

Adam Stępień and Timo Koivurova

Arctic Europe: Bringing together the EU Arctic Policy and Nordic cooperation

February 2017

Publication series of
the Government's analysis,
assessment and research
activities 15/2017



DESCRIPTION

Publisher and release date	Prime Minister's Office, 9.2.2017		
Authors	Adam Stępień and Timo Koivurova (Arctic Centre of the University of Lapland)		
Title of publication	Arctic Europe: Bringing together the EU Arctic Policy and Nordic cooperation		
Name of series and number of publication	Publications of the Government's analysis, assessment and research activities 15/2017		
Keywords	EU Arctic Policy, Nordic cooperation, North Calotte, Arctic Europe, Arctic Stakeholder Forum, Synergies		
Release date	February, 2017	Pages 56	Language English

Abstract

The study considers how the European Union's Integrated Policy for the Arctic can productively interact with Nordic cooperation frameworks in order to support developments in Arctic Europe.

Common themes of Nordic cooperation and the EU's Arctic policy include: Arctic bioeconomy, innovative cold climate technologies, digitization, and facilitating circular economy solutions suitable for sparsely populated areas. EU-Nordic cooperation as regards tackling border obstacles should continue, with special attention to enhancing trans-border activities of the Sámi.

The EU-Arctic Stakeholder Forum process should be used as a catalyst in the formulation of common strategy for Arctic Europe, potentially based on the logic of smart specialization. In order to support drafting of project proposals that address common priorities, a special seed money facility could be established. Common EU-Nordic Arctic conferences could enhance long-term cooperation between various programmes.

Arctic Europe is an integral and indispensable part of the socio-economic landscape of the EU. Investments in the region can benefit whole Europe. Region has potential to facilitate innovative solutions fueling European green growth. It can be the first stage for European companies' expansion to other parts of the circumpolar Arctic. Europe's northernmost regions can increasingly act as living labs for new technologies and new governance solutions. Arctic Europe remains an important part of Europe's cultural and natural landscape and a source of natural resources for the European economy. The success of Arctic Europe will enhance its role as the EU's gateway to Russia and the Arctic.

This publication is part of the implementation of the Government Plan for Analysis, Assessment and Research for 2016 (tietokaytoon.fi/en).

The content is the responsibility of the producers of the information and does not necessarily represent the view of the Government.

KUVAILULEHTI

Julkaisija ja julkaisuaika	Valtioneuvoston kanslia, 9.2.2017		
Tekijät	Adam Stępień ja Timo Koivurova (Lapin yliopiston Arktinen keskus)		
Julkaisun nimi	Arktinen Eurooppa: EU:n arktisen politiikan ja pohjoismaisen yhteistyön lähentäminen		
Julkaisusarjan nimi ja numero	Valtioneuvoston selvitys- ja tutkimustoiminnan julkaisusarja 15/2017		
Asiasanat	EU:n arktinen politiikka, pohjoismainen yhteistyö, Pohjoiskalotti, Arktinen Eurooppa, sidosryhmien foorumi, synergiat		
Julkaisuaika	Helmikuu, 2017	Sivuja 56	Kieli englanti

Tiivistelmä

Tässä tutkimuksessa selvitetään, miten arktista aluetta koskeva yhdenmukainen EU:n politiikka voi tehokkaasti toimia yhteistyössä pohjoismaisten yhteistyökehyksen kanssa arktisen Euroopan kehityksen tukemiseksi.

Pohjoismaisen yhteistyön ja EU:n arktisen politiikan yhteisiä teemoja ovat: arktinen biotalous, innovatiiviset kylmän ilmaston teknologiat, digitalisaatio sekä harvoin asutuille alueille soveltuvien kiertotalousratkaisujen helpottaminen. EU:n ja Pohjoismaiden yhteistyön rajaesteiden poistamiseksi tulee jatkua, ja erityistä huomiota on kiinnitettävä saamelaiden rajat ylittävään toimintaan.

EU:n arktinen sidosryhmäfoorum (EU-Arctic Stakeholder Forum) tulee käynnistää arktisen Euroopan yhteisen strategian laatiminen, mikä voisi pohjautua älykkään erikoistumisen logiikkaan. Yhteisiä prioriteetteja koskevien hanke-ehdotusten tukemiseksi tulisi perustaa erityinen alkupääomaväline. Yhteiset EU:n ja Pohjoismaiden arktiset konferenssit voisivat tehostaa eri ohjelmien välistä pitkän aikavälin yhteistyötä.

Arktinen Eurooppa on olennainen ja erottamaton osa EU:n sosiaalitaloudellista toimintaympäristöä. Alueeseen tehtävät panostukset voivat hyödyttää koko Eurooppaa. Arktinen alue voi tukea Euroopan vihreää kasvua kiihdyttäviä innovatiivisia ratkaisuja. Se voi olla ensimmäinen askel eurooppalaisten yhtiöiden laajenemisessa arktisen napa-alueen muihin osiin. Euroopan pohjoisimmat alueet voivat toimia yhä uusien teknologioiden ja uusien hallintaratkaisujen elävänä laboratoriona. Arktinen Eurooppa on tärkeä osa Euroopan kulttuuri- ja luontomaisemaa sekä Euroopan talouden luonnonvaralähde. Arktisen Euroopan menestys vahvistaa sen roolia EU:n porttina Venäjälle ja arktiselle alueelle.

Tämä julkaisu on toteutettu osana valtioneuvoston vuoden 2016 selvitys- ja tutkimussuunnitelman toimeenpanoa (tietokayttoon.fi).

Julkaisun sisällöstä vastaavat tiedon tuottajat, eikä tekstisisältö välttämättä edusta valtioneuvoston näkemystä.

PRESENTATIONSBLAD

Utgivare & utgivningsdatum	Statsrådets kansli, 9.2.2017		
Författare	Adam Stępień och Timo Koivurova (Arktiska centret vid Lapplands universitet)		
Publikationens namn	Arktiska Europa: Föra samman EU:s arktiska politik och nordiskt samarbete		
Publikationsseriens namn och nummer	Publikationsserie för statsrådets utrednings- och forskningsverksamhet 15/2017		
Nyckelord	EU:s arktiska politik, nordiskt samarbete, Nordkalotten, arktisk Europa, arktiskt intresseforum, synergism		
Utgivningsdatum	Februari, 2017	Sidantal 56	Språk engelska

Sammandrag

Denna utredning tar reda på hur integrerad EU-politik för Arktis kan produktivt samverka med nordiska samarbetsramar för att stöda utvecklingar i det arktiska Europa.

Gemensamma teman i nordiska samarbete och EU:s arktiska politik är bland annat: Arktisk bioekonomi, innovativa kallt klimat teknologier, digitalisering och uppbackning av krettsloppsekonomiska lösningar lämpliga för gleset bebyggda områden. Samarbetet mellan EU och Norden i bekämpning av gränshinder ska fortsätta och särskild uppmärksamhet ska ägnas åt att förbättra samiska gränsöverskrivande verksamhet.

EU-Arktis intresseforum (EU-Arctic Stakeholder Forum) ska fungera som katalysator för formuleringen av en gemensam strategi för det arktiska Europa, potentiellt baserat på smart specialisering logik. Speciell startkapitalfacilitet kunde etableras för att stöda projektförslag som gäller gemensamma prioriteringar. Gemensamma EU-nordiska konferenser kunde förbättra långsiktigt samarbete mellan olika program.

Det arktiska Europa är en integrerad och nödvändig del av EU:s socioekonomiska landskapet. Investeringar i området kan gynna hela Europa. Arktis har potentiell att förbättra innovativa lösningar som driver på europeisk grön tillväxt. Det kan vara första steget i utvidgning av europeiska företag i andra delar av det arktiska polarområdet. Europas nordligaste regionerna kan bättre fungera som levnadslaboratorier för nya teknologier och nya styrelselösningar. Det arktiska Europa förblir en viktig del av Europas kulturella och naturliga landskapet och källa till naturresurser till europeiska ekonomin. Arktiska Europas framgång kommer att stärka dess roll som EU:s port till Ryssland och Arktis.

Den här publikation är en del i genomförandet av statsrådets utrednings- och forskningsplan för 2016 (tietokayttoon.fi/sv).

De som producerar informationen ansvarar för innehållet i publikationen. Textinnehållet återspeglar inte nödvändigtvis statsrådets ståndpunkt



The study *Arctic Europe: Bringing together the EU Arctic Policy and Nordic cooperation* was produced as a part of a project "Suomen puheenjohtajuus arktisessa neuvostossa kasvaneen epävarmuuden aikakaudella" (Finland's Arctic Council chairmanship in the times of increasing uncertainty). The project is funded by the Finland's Prime Minister's Office as part of the Government's analysis, assessment and research activities (2016). It is implemented jointly by the Arctic Centre of the University of Lapland, the Finnish Institute of International Affairs and the Marine Research Centre of the Finnish Environment Institute. The authors of the report are based at the Arctic Centre of the University of Lapland.

The Arctic Centre of the University of Lapland is a national and international research centre of excellence and hosts the world's leading Arctic experts. It conducts high quality local, regional and international research on the Arctic, trains experts on Arctic issues, and conveys information and research results concerning the region. The research blends the perspectives of the natural and social sciences, and the Centre's multidisciplinary research groups study the social and environmental impacts of global climate change, as well as sustainable development, Arctic anthropology, and environmental and minority law in the region. The research is highly transdisciplinary and carried out throughout the whole of the Arctic region as well as in the Antarctic.

The Centre's high standards and up-to-date research results benefits science and administration as well as informs political decision making and management of various social and environmental problems. One essential aspect of the Arctic Centre's work is to convey scientific information. The Centre aims to increase knowledge and awareness based on sound scientific information and in this way support sustainable development, environmental protection and social, cultural and biological diversity in the Arctic and the High North.

The University of Lapland, the northernmost university in Finland and in the European Union, focuses on Arctic issues, primarily in the area of humanities, social science, law and social welfare.

Adam Stępień is a political scientist at the Arctic Centre of the University of Lapland. His broad research interests include: policy coherence, Arctic governance, law and cooperation, Arctic indigenous governance, participatory decision-making, as well as development cooperation partnerships. Adam took part in a number of projects on the EU-Arctic nexus. Adam is Polish but has lived in Lapland for the last seven years.

Professor Timo Koivurova is a director of the Arctic Centre of the University of Lapland. His expertise covers, among others, Arctic legal and governance questions, international environmental law and indigenous rights. He is one of the key scholars dealing with the Arctic regional cooperation, including in particular the Arctic Council.

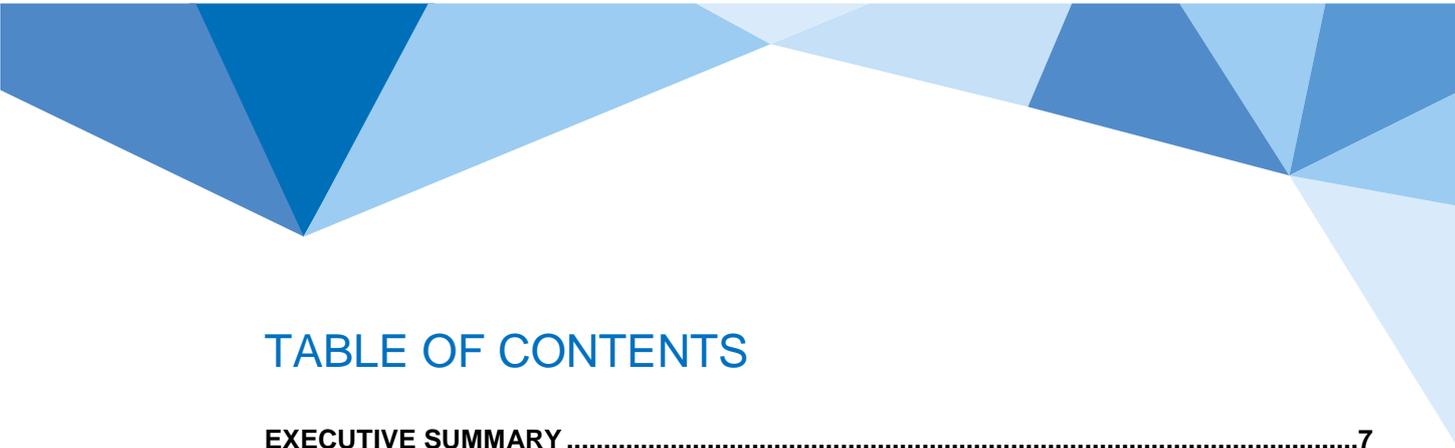


TABLE OF CONTENTS

EXECUTIVE SUMMARY	7
LIST OF ACRONYMS	11
INTRODUCTION.....	13
1. OUTPUTS: THE EU ARCTIC POLICY FOR ARCTIC EUROPE.....	16
1.1. OUTPUTS: Key ideas	16
1.2. The EU's role in Arctic Europe.....	16
1.3. The scope and limitations of the 2016 Joint Communication	17
1.4. Key Arctic Europe's challenges and EU Arctic policy responses	18
1.4.1. Remoteness and sparse population	19
1.4.2. Demographic challenges and human capital.....	20
1.4.3. Dependence on extractive industries.....	20
1.4.4. Traditional livelihoods and indigenous rights	21
1.4.5. Climate change and adaptation	21
1.4.6. Border obstacles	22
1.4.7. New economic opportunities.....	23
1.4.8. International tensions.....	23
2. SYNERGIES: COMMON THEMES OF NORDIC COOPERATION AND THE EU'S ARCTIC POLICY	25
2.1. SYNERGIES: Key ideas	25
2.2. Arctic-relevant themes in the venues of Nordic cooperation	27
2.2.1. Nordic Council of Ministers	27
2.2.2. Nordic cross-border committees	29
2.2.3. Other Nordic cooperation and financing/funding frameworks.....	30
2.2.4. Facilitating pan-Sámi cooperation	31
2.2.5. Key areas of Nordic cooperation	32
2.3. Thematic synergies between the EU Arctic Policy and Nordic cooperation	33
2.3.1. Arctic bioeconomy and circular economy	33
2.3.2. Climate and environment.....	34
2.3.3. Digitization.....	34
2.3.4. Tackling Border Obstacles.....	35
2.3.5. Making it easier for the Sámi to live as one people across Nordic states	37
2.4. Common instruments.....	38

3. STRATEGY AND COORDINATION: ARCTIC STAKEHOLDER FORUM AS A CATALYST FOR A COMMON ARCTIC EUROPE STRATEGY	39
3.1. STRATEGY AND COORDINATION: Key ideas	39
3.2. Rationale for a common strategic framework	40
3.3. Format for a common strategy: smart specialization rather than a macro-region	42
3.4. Content of the common Arctic Europe strategy	43
3.5. Utilizing the opportunity arising from the EU-Arctic Stakeholder Forum	45
3.6. Implementing Arctic Europe strategy	46
3.6.1. Long-term mechanism for cooperation among EU Arctic programmes, regional policy-makers and Arctic forums	46
3.6.2. Extending cooperation beyond EU programmes	47
3.6.3. Seed money facility	48
3.6.4. Interactions between individual projects	49
4. IMPORTANCE: ENHANCING ARCTIC EUROPE'S IMPORTANCE FOR THE REST OF THE CONTINENT	51
4.1. IMPORTANCE: Key ideas	51
4.2. Source of sustainably-extracted resources	52
4.3. Centre for targeted innovation	52
4.4. Living lab / testbed	54
4.5. Gateway to Russia and the Circumpolar North	54
4.6. Successful sparsely populated areas as spearheads of successful rural revival	55
4.7. Region's cultures and environment	55
LITERATURE:	57

EXECUTIVE SUMMARY

This study considers how the European Union's Arctic Policy stemming from the Joint Communication of 27 April 2016 on "The integrated EU policy for the Arctic" can productively interact with Nordic cooperation frameworks in order to support developments in Arctic Europe.

Compared to earlier Arctic policy documents, the 2016 Joint Communication has a clearer emphasis on the issues specific for the European Arctic. In particular, it focuses on sustainable economic growth in the region and launches a process of identifying key investment and research priorities. Correspondingly, in recent years Finland, Norway and Sweden adopted Arctic strategies, which are partly dedicated to the development of Nordic states' northern areas. The Arctic dimension is central also to regional development strategies adopted by Europe's northernmost regions. In turn, Nordic intergovernmental and cross-border cooperation has been tackling development challenges in North Calotte region for decades, and currently Arctic-related questions receive particular attention within Nordic venues.

In light of these policy processes, the northernmost regions of Finland, Sweden and Norway (or North Calotte region) can be described as "Arctic Europe", an integral and indispensable part of the socio-economic landscape of the European Union and the European Economic Area. The use of the term "Arctic Europe" also postulates policy developments, cross-border cooperation and investments that could further strengthen the connections of the region to European markets, value chains, technological changes and social developments.

Apart from linkages to the European population centres, a number of studies (most notably, the 2015 "Growth from the North" report) suggest that the region's potential could be better utilized through making Arctic Europe more integrated internally. This is to be done via the elimination of border obstacles, emergence of pan-regional business activities, and common strategic planning.

The 2016 Joint Communication lists a variety of spaces for EU involvement and launches several potentially relevant initiatives. This study identifies how opportunities that are opened or highlighted in the 2016 Joint Communication could contribute – in alignment with Nordic cooperation – to the strengthening of Arctic Europe's position as a distinct, vibrant, indispensable and stable part of Europe's socio-economic landscape. Three aspects are here marked out:

- Identifying key common themes of the EU Arctic policy and the Nordic cooperation (SYNERGIES).
- Utilizing the EU-Arctic Stakeholder Forum process to formulate a common strategy for Arctic Europe, with the participation of Nordic cooperation forums (STRATEGY AND COORDINATION).
- Clarifying how developments taking place in Arctic Europe are important for the rest of the continent, as well as highlighting areas where the region can be made even more relevant for European stakeholders (IMPORTANCE).

