programme must to set out a description of its contribution to the delivery of the European 'Union strategy for smart, sustainable and inclusive growth and the achievement of territorial cohesion' (Europe 2020). Europe 2020 is the European Union's ten-year growth strategy. The Strategy aims to create more jobs and better lives by stimulating smart, sustainable and inclusive growth. Five key targets have

²⁹ CEC (2013b) Regulation (EU) No. 1299/2013 of the European Parliament and of the Council of 17 December 2013 on specific provisions for the support from the European Regional Development Fund to the European territorial cooperation goal, Article 7

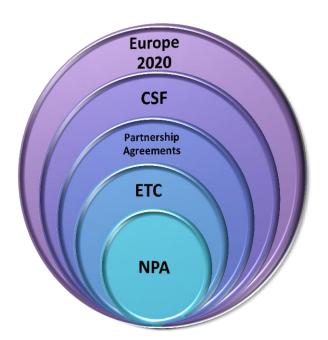
been set, covering employment, education, research and innovation, social inclusion and poverty reduction, and climate/energy (see Box 3).

Box 3: The 5 targets for the EU in 2020

- 1. Employment 75% of the 20-64 year-olds to be employed.
- 2. R&D 3% of the EU's GDP to be invested in R&D.
- 3. Climate change / energy greenhouse gas emissions 20% (or even 30%, if the conditions are right) lower than 1990; 20% of energy from renewables; 20% increase in energy efficiency.
- 4. Education reducing school dropout rates below 10%; at least 40% of 30-34 year-olds completing third level education.
- 5. Poverty / social exclusion at least 20 million fewer people in or at risk of poverty and social exclusion.

For EU Cohesion policy programmes, Europe 2020 is accompanied by the regulatory framework for Cohesion policy (2014-2020), the Common Strategic Framework, and national Partnership Agreements. Together, these documents have all informed the overall directions and content of the NPA programme, by establishing key areas of intervention within which European Territorial Cooperation Programmes are expected to focus (Figure 16).

Figure 16: Europe 2020 and NPA strategic frameworks



Programme consistenct with EU frameworks was assessed by the ex ante evaluation team on a regular basis during the drafting process through formal reports, strategic review papers, comments on the content of OP drafts and ad hoc advice. These inputs have:

- highlighted key areas of coherence with key strategies and frameworks;
- emphasised the need for selectivity and focus;

- recognised constraints on the scope of the Programme's contribution;
- provided advice on how to convey the Programme's role and links; and
- noted the importance of making linkages explicit and visible in the OP text.

In addition there has been:

- active engagement by the drafting team and content group;
- partner input; and
- input from the Programme's desk officer.

At early draft stage, the Programme document started with a strong statement of intent with regard to the pursuit of the Europe 2020 goals. As the drafting of the Programme has progressed, further references have been incorporated into the Programme strategy. Care has been taken to articulate fully how the Programme priorities are coherent with Europe 2020 and how it will continue to maintain this link (see Table 4). Key to Programme engagement with Europe 2020 is the fact that this link is drawn throughout the Programme, from the strategy to delivery mechanisms and approaches (Figure 17).

Table 4: Engaging with Europe 2020

EUROPE 2020	Examples of NPA activities
Smart Growth	Priority 1 'innovation', which focuses on e.g: Transfer and development of models or solutions; SME clustering; enabling R&D support for SMEs; demand-driven innovation; facilitating technology transfer; facilitating business networks; promoting innovation in the creative sector. Transfer and development of: models or solutions addressing viability and low critical mass in public service provision; and technology-driven solutions for public service provision. Priority 2 'entrepreneurship', which focuses on e.g: Transfer and development of models or solutions for support to start-up and existing companies (e.g. removing barriers and realising place-based opportunities in new ways). Transfer and development of models or solutions to: increase market reach of SMEs to meet larger-scale, more diverse and/or more complex demand; and facilitate the use of distance-spanning technology.
Sustainable Growth	Priority 3 'renewable and energy efficiency', which focuses on: Renewable energy solutions for public infrastructure and housing. Sustainable utilisation of by-products from economic activities as energy sources for public infrastructure and housing. Promotion, transfer and development of new energy efficiency concepts for constructing, maintaining and running housing and public infrastructure. Priority 4 'natural and cultural heritage': Up-skilling local authorities and community groups in sustainable environmental management,. Development and transfer of new organisational models, decision-making tools and solutions, governance concepts to deal with sustainable environmental management.
Inclusive Growth	Priority 1 'innovation', which focuses on e.g:

Source: Adapted from EPRC (2012) Ongoing Evaluation of the 2007-2013 Northern Periphery Programme, EPRC: Glasgow

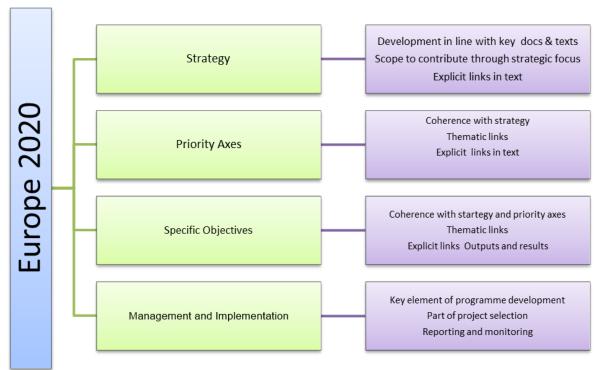


Figure 17: Embedding Europe 2020 in the NPA

Having worked within frameworks set out by Europe 2020 and its accompanying documentation the Programme establishes a basis to add value and to set itself apart. For example, when looking at the specific priorities for transnational cooperation set out in the CSF³⁰, the linkages between the draft priorities of the NPA 2014-2020 and these distinct areas of activity are also clear (see Table 5). Similarly, it is possible to identify links to specific areas of interest for ETC set out in the position papers on the development of the Partnership Agreements and programmes, which were available at the time of drafting (Table 6).³¹ Through these links the Programme sets up areas of coherence and potential coordination, and distinguishes itself from mainstream programmes.

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³⁰ CEC (2012b) Commission Staff Working Document, Elements for a Common Strategic Framework 2014 to 2020, 14 March 2012, CEC: Brussels

³¹ On the one hand these papers provide some insights into the Member State and Commission's expectations. On the other hand they are recommendations and therefore clearly subject to change. Themes such as innovation and R&D, SME competitiveness and cooperation, eco-innovation, and the development of alternative energy in the draft national Partnership Agreements are very much in line with the draft priorities of the NPA. The only theme which features in national agendas but is not explicit in the NPA draft priorities is the management/ protection of marine resources.

Table 5: Priority areas related to transnational programmes

Priority areas for transnational cooperation		Planned NPA 2014-2020 activities
Areas which share major geographical features (lakes, rivers, sea basins or mountain ranges) should: support the joint management and promotion of their natural resources; protect biodiversity and ecosystem services; develop integrated cross-border natural risk management; address pollution in these areas; and implement joint climate change adaptation and risk prevention and management measures, in relation to flood protection and coastal defence in particular.	>	Priority 4 (natural and cultural heritage) project examples: Development of capacity to support sustainable environmental management. Engagement with development opportunities presented by environmental and cultural heritage. Models for the protection, promotion and sustainable development of natural and cultural heritage.
To achieve critical mass, cooperation in the field of research and innovation and ICT can be particularly effective by supporting: innovative clusters; centres of competence; business incubators; and smart connections between the business sector and the research and higher education centres. The development of joint smart specialisation approaches, regional partner facilities and platforms for co-investment should also be promoted. Supporting partnerships among educational institutions and exchanges of students and teachers also contributes to achieving critical mass.	•	Clustering SMEs/micro companies or public sector organisations to create a critical mass to get better access to R&D activities, and to ensure a better uptake and use in product and service design. Developing/improving triple helix models to access and create targeted innovation support for product and service development for SMEs and micro companies. Developing demand-driven cooperation from business and/or public sectors with universities to benefit from the campus innovation tradition of identifying new product and service opportunities
Economies of scale that can be achieved are relevant to investment related to: the shared use of common public services, particularly in the fields of waste and water treatment, health infrastructure, education facilities and equipment, accessibility, social infrastructure, ICT, research and innovation infrastructure, green infrastructure, disaster management systems, and emergency services. Promoting soft cooperation in these areas (health insurance, developing joint educational and training schemes, harmonising schedules and ticketing, or introducing new public transport connections, risk assessment procedures) can further enhance savings and quality of life.	•	Priority 1 (innovation) project examples: Innovative public service ICT applications to overcome distances and/or disparities between urban and rural areas for the benefit of the rural community. Developing innovative models/solutions to help adapt public service provision to levels required by altered external circumstances, such as organising the use of existing resources more efficiently.
In the area of cross-border network infrastructure, transnational cooperation programmes could focus on: providing support for the coherent planning of transport infrastructure (including TEN-T) and the development of environmentally friendly and interoperable transport modes in larger geographical areas. Cross-border cooperation, among less developed regions in particular, could focus on missing cross-border links that act as bottlenecks to transport flows. The development of electricity networks to enable a larger take-up of electricity produced with renewable sources could be enhanced by both transnational and cross-border cooperation, by investing in specific sections of infrastructure networks.	>	n/a

Table 6: Potential NPA 'fit' with emerging Partnership Agreements

		'fit' with NPA priorities			
	Country Commission position papers on the development of the Partnership Agreements ³²		P2	P3	P4
Country			Entrepreneurship	Renewable energy & efficiency	Cultural and natural heritage
	ETC can add particular value in the fields of research and innovation and environmental protection.	V			√
Finland	innovation and environmental protection. The deployment of the Core Network Corridors, such as the Baltic Adriatic Corridor and EUSBSR, would allow for the biggest European added value.				
	ETC should promote: new innovation clusters; cooperation	V	√	√	
	between SMEs; renewables and energy efficiency; prevention of maritime pollution; and maritime economic potential.	$\sqrt{}$		√	V
Ireland	 The transnational dimension of the Atlantic strategy can bring new dynamism. The PEACE programme should address specific and complex social challenges in Northern Ireland. 				
	ETC should focus on: research and innovation, SME competitiveness; energy, environment and climate change mitigation and adaptation; connectivity and accessibility; transnational exchanges in the employment and education and training area; marine knowledge; maritime spatial planning; integrated coastal zone management; integrated maritime surveillance; protection from major emergencies at sea and on	√	√	√	V
economy ETC show In Swede the growing and neight	land; and sustainable growth and jobs in the maritime economy. • ETC should take into account the priorities of the EUSBSR.	√	√	√	~
	the growing regional cooperation in the northern part of the EU and neighbouring countries within the Arctic Barents region offers opportunities to jointly address challenges for maximum	√	V	1	V
	ETC should focus on: fostering innovation; eco-innovation projects including comprehensive observation of the ocean environment, renewable energy, energy efficiency and environmental protection; and knowledge transfer and sharing				
	of best practice between business, research and education. ETC should mobilise co-investment to realise smart specialisation. The transnational dimension of the Atlantic Strategy can bring new dynamism. A potential PEACE programme should address social inclusion, youth work, education and capacity building for communities in Northern Ireland.	V	V	√	V
UK		V	V	√	√
					-

Source: Adapted from McMaster, I, Hallin, G et al. (2013) Strategic Review of the NPA, report to the NPA PPG, EPRC/Kontigo

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³² Please not that at the time of writing not all Member State partnership agreements had been submitted, thus it was agreed that the common source of the Commission drafts could still be referred to.

6.3.2 Other relevant EU policies, initiatives and funds

• The NPA has taken into account other EU policies, initiatives and funds during the programme development process; possible synergies and links can be monitored and developed on an ongoing basis

A number of EU programmes share similarities in terms of geography and general priorities, but there are also some differences, as each of them will be developed and implemented in their specific environments. The distinct added value and contribution of the NPA has been the main concern in developing the Programme. However, the ex ante team has highlighted that the scope to maximise added value through promoting synergies and up-scaling projects is also important. For example, results from a Horizon 2020 project could be operationalised and acted upon through an NPA project. NPA project results could go on to secure further funding from national operational programmes, if relevant. Table 7 highlights some key areas of policy linkage.

Table 7: NPA and other EU programmes and interventions

Priority Axes	Selected potentially relevant policies, programmes and interventions
Innovation	Horizon 2020 - valorisation of 2020 research; high number of potential partners with Horizon 2020/Framework; experience in the Programme area. Educational programmes – exchange of experience.
Entrepreneurship	Horizon 2020 - valorisation of 2020 research. TEN – marginal direct links, but the impact of distance and development of key transport modes are important to monitor. Lifelong Learning and Erasmus programmes – provide education and training opportunities and potentially relevant networks and linkages. COSME – improving the business environment and the competitiveness of European enterprises.
Renewables and Energy Efficiency	Horizon 2020 - valorisation of 2020 research. Connecting Europe Facility (CEF) - networks in the fields of transport, energy and digital services.
Protecting, promoting and developing natural and cultural heritage	LIFE programme - potential projects on relevant themes. Horizon 2020 - valorisation of 2020 research.

Commission guidance on the content of European Territorial Cooperation Programmes stresses the importance of this type of coordination and link. However, the scale of the NPA area, the sheer number of 'other' EU Programmes, and the fact that Programmes are still being drafted mean that a fully comprehensive in-depth assessment at this stage is not practical. However, the ex ante evaluation encourages the examination of links which can be addressed on an ongoing basis as the Programme is implemented.

- Maintaining some form of 'observation/interlocator' function at the level of regional contact
 points was suggested as a means of gathering some detail on potential links and encouraging
 project stakeholders to examine opportunities and connections. This might require a further
 extension of the contact points' or secretariat's role.
- Practical challenges to coordination have to be considered. For example, the focussed calls system for Horizon 2020 may be challenging for NPA projects wishing to up-scale their activities.

- Making a comprehensive strategic and policy review part of the Programme's evaluation framework is possible.
- It is desirable to encourage project partners to consider the wider policy environment when developing and implementing projects.

6.3.3 NPA and domestic strategic frameworks

• The NPA adds value to domestic policy interventions through its transnational focus, but can link to selected domestic policy priorities.

The overall strategic links between national policy priorities and EU Cohesion policy frameworks will be dealt with in national Partnership Agreements. However, it also useful to look at how the NPA fits in with the domestic policy context and, in particular, how it fits in with existing regional economic development priorities, policies and strategies.

In terms of overall trends which the NPA should take into account, the major factor influencing current economic development policies is the economic crisis. This issue has been discussed in some detail in EPRC's ongoing evaluation of the current NPP programme.³³ The economic crisis has triggered a shift in economic fortunes across the region and led to major changes in macroeconomic policy. The implications of these conditions are discussed in the ex ante Strategic Review and are noted in the Programme's analysis.

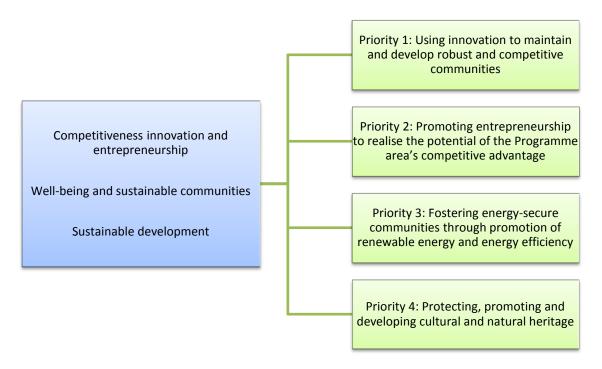
As well as a broad overview of domestic policy priorities, a review of domestic policy conditions gives an additional indication of where stakeholder interests lie, where support systems are already in place, and where beneficial links could be recognised. It also takes into account non-EU Member State priorities, which are not covered by Partnership Agreements. The ex ante Strategic Review of the Programme has considered these policies on a country-by-country basis, and outlines key regional economic development policies pursued in the NPA partner countries, see also Annex 4.

In addition it is worth noting the importance of regional innovation policies and associated developments in relation to smart specialisation.³⁴ The NPA demonstrates awareness of strong innovators within the region. In terms of practical linkages, at the time of programming, many of the RIS3 strategies are still to be finalised. In addition, non-EU Member States take their own approaches to this issue. However, several themes are likely to be recurring: creative industries; energy; universities and research institutes; life sciences/ healthcare; and innovation within primary sectors. Drawing on this information, it is apparent that there are three broad regional development themes which remain central to national regional economic development policies in the NPA countries, which are in line with the draft priorities of the NPA 2014-2020 (Figure 18).

³³ McMaster, I (2009) op. cit.; McMaster, I and Hallin, G (2013) op. cit.

³⁴ Charles, D *et al.* (2012) Smart Specialisation and Cohesion Policy - a strategy for all regions? IQ-Net Thematic Paper No 30(2), EPRC: Glasgow

Figure 18: Domestic Policy and the NPA



Overall, the focus of domestic regional policy on the impacts of the economic crisis, environmental and social change suggests a strategic interest in areas of policy activity related to those of the NPA, (Figure 18), likely ongoing support for the NPA, and a sustainable pool of potential project partners and co-financing. The NPA's ongoing alignment with domestic priorities and themes is important to ensure a strong national and regional commitment to the future Programme, as well as to secure access to co-funding and potential project partners. However, in light of public policy budget cuts and organisations focusing on core activities as a result of financial pressures, simple alignment with policies is not enough. The future NPA will have to work hard to continue to generate interest at the policy and project level and emphasise its unique contribution to the development of the regions involved.

6.3.4 NPA and the Arctic

 Addressing and engaging with Arctic development concerns and issues are major opportunities for the whole programme area, but are also inherently challenging. The Programme has developed a well-considered approach. However, this will have to be reviewed on an ongoing basis.

Over the 2007-2013 period the Arctic has emerged as a region which receives increasing political attention. Interest in the Arctic is set to further increase in the coming decade, which will lead to economic opportunities but also to environmental and societal challenges. The NPA is well placed to make a meaningful contribution to these developments. However, exactly how this should be addressed has been the subject of some debate and consideration.

The scale of the issues at stake, the strategic interests involved, and the dynamic and uncertain nature of the situation in the Arctic mean that the decision to fund a preparatory project to examine the future Programme's relationship with the Arctic (and Arctic development themes) was valuable.

The project has generated constructive and critical debate on how the Programme can best respond to the issues. In addition the ex ante evaluation team, and EPRC through their contribution to the Arctic preparatory project³⁵, highlighted the following key issues to be taken into account.

Past and current experience.

Programme geography and past experience means that the NPA is in a unique position to work in this dynamic and strategic region as an experienced, embedded and practical partner. The Programme is not an intrusive 'external influence' on the region. Key points to note are: (1) 'Arctic' countries, regions and projects are not new to the Programme; (2) Programme partners 'outside' the main Arctic regions regularly cooperate on key Arctic development issues and work with partners in the northern parts of the Programme area; (3) Arctic issues, such as climate change, new transportation links and environmental pressures will impact upon the wider Programme area; and (4) findings from the recent preparatory project confirm that partners from more southern regions in the Programme show considerable enthusiasm for working with Arctic partners.

In relation to the Arctic, the following characteristics can set the NPA's contribution to the region apart, and potentially add value for partners both within the region and those neighbouring it:

- a practical-results focus;
- community/local orientation;
- · transnational partnership working; and
- small projects with a 'big reach,' in terms of geography and relevance to the region.

These features distinguish the Programme's contribution from existing intergovernmental cooperation arrangements and thematically-targeted networks.³⁶ Looking to the future, the Programme has the scope to continue this link and to develop beneficial links and activities further. However, there may be a requirement for the Programme to further support partners and engage in capacity building activities.³⁷

Coherence with domestic policy agendas.

The activities which the Programme intends to undertake in relation to the Arctic demonstrate strong links to Arctic policies and strategies at national and regional levels. Since 2007 all Arctic states in the NPA (Norway, Finland, Sweden, Iceland, Greenland and the Faroe Islands) have developed Arctic strategies, as have the Canada, Russia and USA (Table 8).

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³⁵ van der Zwet, A et al. (2013) op. cit.

³⁶ McMaster, I, Hallin, G et al. (2013) Strategic Review of the NPA, report to the NPA PPG, EPRC/Kontigo

³⁷ van der Zwet, A et al. (2013) op. cit.

Table 8: Arctic goals and opportunities in the NPA area

NPA		
Member State	Arctic / northern goals	
Faroe Islands	 Strategic assessment of how the Faroe Islands can contribute to and benefit from changing circumstances and future opportunities arising from rapid changes in the Arctic).³⁸ Exploit new economic opportunities. Nature and environment: conservation and sustainable use of living resources. Safety and preparedness. 	
Finland	 Arctic population – social sustainability and working conditions; indigenous peoples. Education and research – interdisciplinary research, maintaining expertise, invest in education, training and research, actively participate in Arctic evaluations; Business operations - business opportunities and economic utilisation, energy, maritime and shipping, renewable natural resources, mining industry, cleantech, tourism, traffic and transport systems, data communications and digital services; Environment and stability - internal and external; International cooperation - bilateral, global and EU. 	
Greenland	 Peaceful, secure and safe Arctic. Self-sustaining growth and development. Respect for the Arctic's fragile climate, environment and nature. Close cooperation with international partners. 	
Iceland	 International cooperation. Security through international cooperation. Resource development and environmental protection. Transportation. People and culture. International cooperation on research and monitoring. 	
Ireland	No defined Arctic strategy.	
Norway	 Good governance. Knowledge development. Sound management of the environment and resources. Facilitating development of petroleum activities. Safeguarding the livelihoods and cultures of indigenous peoples. Further developing people-to-people cooperation. Strengthening cooperation with Russia. 	
Northern Ireland	No defined Arctic strategy.	
Sweden	 Climate and the environment. Economic development. The human dimension. 	
Scotland	No defined Arctic strategy.	

Source: updated and based on McMaster, I et al. (2012) op. cit.

The NPA can benefit from the commitment of national governments to enhancing their role in the Arctic (where relevant) and boosting links with Scandinavia and Nordic partners (e.g. Scotland).

³⁸ The Faroe Islands and the Arctic Challenges and Opportunities in the Circumpolar North.

Relevance of developments at EU level.

Alongside national Arctic agendas are a wide range of cooperation arrangements, which are discussed in Section 6.3.5. However, as an EU-funded programme, developments at the EU level are of particular relevance to the NPA. Following the European Parliament's resolution on Arctic governance of October 2008,³⁹ the European Commission adopted its first communication on the Arctic in November 2008. 'The European Union and the Arctic Region' established the first layer of an EU Arctic policy by setting out EU interests and proposed actions based on three main policy objectives:

- protecting and preserving the Arctic in unison with its population;
- promoting sustainable use of natural resources; and
- contributing to enhanced governance in the Arctic through implementation of relevant agreements, frameworks and arrangements, and their further development.

The EU has subsequently sought closer links with Arctic organisations⁴¹ and has applied for permanent observer status on the Arctic Council.⁴² This application is currently deferred. More recently, the Commission and the High Representative of the EU for Foreign Affairs and Security Policy published a joint communication which sets out progress in relation to an EU Arctic Strategy and highlights areas in which the EU is making a contribution to the protection and development of the Arctic. Proposals are set out to further develop the EU's policy towards the Arctic in three key areas - knowledge, responsibility and engagement - where the objectives are to:⁴³

- support... research and channelling of knowledge to address the challenges of environmental and climate changes in the Arctic;
- act with responsibility to contribute to ensuring economic development in the Arctic is based on sustainable use of resources and environmental expertise; and
- intensify its constructive engagement and dialogue with Arctic States, indigenous peoples and other partners.

Economic development, environmental stewardship and community protection are recurring themes in national and EU policies and strategies. The NPA 2014-2020 demonstrates strong coherence with all these topics and aims to address the tensions between these often conflicting goals. More generally, it is worth noting that NPA is the only ETC transnational programme that covers the Arctic region, giving it a distinctive role and providing it with possibilities to contribute to Arctic strategies. A more prominent role in the Arctic also increases the Programme's visibility, within policy circles. Increased cooperation in the Arctic presents a good opportunity to further engage external partners in the NPA.

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³⁹ European Parliament (2008) *Resolution on Arctic Governance*, 9 October 2008 <http://www.europarl.europa.eu/sides/getDoc.do?pubRef=//EP//TEXT+TA+20081009+ITEMS+DOC+XML+V0//EN&language=EN#sdocta12>

⁴⁰ CEC (2008) The European Union and the Arctic region, Communication from the Commission to the European Parliament and the Council, COM(2008) 763, 20 November 2008, CEC: Brussels

⁴¹ Ashton, C (2011) Remarks by High Representative Catherine Ashton after the meeting with Swedish Foreign Minister Carl Bildt in Kiruna, Sweden, 7 March 2011

http://www.consilium.europa.eu/uedocs/cms Data/docs/pressdata/EN/foraff/128788.pdf>

⁴² CEC and High Representative of the European Union for Foreign Affairs and Security Policy (2012) *op. cit.*⁴³ *Ibid.*

Establishing external links.

Another aspect of the EU's involvement in the Arctic is the Northern Dimension policy. The policy was drawn up in 1999 and renewed in 2006. It is a common policy for the European Union, Norway, Iceland and the Russian Federation, and has the involvement of a number of other participants and actors, with Canada and the USA as observers. The Northern Dimension is looking to expand its involvement in Arctic issues. And Many of the Northern Dimension's priority themes are complementary to those of the NPA Programme, e.g. partnership in areas such as environmental protection, public health and social well-being, energy efficiency and the use of renewable energy. However, it also has a specific focus on increasing cross-border and transnational cooperation with Russia, and on issues surrounding security and safety. One of the ambitions of the Programme has been to build stronger links with external partners from Canada and Russia. Given the strategic importance of the Arctic in these countries, cooperation on Arctic issues has become a catalyst to develop links with these countries. The NPA has sought to engage representatives from both countries throughout the programming process. In the case of Canada such links can also be extended to stimulate Atlantic cooperation with more southern Programme partners (e.g. Ireland, Northern Ireland and Scotland).

Implementing Arctic projects.

Although the draft OP sets out the inclusion of Arctic activities clearly, it is less explicit concerning some of the challenges the Programme may face in implementing this. Thus it is worth reflecting on some implementation challenges of the Arctic dimension and capabilities to address them. As part of the NPP preparatory project on Arctic developments, EPRC was involved in research in exploring opinions and attitudes towards Arctic activities in southern parts of the Programme (Scotland, Ireland and Northern Ireland). The report outlines several recommendations which are applicable to the wider Programme area (see Table 9).⁴⁶

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⁴⁴ Northern Dimension Steering Group (2010) Progress Report submitted to the Second Ministerial meeting of the Renewed Northern Dimension Policy, 2 November 2010, Oslo; Northern Dimension Steering Group (2013) Progress Report submitted to the Third Ministerial meeting of the Renewed Northern Dimension Policy, 18 February 2013, Brussels

⁴⁵ Project implementation is undertaken through partnerships, which exist for the following issues: environment (NDEP); public health and social wellbeing (NDPHS); culture (NDPC); and transport and logistics (NDPTL).

⁴⁶ van der Zwet, A et al. (2013) op. cit.

Table 9: NPA and the Arctic⁴⁷

Cooperation opportunities		
Developing capacity amongst partners.	 For example through: organising work group meetings in which partners and experts with a sectoral interest meet and scope out project ideas; providing seed funds for the development of partnerships and projects in relation to the Arctic (already available); facilitating partner searches; direct engagement in Arctic forums; identifying and utilising knowledge brokers on Arctic issues; and brokering projects. 	
Engaging private sector partners and partners from smaller organisations with an interest in Arctic development issues.	These organisations often lack the resources to use/develop/ exploit their knowledge, expertise and services to build the critical mass to become seriously involved in the Arctic. Their inclusion can be achieved by: • monitoring and engaging with existing private sector networks; • creating networks (supported by larger organisations) in which smaller organisations participate; • making use of project generation methods which lower risks and/or costs of applying; and • lowering administrative burdens for smaller organisations.	
Considering the dynamic nature of Arctic development, it is important that the NPA Programme has some capability which would allow the NPA to monitor relevant developments in the region and inform programme development and implementation.	Such capacity can be ad-hoc in the form of commissioned reports, resource within the secretariat, or can take the form of a more permanent body. A permanent body could perform the following tasks: • monitoring emerging strategies and analysing the impact they have on the NPA; • monitoring scientific research outputs in order to identify research findings which could form the basis of NPA projects; • bringing together partnerships (e.g project brokering); • organising conferences with academic, public and private sector stakeholders to actively engage in knowledge exchange; • drafting regular assessment reports to Programme partners; • managing a network of key Arctic stakeholders in the private and public sector; • facilitating cooperation with external partners (e.g. Russia and Canada); • drafting potential project proposals or project calls; and • engaging in capacity building activities.	

As has been discussed, the Programme has considered a variety of options in relation to its role in the Arctic. By considering the extremely complex policy environment and the Programme's own experience, strengths and opportunities, the NPA has developed a firmly and visibly embedded approach to the Arctic which fits well with existing approaches and is sensitive to the complex issues involved. Yet, the NPA still retains its relevance to all parts of the Programme area.

Looking to the future, continuing to monitor the policy environment in relation to the Arctic is important. The dynamic nature of Arctic issues means that the situation is likely to change dramatically over the next programme period and that new policies and strategies will emerge. Such developments require careful consideration throughout the life of the Programme in order to ensure maximum impact and policy relevance.

Bodø process

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⁴⁷ van der Zwet, A et al. (2013) op. cit.

During the Programme development process the Programme has taken an active role, , in what has become called the Bodø process, which aims to promote collaboration in the Arctic.

Two major international seminars were held in Bodø and Brussels were organised by during 2013 focusing on 'the Arctic Dimension as a new driver of international territorial cooperation'. The events were initiated and led by the Mission of Norway to the EU, the Norwegian Ministry of Local Government and Modernisation, and the North Norway European Office, as well as the Scottish Government.

The focus of the series of seminars was the increased significance of the Arctic and how the developments and changes in the Arctic Region can strengthen and contribute to regional development and cooperation through the strategic and collaborative use of different European Territorial Cooperation (ETC) and neighbourhood (ENI) programmes as well as other territorial cooperation frameworks such as the Northern Dimension partnership for transport and logistics, and the Barents Euro-Arctic Council. The seminars brought together senior officials involved in territorial cooperation from Norway, Scotland, Sweden, Finland, the Faroe Islands, Iceland, Greenland, Canada and Russia, as well as representatives from ETC and ENI programmes with Arctic interests, other frameworks for cooperation in the High North with a regional dimensions and representatives of the European Commission.

Debates during these conferences indicated the policy need and scope for greater regionally-based collaboration and cooperation on Arctic issues, continuing and building on the so-called 'Bodø Process'. More specifically, the Bodø Process identified a common interest among countries and programmes in establishing a territorial cooperation initiative for sustainable regional development in the Arctic to enable the sharing of information, knowledge and expertise between ETC, ENI programmes and other territorial cooperation frameworks on Arctic-related issues, and encourage capacity building. A concluding conference is planned for 10-11 June in Glasgow.

6.3.5 NPA and territorial cooperation programmes and frameworks

• The Programme has been developed alongside a wide range of territorial cooperation.

The Programme remains distinct in terms of its focus on remote and peripheral regions, but could better link with partner programmes.

A number of other territorial cooperation programmes overlap with the NPA Programme area (see Annex 5 and Annex 6). Programme priorities, geographies and resources will change between the current period and the 2014-2020 period. However, as an indication of the overall number of programmes and types of areas of intervention, the programmes currently in place have been reviewed.

European Territorial Cooperation.

There are three main cross-border programmes relevant to the NPA area in the Nordic countries, namely Nord, Botnia-Atlantica and Sverige-Norge (see Table 10 and Annex 5), as well as a programme for Northern Ireland, the Border Region of Ireland and Western Scotland. In addition to these programmes, ENPI Programmes cover Finland, Sweden, Norway and Russia can be included.

The main aim of cross-border cooperation (CBC) is to reduce the negative effects of borders as administrative, legal and physical barriers, to tackle common problems, and to identify and exploit unused potential. Cross-border cooperation deals with a wide range of issues, some of which are similar to those of the NPA. The 2007-2013 priorities for CBC programmes which overlap with the NPA provide a good indication of possible synergies (see Table 10). In addition, initial indications are that there is considerable continuity in terms of thematic selection for 2014-2020 programmes. Themes such as R&D and innovation, SME & entrepreneurship, environment, culture, and transport are likely to be continued. There may be more focus on employment/ labour market and energy issues in some programmes.

Table 10: Links and overlaps with the NPA⁴⁸

Programme	Objectives for 2007-2013 and 2014- ⁴⁹ 20	Links with NPA
Nord	Covers an area characterised by extremely sparsely populated regions. Supported activities are: trade and industry development, e.g. new products and services, networks, expansion of markets); R&D and education; regional functionality and identity, e.g solutions which facilitate exchange of information and transport options, cultural exchanges of experience and development of knowledge, and cooperation in services and infrastructure; the sub-programme SÁPMI – borderless development, e.g. networks to develop methodologies and products, joint research and/or educational circles, and the preservation of the Sami culture).	Some thematic links NPA draft Priority 1 covers innovation and Priority 2 covers entrepreneurship, but otherwise programmes target different activities.
	Research and innovation; Entrepreneurship; Culture and environment; Common market	Some thematic links NPA draft Priorities 1 and 2 have strong linkage. Otherwise, the programmes address different areas.
	 2007-13: Covers a mountainous and maritime area. Supported activities are.⁵² structures for cooperation, e.g. environment, transport, and cohesion; and growth through cooperation, e.g. know-how, business, and society. In addition, the following themes may be eligible: energy, culture, reuse of natural and cultural resources, and urban cooperation. 	Some thematic links NPA draft Priority 2 covers entrepreneurship and Priority 3 covers renewable energy issues. Otherwise, programmes target different activities.
Botnia-Atlantica	 2014-20: The forthcoming Programme will focus on four thematic objectives and four priorities: 53 TO 1 'Strengthening research, technological development and innovation'. Priority 1 – Innovation; TO 3 'To increase SME competitiveness of enterprises'. Priority 2 – Enterprise; TO 6 'Protecting the environment and promoting the sustainable use of resources'. Priority 3 – Environment; TO 7 'Promoting sustainable transport and removing bottlenecks to critical infrastructure networks'. Priority 4 – Transport. 	Some thematic links NPA draft Priority 1 covers innovation and Priority 2 covers entrepreneurship. NPA draft Priority 3 also has overlap. The Botnia-Atlantica focus on sustainable transport has no NPA parallel.
Sverige-Norge	2007-13: Covers populated coastal and capital regions, and rural and mountainous sparsely populated regions: Focuses on: ⁵⁴ • strengthening the innovation capacity and skills and competitiveness within industry and the community; • enhancing rural and urban development; and • increasing institutional and cultural cooperation.	Limited thematic links NPA draft Priority 1 covers innovation Otherwise, programmes target different activities.

