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The Implementation of the Sustainable Development Goals in the Nordic Arctic (ISDeGoNA)

Assessing the status of SDG implementation in Arctic regional governments, local authorities, and the business sector – A closer look at Finland, Iceland, and Norway

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Summary

This report assesses the status of the implementation of the Sustainable Development Goals (SDGs) in the Nordic Arctic. The 17 SDG's can be seen as the most comprehensive international effort for sustainable development, however the process of implementing them in an Arctic context is still a research- and policy gap. In response, a comparative study has been carried out with a more specific focus on SDG implementation in Arctic Finland, Iceland, and Norway. Here, the research findings are based on small literature reviews and extensive semi-structured interviews with regional governments, local authorities, and business organizations. From this perspective, different contexts were thematized such as SDG awareness, most relevant SDGs within the focus areas, respective achievements and shortcomings, governance processes as well as essential stakeholders enabling SDG implementation.

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1. Introduction

The global consensus to follow the concept of sustainable development to master the challenges of the climate crisis, scarcities of natural resources, enforcing a bio-based economy and enabling the transition from a linear to a circular economy, continually evolves. In response, the United Nations 2030 Agenda for Sustainable Development and the corresponding 17 Sustainable Development Goals (UN SDGs) adopted in autumn 2015 by the UN General Assembly, offer an instrument for governmental decision-makers, business-leaders, scientists, but also citizens across nations to grasp a better understanding of the required actions in the decade of the 2020s and its challenges. Considering the Arctic as a whole, the state of SDG implementation still gives plenty of room for more in-depth research as there is limited research done to this point in time. Here it should also be acknowledged that the SDG implementation process is linked to continual and dynamic processes. In this study, three Arctic territories, Finnish Lapland, Iceland, and northern Norway, are specifically addressed to analyse the relevance of the SDGs in the high North of Europe, to what extent those find consideration in political agendas, and to showcase practical examples of current and planned SDG implementation processes.

A crucial part of this study is the external expertise that has been included by conducting interviews with diverse respondents working amongst others for governmental bodies and businesses across respective regions, cities, and municipalities within the focus countries. These experts have in common that they must take into account the challenges of achieving sustainable development in their specific surroundings in every-day working life. In this regard, it is essential to get insights to what extent the established policies of local, regional, and national governments, with relevance for the study areas, can be implemented and identify the possible obstacles in the implementation.

To achieve a comprehensive picture of the current status of SDG implementation in the Nordic Arctic, several specific segments are in the forefront of the study. The work is divided into three main parts, after these introductory remarks, highlighting aspects of SDG implementation and planning individually for each study area: First, Finnish Lapland, second, Iceland, and third, northern Norway. Here, the awareness of the SDGs and the perceived usability and applicability for Nordic Arctic regions is an initial segment. Furthermore, as presumably Arctic regions do not take all 17 SDGs to their governmental agendas up to the same high priority levels, the study reflects on the most significant SDGs. In this context, the interviewees present a myriad of insights and reasoning. Evidently, the concept of sustainable development is an element of diverse discourses, already for much longer time than the SDGs; however, it is of interest how the SDGs found their ways into European Arctic governance structures and policies. A large part of the report is dedicated to this specific aspect. Interviewees shared achievements and challenges and multiple examples are embedded into the following analysis. Eventually, the work mounts in summaries of the role of societies and stakeholders and their interaction and cooperation, before concluding future outlooks deliver a reflection of possibly upcoming achievements and challenges that may persist in each study area.

Accordingly, this study is guided by the following main research question:

RQ: ***What is the current status of SDG implementation in Arctic regional governments, local authorities and the business sector?***

From the perspective of the main research question, the following sub-questions link the objective of this study to the respective focus areas:

SQ1: *What is the current status of SDG implementation in Arctic regional governments, local authorities and the business sector in Finnish Lapland?*

SQ2: *What is the current status of SDG implementation in Arctic regional governments, local authorities and the business sector in Iceland?*

SQ3: *What is the current status of SDG implementation in Arctic regional governments, local authorities and the business sector in norther Norway?*

The following chapter will elaborate on the methodological background of this research.