SYNERGIES: Common themes of Nordic cooperation and the EU's Arctic policy for Arctic Europe

The EU's support for the developments in Arctic Europe could be the strongest not within extractive sectors, which commonly receive most attention in the discussion on Arctic development, but through the EU's contribution to innovation, the bioeconomy (including the blue economy), cold climate technologies, low-carbon solutions, and e-services. These are also growth areas where Nordic cooperation forums have been particularly active in the recent years. Aligned EU and Nordic actions in these sectors could bring benefits to the region in terms of high-quality jobs, economic diversification and human development. In addition, creative industries and developments in traditional industries (reindeer herding, handicrafts) should be supported, also because the latter are central to Sámi culture and identity.

The Nordic Council of Ministers is currently working on the new Arctic Cooperation Programme for 2018-2021, possibly aiming at supporting a broader spectrum of economic opportunities in the Arctic (highlighting opportunities beyond large-scale resource extraction). Bioeconomy, circular economy, climate technologies and digitization are among such growth areas. This creates the opportunity for alignment with the EU-Arctic Stakeholder Forum process, which is likely to emphasize similar development trajectories for Arctic Europe.

These sectors have the potential to generate technologies that could be deployed in European rural areas and across the Circumpolar Arctic. As such technologies enhance European innovation, the EU support for development and commercialization of innovative solutions could also take the form of loans for higher-risk investments.

Nordic cooperation venues could facilitate networks and projects on circular economy solutions suitable for peripheral, sparsely populated regions. These include small-scale circular technologies for remote Arctic communities, as well as systems for material and waste flows spanning across Arctic Europe. Building on these networks, proposals for EU investment financing and programmes, including Interreg and Horizon 2020 (or its successors) could be developed.

Currently, the Nordic bioeconomy strategy is being prepared and the EU Bioeconomy Strategy is being reviewed. A degree of cooperation in drafting these documents could be beneficial for both the Nordic Council of Ministers and the European Commission. These strategies should have a strong Arctic dimension with consideration for Arctic-specific challenges, including the impacts from climate change.

Nordic states would like to enhance the process of scaling up Nordic low-carbon solutions. Deploying low-carbon technologies is particularly challenging in remote Arctic communities. Therefore, national, EU and Nordic support is needed to develop feasible low-carbon options for sparsely populated areas. Arctic regions could also serve as testbeds or incubators for new technologies. Projects disseminating successful Nordic solutions across Europe and the Arctic would contribute to the global and European climate goals.

The European Investment Bank could consider following the example of the Nordic Investment Bank and secure a pool of resources for Arctic-specific projects. Actors from across Europe could be involved in these investments. Possibilities for joint financing of key Arctic projects by the Nordic and EU financing institutions could be also considered.

Further EU-Nordic cooperation in tackling border obstacles should be encouraged. Nordic and EU mechanisms for reviewing new legislation from the point of view of unintended new border obstacles could be developed, with consideration for the special characteristics of sparsely populated areas.

Both the EU and Nordic cooperation institutions should contribute to enhancing trans-border cooperation among the Sámi. Notwithstanding whether the Nordic Sámi Convention is ratified, the EU should continue strong support for those Sámi projects, which facilitate joint activities across borders.

STRATEGY AND COORDINATION: EU-Arctic Stakeholder Forum as a catalyst for a common Arctic Europe strategy

The emergence of Arctic Europe as a distinct and vibrant region would be enhanced by the formulation of a common strategic development plan, postulated by a number of recent reports and studies. The 2016 Joint Communication launched the EU-Arctic Stakeholder Forum (ASF), which aim is to identify key investment and research priorities. This opportunity could be utilized as a stepping stone for the future Arctic Europe common strategy, which could be co-developed and co-owned by Nordic states, regions, the EU, as well as Nordic intergovernmental and cross-border cooperation institutions. Such common investment priorities would have to be then reflected in regional, national and EU policies and programmes.

The development of an Arctic Europe common strategy has to be driven by the Arctic Europe regions. Such a framework should not take the form of a macro-regional strategy, similar to those established for other large European regions. Instead, elements of the smart specialization concept can be applied, as they appear particularly suitable for the developmental circumstances prevalent in remote, sparsely populated areas. One way is to facilitate emergence of trans-border business and research clusters.

Among the key aspects of the strategy should be ideas for improving the position of Arctic Europe's economic actors within European and global value chains. Key investment and research priorities, and ultimately a common strategy, should highlight the areas where Arctic Europe has the greatest innovation potential, and where solutions and technologies developed can be deployed outside the region. That includes cold climate technologies, low-carbon solutions, e-services, and circular solutions.

Mechanisms promoting Arctic Europe's common priorities across programmes and policy-making need to be put in place, if such priorities are not to remain a wish-list.

One such mechanism could be an Arctic Europe Seed Money Facility. The facility would support the drafting of project proposals, which contribute to promoting key Arctic investment and research priorities within any of the EU or Nordic programmes. Set up under one of the EU funding programmes, the facility would support networking, project preparation or pre-feasibility studies. A joint Nordic-EU seed money facility covering all funding sources in Arctic Europe should be considered. National, Nordic and regional funding should contribute to the budget of such a facility.

In order to facilitate exchange between Nordic forums (in particular the NCM and the relevant cross-border committees), expanding the idea – included in the 2016 Joint Communication –

of annual stakeholder conferences into a joint EU-Nordic Arctic meetings should be considered.

IMPORTANCE: Enhancing Arctic Europe's importance for the rest of continent

While the 2016 Joint Communication acknowledges the importance of Arctic Europe for the rest of the continent, the region's multidimensional relevance for European economic and social actors can be further promoted and strengthened. European actors need to be convinced that the whole EU benefits from the socio-economic development of Arctic Europe.

The region provides Europe with non-renewable and renewable resources, including renewable energy. Arctic Europe is also a space for innovative technologies, business opportunities, governance solutions, as well as non-material values of nature and culture.

Arctic Europe is a region well-suited for development, testing and deployment of a variety of technologies, including cold-climate technologies, innovative bio-products, small-scale circular solutions, and e-services. This already benefits European technology developers. Positioning the region as a European testbed could make it easier for Arctic Europe companies to find niches in global and pan-Arctic markets. It would also boost sustainable, low-carbon innovation in the EU. Solutions oriented towards sparsely populated or rural areas can be tested in the region and then scaled up to the European level or shared across the Circumpolar Arctic. Arctic Europe's solutions, technologies and services should be promoted as benchmarks for environmentally sustainable and socio-economically feasible developments in sparsely populated and Arctic regions. Many Arctic regions, including Lapland, already utilize and promote these opportunities.

Low population density could be an asset in the European context as regards experimenting with innovative governance solutions. Northernmost regions are likely to be flexible in applying policy measures and there is interest in the concept of a living lab among Arctic Europe policy-makers.

The active role of the EU in development of vibrant societies and economies in Arctic Europe would enhance the EU's soft power in collaboration with Russia and in the perception of the EU as an Arctic actor. Arctic Europe would stand as an example that the EU's policies, single market, standards and values contribute to sustainable, diversified and inclusive Arctic development. In light of increasing concentration of development in cities, successful sparsely populated areas can also serve as one of spearheads for pan-European rural revival, which is key to pan-European long-term economic and social stability and equity.

LIST OF ACRONYMS

AACA	Adaptation Actions for a Changing Arctic
ACP	Arctic Cooperation Programme (Nordic Council of Ministers)
ARC	Arctic Regional Cooperation
ASF	EU-Arctic Stakeholder Forum
BEAC	Barents Euro-Arctic Council
CAFF	Conservation of Arctic Flora and Fauna (working group of the Arctic Council)
DG REGIO	European Commission's Directorate General for Regional Policy
ECONOR	Economy of the North (project and report)
EEA	European Economic Area
EEAS	European External Action Service
EFSI	European Fund for Strategic Investments
EIB	European Investment Bank
ENI	European Neighbourhood Instrument
ENPI	European Neighbourhood and Partnership Instrument (before 2014)
ESIF	European Structural and Investment Funds
EU	European Union
EUSBSR	EU Strategy for the Baltic Sea Region
ICT	Information and Communication Technologies
NCM	Nordic Council of Ministers
ND	Northern Dimension
NEFCO	Nordic Environment Finance Corporation
NIB	Nordic Investment Bank
NORA	Nordic Atlantic Cooperation
NPA	Interreg Northern Periphery and Arctic Programme 2014-2020
NPP	Northern Periphery Programme (until 2013)
NSC	Nordic Sámi Convention
NSPAs	Northern Sparsely Populated Areas network
OECD	Organization for Economic Cooperation and Development
PAME	Protection of Arctic Marine Environment (working group of the Arctic Council)
SAON	Sustaining Arctic Observing Networks
SDWG	Sustainable Development Working Group (Arctic Council)

SLCFs	Short-lived Climate Forcers
SMEs	Small and Medium Enterprises
TEN-T	Trans-European Network for Transport
UNDRIP	UN Declaration on the Rights of Indigenous Peoples

INTRODUCTION

The study considers how the EU Arctic Policy stemming out of the 2016 Joint Communication of 27 April 2016 on “An integrated European Union policy for the Arctic”¹ can support positive developments in Arctic Europe and how it can productively interact with the diverse Nordic cooperation frameworks operating in the region.

Considering Nordic-EU synergies in the context of the EU’s Arctic policy is currently particularly valuable. First, in the mid-term, the process of formulating the EU’s Arctic policy allows for maintaining a certain degree of EU attention towards Arctic issues in the time when the EU faces critical challenges in other regions, borderlands and in other policy sectors. Second, the relevance of the EU’s Arctic policy from the perspective of European northernmost regions is enhanced with the 2016 policy statement, in contrast to the earlier dominance of the Circumpolar/pan-Arctic dimension. The affairs of the northernmost European regions have entered the core of the domain of the EU’s Arctic policy. While Arctic Joint Communication largely lists ongoing EU actions and policies that are already in place, it is within Arctic Europe where most of new actions under the EU Arctic policy are to take place.

The term “Arctic Europe” in this study refers to the northernmost regions of Finland, Norway and Sweden (known in Nordic countries as the North Calotte). By using the term “Arctic Europe” we do not indicate direct linkage to the recent idea of Arctic Europe collaboration between several Arctic towns and regional development authorities (see section 2.1.3.).

The term Arctic Europe has been chosen in order to avoid direct association with the North Calotte Council cooperation but also to emphasize that the region constitutes an integral part of Europe, suggesting that the EU’s Arctic policy is as much about the Arctic as about the socio-economic development and environmental wellbeing of an important part of Europe.

Moreover, this study suggests that the process – launched by the 2016 Joint Communication – to identify investment and research priorities for the European Arctic, could be productively used to start building a framework development strategy for Arctic Europe.

Nordic cooperation forums considered here are primarily the Nordic Council of Ministers and Nordic cross-border committees. Actions of other cooperation venues such as the Nordic Investment Bank or the Northern Sparsely Populated Areas network and their focus areas are also discussed.

Many Nordic Council of Ministers (NCM) thematic documents mention the importance of cooperation with the European Commission or the necessity of alignment with EU policies. The Finnish 2016 Nordic NCM Presidency highlighted the need to link up Nordic cooperation to what is taking place in the EU (Nordic Council of Ministers 2016). Similarly, the Norwegian presidency programme focuses on positioning Nordic region in Europe, declaring:

“A strong Nordic voice in Europe is good for the region and good for Europe. The Nordic region needs a strong Europe. Europe needs a strong Nordic region. Nordic precedents can provide inspiration on the

¹ European Commission and The High Representative, ‘An integrated European Union policy for the Arctic’, Joint Communication, JOIN(2016)21final (27 April 2016).

climate and the environment, on energy issues, digitisation and other areas of mutual interest” (NCM 2016)

In turn, the EU's 2016 Joint Communication, emphasizes that “[t]he Nordic Council and the Nordic Council of Ministers are [...] relevant partners for the European Union, not least given their longstanding engagement with EU and their Arctic cooperation programme.”

The EU's Arctic policy can be of relevance for the regional development and cooperation in Arctic Europe. There are interconnections between Nordic intergovernmental and cross-border cooperation and the EU's Arctic policy. This study looks at four dimensions of these interconnections:

OUTPUTS: the outputs of the 2016 Joint Communication, which are particularly relevant for the northern regions of Finland, Norway and Sweden (part 1);

SYNERGIES: the thematic overlaps between the EU's Arctic policy and Arctic-relevant actions and priorities of Nordic cooperation venues (incl. bioeconomy, innovation, climate) (part 2);

STRATEGY AND COOPERATION: ideas to utilize the EU-Arctic Stakeholder Forum process to commence the formulation of an overarching strategic framework for Arctic Europe, bringing together Nordic cooperation and the EU policies (part 3);

IMPORTANCE: aspects of prospective developments in Arctic Europe that could be of relevance/benefit for the whole EU/EEA (part 4).

The first part of the study (OUTPUTS) is descriptive and provides background for the ideas proposed in parts 2-4. Any analysis of Arctic Europe's potential and developmental needs requires acknowledgment of challenges and problems (reiterated in various studies): peripherality and sparse population, accessibility and connectivity, demographic trends, dependence on resource extraction, as well as constraints on the emergence of critical mass and human capital within the region. Border obstacles and future climate adaptation are seen by stakeholders as highly relevant issues in Arctic Europe. These challenges are presented in part 1 and juxtaposed with the relevant statements in the 2016 Joint Communication.

The question of utilizing the Arctic Stakeholder forum process (and associated initiatives: network of programme managers and annual stakeholder conferences, part 3) is seen as particularly relevant and therefore it has received particular attention (part 3).

This study builds on: Nordic and EU policy documents, scholarly analyses and existing literature and reports, as well as interviews with officials from the Nordic Council of Ministers, North Calotte Council, Tornio Valley Council, European Commission's DG Regional Policy (DG REGIO), Brussels offices of northernmost regions, Lapland Regional Council, and programme managers (Interreg Northern Periphery and Arctic, Interreg Baltic Sea Region). It also draws on the outputs of the NSPA Forum (Mikkeli, 10.06.2016), Arctic Innovation Camp (Rovaniemi, 16-19.11.2016), Arctic Futures Symposium (Brussels, 30.11.2016), as well other personal communication by the authors. The names of interviewees are not given in references.

The study was produced as a part of a project "Suomen puheenjohtajuus arktisessa neuvostossa kasvaneen epävarmuuden aikakaudella" (Finland's Arctic Council chairmanship in the times of increasing uncertainty). The project is funded by the Finland's Prime Minister's Office (VNK) as part of the Government's analysis, assessment and research activities (VN-TEAS). It is implemented jointly by the Arctic Centre of the University of Lapland, the Finnish

Institute of International Affairs and the Marine Research Centre of the Finnish Environment
Institute.

1. OUTPUTS: THE EU ARCTIC POLICY FOR ARCTIC EUROPE

1.1. OUTPUTS: Key ideas

1. The European Union's Arctic policy remains primarily a compilation of ongoing actions and of Arctic manifestations of general EU policies. However, the document gives hope for maintaining the EU's long-term interest in the region in times of multiple crises.
2. Compared to earlier documents, the 2016 Joint Communication has greater emphasis on issues specific to the European Arctic.
3. The EU will never become the main public actor shaping developments in Arctic Europe, but can play a role supportive to actions at national and regional level.
4. Investments in clean technologies, bioeconomy, and renewables are among most prospective areas for EU contribution. Extraction of non-renewable resources has received very limited attention.
5. Entrepreneurship and innovation are key themes in EU policies. Facilitating the development and testing of technologies that could be exported across Europe and globally are suitable areas of EU action, including via research funding.
6. Investment financing via the EIB funds can become in the mid-term the central mode of EU support in the region, particularly for interventions enhancing accessibility and connectivity.
7. EU programmes have assumed a key role in supporting cross-border cooperation across the region.
8. The main output of the 2016 Joint Communication for Arctic Europe is the EU-Arctic Stakeholder Forum process aiming at formulating key investment and research priorities. Part 3 of this study is dedicated to the ways how this opportunity could be productively utilized.

1.2. The EU's role in Arctic Europe

The EU's role in the northern regions of Finland, Norway and Sweden is multidimensional. The EU is an important regulator, both for the EU regions as well as for Norway as a member of the European Economic Area (EEA). The EU is also promoting frameworks such as smart specialization and the EU's Arctic policy, which affect how regional planning is carried out. Compared to other part of Europe, EU funding programmes² are relatively small in terms of monetary resources. However, they are very important for cross-border cooperation in Arctic

² European Structural and Investment Funds programmes include structural funding implemented through national programmes (and regional programmes for Sweden), Interreg programmes: cross-border (Interreg Nord), transnational (Northern Periphery and Arctic Programme), interregional, and European Neighborhood Instrument cross-border programmes (Kolarctic, Karelia). Sources of funding are European Agricultural Fund for Rural Development (EAFRD), European Regional Development Fund (ERDF), European Social Fund (ESF) and European Maritime and Fisheries Fund (EMFF) (Cohesion Fund is not operating in Nordic countries).

Europe. The EU has facilitated or is a key player in funding and frameworks for Arctic Europe's cooperation with northwest Russia and North Atlantic partners.

Since the accession of Finland and Sweden to the EU and the establishment of the EEA, the **EU funding programmes** have become a crucial element of regional cooperation in Arctic Europe. Nordic cross-border committees (see section 2.1.2.) facilitate or take part in EU-funded projects, which serve to mobilize actors to work together and create networks. It provides funding for cooperation, which would not be otherwise available (Gaskell 2014; Lindqvist 2010; van der Zwet *et al.* 2014).