⁴⁸ At the time of writing not all the programmes have ormally agreed their priorities for the 2014-2020 period. The proposed actions listed can therefore only be viewed as indicative.

⁴⁹ As programming for the 2014-20 period is ongoing, these are detailed on an indicative basis only, where information is available, and may be subject to change.

⁵⁰ INTERREG IVA Nord http://www.interregnord.com/en/about-the-programme/supported-activities.aspx

⁵¹ INTERREG IVA Nord < http://www.interregnord.com/en/about-the-programme/supported-activities.aspx>

⁵² INTERREG IVA Bothnia-Atlantica < http://www.interregnord.com/sv/nord-2014-2020/foerslag-till-operativt-program.aspx>

⁵³ INTERREG VA Bothnia-Atlantica (2014) Programme Proposal Version 2, http://www.botnia-atlantica.eu/files/4447Mx77.pdf

⁵⁴ INTERREG IVA, Sverige-Norge Programming Document, Interreg IVA, Sverige-Norge, 2007-2013

	2014-20: The forthcoming Sverige-Norge programme will have five priorities: 55 Strengthening research, technological development and innovation; Increasing small-and medium-sized companies' competitiveness; Protecting the environment and promoting sustainable use of resources; Promoting sustainable transport and removing bottlenecks in key network infrastructure; Promoting employment and labour mobility.	Some thematic links NPA draft Priorities 1, 2 and 3 have strong linkages and overlap. Otherwise programmes target different activities
	2007-13: Covers Western Scotland, Northern Ireland and the border region of Ireland. Emphasis on: a more prosperous and sustainable border region in areas such as enterprise, tourism, access to services and infrastructure.	NPA draft Priority 2 covers entrepreneurship. Could be an emerging Programme focus on alternative energy.
Northern Ireland, the Border Region of Ireland and Western Scotland	Research and Innovation: increase research and innovation capacity across the region within target sectors: Health and Life Sciences and Renewable Energies; increase the number of SMEs engaging in research and innovation activity. Environment: Recovery of habitat and species of EU concern within the eligible region; Achieve an integrated approach to marine management across the region; improve water quality across the region in accordance with the EU Water Framework Directives. Health: improve access to quality cross border healthcare services Local Regeneration: increase the skills base within local communities by creating cross border training and employment opportunities; reduce carbon emissions and energy consumption in cross border sustainability zones; contribute to local regeneration through improved local and regional cross border transport connectivity.	Thematic links in relation to research and innovation; environmental protection and sustainable communities. Programme focus on health services could have project relevant links to NPA activities in public sector innovation.

An additional point to highlight in relation to a number of the CBC programmes is the scope to liaise on issues in relation to the Arctic. Formal coordination is a complex issue and the focus of an evolving discussion. However, for ETC programmes operating in this area there may be scope for the productive exchange of information and knowledge. The NPA could have a key role here.

In addition to the CBC programmes, there are four additional transnational programmes covering parts of the NPA Programme area: North Sea, North West Europe, Baltic Sea and Atlantic Area (see Table 11). Of particular note are the themes covered by these programmes. At this stage, a formal comparison can only be carried out on the basis of the 2007-2013 priorities. However, emerging themes for the new programmes include: innovation, transport, resource efficiency/low carbon, environmental sustainability, and institutional capacity building. In addition to cross-border and transnational programmes, interregional cooperation works at a pan-European level, covering all EU Member States and non-EU countries/regions. Cooperation is aimed at building networks to develop good practice, and facilitating the exchange and transfer of experience.

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INTERREG VA, Sverige-Norge (2014) Programöversikt Interreg Sverige-Norge 2014-2020 http://www.interreg-sverige-norge.com/UserFiles/File/Interreg/Interreg%20V%202014-2020/Programoversikt_Interreg_Sverige_Norge.pdf

⁵⁶ SEUPB, (2014) Ireland, Northern Ireland, Western Scotland, INTERREG V, Feb. 19 Version.

Table 11: Links and overlaps with the NPA

Programme	Priorities for 2007-2013 and 2014-20 ⁵⁷	Links with NPA
North Sea	Innovation; Sustainable management of the environment, e.g. marine pollution, but also environmentally responsible energy production and climate change issues; Improving accessibility; Sustainable and competitive communities, e.g. service delivery, integration of immigrant labour, economic restructuring, efficient energy consumption).	Range of thematic links NPA Priority 1 promotes innovation and Priority 3 renewable energy and climate change. Accessibility is the only area which the NPA does not address. The NPA focus on remote/ peripheral communities is distinctive.
	 2014-20 priorities are:⁵⁹ Economic growth , e.g. promoting business innovation; Supporting the green economy, e.g. industrial transition, resource efficiency; Climate change and environmental sustainability, e.g. adaptation to climate change, promoting biodiversity; Sustainable transport and mobility. 	More limited links NPA Priorities 1 and 2 (innovation and entrepreneurship) have some overlap with the North Sea Region Programme economic growth priority. NPA Priority 3 has some relevance to aspects of North Sea Priorities 2 and 3 (e.g. resource efficiency). Sustainable transport and mobility will not be a core theme for the NPA 2014-20.
North West Europe	 Innovation, e.g. the promotion of entrepreneurship and facilitatation of innovation); Environment, e.g. innovative and sustainable approaches to natural resource management, risk management and risk prevention in the context of climate change; Accessibility, e.g. the optimisation of transport infrastructure capacity, innovative approaches for ICT; Sustainable urban development, e.g. improvements in environmental quality and the attractiveness of towns and cities, responding to the impacts of demographic change and migration, enhancing the economic and social performance of cities, towns and rural areas). 	Range of thematic links NPA Priorities 1 and 2 demonstrate strong links to NWE - innovation. Priorities 3 and 4 are linked to NWE - environment. Accessibility and sustainable urban development are the only areas which the NPA does not address. The NPA focus on remote/ peripheral communities is distinctive
	2014-20 priorities are: ⁶¹ Research and innovation; Promotion of a low carbon economy; Environment and energy efficiency.	Range of thematic links NPA Priority 1 supports innovation. NPA Priority 3 has some relevance to the promotion of a low carbon economy, and strong links to energy efficiency.

⁵⁷ As programming for the 2014-20 period is ongoing, these are detailed on an indicative basis only, where information is available, and may be subject to change.

DG Regio (2014) Operational Programme 'North Sea Region'
http://ec.europa.eu/regional_policy/country/prordn/details_new.cfm?gv_PAY=DK&gv_reg=ALL&gv_PGM=1275
http://ec.europa.eu/regional_policy/country/prordn/details_new.cfm?gv_PAY=DK&gv_reg=ALL&gv_PGM=1275
http://ec.europa.eu/regional_policy/country/prordn/details_new.cfm?gv_PAY=DK&gv_reg=ALL&gv_PGM=1275
http://ec.europa.eu/regional_policy/country/prordn/details_new.cfm?gv_PAY=DK&gv_reg=ALL&gv_PGM=1275
http://ec.europa.eu/regional_policy/country/prordn/details_new.cfm?gv_pay=1275
http://ec.europa.eu/regional_policy/country/prordn/details_new.cfm?gv_pay=1275
http://ec.eu/regional_policy/country/prordn/details_new.cfm?gv_pay=1275
http://ec.eu/regional_policy/country/prordn/details_new.cfm?gv_pay=1275
http://ec.eu/regional_policy/country/prordn/details_new.cfm?gv_pay=1275
http://ec.eu/regional_policy/country/pay=1275
http://ec.eu/regional_policy/country/pay=1275
http://ec.eu/region

⁵⁹ North Sea Region Programme (2014) Operational Programme, Second Final Draft, April 2014 version http://www.northsearegion.eu/files/2014_Public_Consultation/Draft_Operational_Programme_for_Public_Consultation.pdf

⁶⁰ DG Regio (2014) Operational Programme 'North West Europe (NWE)'
http://ec.europa.eu/regional_policy/country/prordn/details_new.cfm?gv_PAY=BE&gv_reg=ALL&gv_PGM=1267
http://ec.europa.eu/regional_policy/country/prordn/details_new.cfm?gv_PAY=BE&gv_reg=ALL&gv_PGM=1267

⁶¹ Based on the agreed thematic objectives as of April 2014. These are subject to change. NWE (2014) NWE 2014-2020 http://www.nweurope.eu/index.php?act=page&page_on=about&id=1576

	2007-13 priorities are: ⁶²			
	Innovation;	More limited links		
	 Internal and external accessibility, e.g. solutions in the fields of transport and ICT; 	NPA Priority 1 promotes innovation.		
	Management of the Baltic Sea as a common resource, e.g. environmental pollution;	Otherwise programmes target different activities.		
Dalkia Caa	Attractive and competitive cities and regions.			
Baltic Sea		Range of thematic links		
	2014-20 priorities are:Innovation;Natural resources;	NPA Priority 1 addresses innovation. Priority 3 has some overlap with natural resource management.		
	Transport Institutional capacity for macro-regional cooperation	Some lessons could be learned from measure to promote capacity building for cooperation.		
	2007-13 priorities are: ⁶³	More limited links		
	 Innovation (including knowledge economy); Environment (including maritime heritage); 	NPA Priority 1 promotes innovation.		
Atlantic Area	 Accessibility; Sustainable urban development (including interregional exchanges). 	Otherwise programme generally targets different activities.		
	2014-20 priorities are: ⁶⁴	Range of thematic links		
	Innovation and competitiveness;	NPA Priority 1 addresses innovation.		
	 Resource efficiency; Management of maritime and coastal areas; Natural and cultural heritage (i.e. enhancing the attractiveness thereof) 	NPA Priority 3 addresses the promotion of renewable energy and energy efficiency, and draft Priority 3 targets natural and cultural heritage.		

⁶² DG Regio (2014) Baltic Sea Region Programme 2007-2013

http://ec.europa.eu/regional_policy/country/prordn/details_new.cfm?gv_PAY=DK&gv_reg=ALL&gv_PGM=1293 &LAN=7&gv_per=2&gv_defL=7>

⁶³ DG Regio (2014) Operational Programme 'Atlantic Area'

http://ec.europa.eu/regional_policy/country/prordn/details_new.cfm?gv_PAY=ES&gv_reg=ALL&gv_PGM=1256 &LAN=7&gv_per=2&gv_defL=7>

⁶⁴ Atlantic Area Programme (2014) DRAFT Atlantic Area Transnational Cooperation Programme 2014-2020; Socio-economic and SWOT analysis and intervention logic; 18 March 2014

• Macro-regional strategies, Sea Basin Strategies and EGTC.

Reflecting an increased focus on place-based policy making and territorial cooperation during the 2007-2013 programme period, a number of new frameworks for territorial cooperation were established, including the European Grouping for Territorial Co-operation (EGTC)⁶⁵ and macroregional strategies.⁶⁶ The Common Provisions Regulation for the 2014-20 period states that the Common Strategic Framework and the Partnership Agreement should, where appropriate, take account of macro-regional strategies and sea basin strategies.⁶⁷ Given the overlap between existing and future macro-regions, sea basins and transnational programme areas, the EGTC regulation for the 2014-20 period foresees that transnational cooperation can support the development and implementation of macro-regional strategies and sea-basin programmes.⁶⁸ For example, the number of enterprises participating in cross-border, transnational or interregional research projects is one of the common output indicators established by the Commission for European Territorial Cooperation programmes.⁶⁹

Throughout the programming process the drafting team and the PPG, in cooperation with the ex ante evaluators, have monitored the development and progress of macro-regional strategies. Potential thematic links are identified in Table 12. Taking these proposals together with the experiences of the Baltic Sea Strategy, it would be useful for the NPA to identify and report on its links to existing macro-regional strategies and to consider making similar provisions for any relevant new strategies. Nevertheless, it is clear that transnational cooperation programmes should not be seen as a main funding source for a strategy. The Programme has to keep in mind its own goals, objectives and the specific needs of the Programme area. On a more practical level, programme bodies have recognised that efforts should be made to ensure that reporting and monitoring contributions to such strategies should not constitute a major administrative burden (which would then be passed on to projects), and that sufficient guidance is available.

 $^{^{65}}$ CEC (2006) Regulation (EC) No 1082/2006 of the European Parliament and of the Council of a European Grouping of territorial cooperation (EGTC), OJ L 210, 31.7.2006, p.19-24

⁶⁶ Samecki, P (2009) Macro-regional Strategies in the European Union, discussion paper presented by Commissioner Wawel Samecki in Stockholm, 18 September 2009

⁶⁷ CEC (2013d), op. cit., Article 11

⁶⁸ CEC (2013e) Regulation (EU) No 1302/2013 of the European Parliament and of the Council of 17 December 2013 amending Regulation (EC) No 1082/2006 on a European grouping of territorial cooperation (EGTC) as regards the clarification, simplification and improvement of the establishment and functioning of such groupings, Article 3a

⁶⁹ CEC (2013b) Regulation (EU) No. 1299/2013 of the European Parliament and of the Council of 17 December 2013 on specific provisions for the support from the European Regional Development Fund to the European territorial cooperation goal, Annex - Common Output Indicators For The European Territorial Cooperation Goal

⁷⁰ INTERACT (2013) Interact Annual Meeting 2013: Presentations http://www.interact-eu.net/downloads/7809/Presentation_Compilation_of_all_event_presentations_European_Commission_INTERACT_.pdf

Table 12: Macro regional and sea-basin strategies and examples of NPA contribution

Regiona	Strategies	Examples of NPA contribution		
North Sea Region Strategy*	No formal EU macro-regional strategy for the North Sea Region has been agreed. The North Sea Commission has drafted a North Sea Region 2020 strategy which includes five priorities: • managing maritime space; • increasing accessibility and clean transport; • tackling climate change; • attractive and sustainable communities; and • promoting innovation and excellence – as a horizontal priority.	Should the strategy emerge, the NPA could contribute through e.g. Priority 4 focusing on: the development and transfer of e.g. expertise in climate change impact; the development and transfer of tools and solutions to help deal with sustainable environmental management.		
Baltic sea strategy ⁷¹	The EUSBSR is the first macro-regional strategy covering several community policy areas. It provides an integrated approach to identifying needs and solutions, and matching them to available objectives. The NPA area overlaps with some of the Baltic Sea Strategy programme area. The strategy addresses four challenges: 1. to increase sustainable environment; 2. to enhance the region's prosperity; 3. to increase accessibility and attractiveness; and 4. to ensure safety and security in the region	NPA could contribute through e.g. Priority 1 focusing on: innovation to diversify the key traditional sectors' product/service portfolio; and through Priority 4 focusing on: the development and transfer of tools and solutions to help deal with sustainable environmental management.		
Arctic Strategy*72	The NPA area overlaps significantly with the Arctic. Although no Arctic strategy has been formulated, efforts are being made to develop an EU policy for the Arctic. The Commission and the High Representative are proposing to focus further development of the EU's policy towards the Arctic on three key areas: 1. supporting research and channelling knowledge to address the challenges of environmental and climate changes in the Arctic; 2. acting with responsibility to contribute to ensuring that economic development in the Arctic is based on the sustainable use of resources and environmental expertise; and 3. intensifying its constructive engagement and dialogue with Arctic States, indigenous peoples and other partners.	The NPA is in an extremely strong position to make a strategic and practical contribution to this emerging strategy. The NPA should be more than a 'tool' to implement the strategy, but could be in a position to inform the development of the Strategy itself. However, given the strategic and political sensitivities involved, care should be taken to maintain the distinct profile and role of the NPA.		
Atlantic Ocean Area Maritime strategy	The NPA is also adjacent to and overlaps with the Atlantic Ocean Area Maritime Strategy. The high-level priorities for this strategy are: • implementing the ecosystem approach; • reducing Europe's carbon footprint by accessing the regions' renewable potential; • sustainable exploitation of the Atlantic seafloor's natural resources; • responding to threats and emergencies; and • socially inclusive growth.	The NPA could contribute through e.g. Priority 4 focusing on e.g.: the development and transfer of tools and solutions to help deal with sustainable environmental management.		

Source: Adapted from EPRC (2012) Ongoing Evaluation of the 2007-2013 Northern Periphery Programme, EPRC: Glasgow

* The North Sea Strategy and Arctic strategy are early proposals/ideas rather than fully shaped proposals or strategies.

CEC (2009) European Union Strategy for the Baltic Sea Region, COM (2009), 248 final, CEC: Brussels
 CEC (2012c) Developing a European Union Policy Towards the Arctic Region: Progress since 2008 and next steps, CEC: Brussels

• External strategies and policies non-EU Territorial Cooperation.

A key resource for the Programme is the long-standing experience gained from cooperation between partners across the area. Of particular note is the fact that partner regions have a tradition of cooperation and partnership which pre-dates and goes beyond their involvement in EU programmes. This means that in addition to EU strategies, there are several external strategies that are relevant for the Northern Periphery and Arctic Programme area. As EPRC's ongoing evaluation of the 2007-2013 Programme has explored, these strategies converge on several broad themes and are of varying relevance to NPA partners, see Table 13.

Table 13: External Organisations and Cooperation Arrangements

NPA links	Key Characteristics	NPA links
Nordic Council and Nordic Council of Ministers	The Nordic Council and the Nordic Council of Ministers are well established, wide-ranging regional partnerships. The Nordic Council was formally founded in February 1953 and is an interparliamentary body gathering of 87 MPs from national parliaments (Denmark, Finland, Iceland, Norway, Sweden) and the devolved parliaments in the three autonomous territories (Faroe Islands, Greenland, Åland Islands). The Nordic Council of Ministers is the intergovernmental forum aimed at cooperation within the region. Over time, the work of the Council of Ministers has gradually expanded and intensified, with regular ministerial meetings.	Through funding of NORA and sectoral agencies - active in a wide range of related activities.
Arctic Council	The Arctic Council is also an inter-governmental forum. It aims to promote cooperation and coordination between its member states, namely Canada, Denmark (including Greenland and the Faroe Islands), Finland, Iceland, Norway, Russian Federation, Sweden, and the United States of America.	Of particular importance in terms of developing Arctic links.
NORA	The participants of the Nordic Atlantic Cooperation (NORA) are the Faroe Islands, Greenland, Iceland and the west coast of Norway. NORA's overall aim is to contribute to strengthening collaboration within the region in order to make the North Atlantic a powerful Nordic region characterised by strong, sustainable economic development	Based on strong geographic, institutional and thematic ties. Productive links between NORA and the NPA are already strong and can be further strengthened.
Barents	Participants include Finland, Norway, Sweden, Russia and the European Commission. There is a strong focus on ties with Russia and is often largely state (as opposed to regionally/locally) driven.	The new Barents declaration could be an opportunity for the NPA to increase the Programme's visibility.
NSPA	The network for Northern Sparsely Populated Areas (NSPA) is a collaboration between regions which share many characteristics; the three northernmost counties of Sweden, the seven northernmost and eastern regions of Finland, and of northern Norway.	There is a lack of clarity on the future role of the NPA in relation to the NSPA. To move forward would require action on the part of NSPA, not just the NPA.

The thematic links across these cooperation arrangements are clear. However, also important are the resources which they can/cannot bring. In terms of financial resources, the Nordic Council, Nordic Council of Ministers and Arctic Council are responsible for taking major funding decisions. Of the other forms of cooperation listed, NORA is the only one which has its 'own resources' (from the Nordic Council of Ministers) with which to support projects/project partners.

Near neighbours.

The NPA Member States have numerous strategies covering external engagement with neighbouring regions and countries. Of particular strategic importance are links to neighbouring regions of Russia and Canada. As well as taking into account cooperation within the Programme area, the NPA is already working to engage with these strategic partners by:

- · engaging in bilateral meetings;
- developing new contacts; and
- attending events involving strategic partners and regions.
- Russia Further engagement with Russia is of great strategic importance to several NPA Member States. Additionally, there is a broad array of issues which could be addressed through territorial cooperation, including the promotion of small and medium enterprises, business and trade, transport, technology, research, tourism, environmental protection, renewable energy, and culture and the protection of historical heritage. For the Northern regions of Russia, and for central government, the management of Arctic regions is also a significant priority. In terms of NPA links, opportunities are especially relevant to a number of northern Russian federal subjects, among them Murmansk Oblast, the Republic of Karelia, Arkhangelsk Oblast and the Nenets Autonomous Okrug. Despite practical challenges, numerous productive project partnerships have successfully been established. The NPA has its own experience of a number of projects with Russian partners (see Annex 7). These are based mainly on knowledge exchange and have involved study trips. In addition, the Northern Dimension and the Barents Sea Cooperation have a strong focus on engagement with Russian partners. Regions within the NPA area already have well developed links with neighboring territories in Russia. Finnish regions enjoy strong links, most notably through CBC programmes (see Annex 8). Similarly, Norway has recently strengthened its ties with neighbouring Russian regions.
- Canada Links across maritime borders are very much part of the NPA. In conjunction with the increased prominence of the Arctic and Atlantic, this suggests that the NPA is also considering its links to the west; specifically, provinces in Atlantic and northern Canada. The current strong political focus on the Arctic and the Atlantic strategies means that there is an increased opportunity to further Atlantic cooperation, as well as Arctic interests. Large areas of Canada experience the challenges of remoteness, peripherality and insularity, as do many regions of the NPA. However, the Atlantic Provinces, including Newfoundland and Labrador, Nova Scotia, Prince Edward Island, New Brunswick and the northern territory of Nunavat share the greatest geographic ties with NPA regions, through their Atlantic/Arctic ties and interests. Cooperative arrangements already exist across a wide range of relevant issues and on a variety of levels (see Annex 9). The current strong political focus on the Arctic and the Atlantic strategies means that there is an increasing opportunity to not only seek closer engagement through Arctic challenges and strategies, but also to combine this with further Atlantic cooperation.

Through working with external partners (e.g. through their involvement in the PPG) the Programme is taking steps to benefit from, and to further extend, links. Looking to the future, such links could increase the Programme's reach and influence, stimulate more strategic partnerships and 'grow'

projects. Links can be most effectively developed, explored and exploited on a case-by-case basis. The NPA as a whole can also represent partners as a group. A related consideration is that the NPA, as a proactive and experienced organisation offering a facilitation/brokerage role between partners and external organisations, could ease the process of cooperation for individual organisations, especially during its initial stages.

6.4 Overview

From a strategic point of view the NPA has the potential to fit well within existing policies and strategic frameworks. As has been illustrated, there is a good fit between well-established areas of NPA activity, EU 2020 and the Cohesion policy regulations. There is a thematic overlap in a number of areas of existing NPA activity. In terms of domestic policy, an ongoing focus on transnationality and remote and peripheral regions would keep the Programme distinct from domestic policy interventions. Equally, there is considerable scope to emphasise and capitalise on areas of compatibility including: support for innovation; competitive SMEs; building a low carbon economy; aspects of welfare and well-being; and sustainable communities. A number of countries in the NPA area attach particular importance to territorial cooperation and engaging with new territorial cooperation arrangements, such as the Arctic Strategy and macro regional strategies. Similarly from an EU perspective, the scope for the NPA to engage in the Arctic is of strategic importance. By exploiting the potential for complementarities between other territorial cooperation programmes, problems with overlap can be avoided and added value can be created. The distinctive focus of the NPA, e.g. on remote and peripheral areas, means that shared programme elements, such as innovation, environment, and community have the potential to be complementary and a basis for synergy. The Programme also has close ties with external partners and has practical experience in making these types of arrangement work. By continuing to advance such links, the NPA could position itself as an innovator and a benchmark of best practice for other Programmes to follow.

Yet, as well as seeking synergies and complementarities, the NPA also needs to ensure its own distinct rationale and identity are clear. In comparison with the strategies, frameworks and policies outlined, the NPA has clear and distinctive strengths in terms of:

- peripherality,
- geography (a unique combination of partner regions), and
- ERDF interventions with a community/human angle (see Figure 19).

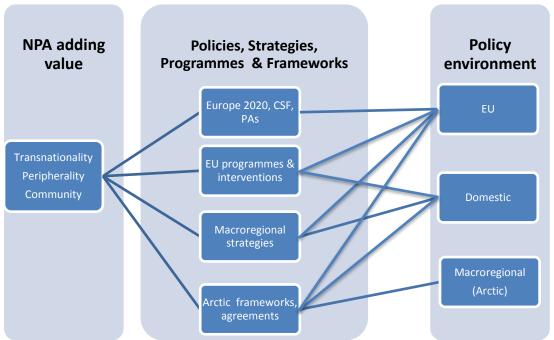


Figure 19: Key areas for NPA to add value and links

The external coherence of the Programme will continue to evolve. Areas for further consideration and potential refinement are as follows.

- The OP could state more explicitly where the Programme priority axes are coherent, where synergies occur, and could emphasise where the transnational character of the programme will enable it to add value and innovate. This could potentially be achieved through providing tables summarising key links.
- The Programme could consider structures and processes to monitor the external policy environment, particularly in relation to the Arctic. For example, it could make it part of the ongoing evaluation, have dedicated staff to monitor the external policy environment, or it could support a wider coordination and monitoring mechanism.
- The sheer number of 'other' policies, frameworks and programmes to engage with and the
 relatively small scale of the NPA mean that the Programme will have to be selective in its
 focus. In making decisions on where to focus efforts, a key factor will have to be what will
 maximise the programme's results.

7. INTERVENTION LOGIC AND RESULTS

7.1 Context

In this programming period the European Commission has placed particular emphasis on programmes effectiveness in relation to achieving the overall objectives set out in Europe 2020. This means a stronger focus on evaluation, and in particular on evaluation of programme results and impact. This, in turn, means that the demands on what is termed intervention logic are higher in this period than they have been in previous periods. The Commission has outlined what this means for programming in a series of guideline documents.⁷³ In order to become more effective, programmes must particularly consider how they interpret and form their intervention logic, i.e. the theory of how programmes may affect the conditions which enable the achievement of Europe 2020 goals.

In relation to the concept of intervention logic, programmes are required to contain a limited number of indicators with targets which must be achieved by the end of the funding period.⁷⁴ The European Commission's proposals on indicators and their application to transnational territorial cooperation has been the subject of debate and some uncertainty. Overall, it is recognised that the requirements are more difficult for ETC programmes than for other ERDF programmes. Nevertheless, the same requirements apply.

Crucially the indicators must take into account the emphasis on delivering change. Change can be defined as the desired shift in status of a selected variable. The specific objectives of the Programme should be formulated in order to capture this change. The overall ambition is that the change the Programme focuses on must relate to conditions in the programme area, tackled by the programme. This change should, if objectives are relevant and realistic, be within the scope of the Programme's influence. However, the Programme is most likely not to be *the only* process which will influence the results. Establishing useful indicators for territorial cooperation programmes is a challenge. In the 2007–2013 period several difficulties in relation to indicators can be identified across the INTERREG programmes:

- a lack of understanding of the relevance of indicators among beneficiaries;
- definitional problems;
- indicators which are used in a 'tick box' manner and have little relation to project results;
- a lack of data availability;
- projects which have 'soft' results not easily captured by numeric indicators;
- project specific indicators which are not used to their full potential; and
- targets which are set low, in order to ensure they are achieved.

In the 2014-2020 period the NPA Programme, and other territorial cooperation programmes, face a significant challenge in addressing existing issues and meeting the new criteria for the indicator frameworks.

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⁷³ .CEC (2012d) Monitoring and Evaluation of Cohesion Policy: Guidance Document on Ex ante Evaluation, June 2012, DG Regio; Brussels

⁷⁴ CEC (2005) Working Paper on Ex Ante Evaluation; The New Programming Period, 2007-2013, Methodological Working Papers, CEC: Brussels, p. 11.

7.2 Evolution of the intervention logic and indicators

Throughout the process of developing indicators, the ex ante evaluation team was closely involved in supporting the work of the drafting team and PPG. As set out in section 1, the intervention logic is something this is considered at all stages of the programme development process. However, it is especially relevant when considering indicator frameworks.

Throughout the development of the indicator frameworks the evaluation team highlighted the following issues:

- Validity: Does the indicator actually measure the result?
- Reliability: Is the indicator a consistent measure over time?
- Sensitivity: When the result changes, will the indicator be sensitive to those changes?
- Simplicity: How easy will it be to collect and analyse the data?
- *Usefulness:* Will the information be useful for Programme management (decision making, learning, and adjustment)?
- Affordability: Can the Programme/investment afford to collect the information?⁷⁵

The evaluation team has worked with the drafting team in order to help to develop a framework of indicators which meets these criteria, and reflects the overall intervention logic, priorities and objectives of the Programme. Discussions and input focussed on:

- suitable results indicators which are both representative of the whole area and which measure factors that the programme can influence;
- approaches to, and methodologies for, capturing change;
- evaluation tools which are appropriate to the scale of Programme resources, but also take into account the large and diverse Programme area;
- the exact wording and interpretation of indicators;
- how to rationalise and refine the number of indicators;
- · clarifying the relationship to the intervention logic; and
- the extent to which 'awareness raising' should be a focus for the Programme result indicators.

This final point was one of the most debated issues, the ex ante team expressed some concern that the concept of awareness risks shifting the strategic focus of the specific objectives and even the Programme away from its strong focus on tangible outputs and results and towards targeting policy influence. The focus on awareness of opportunities and solutions could be viewed as too defensive and too vague. However, it is one of the few ways that the Programme can see to deliver measurable programme-level results.

In addition to specific comments on the Programme indicators proposed, the ex ante team provided a number of inputs to help inform the work, which included notes, additional Skype meetings on indicators, and inputs into correspondence with the Commission.

⁷⁵ Government of Canada (2014) Results-Based Management Tools at CIDA: A How-to Guide http://www.acdicida.nsf/eng/nat-92213444-n2h

7.3 Ex ante assessment

Part of the ex ante evaluation of the Programme is to verify the 'appropriateness' of the structure and hierarchy of the objectives and the indicators identified by the Programme, by considering:

- whether there are clear causal links between the proposed Programme outputs, results and impacts; and
- the manageability and usefulness of the indicator system.

In doing this the ex ante also provides comments on the overall intervention logic of the Programme, priority axes and specific objectives.

In considering this element of the OP, key questions addressed include: how can a programme with a vast geographic area and comparatively small budget expect to deliver and demonstrate 'programme-level results', how can indicator frameworks be kept proportional to the scale of the Programme, how can the 'softer' Programme results best be captured? These questions have been key for the ex ante evaluation along with assessing:

- Relevance The indicators are relevant if they reflect the operations and objectives of the priority axes.
- *Clarity* The indicators should be clear and measure the progress of the operation and priorities, with a clear title and as unequivocal and easy to understand definition. ⁷⁶

7.3.1 NPA indicators and intervention logic

- (i) Results indicators
- The Programme has an increasingly refined, principled and pragmatic set of results indicators, in line with intervention logic.

A main purpose of the intervention logic is to relate inputs in terms of supported actions to targeted outputs and to results. Results indicators should be precise and relevant to the specific objectives. They must not be broader in scope than the specific objectives. Although they may be narrower than the specific objective, neither should they become too narrow. As was explained in relation to the intervention logic, identifying results indicators for territorial cooperation programmes is particularly challenging because programmes are small, programme areas are vast, and the added value of transnationality is not always easily translated into measurable results indicators.

According to European Commission guidance and guidelines, results indicators should:

- capture the change intended to be produced by the Programme;
- have a baseline value and target value in qualitative or quantitative terms;

⁷⁶ *Ibid.*, p. 10-12.

- present ideally one result indicator per specific objective;
- relate to the whole target 'population' i.e. the programme area, a geographical part of the programme area, or an industry or sector within the programme area – not just beneficiaries; and
- make use of evaluations to assess the contribution of the Programme relative to other factors.

A number of these requirements proved particularly difficult, notably:

- the need to relate change to the to the entire target population (or programme area);
- · the need to establish baselines; and
- developing 'qualitative' indicators.

Taking into account points raised and the challenges faced, an assessment of the results indicators can be summarised as follows overall all of the indicators have:

- developed considerably over the drafting period;
- present the recommended one indicator, which covers a key intended change;
- taken into account Commission guidance on result indicators and the practicalities of transnational territorial cooperation; and
- been set in line with the intervention logics of the Programme.

More specific points on each of the indicators are provided below.

Priority Axis 1: For the Specific objectives 1.1. and 1.2 the proposed results indicator is set out in the OP is as follows:

Priority Axis 1 - INNOVATION							
ID	Indicator	Measureme	Baseline	Baseline	Target	Source of	Frequency
(Specific		nt unit	value	year	value	data	of reporting
Objective)					(2023)		
1.1	Degree of transnational collaborations between SMEs and R & D	Perceived degree of transnation al collaboratio ns between SMEs and R&D	(TBD)	2014	Increase in perceived degree of SMEs involved with R&D	Survey/ questionn aire Regional statistics/ Eurostat	Bi-annually
1.2	Awareness of technology driven public service provision in remote and sparsely populated areas	Awareness scale	(TBD)	2014	Increased awareness scale	Survey/ questionn aire	Bi-annually

• For specific objective 1.1 the results indicator – 'Degree of transnational collaborations between SMEs and R&D' – is a good reflection of the changes sought by the intervention.

The selection of this indicator represents a clear awareness of the challenges in finding a relevant measure by using publicly available statistics. Hence the suggestion to measure perceived degrees of transnational collaborations represents a well-balanced 'second best'. There are of course matters to be dealt with, such as designing questionnaires and finding the right target groups for surveys or panels. However the ex ante evaluation team agree that regional statistics cannot be used to meet this indicator.

• For specific objective 1.2 the results indicator – 'Awareness of technology driven public service provision...' – is potentially somewhat less clear, and also narrow in relation to the needs identified in the analysis. By using a similar logic to specific objective 1.1., 'the use of technology driven public service provision...' was potentially a better choice. Measurement can be dealt with in the same way as proposed for specific objective 1.1.

Priority Axis 2: For specific objectives 2.1 and 2.2 the following results indicators have been established.