2. Methodology

In response to the research question, data in this report has been collected via a small literature review and the conduction of 12 extensive semi-structured interviews. The review of literature focused broadly on the latest developments of SDG implementation in Finland, Iceland, and Norway. This included, for instance, peer-reviewed articles, reports as well as websites associated with SDG implementation. The semi-structured interviews focused on the one hand on governmental bodies with a regional and municipal scope, and stakeholders representing the business sector in the Nordic Arctic on the other hand. Concerning the latter, a stronger focus was on the tourism sector because it is existent in all case countries of this project. The focus on governmental bodies enabled us to get insights into the political responsibilities associated with SDG implementation in the Nordic Arctic as well as an overview about over-regional and cross-border collaboration. The individual participants are listed in table 1 below:

Table 1. List of interviewees

Case-country	Interviewees
Finland	Regional Organisation (RO-F) Business Organisation (BUS-O-F) Municipality -1 (MUN-F-1) Municipality -2 (MUN-F-2)
Iceland	Government (GOV-I) Municipality (MUN-I) Business Organisation (BUS-O-I)
Norway	Regional Organization (RO-N) Municipality -1 (MUN-N-1) Municipality -2 (MUN-N-2) Business Organization (BUS-O-N) Business Association (BUS-A-N)

The conduction and presentation of both small literature reviews and semi-structured interviews in Finland, Iceland and Norway happened independently within three research teams representing the focus areas, however, all participants used the same methodological approach and a common interview guide. Accordingly, the aim was to conduct a comparative study to grasp the national differences regarding SDG implementation and planning in a Nordic Arctic context. The interviews lasted between 45 and 90 minutes and included questions associated with topics such as SDG awareness, addressing specific SDGs, (inter-)national governance processes, stakeholders, or future outlooks. For more detailed information, the full interview guide is attached in the appendix.

The following chapters present the national findings of Finland, Iceland, and Norway.

3. Results

3.1. Finland

This chapter introduces the findings thematizing SDG implementation in Finland based on interviews with four Finnish experts: A regional organization (RO-F), a business organization (BUS-O-F) and two municipalities (MUN-F-1, MUN-F-2). The chapter is structured into the following sub-chapters: Background Finish Lapland, SDG awareness, most relevant UN SDGs, achievements and shortcomings, governance and SDG recognition, stakeholders, and lastly, future outlook.

3.1.1. Background Finnish Lapland

Finnish Lapland is an Arctic region that in many instances does not carry only the picture of Arctic remoteness. It is a diverse region in terms of societal, cultural, environmental and economic aspects and the bridge to sustainability dimensions and its enormous relevance is obvious. The almost exactly 100.000 km^2 constitute Finnish Lapland as the largest region of Finland and a common distinction is to segment the areas in Fell-Lapland in the very high North (Utsjoki, Enontekiö), Sea-Lapland in the Southwest, in the surroundings of the Gulf of Bothnia, and the largest part, Forest-Lapland, what could be considered in simplified terms everywhere else except the other two areas. Going beyond this geographic classification, a cultural one matters in a societal context. The most northern areas of Finnish Lapland are part of Sápmi, the Sami homeland that stretches as well over northern territories of Norway, Sweden and Northwest Russia. This region is inhabited by the indigenous Sami people that until present days largely practice traditional livelihoods with reindeer herding and fishery. A major challenge in the region, in the broad discourse of sustainable development, is the scarcity of land for the diverse interest groups from industry and local populations. Forestry, mining and tourism are rather modern industries that stay in conflict with the preservation of the aforementioned traditional livelihoods. Co-existence in the same territories is often hardly feasible, and even among the extractive industries and tourism are ongoing conflicts perceivable as both have very different demands to the ecosystems. Environmental impacts of these industries play a crucial role. The City of Kemi in the Southwest (Sea-Lapland) of the region with its access to international waters is special in several perspectives. Despite being a small area, there is also quite a lot of manufacturing ongoing, and the area is accountable for approximately 8 % of Finnish exports (Port of Kemi- Transport).

The lines above are only a glimpse into the diversity of challenges that are ongoing in Finnish Lapland, but already from the basic overview, it is possible to understand the meaningfulness of the implementation of sustainability goals into the municipalities and cities of the region. In this regard, multiple interviews had been conducted with actors from the public sector, who have the professional view about the initiatives and the peoples´ perspectives, regionally and/or locally. All of the interviewee's own knowledge and expertise regarding the relevance of sustainability practices and also either utilize the UN SDGs already, or use them at least as guidance framework. In this part of the report, the implementation and development of the SDGs in Finnish Lapland will be discussed more in-depth, based on the results of the interview analyses and secondary literature sources. To close-out the regional introduction, an overall finding is that multiple projects, networks, strategies, and guidelines are already in place in Finnish Lapland.