The regions that constitute Arctic Europe are also covered by the **EU Strategy for the Baltic Sea Region (EUSBSR)**. The EUSBSR is the first of the EU's macro-regions, which are to bring together actors in order to respond to certain transnational challenges. For the Baltic Sea Region that includes environmental protection, economic prosperity, accessibility (transport), attractiveness and safety and security (Lindqvist 2010).³ However, actors in Arctic Europe have shown more interest in programmes designed specifically for northernmost regions and have focused on cooperation among northern partners rather than on the North-South axis, which would characterize their engagement in EUSBSR and the Baltic Sea Region Programme.

EU policies and funding serve as an important contribution to nationally and regionally-driven developments. However, the EU is not a central public actor that shapes the future of Arctic Europe. This role is and will be played by Nordic national governments together with regional authorities (in the context of global environmental, economic and social developments).

Therefore, there needs to be a strong engagement of the Nordic states. Nordic regional development policies have to be crafted for the needs of the North. National financial, regulatory and political support for key northern projects as well as for local SMEs is critical. Nonetheless, national and regional policies have to operate in harmony with EU actions and the EU's regional development priorities. That is also why the EU's Arctic policy and Nordic cooperation venues may strengthen each other's goals.

1.3. The scope and limitations of the 2016 Joint Communication

The 2016 Joint Communication "The integrated EU policy for the Arctic" – as its 2008 and 2012 predecessors – remains a very general document, providing for few concrete and tangible outputs. It is mostly composed of actions that are already ongoing or stemming from the EU's sectoral policies (e.g., climate mitigation or the existing framework of cohesion programmes). It has limited influence on the sectoral decision-making within the EU, even as regards funding for Arctic research or for regional development and transnational or cross-border cooperation. These actions and policies are anchored in pan-EU decision-making processes, which are driven by multiple factors; and Arctic policy dimension is only one of many elements within such broader considerations.

³ While the EUSBSR has an external dimension (linked up to Northern Dimension joint policy and ND partnerships as well as to the Council of Baltic Sea States), it is primarily an internal EU policy anchored in the EU's regional policy. The focus of the EUSBSR work is on the Baltic Sea and southern part of the region. The outputs of the EUSBSR have been also so far limited. In principle, macro-regional strategies are not to be associated with new regulations, institutions or funding. The goal is rather to better coordinate existing institutions, facilitate implementation of existing regulations and use available resources more efficiently.

At present, the Arctic and Arctic Europe do not emerge as central priority areas for the EU's interest and intervention. The EU's neighbourhood to the East and the South is currently characterized by a great degree of instability. The EU budget is entering times of intense pressures due to Brexit and ongoing implications of refugee crisis, with many net-payers demanding cuts in EU expenditure. It is likely that there will be increased pressure on facilitating European Fund for Strategic Investments (EFSI)-style loans and limiting the resources available for national structural funding programmes and Interreg funding. That would put pressure on traditional funding programmes.

Despite its aforementioned limitations, the major output of the Arctic policy is that it allows for maintaining a certain degree of EU attention towards Arctic issues as the EU struggles with critical challenges in other geographical and policy areas. EU policy documents read: "EU has a strategic interest in playing a key role in the Arctic region" (2016 Joint Communication), and that the EU and its Member States have a "central role in supporting sustainable development and innovation" in the Arctic (Council of the European Union 2016). Such statements open possibilities for sustained EU contribution to research relevant for the European Arctic, as well as for maintained levels of funding for regional development, cross-border cooperation, and connectivity. Moreover, owing to the adoption of the 2016 Joint Communication, the specific challenges related to the environment, societies and economies of Arctic Europe are more likely to be visible in the EU general decision-making processes in the coming years. A positive development in this context is that the EEAS and the European Commission have launched a project – led by the Arctic Centre of the University of Lapland – to assess the ways the 2016 Joint Communication is manifested in EU policy-making and actions.

The 2016 Joint Communication puts much greater attention to the internal dimension of the EU's Arctic affairs than the previous EU Arctic policy documents. The word "integrated policy" in the Communication title refers to a policy bringing together internal and external aspects.

The earliest EU documents from 2008 and 2009 had primarily foreign affairs and maritime focus, but already from 2010 the affairs of Arctic Europe have gradually become an important component of the "Arctic affairs" within the EU. There are a number of elements in the 2016 Communication that are of particular relevance to Arctic Europe and Nordic cooperation in the North.

1.4. Key Arctic Europe's challenges and EU Arctic policy responses

Over the last decade, numerous assessments of developments in the Europe's northernmost regions have generally pointed to the same problems and challenges (Dubois and Roto 2012; Husebekk *et al.* 2015; Lapland Chamber of Commerce 2016; NPA 2014; Stepien *et al.* 2014).⁴ These include: peripherality and sparse population (together with accessibility and connectivity), demographic trends (thinning-out countryside and outflow of young people and women), dependence on resource extraction (and need to diversify northern economies), challenges arising from changes in traditional industries (forestry, reindeer herding, fisheries). Moreover, experts highlight the need to plan for climate adaptations, as well as constrained

⁴ Also, personal communication with representatives of the Brussels offices of the NSPA regions as well as discussions at the Mikkeli NSPA Forum (10 June 2016) and Arctic Innovation Camp (Rovaniemi, 17 November 2016) as regards the results of 2017 OECD study "Territorial Reviews: Northern Sparsely Populated Areas".

critical mass and human capital (and need to integrate better Arctic Europe to facilitate such critical mass). Border obstacles and climate adaptation are also relevant issues in the region.

Many elements of the 2016 Joint Communication – including those referring to the Circumpolar Arctic – are of relevance to the northernmost regions of Finland, Norway and Sweden. The Joint Communication states clearly that “the EU can play an influential role in shaping the future development of the European part of the Arctic” via its legislation applicable to the European Economic Area and deployment of financial instruments.

1.4.1. Remoteness and sparse population

Remoteness and sparse population are seen as key permanent developmental disadvantages in Arctic Europe. They affect transport costs (for people and goods) and accessibility to markets (especially within the EU’s single market). They also entail difficulties in generating critical mass needed for successful business ventures or innovation. The challenges can be exacerbated by the existence of border obstacles. Remoteness and sparsity can be also an asset: for tourism industry, for traditional livelihoods requiring extensive land areas (especially reindeer herding) and for lifestyles alternative to modern urban life. Investments in **accessibility and connectivity** have been proposed as the main measures to address region’s permanent disadvantages. These include transport links (road, rail and air) to the Nordic and EU socio-economic centres, as well as intra-regional, East-West connections. Broadband connectivity is currently in focus, as it is crucial for more efficient business processes, improving labour productivity, e-commerce, access to wide range of materials for education, e-government, telemedicine as well as social and community participation. To some extent, broadband allows to overcome remoteness of Arctic communities. While Arctic Europe is well-connected when compared to other Arctic regions, more investment is needed (Arctic Economic Council 2016).

EU Arctic policy actions:

While no commitments are made in the 2016 Joint Communication, the EU appears to be willing to support strengthening north-south connections via trans-European networks, including Finland’s connections to Arctic Ocean. Possibly, this could be supported by the European Investment Bank (EIB) loans and European Structural and Investment Funds (ESIF). Financing for land, sea and air transport connections as well as telecommunications is mentioned in the Joint Communication. In the region, projects dedicated to railway⁵ and a transcontinental broadband data cable (Lipponen and Svento 2016) are currently discussed. Within Arctic Europe, the Joint Communication highlights the role of cross-border sections and bottlenecks within the Trans-European Network for Transport (TEN-T). Sustainable transport modes are to be promoted.

Role of TEN-T ports (Kemi, Oulu, Luleå, Narvik and Hammerfest) is mentioned as important for opening access to the region. Maritime transport in the North is to be supported by enhancing monitoring for safety and communication. In the past, the EU has co-financed a number of northern infrastructure feasibility studies. The Joint Communication acknowledges the existence of innovative companies in the North (ICT, data processing, industrial design, circular economy), which require effective access to the Single Market for growth. Digital Single Market is named as one of the means to achieve that goal.

⁵ See Arctic Corridor website – promoting the railway connection – at <http://www.arcticcorridor.fi/>

In general, most EU programmes (national, Interreg cross-border and transnational) operating in the North address the specific challenges related to remoteness, sparsity and problems typical for rural areas. Conditions of remoteness and sparsity as well as climate constitute justification for special state aid rules applicable in northernmost regions. This advantage can be used in terms of national support for SMEs and innovation funding.⁶

1.4.2. Demographic challenges and human capital

Sparsity is coupled with demographic challenges: **population loss** in some regions, **thinning-out rural areas** across Arctic Europe, aging society, as well as out-migration of **women and young people**. These yield difficulties for the delivery of public services. Lack of human capital or mismatch between skills and labour market needs are noticeable across the region, although some areas (particularly in Norway) or localities (Kiruna and Luleå in Sweden) experience influx of professionals due to growth in mining, blue economy, ICT, and data centres sectors. At the same time, many Arctic Europe towns are growing, developing into vibrant, socio-economically diverse communities.

EU Arctic policy actions:

The EU Arctic policy does not address directly the question of demographic challenges. However, support for research at universities and institutes located in Arctic Europe and contribution to development of SMEs' capacities may result in building up of human capital. EU programmes can support building human capital by strong involvement of private sector in projects. So far, the main participants in EU projects have been public bodies and academia, but there has been increasing focus on private sector involvement with each consecutive programming period since the mid-1990s.

1.4.3. Dependence on extractive industries

Arctic Europe remains disproportionately dependent on the extraction of renewable and non-renewable resources, including hydrocarbons and fisheries in Norway, raw materials and forestry in Sweden and Finland. Structural changes in many of these industries are among reasons for demographic challenges mentioned earlier. All regional development strategies aim at tackling this dependence by investing in **diversification** of local economies as well as bringing the **refining** of resources extracted in Arctic Europe into the region.

EU Arctic policy actions:

The authors of the 2016 Joint Communication generally avoid discussing issues related to extractive industries. However, the European Commission and High Representative in their 2016 Joint Communication support the development of "Arctic standards". As regards oil and gas activities, the EU is willing to promote its regulatory and technological best practice. Notwithstanding, its 2013 Offshore Safety Directive (2013/30/EU) had been criticized and rejected by Norway as being EEA applicable.

By proposing investments in innovative technologies and SMEs, the EU may support the diversification of regional economies. This is to be done primarily through the EIB financing projects in low-carbon technologies or energy efficiency. The possibilities to use state aid for

⁶ Personal communication, officials from Brussels offices of northern regions (North Norway, North Sweden, North and East Finland). Also, van der Zwet *et al.* 2014.

boosting activities of the SMEs operating in the EU/EEA's sparsely populated areas could be better utilized by the Nordic states.

1.4.4. Traditional livelihoods and indigenous rights

Traditional livelihoods and indigenous cultures – in particular those of the Sámi, the only EU's Arctic indigenous people – were under pressure of settler societies and assimilation policies in the past and are currently still facing socio-economic changes as well as conflicts regarding access to lands and resources. At present, the question of language education, access to pastures for reindeer herders, land rights, marine and freshwater fishing rights, as well as the struggle for greater influence on decision-making are among main challenges. The Sámi often highlight that there should be a place in the European Arctic for livelihoods such as reindeer herding or traditional fisheries. Traditional livelihoods may generate less monetary output than resource extraction or modern industry, but are endowed with other type of values in cultural, wellbeing, nature and identity terms.

EU Arctic policy actions:

The EU will maintain the annual dialogue format with Arctic indigenous peoples. There is a pledge “to work on advancing consistency between the EU's internal and external policy towards indigenous peoples”. That is important, as while the EU has extensive guidelines on the indigenous peoples in development cooperation and international interactions,⁷ there are few documents addressing specifically the Sámi issues within the EU regulatory framework.

The 2016 Joint Communication highlights that many EU ESIF programmes including territorial cooperation programmes and European Neighborhood Instrument Programmes provide various forms of support for livelihoods and cultures. The 2014-2020 Interreg Northern Periphery and Arctic Programme focuses on using innovation towards robust communities, promoting entrepreneurship and developing cultural and natural heritage. Interreg North, Northern Periphery, and from 2014 Northern Periphery and Arctic programmes have provided funding for a number of initiatives relevant for Sámi culture and livelihoods (including via supporting indigenous entrepreneurship).

1.4.5. Climate change and adaptation

Need for climate change adaptation is not yet a key issue in Arctic Europe, despite the region being the fastest warming part of Europe. Current challenges include impacts on winter tourism, increased risk of flooding, and certain – so far limited – impacts on infrastructure (Stępień *et al.* 2016). However, the future projections for the Arctic climate change and expectations for exacerbation of impacts have encouraged regional actors to consider how to adapt to the change.

EU Arctic policy actions:

The EU contributes to climate adaptation in Arctic Europe via its support for knowledge-building on climate change and the Union's input into climate and weather monitoring programmes, including satellite-based and pan-Arctic observing initiatives (e.g. SAON, EU

⁷ E.g., European Commission and High Representative (2016). Implementing EU External Policy on Indigenous Peoples, Joint Staff Working Document, Brussels, 17.10.2016, SWD(2016) 340 final.

contributed most notably via InterAct). Significant number of Sustaining Arctic Observing Networks (SAON) stations are located in Arctic Europe.

It is proposed that European Structural and Investment Funds (ESIF) could support adaptation and mitigation initiatives. The EU has an Adaptation Strategy, and in the past, EU funds provided resources for the work on regional climate change strategies. The main EU contribution remains, since the first Arctic policy statement in 2008, its international and pan-European climate change mitigation policies, including especially UN Framework Convention on Climate Change (UNFCCC) and Paris Agreement, and the EU's energy and climate policy. Potentially important action is the EU's Air Quality Package (there is an ongoing discussion on the proposed directive) and the EU's work in international forums (Convention on Long-Range Transboundary Air Pollution, Stockholm Convention on POPs, Climate and Clean Air Coalition, as well as the UNFCCC), including those dedicated to short-lived climate forcers (SLCFs). The emissions of SLCFs generated in Europe affect to great extent Arctic Europe (Stępień *et al.* 2016).

1.4.6. Border obstacles

While the Arctic Europe is located within the framework of Nordic labour market and the EU/EEA, the workers and companies operating in the region continue to experience various border obstacles. For sparsely-populated areas, these obstacles hinder: the match between human capital and labour market needs, the provision of services across borders, and the creation of Arctic Europe-wide business projects. The 2015 report "Growth from the North" (Husebekk *et al.* 2015) in its vision for turning Arctic Europe into economically vibrant region and one of drivers of Nordic economies, called for harmonization of relevant regulations, more effective integration of labour market and one strategic plan for infrastructure and transport. In terms of regulations, the tackling of border obstacles is seen as a key challenge. In recent years, much has been done at the Freedom of Movement Council, which attempts to deal with several obstacles annually.⁸ However, certain issues remain problematic, especially as regards taxation and access to social services for (cross-) border workers (persons who permanently live on one side of border and work on the other).⁹ Another ongoing challenge are construction regulations, especially in Norway.

EU Arctic policy actions:

While the Arctic policy does not address the issue of border obstacles, tackling them is often seen as one of the preconditions for enhancing opportunities for entrepreneurship and innovation in the North and better integration of the region with the single market (goals of the EU's Arctic policy). The 2016 Joint Communication also states that the EIB can invest in cross-border projects between Finland, Sweden and Norway if these have "significant development potential". Eliminating border obstacles would increase development potential of such projects.

⁸ For instance, progress has been achieved with changing the procedures for taxation (VAT) for equipment transported temporarily across borders in order to provide a service.

⁹ Personal communication with North Calotte Border Information Desk expert, Rovaniemi, 5.10.2016.

The European Commission's DG REGIO has prepared an inventory of border obstacles in the EU/EEA including examples of how they are tackled in different parts of Europe (Cross-Border Review).¹⁰

1.4.7. New economic opportunities

While the abovementioned challenges are present, there are also new opportunities (see, Stepien 2016). The Arctic regions can be places for innovative bioeconomy developments, including biofuels, blue economy, as well as Arctic bio-based organic products (e.g. Arctic foods and cosmetics). There is still a great renewable energy potential, with wind power on the rise. These could contribute to mitigation policies in Europe. In the last years, the region has seen increase in investments in data centres, testing facilities and tourism. There are also hopes that economic development in the Circumpolar Arctic could create markets for Nordic cold climate technologies, e-services, or bring more clients to region's testing facilities.

EU Arctic policy actions: The 2016 Joint Communication focuses on using the EU's cohesion policy and cross-border cooperation to support investments in innovation, SMEs' competitiveness, and the shift towards low-carbon economy. ESIF programmes as well as Horizon 2020 are to promote development and deployment of innovative technologies, including translation of research findings into viable cold climate technologies and services, as well as supporting entry of such technologies to the European market.

The 2016 Joint Communication acknowledges that Arctic Europe suffers from underinvestment. The European Commission declares that it will "help to monitor potential opportunities for sustainable economic activities" with blue economy being mentioned in particular. The Communication also emphasizes the potential for growth as regards renewable energy. The European Investment Advisory Hub and Project Portal could help in attracting non-public financing, with proposal for developing dedicated platforms "to bring together different investors in the Arctic region". Development of blue economy and improvement of marine productivity is to be supported by the European Marine Observation and Data Network (EMODnet), making a broad range of already collected data readily available.

Various EU programmes operating in the North are to be better coordinated and thus more effective (chapter 3 of this study is dedicated to this question).

1.4.8. International tensions

Arctic Europe borders northwest Russia and in the period after the end of Cold War a network of connections had been established, including people-to-people cooperation, business linkages, and political contacts. The region has become one of the premier areas for cooperation between the EU and Russia. Since 2014, these achievements are under pressure from international tensions originating from outside the region.