Priority Axis 2 - ENTREPRENEURSHIP							
ID	Indicator	Measureme	Baseline	Baseline	Target	Source of	Frequency
(Specific		nt unit	value	year	value	data	of reporting
Objective)					(2023)		
2.1	Entrepreneurial	Entreprene	TBD	2014		Survey/	Bi-annually
	business climate	urship			Improveme	questionn	
	in remote and	climate			nt in	aire	
	sparsely	barometer			business		
	populated areas				climate		
2.2	Awareness of	Awareness	TBD	2014	Increased	Survey/	Bi-annually
	business	scale			awareness	questionn	
	opportunities				scale	aire	
	beyond local						
	markets						

- The suggested results indicator for specific objective 2.1 'Entrepreneurial business climate in remote and sparsely populated areas' –is a good reflection of the changes sought by the intervention. The selection of this indicator represents a clear awareness of the challenges in finding a relevant measure by using publicly available statistics. As with a number of other indictors the specification 'in remote and sparsely populated areas' is included, which reflects the focus of the specific objective. However, it is recognised that is could potentially raise a question over the status of such areas, whether they are defined, and if the subsequent consequence is that projects would only address such areas. This issue can be addressed in an explanatory note on the indicator.
- For specific objective 2.2., the indicator selected represents a well designed compromise and that its measurement, both as baseline and for result and impact evaluation, needs further work (already planned).

Priority Axis 3: For specific objective 3 the proposed indicator framework is as set out below:

Priority Axis	Priority Axis 3 – RENEWABLES AND ENERGY EFFICIENCY						
ID	Indicator	Measureme	Baseline	Baseline	Target	Source of	Frequency
(Specific		nt unit	value	year	value	data	of reporting
Objective)					(2023)		
3	Awareness of energy efficiency opportunities and renewable solutions in housing sector and public infrastructures in remote and sparsely populated areas	Awareness scale	TBD	2014	Increased awareness scale	Survey/ questionn aire	Bi-annually

• This result indicator is intended to measure progress in relation to the increased use of energy efficiency and renewable energy solutions. As previously noted, the ex ante team has expressed some concern that the concept of awareness risks shifting the focus of the specific objective. With this in mind, the indicator could be formulated more precisely, e.g. 'Increased /../ energy efficiency and / implementation of / renewable solutions in the housing sector and public infrastructure in remote and sparsely populated areas.' Such an indicator may make use of a scale or index indicating the actual energy efficiency and use of renewable energy solutions. If such adjustment is made, this results indicator would be closely in line with the change sought and supported actions.⁷⁷

Priority Axis 4: For specific objective 4 the proposed indicator framework is as set out below:

Priority Axis	Priority Axis 4 – PROTECTING, DEVELOPING AND PROMOTING NATURAL AND CULTURAL HERITAGE							
ID	Indicator	Measureme	Baseline	Baseline	Target	Source of	Frequenc	
(Specific		nt unit	value	year	value	data	y of	
Objective)					(2023)		reporting	
4	Preparedness of responsible authorities for sustainable environmental management in remote and sparsely populated areas	Preparedne ss scale	TBD	2014	Increased of preparedne ss scale	Survey/q uestionna ire	Bi- annually	

• This indicator broadly reflects the focus of the intervention. The indicator is intended to measure increased *capacity* to cope with major change. However, the wording of the specific objective may be directly used in the indicator. Changing from 'capacity' to 'preparedness' has the potential to make this indicator less clear. The *capacity* to cope could feasibly be measured by according to a scale or index, indicating the actual capacity.

(ii) Output indicators

• The Programme indicator frameworks include realistic, relevant and clear output indicators.

⁷⁷ However, it may also be possible to establish this indicator in a different manner. Since one of the suggested output indicators is a decrease in energy consumption, it should be considered whether not an exact indicator reflecting lower energy consumption in the area can be used.

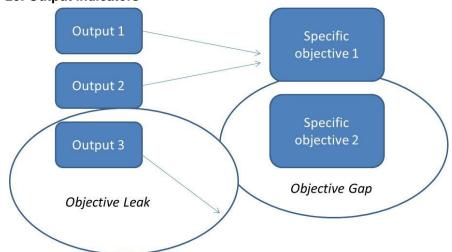
Output indicators are intended to capture progress made in Programme implementation. According to European Commission guidelines and guidance, output indicators:

- must reflect the direct activities (goods and services) of the priority (what resources are being spent on, e.g. adoption/application of low energy building materials);
- can be programme specific, but common indicators must be used, and where relevant can have baselines of zero;
- relate to the most frequently implemented actions;
- need to move beyond numbers of projects and numbers of solutions; and
- have milestones and targets which are unambiguous and realistic.

Separating outputs from results can a difficult issue. In theory, outputs are more closely (directly) related to the activities in the Programme, whilst results represent the changes which the Programme aims to realise. So in terms of the Programme intervention logic, there is a need to show that the outputs being produced by Programme activities influence the specific objectives. No meaningful results will be produced unless the outputs actually influence the specific objectives.

In the context of developing indicators, it is important to avoid situations where there is an 'an objective leak', i.e. when there are output indicators which exceed or miss the specific objective (see Figure 20). The Programme must also to be careful that specific objects are chosen which have no irrelevant output indicators - an objective gap.

Figure 20: Output indicators



Overall, the output indicators set are in line with the intervention logic of the Programme and fit well with the specific objectives and proposed results. However, a number of points are raised in relation to the direct relationship between some of the output indicators and the specific objectives/results. It may be possible to further refine and reduce the number of output indicators. However, it is also acknowledged that some output indicators may be of value to the Programme's own assessments of progress, which are not necessarily linked to data required by the European Commission. The fact that output indicators are only required to be set at the level of priority axes, as opposed to specific objective can make their analysis even more complex.

Throughout the drafting process the ex ante team have made detained comments on output indicators. The currently proposed output indicators have:

- developed considerably over the drafting period;
- taken into account Commission guidance on output;
- involve common indicators in a selective considered matter and only where relevant to the specific objective;
- involve programme-specific indicators to capture the key aspects of the interventions; and
- been set in line with the intervention logics of the Programme.

However, the following points may still be worth considering:

- In some instances it may be possible to further reduce the number of output indicators, e.g. in relation to the common indicators.
- In some cases the wording on the indicator could be interpreted as somewhat vague and
 potentially are difficult to operationalise, e.g. 'number of capacity building solutions to
 maintain the balance between competing environmental, economic and social interests' for
 Priority Axis 4.
- Potential overlap is also an issue worth considering, e.g. is there sufficient difference between number of capacity building solutions to maintain the balance between competing environmental, economic and social interests and new decision making tools or governance concepts..., under Priority Axis 4.

7.4 Generating data

As the indicators were developed, an important consideration has been how to generate data. As noted in the draft OP text, the scope to rely on official "statistical data of change at the Programme level is limited. Therefore, assessments are expected to rely on qualitative research approaches and tools such as surveys and questionnaires. It is also important to note that, in line with the principle of proportionality, the scale of the surveys, questionnaires and analyses are expected be in proportion to the resources of the Programme and the geographical area they have to cover." ⁷⁸

Data generation and gathering will mainly involve data gathered from the Programme partner countries, projects, peer review processes, and focus groups made up of key stakeholders.

As the OP states, "This information will provide a basis for an effective evaluation of the Programme's impact. Where possible, data will be 'triangulated' in order to strengthen its reliability. For example, survey results could be compared with any available quantitative data. In addition, surveys will be carried out according to the same methodology as for the establishment of baseline values and target values to increase the validity of the change measured."⁷⁹

Work to set baselines and monitor progress will further refine and develop key aspects of this methodology, which can also be used to monitor and capture progress and results. In selecting this approach a wide range of options were considered and the benefits and challenges involved were

⁷⁸ NPA (2013) Draft Operational Programme, October 2013, p. 58

⁷⁹ Ibid.

assessed. There are two main approaches to considering Programme results: by focusing programme area change; or by focusing change within those taking part.

- The programme area change approach allows the NPA Programme to actually focus precisely on the specific objective that it wishes to change. However, the main drawback is that most changes in the entire Programme area will be dependent on processes other than Programme intervention. The larger the Programme area is and the smaller the Programme is, the more likely it will be that a results indicator drawing on general progress in the Programme area will capture practically no change caused by the Programme itself.⁸⁰
- Selecting an indicator focusing on the change occurring in those taking part is more likely to capture changes linked to the Programme. The data stemming from such indicators may then be reformulated into projected changes in the Programme area. However, the main challenge in using such information is the tendency for those interviewed to boost results. Therefore, this method may be combined with a method comparing those taking part with those not taking part.

There are also different methods to develop the necessary data:

- · official (or non-official) statistics;
- surveys; and
- expert groups.

Official statistics are often considered to be reliable and accurate. There are however other sources which also produce statistics, e.g. within-project monitoring. As with all statistics, numbers do not capture everything, especially when working with comparative data from different regions and different nations. Furthermore, there are often time-lags involved in using statistical data, meaning that data may not be up to date.

Surveys may substitute for official statistics. Surveys are flexible and they can, in principle, produce data in a manner and format which is suited to Programme needs. Surveys may be carried out at a time which suits the Programme. However, surveys can be expensive, particularly if large samples are required. Surveys may also receive low response rates. In addition, given the scale and scope of the Programme, not all respondents can be expected to be equally well informed, e.g. about the attitudes in a region, or of a specific topic. Both official statistics and surveys in this sense are used to capture actual changes in the programme area, by gathering data regarding the area or parts of it.

An alternative, or supplement, to surveys is the use of expert groups. Expert groups can be used in a similar manner to surveys. Expert groups may be preferable when it is hard to identify a survey 'population' (target group for a survey). Expert groups may also be used when the topic is particularly complex. In many instances, an expert group may be more cost efficient than a survey. However, there are also drawbacks. It may be difficult to find experts who are well informed, but are not involved in the process. To assess results, it would be difficult to repeat the expert group-based assessment after a long period (such as seven years). The statements of a small expert panel will also inevitably

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⁸⁰ However, it is noted that for example in S.O. 1.2, 2,1, 3 and 4 there is a limitation implied in the suggested result indicators limiting the desired change to "sparsely populated/remote areas". If what is meant by this is clearly defined it will make it easier to identify and for respondent to answer to questionnaires/or for the expert panel to have an informed opinion.

be more imprecise, and the reliability of the method may be put to question, especially if the Programme is developing quantitative measures such as an index or a scale.

Based on this assessment, it is recognised that there are significant limits to the use of statistical data for measuring the results of the Programme. The decision was therefore taken to rely on qualitative research methods, such as indices/scales intended to be populated through surveys or expert panels.

It was highlighted by the evaluation team that strategies for collecting data for baselines and for progress should be clarified at the start of the Programme (in order to measure baselines). An important aspect of this is that the measurement techniques for both baseline and progress, whether they are surveys or expert interviews, should be as similar as possible. The use of control groups is mentioned in the OP. The discussion here, however, is not very clear and it is the view of the ex ante team that the use of control groups may not be relevant, given the outlined set of indicators.

If the programme selects the type of results indicators indicated in the OP, data for establishing a baseline, and also and for finding out the result at later stages needs to be collected manually. This can in principle be achieved via questionnaire, or through the use of an expert panel to be interviewed individually or in a group. The data gathered through such methods may be quantitative (e.g. '35% ranked the business climate at top level') or more qualitative (e.g. 'the vast majority of interviewees...'). In the case of the NPA Programme, the ex ante team suggest that:

- the data gathered could made quantitative i.e. by creating scales or indices from the collected responses;
- the method of collecting data (techniques and interviewees) should be the same for both baselines and for measuring progress;
- the individuals interviewed or questioned should not be those with vested interests in the Programme; and
- preferably, the analysis is carried out by independent experts.

Work to establish result baselines will be undertaken within a year of the Programme being approved.

7.5 Milestones, Targets and Performance Framework

Establishing appropriate, realistic yet ambitious milestones, targets and performance indicators is a challenging task. In a number of cases it has not been possible to set values for the selected indicators, for example for output indicators all baselines are set at zero. Baselines for the Programme's result indicators will be set following a dedicated review of conditions in the programme area. In both cases, the ex ante team are in full agreement with the decision.

Where values and targets have been set the figures draw on past Programme experience, discussion with the ex ante team and PPG, and informed judgements about the likely character, scope, scale, and number of projects supported. On this basis the overall conclusion of the ex ante assessment is that:

 Milestones are realistic, based on reasonable assumptions about the budget and number of projects, and take into account the proposed spread of funding across the priorities and the results targeted,

- Output milestones reflect the Programme's commitment to developing and delivering tangible products and services and engagement with enterprise, particularly SMEs and microenterprises.
- The Programme has a good history of strong commitment, high disbursement rates, and successful projects. On this basis the Programme's financial milestones are considered to be achievable (the second N+3 target met and approximately 60% of funding allocated by 2018; an approximate 100% allocation of Programme funding by 2020; and all claims paid by 2023).
- Implementation milestones also take into account past experience in terms of the number of project applications and number and type of project calls.

Quantified baseline and target values

As has been noted, baselines for output indicators have been set at zero, which is in line with Commission guidance on the issue. Baselines for result indicators will be set according to a rigorous methodology. This methodology can be replicated to measure progress towards programme targets. It is anticipated that as part of the process of setting baseline values the issue of setting target values for results can also be addressed.

Where target values are set, most notably in terms of the output indicators. Based on past experiences, the resources allocated and an indication of future project interest (via preparatory projects and stakeholder events), the indicators set are realistic.

• Performance Framework

As stated in the 2013 guidance fiche 'Performance Framework Review and Reserve'⁸¹ the performance framework is a tool to help achieve a results orientation for the Programme. Milestones and targets are defined for each priority. The achievement of milestones will be reviewed in 2019 and in 2023. According to Annex II of the Common Provisions Regulation, milestones and targets shall be:

- realistic, achievable, relevant, [and] capturing essential information on the progress of a priority;
- consistent with the nature and character of the specific objectives of the priority;
- transparent, with objectively verifiable targets and the source data identified and, where possible, publicly available;
- verifiable, without imposing a disproportionate administrative burden; and
- consistent across the programmes, where appropriate.

Based on these criteria, the performance framework set out in the OP document is:

- based on a sound assessment of the likely progress of the Programme, its outputs and results;
- covers relevant aspects of Programme implementation and progress, without being overly burdensome and including excessive indicators and measures. For example, account was taken of Commission feedback to reduce the number of indicators in implementation steps;

⁸¹ CEC (2014) Guidance fiche; Performance framework review and reserve in 2014-2020, Version 6, 4 March 2014 http://ec.europa.eu/fisheries/reform/emff/doc/09-performance-framework_en.pdf

- output milestones set focus on the core elements of the interventions, and the Programme, i.e. delivering products and services, and are realistic, especially given the slightly delayed anticipated start of the Programme.
- At the time of writing financial milestones were yet to be established, but were to be in line with N+3 approved allocation.
- Implementation milestones are in line with past experience.

Reliable data for all the elements of the framework will be readily available in implementation reports and project progress reports.

7.6 Working with the indicator frameworks

A number of the more operational aspects of working with Programme indicators are covered in section 7.5 of this ex ante evaluation report, e.g. the adequacy of monitoring systems, requirements to provide supporting/explanatory material and support to project stakeholders etc. However, a number of additional points to consider are as follows.

Definitions

For the purposes of the OP text, the indicators set are clear and their relation to the overall intervention logic, specific objectives and priority axes is strong. However, for organisations working with the indicators, it will be vital to provide detailed explanations of the precise meaning and interpretation of many of the indicators and terms used is important, e.g. what exactly constitutes 'awareness' or 'preparedness'. It is noted that for a number of programmes this has been carried out in advance of OP submission. The extent to which very detailed additional texts justifying and describing indicators are required as part of OP submissions has been somewhat unclear. For the NPA much of the detailed work on specific methodological issues, such as how exactly to establish preparedness scales' will be carried out in advance of, or in conjunction with, work to establish result baselines.

The output indicators proposed are generally clear and easily interpreted. An issue that could potentially cause difficulties is what exactly constitutes products and services. However, the Programme has already worked with stakeholders to define what exactly is meant by 'products and services' in the context of the Programme. A similar clarification may be useful on what exactly constitutes innovative models/solutions, as innovation can be interpreted quite widely. However, this can be covered in supporting material provided to projects.

Reporting

The programme is proposing quite high reporting frequencies, especially on result indicators. This could potentially be reduced, as levels of change on the proposed result indicators will not be easily detectable over short timescales.

7.7 Overview

The ex ante team has a considerable understanding of the challenges involved in producing good output and results indicators for the Programme. The aim in developing the indicator and performance frameworks has been to balance rigour and realism. In general, the indicator structure has been well

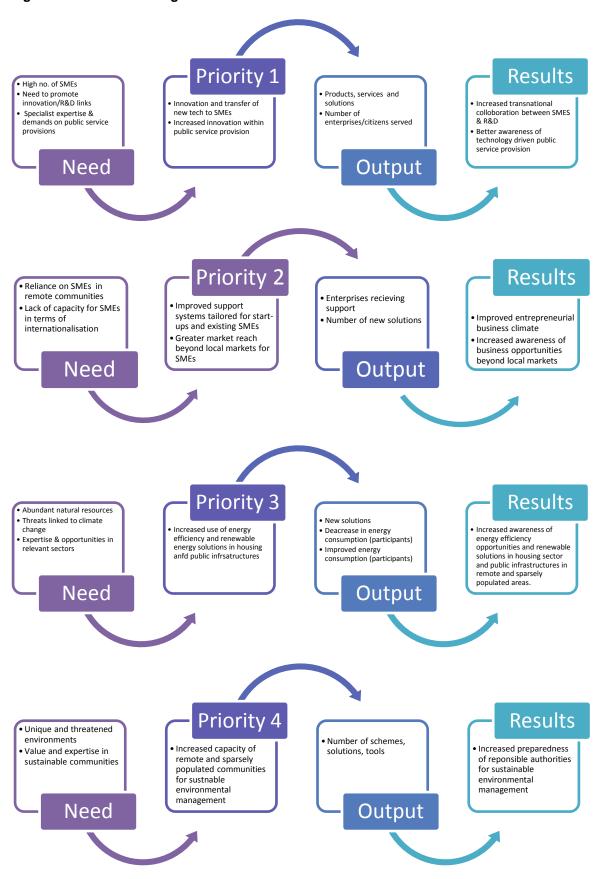
progressed during the preparation work, which has resulted in a pragmatic and principled framework of indicators.

The decision to identify results indicators which are close to the specific objectives, even though no data are available, is considered by the ex ante team to be a good approach. Monitoring and evaluation will be dependent on qualitative research, as using pre-existing quantitative data can not provide relevant indicators for the Programme. There is only one case – energy efficiency – in which the Programme could be encouraged to explore whether not a quantitative results indicator would be possible. It is also recognised that there will be considerable work to set baselines for the results indicators following Programme submission.

Overall, the output indicators set are in line with the intervention logic of the Programme and fit well with the specific objectives and proposed results. As has been noted, where values and targets have been set the figures draw on past Programme experience, discussion with the ex ante team and PPG, and informed judgements about the likely character, scope, scale, and number of projects supported. The evaluation team are supportive of the methodology proposed for generating and monitoring indicator data and have made a number of specific recommendations on the proposed methodology. e.g. on methodological approaches and definitions of key terms.

The establishment of rational, well-reasoned output and result indicators also means that the Programme establishes the final links in its intervention logics, as illustrated (in a simplified form) in Figure 21.

Figure 21: Intervention logics



8. DELIVERING RESULTS

8.1 Context

This section of the ex ante evaluation assesses the implementing provisions proposed for managing, monitoring and evaluating the NPA Programme. All programmes must include detail on implementation provisions, including a description of the key institutions involved in their management and implementation, and details of a range of operational issues such as arrangements for monitoring and evaluation, data management, accounting, monitoring and financial reporting, financial flows, publicity and information and the partnership principle. The regulations for the management and implementation of transnational cooperation programmes are set out in the EU provisions for the support from the ERDF to the European Territorial Development Goal.

8.2 Evolution of management and administrative systems

The Programme established a dedicated drafting team to work on the management and implementation elements of the Programme. Their work has drawn on:

- the EU regulations, draft and final guidance notes and fiches;
- internal and evaluation assessments of past and current NPP management and implementation frameworks and approaches;⁸²
- general evaluations and assessments of ETC management and implementation;
- targeted, in-depth assessments and feasibility studies of key elements of the management and implementation process, such as monitoring systems;
- · consultation with stakeholders and partners on key themes; and
- ex ante evaluation briefing notes on the management and implementation of the NPA programme, and on engagement with SMEs.

In addition, the PPG group has engaged in detailed discussion and debate on the development of the systems and structures for the 2014-2020 NPA Programme.

One of the key challenges for the Programme will be to deliver tangible outputs and results in an effective and accountable manner. The European Commission is placing considerable emphasis on delivery and national and regional governments are increasingly concerned with demonstrating value for money. The current NPP has already gone a long way towards delivering tangible results and outputs and has developed effective, transparent management and implementation systems. However, in a changing policy and institutional environment it is useful to consider how to maximise the beneficial outputs and results from the Programme and the projects it funds, and how Programme management and implementation systems can best support this.

In addition to comments on the Programme text, the ex ante team provided a number of inputs to help inform the work of the drafting team and Programme Preparation Group. Briefing notes on programme management and implementation, engagement with SME and private sector partners and the impact of the results focus on implementation were prepared.

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⁸² Notably: Assmundson, M (2011) The ongoing evaluation of the Northern Periphery Programme – simplification measures for the benefit of projects, County Administrative Board of Västerbotten; McMaster, I. *et. al.* (2012) Ongoing Evaluation of the Northern Periphery Programme, Final report to the Managing Authority of the 2007-2013 NPP, EPRC.

8.3 Ex ante assessment

As well as assessing compliance with the required elements of the OP template the ex ante evaluation has considered the role of management and implementation in delivering Programme results.

- Institutional issues Establishment of appropriate institutional structures and frameworks?
- Operational issues Are appropriate plans in place for:
 - o project generation;
 - o partner engagement;
 - o project selection;
 - o project delivery; and
 - o monitoring and evaluation.

8.3.1 NPA management and implementation: institutional issues

• The Programme sets out a detailed account of appropriate implementation provisions.

The implementation system for the 2007-13 NPP is broadly compatible with new requirements and as previously noted, views on the operation of these structures were broadly favourable. As a result, this basic structure will be largely retained. The Programme sets out a detailed account of the proposed implementation provisions.

- A Monitoring Committee will be established to supervise the Programme to ensure the quality and effectiveness of the implementation and accountability of the operations.
- A Management Group will support and assist the Monitoring Committee, Managing Authority
 and the Joint Secretariat in carrying out their tasks, especially those relating to the
 administration of ERDF funds, and will facilitate contacts and the flow of information between
 Programme partners.
- The County Administration of Västerbotten in Sweden is re-designated as Managing Authority for the Programme.
- The Audit Authority is the *Ekonomistyrningsverket* in Sweden.
- The Joint Secretariat will assist the Managing Authority, Programme Monitoring Committee, and Audit Authority in carrying out their respective duties. It will also provide information to potential beneficiaries about funding opportunities and shall assist in the implementation of operations.
- At the regional level, Regional Contact Points (RCP) and Regional Advisory Groups (RAG) will be retained as the 'regional representatives' within the organisational structure. The RCPs will assist the Joint Secretariat with information, promotion and advisory tasks. The RCPs will also provide technical support to the RAGs in assessing project applications within the framework established by the Monitoring Committee.

Some key issues which have been considered in the lead-up to the establishment of Programme structures and frameworks relate to additional roles and responsibilities. For example, evaluation papers have noted a number of additional inputs that could be made by, in particular, the Joint Secretariat, RCPs and RAGs. These include roles in liaising and updating Programme information on

potential synergies with other programmes, developing links to Arctic partner organisations, and feeding into the strategic management of the Programme through gap analyses and more regular RCP contact.

These tasks are in addition to the already considerable inputs that all these institutions will make towards the successful implementation of the Programme, and the notable challenges involved in launching a new Programme. In order to keep any additional functions in proportion, it would be useful for the Programme to consider these at an early stage, which will allow each institution to enter into the new Programme with a clear overview of its role.

• Participation and partnership.

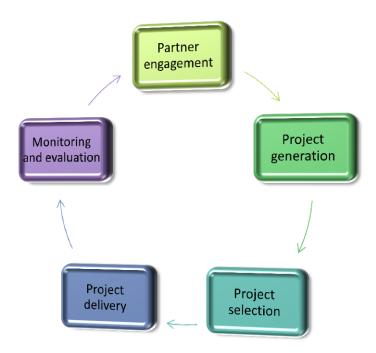
Partnership is a cross-cutting theme which is reflected throughout the Programme and applied at all levels of implementation. The Programme engages in a direct and explicit of form of partnership working through RAGs, which will assist the PMC in assessing project applications. The proposed composition of the PMC also provides scope for the participation of a range of actors. In addition to the Programme partners, representatives of a range of authorities, including environmental authorities, may be invited to participate in meetings. The Programme also retains a strong regional dimension. Based on past experience, it is probable that for a Programme covering such a large geographical area, RCPs and RAGs will provide valuable assistance to the secretariat and PMC in fulfilling their roles. They will also continue to provide an important, direct link to the regional level and vice versa, which will continue to increase the visibility of the Programme and offer an important channel for local and regional feedback, potentially increasing the responsiveness and delivery of the Programme.

8.4 NPA management and implementation: Operational issues

• The draft OP is setting out robust plans for: project generation; partner engagement; project selection; project delivery; and monitoring and evaluation.

In terms of operational issues, the Programme is being built on solid operational foundations. Amongst the operational details for the programme, the draft OP sets out robust plans for the 'programme cycle' of strategic management and implementation (see Figure 22).

Figure 22: Programme cycle of strategic management and implementation



The proposals set out in the OP text commonly draw upon past approaches. The ex ante evaluation has noted that the current NPP is widely regarded as effectively and efficiently managed and implemented. Despite the fact that there are potentially 'easier' funding sources and other more prioritised programmes in the NPA partner countries, the NPP is viewed to have a number of positive traits which imply that there will be strong future commitment from potential NPA partners.

Box 4: Partner views on potential NPA benefits

NPA benefits

- Good history of cooperation and Nordic connection. Besides the tradition of cooperation, the NPP
 appeals also to non-Nordic members because of their recognised experience in themes such as
 innovation and environment.
- **Support by NPP authorities.** This includes support provided by the Regional Contact Points (RCPs), Regional Advisory Groups (RAGs), and the Secretariat (JTS).
- **Distinct focus.** Despite its small size, the NPP enjoys a relatively high public profile (at least within the participating regions) due to its specific focus on peripherality, rurality and insularity, which clearly distinguish it from many other territorial cooperation initiatives. The NPP also takes a distinct people-focus to its activities by addressing the day-to-day life and livelihood of people.
- **Programme with impact.** The NPP's focus on products and services is seen as producing more impact than is the case with many other programmes.
- Access to and knowledge of new methodologies and processes and technologies. This can be
 particularly important for the more remote parts of the NPP area (e.g. Iceland) where the NPP provides
 a necessary link to such international networks and knowledge transfer.
- Creation of new links. The NPP has supported the creation of new links which have been weak in the past, such as the east-west connection between the northern parts of Norway, Sweden and Finland. Similarly, the expansion of the NPP area has linked together parts of the north with the Atlantic which

are facing similar challenges.

- Access for a wide range of actors. Despite being perceived as a challenge, many are of the opinion
 that the NPP is beneficial in terms of attracting smaller actors (local actors) who are normally unable to
 take part in transnational programmes due to limited capacities or financial resources. In other
 instances, the NPP's success has been down to attracting more experienced actors than is the case in
 many other EU or domestic initiatives. Also given the wider NPP area, the scope of actors has
 increased in the current period.
- International and domestic profile. The NPP is perceived to provide an essential link for the non-EU members (and those seeking to enhance their 'country' status, such as Scotland) to pursue profile and prestige as well as enhancing their relations with the EU (e.g. Greenland).
- **Simple in comparison to other INTERREG programmes.** Although the NPP is sometimes viewed as bureaucratic, this is often in relation to domestic initiatives. For instance, partners in Sweden, Finland and Northern Ireland view the NPP as a relatively simple programme when it comes to the application processes, at least in comparison to many other EU-funded territorial cooperation programmes. The use of a common language (English) has also been mentioned as an advantage.

Source: EPRC (2012) Ongoing Evaluation of the 2007-2013 Northern Periphery Programme, EPRC: Glasgow

However, the ex ante evaluation also recognised that Programme management and implementation systems must continue to evolve and improve in order to maximise the beneficial outputs and results from the Programme and respond to new challenges. It was also noted that the pressure to deliver tangible outputs and results amplifies the pressure at all levels of the Programme management, and within implementation processes.

With this in mind, the Programme has taken action concerning various management and implementation issues, most importantly to those related to the requirements on simplification and harmonisation and, in line with its results orientation, monitoring and evaluation systems and arrangements.

Monitoring and evaluation.

Recognising shortcomings and challenges in the monitoring system in place for the 2007-13 NPP and the additional requirements for programme and project monitoring in 2014-20, a detailed assessment of various options for the development and delivery of monitoring systems was undertaken. This assessment took into account new 'E-Cohesion' requirements, which are intended to reduce the administrative burden upon beneficiaries and programmes, most notably the requirement to move to 'paperless systems'.⁸³ For the NPA, a detailed feasibility study of four IT solutions was undertaken. For each solution, strengths and weaknesses were assessed, along with estimated costs. This analysis provided a robust base for moving towards the selection of a system to adopt.

The Programme has also started to set out plans for its evaluation system/approach. The evaluation notes the productive approach that the current programme has taken to evaluations:

- undertaking the evaluations early enough to allow the Programme scope to address issues during the programme period;
- using evaluations to consider the impacts of large-scale changes during the Programme period, such as the economic crisis; and
- using evaluations to adopt a forward-looking perspective on strategic issues of interest for the future, as well as to identify operational lessons/issues.

⁸³ CEC (2013a) op. cit., Article 112(3)

• Simplification and harmonisation

The Programme has also responded to various Commission requirements, evaluation input and feedback and stakeholder inputs with respect to the issues of simplification and harmonisation, which have been at the heart of the planning process of the NPA's management and implementation system. A number of actions have been planned as a result and are set out in the OP (see Box 5).

Box 5: Simplification and harmonisation actions

Planned simplification and harmonisation actions include:

- a review of information and communication measures, e.g. with a more integrated website and targeted training seminars;
- streamlining and harmonising implementation tools;
- E-cohesion tools, e.g. communication platform that will allow exchange of information and implementation of a core database;
- simplification of some procedures and rules (e.g. possible flat rate for overheads); and
- lean management throughout the implementation process.⁸⁴

To support Programme efforts to achieve simplification and maximise efficiency and effectiveness, an evaluation briefing note on management and implementation was prepared by the evaluation team (April 2013). The note highlights the need for simplification (where possible) and a strategic focus to be a part of all programming phases, including project generation, partnership engagement and project selection, delivery and reporting. An accompanying note prepared by the evaluation team (February 2014) focused on the more practical issues faced by the Programme in relation to the management, implementation and operation of projects in 2014-20 programme period. Figure 23 provides an overview of the main recommendations set out in these notes.

⁸⁴ NPA (2013) Draft Operational Programme, October 2013, p. 58-59

Figure 23: Programme delivery - ex ante recommendations

Partner

engagement

- Continue to carefully consider the impact of an Arctic dimension in the Programme on existing partners .
- Ensure wider range of project partners and consider the role of SMEs in the Programme (observer status, business associations, new generation procedures, higher intervention rates).
- Set expectations for lead partners by providing a 'job description'.
- Continue using interactive website and social media to improve access.

Project generation /

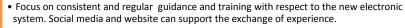
- Consider different project calls (thematic, products, services, small projects, RCP/RAG generated calls).
- Provide clear and user-focussed guidance and training (e.g. on results-focus).
- Consider making preparatory projects more results-focussed.
- · Continue developing webinars and chat sessions.
- Ensure that staff are trained and guided appropriately to provide feedback to project ideas in a constructive, consistent and clear manner.

Project assessment / selection

- Consider streamlined application forms (two-step, flexible procedure).
- Ensure efficiency in project approval process (e.g. a letter of intent after PMC decision; allow projects which have been approved 'with conditions' to start with first milestones).
- Review the role of RAGs including offering reimbursement in order to improve their quality (subject to Commission approval).
- Make decisions by PMC more transparent project leads could present their proposal through Skype or video conference.

Project delivery

- Enhance links with project beneficiaries (involving not just monitoring but also constructive advice), and divide labour between the Secretariat and the RCPs.
- Appoint experienced mentors to guide new lead partners.
- Focus seminars on specific issues.
- Simplify and speed up payment of claims procedures the MA needs to work with relevant institutions (e.g. FLC) to develop better adapted processing procedures. In addition, better coordination and timing between the Secretariat and the MA could speed up the payments.



- \bullet Review resources in line with the increased monitoring and reporting requirements.
- Consider a consistent approach to solve interpretation differences (e.g. database).
- Detailed checks by Secretariat on first progress reports can prevent common mistakes.
- Consider long term impact of project (ex-post evaluation).
- Use qualitative reflections to convey the 'softer' impact of projects.

Project reporting

It is recognised that the Programme already has strong plans and approaches for effective management and implementation, which meet the requirements set out in EU guidance and guidelines. As a result the recommendations set out by the evaluation team should be considered as 'additional' tasks and points that would be worth considering for the Programme as it moves towards implementation. In particular, the following points are highlighted as priorities to be noted.

Project and partner generation

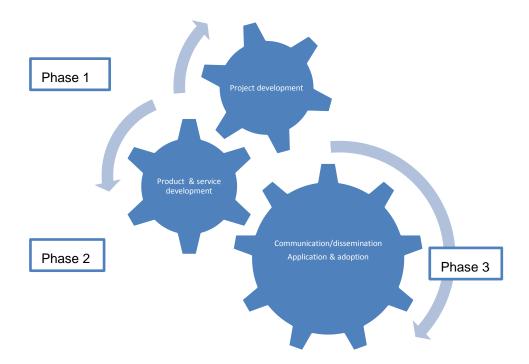
- Due to the high profile given to SMEs in the Programme, it is necessary to take early action to engage relevant SME groups and look at exactly how they can be involved in projects. Annex 10 illustrates actions which could be introduced to encourage private sector participation throughout the project cycle.
- Clear and focussed guidance and training for project partners (particularly covering the results focus and what it means for projects), new on-line systems, and reporting requirements are recommended. Lead partners are clearly a key target group for this training. The Programme has already taken practical steps towards making sure that such issues are addressed through testing out the application form using a selection of preparatory projects and ongoing lead partners, as well as internally by the Secretariat. This testing will provide a more concrete indication of the type of guidance and training needed. Lead partners are clearly a key target group. However, it is also worth ensuring that key messages reach all projects partners.