3.1.2. Awareness

The SDGs had seen a rising awareness in Finnish Lapland at one period in autumn 2017 and the early months in 2018. Back then several notable events took place in the region and it was not long since Finland took over the chairmanship in the Arctic Council from spring 2017 until spring 2019 in the regular two-year rotation among member states. The biannual Arctic Spirit conference in Rovaniemi was therefore in 2017 comparatively larger (e.g. more attendees) than in other years and also several side events had been organized (Rovaniemi – Arctic Spirit Conference Series). In multiple sessions the awareness towards the SDGs, particularly those with high relevance to the Finnish Arctic (see SDGs that particularly matter) had been raised, for instance in the Arctic Youth Forum, one of the side events (Arctic Youth Forum). Meanwhile, the SDGs found their way into policy papers and local strategies in several influential bodies. The Regional Council of Lapland, the Lapland Chamber of Commerce and the Lapland Center for Economic Development (Lapin ELY-keskus) are a few notable bodies with meaningful either political mandates or striving for business development across the region. However, most municipalities and cities across Finnish Lapland know about the SDGs and although implementation is often still pending, many intend to implement them in the future.

When it comes to the establishment of guidelines, frameworks, standards, and similar initiatives by supranational bodies, like diverse bodies in the United Nations, it is of interest on what levels those find recognition. While quite many remain on the policy level of the founders and draw only interest from academia. The SDGs did make the transition away from academic discussion only and entered the public and private sectors to large extent in Finnish Lapland. Particularly, the tourism sector is worth mentioning as tourism enterprises, but also small-scale entrepreneurs found incentives to highlight the relevance for the SDGs. Interviewees of this study pointed out that small-scale businesses and their utilization of the SDGs could strengthen cooperation levels inside the industries. This is also going beyond tourism and embraces two other major economic pillars in Finnish Lapland, forestry, and metal mining. Regional governments as well as business development organizations perceive a rising interest in the SDGs by the operating industries. An era of multiple sustainability challenges and an increasing requirement for commitment of the industrial actors towards the challenges lead to strategic decisions on how sustainability activities could be framed, explained, and eventually (ideally) also implemented and reported.

3.1.3. The Most relevant UNSDGs

Evidently, not all 17 SDGs are of highest significance in the high North of Finland, however many play a crucial role and interviewees of the study referred to multiple of those and provided valuable reasoning why these matter. The following specific SDGs and their meaning in the Finnish Lapland context are explained further according to table 2:

Table 2. Most relevant UNSDGs - Finland

Interviewee	Top 3 SDGs
RO-F	
BUS-O-F	
MUN-F-1	 Additional high relevance pointed out to SDGs ## 12 & 14
MUN-F-2	 Additional high relevance pointed out to SDGs ## 7,12,13,14,15

SDG #9: Industry, Innovation, and Infrastructure (BUS-O-F & MUN-F2):

The Arctic is in change in a holistic perspective and Finnish Lapland is not different to this. Infrastructural development and maintenance is on the agenda of multiple industries, with three sectors of highest interest when it comes to economic development. Forestry, mining and tourism rely on the current infrastructure and if production volumes may increase also further, infrastructural development will be seen in larger scales. Finland as a nation puts emphasis on innovations for at least the past five decades, meaning specifically energy and waste sectors are in the forefront of the debates in the high North territories (Sitra-Finnish Innovation Fund).

SDG #11: Sustainable Cities and Communities (MUN-F-1 & MUN-F-2)

The circular economy concept has caught attention across the regions in the high North of Europe and Finnish Lapland and its cities and communities are no exception from that. For example, in Rovaniemi this requires an enormous effort that all relevant actors work together and communicate frequently. This involves city planners, city government, the main heating and energy providers, freshwater suppliers, the local companies and entrepreneurs and the local residents. Rovaniemi will likely continue to grow like in the past years and any sorts of infrastructural development and construction of new buildings embracing circular economy will be relevant to achieve this goal. Policy frameworks matter in this respect, like the circular economy roadmap of the city of Rovaniemi (Kiertotalouden tiekartta 2030), but also the novel EU taxonomy for sustainable activities that put sustainable investments in the forefront, amongst others for smart city developments (EU Taxonomy for Sustainable Activities).