EU Arctic policy actions:

The 2016 Joint Communication commits to "support[ing] regional and sub-regional cooperation". Venues of cooperation where Russia is a key partner (Barents Euro-Arctic

¹⁰ See European Commission DG REGIO website at http://ec.europa.eu/regional_policy/en/policy/cooperation/european-territorial/cross-border/review/#3

Council and Northern Dimension) are particularly highlighted. Cooperation with Russia in the Arctic is to be maintained (clearly, in the spirit of so-called “selective engagement”). Furthermore, Arctic issues are to continue to be “an important element of the EU’s close relations” with Norway.

2. SYNERGIES: COMMON THEMES OF NORDIC COOPERATION AND THE EU'S ARCTIC POLICY

2.1. SYNERGIES: Key ideas

1. The Nordic Council of Ministers and Nordic cross-border committees operating in Arctic Europe could enhance cooperation on issues such as climate change, transport and innovation.
2. Nordic cooperation venues could facilitate networks and projects on circular economy solutions suitable for peripheral, sparsely populated regions. These include small-scale circular solutions for Arctic communities as well as Arctic Europe-wide systems for material and waste flows spanning across Arctic Europe. Building on these networks, projects for EU funding programmes including Interreg and Horizon 2020 (or its successors) could be developed.
3. Currently, Nordic bioeconomy strategy is being prepared and the EU Bioeconomy Strategy is to be reviewed. Both bioeconomy strategies should have a clear Arctic dimension, considering Arctic-specific challenges and climate change implications. A degree of EU-Nordic cooperation in drafting these strategies would be an advantage.
4. EU funding can be used more effectively to support scaling up of Nordic low-carbon and green economy solutions relevant for the Arctic. Deploying low-carbon technologies is particularly challenging in remote Arctic communities and therefore national, EU and Nordic support is needed to develop feasible low-carbon options. Arctic regions could also serve as living labs for implementation of new technologies and ideas.
5. Nordic cooperation venues and the EU could work more closely on supporting e-services and e-health development. The possibilities for deploying these solutions across the circumpolar North and across Europe – especially in rural areas – could be jointly explored and financially supported.
6. Joint branding of Nordic Arctic products and services could be strengthened, supported by both Nordic cooperation venues and the EU. For the EU, this would be a way to contribute to competitiveness of the northernmost regions. For the Nordic cooperation, it would be a possibility to enhance the common Arctic Europe market as regards labour mobility, service delivery and regulatory framework, as advocated by the “Growth from the North” report (Husebekk *et al.* 2015). Arctic Europe branding could benefit Arctic foods exports, common tourism offers and aggregated innovation potential.
7. The European Investment Bank could follow the example of the Nordic Investment Bank and dedicate pull of resources for financing of Arctic-specific projects. Actors from across Europe could be involved in these investments. Possibilities for joint financing of key Arctic projects by the Nordic and EU financing institutions could be considered.
8. If the Nordic Sámi Convention is ratified by the three Nordic countries and it enters into force, the EU should continue strong support for Sámi projects facilitating cooperation across borders. Nordic cooperation could focus on cultural and identity aspects, while the EU

funding – as is currently the case – would enhance pan-Sámi entrepreneurship, business networking and climate change adaptation covering whole Sápmi.

9. The current work on the new NCM Arctic Cooperation Programme for 2018-2021 and the identification of key investment and research priorities in the Arctic Stakeholder Forum (launched by the 2016 Joint Communication) could be brought closer. This is relevant especially for areas where a broader set of prospective Arctic economic activities could be supported, going beyond large-scale resource extraction.

2.2. Arctic-relevant themes in the venues of Nordic cooperation

There are multiple cooperation frameworks present in Arctic Europe, including North Calotte Council, Bothnian Arc, Tornio Valley Council,¹¹ the Northern Sparsely Populated Area network, and new initiatives such as the Arctic Europe cooperation. The most important venue for collaboration remains, however, the Nordic Council of Ministers. All forums of Nordic cooperation in Arctic Europe deal with themes, where there are commonalities with the EU's Arctic policy.

2.2.1. Nordic Council of Ministers

The Nordic Council of Ministers is the primary venue for Nordic cooperation at state level. The most recent key themes of work under the NCM include in particular:

- bioeconomy;
- Nordic climate solutions;
- education and research in the Nordic region;
- Nordic food and nutrition;
- energy cooperation.

Bioeconomy is believed to have potential to enhance competitiveness and sustainability of Nordic economies; thus, it is not a new topic in Nordic cooperation. In the 2012 Nidaros Declaration, Ministers for Fisheries and Aquaculture, Agriculture, Food and Forestry underlined the key role of primary production and food industries in green growth (already then, the Ministers called for better coordination of bioeconomy work with the European Commission). Bioeconomy was one of the priorities of the Icelandic Presidency in 2014 and Finnish Presidency in 2016.¹² Under the Arctic bioeconomy theme, among the topics for cooperation were tourism/recreation, blue economy, forest policy, and Arctic food. Nordic region is to be shown as a showcase of successful bioeconomy development, with joint Nordic strategy being currently drafted by the *Nordic Bioeconomy Panel*.

The NCM work on the **Nordic food** goes back at least to 2004 with “New Nordic Food” programme. It includes promotion of Nordic food industry, problems of nutrition and limiting of food waste.

Nordic Council of Ministers promotes Nordic **green growth solutions**, including climate solutions. In green growth framework, the **Nordic energy market** is expected to play a role of a living laboratory for climate-smart low-carbon energy solutions.¹³

Nordic Arctic Cooperation Programme (ACP) is managed by Nordregio: Nordic Centre for Regional Development.¹⁴ Objective of the programme is to “support processes, projects and

¹¹ Nordic cross-border committees are overviewed comprehensively in (Greve Harbo 2010).

¹² Nordic Bioeconomy Initiative has been launched and Nordic Bioeconomy Panel was established by the Nordic ministers for cooperation. Bioeconomy innovation project had been implemented, with emphasis on sustainable food production, increase in biomass production and product development. The work on bioeconomy in Nordic cooperation is focused in particularly on the Arctic and Baltic Sea regions. Within the Baltic region, the NCM co-leads a horizontal action “Sustainable Development and Bioeconomy” under the EU Strategy for the Baltic Sea Region.

¹³ At Nordic Way website at <http://nordicway.org/>

initiatives that will help promote sustainable development and benefit the people of the Arctic under the conditions generated by globalisation and climate change”.¹⁵ The Programme is co-ordinating the NCM’s Arctic activities. Relatively small funds are distributed (DKK 10 mln annually, EUR 1.350.000) within broad priority themes. For 2015-2017, the ACP has four themes (generally constituting continuation of priorities from previous funding periods):

- people (solutions to challenges relating to demographics, settlement patterns, town planning and transport, building cultural and social capital, with emphasis on gender and indigenous dimensions);
- sustainable economic development (new circumpolar business opportunities and address challenges related to increased economic activity and a more diverse economy, promoting sustainable use of natural resources, innovation and green growth, e.g. in shipping, maritime safety, fisheries, tourism and renewable energy);
- environment, nature and climate (counteract environmental changes caused by human activity, preserve natural environment and biodiversity, support climate adaptation);
- education and skills enhancement (improving learning networks, building capacity in governance, developing local ICT competences).¹⁶

The NCM has had a long tradition of good **cooperation with Russia** and Russian actors. However, the closure of NCM offices in St. Petersburg and Kaliningrad (and Barents region outposts in Murmansk or Archangelsk) – due to labelling these offices as a “foreign agent” – has adversely impacted the NCM’s efforts.

The **2016 Finland’s Presidency** in the Nordic Council of Ministers focused on cooperation on water matters, bioeconomy, as well as the changing welfare state (Nordic Council of Ministers 2016). Bioeconomy and circular economy themes encompassed nature tourism, fisheries, forestry, waste management and ecosystem-based approach. Digitization, creativity, innovation and matching skills with labour market needs were emphasized, all of importance in Nordic northernmost regions. Importantly, Finland’s NCM Presidency programme highlighted challenges present in **sparsely populated areas**: connectivity (transport, broadband but also development and learning networks), economic diversification, as well as local solutions for services-provision and digitization of government functions. Seeking solutions to special issues affecting rural areas were part of the Presidency’s programme.

The **Norwegian 2017 NCM Presidency** continues the main themes of the previous years, including climate issues, global transition to green economy, the focus on education,

¹⁴ See Nordic Arctic cooperation Programme brochure at <http://www.nordregio.se/Global/About%20Nordregio/Arktiskt%20samarbetsprogram/2015-2017/Arctic%20Co-operation%20Programme%202015-2017%20ENG.pdf>

¹⁵ Nordic Arctic Programme website (at Nordregio) at <http://www.nordregio.se/arcticprogramme>

¹⁶ Projects funded by the ACP include: Arctic women conference, Prevention of suicide in Sápmi, Joint Sámi and Inuit Youth Capacity Building Project, Environment, Climate and Nature in the Arctic. Education in and from a Nordic perspective, Climate Change Teaching in Greenland, Sustainable communities and the Legacy of Mining in the Nordic Arctic, Healthy Food and Lifestyle Choices, The 2015 Arctic Energy Summit: Energy in a Lasting Frontier, Waste water treatment in Nordic Arctic Areas, Facilitating use of Nordic plant genetic resources, Marine Resource Governance in the Arctic.

The NCM often supports projects of the Arctic Council and its working groups, including: Arctic Human Development Report II, ECONOR III – The Economy of the North report (SDWG), AACA – Adaptation Actions for a Changing Arctic, Arctic Shipping Data Service – Development of a circumpolar Arctic shipping database (PAME), Arctic Marine Protected and Important Areas: Phase 1: harmonisation and integration of information (PAME/CAFF), State of the Arctic Freshwater biodiversity report (CAFF).

research and innovation. The focus on health and demographic challenges is highly Arctic-relevant (NCM 2016).

Nordic Council of Ministers facilitates work on the **elimination of border obstacles**. There is currently political prioritization of tackling Nordic border obstacles at the NCM level, as the Freedom of Movement Council aims at abolishing 5-10 border obstacles annually.¹⁷ Promotion of freedom of movement between Nordic countries has been at the core of Nordic cooperation since its inception. Finnish 2016 Presidency advocated preventive measures: analysis of new, prepared legislation from the point of view of possible new, often unforeseen, border obstacles. This could be partly done also as regards new EU regulations (Nordic Council of Ministers 2016).

2.2.2. Nordic cross-border committees

The Nordic Council of Ministers supports 11 cross-border committees, including those central to regional cooperation in Arctic Europe. This work is overseen by the Nordic Committee of Senior Officials for Regional Policy, with NCM providing partial funding for operation of cross-border committees and serving as a forum for the committees to interact and cooperate.

North Calotte Council is one of the oldest Nordic cross-border cooperation frameworks, established in 1967. It brings together representatives from regional authorities and organization responsible for regional development. Managed from the secretariat based for over a decade at the Lapland Regional Council, it primarily focuses on distributing NCM funding via projects to local stakeholders (including co-financing of EU-funded projects). Various working groups operate within the Council, including the North Calotte Environmental Council. Questions of identity and culture are important elements of the Council's work.

Bothnian Arc is an economic association bringing together Finnish and Swedish municipalities from around the northern Gulf of Bothnia. Currently, Bothnian Arc implements projects on youth unemployment and Arctic food, and earlier it was engaged in projects on regional cooperation supporting innovation, energy efficiency projects, regional business linkages, or green logistics.¹⁸ This work clearly reflects EU priorities for Arctic Europe.

Tornio Valley Council is a cooperation between Finnish, Norwegian and Swedish municipalities of the Tornio Valley. The aim is to jointly promote interests of the municipalities, cooperation on branding and marketing Tornio valley, developing business sector and labour market, promoting education and skills development, developing infrastructure and linkages, as well as developing culture of the region. The Council takes part in various EU-funded projects.

Other cross-border committees and cooperation forums are relevant as these regions are located close to the Arctic, sharing many challenges and being natural partners contributing to the critical mass in private sector, research and project applications. These include Kvarken Council, MidtSkandia cooperation, and Nordic Atlantic Cooperation (NORA).

¹⁷ Freedom of Movement Council at NCM website <http://www.norden.org/en/nordic-council-of-ministers/ministers-for-co-operation-mr-sam/freedom-of-movement/the-freedom-of-movement-council>

¹⁸ Website of the Bothnian Arc at <http://www.bothnianarc.net/>

2.2.3. Other Nordic cooperation and financing/funding frameworks

Currently, there is a discussion on establishing a new northern cooperation framework – **Arctic Europe**. It is driven primarily by the cities of Oulu, Rovaniemi, Luleå and Tromsø, with the participation of regions/counties and “innovation and research actors”. The cooperation is supposed to contribute to northernmost Europe becoming a “forerunner in the global competition of skills, business, investments, innovation and growth”. Such a goal would much the objectives of the EU’s Arctic policy. There are plans to carry out joint lobbying at the EU and national level.

The Arctic Europe cooperation is underpinned by the recently established **Joint Arctic Agenda between universities** from Oulu, Rovaniemi, Luleå and Tromsø. Joint education and research programmes are envisaged. The universities plan to support and complement each other in the areas of common interests, including e-health and telemedicine, social work, care services, renewable energy, as well as extractive industries operating within highest environmental standards. The focus on cooperation is to enhance business-academia linkages across the region. Exchange of information on best practices in that regard is supposed to be an important area of collaboration.¹⁹

The Nordic Investment Bank (NIB) is an international financial institution owned by eight countries: Denmark, Estonia, Finland, Iceland, Latvia, Lithuania, Norway and Sweden. While NIB provides loans both within and outside its member countries, significant part of its lending operations is dedicated to implementing owner countries’ priorities. In 2015, a EUR 500 mIn lending facility has been created in order to finance investments that support Arctic strategies of Nordic countries, focusing on energy, transport and SMEs. Attention is given to the sustainability and environmental performance of financed projects. The NIB also takes part in two Northern Dimension partnerships (environmental; transport and logistics).

The Nordic Environment Finance Corporation (NEFCO) has been also engaged in various Arctic-relevant projects. In November 2016, NEFCO has facilitated a new co-operation programme aimed at improving the state of the environment and addressing climate change in northwest Russia.²⁰ NEFCO manages Arctic Council’s Project Support Instrument.

The **Northern Sparsely Populated Areas network (NSPAs)** groups 14 northernmost Finnish (North and East Finland), Swedish and Norwegian regions, and is led by the Brussels regional representative offices (North and East Finland, North Sweden, Mid-Sweden, North Norway). The primary goal of the network is joint advocacy at the EU level. The NSPAs network has taken a strong role as regards the development of the EU’s Arctic policy. The network is now likely to lead the efforts under the EU-Arctic Stakeholder Forum. One of the main elements of the NSPAs’ advocacy work at the EU level is to highlight a significant potential of Europe’s northernmost regions as places of growth and innovation that could benefit whole Europe. At the same time, the NSPAs argue that this potential can be realized only when permanent disadvantages of sparsity and remoteness are mitigated.²¹ The 2016 Joint Communication to some extent endorses this way of thinking about Arctic Europe.

¹⁹ See, University of Oulu website at <http://www oulu.fi/university/node/41874>

²⁰ NEFCO website at <https://www nefco.org/news-media/news/new-nordic-russian-programme-environment-and-climate>

²¹ See, e.g., NSPAs (2016, 10 June) “Northern Sparsely Populated Areas network calls for a strong cohesion policy post-2020” at <http://www nspa-network.eu/media/12869/nspa%20cohesion%20position%20nspa%20forum%2010%206%202016.pdf>

EU funding programmes such as Interreg Northern Periphery and Arctic Programme, ENI Kolarctic or Interreg North have become crucial for cooperation between Nordic regions, Nordic academia, social actors and private sector. A good example is a current Interreg North project “Visit Arctic Europe”, led by the Finnish Lapland Tourism Board, aiming at establishing northernmost European regions as a single top-class tourism area, with coherent transport networks, joint offers, branding and marketing.²²

However, EU programmes (other than structural funds for northern Finland and Sweden within national and regional operational programmes²³) provide very limited resources and are largely used for networking, exchange of experience, and small innovations. These are crucial contributions, but funding for directing and driving regional development in Arctic Europe has to come primarily from national and regional sources.

The landscape of cooperation in the European North is complemented by the collaboration in **Barents Euro-Arctic Region**, where the regional level (Barents Regional Council) includes Arctic Europe regions, as well as circumpolar Arctic cooperation (**Arctic Council** and other cooperation frameworks established by Arctic states). At the circumpolar level, many Arctic Europe private sector actors are members of the Arctic Economic Council, while some regions are members of the recently revitalized **Northern Forum** (with secretariat currently based in Yakutia, Russia).

2.2.4. Facilitating pan-Sámi cooperation

From its inception, the Nordic cooperation has been a vehicle supporting the trans-border cooperation of the Sámi as one people living in three Nordic states.²⁴ While the pan-Sámi cooperation goes back to the Trondheim meeting in 1917, the organization of regular Sámi Conferences and the establishment of the Sámi Council in the 1950s was greatly facilitated by the emergence of the Nordic cooperation and the creation of the Nordic Council. Building on that foundation, numerous pan-Sámi trans-border organizations emerged through the 1960s to 1990s, organizing Sámi youth, teachers, artists and other professions. In the 1990s, Sámi Parliamentary cooperation was added to the picture (Stepien 2012; Stepien *et al.* 2015). One area where the Nordic cooperation fell short of Sámi expectations is lack of formal membership of the Sámi institutions in the Nordic Council or the Nordic Council of Ministers, although Sámi representatives take part in many meetings of relevance to Sámi interests.