Project types

In 2014-20 there is an increased focus on generating good quality projects that deliver results. Therefore it would be useful for the Programme to agree the expectations for preparatory projects at an early stage, and (if retained) the Programme's approach to cluster projects.

- Preparatory projects have been popular, and it may be worthwhile considering
 whether they could be made more results focussed and more challenging, i.e. in
 addition to the existing criteria a requirement to develop the project's contribution to
 outputs and results could be embedded in the process.
- Clustering projects around key themes is a potential means of maximising and improving Programme results. This would almost add a stage to the project life cycle from development through to products and service development and delivery through to communication, dissemination, growth (through application and adoption). During this final phase the Programme could offer support and advice to help projects reach key strategic audiences, such as policy makers (see Figure 24).

Figure 24: Project lifecycle



Applications

• The NPA has already committed to having a simple application form, in terms of the depth of information required. This is anticipated to facilitate project monitoring and well as the assessment of applications. Furthermore, a number of programmes are now adopting two-step applications (although they do not have the preparatory projects option and may not in all cases have such direct contact with projects during the project development stage). The Programme should consider whether a two-step application would contribute to developing good quality projects, at an early stage.

Project selection

- In the assessment and selection stage, the capacity of the projects to deliver results
 will be a key consideration. Hence, all individuals involved in the various stages
 working up to formal project selection must have a clear, shared understanding of
 what the Programme means by 'results'. This needs to be kept consistent throughout
 the life of the Programme.
- Coordination of policy instruments is another new task which adds another dimension to the 2014-20 programme period. There is a need for coherence of interventions, in that all interventions should harmoniously fit into one coherent policy framework. Therefore, in addition to the well established project selection criteria, it would be useful for the Programme to consider how issues such as scope for synergies with

other programmes/ policies will be taken into account and what 'weighting' it will/will not have.

Project support/monitoring

- The quality and reliability of data is linked to the development of a new monitoring system. Closer monitoring and help by the Secretariat and the Managing Authority will be needed to collect the necessary information. This is particularly the case if private beneficiaries become more involved, as it will have implications on checks that the Managing Authority needs to perform (e.g. state aid), and more generally for project support and other measures.
- It is now even more important to identify any problems arising in projects as soon as possible. Formal monitoring and reporting requirements are already very considerable. Additional mechanical follow-ups may not add much value. It will be key to build on the Programme's already strong and open relations with projects and, in particular between desk officers and lead partners. The aim would be to develop existing routines and correspondence, therefore building confidence and open communications.
- It is important that there is a consistent approach by the Programme to possible
 differences in interpretation (e.g. a database, where the appropriate programme body
 provides clarification and this decision is logged), particularly where there is
 disagreement or ambiguity about the interpretation of an indicator, or another
 programme aspect. It is also necessary for the Secretariat to carry out detailed
 checks of intial project progress reports, to prevent common mistakes and to improve
 the future quality of reporting.

Roles and responsibilities

 Evaluation papers have noted a number of additional inputs that could be made by the Secretariat, RCPs and RAGs in particular. In order to keep any additional functions in proportion, it would be useful for the Programme to consider these at an early stage, which would allow each institution to enter into the new Programme with a clear overview of its role.

Payment of claims

• The Programme is aware of this issue and is taking steps to address it. In particular, it would be valuable if the Managing Authority was able to work with relevant institutions (e.g. the FLCs) to develop better adapted processing procedures, to ensure the most efficient treatment of claims, while still ensuring rigour. In addition, better coordination and timing of the processes carried out by the secretariat and the Managing Authority respectively might also speed up payments.

Communications plan

- Overall, the Programme is widely valued and is recognised in relation to the distinctive issues which it aims to address. Yet, although the Programme has a strong regional profile, from a national perspective it has more limited visibility due to its peripheral nature, as well as the fact that it has a relatively small budget. At the national level, it is often the larger programmes that have more political priority attached to them (e.g. the Baltic Sea Region programme in Sweden and Finland, and the North Sea Programme in Norway). Other forms of cooperation programmes (particularly domestic initiatives) may be less complex and, as a result, may be more attractive. On this basis, it is important that the NPA refreshes and reviews its communication strategy.
- The Programme's results focus, emphasis on awareness/adoption of products and services, and scope to engage with external programmes and partners mean that effective, strategic communications at both Programme and project level will be crucial in the 2014-2020 period. It is recommended that the Programme carefully considers its communications strategy and ways to support projects in developing their own approaches to this issue.

8.5 Overview

The proposed management and implementation structures and systems for the 2014-2020 NPA Programme build on the effective administrative structures and procedures established in the 2007-programme, and reflect the experience of the programming authorities. They also take into account new regulatory requirements (setting out a structure that is in line with the General, ERDF and ETC regulations).

The roles and responsibilities of key institutions, such as the Managing Authority, Joint Programme Secretariat, Audit Authority and Programme Monitoring Committee are clearly set out in Section 6 of the draft OP document. In addition, the roles of RCPs, RAGS and the Programme Management group are detailed. As well as fulfilling the basic requirements of the regulations, the organisational structure of the Programme has distinctive elements, and aims to give all NPA partner countries an opportunity to participate in the promotion and implementation of the Programme. In terms of the capacities of the key institutions, the current level of service now being provided is high, but a risk could be that it leaves little scope for taking on additional demands, such as monitoring and engaging with other forms of territorial cooperation and development in the Arctic.

Partnership is a cross-cutting theme that should be reflected throughout the Programme and applied at all levels of implementation. The Programme retains a strong regional dimension. As previously noted, the role of RCPs and RAGs were highlighted during the development of the Programme. RCPs and RAGs provide valuable assistance to the secretariat and the PMC in fulfilling their roles. They also provide an important, direct link to the regional level (and vice versa), which can increase the visibility of the Programme and offer an important channel for local and regional feedback, potentially increasing the responsiveness and delivery of the Programme.

At the time of writing a number of points of detail are still to be formally agreed. However, on the basis of the available information, the ex ante evaluation concludes that the proposed implementation systems are appropriate to deliver the objectives of the Programme. In developing the operational

systems for the NPA, the approaches do draw on past approaches. Yet, simplification and harmonisation have been at the heart of the planning process and a number of actions have been planned as a result, and are set out in the OP. However, it must also be acknowledged that transnational territorial cooperation programmes remain inherently complex to administer and that the support provided to beneficiaries should remain sensitive to this, and that processes should be evaluated and monitored on an ongoing basis.

Exame Evaluation of the Northern Feliphery and Arctic Frogramme 2014-2020
PART 3 – STRATEGIC ENVIRONMENTAL ASSESSMENT REPORT

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 Ex Ante Evaluation of the Northern Periphery and Arctic Programme 2014-2020

Part 3 – Strategic Environmental Assessment Report

9. SEA - INTRODUCTION

9.1 Objective

The objective of this strategic environmental assessment (SEA) is to compile an environmental report that improves the environmental dimension of the INTERREG Northern Periphery and Arctic Programme for the 2014-2020 period.

In the context of programme preparation, SEA represents a tool for greening plans and programmes and for improving their overall logic, consistency and effectiveness. The purpose of the SEA is to secure positive environmental impact through constructive participation in the programming process.

The findings of the SEA are not binding on an authority, but they allow scope to create targeted environmental impact. This means going beyond conventional environmental protection to secure environmental gain, defined as the attainment of environmental benefit as a direct or indirect result of economic development activity. In such a scenario, positive environmental impact is envisaged as a result of environmental integration, with development programmes enhancing the environment through innovative measures.

This report has been prepared in accordance with Directive 2001/42/EC on the assessment of the effects of certain plans and programmes on the environment, which describes its objective as:

'to provide for a high level of protection of the environment and to contribute to the integration of environmental considerations into the preparation and adoption of plans with a view to promoting sustainable development' (Article 1).

Article 2 of the Directive defines relevant plans and programmes as including those co-financed by the European Community, and which are likely to have significant environmental effects. Article 3 specifies that an environmental assessment should be carried out for plans and programmes related to activities in agriculture, forestry, fisheries, energy, industry, waste management, water management, telecommunications, tourism, town and country planning or land use, and which set the framework for development consent of projects listed in Annexes I and II to Directive 85/337/EEC (environmental impact assessment), or which, in the view of the likely effect on sites, have been determined to require an assessment pursuant to Article 6 or 7 of Directive 92/43/EEC (habitats). Projects are defined as construction works or other installations and schemes, and other interventions in natural surroundings and landscape, including those involving the extraction of mineral resources. Criteria for such projects emanating from the programme and steering development consents could comprise limits on the type of activity which is permitted, or conditions to be met by an applicant if permission is granted, or the preservation of certain characteristics of the area concerned.

As the Northern Periphery and Arctic Programme 2014-2020 encompasses and addresses a number of these activities, and has the potential to deliver or support projects that could produce significant (positive and negative) environmental effects, it fulfils the Directive screening criteria for being subject to strategic environmental assessment.

⁸⁵ Article 1(2) of the EIA Directive.

The main steps of the SEA process comprise preparation of an environmental report, consultations with environmental authorities and the public, incorporation of the results of the consultations into decision-making, provision of information on the decision, and suggesting indicators for monitoring the effects of the programme during its implementation. The environmental report identifies likely significant effects of the programme on the environment, taking into account the programme's objectives and the consideration of alternatives, the contents and level of detail of the programme, the stage in the decision-making process, and the extent to which certain matters are more appropriately discussed at different levels in order to avoid duplication.

The SEA Directive states that the environmental authorities must be consulted with regard to the scope and level of detail of the information to be included in the environmental report, contributing to the definition of the content of the report and the fields to be covered. For the Northern Periphery and Arctic Programme, these consultations took place as part of the compilation of the country-specific environmental baseline and trend information from which an Environment SWOT was derived and Strategic Environmental Issues subsequently identified. These issues were then utilised within the structure of the strategic environmental assessment of the NPA programme. A note on how the feedback from the consultations with the public and environmental authorities was incorporated is included in Annex 11.

9.2 Key Facts

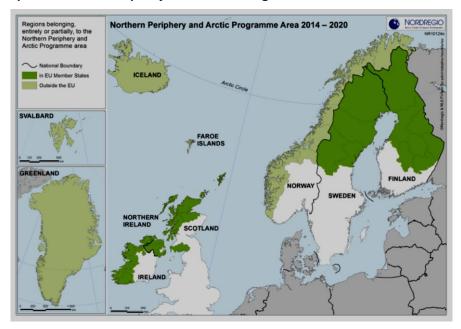
Information on the Northern Periphery and Arctic Programme for 2014-2020 is presented in Table 14. These key facts identify the programme boundaries, explain the programme rationale, and specify a contact point where further information can be obtained. The programme's extensive territorial coverage is illustrated in Figure 25.

Table 14: Northern Periphery and Arctic Programme Key Facts

Managing Authority:	Västerbotten County Administrative Board, Umeå, Sweden.	
Programme Title:	Northern Periphery and Arctic Programme 2014-2020, European Territorial Cooperation INTERREG V	
Programme Rationale	By fostering cooperation between relevant stakeholders across the programme area, the NPA will open the horizon towards the rest of the world, and the cooperation will help to compensate for the lack of critical mass that characterises many public and private activities within the programme area. An overall strategy will overcome the area's complex and integrated development challenges by supporting local and regional economies to utilise the opportunities within the NPA area. Working on a transnational cooperative basis, the NPA programme will complement nationally focused policies and programmes to foster smart, sustainable and inclusive growth.	
Programme Duration:	The programme will run for seven years from 2014 until 2020.	
Programme Area:	Amongst the EU Member States, the programme area covers Northern and Eastern Finland, Western Ireland, Northern Ireland (excluding the larger Belfast region), Northern Sweden, and the Highlands and Islands and Dumfries and Galloway in Scotland. Amongst non-member countries, Greenland, Iceland, the Faroe Islands and Northern and Western Norway and Svalbard are eligible to compete in the programme.	
Contact Point:	Kirsti Mijnhijmer, Programme Manager for Information & Communication, Northern Periphery and Arctic Programme Secretariat, Strandgade 91, 4.sal, DK-1401 Copenhagen K, Denmark. Tel:+45 3283 3784	

Email: kirsti.mijnhijmer@northernperiphery.eu
Website: http://www.northernperiphery.eu

Figure 25: Map of Northern Periphery and Arctic Programme Area



9.3 Programme Context

To set the Strategic Environmental Assessment of the NPA 2014-2020 in context, it is important to consider the scale, scope and position of the programme, as well as the role of EU territorial cooperation more generally.

Territorial cooperation has been implemented through the long-standing INTERREG initiative, funded through the European Regional Development Fund. Introduced in 1990, INTERREG has evolved over five funding periods and territorial cooperation is now one of the three EU Structural Funds objectives. Under the current arrangements, territorial cooperation is subdivided into cross-border (Strand A), transnational (Strand B) and interregional (Strand C) cooperation. The transnational cooperation programmes, of which the NPA 2014-2020 is one, cover larger areas of cooperation and focus on encouraging regions from different countries 'to work together and learn from each other through joint programmes, projects and networks'.⁸⁶

The incorporation of territorial cohesion as a third dimension of regional policy has focused increased attention on the potential role of programmes, such as the Northern Periphery and Arctic Programme, to deliver more tangible results. Already, in terms of the qualitative impacts of territorial cooperation, the added value of European territorial cooperation is difficult to dispute:

- cooperation programmes can address areas of significant political and symbolic added value;
- cooperation enables specific territorial problems to be tackled which could not have been addressed through other support programmes;

⁸⁶ http://ec.europa.eu/regional_policy/cooperate/cooperation/index_en.cfm

- opportunities are provided for learning and the exchange of experience;
- different types of organisation that do not regularly work together can be brought together;
 and
- activities can result in a significant increase in the number, intensity and dynamics of crossborder contacts at national, regional and local levels.⁸⁷

However, the comparatively limited budget allocated to cooperation programmes limits their scope to produce large-scale tangible impacts. Additionally, the character of INTERREG B (such as the NPA programme) and C programmes, focusing on larger geographic areas and often involving networking activities, limits their 'concrete' impact even further.

These broad considerations can all be applied to the Northern Periphery and Arctic Programme 2014-2020. However, it is also worth noting the programme's scale, scope and position, as follows.

(i) Scale

The geographic scale of the programme area is equivalent to 77 percent of the whole EU territory. Yet, the size of the programme budget is extremely modest relative to other EU Cohesion policy programmes. The EU contribution to the current Northern Periphery Programme (NPP) is just over €35 million, which contrasts with the €229 million for the 2007-13 Operational Programme for the BMW region in Ireland, which is just one region in the NPA area. In the 2007-13 programming period, the NPP supported 47 main projects and 56 preparatory projects. A similar figure is expected for the 20014-2020 period.

The scale of the programme area in contrast to the available resources means that the NPA 2014-2020 cannot expect to deliver major change on key environmental concerns at the programme level. The programme has had to be focused in its efforts, and it particularly addresses the needs of highly sparsely populated areas and remote communities. Thus, the most direct effects of the programme on the environment will be apparent at individual local/community levels in participating areas.

(ii) Scope

The NPA area faces a wide range of global environmental pressures and challenges. The programme area also incorporates countries and regions at the forefront of developing and applying new sustainable and green technologies and approaches to environmental protection and management. The NPA programme can work within key areas such as: supporting the shift towards a low-carbon economy in all sectors; promoting climate change adaptation, risk prevention and management; and protecting the environment and promoting resource efficiency.

However, the programme is constrained by the European Union Cohesion policy regulations and domestic policy priorities and agendas. According to the regulation, transnational cooperation programmes are expected to be selective in their focus and be results-oriented. From a prescribed list of 11 thematic objectives set out in the Common Strategic Framework, the NPA 2014-2020 had to

⁸⁷ Ferry M and Gross F (2005) *The Future of Territorial Cooperation in an Enlarged EU*, Paper prepared for 2nd International Conference, Benchmarking Regional Policy in Europe, Riga, 24-26 April.

choose up to 4 themes for implementation. Within the selected themes, the programme was then required to select a limited number of investment priorities and develop its own tightly-defined specific objectives. Actions were also expected to be in line with areas of activity highlighted as relevant for transnational cooperation programmes.⁸⁸ In addition, the programme had to develop in line with domestic policies and agendas for territorial cooperation. These frameworks and regulations mean that the programme is, to an extent, limited in terms of the issues with which it can directly engage.

(iii) Position

The NPA 2014-2020 is situated in a congested policy environment. Therefore, the programme must carefully consider where it can best add value. In doing so, a range of factors were taken into account:

- contexts where the role of the NPA may be limited, as other policies and programmes could have a potentially more direct and extensive impact and may be better adapted to addressing specific development concerns;
- very specific areas where the NPA can contribute; and
- the scope for synergies on key issues and up-scaling projects either into or beyond the NPA programme. This is especially the case for environmental projects.

The added value of the NPA 2014-2020 is most likely to be in developing practical, but small-scale 'niche', solutions that have the potential to be developed further through other programmes, awareness-raising, learning and knowledge exchange.

The programme is deeply embedded in the development needs and potentials of the programme area, which especially include environmental development strengths, weaknesses, opportunities and challenges. As such, the programme aims to have an important, beneficial impact on environmental development issues in the NPA area. However, the scale, scope and position of the programme will impact on the extent and manner in which this contribution is made.

9.4 Structure of SEA report

Section 10 reviews the environmental context of the Northern Periphery and Arctic Programme. This includes consideration of the environmental performance of the current INTERREG IVB Northern Periphery Programme, an overview of the priorities of the INTERREG VB programme for 2014-2020, and a review of relevant environmental strategies, programmes and policies.

Section 11 examines the environmental baseline conditions and trends within the countries participating in the NPA programme area.

Section 12 identifies strategic environmental issues, grouped into the four themes of climate and Arctic change, land-use management, energy and resource efficiency, and marine pollution.

⁸⁸ CEC, (2012) Commission Staff Working Document, Elements for a Common Strategic Framework 2014 to 2020, 14 March 2012.

Section 13 presents an environmental assessment of the new programme. Following a description of how alternative scenarios were considered within the programming process, the programme vision, priorities and objectives are subjected to an environmental appraisal. Thereafter, the report discusses likely significant effects on the environment, measures envisaged in preventing adverse effects, and potential indicators for monitoring environmental effectiveness.

10. THE NORTHERN PERIPHERY AND ARCTIC PROGRAMME IN CONTEXT

10.1 Introduction

In a review of the environmental context of the programme, this section considers the environmental performance of the current INTERREG IVB Northern Periphery Programme, the content of the INTERREG VB Northern Periphery and Arctic Programme, and the significance of existing environmental strategies, programmes and policies as guiding instruments.

10.2 INTERREG IV Northern Periphery Programme 2007-2013

The current INTERREG IVB Northern Periphery Programme (NPP) relates to the 2007-2013 period. The vision of the NPP encompasses the prosperous and sustainable development of its communities and the wise management of resources, while contributing to European objectives and a more dynamic EU. Joint working on common problems and opportunities is expected to develop new structures and tools for longer-term cooperation. Strategic themes drawn from the SWOT analysis are perceived as interdependent, with actions on one theme expected to have an impact on the others. Accordingly, a holistic approach is adopted in taking forward priorities for action. ⁸⁹

The NPP 2007-2013 aims 'to help peripheral and remote communities achieve their economic, social and environmental potential'. This includes the sustainable development of community and natural resources and cultural heritage. The programme also aims to strengthen the synergies between environmental protection and growth by addressing challenges to sustainable development, as identified in the Gothenburg agenda. The unspoiled natural environment is recognised as a significant asset, and it is acknowledged that the sustainable development of natural resources can contribute to the economy and stimulate innovation, as well as facilitating balanced and sustainable growth. However, care must to be taken to avoid environmental degradation, seeking a balance between sustainable growth and protection. The development of renewable energy is highlighted as of special relevance for the Northern Periphery in view of its considerable natural resources.

The 2007-2013 programme has two thematic Priorities, as well as one Priority devoted to technical assistance:

- Priority 1, *Promoting Innovation and Competitiveness in Remote and Peripheral Areas*, which focuses on innovation, networks and competitiveness, and on accessibility; and
- Priority 2, Sustainable Development of Natural and Community Resources, which focuses on environment as an asset in the periphery, strengthening synergies between environmental protection and growth, urban-rural development and the promotion of heritage.

In terms of programme funds allocation, Priority 1 receives 56.4 percent, Priority 2 receives 37.6 percent and Priority 3 (Technical Assistance) receives 6 percent.

With regard to NPP environmental performance, an appraisal can be drawn from completed evaluations. As part of the Ex-Ante Evaluation of the programme carried out by the European Policies

⁸⁹ NPP (2006) Operational Programme of the Northern Periphery Programme 2007-13.

Research Centre in 2006, the Strategic Environmental Assessment (SEA) demonstrated clear compatibility between EU environmental policy frameworks and the vision, priorities and objectives of the Northern Periphery Programme 2007-13. It acknowledged that the NPP had considerable scope for environmentally favourable outcomes, especially due to the programme's focus on small-scale developments and high-quality solutions. Following on from the SEA recommendations, the Operational Programme stated that positive environmental impacts form a key element of the programme's implementation, and that high environmental standards and requirements would be integrated into project guidance and monitoring.

Referring to the scope for significant effects, which could be positive or negative in character, the SEA identified environmental issues considered to have a strategic dimension in the context of the Northern Periphery Programme. The range of themes was categorised under four headings: climate change, tourism, waste, and marine pollution.

- Action was needed to delay climate change and to prepare for it. Preparations for climate change should ensure that people, natural environments, spatial structures and associated functions suffer minimal disturbance, and that the favourable impacts of climate change are used to advantage in the NPP area.
- With regard to tourism, natural heritage and cultural heritage are interlinked, as the
 environment essentially forms a cultural landscape. The challenges include protecting and
 managing vulnerable heritage sites, safeguarding cultural identity, and managing seasonal
 pressures on the environmental resources.
- The review of waste highlighted the need to explore waste minimisation techniques, including
 alternative procedures and processes, as well as considering the development of
 infrastructure within waste handling, an area where cross-border cooperation could be
 advantageous.
- Marine pollution was identified as important for most of the NPP area, even though emissions
 originate mainly in other parts of Europe and beyond. Coastal zone management was also
 highlighted as an overriding issue, with aquaculture, development and building, traffic and
 nature protection competing for limited resources.

The Operational Programme states that these strategic environmental issues were utilised in the drafting of the programme. However, in the Final Evaluation Report⁹⁰ of the on-going evaluation of the Northern Periphery Programme 2007-2013, opinions were expressed by the Regional Advisory Groups (RAGs) that the programme could have more impact on strategic environmental issues.⁹¹ Whereas the RAGs raised concerns about the overall lack of 'strategic focus' in project applications and the weak link to the specific needs of the NPP area, there was a common perception that the environmental issues in particular were not being addressed as fully as possible, with a 'tick box' approach being used, rather than a concrete description of how projects would actually address a theme during the implementation stage.

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⁹⁰ McMaster I (2010) The on-going Evaluation of the Northern Periphery Programme, 2007-2013: Final Evaluation Report, EPRC, Glasgow.

⁹¹ NPP Touchstone Survey of Regional Advisory Groups, NPP 2009.

The Final Evaluation states that the programme's core concepts are broadly addressed in the projects approved, including support for a considerable range of projects that address environmental concerns. A review of the proposed outputs included sustainable development as a particular strength, with key Expected Results including information and training for SMEs on climate change, tools to promote sustainable rural development, and sustainable development of resources such as forestry and fisheries. Further potential links were also suggested between domestic administrations involved in the management and implementation of the programme, which are making individual commitments to carbon-offset schemes, energy saving, and recycling, and the programme's scope to support such efforts.

In a further dimension of its appraisal, the Final Report noted that NPP regions are developing and applying highly innovative responses to climate change, both to combat climate change and to adapt to changing economic, climatic, marine and physical conditions. ⁹⁴ Specifically in relation to climate change, the pace of Arctic melt appears to be more rapid than predicted, which will have major environmental, social/cultural and economic implications for the NPP area (Gaskell 2012). ⁹⁵

The programme's analysis highlights how topographic and climatic conditions make accessibility a significant issue for large parts of the programme area. Accordingly, Priority 1 focuses on remote and peripheral regions where development resources are widely dispersed, and improving accessibility is perceived as vital in strengthening competitiveness.

Priority 2 acknowledges the unspoiled natural environment as one of the most significant assets of the Northern Periphery. It supports the sharing, expansion and development of skills in environmental management and sustainable development, designed to make an important contribution to the preservation and management of natural resources. Priority 2 also addresses the issue of climate change in the Northern Periphery, favouring more innovative public management policies. The sustainable exploitation of bio-fuels and other alternative energy sources are perceived as opportunities for innovative business development that can provide sustainable services to remote areas.

10.3 Northern Periphery and Arctic Programme 2014-2020

For 2014-2020, the Northern Periphery and Arctic Programme has four thematic Priorities, which follow on from and contribute to the programme strategy:

- Using innovation to maintain and develop robust and competitive communities;
- Promoting entrepreneurship to realise the potential of the programme area's competitive advantage;

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⁹² McMaster (2010), p. 50.

⁹³ McMaster (2010), p. 11.

⁹⁴ McMaster I, Van der Zwet A and Vironen H (2012) The Evaluation of the Northern Periphery Programme – Final Evaluation Report, EPRC, Glasgow.

⁹⁵ Gaskell F and Didriksen J (2012) NPP the Missing Link? Discussion Paper on options for the strategic framework of Northern Periphery Programme for the period 2014-20, presented to NPP EVA meeting Glasgow, May 2012.

- Fostering energy-secure communities through the promotion of renewable energy and energy efficiency; and
- Protecting, promoting and developing cultural and natural heritage.

These four Priorities and the associated six specific objectives, their rationale and examples of actions supported, are outlined in Tables 15 to 18.

Table 15: NPA Priority 1: Using Innovation to Maintain and Develop Robust and Competitive Communities

Objective 1.1

Increased innovation and transfer of new technology to SMEs in remote and sparsely populated areas

Rationale:

SMEs and micro-companies in remote and rural communities suffer from a lack of critical mass to be able to access innovation support. Transnational cooperation can help to overcome these challenges by contributing to transnational collaboration between businesses and research institutes, by facilitating the clustering of businesses across borders, and by facilitating transnational business networks. Indirectly, transnational cooperation can also contribute to attitude-change among the different actors in the innovation system to collaborate on targeted and demand-driven innovation support for local and regional SMEs in remote areas. Regional centres across the programme area where innovation actors are concentrated are important, such as campuses with their innovation tradition and larger firms with R&D departments. Intermediary actors that can help to cluster SMEs and connect them to research institutes are also essential, for example in a triple-helix context. Finally, it is recognised that creative industries and end-user demands can form drivers for innovative product and service design, for example in the development of user-driven clean technologies.

Actions supported:

- Transfer and development of models or solutions for clustering SMEs with shared needs in relation to accessing R&D in order to develop critical mass and support access to R&D links across regional and national borders
- Transfer and development of models or solutions enabling R&D support for SME demand-driven innovation
- Transfer and development of models or solutions facilitating technology transfer to, or across, the programme area, in particular benefiting SMEs
- Transfer and development of models or solutions facilitating business networks across regional and national borders to help to diversify and broaden the regional sector base
- Transfer and development of models or solutions linking the creative sector and SMEs to promote innovation
- Transfer and development of models or solutions facilitating user-driven innovation in SMEs
- Development in relation to the maritime and marine sectors relevant for the Atlantic coastal areas and development in relation to cold climate and exploitation of natural resources relevant for the Arctic areas
- Transfer and development of models or solutions facilitating activities aimed at making innovative sectors more attractive for under-represented groups, such as young women

Objective 1.2

Increased innovation within public service provision in remote and sparsely populated areas

Rationale

Remote and sparsely populated areas in the programme area face shared challenges in accessing key public services such as healthcare, social care, education and energy. Within these areas, public service providers are faced with the challenge of reconciling limited resources and a lack of critical mass with an increasing demand for public service provision that represents value for money. In addition, markets can fail to service extremely remote areas, even terms of the provision of basic goods. Transnational cooperation can facilitate the transfer and the development of innovative organisational models and solutions to address the viability of public service provision and the provision of basic goods and services, for example through private-public partnerships, urban-rural cooperation, social enterprises and other innovative ways of pooling competences and resources. In addition, collaboration with R&D institutes could result in innovative and distance-spanning technologies that enable new means of delivering public services, such as mobile health and wellbeing services in sparsely populated areas. Such developments are especially relevant in the NPA programme area, which faces particular challenges in terms of an ageing population, lifestyle diseases, cold climate and long distances.

Actions supported:

- Transfer and development of innovative models or solutions addressing viability and low critical mass in public service provision in remote and sparsely populated areas
- Transfer and development of technology-driven solutions for public service provision in remote and sparsely
 populated areas

Table 16: NPA Priority 2: Promoting Entrepreneurship to Realise the Potential of the Programme Area's Competitive Advantage

Objective 2.1

Improved support systems tailored for start-ups in remote and sparsely populated areas

Rationale:

In remote and sparsely populated areas, operational challenges such as obtaining finance faced by start-up companies are amplified by the long distance from support facilities, as well as the same challenges facing existing companies in the periphery, such as a small customer base, long distances to market, and a generally poor business environment. Transnational cooperation can contribute to a better entrepreneurial climate by facilitating the transfer and development of start-up support strategies and solutions to overcome the challenges faced by start-up companies. Start-up support will focus on removing barriers and bottlenecks for start-ups, for example by facilitating campus incubator support and other types of start-up support over distance, promoting innovative funding mechanisms to attract internal and external investments such as crowd-funding, creating support networks of peers, developing inclusive business models and jobs/training positions based on recognising and utilising people's different talents and skills, and through targeted use of public procurement. In addition, NPA interventions will aim to support and encourage entrepreneurship among underrepresented groups. Start-up support systems will also be used to focus on realising the potential of place-based opportunities. For example, the programme area's unique cultural and natural heritage is a basis for the tourism and experience industries based on the area's natural environment, indigenous lifestyles, and creative industries.

Actions supported:

- Transfer and development of models or solutions that remove barriers for start-ups
- Transfer and development of models or solutions that encourage entrepreneurship among underrepresented groups
- Transfer and development of models or solutions that realise place-based opportunities in a new way

Objective 2.2

Greater market reach beyond local markets for SMEs in remote and sparsely populated areas

Rationale:

In addition to the usual challenges faced by entrepreneurs, SMEs and micro-companies in remote and sparsely populated areas are faced by particular challenges such as small local customer bases and long distances to markets. In addition, micro-enterprises commonly lack experience or a tradition of cooperation with enterprises outside the local area. Transnational cooperation can contribute to a better access to key markets and a wider customer base by facilitating the transfer and development of marketing concepts and models. Marketing models will be used to transnationally cluster SMEs with a complementary product or service portfolio. For example, exclusive product or service packages can be developed to attract high-end customers; a joint market approach can be used for high-quality natural products from the programme area, such as Arctic products, or products aimed at the growing global market in health products, cosmetics, pharmaceuticals and regional food and drinks. Businesses can form networks to take advantage of trends such as the increasing cruise tourism or use market research to discover new consumer markets. Marketing models can also focus on the use of ICT solutions, ecommerce and social media to overcome the distance to markets. Marketing models will be used to realise the potential of place-based development opportunities and will also focus on capturing spinoffs from local or regional large-scale investments, such as models to reduce risks for SMEs in up-scaling their production and delivery capacity.

Actions supported:

- Transfer and development of marketing models or solutions suitable for SMEs in remote, sparsely populated areas, to increase their market reach
- Transfer and development of concepts for clustering and creating networks of SMEs to meet a larger-scale, more diverse and/or more complex demand
- Transfer and development of marketing models and solutions facilitating the use of distance-spanning technology to overcome long distance to market

Table 17: NPA Priority 3: Fostering Energy-Secure Communities through Promotion of Renewable Energy and Energy Efficiency

Objective 3

Increased use of energy efficiency and renewable energy solutions in housing and public infrastructure in remote and sparsely populated areas

Rationale:

Ensuring a reliable and affordable energy supply is particularly challenging in the remote and sparsely populated communities of the programme area, especially due to their low critical mass and issues linked to the harsh climate. Transnational cooperation can help to address these challenges by facilitating the transfer and development of models to help these communities access and utilise renewable energy solutions for housing and public infrastructure, suitable for cold climates and dispersed settlements. Opportunities include enabling communities to use energy sources based on local natural resources, symbiotic solutions can be developed, using the by-products of one activity to provide energy for public infrastructure or housing, such as using cooling water to heat buildings. There is also scope for new energy-efficiency concepts for constructing, maintaining and running housing and public infrastructure, suitable for cold climates and dispersed settlements. New concepts and measures could focus on energy-efficient housing using low-energy building materials based on natural products from the programme area and the promotion of low/zero energy housing, particularly in the Arctic.

Actions supported:

- Facilitating decision-making about the development and use of renewable energy solutions for public infrastructure and housing, suitable for cold climates and dispersed settlements
- Developing models to sustainably use by-products from economic activities as energy sources for public infrastructure and housing
- Promoting and facilitating the transfer and development of new energy-efficiency concepts for constructing, maintaining and running housing and public infrastructure, suitable for cold climates and dispersed settlements

Table 18: NPA Priority 4: Protecting, Promoting and Developing Cultural and Natural Heritage

Objective 4

Increased capacity of remote and sparsely populated communities for sustainable environmental management

Rationale:

Local communities in the programme area are faced by the impact of major global trends, such as climate change impacts on people, demographic change, and rapid economic and environmental changes through large-scale industrial projects. These developments can lead to major economic, environmental and social upheavals. The scale of the issues is often beyond the scope of the individual communities to cope with on their own, and requires a wide range of competences and expertise. This is particularly relevant in the Arctic and subarctic regions of the programme area, where the impacts of climate change are expected to be more dramatic than in other places and where small communities are faced by major commercial interests of multinational companies, such as mineral extraction. Transnational cooperation can help these communities by facilitating the transfer of best-practice models and solutions and the transnational pooling of competences and expertise to build capacity, share knowledge and know-how, and develop tools to help remote and sparsely populated communities balance the conflicting demands of economic, social and environmental interests. It can also facilitate the transfer and development of decision-making tools and solutions to help local authorities deal with complex changes as well as concepts and models for the protection, promotion and development of the natural and cultural heritage.