SDG #12: Responsible Consumption and Production (BUS-O-F):

Extractive industries are an economic backbone in Finnish Lapland and both the non-renewable resource exploitation in mining and the utilization of renewable forest stocks cause harm in environmental and societal respect. Therefore, industrial actors in Finnish Lapland face multiple responsibilities to preserve ecosystems and establish stakeholder dialogue with groups that have other interests into the land. Consequently, it makes sense to attach these industries to larger extent (if possible) to bio-economy and circular economy initiatives in the region and beyond.

SDG #8: Decent Work and Economic Growth (BUS-O-F):

This SDG is one of the most insightful discussed in the interviews for Finnish Lapland. Obviously, the significance of combining sustainable development with growth is largely on the agendas of the public and private sectors´ stakeholders. It was outlined that decarbonization, thus corresponding to Finland´s climate commitments should be decoupled from economic growth, but at the same time not harming the growth potentials. In this respect the Covid-19 crisis had been brought into the debate, while in the end of 2021, the challenge of an economic recovery for many businesses remains and the overall necessity to prevent a novel recession in the foreseeable future. Although, working conditions and health and safety in remote Arctic environments matter a lot, considering that extractive industries carry safety risks in daily operations, the growth aspect was more in focus than the decent work aspect for SDG #8.

SDG #13 Climate Action (RO-F):

The focus area of the study is the Arctic and there is consensus and awareness that the Arctic is warming faster than other parts of the globe and for a myriad of adverse impacts that may happen in the Arctic, consequences may accelerate for the entire planet. Forestry management in sustainable ways is fundamental to preserve Finnish Lapland´s forests as functional carbon sinks and other activities as the pursuit for a circular economy have to be aligned to climate action efforts. More mitigation and adaptation policies are on municipalities´ and cities´ agendas in Finnish Lapland, often already for a decade or longer. Implementation success of these policies may be at different levels and requires more in-depth research and continual monitoring.

SDG #7 Affordable and Clean Energy (RO-F & MUN-F-1):

Arctic regions have comparatively high energy demands when it comes to specific unit utilizations for instance for private households, evidently largely based on the necessity to match heating with

the low temperatures in autumn and winter. Different components are consumed in Lapland, such as biofuels in district heating solutions as the “Napapiirin Energia ja Vesi” company points out and this is supposed to be cheaper and more eco-friendly than heating houses individually (Lapland Business). The exploitation of wood and a decrease of high-carbon peat usage for future energy provisions are also significant.

SDG #15 Life on Land (RO-F):

Finnish Lapland is characterized by vast natural landscapes, embracing up to around 90 percent of it with forest land and around 6-7 percent with freshwater bodies. Diverse actors have interest into these “limited” land areas for mining exploration and exploitation, forestry practices, recreational activities, traditional livelihoods and the pure preservation of vulnerable meaningful ecosystems, as carbon sinks and a place with solid biodiversity. As these interests are not accomplishable simultaneously for the same area(s), land use conflicts are the consequence. Good governance practices of decision makers and willingness of all actors to communicate are crucial to address this SDG.

SDG #3 Good Health and Well-being (MUN-F-2)

This goal was pointed out by one of the city/municipality representatives referring also to a specific strategic project in the area that is ongoing since more than three years and embraces largely sustainable development and by doing so taking the local residents largely into account. Awareness and knowledge play a pivotal role considering environmental impacts throughout all aspects of life and reduction of pollution and resource consumption levels are crucial in this regard. In addition to security at the workplaces, utilization of local and regional food chains is one specific aspect that can be beneficial for entire Lapland, because although a high North area, Lapland has a well-developed infrastructure and is connected throughout the region.

3.1.4. Achievements and shortcomings

Achievements

Similarly, to the other focus regions of the ISDeGoNA project, success of SDG implementation in Finnish Lapland is often exemplified by the conduct of specific projects and the developments of roadmaps and strategies, which content would be utilized for diverse initiatives that aim for positive sustainability impacts. To underline this in practice, it is beneficial to refer to explicit examples. The Kemi-Tornio area is located in Southwest Lapland and in the recent years, there is strong focus on cluster developments among industrial actors there, including academia. Strong focus is here on the overall pursuit to achieve across Finland a transition from linear economy to circular economy (SITRA Circular Economy Roadmap 2016) and one northern contribution is the establishment of the Competence and Training Centre for Industrial Symbiosis in Kemi and Tornio. This initiative is led by Kemin Digipolis Oy and involves several other stakeholders like the City of Kemi and Lapland University of Applied Sciences. An ongoing key objective is the promotion of circular economy inside the local industries, and this corresponds amongst others with SDG #11: Sustainable Cities and Communities and SDG #12: Responsible Consumption and Production. In addition to multiple workshops in order to provide knowledge and expertise towards circular economy and bioeconomy, under the umbrella of this initiative, an industrial symbiosis operating model, including guidelines, has been defined and will be novelized with network members to a 2.0 version in the future.