Recently, the most important process in terms of trans-border questions is the drafting of and negotiations on the Nordic Sámi Convention (NSC). The idea for the NSC was developed under the Nordic Council and the NSC draft was prepared by a committee, consisting of three members appointed by Finland, Sweden and Norway and three by the respective Sámi parliaments. The draft was submitted by the committee to the Nordic governments and the Sámi Parliaments in October 2005 (Koivurova 2008). Inter-state negotiations were commenced in 2011 and now, at the beginning of 2017 (before the centenary celebrations of the historic pan-Sámi meeting in Trondheim, on 6 February 2017) the agreement has been

²² Project website at <http://visitarcticeurope.com/>

²³ For 2014-2020 financial perspective, Finland does not implement regional operational programmes. Before 2014, North Finland regional operational programme was functioning. Programme for north and central Sweden remains in operation.

²⁴ Apart from the three Nordic states, the Sami live also in Russian Kola Peninsula. Russian Sami joined the Sami cooperation organizations at the end of the 1980s.

reached in the negotiation, meaning that now the respective states will start preparing the ratification of the Convention.²⁵

In the preamble of the current version of the text (22.11.2016), it is made clear that one of the fundamental ideas for the proposed convention is that the Sámi are one indivisible people, even though spread across many states' territories. As stated by the governments in the preamble: "the Sámi as people and indigenous people in the three states has its own culture, its own society and its own language, which stretches over the national borders" (unofficial translation). The states also affirm the customary rights of the Sámi and their cross-border co-operation rights via the so-called Lapp Codicil from 1751 (an annex to a border treaty between Sweden and Norway).

Of much importance for this report is that the objective of the proposed Convention is to affirm and strengthen such rights of the Sámi people that are necessary to secure and develop its culture, its language and its and society, with the smallest possible interference of the national borders. This general objective is made more specific in various articles e.g. in Article 10 (co-operation across borders). The three Nordic states are to enhance co-operation to remove obstacles for the Sámi that are based on their citizenship or residence or that otherwise are a result of the Sámi settlement area stretching across national borders. The states are required to render it easier for the Sámi to preserve, use and develop their culture, language and societal life across state borders and for them to engage in cross-border commercial activities. The states are also obliged to develop opportunities for the Sámi to receive education, health, hospital services and social services in another country if this proves more appropriate.

2.2.5. Key areas of Nordic cooperation

While the overview of the cooperation forums in Arctic Europe may suggest excessive complexity and density, each frameworks has its own goals, membership, identity, and niches. These frameworks constantly interact and intertwine. Commonly, representatives attend meetings of other forums/councils and there is significant cooperation in terms of obtaining or topping-up funding from EU funds (e.g. between Bothnian Arc and Tornio Valley Council).

The overview of the activities of Nordic cooperation frameworks in Arctic Europe suggests focus on the following themes:

- eliminating border obstacles;
- bioeconomy (including blue economy);
- green growth, climate change and energy transition;
- interlinking regional businesses and creating critical mass in sparsely populated areas;
- supporting culture across borders;
- supporting Sámi as one people in three/four countries.

²⁵ See the website of the Finnish Prime Minister's Office at http://valtioneuvosto.fi/en/article/-/asset_publisher/pohjoismaisesta-saamelaispimuksesta-neuvottelutulos

Many of these aspects are also among key themes of the smart specialization strategies adopted by the northernmost EU regions. For instance, Lapland focuses, among others, on: green mining, circular economy and industrial symbiosis, refining in the North, bioeconomy and local high-value food production, safety of Arctic activities, as well as cold climate technologies. These developments are to be supported by encouraging local entrepreneurship and innovation, key themes of the EU's 2020 agenda (Regional Council of Lapland 2013a).

In the NCM, the Arctic remains to be treated as a distinct topic for cooperation. It could be, however, more beneficial to integrate Arctic matters into the work within sectoral themes, to mainstream it across the institution.²⁶ That is already partly the case for Nordic bioeconomy work.

2.3. Thematic synergies between the EU Arctic Policy and Nordic cooperation

As shown above, many themes under purview of the NCM, North Calotte Council, Bothnian Arc, the NIB and other Nordic cooperation venues reverberate also in the 2016 Joint Communication on the EU's policy for the Arctic. Productive synergies between Nordic cooperation and the EU Arctic Policy should be therefore considered. In this section, we highlight key areas for such synergies.

The programme of the Norwegian NCM Presidency emphasizes the importance of the EU/EEA internal market for the Nordic region and highlights that “[t]he Nordic region must continue to be one of the most integrated and competitive economies in Europe, with a high degree of mobility and co-operation between the countries” (NCM 2016). Norwegian Presidency programme lists climate, environment, energy issues and digitization as areas of mutual interest. Areas where EU Arctic Policy-Nordic synergies can be found are: bioeconomy and circular economy, climate and environment, digitization, border obstacles, and supporting trans-border Sámi cooperation.

The NCM currently works on the new Arctic Cooperation Programme for 2018-2021, which provides an opening to find synergies and complementarities with the Arctic-relevant actions at the EU level.

2.3.1. Arctic bioeconomy and circular economy

Bioeconomy has emerged as one of the key policy areas for Nordic cooperation, with the Nordic bioeconomy strategy under preparation. Nordic countries share similar traditions of nature-based economies and have strong competence in biotechnology. There is also a degree of complementariness among Nordic countries, with dynamic blue economy development in Norway and focus on forestry and Arctic foods in Finland and Sweden. Notwithstanding, each countries is interested in all bioeconomy sectors.

Circular economy and bioeconomy are priority areas for the EU, as they are to contribute to green growth and transition to environmentally sustainable development. In the 2016 Joint Communication, the European Commission and High Representative declare that the EU will

²⁶ Personal communication, Nordic Council of Ministers Senior Advisor, Secretary General's Office, January 2017.

“help to monitor potential opportunities for sustainable economic activities” with blue economy sectors such as aquaculture, fisheries, offshore renewable energy, maritime tourism and maritime biotechnology listed as relevant in this context. Blue economy focus interplays well with the Finnish and Norwegian NCM Presidency programmes, where the themes of water and blue bioeconomy are highlighted.

Networks of regions and companies dedicated to both small-scale circular solutions and large inter-regional cooperation on material and waste flows should be encouraged. Nordic cooperation venues – both NCM and cross-border committees – could facilitate establishment of Nordic networks dedicated to Arctic bioeconomy and Arctic circular economy. For example, in 2008-2010, EU and Nordic projects considered waste flows across the North Calotte region.²⁷ Building on these networks, projects for EU programmes including Interreg and Horizon 2020 (or its successors) could be developed.

It may be advantageous to conduct Nordic lobbying at the EU level to support circular solutions specifically designed for sparsely populated and peripheral regions. There may be potential for exporting these innovative solutions outside of the Nordic region.

2.3.2. Climate and environment

A clear area for Nordic-EU synergies is climate change mitigation and adaptation. It is a cross-cutting issue across EU, Nordic and national strategies and a core priority area of the 2016 Joint Communication.

The Nordic Council of Ministers is focusing on Nordic climate solutions, especially energy efficiency and green growth.²⁸ One of the goals is scaling-up Nordic low-carbon solutions, which include: combined heat and power production technologies, energy efficiency in buildings, and cutting nitrous-oxide emissions in manure management in the agricultural sector. Arctic regions could serve as testbeds for deployment of some new technologies. The testing could be supported by Nordic cooperation venues as well as EU funding and regulatory frameworks. Projects disseminating successful technologies across Europe would contribute to the EU’s climate and energy goals.

The EU would like to contribute to developing an “ambitious climate adaptation agenda for the Arctic region” (2016 Joint Communication). Future cooperation as regards adaptive actions between the EU, national decision-makers, Arctic Europe regions, cross-border committees and the NCM should be considered.

2.3.3. Digitization

Utilizing digital revolution towards economic and human development is one of the key social challenges of our age. However, while still digitization leaders, Nordic countries appear to be gradually losing their initial edge over other parts of Europe and the world in terms of e-economy and the pace of progress in digital transformation (Alm *et al.* 2016). Challenges

²⁷ Projects aimed at “improved logistic structure that consist of all countries in North Calotte”, which was “supposed to generate economical and environmental advantages”. The action was implemented via two Interreg North projects: “Refuse transport in North Calotte area” and “Development of an Internal Waste Market in the North Calotte”. See Interreg Nord 2007-2013 website at <http://2007-2013.interregnord.com/en/projects/north/3-regional-functionality-and-identity/development-of-an-internal-waste-market-in-the-north-calotte.aspx>

²⁸ See November 2016 issue of the “Nordic Way” magazine at <http://nordicway.org/>

specific to sparsely populated northern areas should be considered as an important element in a Nordic renewed commitment to digitization.

The specific needs of Arctic regions arise from limitations in terms of critical mass and human capital, as well as from long distances and dispersed demographic structure, as the provision of services and transport connections entails higher costs than in central urban areas. Moreover, developments more typical for the North – such as data centres – often constitute a topic for inter-regional competition rather than collaboration.

The two clear areas for Nordic and EU cooperation are e-services (including e-health) and providing broadband connectivity in Europe's peripheries.

E-services and e-health have been one of crucial elements of both EU programmes and Nordic cooperation. Further development of e-services in peripheral regions depends largely on public support. Arctic regions could serve as living labs for deployment of these solutions and technologies, with possibility for exporting them to other parts of Europe or other regions of the circumpolar North (see section 4.3. on the concept of Arctic Europe as a living lab).

The success of e-services in the North depends on good broadband connectivity (Arctic Economic Council 2016). While Nordic region is relatively well-connected, the projects such as the proposed broadband cable between Helsinki and Kirkenes (Lipponen and Svento 2016) could provide boost for all sectors (increasingly) relying on high-speed, reliable data connections. That includes data centres, cold climate testing facilities, extractive industries, logistic companies as well as small companies selling products and services online. The increasing reliance of northern communities on e-services, and especially public e-services including healthcare in remote areas, makes fast and secure connectivity an important social challenge. Moreover, there could be benefits similar to the effect the construction of data centres had on the economic diversity of south Norrbotten (where a number of IT start-ups emerged) (Warrenstein *et al.* 2016). Joint Nordic (NIB) and EU (EIB) financing of broadband projects could be considered.

Furthermore, both the 2016 Joint Communication and the Finnish NCM Presidency programme highlight the importance of open data in research. Policy-makers could explore whether there are here any areas for strong cooperation.

2.3.4. Tackling Border Obstacles

While progress is being made on the existing border obstacles – through the Freedom of Movement Council and regional information desks – there is no Nordic mechanism to review new regulations or organizational changes that may have impact on cross-border labour market, services provision, or local trade.²⁹ The EU, however, has taken a number of initiatives as regards tackling border obstacles.

²⁹ An example of recent Norwegian changes in location of offices issuing identity documents is a case in point, as its unintended effect was an additional time burden on Nordic citizens, who wish to work in Norway (Personal communication, North Calotte Border Information Desk expert, Rovaniemi, October 2016).

DG REGIO is currently carrying out a Cross-border Review, commenced in 2015 and delivering results on the outcomes of border case studies in early 2017. The Review includes an inventory of critical border obstacles with examples of how these have been addressed in different parts of Europe.³⁰ Diverging national legislations, incompatible administrative processes and lack of common territorial planning are identified as the main sources of obstacles across Europe.³¹ The Cross-border Review entailed a significant degree of cooperation between the NCM, Freedom of Movement Council and the DG REGIO, as well as Nordic actors taking part in stakeholder consultations.³²

The EU has set up also a more long-term mechanisms. For instance, a procedure for notification of new national norms related to products and information society is in place, identifying new obstacles even before they materialize.³³ Similar effort could be pursued as regards various aspects of the freedom of movement at Nordic or EU level, taking into account the characteristics of sparsely populated regions. New regulatory proposals in Nordic states would be reviewed as regards their unintended impact on the freedom of movement. This could be applied more effectively also to new EU legislation.

The “Growth from the North” report (Husebekk *et al.* 2015) puts emphasis on the establishment of borderless public services – including health, e-health, public safety services – to make living in the Nordic Arctic “secure and attractive”. Improved working methods and enhanced contacts between officials across borders, also at municipal level, are encouraged. The report emphasizes the role of local bottom-up initiatives of municipal authorities. EU and Nordic projects have constituted and could remain in the future important contributions to these enhanced interlinkages.

As discussed above, lack of skilled workforce in specific industries, high unemployment and local mismatches between skills and needs of employers are among challenges in the North. Easing the mobility of workers across the Nordic Arctic is seen in the “Growth from the North” report as one of key responses. Proposed ways forward are: easing bureaucratic burden (as in border obstacles discussed above), harmonizing education and qualification standards, mutually recognizing qualifications, facilitating common pull of talent, as well as advancing language skills, especially Scandinavian languages in Finland (Husebekk *et al.* 2015). Authors advocate innovative solutions towards increased mobility (e.g. encouraging participation in job fairs across borders). The increased exchange of students and researchers, boosted by joint study programmes, is also seen as a strategy for building a common labour market in the long-term. EU mobility programmes are already used to facilitate such activities. EU and Nordic funding could therefore contribute to the joint

³⁰ See European Commission DG REGIO website at http://ec.europa.eu/regional_policy/en/policy/cooperation/european-territorial/cross-border/review/#3

³¹ For the Arctic Europe, the DG REGIO commissioned study identified such obstacles as: complicated requirements for VAT representative in Norway, inadequate customs procedures for goods transported by rail and road, cumbersome VAT reimbursement procedure, incompatible technical standards for construction, complicated VAT rules for conference organizers and for culture sector, limited trade in media due to different legislation, hindrances for cross-border e-health, different rules for modular vehicles in transport, different label requirements for vehicles, hindered freight transport at Haparanda and Tornio terminals, inefficient mobile phone network on the border, different emergency legislations on blue light transports (European Commission DG REGIO website at http://ec.europa.eu/regional_policy/en/policy/cooperation/european-territorial/cross-border/review/#3).

³² Personal communication, DG REGIO staff members, January 2017; see also Norden website at <http://www.norden.org/sv/aktuellt/nyheter/europeiska-kommissionen-dg-regio-besoekte-graenshinderradet-foer-att-diskutera-graenshinderarbetet-i-norden>

³³ Technical Regulation Information System (TRIS) was established in order to prevent creating new barriers in the EU/EEA internal market, before these barriers materialize. TRIS also allows stakeholders to acquire information about new regulations and participate in the procedure. Under Directive (EU) 2015/1535 of the European Parliament and of the Council of 9 September 2015 laying down a procedure for the provision of information in the field of technical regulations and of rules on Information Society services (Text with EEA relevance).

programmes and northern university cooperation proposed in the 2016 Joint Agenda between Arctic Europe universities.

The 2016 Joint Communication states that the EIB can invest in cross-border projects between Finland, Sweden and Norway if these have “significant development potential”. Success of some of these projects – especially when they involve SMEs and cross-border services – depends partly on the overcoming of border obstacles, for which Nordic cooperation has assumed primary responsibility. Complementarity of these actions should be highlighted at the EU level.

2.3.5. Making it easier for the Sámi to live as one people across Nordic states

As discussed in the section 2.1.4., the Nordic cooperation venues have been critical for Sami cooperation across state borders. At the same time, EU programmes have provided important funding for pan-Sámi cooperation across Nordic states and Russia. Sámi institutions have over the years participated in numerous projects focused on culture, education and entrepreneurship. A good examples are two Interreg North/Sápmi projects dedicated to indigenous entrepreneurship (Indigee and Indigee2³⁴), which were also co-funded by the Nordic Council of Ministers.

Importantly, the EU has endorsed the main international indigenous rights documents, including the UN Declaration on the Rights of Indigenous Peoples (UNDRIP, 2007). Art. 36 of UNDRIP provides specifically for rights of peoples divided by state borders, that is „the right to maintain and develop contacts, relations and cooperation, including activities for spiritual, cultural, political, economic and social purposes”. Both Nordic cooperation frameworks and the EU (due to its regulatory impact on the region) have obligation to support the Sámi in overcoming the impact of borders on their life as one people.

The current division of funding priorities entails that the Nordic cooperation venues focus primarily on cultural and identity aspects, while the EU programmes contribute to pan-Sápmi entrepreneurship and business opportunities (notwithstanding, many EU programmes provide resources for cultural activities). While the 2016 Joint Communication does not mention Sámi issues specifically, it commits to dialogue and work with indigenous communities on climate change impacts and adaptation. That could be a potential future area for EU contribution.

Should the Nordic Sámi Convention be ratified by the three Nordic states, the EU funding programmes to support Sámi cross-border cooperation may play a role in strengthening multidimensional trans-border activities, which could receive a boost following the successful ratification of the NSC.

³⁴ See Interreg IV Nord website at <http://2007-2013.interregnord.com/en/projects/sapmi/4-sapmi-borderless-development/indigee-2.aspx>

2.4. Common instruments

Policy formulation and regulatory changes in the EU are already taken into consideration in the work of the Nordic Council of Ministers.³⁵ That has been recently enhanced in the years of service of Dagfinn Høybråten as the NCM Secretary General, who was mandated to strengthen the linkages of NCM's work with European and global developments.

The 2016 Communication highlights the role of lending as a financing instrument in the EU's support for sustainable development of the region. Nordic countries decided that the Nordic Investment Bank should provide financing for projects that support their Arctic strategies. Similarly, it may be feasible for the European Investment Bank and the European Fund for Strategic Investments (or its potential successor) to assign a pull of resources for facilitating the implementation of the EU Arctic Policy priorities (or the key investment and research priorities).

Should a set of overall investment and research priorities be adopted and endorsed by the Nordic cooperation (see Part 3), these priorities or a common framework strategy could serve as basis for joint financing projects between Nordic and EU financing institutions.

A possibility for joint EU-Nordic seed money facility for all programmes operating in Arctic Europe could be considered (see section 3.6.2. for discussion). Also, joint EU-Nordic conferences could be a way to bring together various programmes. The 2016 Joint Communication envisages annual Arctic stakeholder conferences, which could constitute a basis for such a Nordic-EU meeting place.