Actions supported:

- Development and transfer of best-practice models and solutions for up-skilling local authorities and community groups, focusing on skills and competences such as negotiation skills, change management skills, expertise on climate change impacts, environmental impacts, social impacts, and economic impacts
- Development and transfer of new organisational models, such as pooling of competences across regional
 and national borders, and facilitating local authorities and community groups to cope with complex changes
- Development and transfer of decision-making tools and solutions, such as new types of environmental assessments, to help local authorities deal with sustainable environmental management
- Development and transfer of new governance concepts that involve all groups of civil society in the decision and policy-making process
- Development and transfer of concepts and models for the protection, promotion and development of natural and cultural heritage according to a more dynamic interpretation of sustainable environmental management

10.4 Relevant Environmental Strategies, Programmes and Policies

This section identifies key environmental initiatives that characterise and determine the operational context for the Northern Periphery and Arctic Programme. This contextual awareness also highlights significant aspects of these various strategies, programmes or policies with regard to the scope for environmental impact afforded to the NPA programme.

10.4.1 Global initiatives

At global level, the major relevant initiatives include the United Nations Conference on Sustainable Development (Rio+20), which took place in Brazil in 2012, the updated Kyoto Protocol and the Nagoya Protocol.

Rio+20 marked the 20th anniversary of the 1992 United Nations Conference on Environment and Development (UNCED) in Rio de Janeiro and the 10th anniversary of the 2002 World Summit on Sustainable Development (WSSD) in Johannesburg. Its objectives included securing renewed political commitment for sustainable development, and it resulted in a focused 'political outcome document' that contains practical measures for implementation. It also reaffirmed the need to achieve sustainable development by promoting sustained, inclusive and equitable economic growth, creating greater opportunities for all, reducing inequalities, raising basic standards of living, fostering equitable social development and inclusion, and promoting integrated and sustainable management of natural resources and ecosystems. The Conference also adopted guidelines on green economy policies, and launched a process to develop a set of Sustainable Development Goals (SDGs) that build upon the Millennium Development Goals and converge with the post-2015 development agenda.

The Kyoto Protocol to the United Nations Framework Convention on Climate Change (UNFCCC) is an international treaty that sets binding obligations on industrialised countries to reduce emissions of greenhouse gases. The UNFCCC is an environmental treaty with the goal of preventing degenerative anthropogenic impacts on the climate system. As part of the Kyoto Protocol, which entered into force in 2005, many developed countries have agreed to legally binding limitations/reductions in their emissions of greenhouse gases over two commitment periods. The first commitment period applied to emissions between 2008 and 2012, and the second commitment period applies to emissions between 2013 and 2020. In December 2012, an agreement was reached to extend the Protocol to 2020 and to set a date of 2015 for the development of a successor document to be implemented from 2020. In addition, the new concept of 'loss and damage' was introduced, an agreement in principle that richer nations could be financially responsible to other nations for their failure to reduce carbon emissions.

The Nagoya Protocol is a supplementary agreement to the Convention on Biological Diversity (CBD), providing an international and transparent legal framework for the effective implementation of the third objective of the CBD. It was adopted in October 2010, obliging signatories to take measures to ensure that only legally acquired genetic resources and associated traditional knowledge are utilised within their jurisdiction. The Nagoya Protocol is expected to enter into force in 2014. Once operational, it will generate significant benefits for biodiversity conservation in States that make available the genetic resources over which they hold sovereign rights. By assisting benefit-sharing, the Nagoya Protocol creates incentives to conserve and sustainably use genetic resources, and therefore it enhances the contribution of biodiversity to development and human wellbeing.

10.4.2 EU perspectives

Within the European Union, the documents with the greatest relevance are the Europe 2020 Strategy and the Seventh Environmental Action Programme. Sustainable development became a fundamental objective of the EU in 1997, when it was included in the Treaty of Amsterdam as an overarching objective. Subsequently, at the Gothenburg Summit in 2001, the first EU Sustainable Development Strategy (SDS) was launched. Whereas the Lisbon Strategy focused on employment, economic reform and social cohesion, the SDS added an environmental dimension and established a new approach to policy-making. In June 2006, the European Council adopted a renewed SDS.

Europe 2020

In 2010, a strategy for sustainable growth was launched – Europe 2020: A Strategy for smart, sustainable and inclusive growth ⁹⁶ – which sets out a vision of Europe's social market economy for the 21st century. All future INTERREG programmes are expected to be in line with Europe 2020. Its priority of sustainable growth means promoting a more resource-efficient, greener and more competitive economy. It is anticipated that such an approach will help the EU to prosper in a low-carbon, resource-constrained world, while preventing environmental degradation, biodiversity loss and the unsustainable use of resources. It will also underpin economic, social and territorial cohesion.

Amongst its five objectives, which relate to employment, education, research and innovation, social inclusion and poverty reduction, and climate change/energy, the factors of greatest environmental relevance include limiting greenhouse gas emissions by 20 percent or even 30 percent compared to 1990 levels, creating 20 percent of energy needs from renewable sources, and increasing energy efficiency by 20 percent (the '20/20/20' climate/energy targets). Each EU Member State has adopted its own targets in these areas.

In addition, specific areas of action have been addressed through seven flagship initiatives, three of which are especially environmentally relevant, as illustrated in Table 19.

Table 19: Europe 2020 Flagships

Resource-efficient Europe aims to decouple economic growth from the use of resources. It supports the shift towards a low-carbon economy, increased use of renewable energy resources, the development of green technologies and a modernised transport sector, and the promotion of energy efficiency. This flagship stresses the need for an urgent and significant transition towards using natural resources efficiently. This applies to producers and consumers in relevant areas such as energy, transport, climate, environment, agriculture, fisheries and regional policy.

An Industrial Policy for the Globalisation Era aims to improve the business environment, notably for SMEs, and it supports the development of a strong and sustainable industrial base able to innovate and compete globally. Its focus includes adjusting production processes and products to a low-carbon economy, realising opportunities within the green economy, supporting the transition to greater energy and resource efficiency, promoting technologies and production methods that reduce natural resource use, and increasing investment in the EU's existing natural assets.

The Innovation Union flagship is also relevant, along with its associated financial instrument, Horizon 2020,

⁹⁶ European Commission (2010) Europe 2020: A Strategy for smart, sustainable and inclusive growth. COM(2010) 2020 final.

turning innovative ideas into products and services that create growth and jobs. Its aim is to re-focus R&D and innovation policy on the challenges facing society, such as climate change, energy and resource efficiency, health and demographic change. A strategic research agenda will focus on challenges such as energy security, transport, climate change and resource efficiency, health and ageing, environmentally-friendly production methods and land management. It seeks to facilitate the key enabling technologies to shape Europe's industrial future.

The targets within Europe 2020 are interrelated: increased resource efficiency will improve competitiveness and foster job-creation; and investing in cleaner, low-carbon technologies will help the environment, contribute to fighting climate change and create new business and employment opportunities.

Seventh EU Environmental Action Programme

The 7th Environmental Action Programme⁹⁷ sets out priority objectives to be attained (art. 192.3) in environmental policy in the context of the Europe 2020 Strategy. As part of the follow-up to the 2012 United Nations Conference on Sustainable Development described above, the new environmental action programme supports international and regional processes aiming to transform the global economy into an inclusive green economy in the context of sustainable development and poverty reduction.

Whereas many environmental challenges are global and can only be fully addressed through a comprehensive global approach, other environmental challenges have a strong regional dimension, which requires cooperation with neighbouring countries. The programme foresees significant scope for reducing greenhouse gas emissions and enhancing resource efficiency in the Union. This will ease pressures on the environment and bring increased competitiveness and new sources of growth and jobs through cost-savings from improved efficiency, commercialisation of innovations, and better management and use of resources over their whole lifecycle.

While progress has been made in the EU to decouple growth from greenhouse gas (GHG) emissions, resource use and environmental impacts, resource use is still largely unsustainable and inefficient, and waste is not yet properly managed. As a result, EU businesses are foregoing the significant opportunities that resource efficiency offers in terms of competitiveness, cost reductions, improved productivity and security of supply. Water quality and air pollution levels are still problematic in many parts of Europe, and EU citizens continue to be exposed to hazardous substances, potentially compromising their health and wellbeing. Unsustainable land use is consuming fertile soils, with impacts on food security and the achievement of biodiversity targets. Soil degradation continues largely unchecked. Addressing some of these complex issues requires tapping into the full potential of existing environmental technology and ensuring the continuous development and uptake by industry of the best available techniques and emerging innovations. Rapid advances in promising fields of science and technology are also needed.

Reflecting recent policy developments, the 7th programme is more strategic in nature than the 6th programme, re-clustering the previous four areas for action into three core thematic objectives:

⁹⁷ European Commission (2012) Proposal for a DECISION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on a General Union Environment Action Programme to 2020 "Living well, within the limits of our planet" COM(2012) 710 final.

- (i) to protect, conserve and enhance the EU's natural capital;
- (ii) to turn the EU into a resource-efficient and more competitive low-carbon economy; and
- (iii) to safeguard EU citizens from environment-related pressure and risks to health and wellbeing.

In providing an overarching framework for environmental policy to 2020, the new programme should build on the EU Biodiversity Strategy to 2020, the EU climate and energy package, the Roadmap for moving to a low-carbon economy in 2050, the Roadmap to a resource-efficient Europe, and the Innovation Union Flagship Initiative.

The programme has nine Priority Objectives, as outlined in Table 20.

Table 20: Seventh Environmental Action Programme Priority Objectives

Examples of relevant features			
1: To protect, conserve and enhance the EU's natural capital	Halt the loss of biodiversity and ecosystem degradation, reduce impacts on fresh and coastal waters, reduce pressures on marine waters, protect soil and remediate contaminated sites, and improve the resilience of forests to climate change and fires.		
2: To turn the EU into a resource-efficient, green and competitive low-carbon economy	Meet 2020 climate and energy targets, reduce the environmental impact of industry, increase resource efficiency, reduce waste generation, limit energy recovery to non-recyclable materials, eradicate landfilling of recyclable and compostable materials, and reduce or prevent water stress.		
3: To safeguard EU citizens from environment- related pressures and risks to health and wellbeing	Improve air quality, decrease noise pollution, assess and minimise environmental risks, make progress in adapting to climate change impacts, and integrate climate change adaptation and disaster risk-management into policy initiatives and sectors.		
4: To maximise the benefits of EU environment legislation	Ensure that EU citizens have access to clear information showing how EU environmental law is being implemented, reinforce respect for EU environmental law at all administrative levels, and enhance trust and confidence in environmental law.		
5: To improve the evidence base for environment policy	Improve the basis for developing and implementing environment and climate polices, including measuring costs and benefits, improve the ability to evaluate and manage emerging environmental and climate risks, and strengthen the environment policy-science interface.		
6: To secure investment for environment and climate policy and get the prices right	Achieve environment and climate change policy objectives in a cost-effective way, supported by adequate finance, and increase private sector funding for environment and climate-related expenditure.		
7: To improve environmental integration and policy coherence	Integrate environmental and climate-related conditionalities and incentives in policy initiatives, and carry out systematic ex-ante assessments of environmental, social and economic impacts to ensure their coherence and effectiveness.		
8: To enhance the sustainability of EU cities	Implement policies for sustainable urban planning and design, define criteria to assess the environmental performance of cities, and ensure that cities have access to financing for measures to improve urban sustainability.		
9: To increase the EU's effectiveness in addressing regional and global environmental and climate challenges	Engage in relevant international, regional and bilateral processes in a strong, focused, united and coherent manner, and address challenges related to water, oceans, sustainable land and ecosystems, resource efficiency (particularly waste), sustainable energy and climate change.		

The impact assessment accompanying the programme acknowledges that greener, more efficient technologies, improved productivity and new employment opportunities will support growth and jobs; and a coherent and more integrated policy framework in support of resource efficiency and greener products will also help SMEs striving to become more resource-efficient by reducing their production costs and facilitating their access to new markets. Meanwhile, ensuring the resilience of our ecosystems that support growth and protecting the health of citizens is essential to ensure the sustainability of economic advancement.⁹⁸

In a consultation, businesses stressed the need for innovation and resource efficiency while taking into account concerns of competitiveness.

Baltic Sea Region Strategy

The European Union Strategy for the Baltic Sea Region (EUSBSR)⁹⁹ is the first macro-regional strategy in Europe. In addition to promoting more balanced development in the area, it aims at reinforcing cooperation between the eight EU countries that make up the Baltic Sea Region (Sweden, Denmark, Estonia, Finland, Germany, Latvia, Lithuania and Poland) by working together to tackle several common challenges. The Strategy provides an integrated framework for improving the environmental condition of the sea, transport bottlenecks and energy interconnections as well as facilitating the development of competitive markets across borders and common networks for research and innovation.

The objectives guide an array of Priority Areas specific to macro-regional cooperation that address the key challenges and opportunities in the region. Within the environmental priority, for example, relevant factors include reducing nutrient inputs to the sea to acceptable levels, reducing the use and impact of hazardous substances, preserving natural zones and biodiversity (including fisheries), reinforcing sustainability of agriculture, forestry and fisheries, becoming a model region for clean shipping, and improving the access to, and the efficiency and security of, the energy markets. Relevant horizontal action includes sustainable development and bio-economy.

Arctic Strategy

Aware of the need for international cooperation on Arctic issues, the European Parliament approved a resolution on Arctic governance in 2008, and the Commission adopted its first communication on the Arctic in the same year, setting out EU interests and proposed actions around three main policy objectives:

- protecting and preserving the Arctic in unison with its population;
- promoting the sustainable use of natural resources; and

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⁹⁸ European Commission (2012) IMPACT ASSESSMENT *Accompanying the document* Proposal for a Decision of the European Parliament and of the Council on a General Union Environment Action Programme to 2020 "Living well, within the limits of our planet" SWD(2012) 397 final.

⁹⁹ Commission Of The European Communities (2009) Communication From The Commission To The European Parliament, The Council, The European Economic And Social Committee And The Committee Of The Regions concerning the European Union Strategy for the Baltic Sea Region {SEC(2009) 702} {SEC(2009) 703} {SEC(2009) 712} Brussels, 10.6.2009 COM(2009) 248 final.

• contributing to enhanced governance in the Arctic through implementation of relevant agreements, frameworks and arrangements, and their further development. 100

More recently, in 2012 the Commission and the High Representative of the EU for Foreign Affairs and Security Policy published a joint communication highlighting areas where the EU is making a contribution to the protection and development of the Arctic. Specific environmental aspects include: fighting climate change; research on the Arctic environment that highlights the EU environmental footprint; and investing in sustainable development in the North to develop environmental potential. Proposals for further policy development include supporting research and channelling knowledge to address the challenges of environmental and climate changes in the Arctic, and ensuring that economic development in the Arctic is based on the sustainable use of resources and environmental expertise.¹⁰¹

The Northern Dimension policy also encompasses Arctic issues and is looking to expand its involvement. Environment-related themes in the Northern Dimension that are complimentary to the NPA programme include partnerships in environmental protection, energy efficiency and the use of renewable energy. 102

Atlantic Ocean Strategy

In May 2013, the European Commission approved an Action Plan for a Maritime Strategy in the Atlantic Area. The Action Plan aims to enhance The marine and maritime sectors that make up the 'blue economy' in the Atlantic Ocean area. This refers not only to boosting emerging sectors, such as offshore renewable energy, but also to the revitalisation of traditional maritime industries. At the same time, the environmental and ecological stability of Europe's largest and most important ecosystem must be safeguarded for future generations.

Based on joint working between the EU Atlantic Member States, Regions and the European Commission, the Action Plan builds on the Commission's Atlantic Strategy¹⁰⁴ and sets out four priorities for research and investment to help create sustainable and inclusive growth in coastal areas:

- promote entrepreneurship and innovation;
- protect, secure and enhance the marine coastal environment;
- · improve accessibility and connectivity; and
- · create a socially inclusive and sustainable model of regional development.

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¹⁰⁰ European Commission (2008) Communication from the Commission to the European Parliament and the Council, The European Union and the Arctic region, COM(2008) 763, 20 November.

¹⁰¹ EC and High Representative of the European Union for Foreign Affairs and Security Policy (2012) Joint Communication to the European Parliament and the Council, Developing a European Union Policy towards the Arctic Region: progress since 2008 and next steps. SWD (2102), 182.

¹⁰² McMaster (2012), p.37.

¹⁰³ European Commission (2013) Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, Action Plan for a Maritime Strategy in the Atlantic Area, Brussels 13.5.2013, COM (2103)279 final.

¹⁰⁴ COM 782/2011 of 21 November 2011.

The priorities aim to address challenges and opportunities facing the Atlantic region under five themes: implementing the ecosystem approach; reducing Europe's carbon footprint; sustainable exploitation of the Atlantic seafloor's natural resources; responding to threats and emergencies; and socially inclusive growth.

11. ENVIRONMENTAL BASELINE AND TRENDS

11.1 Introduction

The purpose of this section is to provide environmental information that describes the current environmental conditions in the NPA area, supports the identification of environmental issues or problems, and contributes to a baseline against which the programme's environmental effects can be assessed. This comprises both quantitative and qualitative data. It does not present an exhaustive list of every possible environmental parameter, but is selective in choosing topics considered relevant to the scope and potential influence of the programme.

Data and information have been gathered through a combination of desk-based research and direct consultation with a network of environmental contacts or intermediaries in each of the participating countries. The following organisations were involved in this interaction:

- Department of the Environment, Greenland;
- Land-Use Consultants, Scotland;
- Environmental Protection Agency, Republic of Ireland;
- Northern Ireland Statistics and Research Agency;
- Environmental Protection Agency, Sweden;
- Icelandic Regional Development Institute;
- Norwegian Ministry of the Environment;
- Finnish Ministry of the Environment;
- Environment Agency, Faroe Islands.

11.2 Regional Environmental Characteristics/Baseline Information

GREENLAND

Greenland is the world's largest island. Its surface is about 80 percent ice-capped, but the Arctic area is biologically rich, with a significantly large prevalence of birds and mammals that include red-listed (endangered) species and numerous animal communities on the seabed. The economy relies on fishing and fish exports, but tourism also plays an important role in generating capital.

Climate change in Greenland means that the nine million people who live in the Arctic must contend with coastal erosion, thawing permafrost, warmer temperatures, and changes in the animal and plant species that some traditional lifestyles depend upon. There will be an additional sea level rise, impacting on people living on the coast and on coastal infrastructure. The two regions most sensitive to rising surface temperatures are south-western Greenland, where raging meltwaters damaged infrastructure in 2012, and north-western Greenland, where substantial parts of icebergs have detached in the past two years. While summers are warmer, with predictions that an island-wide thaw

could happen within the decade, there is also less rain, and some experts anticipate that Greenland could soon need irrigation works.

Nevertheless, while sea rise and coastal erosion threaten communities, the warming of the Arctic also provides new opportunities. Longer and warmer summers already mean that the country is able to grow the kind of crops unheard of years ago. In the south, some farmers now produce hay, sheep farms have grown in size, and some supermarkets in the capital, Nuuk, sell locally grown vegetables in the summer. Major commercial crop production is still in its infancy, but Greenland's government has set up a commission to study how a changing climate may help farmers increase agricultural production and replace expensive imported foods. In 2012, potatoes grown commercially in southern Greenland reached over 100 tons, which was double the yield of 2008. According to government data, vegetable production in the region may double in 2013 compared with 2012.

As well as an interest in agriculture, the thawing of its ice sheets has seen a boost in mining and oil exploration, as global warming makes it easier to recover precious metals from glacial surroundings. The US Geological Survey projects that 22 percent of the world's untapped oil, natural gas and natural gas liquid reserves lie in the Arctic, as well as abundant deposits of minerals, including rare earth metals essential for modern technology. As oil and gas licenses for exploration are being issued, local communities will benefit from these new economic opportunities, as will oil companies. Though mining may bring economic opportunity, however, more oil and gas exploitation will also mean more fossil fuel burning, and greenhouse gas emissions. The pursuit of oil has begun particularly in western Greenland, which now faces significant environmental challenges arising from the extraction of oil in such a vulnerable and harsh environment.

In the considerations and negotiations associated with the recent inauguration of the Greenland self-government, a central element was that it would receive all revenue from mineral resource activities in Greenland, and thus it would have new sources of revenue available to keep pace with the diminishing revenue from the fishing industry. However, there is also speculation that, as the permafrost thaws, fish species such as cod and herring might move north because of warming oceans further south, and the growth in phytoplankton might also support new fisheries.

Other opportunities involve shorter sea routes that represent a boon for commerce, saving time and fuel. In August 2007, the Northwest Passage, a sea route through the Arctic Ocean which connects the Atlantic and Pacific Oceans, opened up to ships for the first time since 1972 when record keeping began. The passage provides a trade route thousands of miles shorter than trade routes through the Panama Canal. Icebreakers are also finding it easier to navigate through the thinner ice of the Northern Sea Route between East Asia and Europe, which is 40 percent shorter than crossing the Indian Ocean and going through Egypt's Suez Canal. With regard to protection, the International Maritime Organization (IMO) is currently developing the Polar Code, and it can be expected that there will be a sharp environmental focus on activities in the Arctic area in the years ahead regarding the navigation of oil tankers within international Arctic waters. The Polar Code will cover the full range of design, construction, equipment, operational, training, search and rescue and environmental protection matters relevant to ships operating in the inhospitable waters surrounding the two poles. Although many environmental protection measures are already operational in Antarctica, they are not yet in effect in the Arctic.

SCOTLAND

The NPA programme area in Scotland includes Ramsar sites, Special Areas of Conservation, National Nature Reserves, Sites of Special Scientific Interest, Special Protection Areas and National Scenic Areas. Scotland's rich biodiversity is a major part of the country's identity, and many of its species and habitats are of international and European importance. A range of pressures have the potential to impact on Scotland's wildlife and biodiversity. Key issues include land-use pressures (i.e. loss or damage of natural habitats), nutrient deposition, exploitation of natural resources, pollution of air, water and land, increases in invasive non-native species, and the effects of climate change. Nevertheless, climate change may also favour certain species, potentially creating new opportunities for Scottish fisheries.

Agriculture remains the dominant land use in Scotland, covering 5.6 million hectares, equating to around 75 percent of the land area. However, agriculture is also a key source of diffuse pollutants, potentially impacting on the quality of rivers, lochs, coastal and transitional waters. Scottish soils are generally of good quality, and there is little evidence to suggest that serious soil erosion, compaction or other problems related to land management are occurring widely. Scotland contains a much higher proportion of organic soils than the rest of the UK.

Over half of Scotland's administrative territory is marine, for which the key pressures include climate change and acidification, source and diffuse pollution (particularly coastal and transitional waters), marine litter and invasive species. Work is currently ongoing to identify new Marine Protected Areas (MPA) in the seas around Scotland, which will protect important marine habitats and wildlife, geology and geomorphology, as well as features of cultural importance.

Trends in emissions in Scotland show that there was an overall decrease (-22.8 percent) in total greenhouse gas emissions from 1990 to 2010, but that between 2009 and 2010 there was an increase of 5.8 percent. The energy sector is one of the largest contributors to greenhouse gas emissions followed by transport, agriculture and related land use, and the domestic sector. With regard to reducing greenhouse gas emissions mitigation is required across a range of sectors and through changes in individual behaviour, including renewable energy generation, energy efficiency and changes in travel choices. The Scottish Government has the target of producing 100 percent of gross electricity and 11 percent of heat demand from renewable energy sources by 2020.

Scotland's water environment is in a good condition overall, but a wide range of problems exist at local levels. In terms of trends, environmental effects from industry are declining, whereas effects from urban development are increasing, in particular placing greater demands on urban drainage systems. Air quality in Scotland has improved considerably over the last few decades, though there are persistent issues with pollution from traffic and congestion in cities. In recent years concentrations of harmful pollutants in the atmosphere have fallen, achieved through tighter controls on pollutant emissions from industry, transport and domestic sources.

Flood risk is presented from numerous sources including pluvial, groundwater, rivers and coastal inundations. Flooding due to loss of floodplains from agriculture is manageable under current and new policies, but an increase in frequency and severity of flooding is likely as a result of climate change. With regard to sea-level rises, the land surface in most of Scotland is rising due to post-glacial rebound, but this is not expected to be sufficiently rapid to negate sea-level rise, which is anticipated

for almost the whole coastline, with the lowest levels of change on the Inner Clyde and sea lochs of Argyll, and the highest levels of change on Shetland, Orkney and the Western Isles.

Changes to landscape character in recent years is seen by some stakeholders as an important issue, principally resulting from a concentration of wind farms in certain areas, as well as continuing land abandonment. Changes in land use that can create direct or indirect pressures on biodiversity include energy generation, infrastructure enhancement, land and flood management, agricultural and forestry practices and expansion.

Future development is expected to prioritise sustainable locations for new development, seek to avoid flood risk, promote access to services, and provide good public transport links. Improvements to environmental quality should include providing good quality greenspace, remediation of derelict and vacant land and in relation to air quality avoid increases in or reliance on the private car. Climate change mitigation can also be supported through the development of renewable energy resources, reduced reliance on fossil fuels and wider support for the transition to a low-carbon economy.

IRELAND

There have been substantial reductions in Ireland's greenhouse gas (GHG) emissions in recent years, due in significant part to the economic downturn, and Ireland is on track to meet its Kyoto commitment. Air quality in Ireland continues to be good and remains among the best in Europe, due largely to prevailing clean Atlantic air and a lack of large cities and heavy industry. In 2010, measured values for key pollutants were below the limit and target values set out in legislation. Over the past decade, levels of particulate matter have decreased in cities and large urban areas, arising principally from improvements in vehicle engine technology. In comparison with other EU Member States, Ireland's water quality is above average.

In terms of biodiversity, the status of many habitats and some species is judged to be poor or bad in Ireland, and although progress has been made in the designation of EU protected areas, but the European Commission still considers Ireland's list of designated Natura 2000 sites as incomplete. More concerted effort is required to meet international commitments and integrate biodiversity across all sectors. The relative lack of heavy industry in Ireland means that Ireland has had fewer land contamination problems than most other EU countries. In recent years, Ireland has made significant progress in meeting most of the EU waste recycling and recovery targets, but the country is still overreliant on landfill for the disposal of municipal waste and is also too dependent on external markets for disposal of hazardous wastes.

The principal cause of water pollution in Ireland is nutrient enrichment resulting in the eutrophication of rivers, lakes and tidal waters from agricultural run-off and discharges from municipal wastewater treatment plants. There is evidence of an overall improvement in water quality, but Ireland faces major challenges to achieve water quality targets set for 2015, 2021 and 2027 as required by the Water Framework Directive (WFD). Ensuring good quality in Ireland's water resources is vital for public health, the agri-food industry, tourism, and for inward investment.

Ireland faces considerable challenges in developing cost-effective and environmentally effective policies for the transport and agriculture sectors, which are predicted to account for 75 percent of non-ETS (emissions trading scheme) emissions in 2020. Technical opportunities to mitigate against

increasing emissions from agriculture (Teagasc, 2012) require behavioural and cultural changes at farm level, and therefore educational tools and advisory programmes will need to be established to realise their full potential. Ireland needs to refocus as a low-carbon economy while also ensuring that development is resilient to the impending consequences of climate change.

A central plank of Ireland's economic recovery centres on the development of a green economy that recognises the opportunities for investment and employment creation in sectors such as renewable energy, energy efficiency and waste and water management, and how this sustainable approach to economic development can complement the core strengths of the economy in the use of natural resources (DECLG, 2011). Key sectors that are usually identified with the green economy include renewable energy, energy-efficient products and services for buildings, lower-carbon transport, water/wastewater treatment, waste management, and green tourism. This sector of the overall economy is projected to grow strongly into the future providing opportunities for Irish-based companies to export relevant goods and services and also for Ireland to attract growing volumes of foreign investment.

Clean energy from renewable sources will be a critical pillar of the green economy. In 2011, the Sustainable Energy Authority of Ireland (SEAI) unveiled three energy roadmaps to 2050 focusing on the potential benefits of Ireland moving to a future energy system where electricity, managed via a smartgrid, and increasingly generated by wind, meets more of the country's energy needs, in particular for heat and transport. In parallel, a successful green economy will require a more environmentally sustainable approach to production and consumption, with a major focus on resource efficiency. Accordingly, resource efficiency is to be embedded across all sectors of the economy in Ireland. This will allow the economy to create more with less, deliver greater value with less input, and utilise resources in a way that minimises pressures on the environment.

Irish businesses are also becoming increasingly aware of the financial savings and competitive advantages that arise from adopting an environmentally sustainable and resource-efficient approach to their activities. This advantage comes by focusing on reducing energy costs, raw material costs and supply, and waste management costs. The most recent report of the National Waste Prevention Programme shows that in many cases resource-efficiency projects are resulting in significant commercial gains and savings for participants as well as positive outcomes for the environment.

NORTHERN IRELAND

Northern Ireland's first report on the State of the Environment provided new understanding of the overall pressures, identifying climate change, social and economic growth and rural land-use as significant issues for the future. The main pressures for land-use and land-take are developments related to housing, industry and recreation, infrastructure, mineral extraction industries, and tourism. A combination of agricultural intensification and expansion of urban areas (construction sites, roads and rail-building) in Northern Ireland have contributed to a reduction in diversity of vegetation cover, leading to an increase in soil erosion.

In 2009, 28 percent of all water bodies in Northern Ireland were classed as good or better, and by 2015 this will be 64 percent. Water bodies are affected by diffuse source pollution impacts from agriculture, forestry, and land drainage and urbanisation. In comparison, air quality in Northern Ireland has shown substantial improvement in recent years, but a number of pollutants continue to exceed air

quality objectives in some parts of the country. Air Quality Management Areas in Northern Ireland mostly relate to coarse particulate matter (PM_{10}) or nitrogen dioxide (NO_2) from domestic fuel combustion or road transport. There is a general shift from single sources to linear/nodal sources including transport.

In the effort to ensure clean, safe, productive and biologically diverse seas, mechanisms are being established for the protection of priority sites for marine conservation, robust monitoring and scientific advice will support the implementation of new marine legislation, and a network of protected marine sites will fully integrate with marine planning for balanced and sustainable use of resources.

Sustainable economic growth in Northern Ireland is intended to create a green economy that reflects the value of the environment and builds prosperity. Investment in the natural and built heritage should realise its full potential, ensuring that development decisions and business practices are guided by sound environmental principles and apply a risk-based approach. To generate a common understanding of the role the environment plays in health and wellbeing, the NI Environment Agency works with NGOs, educators and others to increase awareness of environmental issues and to encourage behavioural change.

To ensure sustainable practice that realises environmental and economic benefits, sector-specific guidance is being prepared on business resource efficiency, product design guidance so that less waste is generated, and pilot demonstration schemes that show local businesses how to minimise environmental impacts and promote best practice. The government is working in partnership with key stakeholders, land owners, NGOs and others to identify and develop strategic priorities. Other aspects include that businesses send less waste to landfill, that more waste is fully recovered to standards defined in quality protocols, that business uptake of accredited environmental management systems (EMS) standards is increased. In addition, strong sustainable agriculture is expected to deliver economic benefits while securing environmental protection.

With regard to the tourism sector, the value of Northern Ireland's natural and built assets for the economy should be fully realised through support for sustainable tourism, investment in a portfolio of properties of the most significant nature conservation or historic interest, encouragement of sustainable use and re-use of the historic environment and local materials, increasing sustainable tourism built on sound environmental principles, and increasing awareness of the benefits and contribution of places to sustainable economic growth.

SWEDEN

The overall goal of Swedish environmental policy is to provide the next generation with a country in which the major environmental problems have been solved, without increasing environmental and health problems outside Sweden's borders. This 'generation objective' has been adopted by the country's parliament, along with 16 environmental quality objectives addressing themes such as clean air, a healthy living environment, and opportunities to enjoy nature.

Of the country's total land area of 45 million hectares, forest land is overwhelmingly the most common category, accounting for 53 percent, a share that has not changed significantly since 2000. However, the scope of agriculture has been changing over time, with a gradual reduction in the acreage of arable land, the greatest decline being in Norrland (and in southern Sweden's forested districts).

There is also an abundance of lakes and watercourses, with about 96,000 lakes greater than one hectare in size and about 300,000 kilometres of brooks, streams and rivers. Traditionally, the economy has been dependent on natural resources such as forests and ore, which continue to be of major importance. Most people – almost 85 percent of the population – live in towns and cities, which are generally located along the coast.

The major challenges for the environment include limiting climate impacts, dealing with marine eutrophication and stopping the loss of biological diversity. By the 2080s, the mean temperature in Sweden is expected to rise by 3-5° C as a result of climate change. At the same time, precipitation will increase, particularly in winter, and there will be a considerably greater risk of flooding, landslides and avalanches. In terms of its contribution, Sweden's national emissions are low, whether calculated per person or per unit of GDP, compared with most other developed countries. These relatively low emissions are largely due to the use of hydroelectric and nuclear power in electricity production and a significant use of biofuels, as well as an active climate and energy policy.

Between 2011 and 2012, emissions of greenhouse gases in Sweden fell by 5 percent to reach 58.3 million tonnes carbon dioxide equivalents. This is the lowest figure since the base year of 1990. Overall, according to preliminary data, emissions have decreased 20 percent since 1990, which is equal to 14 million tonnes carbon dioxide equivalents. In sectoral terms, emissions from the energy sector (production of electricity and district heating, solid fuels and refineries) decreased by 5 percent between 2011 and 2012, whereas emissions from industry decreased by 8 percent over the same period. The latter decrease is primarily due to reductions in the iron and steel industry, the pulp and paper industry and the chemical industry due to the weak economy and declining export figures. Emissions from road transport decreased by 4 percent between 2011 and 2012 due to the fact that new cars are more fuel-efficient than older ones, as well as a higher proportion of bio-fuels and a reduction of the total amount of traffic on the roads in 2012.

With regard to the marine environment, over 6 percent of the territorial sea off Sweden's coasts and 3.5 percent of the exclusive economic zone are protected, and many marine areas are included in the Natura 2000 network. However, eutrophication, heavy fishing and the emission of pollutants have had a major impact on the seas. A large, efficient fishing fleet is a drain on a finite resource, and illicit cod fishing also takes place, estimated at 10 percent of reported Swedish catches. The vast majority of emissions come from other countries, such as the nitrogen emissions of the international shipping industry. Swedish emissions of phosphorus and nitrogen primarily come from sewage and industries, and diffuse leakage from arable land. A large proportion of nitrogen also comes from transport, combustion and animal husbandry. Although emissions of the eutrophying substances of nitrogen and phosphorus have declined, there is no noticeable change in the marine environment, and concentrations of persistent organic environmental pollutants in fatty fish are still higher than the threshold for the sale of fish for consumption that the EU has adopted.