The Finnish Innovation Fund Sitra published in 2017 an article about the Arctic Circular Economy experts and highlights the work in the Tornio steel mill that provides fundamental elements for the construction of sustainable buildings and infrastructural development. The authors refer particularly to the relevance of the SDGs and the contribution of the steel mill and its specific processes to help Finland to achieve the SDGs. The nearby gravel excavation area could be utilized as a groundwater reservoir and this is anticipated to be a circular economy symbiosis (SDG #6 Clean Water and Sanitation). One interviewee pointed out that actors in Finland should have very good freshwater quality and the possibility to drink even tap water not taken for granted. It is crucial also to address this SDG continuously to maintain highest water quality for indefinite time frames.

In Rovaniemi, the capital of Finnish Lapland is since 2020 a city center development project is under way (Business Rovaniemi – ROKKE Project 2020-2022). Rovaniemi has seen plenty of construction ongoing for around a decade now and the population has consequently grown. For the city center development, particularly SMEs should be involved into the networks and establishment of future designs and entities. It is not a goal to grow in terms of population, but there is consensus that the local population will rise and that the provision of living space should be established in due time. In this light, Rovaniemi takes part in the European New Bauhaus initiative. In 2050, Europe aims to be climate neutral. To achieve this for Rovaniemi, stakeholders from diverse fields are required to join their talents and efforts such as designers, architects, engineers, scientists, and of course the commitment of the residents (New European Bauhaus Initiative/ Arctic Design Week: New European Bauhaus Discussion). It was underlined in an interview that this is very ambitious to strive towards this initiative, but at the same time it is supposed to be ambitious to pursue efforts regarding the SDG# 11: Sustainable Cities and Communities.

What has been appreciated so far by multiple actors is that the SDGs address management schemes, when it comes to the management of natural resources. The SDGs may provide some ideas of how to balance natural resources among interest groups in a better way and especially, to communicate among those groups, what might be in the best interest for the overall society. However, there are also difficulties in forestry, and this is more specifically discussed in the second part of this chapter. When we focus on the metal mining industry in Finnish Lapland the following is of relevance. There are multiple considerable deposits of copper, chrome, nickel, and gold amongst others in Finnish Lapland and when sustainability is taken into account, it is relevant how to manage these non-renewable and scarce resources in an economic environment that has high demands for metals in many industries. Furthermore, Finnish Lapland is home to multiple interest groups that are used to utilize the land. The most common conflict exists between reindeer herders, mining companies (explorers & exploiters) and the forestry sector. This is of relevance by considering the descriptions of the UN towards SDG #15: Life on Land.

The City of Kemi in the Southwest of Finnish Lapland has multiple sustainability initiatives implemented and several are ongoing. What has already been implemented is the ISO 14001:2015 Environmental Management System certification that they received in 2019 and extended in 2020 for several city entities, such as for instance the city office, a hospital, multiple schools, and a machine depot. They state that Kemi´s schools are the first EMS certified schools in whole Finland (SDG #3: Good Health and Well-being; SDG# 4: Quality Education). Several other policies and projects are attached to “Green Kemi” as a commitment for 2050 to decrease the usage of plastics and to increase recycling efforts (SDG #12: Responsible Consumption and Production). Another

project aims for local food production and urban farming should allow food supply throughout the year (Green Kemi).

Shortcomings

Interviewees of the study referred with respect to Finnish Lapland to a larger extent to the achievements than to the shortcomings. Major issues that are outlined in this respect are the common challenges to succeed with the transition from the policy levels to real implementation. A challenge is the financing of the planned and aspired initiatives. In the context of critical viewpoints towards the SDGs, it is of evidence the respondents outweigh the benefits of the SDGs against the perceived shortcomings. One aspect that was highlighted is the low relevance of few SDGs for the Arctic and the high North regions, as for instance SDG #1: No Poverty and SDG #2: Zero Hunger. Regional governance actors, publicly and privately do not have to take this largely into account in a wealthy region in an industrial country, compared to other parts of the globe, where this matters much more.