In the NCM, there is currently an apt opportunity for finding synergies and complementarities with the Arctic-relevant actions at the EU level, as the NCM works on the new Arctic Cooperation Programme for 2018-2021. The NCM is, among others, exploring how a broader spectrum of economic opportunities in the Arctic – beyond large-scale resource extraction – could be supported by the NCM funding.³⁶ This creates potential for alignment with the EU-Arctic Stakeholder Forum process, which is likely to partly cover similar development trajectories. Discussed above bioeconomy, circular economy, climate technologies and digitization are among areas for growth alternative to the reliance on extractive industries.

³⁵ Personal communication, Nordic Council of Ministers Senior Advisor, Secretary General's Office, January 2017.

³⁶ Personal communication, Nordic Council of Ministers senior advisor, Secretary General's office, January 2017.

3. STRATEGY AND COORDINATION: ARCTIC STAKEHOLDER FORUM AS A CATALYST FOR A COMMON ARCTIC EUROPE STRATEGY

3.1. STRATEGY AND COORDINATION: Key ideas

1. Many experts and stakeholder call for developing a common strategic framework covering Arctic Europe. It would influence EU funding and create linkages to non-EU forums (primarily the NCM and cross-border committees). The EU-Arctic Stakeholder Forum process can be used to develop the core of such a strategic framework (i.e. key investment and research priorities).

2. There are good reasons for using elements of the smart specialization concept and methodologies for developing strategic framework for Arctic Europe. This should entail a clear idea how stakeholders from the Arctic Europe regions could attain a better position within European and global value chains. However, a full-fledged common smart specialization strategy for Arctic Europe is unlikely. The framework should neither take a format of EU macro-regional strategy as it may be inappropriate for the region's needs. The development of the strategic framework should be driven by the northernmost EU/EEA regions.

3. The continuity in applying the smart specialization concepts in the EU's regional policy should be advocated during the current cohesion policy discussions. Smart specialization logic and methodologies appear to be well-suited to the peripheral and sparsely populated regions' planning needs.

4. When adopted, strategic Arctic Europe priorities should be gradually incorporated into regional, national and EU policies and programmes.

5. The cooperation between EU programmes operating in the North is needed and in the future should build on the current cooperation network among programme managers established under the Northern Periphery and Arctic (NPA) Programme. The process implemented by the NPA secretariat should be strongly supported. Future cooperation elements could include: exchange of experiences in monitoring, common indicators, linking-up projects funded by different programmes, and setting common goals for different forms of intervention. The cooperation mechanisms should largely remain informal and flexible. No new structure for coordination should be created. Annual stakeholder conferences could be used to maintain this cooperation.

6. Arctic Europe Seed Money Facility could be established, whatever is the final format of the key investment and research priorities proposed by the Arctic Stakeholder Forum. The facility would support the development of project proposals contributing to the goals of strategic framework or to the key investment and research priorities. This would enhance implementation of priorities as well as strengthen the role of actors lacking resources to develop strong proposals. Set up under one of the EU funding programmes - possibly Interreg North or the NPA – the facility would support networking, project preparation or pre-feasibility studies for proposals under all EU programmes operating in the Arctic Europe as well as non-EU programmes, such as the NCM or cross-border committees funding. A joint

Nordic-EU seed money facility covering all funding sources in Arctic Europe should be considered. National, Nordic and regional funding should contribute to the budget of such a facility.

7. In order to facilitate sustained exchange between Nordic forums (in particular the NCM and the relevant cross-border committees) and the EU programmes and policy-makers, it should be considered whether the idea of the future annual stakeholder conferences (proposed in 2016 Joint Communication) could be expanded into joint EU-Nordic Arctic conferences.

3.2. Rationale for a common strategic framework

The EU-Arctic Stakeholder Forum (ASF) is the most significant new EU initiative envisaged in the 2016 Joint Communication. There is a possibility to use this venue to bring together EU funding programmes and Nordic cooperation forums. It is here argued that a common framework strategy for the Arctic Europe could be a feasible way of achieving that aim and the ASF could be a good start for the process of formulating such a strategy, which would go beyond the EU funding programmes and include Nordic cooperation.³⁷ The term “strategy” used in this section should not entail establishing a macro-regional strategy for Arctic Europe, similar to those formulated for Baltic Sea or Danube regions.

Various regional actors³⁸ as well as the initial drafts of the ongoing OECD study³⁹ suggest that Arctic Europe would benefit from a common strategic framework, plan or work programme. Moreover, the former Prime Minister of Finland, Paavo Lipponen, in his September 2015 memorandum to the European Commission President Jean-Claude Juncker (Lipponen 2015) proposed the formulation of the “EU Arctic and Northern Policy”, encompassing all policy spaces and frameworks:

“The EU should develop a Northern Policy, covering the whole Northern Dimension area from Greenland to North-West Russia to Northern Germany and Poland. Such a policy should cover all Northern European international institutions: Arctic Council, Barents Euro-Arctic Council, Council of Baltic Sea States, Nordic Council and Council of Ministers and Northern Dimension Cooperation.”

The 2016 EU Arctic communication has opened a possibility for bringing together various programmes operating in the European North, although excluding Baltic region programmes (as proposed by Lipponen). The Arctic Stakeholder Forum process launched by the 2016 Arctic Communication is to produce a set of overarching “key investment and research priorities” for the (European) Arctic. They could be, in principle, applicable to the existing EU funding programmes (for the post-2020 financial perspective): structural funds channelled through national and regional programmes, including European Maritime and Fisheries Fund

³⁷ The idea is based on the results of a workshop during the Arctic Innovation Camp taking place in Rovaniemi, 16-19.11.2016

³⁸ Based on interviews with officials from regions, secretariats of North Calotte Council and Tornio Valley Council, regional offices in Brussels, managers of EU programmes, as well as outcomes of the so-called Bodø process as reported by the University of Strathclyde (Gaskell 2014), discussions at the Arctic Innovation Camp in Rovaniemi 16-19 November 2016 (see University of Lapland website at <https://www.ulapland.fi/EN/Events/The-Value-of-the-Smart-Specialisation-Strategy-%E2%80%93-Beyond-the-Boundaries-in-the-Northernmost-Europe/Arctic-Innovation-Camp>).

³⁹ Personal communication with representatives of the Brussels offices of the NSPA regions as well as discussions at the Mikkelin NSPA Forum (10 June 2016) and Arctic Innovation Camp (Rovaniemi, 17 November 2016) as regards the results of 2017 OECD study “Territorial Reviews: Northern Sparsely Populated Areas” (finalized as of January 2017, to be published in March 2017).

(EMFF), cross-border and interregional cooperation, research funding, programmes such as Life, as well as investment loans distributed by European Investment Bank (incl. European Fund for Strategic Investments EFSI or its potential post-2020 successor). Investment and research priorities developed by the ASF could, however, also constitute a core of a broader plan involving Nordic cooperation frameworks as well as regional and national actions.

Arctic Europe is a distinct region with distinct challenges, which justifies a separate strategy for the region. While Arctic Europe is covered by the EU Strategy for the Baltic Sea Region (EUSBSR), **few actors from the North participate in Baltic programmes**. Among reasons could be lack of awareness of funding possibilities as well as limited interest in North-South partnerships, as the primary focus is on creating networks in the North.⁴⁰ The partnerships in the North are fairly well-established and the competition for funding in the Baltic Sea Region is often greater than in Arctic Europe. Moreover, Arctic Europe cooperation requires direct involvement of Norwegian partners, who are present in the EUSBSR as neighbours rather than full participants.

As discussed in parts 1 and 2 of this study, there are a number of similar challenges or a potential for various common solutions, including cross-border services, e-services, pan-Nordic Arctic logistics, transport, and waste management. There is already **a generally similar understanding of the problems, challenges, obstacles and opportunities across the region** (see part 1). The need for enhanced cooperation between programmes stems also from the circumstances prevalent in the region: limited number of potential partners for particular thematic lines of projects and small size and limited capacity of many organizations (e.g. those of the Sámi or local SMEs).⁴¹

Strategy-drafting would be create an opportunity to gain a more holistic outlook at the regional development in Arctic Europe. Priorities constantly change over the years and strategy documents have limited influence on actual developments. However, the process of discussing, aligning actions, bringing closer the way of thinking is a value in itself. Common strategy could have a potential to bring the Arctic discussion on opportunities and challenges closer to regional and municipal level.

While there is interest in dialogue between different funding frameworks and programmes within and outside of the EU, including NCM, Barents Region projects, cross-border committees and national projects, there is **little enthusiasm for coordination** of different programmes.⁴² Each body wants to keep its own autonomy and be free to establish own set of priorities.

Therefore, an appropriate solution could be a bottom-up, regions-driven approach. A common Arctic Europe strategy could be used by regional programmes and bodies as they could draw on the priorities as well as build on the priorities as spaces for cooperation between programmes. However, different actors would not be forced to participate in a coordination framework that overrides their own goals. The main way such a strategy would influence Arctic Europe developments would be through **incremental incorporation of its**

⁴⁰ Partly based on personal communication with a Norwegian representative in the Monitoring Committee of the Baltic Sea Region Programme, January 2017.

⁴¹ On the other hand, there may be a certain degree of long-term cartelization in relations between programme authorities and some beneficiaries, as close connections are established and the number of trustworthy project partners is limited (Gaskell 2014).

⁴² Personal communication, officials from the Nordic Council of Ministers (January 2017), North Calotte Council (September 2016), European Arctic regions (June, August, October, November 2016), Brussels offices of the NSPA regions (June and November 2016), as well as managers of EU programmes (November 2016).

priorities and goals into regional, national and EU policies, funding programmes as well as concrete investment decision-making.

3.3. Format for a common strategy: smart specialization rather than a macro-region

The overarching programme or strategy should be long-term, flexible and owned at the regional level. Striking a balance between concrete actions and vague priorities (to which most actors easily agree) is crucial. If a common strategy remains excessively general and vague and is drawn without broad participation, it risks becoming another abstract “wish list”. That is why elements of smart specialization concept could constitute a basis for strategy-drafting.

Since 2009, the concept of **EU macro-regional strategies** have been implemented for Baltic, Danube, Alpine and Adriatic and Ionian regions. In December 2016, the assessment of implementation and added value of these four strategies have been published (European Commission 2016). Despite being advocated at national or regional level, so far the strategies have been criticized for engaging too much national and regional resources, while producing rather limited outputs (see also, e.g., European Commission 2013).

For the European Arctic, the macro-regional strategy format could be inappropriate as it would cover areas of only two EU member states, one EEA state (Norway), with only limited participation of neighbouring regions. It would be desirable to involve Russia and the experiences of EUSBSR have shown difficulties in that regard. Moreover, the main rationale for macro-regional strategies in other parts of Europe is bringing together richer and poorer EU Member States and EU regions.⁴³ Arctic Europe regions are among wealthier parts of the EU and in the last decades there has even been a degree of economic convergence between these different parts of Arctic Europe. Moreover, the EUSBSR already includes big part of Arctic Europe. There is little benefit in excluding regions of the northern Gulf of Bothnia from the EUSBSR or in creating an overlap.

Instead, the format of the overarching common strategy could incorporate the key elements of **smart specialization concept**, as all EU regions have adopted smart specialization strategies.⁴⁴ Smart specialization requires EU Member States and regions to focus their efforts and resources on a limited number of ambitious yet realistic priorities, where they would be able to build excellence as well as compete within the global economy in (financially, socially and environmentally) sustainable manner. When implemented, smart specialization strategies are expected to allow Member States and regions to strengthen their research and innovation systems, maximise knowledge flows, absorption and utilisation as well as spread the benefits of innovation throughout their economies.⁴⁵

The smart specialization concept appears to be particularly well suited to the circumstances of remote, sparsely-populated regions.⁴⁶ These areas have much potential, but human, financial and institutional resources are limited by permanent geographic and demographic

⁴³ Based on the discussion with the representative of the DG REGIO, phone, 15.12.2016.

⁴⁴ Personal communication, officials from the Lapland Regional Council, October 2016.

⁴⁵ S3 Platform website at <http://s3platform.jrc.ec.europa.eu/value-chains>

⁴⁶ Personal communication, representatives of the Brussels offices of the NSPA regions as well as discussions at the Mikkelä NSPA Forum (10 June 2016) and Arctic Innovation Camp (Rovaniemi, 17 November 2016) as regards the results of 2017 OECD study “Territorial Reviews: Northern Sparsely Populated Areas”.

characteristics. Critical mass is difficult to achieve for private and public actors. Limited availability of public funding and private capital allows to focus only on a few carefully chosen priorities that entail particular innovation potential and added value in regional context. As all Finnish and Swedish regions developed smart specialization strategies, they may constitute an appropriate starting point for the development of a common framework.

If smart specialization concept is a basis for the overarching strategy, it would be disadvantageous if the next EU financial perspective moved away from the smart specialisation framework. Continuity in EU policies as regards the overall smart specialization logic would be required.

The overarching strategy should be Arctic-specific and Arctic-oriented; this means that it should focus on characteristics and needs of sparsely populated northern regions and link up the smart specialization priorities to the developments unfolding in the Circumpolar Arctic.

3.4. Content of the common Arctic Europe strategy

Ideally, an Arctic Europe common strategy would be driven by regions and key actors in Arctic Europe, such as Sámi Parliaments, chambers of commerce, or cross-border committees. Participation of EU and national policy-makers would be crucial. While maintaining strong Nordic ownership, the Russian authorities at regional level could be consulted.

The strategy should be based on a set of **common broad values and concepts**, including sustainable development, green growth, climate resilience and adaptation, and circular economy. It should respond to the **critical long-term common challenges** (listed in Part 1 of this study): accessibility and connectivity, the diversification of Arctic Europe economy, bringing refining up North, avoiding duplication of efforts and creating critical mass in the North in business, academia and public investment.

It is likely that the common strategy would in the beginning constitute the **lowest common denominator** among regional and national development plans. In the course of its evolution, **synergies and common spaces for investment** could emerge.

Northern regions compete with each other for investments and funding. For sectors such as cold climate testing or data centres, the investment in one region have so far brought relatively limited benefits for other Arctic Europe regions. There are, however, sectors such as tourism, elements of circular economy or bioeconomy, where more **pan-regional approach may have clear advantages**. Currently implemented project *Visit Arctic Europe*⁴⁷ is a premier example of an action where a joint strategy and branding is expected to bring benefits for all parts of Arctic Europe.⁴⁸ Projects on waste management (mentioned in section 2.2.1.) or “Arctic foods” are other areas where joint marketing, technological exchange and even logistics could bring benefits.

The regions and Nordic states should also consider **how to utilize each other’s growth areas**. The report “Growth from the North” emphasized the need for regions to take

⁴⁷ <http://visitarcticeurope.com/>

⁴⁸ Personal communication, Visit Arctic Europe project leader, Rauno Posio, Rovaniemi, October 2016. Both projects had very limited funding.

advantage of opportunities arising elsewhere. Companies and workers from northern Finnish and Swedish regions could utilize the developments taking place in North Norway. So far, the focus has been mainly on hydrocarbon developments and construction. For many decades, workers moved to North Norway from neighbouring regions also in order to work in fisheries industry. It is time to expand these interlinkages. Currently, the vibrant development of blue bioeconomy in Troms county could create opportunities for companies across Arctic Europe. Ways to utilize booming tourism in Finnish Lapland by neighbouring regions are already sought (ref. "Visit Arctic Europe" project). Lapland could seek ways to take advantage of data centre boom or the space industry development in neighbouring Norrbotten. Cross-border clusters are one way to achieving such synergies.

Bioeconomy, circular economy, material flows, and tourism create opportunity for building up Arctic Europe **cross-border clusters**, comprised of private sector, research institutions and regional administrative bodies. Their viability, however, will depend on tackling border obstacles, avoiding inter-regional competition, on the availability of funding for networking, and most of all, business feasibility. Over the last decade, a vast number of Northern Periphery Programme and currently NPA, Interreg North and ENPI/ENI Kolarctic projects have promoted networking between business actors and academia across the European Arctic.⁴⁹ These networks often dissolve following the end of project funding. While they produced clear benefits in terms of exchange of experiences and even specific business partnerships, so far they have not resulted in the development of clusters spanning across Arctic Europe.

The emergence of cooperation between Arctic Europe universities⁵⁰ could be a good opportunity to facilitate the development of cross-border clusters. That depends on the success of joint educational and research programmes that are to emerge from this academic cooperation.

In order to facilitate business and employment linkages and clustering, **intra-regional transport connections** are needed.⁵¹ For instance, Northern Ostrobothnia, Norrbotten and Troms have taken up the initiative by proposing and providing long-term financing for "Arctic Airlink"⁵² between Oulu, Luleå and Tromsø. However, so far the limited popularity of the route for many observers puts in question the viability of solutions relying on long-term public subsidies. Also "Visit Arctic Europe" project has identified lack of viable intra-regional connections as one of the key challenges in creating Arctic Europe-wide tourism offer.⁵³ Sparse population makes planning for pan-regional connectivity a major challenge, requiring joint strategy and long-term efforts. Transport of goods on the East-West axis across the region is not smooth enough for the needs of private sector.⁵⁴ **Improving logistics** across Arctic Europe has been one of the key challenges and remains a priority for regional cooperation.

Better **positioning within global and European value chains** is considered crucial for the success of northern sparsely-populated areas (Olsen *et al.* 2016), especially as these regions

⁴⁹ See websites of NPP 2007-2013 and Interreg 2007-2013.