Other environmental trends include reductions in the acidification of Swedish lakes, watercourses and forest land, which is a good example of the positive effects of international agreements and purposeful environmental initiatives. Although sulphur and nitrogen fallout has been reduced, acidifying fallout must decline further to reach a level that does not damage land and water.

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¹⁰⁵ Press release 4/18/2013.

With regard to biological diversity, Sweden has a long history of nature conservation, including being the first country in Europe to create national parks. Following the requirements of the EU habitat and species directives, Sweden's network of Natura 2000 areas is now almost complete. However, despite significantly increased initiatives, the loss of species, natural habitats and ecosystem services continues to increase. The intensive exploitation of the landscape has led to impacts on crucial environments, and it is difficult to reverse this trend. One example of this is farming land, parts of which are used increasingly intensively, while others become overgrown or are planted with forest. Nevertheless, there are also instances of nature conservation efforts having positive effects on biological diversity in lakes, watercourses and certain wetlands, measured by reductions in emissions of acidifying substances and the establishment of new wetlands.

ICELAND

Iceland has an area of 103,000 kilometres and is the second largest island in Europe after Great Britain. Situated just south of the Arctic Circle, the climate is characterised by relatively mild winters and cool summers, and the mean temperature is considerably higher than one might expect at this latitude. Glaciers cover more than 11 percent of the area, and glacial erosion has played an important part in giving the valleys their present shape, and in some areas the landscape possesses alpine characteristics. Regular monitoring has shown that all glaciers in Iceland are presently receding.

There are numerous rivers and lakes in Iceland, covering about 6 percent of the total land area. Freshwater supplies are abundant, but the rivers flowing from the highlands to the sea also provide major potential for hydropower development. Soil erosion and desertification is a problem, and more than half of the country's vegetation cover is estimated to have disappeared due to erosion since the settlement period. This is particularly due to clearing of woodlands and overgrazing, which have accelerated erosion of the sensitive volcanic soil, and remnants of the former woodlands now cover only about 1 percent of the surface area. Systematic re-vegetation began more than a century of ago, and reforestation projects have been numerous in the last decades, with active public participation.

Iceland has access to rich marine resources in the country's 758,000 km² exclusive economic zone. The abundance of marine plants and animals results from the influence of the Gulf Stream and the mixing of the warmer waters of the Atlantic with cold Arctic waters. Approximately 270 fish species have been found within the Icelandic 200-mile exclusive economic zone; about 150 of these are known to spawn in the area. A comprehensive fisheries management system based on individual transferable quotas has been developed to manage fish stocks and promote conservation. In 2010, emissions from fisheries were 18 percent below the 1990 level and 10 percent below the 2009 level.

Approximately one-fifth of the total land area of Iceland is suitable for fodder production and the raising of livestock. Production of meat and dairy products is mainly for domestic consumption. The principal crops have been hay, potatoes and other root vegetables, but cultivation of other crops, such as barley and oats, has increased rapidly in the last 10 years. Emissions from agriculture are closely coupled with livestock population size. Since 2005, emissions from agriculture have increased by 6 percent due to an increased in livestock population size but still remain 8 percent below 1990 levels.

During the past 20 years, increased emphasis has been placed on conserving diversity and threatened habitats in Iceland, especially through protected areas but also for example by influencing practices used in agriculture, afforestation, road construction, power plants and reservoirs. At present,

birch forests and shrub-land cover approximately 1 percent of Iceland. The primary threat to terrestrial flora is overgrazing and consequent loss of vegetation cover by erosion. Soil and vegetation conservation has been one of the conservation priorities in Iceland for several decades, with extensive recovery programmes in eroded areas. Natural wilderness areas and high biological diversity are important ingredients for recreation and enhanced tourism. About 72 bird species nest regularly in Iceland. The arctic tern is one of Iceland's most common seabird species, with colonies in all parts of the country and especially in coastal regions.

Per capita waste has steadily increased in the last decade. Growing consumption seems to be the main explanation for this trend. The increase is greater among companies than households. Waste was responsible for 5 percent of the total greenhouse gas emissions in Iceland the year 2010.

Geothermal heat and hydropower account for more than 70 percent of the country's primary energy consumption. Emissions from geothermal energy utilisation accounts for 4 percent of the total greenhouse gas emissions in Iceland in 2010. The use of fossil fuel for stationary energy is almost non-existent but fossil fuels are used for transport on land, sea and in air.

Three features stand out that make the Icelandic greenhouse gas emissions profile unusual. First is the high proportion of renewable energy of the total amount of energy used. Second, emissions from the fishing fleet are about one-fourth of total emissions. Third, individual sources of industrial process emissions have a significant proportional impact on emissions at the national level, due to the small size of the economy.

In Iceland's obligations according to the Kyoto Protocol for the first commitment period, from 2008 to 2012, greenhouse gas emissions should not increase by more than 10 percent from the 1990 level. Since 2008, emissions have decreased by 5 percent in 2009 and by 3 percent in 2010. The largest contributor of greenhouse gas emissions in Iceland in 2010 was the energy sector, accounting for 41 percent (fuel combustion 37 percent and geothermal energy 4 percent) of the total national emissions, industrial processes, accounting for 40 percent, and agriculture for 14 percent. The waste sector accounts for 5 percent and solvent and other product use for 0.1 percent.

According to the Environment and Food Agency's emissions forecasts up until the year 2020, it is very likely that Iceland will remain within its Kyoto obligations. The Icelandic Government has set long-term goal to reduce net GHG emissions by 50-75 percent from net 1990 levels by the year 2050.

It is uncertain what impact climate change will have in Iceland. Natural fluctuations in temperature are greater in the North Atlantic than in most other oceanic areas, so the impact of increasing temperatures due to the greenhouse effect will differ depending on the direction of the short-term natural fluctuation. An increase in temperature could have some positive effects on marine resources and fish stocks, but more insects could increase risks of disease in both plants and humans, which would be a negative impact. A worst-case scenario for Iceland would be if climate change led to major disruption in ocean circulation that had negative impacts on fish stocks.

NORWAY

Whereas income from the Norwegian oil and gas industry has resulted in a considerable increase in living standards in the last 20 to 30 years, and it is the main reason for Norway's favourable economic position, oil and gas production has been the main cause of increased carbon dioxide emissions in

Norway since 1990. Total greenhouse gas emissions increased by nearly 6 percent from 1990 to 2011, with emissions from the oil and gas industry increasing by 73 percent and emissions from road traffic increasing by nearly 30 percent. Emissions from manufacturing industries fell by almost 38 percent, and emissions from agriculture and landfills also decreased. Up to 2020, emissions from the oil and gas industry are expected to remain at about the current level, and then to decline towards 2030. However, emissions from the transport sector from manufacturing industries are expected to continue to grow.

Many changes caused by climate change have already been observed in the Norwegian natural environment, and major changes are expected to occur in future. Traditional recreational opportunities, such as skiing, may disappear in some areas. In some instances, climate change can reinforce the negative consequences of other pressures resulting in the destruction of habitat, the spreading of alien species, pollution and overuse of natural resources. As the climate warms up, indigenous species and ecosystems may be negatively affected, especially those that are already vulnerable and threatened. Large parts of the mountains will develop forest cover in the long run, and the growing season will be considerably longer. More frequent and intense precipitation can cause problems for agriculture and may cause erosion. In general, floods are expected to increase in extent, but with great local variations. Sea acidification is also likely to accelerate.

With regard to waste volumes generated by economic growth, in recent years more waste has been recovered and emissions from the waste sector have been reduced. Twenty years ago, it was common to landfill most of the waste in Norway. Since then, the proportion of the waste that is landfilled has decreased, while the proportion that is recovered has increased correspondingly. In 2011, approximately 87 percent of all waste was recovered. Material recovery and biological treatment account for 39 percent of the waste recovered, and about 30 percent is incinerated with energy recovery.

The Norwegian coastline, including the fjords and islands, is more than 57,000 kilometres long. About 80 percent of the population live in the coastal areas. The coastal zone and the coastal resources have played, and still play, a major role for settlement, employment and the national and regional economy. Significant activities in the coastal zone include fisheries, aquaculture, sea transport, tourism and recreation, and this spatial concentration creates a range of environmental pressures. In response, Norwegian land-use planning has developed Integrated Coastal Zone Management (ICZM), which promotes a holistic, collaborative and bottom-up approach involving all relevant stakeholders. The main objective is to ensure sustainable development of the coastal resources, both for the benefit of the coastal communities and for the nation as a whole.

Eutrophication in coastal waters and fjords in Norway is caused by discharges of nutrients particularly from fish farming, but also through runoff from agricultural areas and inputs from industry and municipal wastewater treatment. In addition, there is long-range transport of nutrients with ocean currents from more southerly parts of Europe. The latter process has particularly marked effects along the Skagerrak coast, but also influences the coastal waters of Western Norway. The input of nutrients to coastal waters are expected to rise with climate change, which will entail higher erosion rates and more leaching of nutrients from soil, because precipitation is expected to rise, especially in winter; and winter temperatures are expected to fluctuate more, resulting in repeated freezing and thawing of

agricultural areas. Both of these factors are likely to increase the amounts of nutrients leached from soils and transported to coastal waters.

Norwegian coastal waters can be divided into four main areas: the Skagerrak, the North Sea, the Norwegian Sea and the Barents Sea, with different levels of nutrient inputs. Fish farming is the largest source of nutrient inputs to the Norwegian Sea, the Barents Sea and the North Sea. Discharges are highest in the Norwegian Sea, where fish farms account for almost half of Norway's total phosphorus releases. The absolute rise in inputs has also been highest in the Norwegian Sea, as phosphorus inputs have tripled since 1998. The situation in the Skagerrak is different, with agriculture and municipal wastewater being the largest sources of nutrient inputs, and they have been fairly stable since 1990.

Norway's marine areas cover approximately 2 million km², including areas surrounding the Svalbard archipelago and the island of Jan Mayen. In addition to this the Norwegian coastline is among the longest of any country in the world. The coastal waters are rich in flora and fauna, and the adjacent marine areas are some of the most productive in the world. The state of Norway's marine areas is generally good, but they are under growing pressure from human activities such as aquaculture, extensive fishing and oil and gas production. Climate change and ocean acidification are emerging threats, but so far little research has been done on the possible impacts of these changes. Norway has developed an integrated and ecosystem-based approach to the management of marine areas, addressing the Norwegian part of the Barents Sea/Lofoten area (presented in 2006 and updated in 2011), the Norwegian Sea (2009) and the Norwegian part of the North Sea/Skagerrak area (to be finalised in 2013).

Because Norway is a long and narrow country, it has extensive transport needs. The use of private cars has increased fivefold over the past 40 years. Journeys by public transport only accounted for 8 per cent of the population's travels in 2005. Norwegians also fly more frequently and further, especially abroad. Emissions from journeys abroad are not included in the Norwegian emission inventory. Because of global warming, which results in more fairways, there is an increased risk of oil spills along the Norwegian coast.

The Arctic environment is under growing pressure from human activity. Tourists are heading deeper into the wilderness, and more and more people wish to experience the untouched nature that can only be found in polar regions. Commercial and industrial activities are also expanding further into the Arctic, and new technology is giving access to areas and resources that were once out of reach. Because the Arctic environment is so vulnerable, it is increasingly important to investigate the Arctic ecosystems and the impacts of these developments. Norway has set ambitious goals for its management of the Arctic environment, one of which is for Svalbard to become one of the best-managed wilderness areas in the world.

FINLAND

The programme area within Finland is characterised by high-quality Arctic scenery, encompassing unique nature and a wide range of natural resources. Given the environmental endowments, there is considerable scope for the promotion of renewable energy resources in accordance with nature protection (the area is self-sufficient in energy), and there is scope to operate on the basis of a bio-

based economy. It also provides a safe environment that could be developed for recreational purposes.

Potential and actual threats result from the tendency to utilise natural resources without a sustainable development (ecological, social and economic) perspective, climate change multiplier effects and unforeseen effects (such as flooding), conflicting interests associated with land-use, unforeseen environmental risks for business, and declining population in sparely populated areas. There is also inadequate information on environmental resources, inefficient use of resources, and a lack of opportunities to develop alternative methods for environment-friendly practices. Multi-objective environmental impact assessments have been few in number and they have generally been of poor quality, and existing environmental damage is not being treated.

In Lapland, where the cornerstones of the economy are tourism, the steel and metal industry, the mining industry, reindeer husbandry and forestry, as well as the emerging energy sector, the role of mineral prospecting and mining has become more prominent in the last few years. The ore resources in Lapland are considered to be among the richest in Europe, new mines have been opened and new ones are currently being planned. A particular threat is represented by mining for gold, nickel and other minerals, for example in the area of Viiankiaapa, which is part of the Natura 2000 network of ecological sites. This region contains exceptional biodiversity, including 21 endangered birds and 9 endangered plant varieties amongst the marshy reserve's flora and fauna. Whereas the Finnish Government anticipates new jobs and investment, periodic accidents during the extraction process are damaging the area's fragile wetland ecosystem. In addition, in towns such as Sodankylä and Kusamo, toxins from tailings are seeping into surrounding lakes and rivers, and test-drilling for gold mining – which is associated with radioactive (uranium) residues – has commenced adjacent to a popular ski resort.

With regard to the Arctic's unique species, sensitive ecosystems and cultural biotopes, there is a need for restoration, preservation and improvement, alongside the restoration of water bodies and their catchment areas, preservation and fostering the world's northernmost agriculture and forestry with species that are genetically adapted to cold and long winters and short but long-daylight growing seasons. There is also a need for proactive promotion in landscape management of conditions for recreation and sustainable tourism, as well as coordination of overlapping forms of land-use, promotion of the ecologically sustainable use of renewable natural resources and enhancement of its social acceptability, enhancement of Arctic environmental knowledge and increased information and awareness-raising activities, enhancement of environmental research and application of the results in business and innovation, promotion of the low-carbon economy in all sectors, avoiding and preventing environmental damage from mining and conflicts with other activities, and improving the quality of environmental, social and regional economic impact assessment in Arctic conditions.

FAROE ISLANDS

For the Faroe Islands, global climate models have projected an increase in the mean annual temperature of approximately 3°C for 2071-2100 compared to 1961-90, with only small differences in temperature rise between winter and summer. Precipitation levels in the region are generally expected to increase, with a small increase in precipitation of around 4 percent in the Faroe Islands.

Fisheries and fish farming constitute the most important economic sectors in the Faroe Islands. The dominance of these sectors makes the impact of climate change on fisheries and fish farming especially important to understand and, where possible, plan for. Many coastal and marine ecosystems are already under pressure from various human activities that result in pollution, overfishing and damage and loss of habitats. The potential effects of climate change, along with other pressures, render marine ecosystems particularly vulnerable.

Climate change in terms of severe weather, a rise in sea levels, coastal erosion, increased precipitation and runoff could also affect energy production and potentially damage existing sites. Sea level rise will also affect existing harbours. Nevertheless, climate change could also have positive effects on the production of energy. As electricity production in the Faroe Islands is substantially based on hydropower (34 percent in 2012), the increased precipitation and a substantial increase in runoff during winter in large parts of the hydropower production areas could yield higher potential for hydropower production.

The exceptional natural environment is an important asset for the tourism sector in the Faroe Islands. In 2007, the *National Geographic* declared the Faroe Islands to be the most appealing and unspoiled islands in the world. Given the region's fragile environment, tourism development must be carried out under sustainable conditions. The Faroe Islands have made efforts to develop the tourism industry as a way to diversify the economy, but it still represents a small share of economic activity. There is scope to develop tourism further, based largely on local resources, and to create new job opportunities and supplement tourism-related activities. However, the development of tourism is constrained by factors linked to the peripheral location.

11.3 Summary Environment SWOT

STRENGTHS	WEAKNESSES	
 Abundance of natural resources Unspoilt environment Quality of life and wellbeing Biological diversity Existing and potential scope for recreation and tourism High-quality raw materials (forests, minerals etc) Wide range of sources for renewable energy production (e.g. biomass, wind, wave, hydro, geothermal) 	 Inadequate information on environmental resources Inefficient use of resources Limited quality of environmental impact assessments Untreated environmental damage Eutrophication Greenhouse gas emissions (in some countries and sectors) Inadequate biodiversity protection (in some countries) 	
OPPORTUNITIES	THREATS	
 The green economy New employment opportunities by investing in renewable energies and environmental technology Recycling and energy efficiency Sustainable tourism/Eco-tourism Green products and services development, including public goods Capitalising on the opportunities from climate change, such as new agricultural opportunities and new sea routes Unexplored natural resources (e.g. the ocean and minerals) 	 Pollution of air, water or land Coastal erosion Ocean acidification Natural disasters and extreme weather Rising sea levels and flooding Rising surface temperatures Reduced/increased precipitation Oil and mineral extraction processes Failure to exploit natural resources in a sustainable manner Slow transition to a low-carbon economy Increasing energy costs 	

12. STRATEGIC ENVIRONMENTAL ISSUES

12.1 Introduction

This section identifies environmental issues considered to have a strategic dimension in the context of the Northern Periphery and Arctic Programme for 2014-2020. In particular, these issues illustrate existing conditions as well as trends that will occur or continue to occur without implementation of the NPA programme. The following sub-sections highlight concerns, challenges and pressures, in addition to on-going mitigation measures.

The range of themes, which reflects the environmental factors reviewed in the previous section, is categorised under four headings:

- Climate and Arctic change
- Land-use management
- Energy and resource efficiency
- Marine pollution.

The potential for the NPA programme to impact on these issues is addressed in section 13, reviewing the scope for significant effects that require investment to prevent or mitigate negative impacts or to support and secure positive impacts.

12.2 Climate and Arctic Change

Across the NPA programme area, a range of impacts is anticipated from continued climate change. These include drier summers, changes in species migration patterns and more pressure on biodiversity, changes in sea temperatures, more extreme weather events, and increased coastal and inland flooding. Flooding is particularly highlighted as likely to increase in frequency and severity, for example in Scotland as rises in sea level are expected to affect almost the whole coastline, some areas worse than other, in Greenland as sea-level rises threaten coastal infrastructure, and in Sweden as greater precipitation sees increasing risks of flooding, landslides and avalanches. By contrast, however, less rain in Greenland might require irrigation works in future to sustain the anticipated levels of commercial crop production.

These challenges highlight the need for capacity-building and a better understanding of the process of climate change as well as an awareness of its economic impacts. Evidently, a more integrated and pro-active response is required, with better-developed risk prediction methodologies that incorporate multiplier effects. Consideration should also be given to the scope for future-proofing new development from climate change through location, layout and building design.

Climate change mitigation can be supported through the development of renewable energy resources, reduced reliance on fossil fuels, and wider support for the transition to a low-carbon economy (a theme which is addressed here as a separate issue). Furthermore, there is already evidence of positive outcomes from climate change, such as the increased scope for agriculture in

Greenland, and projects could concentrate on the potential to be derived from currently unfolding and future scenarios.

In the last 40 years, the planet has warmed about 0.8° C, but the Arctic has been warming twice as fast due to the Gulf Stream's warmer waters, 24-hour sunlight in summer, and more exposed ocean that absorbs the sun's radiation. In September 2012, the extent of the Arctic Ocean's ice cap reached a new low, shrinking to 1.32 million square miles, 300,000 square miles less than the previous record low set in 2007. Some scientists believe that, at this rate, the Arctic could be ice-free by 2030 or even earlier.

As the sea ice melts, the Arctic's reflective white cover is replaced by dark ocean water that absorbs more of the sun's heat, warming the ocean and contributing to further melting. Even when ice remains, if it is thin, sunlight penetrates it and warms the water. Melting sea ice does not directly contribute to sea level rise (because the ice is floating and displaces its weight in water), but the expansion of warmer waters does. Moreover, the warmer water and air are accelerating the melting of the 1.9-mile-thick ice sheet that sits atop most of Greenland, which also adds to sea-level rise. In July 2012, 97 percent of the ice sheet experienced some degree of melting, and as it melts, the exposed land absorbs more sunlight. If the ice sheet melts completely, global sea levels could rise 20 feet.

Much of the Arctic is covered by permafrost, soil at-or-below the freezing point of water for two or more years. Permafrost stores carbon from dead plants, and the cold prevents microbes from decomposing the organic matter. It is estimated that Arctic permafrost holds 1.7 trillion tons of carbon — more than all human activity has generated since the start of the Industrial Revolution. As warmer temperatures thaw the permafrost, organic matter decays and releases carbon dioxide and methane, a heat-trapping gas 23 times more dangerous than carbon dioxide.

Reflecting the issues described above, the Arctic Biodiversity Assessment published by the Arctic Council in 2013 highlighted the impact of climate change amongst its key findings, describing it as by far the most serious threat to Arctic biodiversity and one that exacerbates all other threats. The total loss of some key habitats such as multi-year pack ice is expected within a process of rapid change and transition in which new combinations of species are already altering Arctic ecosystems. Greater accessibility is also placing other pressures upon the region, and pollution from both long-range transport and local sources threatens the health of Arctic species and ecosystems. Significantly, the study also concluded that the transboundary challenges facing Arctic biodiversity are interconnected, requiring comprehensive solutions and international cooperation to conserve biodiversity in a holistic fashion.

Nevertheless, there are benefits as well as challenges arising from climate change impacts on the Arctic environment. Greenland already has new opportunities related to the growth of crops and vegetables, which can increase agricultural production and sustainability by allowing the consumption of own locally-grown produce, so requiring fewer imports and consequently less transportation. Shorter sea routes already offer savings in time and fuel, generating the need for observation of the environmental aspects of the Polar Code for oil tankers in international Arctic waters as well as support for environmental protection measures.

In addition, the Arctic's new accessibility will bring more trade, tourism and scientific research, and the greater accessibility of natural gas and minerals with the associated increased revenue from

exploitation and the issue of commercial licenses. Ultimately, however, from a global perspective, the latter extraction activity will mean more emissions from fossil fuel consumption, creating a larger footprint and undermining elements of sustainability.

Care will be needed in the extraction process to avoid man-made disasters such as pollution and oil spills, and shipping accidents. The challenge will be to find a balance between the threats to the Arctic that warming represents and the opportunities it provides. There is a need for preservation and protection of the Arctic's unique species and sensitive ecosystems in the programme area, to increase Arctic environmental knowledge and to strengthen awareness-raising in this field. Impact assessments (environmental, social and regional) are required to maintain and improve quality in the Arctic conditions.

12.3 Land-Use Management

Management of the wider landscape is important for maintaining biodiversity levels, particularly relevant for dominant land-use types such as agriculture and forestry. The wide range of issues to consider includes maintaining wild lands, retaining traditional buildings, reducing the dominance of single land-use types in the landscape (such as renewable energy and forestry) and retaining the distinctiveness of mixed agricultural landscapes and upland areas.

In practice, land-use pressures on biodiversity continue to result in loss or damage to natural habitats. In Scotland, for example, threats to biodiversity include, inter alia, the exploitation of natural resources, invasive non-native species, energy generation, infrastructure enhancement, and agricultural and forestry practices. In Iceland, clearing woodlands and overgrazing have resulted in soil erosion and desertification, creating a need for re-vegetation projects that emphasis the conservation of biodiversity and threatened habitats. In Sweden, where stopping the loss of biological diversity has been identified as a main challenge, the exploitation of the landscape has led to direct and negative impacts on vulnerable environments. Nevertheless, there have also been positive impacts in Sweden, as nature conservations efforts have improved biodiversity in lakes, watercourses and wetlands.

Agriculture has proved to be a key source of diffuse pollutants, with nutrient enrichment from agricultural run-off and discharges from wastewater treatment plants resulting in the eutrophication of rivers, lakes and coastal and transitional waters in Scotland and Ireland, for example. There is also the danger that groundwater may also be polluted by agricultural use of fertilisers, manures and slurries. In comparison, the agricultural intensification and urban area expansion (construction, roads, railway-building) in Northern Ireland have reduced the diversity of vegetative cover, leading to increased soil erosion. Overall, behavioural and cultural changes are needed at farm level, which requires educational tools and advisory programmes.

There are concerns about the impacts of mining (and any extractive industry in general) on water resources, soil, the landscape and biodiversity in general. These issues relate particularly to Lapland, Northern Sweden and potentially large areas of Greenland. For instance, interest in mining and oil exploration has increased in Greenland following the thawing of ice-sheets, with a view to recovering oil, gas and minerals from glacial surroundings. Mineral extraction industries also exert pressure on the environment in Northern Ireland, and in Finland, where mining for gold, nickel and other minerals is taking place within the Natura 2000 network of ecological sites. Another aspect concerning

extractive industries is the threat of radioactive materials (mainly uranium) remaining in the mine areas for decades after the closure of the mine. Some observers consider these threats to be as significant as the immediate threats of agriculture, wind farms, or oil drilling. As a consequence, it is important that the future programme should not support initiatives that would promote these threats.

Landscape character is also being threatened by a number of factors. These potentially include intensive farming, infrastructure improvements, land and flood management, forestry practices, the concentration of wind farms, and land abandonment. There is also evidence that the pressures on soil have been increasing through more intensive land management and changes in land use. Conditions in Finland, where a sustainable development methodology has been lacking and environmental impact assessments have been of limited quality, have highlighted the need for proactive promotion in landscape management conducive for recreation and sustainable tourism, as well as coordination of overlapping forms of land-use, promotion of the ecologically sustainable use of renewable natural resources and enhancement of its social acceptability, and the enhancement of Arctic environmental knowledge.

Future perspectives in Scotland include the need to provide good quality green space, and remediate derelict and vacant land, whereas future investments in the natural and built heritage in Northern Ireland are expected to emphasise sound environmental principles. There is also an impetus in Northern Ireland to invest in properties of most significant nature conservation or historic interest, to have sustainable re-use of the historic environment and local materials, and to increase sustainable tourism.

12.4 Energy and Resource Efficiency

The drive towards the low-carbon economy comprises a key theme for investment. The energy sector is one of the major contributors to greenhouse gas (GHG) emissions, and in some countries it makes the greatest contribution of all sectors. Recent trends in emissions indicate that countries within the NPA programme area have recorded significant improvements in relation to 1990 levels, but further behavioural change is required. For example, there have been substantial reductions in Ireland's GHG emissions in recent years, and in Scotland there was an overall decrease from 1990 to 2010, but an increase between 2009 and 2010. In Sweden, emissions of GHGs fell by 5 percent between 2011 and 2012 to reach the lowest figure since the base year of 1990 (from which there has been a total reduction of 20 percent), and in Iceland emissions decreased by 5 percent in 2009 and by 3 percent in 2010. However, in Norway, GHG emissions increased by nearly 6 percent from 1990 to 2001, and emissions from the oil and gas industry are only expected to decline towards 2030, while manufacturing and transport emissions are expected to continue to grow.

There is a clear need and considerable scope to develop renewable natural resources, promote ecological sustainability and gain social acceptability for these activities. Overall, with effective promotion of low-carbon activities in all sectors, countries that take a pro-active role in developing a sustainable green economy are more likely to be successful in the future global economy. For example, Ireland's strategy for the development of a green economy recognises opportunities for investment and employment-creation in sectors such as renewable energy and energy efficiency, low-carbon transport, waste management and green tourism. Clean energy from renewable sources will be critical to this vision, currently outlined in energy roadmaps illustrating the potential benefits of

future alternative energy systems. In comparison, in the Faroe Islands, increased precipitation from climate change may lead to opportunities for increased electricity production based on hydropower.

Resource efficiency is an area of European policy that has significantly increased in importance during the current programming period, and the focus on using resources in a sustainable manner while minimising impacts on the environment is at the heart of the Europe 2020 Strategy. Resource efficiency is a powerful driver for mainstreaming environmental considerations across the range of economic sectors. By focusing on raw materials such as fuels, metals and biomass, as well as the air, water and soil ecosystems that support them, resource efficiency reduces inputs – creating more for less – and minimises waste in economic activities while also addressing environmental objectives. This approach extends equally to the public and private sectors. Businesses in Ireland are generating financial savings and competitive advantages from adopting an environmentally sustainable and resource-efficient approach to their activities, focusing on reducing the costs of energy, raw materials and waste management. Similarly, in Northern Ireland, sector-specific guidance addresses business resource efficiency and product design, while pilot projects promote best practice and demonstrate how businesses can minimise environmental impacts.

Awareness-raising activities may highlight the potential benefits for individual companies through the adoption of environmental management systems, as well as broader benefits through implementation of the waste hierarchy (reduces, reuse, recycle) within relevant sectors and the protection of finite resources such as soil.

12.5 Marine Pollution

A number of pressures are impacting on the marine environment, with pollution as the major outcome. Source and diffuse pollution, particularly in Scotland's coastal and transitional waters, constitutes a key pressure, alongside marine litter and invasive species. In comparison, in the Republic of Ireland, nutrient enrichment is the principal cause of water pollution, as agricultural runoff and discharges from wastewater treatment plants result in the eutrophication of tidal waters. In Sweden, although many marine areas are included in the Natura 2000 network, tackling marine eutrophication is also regarded as a major challenge, and the emission of pollutants has had a major impact on the seas. Whereas the vast majority of emissions come from other countries, such as the nitrogen emissions of the international shipping industry, Swedish emissions of phosphorus and nitrogen primarily come from sewage, industry and diffuse leakage from arable land, and a large proportion of nitrogen also comes from transport, combustion and animal husbandry. Emissions of these eutrophying substances have declined, but there is no noticeable change in the marine environment, and concentrations of persistent organic environmental pollutants in fatty fish are still higher than the permitted EU threshold.

Norway's marine areas are under growing pressure from human activities, and eutrophication in coastal waters and fjords in Norway is caused by discharges of nutrients particularly from fish farming, but also through runoff from agricultural areas and outputs from industry and municipal wastewater treatment. The input of nutrients to coastal waters is expected to rise with climate change, which will entail higher erosion rates and more leaching of nutrients from soil, as precipitation is expected to rise, especially in winter. Winter temperatures are expected to fluctuate more, resulting in repeated freezing and thawing of agricultural areas. Both of these factors are likely to increase the amounts of nutrients leached from soils and transported to coastal waters. With regard to the seas, fish farming is

the largest source of nutrient inputs to the Norwegian Sea, the Barents Sea and the North Sea. Discharges are highest in the Norwegian Sea, where fish farms account for almost half of Norway's total phosphorus releases. Phosphorus inputs in the Norwegian Sea have tripled since 1998.

In the Faroe Islands, coastal and marine ecosystems are under pressure from various human activities that result in pollution, overfishing and damage and loss of habitats. The potential effects of climate change, along with other pressures, render marine ecosystems particularly vulnerable.

To address this issue, work is on-going to identify new Marine Protected Areas (MPA) in the seas around Scotland, which will protect important marine habitats and wildlife, geology and geomorphology, as well as features of cultural importance. Mechanisms are also being established for the protection of priority sites for marine conservation in Northern Ireland, in an effort to ensure clean, safe, productive and biologically diverse seas. In that national context, robust monitoring and scientific advice will support the implementation of new marine legislation, and a network of protected marine sites will fully integrate with marine planning for balanced and sustainable use of resources. Norway has developed an integrated and ecosystem-based approach to the management of marine areas, addressing the Norwegian part of the Barents Sea/Lofoten area, the Norwegian Sea and the Norwegian part of the North Sea/Skagerrak area. The development of marine strategies in EU member countries, in accordance with the EU Marine Strategy Framework Directive, provides practical opportunities for transnational cooperation.

Another form of marine pollution is represented by ocean acidification, which is a term used to describe the changes in the chemistry of the world's seas, primarily as a result of burning fossil fuels. Increasing acidity in the ocean is caused by the uptake of carbon dioxide from the atmosphere. In combination with other ocean biogeochemical changes, this could substantially undermine the functioning of some ecosystems and marine wildlife. Ocean acidification also threatens commercial fisheries, as acidification harms the calcifying organisms which form the base of the Arctic food webs, and it may impact on the Arctic tourism industry and economy.

13. ENVIRONMENTAL ASSESSMENT

13.1 Introduction

At this stage in programme development, the exact locations, nature and impacts of actions cannot be identified, as this depends on specific projects that will support the delivery of the programme strategy. Accordingly, the approach of this report is to provide an indication of the range of potential impacts and highlight ways in which positive impacts can be generated and negative impacts minimised.

The methodology of environmental assessment divides the task into several components. Following a description of how environmental objectives formed an integral part in the programme's evolution, the vision and priorities are assessed for environmental conformity with the Europe 2020 Strategy and the EU Seventh Environmental Action Programme. This extends into an appraisal of the programme objectives within the priorities, in each case reviewing a range of effects from positive impacts resulting in environmental gain through to negative outcomes requiring mitigation.

Thereafter, consideration is given to likely significant effects, the scope for mitigation measures, and corresponding indicators that would facilitate the monitoring of environmental effectiveness.

13.2 Alternatives

The consideration of alternative scenarios was facilitated within the programming process through interaction between the ex-ante evaluators and the Programme Planning Group. This included an appraisal of the appropriateness of the 11 thematic objectives proposed by the European Commission, in the effort to identify the best fit through a combination of the four most relevant objectives for the Northern Periphery and Arctic Programme.

The evaluative process of weighing the options resulted in the selection of objectives 1, 3, 4 and 6, the latter two being environment-related: objective 4, on supporting the shift towards a low-carbon economy, and objective 6, on protecting the environment and producing resource efficiency. With regard to objective 4, the programme area was considered to have high potential for the further development of renewable energy. In particular, the programme could be active in focusing on how remote communities and businesses can work to address the issue, while also supporting actions under thematic objectives 1 and 3. With regard to objective 6, the programme area was acknowledged to contain unique environments and numerous primary resources to be handled in a sustainable and sensitive manner. However, as the reality is complex and large-scale, the required interventions would be beyond the capacity of local and regional authorities. In this context, the NPA programme can contribute by fostering the exchange of experience and capacity-building among public actors.

Objective 5, which relates to promoting climate change adaptation, risk prevention and management, was also considered. The programme area is facing the immediate and direct impacts of climate change, but this is also a field in which the area holds specific expertise. However, many of the significant and substantive measures required to respond to climate change are beyond the scope of the programme, and the programme goals must be set in line with its resources. It was concluded that interventions that address this issue and which meet the programme's resources and rationale could be funded through thematic objective 1. Furthermore, seen in relation to the proposed investment

priorities within the EU guidance (mainly direct investments in relation to climate change adaptation), this thematic objective was assessed as having minor relevance for the NPA programme.

For objective 7, which relates to sustainable transport, the NPA programme was assessed as having limited scope to address issues and deliver results in this area, due to the small number of large urban areas and the relatively modest financial resources available to the programme.