One specific industry that may have challenges in following SDGs is the forestry sector that is fundamentally important for the economy in Finnish Lapland, as well as the whole country. Wood is an important and renewable resource and could be greatly utilized also for smart city developments (SDG #11: Sustainable Cities and Communities). On the contrary, the management of forests and healthy forests as carbon sinks to tackle the climate crisis is of highest relevance as well (SDG #13: Climate Action). In this respect there is a contradiction and diverse actors may feel that the overall guidelines are too blurry, or it is insufficiently communicated, what is the right balance. In this regard, it is necessary to underline that the concepts of sustainability and forest administration were in focus in Finland long before the UN launched the SDGs and evidently there are many other standards, strategies, and policies in place to manage the forests, although land use conflicts between diverse stakeholder groups make it an ongoing challenge, to find the best possible consensus, when it comes to logging practices in the areas. The SDGs seem not to entail the solution to this date, but also do not create any extra confusion or new barriers. One obstacle that was mentioned in the interviews is partly the “lack of educated workforces” about common sustainability practices and the worthiness of the whole concept. The negative impact that results from this is limited growth eventually (SDG #8: Decent Work and Economic Growth). Consequently, what needs to be addressed is enforcement of practices regarding SDG #4: Quality Education; and community colleges but also the universities may be capable of providing solutions for that.

3.1.5. Governance and SDG recognition

In the realms of the utilization of sustainability practices across Finnish Lapland, embracing also the alignment to the SDGs, multiple actors´ roles are further discussed in the specific stakeholder segment in this report. Overall, we could distinguish these actors into two overall groups the ones that have the regional focus for entire Lapland, like for instance the Regional Council of Lapland and Lapland branch for the Centre for Economic Development and Transportation (ELY-Keskus) and on the other hand the actors with local perspectives, meaning the municipalities, towns and cities in the region. Interviewees reflected and multiple policy papers confirm that sustainable development is largely included into the strategies in Lapland, both in regional and local levels. In the following, a few examples are highlighted to provide verification on this aspect.

The Lapland Green Deal and Road Map

This originates from a project that took place from June 2020 until October 2021 and under the leadership of the Regional Council of Lapland the intention was to provide a voluntary agreement among diverse industrial actors across Lapland to enforce what they call a "common goal of green development". In this light a main outcome to visualize and allow transparency is a road map and the whole initiative is leaning strongly to the approaches of the EU Green Deal initiatives (Regional Council of Lapland 2021). Diverse Goals are addressed under multiple key segments, including energy, environmental protection and diversity of nature, sustainable tourism, Arctic Food production, sustainable use of forests, industrial circular economy, and transport & accessibility (Lapland Green Deal Road Map 2021). Apart from the diverse thematic areas that are of relevance in these segments (e.g. SDG #9: Industry, Innovation and Infrastructure & SDG 7: Affordable and Clean Energy), the overall necessity of taking SDG #17: Partnerships to achieve the Goal into account is addressed, as well as the approach for networking and striving for mutual achievements across the regional and local industries. According to the United Nations this is fundamental to achieve the goals in a long-term perspective (Global Goals).

Lapland Agreement

In November 2021 the administrative board of the Regional Council of Lapland approved the continuation of the Lapland Agreement (Lappi-Sopimus) for the period of 2022-2025, as a follow-up approval was required to the previous period starting in 2018 and expiring in 2021. The Council points out that the broad name of the agreement is supposed to underline that all actors in Lapland should be committed to the strategic goals of the four-year time span. Sustainability plays an essential role in multiple of the goals in the agreement. The asset of being one of the cleanest regions on the globe, referring to its nature and ecosystems, links to the overall goal to be successful in terms of sustainable development and as it is stated "Lapland should be an open and smart place in the Arctic" (Lapin Sopimus). Four main goals are element of the Lapland agreement and these are the strengthening of the Arctic economy (SDG #8: Decent Work and Economic Growth); renewed ways of utilizing labor and skills for the natural environment; the creation of well-being, cultural assets, good living environment and preservation of a clean nature (SDG #3: Good Health and Well-being) and good accessibility should enable economic growth & competitiveness as well as societal well-being (SDG #9: Industry, Innovation and Infrastructure, SDG #3: Good Health and Well-being, SDG #8: Decent Work and Economic Growth).