⁵⁰ See European Commission website "S3 Thematic Platforms" at <http://s3platform.jrc.ec.europa.eu/s3-thematic-platforms>

⁵¹ The need for East-West intra-regional connections has been raised in numerous studies, including (Dubois and Roto 2012; Husebekk *et al.* 2015; Stepien *et al.* 2014) as well as in Barents Transport Plan (see https://www.barentsinfo.fi/beac/docs/Joint_Barents_Transport_Plan_2013.pdf)

⁵² <http://www.arcticairlink.com/>

⁵³ Personal communication, Visit Arctic Europe project leader, Rauno Posio, Rovaniemi, October 2016. Both projects had very limited funding.

⁵⁴ Personal communication, Lapland Chamber of Commerce chairman, July 2016.

are part of Nordic export-based economies. Emergence of cross-border clusters and the improvement of accessibility and connectivity are among actions that could lead to enhanced position of Arctic Europe regions in global value chains. Refining in the North, locally developed and applied technologies and innovations with export potential are often mentioned as most desirable developments in that regard.

Currently, **smart specialization thematic platforms** have been put into operation in order to connect regions with similar or complementary development priorities. This could serve creating or strengthening European value chains, as well as building critical mass for European regions to successfully participate in global value chains.⁵⁵ So far, three thematic platforms under smart specialization strategy have been established: energy, agri-food and industrial modernization. All three are potentially interesting for Arctic Europe. Within thematic platforms, stakeholders from the Arctic region could take the lead or participate in partnerships.

The strategy should not only deal with the innovation in relatively new, growing sectors (e.g., ICT, bioeconomy, high-value food production) or in industries generating high monetary values (e.g. extractive industries, large-scale bioenergy/biofuels production or other heavy industry). Considering the profile of the region, it is necessary to include also **traditional and more extensive sectors** – such as reindeer herding, rural areas development or traditional handicrafts – and support their specific development trajectories. EU policies, and in particular the NPA, emphasize the need to support innovations in SMEs. The small-scale innovation and rural development are also at the core of the Lapland Smart Specialization Strategy (Regional Council of Lapland 2013b).

In this context, **Sámi traditional livelihoods and culture as well as Sámi specific cross-border issues** need to become an integral part of any common strategy. That is a challenge as often the Sámi – in order to maintain autonomy – prefer to outline their own concept of development rather than agreeing for their issues to become a part of regional planning. That is partly related to the existence of differences in development goals between the Sámi and majority society. These differences are often related to diverging interests, values and understanding of development. Nonetheless, even if a separate set of priorities is produced by the Sámi themselves, their concerns should still be taken into account when developing overall priorities for Arctic Europe.

3.5. Utilizing the opportunity arising from the EU-Arctic Stakeholder Forum

Through 2017, the EU-Arctic Stakeholder Forum (ASF) – likely under the informal leadership of the Northern Sparsely Populated Areas network – will explore possibility for identifying overarching key investment and research priorities. The first proposal for such a list of priorities – in yet unknown format – is to be put forward by spring 2017 in order to be presented at the open ASF meeting, which is to take place in June 2017. In order to have significant influence on the post-2020 planning for EU structural and investment funds at national level, as well as interregional/cross-border funding, the initial Forum's outputs should be delivered even earlier, before the Cohesion Forum, which takes place in early June 2017.

⁵⁵ S3 Platform at <http://s3platform.jrc.ec.europa.eu/value-chains>

Such a tight schedule makes it impossible to make the ASF a venue for developing and proposing a more comprehensive overarching strategy for Arctic Europe. However, the priorities produced by the Forum could constitute the core of the pan-regional strategy.

The ASF work should consider **European and global value chains** as one of the key underpinnings of the discussion on common priorities. At the same time, the Forum and the annual stakeholder conferences that are to follow after the ASF closure, could be good places to establish value chain partnerships among Arctic Europe regions and between these regions and the rest of Europe.

Developing a strategic framework requires human and financial resources. In the long-term perspective, the possibility to dedicate a relatively small amount of **Interreg funding for the development of common strategy** should be considered, similarly to funding lines available for macro-regional strategies. However, majority of needed resources would need to come from national and regional sources. In any case, currently the primary focus should be on delivering ambitious ASF outputs and supporting the NPA's work on the network of managing authorities (another action proposed by the 2016 Joint Communication).

3.6. Implementing Arctic Europe strategy

The investment and research priorities or a broader common strategy will remain an abstract wish-list if they are not reflected in regional, national and EU strategies, programmes and funding decisions.⁵⁶ Moreover, mechanisms promoting the overarching goals and priorities would need to be put in place.

3.6.1. Long-term mechanism for cooperation among EU Arctic programmes, regional policy-makers and Arctic forums

At the moment, “there is no overarching framework to facilitate collaboration and information exchange” among EU programmes operating in the North (van der Zwet *et al.* 2014).

The resources available for cooperation between EU programmes as well as EU and other Arctic forums are limited. Therefore, the **events organized by the EU** – primarily Arctic stakeholder conferences planned from 2018 onwards – could be used for promoting and revisiting a common strategic framework.

These events could also be utilized as a space for **cross-presentation of regional strategies**, creating an ongoing process in which regional authorities discuss their priorities and means of implementation. Bringing strategic planning in the regions closer together entails informing each other on the strategic goals, ideas, and the development trends. This would allow to consider how different regions could contribute to each other's development.

At the EU level, **long-term cooperation between different EU funding instruments** operating in Arctic Europe (Interreg NPA, Interreg North, Botnia-Atlantica, ENI Kolarctic, ENI Karelia, national and regional structural funding programmes) should be considered. EU programmes already cooperate via INTERACT,⁵⁷ sharing methodologies, indicators, and

⁵⁶ Many Nordic Arctic regions are currently in the process of redefining their development goals.

⁵⁷ INTERACT website at <http://www.interact-eu.net/>

programme management experiences. Regular exchange of information takes place also within European Neighbourhood Instrument (ENI) programmes for Russia (including Kolarctic and Karelia). Currently, the NPA Secretariat leads an effort – prescribed in the 2016 Arctic Communication – to bring together the managers of EU funding instruments operating in the North. The work of the network should be strongly supported and there are good reasons for making the cooperation mechanism into a long-term arrangement, based on the experience of the ongoing NPA effort. Establishing a specific priority axis in EU programmes for cooperation and strategic development should be considered.⁵⁸

The **format of the possible long-term arrangement** for coordination of various funds and forums for cooperation has been discussed in the past, primarily in the so-called Bodø Process, initiated originally by Norwegian regions. The process proposed a soft coordinating structure (ARC-NET, ARC signifying Arctic Regional Cooperation), based potentially in Tromsø. ARC-NET would support programmes in: programming (identifying common Arctic-related themes and priorities), project generation (mobilization of applicants), project selection (lessons learnt, synergies between programmes), project follow-up and support, monitoring and evaluation (sharing methodologies and information, especially for monitoring of impacts on community level) (Gaskell 2014).

The challenge for such a solutions is lack of willingness in the EU to create any new permanent arrangements.⁵⁹ Therefore, the concept of an office or a hub may not be feasible. Moreover, there are already many venues for cooperation . There is significant personnel overlap in terms of participants to the meetings of various organizations. Also, the costs of cooperation in the North are relatively high due to long distances and high transport costs. To limit the costs, any new cross-cutting cooperation framework should utilize already existing informal contacts and arrangements. Therefore, the annual Arctic stakeholder conferences foreseen in the 2016 Arctic Communication could be used by all Arctic forums and councils as an appropriate venue for broader cooperation. Many elements of the ARC-NET proposal (Gaskell 2014) could become a content of these annual meetings. For instance, stakeholder conferences could become spaces for **exchange of experiences**, for discussing possibility for **common indicators**, and facilitating **joint calls** (see 3.5.3. below).

3.6.2. Extending cooperation beyond EU programmes

In drafting a common Arctic Europe strategy, cooperation with other northern forums and mechanisms – including four Northern Dimension partnerships, European Investment Bank, NCM, Nordic Investment Bank, Barents Euro-Arctic Region, and even Arctic Council – should be encouraged. Such cooperation should not entail forceful coordination of funding priorities, but rather exchange of ideas and experiences, as well as limited pulled funding. Primarily, this could be an opportunity to discuss the input of different frameworks into the implementation of the common Arctic Europe strategy (or key investment and research priorities).

There is already a fair amount of synergy between EU and Nordic funding because the NCM funding distributed by cross-border committees (e.g. North Calotte Council) often provides own contribution necessary for obtaining EU funding. Other Nordic cross-border committees directly take part in EU projects (Bothnian Arc or Tornio Valley Council). Overlap between

⁵⁸ Personal communication with representatives of DG REGIO and NPA secretariat.

⁵⁹ Note 3xNO principle in establishing macro-regional strategies: no new funding, no new institutions, no new regulations. Also, based on personal communication with the official from DG REGIO, December 2016.

officials engaged in cross-border committees and EU funds is the main way how EU and Nordic programmes are coordinated as regards avoiding overlaps and repetition of projects.⁶⁰ Exchange of experiences is possible also under the Northern Dimension, where the representatives of the Arctic Council, BEAC, NCM and the Council of Baltic Sea States attend ministerial and senior officials meetings.⁶¹

There is willingness among various actors in Arctic Europe to establish closer linkages between existing cooperation forums,⁶² as long as their respective autonomy and own priorities are not compromised. In particular, cooperation should allow for exchange of information on strategic planning carried out under each of these forums/programmes. Currently, the flow of information to a great extent depends on personal overlap among national and regional representatives active in different cooperation structures.

It could be beneficial if actors across the region consider whether the meetings of different cooperation forums – North Calotte Council, working meetings of Barents cooperation and the NCM, EU Arctic policy processes – could be organized in alignment with annual stakeholder conferences proposed in the 2016 Joint Communication. Such joint or back-to-back meetings could increase participation, reduce costs and allow for better information on each other's activities. EU and Nordic actors could consider developing annual stakeholder conferences into joint EU-Nordic Arctic conferences, with participation of the NCM and Nordic cross-border committees as well as EU programmes and policy-makers.

3.6.3. Seed money facility

A concrete way to advance the implementation of either the key investment and research priorities or a broader Arctic Europe strategy could be a mechanism supporting preparation of project proposals that contribute specifically to goals of a common strategy or constitute a reflection of investment priorities.

Many programmes provide seed money or project preparation grants (NCM, NPA), but these in principle support proposals for specific programmes. In contrast, the Seed Money Facility in the EUSBSR supports proposal-drafting for any programme operating in the region, including Baltic Sea Region Programme, Horizon 2020, Life, etc.⁶³ It provides seed grants for work on proposals that match priority areas or horizontal actions of the EUSBSR.

A major advantage of seed money mechanism is engagement of actors who have expertise and potential but lack resources for preparing project proposals, for instance NGO sector or SMEs. Considering limited capacities of many organizations (e.g. Sámi organizations) and SMEs in the North as well as relatively high costs of networking in the northern sparsely populated areas, such a mechanism could prove highly suitable for Arctic Europe. For the EUSBSR, the Seed Money Facility has also an advantage of exposing the EUSBSR policy area coordinators (who pre-select proposals) to the specific ideas originating at the grass-roots level. Both policy officials at macro-regional level and project participants value this

⁶⁰ Personal communication, European Commission's DG REGIO staff members, January 2017.

⁶¹ Personal communication, European External Action Service policy officer, 15 December 2016.

⁶² Personal communication, Nordic Council of Ministers and North Calotte Council officials, Rovaniemi May 2015 and September 2016.

⁶³ [Seed Money Facility at the EUSBSR website at http://seed.eusbsr.eu/](http://seed.eusbsr.eu/)

interaction.⁶⁴ A similar instrument has been set up by the Swedish Institute for Swedish and Central-Eastern European partners around the Baltic Sea rim.⁶⁵

So far, very few actors from the EU northernmost regions applied for the EUSBSR seed money facility funding.⁶⁶ One reason could be, as mentioned earlier, that some European Arctic actors do not see Baltic funding possibilities as relevant.

A similar **seed money facility could be established for Arctic Europe** (possibly in the post-2020 financial perspective). Funding provided by the facility could cover activities such as networking, proposal-writing workshops or pre-feasibility studies. The proposals prepared with this support could be directed at any of the EU or partner-funded programmes or calls, including EU structural funds channeled through national and regional programmes, Interreg programmes, ENI programmes, research programmes, Horizon 2020 or Life. Moreover, the NCM's and cross-border committees' funding calls could utilize networks and proposals developed with the support of the seed money facility scheme. Flexible seed money facility promoting Arctic Europe investment and research priorities across different programmes could be therefore suitable for different levels: local, cross-border, transnational and national programmes.

For the EUSBSR Seed Money Facility, the resources first came from the European Parliament's technical assistance budget for strategy development. Now, the Facility has been relocated directly under the Interreg Baltic Sea Region Programme. Similar path could be followed in the North. Resources for such a facility could come from the technical assistance funding, possibly triggered by the European Parliament using technical assistance budget. If successful and supported by Nordic states and regions, the facility could be then moved for example to Interreg North programme. If key investment and research priorities or a common framework strategy are endorsed by the NCM, a joint EU-Nordic seed money facility could be considered. There would be a need for regional and national financing to make such a mechanism operational. In that case, it will be important to avoid the situation, where the final allocation of funding is based on region's/state's initial contribution to the facility's budget.

Seed money facility should enjoy simplified application rules in order to enhance participation of smaller organizations (see, e.g., van der Zwet *et al.* 2014).

3.6.4. Interactions between individual projects

Facilitating **multi-fund projects clusters** could be considered. Various forums and funding programmes contribute to one goal via their own priorities and areas of specialization. Bodø Process (van der Zwet *et al.* 2014) suggested joint calls among EU programmes or inter-programme project clustering.⁶⁷ Across Europe, some Interreg programmes have already

⁶⁴ Personal communication, the staff member of the Baltic Sea Region Programme managing authority, December 2016.

⁶⁵ Swedish Institute website at <https://eng.si.se/areas-of-operation/scholarships-and-grants/baltic-region-seed-funding-grants/>

⁶⁶ Seed Money Facility website at <http://seed.eusbsr.eu/>

⁶⁷ The EU Strategy for the Baltic Sea Region includes as one of its central structural features a number of flagship projects. These are designed to implement the actions in the priority areas and serve as "pilot examples for desired change". They can be either single projects or set of projects contributing to the same action. However, the experiences from the Baltic Sea region show that the concept of flagship projects has not proven the most effective. Therefore, they may not be the best way to seek implementation of Arctic Europe strategic framework. (Ideas based on personal communication with the policy officers from the European Commission's DG REGIO).

started investigating possible complementarities between projects funded by different programmes, included Baltic Sea Region and North-West Europe programmes.⁶⁸

The cooperation among programmes – as currently developed in practice under the NPA network of programme managers - could serve as a “platform to bring together potentially complementary projects; [and a way to] encourage multi-fund projects which combine EU funding streams” (Gaskell 2014). Elements of such project clusters could be funded by non-EU programmes, which could facilitate more tangible cooperation between the EU, the NCM, Nordic cross-border committees and BEAC frameworks.

⁶⁸ Personal communication, DG REGIO staff members, January 2017.

4. IMPORTANCE: ENHANCING ARCTIC EUROPE'S IMPORTANCE FOR THE REST OF THE CONTINENT

4.1. IMPORTANCE: Key ideas

1. The perception of Arctic Europe resources as relatively more environmentally sustainable and extracted in a responsible way could constitute an added value for companies and consumers in Europe. Such branding, however, has to have strong anchorage in reality: both regulations/standards and industry practices.

2. Arctic Europe should be presented as a space for investments of European companies who wish to develop more environmentally sustainable activities and base their operations on renewable energy (as has been the case with data centres).

3. Solutions, technologies and services applied in Arctic Europe are already at the cutting edge of innovation. They should be promoted as benchmarks for environmentally sustainable and socio-economically feasible developments in sparsely populated and Arctic regions.

4. European Arctic regions can be living labs for testing products and services, as well as for Arctic innovations. Green growth, low-carbon solutions oriented towards sparsely populated areas can be developed and tested in the region and then scaled up to the European level or shared across the circumpolar North.

5. Low population density could be an asset in the European context as regards experimenting with innovative governance solutions. Many Arctic Europe challenges and problems require exploring innovative ideas; and thus, northern regions are likely to be flexible in applying policy measures.

6. Vibrant societies and economies in Arctic Europe would enhance the EU's soft power as regards collaboration with Russia and the EU's participation in international Arctic cooperation. Arctic Europe would stand as an example that the EU's policies, single market, standards and values contribute to sustainable, diversified and inclusive Arctic development. Successful sparsely populated areas can also serve as spearheads for rural revival, which is key to pan-European long-term economic and social stability.

7. Arctic cultures and Arctic nature will remain key advantages of the North in the European context. Their protection and development are key to long-term position of northernmost regions as an integral part of Europe.

By highlighting the role of the European Arctic in the 2016 Joint Communication, the European Commission and the High Representative acknowledge the significance of the region for whole Europe. The region's multidimensional importance for the EU as well as for European economic and social actors can be further promoted and strengthened.⁶⁹

Currently, the emphasis on the significance of Arctic Europe for the whole EU acquires a very practical dimension. With the United Kingdom leaving the EU and in light of ongoing pressure on lowering EU expenditure, the post-2020 EU budget is likely to be constrained. Arctic Europe belongs to relatively rich parts of the EU and there have to be strong arguments to maintain current funding levels. Moreover, as there is increased emphasis on investment financing via loans rather than direct programme funding, the region has to promote itself as a place where investments generate added value, attracting both public and private capital.

4.2. Source of sustainably-extracted resources

The 2016 Joint Communication emphasizes that “the EU is a major consumer of products coming from the Arctic states, such as fish products and energy”. The Communication reiterates the EU-Arctic nexus as regards resource consumption described by the EU Arctic Footprint and Policy Assessment report (Cavaliere *et al.* 2010). Many of these resources come from Arctic Europe, including forestry products (Finland and Sweden), gas and in the future oil (Norwegian and Barents seas), minerals such as iron (around 90% of EU iron production comes from Arctic Europe)⁷⁰ (see, e.g., Stepien *et al.* 2014). The waters of the Norwegian exclusive economic zone and northern aquaculture provide Europe with valuable source of nutrition.