In a further initiative, a horizontal principles workgroup was set up to explore the meaning and application of sustainable development for the new programme. Reviewing the region's natural resources, it identified considerable opportunities for activities based on synergies between different resources in areas such as the green economy, renewable energy and eco-tourism. Objectives proposed for the programme included: pursuing a better quality of life through investment in, and the sustainable use of, natural, human, economic and manufactured resources; and contributing to a better consideration of the environmental, societal and economic interdependence of operations, so that they impact positively on each other and generate win-win outcomes. In September 2013, following a focus group consultation, the Programme Planning Group took the decision to re-name the horizontal principle of sustainable development to become 'environmental sustainability'.

13.3 Appraisal of Programme Elements

Table 21: NPA Programme Environmental Conformity and Potential Impact

PROGRAMME ELEMENT	CONFORMITY WITH EUROPE 2020 STRATEGY & 7 th ENVIRONMENTAL ACTION PROGRAMME (EAP)	POTENTIAL IMPACT ON STRATEGIC ENVIRONMENTAL ISSUES
Vision		
The NPA Programme 2014-20 aims to expand regions' horizons, building on concrete outcomes, and enabling the NPA area to be a first-class region in which to live, study, work, visit and invest. The programme will generate vibrant, competitive and sustainable communities by harnessing innovation, expanding the capacity for entrepreneurship, and by seizing the unique growth initiatives and opportunities of the Northern and Arctic regions in a resource-efficient way.	Conforms with the Europe 2020 strategy for smart, sustainable and inclusive growth, facilitating a greener, resource-efficient and competitive economy, appropriate for a low-carbon scenario, and offering scope to prevent environmental degradation, biodiversity loss and the unsustainable use of resources. Links directly with EU 2020 Flagship initiatives for Innovation Union, Resource-efficient Europe, and Industrial Policy for the Globalisation Era. Supports the 7 th Environmental Action Programme's pursuit of an inclusive green economy and the regional dimension of cooperation between neighbouring countries, including international, regional and bilateral processes that increase EU effectiveness in addressing regional and global environmental and climate challenges. Also contains scope to ease pressures on the environment while introducing increased competitiveness and new sources of growth and jobs through improved efficiency, commercialisation of innovation, and better management of resources.	The programme vision of generating vibrant, competitive and sustainable communities allows wide scope for addressing the identified strategic environmental issues. Climate and Arctic change can be addressed through pursuing a low-carbon economy, reducing the reliance on fossil fuels and avoiding the unsustainable use of natural resources, and supporting the development of renewable energy resources and appropriate innovations within technology transfer. Land-use management can prevent environmental degradation and the loss of biodiversity, secure the sustainable exploitation of natural resources, discourage projects associated with environmentally-damaging extractive industries, be proactive in promoting landscape management, and integrate nature conservation principles into regional economic development. Energy and resource efficiency can be attained through projects that support a green economy, realising opportunities for investment and employment-creation for example in renewable energy and energy efficiency, low-carbon transport, waste management and green tourism. Promoting business-resource efficiency can generate financial savings and competitive advantage for entrepreneurs, while minimising environmental impacts. Marine pollution can be addressed through better management and by specific measures to reduce impacts on marine and coastal waters, lessening and preventing eutrophication by focusing on issues within industries and industrial practices, and through supporting transnational cooperation in coastal zone management and the development of effective marine strategies.

Priorities and associated Objectives		
	Reflects the Innovation Union Flagship in efforts to refocus innovation and R&D on challenges facing society, including climate change, energy and resource efficiency, while turning innovative ideas into products and services that create growth and jobs. The Flagship also seeks to facilitate key enabling technologies to shape Europe's industrial future. The Priority also reflects the Industrial Policy Flagship's support for the development of a strong and sustainable industrial base able to innovate and compete globally. Furthermore, Horizon 2020, the financial instrument for the Innovation Union Flagship, is intended to focus research efforts and deploy Europe's innovation potential by bringing together resources and knowledge across different fields and disciplines within the EU and internationally.	
Using innovation to maintain and develop robust and competitive communities	Innovation with regard to resource efficiency was highlighted in the consultation for the 7 th Environmental Action Programme. Addressing complex issues requires tapping into the full potential of existing environmental technology and ensuring the continuous development and uptake by industry of the best available techniques and emerging innovations. Innovation to improve resource efficiency is required across the EU economy to improve competitiveness in the context of rising resource prices, scarcity and supply constraints. Although the business sector is the prime driver of innovation, government action at EU and Member State levels is essential to provide the right framework conditions for eco-innovation, stimulating the development of sustainable business or technological solutions to environmental challenges. Emphasis is to be placed on public and private research and innovation efforts required for rolling out innovative technologies, systems and business models which will speed up and lower the cost of transition to a low-carbon, resource-efficient economy.	Addresses the issues of: • Climate and Arctic Change • Energy & Resource Efficiency

	European companies already have a global lead in recycling and energy efficiency and should be encouraged to benefit from this growth in global demand, supported by the Eco-innovation Action Plan. For example, by 2020 the European renewables sector is expected to generate more than 400,000 new jobs.	
Increased innovation and transfer of new technology to SMEs in remote and sparsely populated areas		Establishing and improving innovation systems allows scope to promote R&D and technology transfer that incorporate innovations that reduce the impacts of climate change and improve resource efficiency amongst SMEs. Accordingly, the NPA programme could support cooperation, innovation and transfer of knowledge and environmental technology, and address themes such as the sustainable use of non-renewable and renewable resources, which would be particularly significant for the Arctic territories. The scope for negative environmental impact is limited, with the most likely scenario being a missed opportunity to initiate useful technology improvements and losing the associated beneficial impacts in areas such as energy efficiency, recycling and resource use, slowing the transition to a low-carbon economy.
Increased innovation within public service provision in remote and sparsely populated areas		There is potential to utilise innovative technology that reduces environmental impacts while securing the viability of public services. Within this theme, the adoption of innovative models and technology-driven solutions can lead to more efficient use of limited resources, including energy for transport through the incorporation of green technologies. No direct negative environmental impacts would be envisaged from increased innovation within public sector provision. As in 1.1 above, however, programme implementation would need to ensure that favourable opportunities were realised to secure maximum environmental gain from supported initiatives.

2. Promoting entrepreneurship to realise the potential of the programme area's competitive advantage

Europe 2020 seeks to improve the business environment, particularly for SMEs, by placing emphasis on production processes and products that support a low-carbon economy, realising opportunities within the green economy, supporting the transition to greater energy and resource efficiency, and investing in existing natural assets. The promotion of energy efficiency within the Resource-efficient Europe Flagship can further support the competitiveness of entrepreneurs and the programme area's competitive advantage.

Within the 7th Environmental Action Programme, Priority Objective 2 envisages a competitive low-carbon economy, highlighting how reducing greenhouse gas emissions and enhancing resource efficiency will ease pressures on the environment and bring increased competitiveness and new sources of growth and jobs through cost-savings from improved efficiency.

Addresses the issues of:

- Climate and Arctic Change
- Energy & Resource Efficiency
- Land-use Management

Improved support systems tailored for start-ups in remote and sparsely populated areas	Business support strategies have the potential to emphasise and incorporate positive environmental perspectives and environmental management systems for new start-up companies, particularly in training initiatives. Such actions could support the transition to a resource-efficient, green and competitive low-carbon economy, reducing the environmental impact of business, reducing waste generation, and halting the loss of biodiversity and ecosystem degradation. Place-based opportunities offer scope to enhance protection and appropriate use of natural and cultural heritage, especially through informed (environmentally aware) entrepreneurship in the sustainable/eco-tourism and experience industries based on the high quality of nature in the programme area, while creating new employment opportunities. In addition to the scope for missed opportunities, for example if environmental management systems and enhanced awareness are not introduced to these companies, potential for negative impacts may lie in the tourism and experience industries, if the development of these functions within the natural and cultural heritage does not incorporate appropriate and adequate training on best practice development within these industries. Natural resources must be exploited in a sustainable manner, avoiding risks of further pollution. Appropriate monitoring and feedback would be required regarding the impacts of completed initiatives.
2.2 Greater market reach beyond local markets for SMEs in remote and sparsely populated areas	Positive environmental scenarios could include a sectoral focus for clusters of SMEs in the transfer and development of marketing concepts and models that specialise in sustainable development solutions or products that address environmental problems or integrated environmental management methodologies. Overall, there is scope to increase the positive impact of SMEs in terms of resource efficiency, waste recycling, energy, and green products and services, especially if participating companies are prepared to market their environmental strengths within their portfolio. This would accord well with SMEs operating in the realm of high-quality natural products, for example, as envisaged by the programme. Successful expansion of cruise tourism would need to be accompanied by greater awareness of sustainability thresholds and the capacity of various environments to accommodate greater loads, as traffic increased, to avoid threatening natural resources and habitats or polluting the air, water or land. In

			addition, support for major investments such as new mining projects or wind farms would require careful consideration to ascertain whether this action was appropriate, as well as determining the forms of impact assessment, safeguards and conditions to be imposed. Again, appropriate monitoring feedback would be required regarding the impacts of on-going and completed projects.
3.	Fostering energy-secure communities through promotion of renewable energy and energy efficiency	This Priority reflects the Europe 2020 drive for a more resource-efficient, greener economy, and specifically the Resource-efficient Europe Flagship's aim of decoupling economic growth from the use of resources. That Flagship also stresses the need for an urgent and significant transition to a low-carbon economy, increasing the utilisation of renewable energy sources and the promotion of energy efficiency. In addition, the Industrial Policy Flagship supports the transition to greater energy and resource efficiency, promoting technologies and production methods that reduce natural resource use, whereas the Innovation Union Flagship facilitates a strategic agenda focused on challenges such as energy security. Within the 7 th Environmental Action Programme, Priority Objective 2 addresses resource efficiency especially through meeting 2020 climate and energy targets, reducing the environmental impact of industry, increasing resource efficiency reducing waste generation, and limiting energy recovery to non-recyclable materials.	Addresses the issues of: • Climate and Arctic Change • Energy & Resource Efficiency
3.1	Increased use of energy efficiency and renewable energy solutions in housing and public infrastructure in remote and sparsely populated areas		Projects addressing higher energy efficiency and renewable energy will reduce consumption of natural resources and can promote the use of new technologies in renewable energy solutions for public sector infrastructure and housing. In addition to energy-efficiency in buildings, there is scope for the utilisation of by-products from economic activities as energy sources (symbiosis). Overall, there is potential for a direct contribution to the mitigation of climate change through reduced reliance on fossil fuels, reduced greenhouse gas emissions and broad support for the transition to a low-carbon economy. Other positive features include the scope to further the social

		acceptability of energy efficiency measures, promote ecological sustainability, and create employment in the renewable energy sector. The potential for negative impacts is very limited. Nevertheless, there is a general need to ensure long-term environmental conformity, so that projects addressing improvements in energy efficiency are based on realistic and sustainable renewable energy scenarios, preferably utilising local natural resources, and models for the construction of energy-efficient housing should use low-energy building materials based on natural products from the programme area.
4. Protecting, promoting and developing cultural and natural heritage	Europe 2020 acknowledges the global pressure on natural resources and the environment, and it supports increased investment in the EU's existing natural assets. Europe 2020 also identifies cultural diversity as a significant strength of the European Union, and, through the Digital Agenda for Europe Flagship, advocates the digitisation of Europe's rich cultural heritage. Within the 7th Environmental Action Programme, Priority Objective 1 seeks to protect, conserve and enhance natural capital, specifically halting the loss of biodiversity and ecosystem degradation, reducing impacts on fresh and coastal waters, reducing pressures on marine waters, protecting soil and remediating contaminated sites, and improving the resilience of forests to climate change and fires. In addition, Priority Objective 7 seeks to improve environmental integration and policy coherence, particularly through carrying out systematic ex-ante assessments of environmental, social and economic impacts; and Priority Objective 8 aims at enhancing the sustainability of cities through sustainable urban planning and design.	Addresses the issues of: • Climate and Arctic Change • Energy & Resource Efficiency • Land-use Management • Marine Pollution
Increased capacity of remote and sparsely populated communities for sustainable environmental management		Supporting capacity-building, knowledge-sharing, best practice models and tools in relation to protecting, promoting, and developing the cultural and natural heritage can generate

considerable potential for empowering communities to perform systematic and balanced assessments of environmental, social and economic impacts. Pooling expertise and competence can facilitate appropriate management of the conflicting demands of the different elements, with more dynamic interpretations of sustainable environmental management enhancing the management of natural resources, resource efficiency, and protection of the environmental heritage. This Objective contains scope to protect the environment against pollution from economic activities such as mineral extraction, to mitigate soil contamination, to reduce the impacts on marine and coastal waters through supporting coastal zone management, and to support actions related to combating ocean acidification.

To ensure the viability of the approach within this Objective, there is a need to ensure a balanced consideration of the different dimensions of sustainable development, preventing the domination of one dimension over the others. To this end, the expertise, knowledge and methodologies must create a clear awareness of the significance and means of maintaining equilibrium between competing economic, social and environmental interests. Equally, care must be taken to prevent particular groups or authorities from gaining disproportionate knowledge or skills that would afford them scope to orient outcomes primarily in their favour, rather than benefiting the community as a whole.

Kontigo

13.4 Significant Effects

In general terms, environmental outcomes would be significant in scenarios where the momentum of activity generates positive cumulative impacts or alternatively where activities may generate negative unforeseen or mismanaged environmental impact.

The appraisal performed in Table 21 illustrates that the programme demonstrates a clear compatibility with the objectives of the Europe 2020 Strategy and the Seventh EU Environmental Action Programme. Moreover, the programme has adopted environmental sustainability as a horizontal principle. Nevertheless, there are inevitably uncertainties in terms of the form and significance of potential impacts and how effective the programme will be in securing positive outcomes.

With regard to **significant positive environmental effects**, in a scenario where programme implementation is very successful, the potential environmental benefits could be long-term and cumulative in nature, for example as innovation systems promote R&D and green technology transfer, thereby reducing the impacts of climate change and improving resource efficiency amongst SMEs. In addition, business support strategies could support the transition to a resource-efficient and competitive low-carbon economy, reducing waste generation, halting the loss of biodiversity and ecosystem degradation. Place-based opportunities could enhance protection and appropriate use of the natural and cultural heritage, particularly through entrepreneurship in the sustainable/eco-tourism and experience industries, based on the high quality of nature in the programme area, while creating new employment opportunities. Other potentially significant positive impacts could include a sectoral focus for clusters in the development and transfer of marketing concepts and models that specialise in sustainable development solutions or products that address environmental problems or integrated environmental management methodologies.

In terms of specific energy-related impacts, there is potential for direct mitigation of climate change through reduced reliance on fossil fuels and corresponding reduced emissions of greenhouse gases, furthering the social acceptability of energy efficiency measures, promoting ecological sustainability, and creating employment in the renewable energy sector. In addition to energy efficiency in buildings, there is scope for the utilisation of by-products from economic activities as energy sources (symbiosis). Lastly, capacity—building to support an integrated approach to development in relation to protecting, promoting and developing the cultural and natural heritage, as well as empowering communities to perform systematic and balanced assessments of environmental, social and economic impacts, could considerably enhance resource efficiency, sustainable management of natural resources and the constructive use of wastes and residues, as well as reducing impacts on marine and coastal waters.

With regard to **significant negative environmental effects**, this would relate for example to a scenario in which programme implementation leads to unanticipated impacts, indirect effects or where projects are mismanaged or environmental conditions not fully observed. Risks to human health are anticipated as minimal, particularly since the partner countries have robust systems of environmental control and planning, so that projects with environmental implications would be subjected to other filters before obtaining approval. The transboundary nature of the cooperation is also likely to produce a better understanding and exchange of experience with regard to environmental control.

Nevertheless, in the business support category, there is potential for expanding industries such as the tourism and experience industries to generate negative environmental impacts, damaging the natural and cultural heritage through lack of awareness on how to manage this resource. In addition, cruise tourism contains potential risks for negative impacts, especially as increased traffic will bring associated environmental burdens that need to be estimated and prevented or appropriately managed. Achieving higher energy efficiency and greater security also could involve environmental impacts, depending upon the type of energy generated. For example, wind farms are increasingly associated with problems related to aesthetics, operational noise and social acceptability, and the construction of facilities can cause disturbance to habitats and local biodiversity. There is also a risk of failing to meet sustainability principles, for example if resources are drawn only from other areas and building materials are not based on natural products from the programme area.

These potential negative factors require careful management and control, and they are addressed in more detail in the following section.

13.5 Mitigation

Although the Priorities and actions in the NPA programme have a wide potential to achieve positive environmental impact, there are a number of ways in which projects could produce negative impacts, as described in Table 21. This section draws further attention to these potential impacts and suggests ways in which significant adverse effects could be prevented, reduced or offset.

Priority 1: Using innovation to maintain and develop robust and competitive communities

 Increased innovation and transfer of new technology to SMEs in remote and sparsely populated areas

Within this theme, there is a need to ensure that the interpretation of competitive communities is not associated with cutting environmental costs, for example by delaying environmental obligations or seeking minimum compliance with environmental standards. The programme must convey a clear message that positive environmental impact is a key element of the programme's approach, and that competitive communities should be based on high environmental standards. Similarly, innovation should be understood as including environment – and potentially prioritise environment – as a means of fulfilling the vision that the NPA programme is pursuing.

The scope for negative environmental impact is limited, with the most likely scenario being a missed opportunity to initiate useful technology improvements and losing the associated beneficial impacts in areas such as energy efficiency, recycling and resource use, and slowing the transition to a low-carbon economy.

• Increased innovation within public service provision in remote and sparsely populated areas Again, there is a need to ensure that innovative models or solutions addressing the viability of public service provision, such as urban-rural cooperation and social enterprises, encompass positive environmental impacts, with an appropriate use of limited resources. Innovative and distance-spanning technologies should make a direct contribution to (renewable) energy efficiency and resource efficiency.

Although no direct negative environmental impacts would be envisaged from innovating public service provision, programme implementation would need to ensure that favourable opportunities were realised to secure environmental gain from supported initiatives.

Priority 2: Promoting entrepreneurship to realise the potential of the programme area's competitive advantage

• Improved support systems tailored for start-ups in remote and sparsely populated areas. There is a need to ensure that business support strategies for start-up companies contain environmental principles integrated into their thinking and approach that characterise the entrepreneurial climate, promoting themes such as environmental management systems, high levels of recycling, environmental criteria in procurement procedures, eco-efficiency (utilising longer-lasting materials etc), reducing supply chain length and CO₂ emissions, and addressing efficiency beyond the market (by using open-source development software, shared knowledge environments etc). Other place-based opportunities would include locally-derived eco-products and new products based on natural resources such as fisheries, forestry and agriculture.

In addition to the scope for missed opportunities, for example if environmental management systems and awareness are not introduced to these start-up companies, there may be potential for negative impacts in the tourism and experience industries, if the development of these functions within the natural and cultural heritage does not incorporate the transfer and development of models and solutions containing appropriate and adequate training on best practice. Natural resources must be exploited in a sustainable manner and avoid risks of further pollution. During implementation, appropriate monitoring feedback would be required regarding the impacts of completed initiatives.

• Greater market reach beyond local markets for SMEs in remote and sparsely populated areas. There is a need to ensure that marketing concepts and models adopt clear environmental principles in clustering products and services, especially in relation to high-quality natural products of the programme area, such as Arctic products. Emphasis should be placed on increasing the positive impact of SMEs in terms of resource efficiency, waste recycling, energy, and green products and services, especially if participating companies are prepared to market their environmental strengths within their portfolio. Securing ICT solutions such as e-commerce and use of social media should be emphasised, as these would clearly be environmentally beneficial.

Support for major investments such as new mining projects or wind farms would require careful consideration to ascertain whether such actions were appropriate, as well as determining the forms of impact assessment, safeguards and conditions to be imposed. In addition, successful expansion of cruise tourism would need to be accompanied by greater awareness of sustainability thresholds and the capacity of various environments to accommodate greater loads, as traffic increased, to avoid threatening natural resources and habitats or polluting the air, water or land. Again, appropriate monitoring feedback would be required regarding the impacts of on-going and completed projects.

Priority 3: Fostering energy-secure communities through promotion of renewable energy and energy efficiency

 Increased use of energy efficiency and renewable energy solutions in housing and public infrastructure in remote and sparsely populated areas There is a need to ensure that models transferred to facilitate the utilisation of renewable energy solutions are sufficiently broad-based, for instance favouring symbiotic solutions, whereby the byproducts of one activity provide energy for public infrastructure or housing, such as using cooling water to heat buildings. Efforts should also be made to ensure that concepts and models focusing on energy-efficient housing use low-energy building materials, recycle buildings and building materials, and promote low/zero-energy housing, especially in the Arctic.

The potential for negative impacts is very limited. Nevertheless, there is a general need to ensure long-term environmental conformity, so that projects addressing improvements in energy efficiency are based on realistic and sustainable renewable energy scenarios, preferably utilising local natural resources, and that models for the construction of energy-efficient housing use low-energy building materials based on natural products from the programme area.

Priority 4: Protecting, promoting and developing cultural and natural heritage

 Increased capacity of remote and sparsely populated communities for sustainable environmental management

In increasing protection and promoting interventions, there is a need to ensure that the best-practice models and solutions transferred, as well as the transnational pooling of competences such as knowledge and know-how, effectively combine economic, environmental and social interests. This Objective contains scope to protect the environment against pollution from economic activities such as mineral extraction, mitigate soil contamination, and reduce the impacts on marine and coastal waters through supporting coastal zone management. Particular care needs to be taken in the Arctic and sub-Arctic regions of the programme area, where the impacts of climate change are expected to be more severe than in other places, and where ocean acidification may present major challenges.

To ensure the viability of the approach, there is a need to ensure a balanced consideration of the different dimensions of sustainable development, preventing the domination of one dimension over the others. To this end, the expertise, knowledge and methodologies must create a clear awareness of the significance and means of maintaining equilibrium between competing economic, social and environmental interests. Equally, care must be taken to prevent particular groups or authorities from gaining disproportionate knowledge or skills that would afford them scope to orient outcomes primarily in their favour, rather than benefiting the community as a whole.

13.6 Indicators for Monitoring Environmental Effectiveness

Under the SEA Directive, there is a requirement to establish a monitoring programme to gauge environmental effectiveness. The series of environmental indicators developed for the NPA programme should inform on the impacts of addressing the four strategic environmental issues, as well as on the overall effectiveness of the programme.

The following table provides examples of potential indicators that may be useful in monitoring different aspects of the programme performance, with suggestions for the division between the themes of the four Priorities.

Table 22: Potential Environmental Indicators

Using innovation to maintain and develop robust and competitive communities	Uptake of new technology leading to improved resource efficiency and/or reduced climate change impact Incidence of SME clusters with an environmental focus Increased recycling Decline in energy consumption Reduction in greenhouse gas emissions Evidence of eco-innovation in SMEs
Promoting entrepreneurship to realise the potential of the programme area's competitive advantage	Adoption of green business models Implementation of environmental management systems Evidence of environmental training initiatives, especially in tourism industry Growth in environmental sector – increases in sustainable/eco-tourism businesses, SME clusters with environmental specialisms, and green products and services Reductions in pollution and environmental damage (air, water, land) Lower waste generation, and percentage being recycled, recovered, composted and landfilled
Fostering energy-secure communities through promotion of renewable energy and energy efficiency	 Reduced consumption of natural resources Evidence of energy saving Greater use of renewable energy Reduced greenhouse gas emissions Uptake of new technology for renewable energy Increased employment in energy sector Evidence of symbiosis with waste products Use of local energy resources Use of low-energy building materials based on natural products from the programme area
Protecting, promoting and developing cultural and natural heritage	 Completed capacity-building and knowledge-sharing initiatives Utilisation of environmental management tools or methodologies Evidence of integrated environmental management in project management and implementation Balanced appraisals of economic, social and environmental factors Evidence of eco-efficiency (enhanced resource productivity, use of longer-lasting materials) Changes in condition of protected coastal and marine waters Incidence of coastal zone management initiatives Changes (net loss/gain) in biodiversity

PART 4 – CONCLUSIONS

Fx A	nte Evaluation of the No	orthern Periphery an	nd Arctic Programm	ne 2014-2020	
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14. CONCLUSIONS OF THE EX ANTE EVALUATION

The overall aim of this ex ante evaluation is to provide an external perspective on the preparation of the new Programme with a view to improving and strengthening its final quality and optimising the allocation of resources. As stated at the outset, the approach to the evaluation process is 'iterative and interactive', involving a continuous and constructive dialogue between the drafting and evaluation teams. During the drafting of the Programme it has been possible to maintain open, productive and proactive links between the evaluation and drafting teams. Crucially, the information provided by the evaluation team through formal reports and ad hoc advice was considered thoroughly. Bearing this in mind, the contents of the Programme are closely in line with the key recommendations made by the ex ante evaluation team during the Programme development process. These are listed in Table 23. In each case, as has been noted in the evaluation text, the points raised have been responded to and incorporated. The evaluation process has therefore challenged and questioned the OP throughout, with the outcome that the OP text is in line with ex ant expectations.

Table 23: Synthesis of key ex ante recommendations and comments made by the ex ante team throughout the evaluation process

	out the evaluation process
Strategy	 Comparative and comprehensive area analysis. Identification of a robust and unifying strategic logic to the Programme. A need for strong links to area needs. Making explicit links to Europe 2020 - recommendations of 'where' and 'how'. Reflecting on links to other strategies and policies, which are extremely numerous. Highlighting key lessons from past programmes and ETC more generally. Integrating Arctic elements, giving them visibility in the Programme but balancing this in a manner which reflects the interests of the whole Programme area. Providing a clear, strong definition, identity or purpose for Programme priorities. Providing input into discussions on refining focus and selecting Thematic Objectives.
Priority Axes & Specific Objectives	 Strong intervention logic and focu; Avoiding negative overlaps. Clearly wording priorities. Considering how to mobilise meaningful projects under each priority. Considering avoiding priority axes which cover investment priorities from more than one thematic objective. Noting the potential value of mentioning 'remote and peripheral' in the titles of Priority Axes. Re-examining the alignment of Priority Axis 4 with the relevant thematic objective. Highlighting the potential challenges, as well as opportunities, associated with working closely with SMEs.
Coherence	 Identifying and highlighting the positive links with key domestic and Community policies and maximising the potential for synergies between programmes. Highlighting where the Programme adds value and makes a distinctive contribution to promoting development within the NPA area (and territorial cohesion more generally). Considering the Programme's position and role in relation to Arctic cooperation. Making domestic/EU links explicit in the OP. Taking macro-regional strategies and other forms of cooperation into account; Comments provided on horizontal principles.
Results and Impact	 Keep it simple, practical and proportional Limited number of output and result indicators Maintaining close alignment with the actual aims of the priority axes and specific objectives. Recognising the need to look beyond indicators to ensure that all aspects of the Programme's contributions are captured – this has implications for the evaluation strategy. Approach to results indicators – qualitative element but attempt to

Management & mplementation

- Building on effective administrative structures and procedures established in the INTERREG IVB Northern Periphery Programme.
- Taking into account new regulatory requirements, especially in relation to simplification.
- Considering how the Programme aims to work with SMEs.
- Paying particular attention to developing systems to improve the payment of claims, the importance of
 monitoring and evaluation systems, and generating awareness of the Programme.

SEA

- The programme must convey a clear message that positive environmental impact is a key element of the programme's strategy, and that competitiveness should be based on high environmental standards and environmental management techniques.
- Innovation should be understood to include environmental excellence as a means of fulfilling the vision that the NPA programme is pursuing.
- Development of the tourism and experience industries within the natural and cultural heritage should incorporate the transfer and development of models and solutions containing appropriate and adequate training on best practice.
- Natural resources must be exploited in a sustainable manner, avoiding risks of further pollution, with greater awareness of sustainability thresholds and the capacity of various environments to accommodate greater loads to avoid threatening natural resources and habitats or polluting air, water or land.

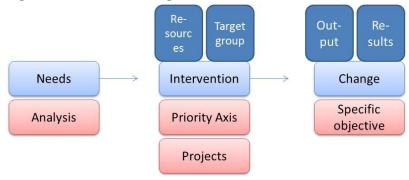
The content of the Programme clearly takes account of the evaluation papers, feedback and recommendations. The document is also in line with EU guidelines and requirements. The overall structure for the NPA OP is logical and comprehensive. All the relevant elements are covered and the rationale for not including text on some of the available options, such as financial instruments, is clear. In the context of these general observations, it is now possible to make the following assessment of the main elements of the final Programme draft.

Intervention logic.

It is the view of the ex ante evaluation team that the NPA programme has all the fundamental elements for a well designed intervention logic in place. Figure 26 sets out the concept of Programme 'intervention logic', taking into acount its range of possible meanings. The concept of intervention logic is described as comprising of 'logic streams' based on three main elements:

- logic which runs from the analysis of needs and design of the interventions in order to produce change;
- the internal coherence of the programme itself, from the analysis, to the design of the programme with its priority axes, funded projects and actions, and aims to achieve specific objectives; and
- links between, target groups targeted output and targeted results.

Figure 26: Intervention logic



The main 'logic stream', i.e. the connection between needs and change, is clearly stated and communicated in the Programme and is well grounded in the area analysis and in the Programme strategy. The design 'logic stream', i.e. the link from the analysis to the specific objectives, is also very clear and concise in the draft OP. This means that the preconditions for establishing the final logic stream are excellent. The 'technical' side of the intervention logic has required refinement, especially in relation to the logic between output indicators and results indicators, and on the indicators' capacity to capture programme area change. Nevertheless, it is the overall conclusion that the NPA Programme has a logical design and has the potential to deliver results in the programme area.

On this basis, the following conclusions in relation to each of the main sections of the draft OP can be made.

Does the Programme represent an appropriate strategy to meet the challenges confronting the region or sector?

Considerable work has been undertaken by the Programme partners to develop and refine the Programme analysis and SWOT, based on partner feedback and discussions, and the recommendations of the evaluation team. This work led to the development of a coherent and strategic Programme analysis, which is tailored to the NPA area, offers a useful overview of the Programme area and, crucially, provides a solid basis for the development and justification of the Programme's strategy and priorities. However, it is important to note that the region is subject to ongoing economic, social and environmental change. As a result, the Programme should also monitor and adapt to relevant change.

Is the strategy well defined with clear objectives and results focus?

First, the Programme has a robust intervention logic with a strong, logical structure and alignment with the Programme's vision and objectives. Second, the strategy draws on key characteristics of the Programme area and specific development needs. Third, the strategy is in line with Europe 2020 and, as such, will contribute to 2020 goals. Fourth, the strategy recognises the important role of developments in the Arctic region in informing the Programme, yet remains relevant and 'open' to all areas of the NPA area.

The evaluation of the Programme's strategic approach is positive. The Programme's chances of strengthening and mobilising transnational cooperation and delivering results will be improved by having clear goals which can encourage action and draw partners together. Bearing this in mind, it is important to consider the following points: (a) the challenge of developing a logical 'flow' to the Programme strategy text; (b) conveying the volume of information required; (c) reference to remote and peripheral in the vision; and (d) summaries of information provided in tables and diagrams.

Are the priority axes and specific objectives clearly defined, coherent and results focussed?

The priority axes and specific objectives fit within the relevant thematic objectives and investment priorities. Nevertheless their content also connects with the specific development needs of the Programme area. The priority axes and specific objectives are complementary and coherent. Particular effort has been made to avoid negative overlaps. The ex ante evaluation team have provided ongoing inputs as the priorities and objectives have evolved, with the particular aim of

supporting the drafting team's efforts to clarify and refine the focus of the priorities. The priority axes have evolved though a number of iterations and have developed a strong focus, rationale and intervention logic. Small modifications which would facilitate further refinement include: (a) some small changes to the wording of the quality objectives; (b) modifications to the wording in some parts of the general text; and (c) highlighting the 'environmental aspects' of Priority Axes 4 to an even greater extent.

• Is the strategy coherent with policies at regional, national and Community level? How will the strategy contribute to Europe 2020?

In examining the internal and external policies relevant to drafting the Programme, several synergies and complementarities are apparent. At the same time, it is clear that the Programme has opportunities to add value and to make a distinctive contribution to promoting development with the NPA area. Significant effort has gone into assessing the position and the potential role of the NPA in relation to, or in conjunction with, other policies and programmes. The sheer number of potential links may mean that the Programme will have to be selective in its focus. The Programme will not have the resources to coordinate and cooperate with everyone all the time. In making decisions on where to focus efforts, a key factor will have to be what will maximise the Programme's results.

 Are appropriate indicators identified? Can these form a useful basis for future monitoring and evaluation of performance? What will be the impact of the Programme in quantified terms?

Establishing a meaningful system of monitoring and selecting indicators is extremely challenging. How the European Commission's proposals can be applied to transnational territorial cooperation remains the subject of debate. Overall, it is recognised that the Commission's requirements are more difficult for ETC programmes to meet than they are for other ERDF programmes. The key message is that monitoring must be kept as simple as possible and limited to a minimum number of indicators that are relevant.

In developing indicator systems for the priority axes there are various challenges, some specific to individual priorities and others common to all. Work on refining output indicators has made substantial progress. The most challenging issue remains capturing 'change at the Programme level' through results indicators. The scope to pursue more 'qualitative' methodologies opened up new options for the NPA. However, the importance of having meaningful quantifiable results is emphasised. The indicator frameworks that have been established are relevant, clear and follow the Programme's intervention logics.

Taking into account past experience, the goals of the NPA programme and current Programme conditions, the targets that have been set for the Programme thus far are judged to be realistic and financial allocations are consistent.

 Management and implementation: are implementation systems appropriate to delivering results?

The NPA builds on the effective administrative structures and procedures established for the 2007-2013 NPP. It also takes into account new regulatory requirements, most notably the need for simplification. With respect to the institutional issues, the role and functions of key authorities are

clearly set out in the Programme document. Key to successful Programme implementation will be effective and efficient coordination and communication between the institutions involved.

The Programme also details key operational issues. In many respects these systems are comparatively unchanged relative to those set out in the 2007-2013 Programme, although some changes have been made, e.g. to address simplification requirements, improve monitoring systems, and to speed up payment systems. Work on this aspect of the Programme, and evaluation, is ongoing.

• Strategic Environmental Assessment

The SEA Report considered that the Programme's Vision and Priorities conform with the Europe 2020 Strategy and the EU Seventh Environmental Action Programme. The environmental assessment demonstrated a clear compatibility between the EU policies and the NPA programming document, with considerable scope to further develop these themes during programme implementation.