For many companies and consumers, a more sustainable and responsible extraction of resource in the North could constitute an asset. Promoting European Arctic resource extraction as carried out in a manner relatively more responsible than in other parts of the globe constitutes an approach already visible, among others, in the Finnish research programmes, in Lapland's smart specialization programme (Regional Council of Lapland 2013b) or in the promotion strategies of Norrbotten's mining industry. However, branding of northern extraction as responsible requires true commitment to highest environmental standards, adoption of technologies allowing environmental sustainability, as well as respect for other uses of land and for livelihoods, especially those of indigenous cultures.

Renewable energy is growing across the region, especially regarding wind power installations. Arctic Europe has a high percentage of renewable energy generation and further investments may allow the region to contribute even more to the EU meeting its climate and energy policy goals.

4.3. Centre for targeted innovation

⁶⁹ The arguments in this chapter partly bases on: personal communication with officials from North Sweden and North Norway Brussels offices, Brussels, 30 November 2016; the discussions during the Arctic Innovation Camp in Rovaniemi, 16-19 November 2016 and NSPA Forum in Mikkeli, 10 June 2016.

⁷⁰ In addition, Finland and Sweden are producing 17.5% of EU35 silver production, 28% of gold, 10.5% of copper and 27% of zinc in EU-35 (EU/EEA as well as Turkey, data for 2011) (Stepien *et al.* 2014).

In order to be economically successful in globalized economy, Arctic Europe needs to gain advantageous position within European and global value chains, The regions has to show itself as constituting an integral, valuable part of EU economy. Contributing to European economy as a source of raw materials may be insufficient to generate the needed high-quality employment and may result in vulnerability to fluctuating demand for resources. That is why the focus in Arctic Europe is increasingly on innovation, bioeconomy, development and testing of cold climate technologies, as well as utilizing ICT and digitization opportunities (Stepien 2016).

The 2016 Joint communication reads: “The European part of the Arctic [...] has a significant potential to support growth in the rest of Europe.” The Northern Sparsely Populated Areas (NSPAs) network has for long argued⁷¹ that the northernmost EU/EEA regions have a great potential for innovation but full unlocking of this potential is hindered by characteristics related to sparse population, remoteness, distance from markets, transportation costs, human capital challenges and harsh climate. In particular, inter-regional and intra-regional accessibility and connectivity and supporting the emergence of critical mass are seen as ways to overcome these hindrances, including through EU policies and funding.

Should the region’s potential be unlocked, Arctic Europe could contribute to European economic growth, by:

- Constituting a resilient and developing part of European economy, contributing to national and EU economic output rather than being a region requiring on-going financial transfers from national capitals and from Brussels;
- Creating space for profitable investments of European companies, especially those that wish to develop and utilize sustainable solutions and base production on renewable energy (e.g. following the model of northern data centres). The 2016 Joint Communication emphasizes that there are developments taking place in the Arctic (including Arctic Europe), where European actors can benefit as providers of clean technologies and environmentally sustainable solutions;
- Providing Europe with high-quality bio-products. Such a goal is already an important element of regional development strategies in Arctic Europe.
- Developing technologies, products and services (such as e-health, renewable energy solutions, energy efficiency, cold climate technologies) that can be utilized in other parts of Europe to boost growth and improve wellbeing. Recent development in these industries in Finland are good examples of this potential.⁷²

While there is little appetite for formulating “Arctic standards”, technologies, products and services developed in Arctic Europe could serve as benchmarks for green growth. Arctic

⁷¹ See a number of NSPA position papers at NSPAs website, <http://www.nspa-network.eu/>, see especially, (NSPA 2016)

⁷² For instance, researchers from the Lappeenranta University of Technology see potential for Finland to export smart grid electricity technologies, with Arctic dimension of Finnish economy allowing for development and testing of these solutions in peripheral, sparsely populated regions. At the same time, some of Finland’s wind power technologies are examples of export success. There is also much potential in Finnish space technologies. Finnish Funding Agency for Innovation Tekes has identified 80 new companies working on space-related products, some of which are relevant for Arctic conditions (e.g. Iceye solutions that could be used in maritime shipping, natural resource extraction, forestry or environmental disasters). See Yle News website: “Smart grid electrical systems – a new export jackpot for Finland?” (Yle Uutiset, 17 January 2017) at http://yle.fi/uutiset/osasto/news/smart_grid_electrical_systems_a_new_export_jackpot_for_finland/9406868; “Wind power demand prompts Moventas to expand production” (Yle Uutiset, 24 January 2017) at http://yle.fi/uutiset/osasto/news/wind_power_demand_prompts_moventas_to_expand_production/9419565; Space technology just might be the new Finnish frontier” (Yle Uutiset, 23 January 2017) at http://yle.fi/uutiset/osasto/news/space_technology_just_might_be_the_new_finnish_frontier/9419766.

Europe regions could set examples of best practices in environmentally sustainable and socio-economically feasible developments in sparsely populated areas and in cold (yet rapidly changing) climate. Companies based in Arctic Europe could indirectly benefit from the international perception of the region as being at the cutting edge of Arctic innovation.

The above goals are already at the core of strategies aiming at improving the position of Arctic Europe in the European and global value chains. Making the region a source of commercializable technologies (cold climate technologies and e-services) could be an important part of these strategies in the long time perspective.

4.4. Living lab / testbed

The 2016 Joint Communication suggests that Arctic Europe could serve as an area where innovative technologies could be successfully deployed, with support of European Structural and Investment Funds and research funding.

The concept of Arctic Europe becoming a testbed for innovative solutions has various dimensions: product testing, Arctic innovations, and governance experimentation.

On a micro-scale, local conditions are already utilized to carry out winter testing of products (cars, tires, engines, materials, etc.) and cold-climate technologies. In recent years, testing industry in Finnish and Swedish Lapland has saw major growth and has generated high monetary value. Also services such as e-health could be tested in sparsely populated areas, where the needs are potentially particularly urgent (especially in smaller communities with relatively high number of elderly) but limited number of service users could makes some types of testing easier.

In the long-term, Arctic Europe could serve as a first step in European companies' expansion into the Circumpolar Arctic. European part of the North has well-developed infrastructure, access to highly skilled workforce and comparatively stable regulatory environment. This allows to safely test solutions that could be later deployed across Arctic regions. Possibilities include e-services and cold-climate technologies, small-scale circular economy solutions, as well as cold-climate-specific technologies for extractive industries.⁷³ The potential for Arctic Europe becoming the first step for European companies in their expansion to Arctic markets, depends, however, on the overall economic and social developments in the Arctic.

Third way Arctic Europe could benefit as a living lab is via governance experimentation. A comprehensive concept of testing social solutions before they are implemented on large national scales have been presented in the 2015 report "Design for Government" for the Finnish Prime Minister's Office (Annala *et al.* 2015). Conditions related to sparse population, small communities, as well as the flexibility of regional and local governments in applying policy measures make the region an interesting site for governmental experimentation.⁷⁴ Appropriate support for areas chosen as sites of experimentation would be required.

4.5. Gateway to Russia and the Circumpolar North

⁷³ E.g. projects like Finnish "Green Mining" initiative. See at http://en.gtk.fi/mineral_resources/greenmining.html

⁷⁴ Personal communication, officials from North Sweden and North Norway Brussels offices, Brussels, 30 November 2016,

Arctic Europe is the EU's main bridge to the Arctic and one of the EU's key linkages to Russia. The EU's soft power in the North could be strengthened through the development of the EU's Arctic regions. The success of Arctic Europe and the benefits these regions gain from being part of the EU, its single market and from the implementation of EU policies would enhance the credibility of the EU as an Arctic actor.⁷⁵

Nordic Arctic regions, cities and actors play leadership roles in cooperation in the Arctic. In order for the Nordic regions to play their role as the EU's gateway to northwest Russia and to the Arctic, these regions need to boast vibrant innovative economies, showcase sustainable development pathways, solutions and strategies (e.g. circular economy solutions). They need to be areas where indigenous rights and cultures are respected. Thus, the Sámi and their livelihoods need to be fully integrated in sustainable development of the region.

4.6. Successful sparsely populated areas as spearheads of successful rural revival

Recent months and years proved to be a time of major political upheavals. Brexit, the election of Donald Trump in the USA and elections across Europe had their specific dynamics but shared a number of characteristics. According to some analysts⁷⁶, one of these common factors had been the growing gap between large cosmopolitan liberal, economically vibrant cities and the thinning-out rural areas with struggling small towns. In the latter, people are often discouraged and disappointed with the current economic and political systems. The split between cities and the countryside becomes reflected in political behaviour, fuelled by detachment and resentment. The fruits of the post-crisis recovery, technological and social innovation, socio-cultural change appear to be concentrated in the cities. At the same time, many rural areas around Europe continue to experience consequences of changes in land-based and extractive industries, such as agriculture and forestry, benefiting little from high-end economic development of the cities. These dynamics appear to be global and likely affect also Nordic countries.

Therefore, it is important that rural areas and small towns, including sparsely populated and remote areas, are not left behind in light of socio-economic changes. Investing in innovation, creating new economic opportunities, supporting transition, and building human capital are key to limiting gaps between cities and the countryside. Rural areas need to be an integral part of national economies, social networks and cultures.

Global focus on the Arctic, high general levels of innovation, and active regional planning work could make rural Arctic Europe one of the places where successful rural revival occurs.

4.7. Region's cultures and environment

⁷⁵ Personal communication, Officials from Brussels offices of North Norway and North-Sweden, Brussels, 30 November 2016.

⁷⁶ Beckett, Andy (2016, 12 December). "From Trump to Brexit, power has leaked from cities to the countryside", *The Guardian* (Opinion), <https://www.theguardian.com/commentisfree/2016/dec/12/trump-brexit-cities-countryside-rural-voters>; Badger, Emily, Quoc Trung Bui and Adam Pearce (2016, 11 November), The Election Highlighted a Growing Rural-Urban Split, *The New York Times* (Upshot), <http://www.nytimes.com/2016/11/12/upshot/this-election-highlighted-a-growing-rural-urban-split.html>; Shearer, Richard (2016, 11 November), The small town-big city split that elected Donald Trump, <https://www.brookings.edu/blog/the-avenue/2016/11/11/the-small-town-big-city-split-that-elected-donald-trump/>

In addition to more tangible benefits, the North is a space of value for whole Europe in terms of cultural diversity and nature. Roughly one-third of Finnish Lapland is covered by protected areas including many Natura 2000 sites. Sparse population and remoteness are here a major asset as important European biodiversity hotspots and tourism destinations are located in the region. Arctic towns are vibrant with modern culture and design activities. Arctic Europe's creative industries are part of the region's potential for growth (Olsen *et al.* 2016; Petrov 2014).

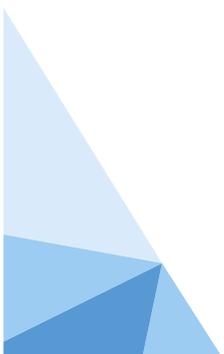
The Sámi are the only indigenous people in the EU (not taking into account non-European territories). How the EU engages and responds to challenges faced by its own indigenous people is a hallmark of its capacity to promote indigenous rights in external relations, whether in the Arctic or in the Global South (especially via development cooperation).

LITERATURE:

(references to documents, personal communication and online sources are specified in the footnotes throughout the report)

- Alm, E. et al. (2016) *Digitizing Europe: Why Northern European frontrunners must drive digitization of the EU economy*, available at http://image-src.bcg.com/BCG_COM/Digitizing-Europe-May-2016_tcm9-37190.pdf.
- Annala, M. et al. (2015) *Design for Government: Human-centric governance through experiments*, Helsinki.
- Airoldi, A. (2014) 'The European Union and the Arctic: Developments and Perspectives 2010-2014', TemaNord 2014:565, Nordic Council of Ministers.
- Arctic Economic Council (2016). *Arctic Broadband: Recommendations for an Interconnected Arctic*. Telecommunications Infrastructure Working Group, available at <http://arcticeconomiccouncil.com/wp-content/uploads/2017/01/AEC-Arctic-Broadband.pdf>
- Cavaliere, S. et al. (2010) *EU Arctic Footprint and policy assessment: Final report*, (December): 1–25, available at <http://www.endseurope.com/docs/101119a.pdf>.
- Dubois, A. and Roto, J. (2012) *Making the best of Europe's Sparsely Populated Areas. On making geographic specificity a driver for territorial development in Europe*, Stockholm.
- European Commission (2013) *Report concerning the added value of macro-regional strategies*.
- European Commission (2016) *Report from the Commission on the implementation of EU macro-regional strategies*, Brussels.
- Gaskell, F. (2014) *Arctic Connections Collaborative Approaches for Regional Cooperation in the Arctic Final Project & Conference Report*, Glasgow.
- Greve Harbo, L. (2010) *Nordic Cross-border Cooperation Committees and Cross-border Authority Integration*, Stockholm.
- Husebekk, A., Andersson, M. and Penttilä, R. E. J. (2015) *Growth from the North. How can Norway, Sweden and Finland achieve sustainable growth in the Scandinavian Arctic? Report of an independent expert group*, available at http://valtioneuvosto.fi/documents/10616/1095776/J0415_Growth+from+the+North_net.pdf/2613b2d6-96f8-4ca1-813a-658eaa7f858.
- Koivurova, T. (2008) 'The Draft for a Nordic Saami Convention', *European yearbook of minority issues* 6: 103–136.
- Lapland Chamber of Commerce (2016) *Arctic Business Forum Yearbook 2016*, Rovaniemi.
- Lindqvist, M. (2010) *Regional Development in the Nordic Countries 2010*, Stockholm.
- Lipponen, P. (2015) *For an Ambitious Arctic and Northern Policy: Memorandum to European Commission President Jean-Claude Juncker*, available at <http://www.cosmopolis.fi/wordpress/wp-content/uploads/2015/11/Juncker-Memo-2015.pdf>.
- Lipponen, P. and Svento, R. (2016) *Report on the Northeast Passage telecommunications cable project Summary*, Helsinki.
- NCM (2016) *The Norwegian Presidency of the Nordic Council of Ministers 2017*, Copenhagen.
- Nordic Council of Ministers (2016) *Water, Nature and People: Programme of the Finnish Presidency of the Nordic Council of Ministers 2016*.
- NPA (2014) *Northern Periphery and Arctic Cooperation Programme: Programme Document*, Copenhagen.
- NSPA (2016) *Northern Sparsely Populated Areas network calls for a strong cohesion policy post-2020*, available at http://www.nspa-network.eu/media/12869/nspa_cohesion_position_nspa_forum_10_6_2016.pdf.
- Olsen, L. S. et al. (2016) *Sustainable Business Development in the Nordic Arctic*, Stockholm: Nordregio Nordic Centre for Spatial Development.

- Petrov, A. N. (2014) 'Creative Arctic: Towards Measuring Arctic's Creative Capital', *Arctic Yearbook 2014* 149–166.
- Regional Council of Lapland (2013a) *Lapland 's Arctic Specialisation Programme*.
- Regional Council of Lapland (2013b) *Lapland 's Arctic Specialisation Programme*, Rovaniemi, available at www.lapinliitto.fi.
- Stepien, A. (2012) 'Pan-Saami cooperation: Towards a Trans-border polity', in E. Nowicka (ed.), *The Politics of Culture. Perspectives in stateless nationalities/ethnic groups*. Warszawa: Warsaw University Press, pp. 236–254.
- Stepien, A. (2016) *Other futures for Arctic economies? Searching for alternatives to resource extraction*, Rovaniemi, available at <http://lauda.ulapland.fi/handle/10024/62539>.
- Stępień, A. and Raspotnik, A. (2016). 'The EU's new Arctic Communication: Not-so-integrated, not so-disappointing?', *ArCticles: Arctic Centre Papers* 1/2016.
- Stepien, A., Koivurova, T. and Kankaanpää, P. (2014) *Strategic Assessment of Development of the Arctic: Assessment Conducted for the European Union*, Rovaniemi, Finland, available at www.arcticinfo.eu/sada.
- Stępień, A., Koivurova, T. and Kankaanpää, P. (2016) *The Changing Arctic and the European Union*, Leiden - Boston: Brill/Nijhoff.
- Stepien, A., Petretei, A. and Koivurova, T. (2015) 'Sami Parliaments as the institutionalization of indigenous self-determination and autonomy? Legal framework and practice', in T. Malloy, A. Osipov, and B. Vizi (eds). *Managing Diversity through Non-Territorial Autonomy*. Oxford, UK: Oxford University Press, pp. 285–311.
- Van der Zwet, A., Bachtler, J. and McMaster, I. (2014) *Arctic Connections: Mapping Regional Cooperation in the Arctic*, Paper prepared for the Arctic Connections Conference in Glasgow, available at <http://www.arcticconnections.eu/files/2014/04/ARCTIC-CONNECTIONS—MAPPING-REGIONAL-COOPERATION-IN-THE-ARCTIC3.pdf>.
- Warrenstein, A., Lind, F., Sundstrom, O. and Deutscher, S. A. (2016) *Capturing the Data Centre Opportunity: How Sweden can become a global fron-runner in digital infrastructure*, available at <http://www.business-sweden.se/contentassets/cd7d2c2584d64e8694e92ec1f6408069/bcg-capturing-the-data-center-opportunity-june-2016.pdf>.





ARCTIC CENTRE
University of Lapland

GOVERNMENT'S ANALYSIS,
ASSESSMENT AND
RESEARCH ACTIVITIES

tietokaytoon.fi/en

ISSN 2342-6799 (pdf)
ISBN 978-952-287-347-7 (pdf)