Although cautioning against possible negative impacts and advising on mitigation measures, the SEA Report identified great potential for positive environmental impacts from the Programme. The Objectives were appraised as well-placed to address the strategic environmental issues, deriving benefits that could be long-term and cumulative in nature. For example, innovation systems promoting R&D and green technology transfer could reduce the impacts of climate change and improve resource efficiency amongst SMEs, and business support strategies could support the transition to a resource-efficient and competitive low-carbon economy, reducing waste generation and halting the loss of biodiversity and ecosystem degradation. Other potentially positive impacts could include a sectoral focus for clusters in the development and transfer of marketing concepts and models that specialise in products that address environmental problems. Lastly, development of an integrated approach to protecting, promoting and developing the cultural and natural heritage could considerably enhance resource efficiency, sustainable management of natural resources and the constructive use of wastes and residues, as well as reducing impacts on marine and coastal waters.

Overview

Based on these findings, the evaluation team considers that the Programme is in line with Community guidelines and priorities, and in line with requirements and recommendations set out by the European Commission.¹⁰⁶ It can set out the following conclusions on the required elements of the ex ante evaluation - see Table 24.

¹⁰⁶ CEC (2013d) Regulation (EU) No. 1303/2013 of the European Parliament and of the Council laying down Common Provisions on the European Regional Development Fund, the European Social Fund, the Cohesion Fund, the European Agricultural Fund for Rural Development and the European Maritime and Fisheries Fund covered by the Common Strategic Framework and laying down general provisions on the European Regional Development Fund, the European Social Fund and the Cohesion Fund and repealing Regulation (EC) No 1083/2006; CEC (2012d) Monitoring and Evaluation of Cohesion Policy... *op. cit.*; CEC (2011a) Monitoring and Evaluation of European Cohesion Policy – Concepts and Recommendations, DG Regio: Brussels

Table 24: Ex ante elements

Ex ante	e evaluations shall appraise ¹⁰⁷	
a)	the contribution to the Union strategy for smart, sustainable and inclusive growth, having regard to the selected thematic objectives and priorities, taking into account national and regional needs;	The Programme is putting itself in a position to make a distinct and valuable contribution to the development of the Programme area and more generally to Europe 2020.
b)	the internal coherence of the proposed programme or activity and its relation with other relevant instruments;	The proposed interventions relate well to each other and fit well with an extremely wide range of other relevant policy instruments. The Programme has considered how to gain from its links to other instruments from both a strategic and operational points of view.
c)	the consistency of the allocation of budgetary resources with the objectives of the programme;	The proposed distribution of financial resources across the priority axes is in line with the ambitions of the Programme.
d)	the consistency of the selected thematic objectives, the priorities and corresponding objectives of the programmes with the Common Strategic Framework, the Partnership Contract and the country-specific recommendations under Article 121(2) of the Treaty and the Council recommendations adopted under Article 148(4) of the Treaty;	There is a high level of consistency between the selected thematic objectives, priorities and objectives, which is noted in the OP and explored in detail in the ex ante strategic review.
e)	the relevance and clarity of the proposed programme indicators;	The clarity, relevance and focus of the proposed indicators have been improved and developed. The indicators all clearly flow from the Programme's specific objectives. An outline methodology, which is sensitive to the practical realities of the NPA, is established for generating result baselines and for monitoring progress against baselines.
f)	how the expected outputs will contribute to results;	The Programme has developed a robust intervention logic and has applied this to its indicator framework. The Programme's capacity to deliver tangible outputs is accompanied by new approaches to apply, adopt and increase awareness of outputs in order to deliver Programme level results.
g)	whether the quantified target values for indicators are realistic, having regard to the support from the CSF Funds envisaged;	Baselines and target values for result indicators are still being finalised. The quantified targets for output indicators are realistic and based on analysis of past experience, stakeholder input and project pipelines for the 2014-2020 Programme.
h)	the rationale for the form of support proposed;	The Programme has an extremely strong rationale for the form of support proposed, based on a thorough analysis of area needs, stakeholder views and the policy context. The scale and type of projects anticipated are similarly well planned.
i)	the adequacy of human resources and administrative capacity for management of the programme;	The NPA builds on the extremely strong human and administrative capacity of past programmes.
j)	the suitability of the procedures for monitoring the programme and for collecting the data necessary to carry out evaluations;	Monitoring system and processes are the subject of detailed analysis, meaning the new system will be a significant advance to previous systems. The systems are also in line with the Commission's requirements for e-Cohesion.
k)	the suitability of the milestones selected for the performance framework;	The selected milestones are based on realistic assessments informed by past experience, and the scale and scope of the Programme.
l)	the adequacy of planned measures to promote equal opportunities between men and women and to prevent discrimination;	The drafting team have developed systems at the Programme and project levels to apply, promote and monitor equal opportunities and to prevent discrimination.
m)	the adequacy of planned measures to promote sustainable development.	The drafting team have developed systems at the Programme and project levels to apply, promote and monitor sustainable development.
n)	measures planned to reduce the administrative burden on beneficiaries.	The Programme builds on a strong base in terms of measures to reduce administrative pressures and burdens. For the 2014-2020 period a number of additional and appropriate measures have been put in place.

¹⁰⁷ CEC (2013 d), op cit, p. 347

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15. ANNEX

Annex 1: Ex ante evaluation comments on programme analyses 108

Key ex ante points raised

Context for analysis

- Explain and set out the challenges in developing an area analysis for the NPA area.
- Briefly set out how the analysis and SWOT have been developed.

Wording and approach

- Make the analysis as 'readable' and 'strategic' as possible.
- One option which would help to gather together and structure the fairly diverse points covered in the SWOT would be to use the Europe 2020 themes, 'Smart', 'Sustainable' and 'Inclusive', to group the points together.
- The analysis should avoid negative comparison between participating regions and preferably make comparisons with EU averages.
- The wording of some elements can be worked on which can be dealt with on a case-by-case basis.
- There was a need for more data and statistics to back up the key points.
- Place as much information as possible in comparative 'summary' tables, graphs and maps in order to provide succinct overview.

Content

- The environmental section of the analysis needs to be developed further.
- Given the emerging strong focus on the 'Arctic' dimension of the Programme, care should be taken that
 this is also reflected in the analysis. In particular, the relevance of developments in the Arctic for the
 Programme area as a whole should be emphasised.
- The ongoing process of revising and updating the analysis is not simply a case of adding more and more
 information and widening the analysis. As the Programme's focus evolves, it should also be possible to
 refine the analysis, keeping it manageable and in proportion.
- On more specific points of content: attention was drawn to a number of issues which could potentially
 have been highlighted more effectively in the text of the area analysis and issues for consideration in the
 SWOT.

Building an intervention logic

- Before finalising both the SWOT and the analysis, particular care must be taken to ensure that they are complementary. All points raised in the SWOT must be rooted in the analysis.
- Make sure that the analysis links well with the priority axes and that links are explicit. As final decisions
 on the precise content of the Programme's priority axes are finalised, the drafting team should return to
 the SWOT and area analysis to ensure that adequate evidence is provided to support the proposed
 interventions.

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¹⁰⁸ These points were addressed during the drafting process.

Annex 2: NPA and selected Community policies

Dallay	
Policy	
Horizon 2020	Horizon 2020 is the financial instrument implementing the Innovation Union, a Europe 2020 flagship initiative aimed at securing Europe's global competitiveness. Running from 2014 to 2020 with an €80 billion budget, the EU's new programme for research and innovation is part of the drive to create new growth and jobs in Europe. The proposed support for research and innovation under Horizon 2020 will: • strengthen the EU's position in science; • strengthen industrial leadership in innovation, which includes major investment in key technologies, greater access to capital and support for SMEs; and • help to address major concerns shared by all Europeans such as climate change, developing sustainable transport and mobility, making renewable energy more affordable, ensuring food safety and security, and coping with the challenge of an ageing population. In terms of the link between Horizon 2020 and Cohesion policy, the Commission proposes a clearer division of labour between Horizon 2020 and the Structural Funds, while strengthening interactions. Support for regions in building up their research and innovation capacity will be provided through Cohesion policy, which will take forward the concept of smart specialisation and include measures to allow researchers and innovators across Europe to improve their performance. Complementary measures under Horizon 2020 will aim to widen participation across the whole of the programme.
SMART Specialisation	SMART Specialisation is a strategic approach to economic development through targeted support for research and innovation. National and regional governments have been invited to develop smart specialisation strategies to maximise the impact of Regional Policy in combination with other EU policies. Territorial Cooperation and Horizon 2020 programmes may help regions to address the SMART Specialisation goals. The strategies (RIS3) focus on five issues: • they steer policy support and investments on key national/regional priorities, challenges and needs for knowledge-based development; • they build on each country/region's strengths, competitive advantage and potential for excellence; • they support technological as well as practice-based innovation and aim to stimulate private sector investment; • they get stakeholders fully involved and encourage innovation and experimentation; and they are evidence-based and include sound monitoring and evaluation systems.
Rural Policy (EAFRD)	The European Union has an active rural development policy. In line with Europe 2020, six key themes are proposed for EU rural development funding: (1) fostering knowledge transfer and innovation in agriculture, forestry and rural areas; (2) enhancing competitiveness of all types of agriculture and enhancing farm viability; (3) promoting food chain organisation and risk management in agriculture; (4) restoring, preserving and enhancing ecosystems dependent on agriculture and forestry; (5) promoting resource efficiency and supporting the shift towards a low-carbon and climate-resilient economy in the agriculture, food and forestry sectors; and (6) promoting social inclusion, poverty reduction and economic development in rural areas.
European Social Fund	The European Social Fund (ESF) continues to provide concrete support to people who need help to find a job, or to progress in their current job. The role of the European Social Fund is to increase employment opportunities, promote education and lifelong learning, enhance social inclusion, contribute to combating poverty, and improve the capacity of public administrations to serve citizens and job-seekers. There is greater emphasis on combating youth unemployment, promoting active and healthy ageing, and supporting the most disadvantaged groups and marginalised communities. More support will be provided for social innovation, i.e. testing and scaling up innovative solutions to address social needs (for example, improving social inclusion).

Transport Networks (TENs)

The guidelines for trans-European energy infrastructure (TEN-E) includes several priority areas that are of relevance to NPP Member States. However, many of these target major urban centres and are therefore of lesser relevance to the NPP. Nevertheless, some understanding of these priorities can be beneficial for the NPP. In terms of electricity corridors the United Kingdom and Sweden have a stake in the Northern Seas offshore grid which aims to establish an integrated offshore electricity grid. Finland and Sweden are involved in the Baltic Energy Market Interconnection Plan in Electricity, which aims to end the relative isolation of the Baltic States and to foster market integration. In relation to priority gas corridors, the United Kingdom is involved in the NSI West, which diversifies gas supplies in Western Europe. Sweden and Finland are part of BEMIP Gas, which targets the diversification of supplies in the Baltic Sea Region. There are also several general thematic areas which include smart grids development and the Electricity highways and Cross-border carbon monoxide Network. The EU's Trans-European Transport Networks (TEN-T) has five overarching priorities:

- 1. Missing links in cross border sections are considered a major obstacle to the free movement.
- 2. Bottlenecks (in particular the east-west connections) require improvement.
- 3. Transport infrastructure between the transport modes is fragmented.
- Investments in transport infrastructures should contribute to achieve the goals of reduction of greenhouse gas emissions in transport by 60% by 2050.
- 5. The harmonisation of operational rules and requirements.

Some aspects of the TEN-T are of importance to the NPP's EU Member States. For Finland and Sweden, the inclusion of the Bothnian corridor, a large part of which falls within the NPP area, is very important. The UK has been very supportive of the revised TEN-T policy ,which puts focus on essential nodes and links between them.¹¹¹

Source: EPRC (2013) Strategic Review, ex ante evaluation of the NPP

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¹⁰⁹ CEC (2011b) Proposal for new TEN-E guidelines

http://ec.europa.eu/energy/infrastructure/strategy/2020_en.htm

 $^{^{110}}$ CEC (2011c) Guidelines for the development of the trans-European transport network COM/2011/0650 final/2 $-\,2011/0294(\text{COD})$

¹¹¹ CEC (2011d) Trans-European Transport Networks, The TEN-T Core Network: country by country, Brussels 19 October 2011 http://ec.europa.eu/transport/themes/infrastructure/connecting/doc/revision/background-country.pdf

Annex 3: Cooperation in the NPA area

Cooperation	Strengths and Lessons		
Programme/Arrangement			
Nordic Cooperation	 A long tradition of cross-border cooperation. The Nordic Council and the Nordic Council of Ministers are well-established, wide-ranging regional partnerships. There is sectoral cooperation in the fields of agriculture, environment, medical care, transport, tourism. 		
Arctic	There are numerous forms of cooperation including, most notably, the Arctic Council, which extends cooperation beyond a solely Nordic focus. The Arctic Council is also an inter-governmental forum. It aims to promote cooperation and coordination between its member states, namely Canada, Denmark (including Greenland and the Faroe Islands), Finland, Iceland, Norway, the Russian Federation, Sweden, and the United States of America. Common initiatives are discussed and approved at ministerial meetings. There are also six Working Groups which focus on the Council's thematic programmes: the Arctic contaminants action programme; the Arctic flora and fauna; emergency prevention, preparedness and response; the protection of the Arctic marine environment; and sustainable development.		
Nordic-Scottish	 There is cooperation in key areas such as IT, university networking, SME development and forestry. 		
Cooperation	 Strengths include: contact and communication; developing shared policy interests; learning and exchange of experience; research and training initiatives; and information dissemination. There is a need for strategic goals which can be translated into practice. 		
Ireland, Northern Ireland,	 There are strong historical, cultural and economic ties. There are long-standing, strategic, governmental and project-based 		
Scotland	links.		
	There is experience of cross-border and transnational cooperation through a variety of domestic and EU Programmes, including the PEACE Programme, the North West Europe Programme and the Atlantic Area Programme.		

Source: McMaster, I *et al.* (2006) Ex Ante Evaluation of the 2007-2013 Northern Periphery Programme, EPRC: Glasgow; McMaster, I (2010) Governance and Cooperation in the NORA region, in OECD (2010) OECD Territorial review of the NORA region, OECD: Paris

Annex 4: Key regional economic development commitments

Countries	Priorities				
Faroe Islands ¹¹²	 The government of the Faroe Islands has produced strategic assessment to examine in more detail he the Faroe Islands can best adapt to the changing circumstances and benefit from the opportunities arisi from rapid changes in the Arctic. The Faroe Islands have systematically expanded their cooperation with the EU to encompass more are of activity. Diversification of the economy, building on the core expertise around marine related businesses a research connected to fisheries, navigation, aquaculture, services to the petroleum indust oceanography, marine biology as well as marine-related engineering. Supporting entrepreneurship and sustainable management of resources. Wider access to education, learning in later life and labour upskilling. 				
Finland 113	 Strengthening the competitiveness and vitality of regions. Promoting the welfare of the population. Securing a good living environment and a sustainable regional structure. 				
Greenland 114	 Wider access to training and education. Promotion of employment opportunities. Growth of the private sector. Self-sustaining growth and development. Close cooperation with international partners. 				
Iceland ¹¹⁵	The Strategic Regional Plan 2010–2013 contains 9 priorities of which the following are most relevant to the NPP: Support for innovation and start-up companies. Promotion of tourism. Promotion of cultural activities and creative sectors.				
Ireland ¹¹⁶	There are seven priorities. Those most relevant to the NPP are to: decisively tackle structural infrastructure deficits; greatly enhance enterprise development, Science, Technology and Innovation, working age; invest in long-term environmental sustainability; and deliver a multi-faceted programme for social inclusion.				
N. Ireland ¹¹⁷	The strategic regional plan has 27 priorities of which the following are most relevant for the NPP: Economy: Sustainable tourism infrastructure. Society: Support urban and rural renaissance. Environment: Reduce our carbon footprint, facilitate mitigation and adaptation to climate change, manage waste, enhance natural heritage, and sustainable water provisions including flood risk management. Rural: Sustain rural communities and improve accessibility.				

Ministry of Trade and Industry of the Faroe Islands, (2006) Vision 2015, http://www.vmr.fo/Files/Filer/VMR/Fragreidingar/enterpricepolicy2006.pdf and Prime Ministers office of the Faore Islands, The Faroes Islands and the Arctic: Challenges and Opportunities in the Circumpolar North, http://www.mfa.fo/Files/Filer/fragreidingar/The%20Faroe%20Islands%20and%20the%20Arctic.pdf

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¹¹³ National Regional Development targets for 2011-2015 - An economically, socially and environmentally sustainable Finland. Ministry of employment and the Economy publications 6/2012

¹¹⁴ Government of Greenland, 2025 plan, our future – our responsibility, http://uk.nanoq.gl/Emner/News/News from Government/2012/12/~/media/UK nanoq/VoresFremtid UK 2025 net%20pdf.ashx and Denmark, Greenland and the Faroe Islands (2010) Kingdom of Denmark Strategy for the Arctic 2011 -2012.

Parliamentary resolution (2010) Strategic Regional Plan 2010-2013
http://www.byggdastofnun.is/static/files/Byggdaaetlun1013/Thingsalyktun_enska.pdf

 $^{^{116}}$ Ireland (2007) National Development Plan 2007 – 2013, Transforming Ireland <u>http://www2.ul.ie/pdf/932500843.pdf</u>

¹¹⁷ DRDNI (2010) Regional Development Strategy 2035 http://www.drdni.gov.uk/rds exec summary.pdf

Norway ¹¹⁸	 The current basis for policy remains the 2009 White Paper, which has the following key principles: To facilitate the freedom of everyone to choose their place of residence. To ensure equal living conditions and to use all resources throughout the country. To maintain settlement patterns in order to sustain and further develop the diversity of history, culture and the resources therein. To ensure that an active and target-oriented rural and regional policy helps generate added value, employment and welfare throughout the country. A new White Paper is being discussed and is expected to put more emphasis on growth aspects of the district and regional policy and on the functioning of labour market in a knowledge economy.
Scotland	The Government Economic Strategy has six priorities, of which the following are most relevant to the NPP • A supportive business environment. • Transition to a low-carbon economy. • Learning, skills and well-being. • Infrastructure development and place.
Sweden 119	Innovation and renewal. Skills supply and improved workforce supply. Accessibility. Strategic cross-border cooperation.

Source: McMaster, I *et al.* (2013) Strategic Review of the Northern Periphery and Arctic Programme, EPRC and Kontigo

Northern Ireland, the Border Region of Ireland and Western Scotland

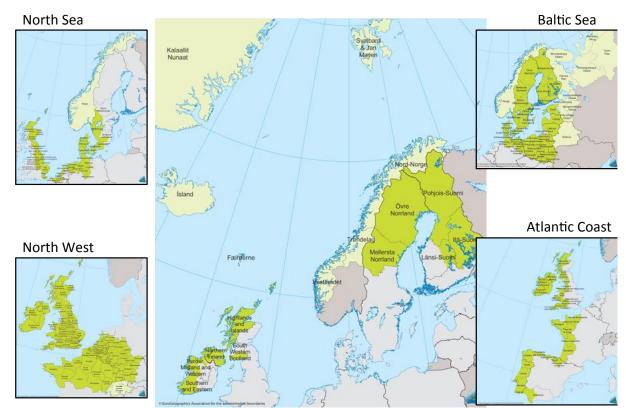
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Annex 5: Overview of the NPA area and its overlaps with Interreg IVA programme areas

Source: http://ec.europa.eu/regional_policy/cooperate/cooperation/index_en.cfm

¹¹⁸ St.meld.nr.25 (2008-2009), English summary, *Local growth and hope for the future*.

Regeringskansliet (2007) A national strategy for regional competitiveness, entrepreneurship and employment 2007 - 2013



Annex 6: Geography of the NPA programme area in relation to other B-programmes

Source: http://ec.europa.eu/regional_policy/cooperate/cooperation/index_en.cfm

Annex 7: Examples of cooperation with Russia within the NPA

Siblarch 2004 - 2007

The impregnation of timber is one of the biggest sources of heavy metal pollution in Europe. SIBLARCH aims to develop Siberian larch as an environmentally sound alternative to impregnated timber in the Northern Periphery. The three main issues under investigation in the project are to:

- develop Siberian larch timber in wooden products for outdoor use;
- develop methods for establishment of Siberian larch forest stands; and
- evaluate Siberian larch family tests in Scandinavia, Finland, Russia and Iceland.

The project will be performed in cooperation with the saw mill industries and wood industries in Iceland, Norway, Finland, Sweden and north west Russia.

North Cod 2005 - 2007

The northern periphery countries of Iceland, Norway and Scotland, along with Russia, aim to establish a sustainable production of cod fry to promote successful cod farming in northern areas. Several technical obstacles have to be overcome before cod hatchery production can be made efficient and sustainable. These will be examined by the multi-country team and findings transferred to the commercial hatcheries throughout the northern periphery area. These include addressing high levels of abnormal development of cod juveniles, improving growth rates and production through control of maturation, benchmarking of fry production and collaboration in producing a cod hatchery manual.

Annex 8: 2007-2013 Selected CBC Programmes with Russia

ENPI CBC Kolarctic Programme	€28.241 million	Finland: Lappi; adjoining areas: Oulu Region Sweden: Norrboten; adjoining areas: Västerbotten Norway: Finnmark, Troms, Nordland. Russia: Murmansk, Archangelsk, Nenets; adjoining areas: Republic of Karelia, Leningrad Oblast. Managing Authority: Regional Council of Lapland.	•	Economic and social development. Common challenges People-to-people co- operation and identity building.
ENPI CBC Karelia Programme	€23.203 million	Finland: Kainuu, Northern Ostrobothnia, North Karelia; adjoining areas: Lapland, Northern Savo. Russia: Republic of Karelia; adjoining areas: Murmansk Oblast, Archangelsk Oblast, Leningrad Oblast and St. Petersburg. Managing Authority: Regional Council of , Northern Ostrobothnia.	•	Economic development. Quality of life.
ENPI CBC South East Finland – Russia Programme	€36.185 million	Finland: South Karelia, Kymenlaakso, South Savo; adjoining areas: Northern Savo, Päijät-Häme, Uusimaa. Russia: Leningrad Oblast with St Petersburg; adjoining areas: Republic of Karelia. Managing Authority: Regional Council of South Karelia, Finland.	•	Economic development. Common challenges Social development and civic society.

Annex 9: Cooperation with Canada

- Canada and the Nordic Countries have been cooperating for many years through organisations such as the Arctic Council and the Nordic Council of Ministers. Researchers and policymakers have collaborated in order to strengthen regional networks and to share ideas to meet the challenges facing northern communities and the environment. 120
- There has been recent cooperation between SmartLabrador Inc. (Canada) and NORA to facilitate dialogue, information sharing and innovative partnerships pertaining to living in and developing the northern, rural and coastal communities of the North Atlantic region.
- Cruise Newfoundland and Labrador, Cruise Greenland, Cruise Reykjavik, Cruise Torshavn, and Cruise Orkney Islands are jointly committed to the development of a new regional cruise brand and supporting materials. 121
- Within the NPA, Canadian actors have been partners in projects such Destination Viking and SMART.
- Atlantic NPA partners have long-established relations with Canada and have been involved in NPA projects with Canadian partners (for example: Economusée).

Additional examples of EU project-based cooperation with Canada are set out below. As is made clear, not all of these examples are funded through INTERREG. However, the types of issues they address could be used to inform the NPA on the types of issues where cooperation could be fruitful.

¹²⁰ Hull, J. and Lough D. (2005) Promoting Partnership in the North Atlantic: Opportunities for Co-operation A Canadian Perspective, position paper.

121 McMaster I. *et al.* (2011) op cit.

NON-INTERREG:

EU-Canada programme for Cooperation in Higher Education, Training and Youth: Promoting cooperation between EU and Canadian universities (a recent conference was held in relation to the EU Canada academic cooperation): http://ec.europa.eu/commission_2010-2014/vassiliou/headlines/speeches/2012/09/docs/2012092 academic-cooperation.pdf

European Space Agency project North Hydrology (may be relevant/ of interest to NPP - adapting to climate change). Includes Canadian partners:

http://env-ic3-vw2k8.uwaterloo.ca:8080/content/project-overview

FP7 project CLEAR (Climate change environmental contaminants and reproductive health). Coordinator: Aarhus University Hospital Denmark:

https://webgate.ec.europa.eu/maritimeforum/system/files/Microsoft%20PowerPoint%20-%202011%2001%2025%20AIPs%20projects.pdf

INTERREG projects with Canadian partners:

NWE project EnAlgae – British French Algae workshop in partnership with Canada: http://www.ambafrance-uk.org/IMG/pdf/Energetic_Algae_-_Robin_SHIELDS.pdf

Project Kelvin - INTERREG IVA project in Ireland on new underwater telecommunications:

http://www.seupb.eu/Libraries/Media Press Releases/2012-04-23 CS EuropeDay Pr 1 0.sflb.ashx

http://www.seupb.eu/Libraries/INTERREG_IVA_Documents/IIVA_101116_Enterprise_Workshop_- 3rd_November.sflb.ashx
Project Kelvin is a new underwater telecommunications cable linking Northern Ireland and the border region of Ireland directly with Canada, North America and mainland Europe with support from the INTERREG IVA Programme. Set to significantly enhance business access to new and improved IT infrastructure it will create a fibre optic ring putting local towns on a par, communications wise, with cities like London and New York. Project Kelvin is opening up access to direct international communication services to local firms, particularly small to medium-sized businesses. It will also help to level the cost of telecommunication services to those in the rest of the UK and Ireland as well as potentially help attract increased direct foreign investment to the region. Funding total: €30m (£26.1m).

Alpine PermaNet developed an alpine Permafrost Index Map in collaboration with Canadian partners.

http://www.permanet-alpinespace.eu/

http://www.geo.uzh.ch/microsite/cryodata/PF_map_explanation.html

Annex 10: SME involvement

Phase 1 - Pre-involvement Challenges **Actions** Private sector unfamiliarity Increase synergies between public and private sector; with territorial cooperation programmes Start involving private sector from the conception of Programme / project (e.g. targeted road-shows, workshops); Provide clear guidance in relation to EU & domestic rules (e.g. Complex EU & domestic checklists and factsheets), including details on who is affected and public procurement under which circumstances; legislation Establish more links with chambers of commerce and business associations. Unclear state aid rules Phase 2 – Application Challenges Actions Expensive start-up costs Introduce a two-step, simplified application process: 'light' related to application application & full application; Secretariat & CPs to provide more targeted guidance for projects that make it to second stage; Establish efficient e-administration; Introduce a small project fund. Complex administration Phase 3 - Project implementation Challenges Actions Financial rules Introduce a small project fund, which allows payments to be made in Private sector as a partner in specific priorities or participation as Complex administration observer: (claims procedures) Better consideration of different working cultures in project planning and implementation. Working culture & capacity issues

Note; EPRC research adapted from ESPON (2012) ESPON TERCO, European Territorial Cooperation as a Factor of Growth, Jobs and Quality of life, Draft Final report; McMaster I, Bachtler J, Vironen H, Gross F (2006) Ireland, Northern Ireland and Western Scotland Cross-Border Territorial Cooperation Programme 2007–2013, Development of a Joint Strategic Approach on Behalf of Scottish Partners; INTERACT (2012) INTERACT Mediterranean lab group, Conclusions of the meeting on the thematic pole of transport, Marseille, 18 April 2012, http://www.interacteu.net/downloads/5029/Conclusions Mediterranean lab group meeting on transport 18.4.2012.pdf; Rubbrecth, S and Werdermann, G (2011) Public-private partnerships in transnational cooperation – possibilities and limitations, Final report prepared on behalf of the Federal Institute for Research on Building, Urban Affairs and Spatial Development (BBSR) within the Federal Office for Building and Regional Planning (BBR), Germany.

Annex 11 - Response to Observation 24

Information to be submitted to the Commission in relation to SEA

The working document on Ex Ante conditionalities stipulates that the following information should be submitted to the European Commission as an annex to the Ex Ante evaluation:

- A. A non-technical summary of the information provided in the environmental report;
- B. The description of the measures decided concerning monitoring;
- C. Information on the consultations with the public and the environmental authorities concerned;
- D. A summary of how environmental considerations and the opinions expressed have been taken into account.

These are set out below.

A. Non-technical summary 122 of the information provided in the environmental report

The SEA Report¹²³ recognises that each programme partner country has a distinctive environmental profile. However, in cooperation with national environmental authorities it has been possible to identify common environmental strengths, weaknesses, opportunities and threats. Based on this SWOT analysis, 4 strategic environmental issues have been identified for the programme area as a whole:

- <u>Climate and Arctic change</u> associated with drier summers, pressure on biodiversity, sea temperature changes, more extreme weather, flooding, but also greater accessibility in the Arctic:
- <u>Land-use management</u> loss or damage to natural habitats as a result of exploitation of natural resources, energy generation, infrastructure enhancement, agricultural and forestry practices, but also nature conservation;
- <u>Energy and resource efficiency</u> renewable natural resources, promotion of ecological sustainability and social acceptability for these activities;
- <u>Marine pollution</u> pollution in coastal and transitional waters mainly caused by nutrient enrichment, for example from fish farming. Also, marine litter, and issues with invasive species.

The SEA Report sees a clear compatibility between EU policies and the NPA programme. The SEA Report identifies potential for significant positive environmental effects, for example as a result of green technology transfer, mitigating climate change impacts, and promoting resource efficiency among SMEs, marketing concepts for products that address environmental problems, and an integrated approach to protecting, promoting and developing cultural and natural heritage.

¹²² This summary was used in the public consultation described under point C.

¹²³ Dr Keith Clement, European Policies Research Centre (2014), Strategic Environmental Assessment of the Northern Periphery and Arctic Programme 2014-2020.

Negative environmental effects could relate to unanticipated impacts, by mismanaged projects or not observing environmental conditions. The SEA Report assesses the risks to human health to be minimal, since the programme partner countries have robust systems of environmental control and planning. The transboundary nature of the cooperation is expected to create a better understanding and exchange of experience in environmental control. However, expanding industries such as the tourism and experience industries have the potential to generate negative environmental impacts. In addition, the quest for higher energy efficiency and security may, depending on the energy source, also lead to negative environmental impacts. Finally, the SEA Report identifies the risk of failing to meet sustainability principles.

A number of suggestions are made for mitigating potential negative impacts. The programme should emphasise that positive environmental impact is part of the programme strategy, that competitiveness should be based on high environmental standards, and that innovation also includes environmental excellence. Development of the tourism and experience industries within natural and cultural heritage could incorporate adequate training on best practice. Natural resources should be developed in a sustainable manner, to avoid threats to resources, habitats or pollution.

Appropriate monitoring will be required, and the SEA Report suggests a number of indicators to measure the effectiveness of the programme in addressing the strategic environmental issues but also of the programme as a whole.

B. Description of the measures decided concerning monitoring

In order to monitor the programme's environmental impact, 4 environmental indicators were chosen, one per Priority Axis. They were selected from the list of 29 environmental indicators suggested in the SEA Report. **Note**: These indicators are not part of the formal performance framework for the programme, but they are used for internal programme purposes.

C. Information on the consultations with the public and the environmental authorities concerned

During the drafting of the SEA Report, the evaluator interacted with the following environmental authorities from the programme area (page 120 of the Ex Ante Report):

- Environmental Protection Agency, Sweden;
- Finnish Ministry of the Environment;
- Environmental Protection Agency, Republic of Ireland;
- Northern Ireland Statistics and Research Agency;
- Land-Use Consultants, Scotland;
- Norwegian Ministry of the Environment;
- Icelandic Regional Development Institute;
- Department of the Environment, Greenland;

· Environment Agency, Faroe Islands.

Their participation included the provision of information on the current environmental conditions in the NPA area and assistance in the identification of environmental issues or problems. From this regional data, four Strategic Environmental Issues were derived (see Section 12), against which the programme elements were subsequently assessed (see Section 13.3). The environmental authorities were also involved in the formal consultation as key stakeholders.

Between 13th January and 28th February 2014, a public consultation of the SEA Report was held in accordance with the SEA Directive (2001/42/EC). The purpose of this public consultation was to inform the public in the countries likely to be affected and to give them an opportunity to forward their opinion on the SEA.

The SEA Report was published on the NPP website, together with an updated Operational Programme document and an introductory note, containing a non-technical summary of the report (Commission requirement) as well as an explanation of INTERREG. Also annexed were the reports from previous public consultations. The Secretariat circulated an invitation to participate in the SEA consultation to a list of 193 relevant authorities and stakeholders provided by the Programme Planning Group. In addition, the opportunity to participate in the SEA public consultation was promoted on the programme website and Facebook page.

In total, the Secretariat received 10 responses to the SEA Report:

- Ireland
 - o Department of Communications, Energy and Natural Resources
 - Environmental Protection Agency
- Northern Ireland
 - Department of Finance and Personnel
 - Department of the Environment
 - Northern Ireland Environment Agency
- Sweden
 - County Administrative Board Västerbotten
 - Swedish Agency for Marine and Water Management
 - Swedish Energy Agency
 - Swedish Transport Administration
- Iceland
 - Icelandic Forest Research

In general, the feedback was quite detailed and consisted of suggestions to supplement the information in the report. All feedback was carefully considered. Both positive and negative criticism was expressed, but the report's conclusions were generally accepted.

The Monitoring Committee acknowledged that interest in the SEA was rather low and that some respondents had misunderstood the nature of the programme.

D. Summary of how environmental considerations and the opinions expressed have been taken into account

Based on the feedback received, the Monitoring Committee concluded that there was no need for major changes to the SEA Report or the Cooperation Programme document. However, some comments and suggestions were as viewed as relevant and these were incorporated as minor updates.

Updates to the SEA Report:

- The Atlantic Ocean Strategy added to the section on relevant environmental strategies, programmes and policies.
- Ocean acidification mentioned more explicitly in the environmental SWOT and threats analysis.
- The Swedish Generation Objective added in connection with the Swedish subsection.

Updates to the Cooperation Programme document:

- Environmental aspects to the description of actions supported added under Priority Axis 1 and Priority Axis 2.
- Ocean acidification added to the description of actions supported under Priority Axis 4.
- The environmental indicators were added to the annex of the reader-friendly Cooperation Programme document, not the SFC2014 version.

After programme approval, a final statement will be published on the programme website about how environmental considerations and opinions expressed have been taken into account, together with the Cooperation Programme. This statement will be consulted with the programme partner countries before publication to see if it meets their information needs.