Growth Through Cooperation

The Lapland Chamber of Commerce´ self-declared task is to "create success for business in Lapland and Finland" (Lapland Chamber of Commerce) and therefore the provision of business-related services and the building of networks. The organization launched in 2019 the EU-funded project Growth Through Cooperation that finds plenty of relevance by considering SDG #17: Partnerships to achieve the Goal. The project is ongoing until summer 2022 and seeks diverse creation of networks beyond the regional levels. The goals of this specific project find more coinciding content with diverse SDGs. One of these goals is for example to support the growth and competitiveness of enterprises by promoting cross-sectoral cooperation (SDG #8: Decent Work and Economic Growth). This goal has also been discussed and highlighted in the expert interviews in Finnish Lapland.

Arctic Smartness Cluster

Arctic Smart Growth is an initiative under the umbrella of the Arctic Smartness Cluster that is an assembly of diverse stakeholders from the public and private sector in Finnish Lapland, striving for common goals. More corresponding elements in the cluster framework are the Arctic Smartness RDI Excellence (amongst others relevant for SDG #9: Industry, Innovation, and Infrastructure), the Arctic Investment Platform (SDG #8: Decent Work and Economic Growth) and Smart and International Lapland. All these cluster elements are crucial for achieving SDG #11: Sustainable Cities and Communities /Arctic Smartness 2021).

Hinku Network and Lapland municipalities

Sustainable governance in Lapland is going beyond the regional levels and multiple municipalities have their own strategic frameworks and contribute to diverse networks to achieve specific goals. One notable network that has been developed across Finland is the Hinku network that aims for carbon neutral municipalities to support Finland´s objectives to tackle the climate crisis and being in line with the standards of the Paris Climate Agreement from 2015 (SDG #13: Climate Action). Three municipalities from Finnish Lapland are already members of the network and these are Enontekiö, Kemi and Posio. All municipalities that join the network are committed to 80% reductions in greenhouse gas emissions by 2030, compared to the levels of 2007 (Hinku platform). What municipalities should particularly put emphasis on are the reductions of greenhouse gas emissions and to increase the utilization of renewable energies (SDG #7: Affordable and Clean Energy). In addition, the initiative is pursuing the establishment of national networks for municipalities, companies and regions (SDG #17: Partnerships to achieve the Goal).

Responsibility

As well public as private sectors have a comparatively high number of stakeholders in Finnish Lapland, and those have their own strategic goals and plenty of intertwinements across the diverse networks. From this results a myriad of responsibilities and finding the right balances of fulfilling the own objectives, but at the same time not compromising the objectives and conditions of the others. By considering the maintenance of the fragile and meaningful Arctic ecosystem in Finnish Lapland, the novel EU Taxonomy for Sustainable Activities can be a beneficial framework to utilize. This also in particular, like underlined in multiple interviews, with having the responsibility to generate and provide energy from clean sources (EU Taxonomy for Sustainable Activities /SDG #7: Affordable and Clean Energy). By considering the sectors mining, tourism and forestry (in addition to the energy sector), a relevant sub-field of the responsibility discourse is the recognition of Corporate Social Responsibility (CSR) in Finnish Lapland. Mining companies like Agnico Eagle and Boliden that are multinational and active in Finnish Lapland, by exploiting amongst others, nickel, copper and gold have in many stakeholders´ opinions the duty to plan, monitor and report about environmental and social impacts linked to their operations. In this respect, corporate publications, such as CSR reports, sustainability reports and/or similar are beneficial documents to enhance transparency and credibility in the networks across the regions. Another responsibility of all actors that may be linked to any sort of sustainability impacts, either positive or negative, may be the implementation of communication channels, both online and also occasionally onsite in town/city halls/corporate entities or other suitable premises. The latter aspect had been also addressed by interviewees with respect to partnerships and communication platforms and it was underlined that this may not end in the inner circle of actors residing in the region, but also involves actors, such as EU bodies, NGOs and the stakeholders from the neighboring regions.

3.1.6. Stakeholders

The number of stakeholders in Finnish Lapland that strive for sustainable development and either work with the SDGs or at least take them into account is already high and continually growing. It is possible to classify these stakeholders into different groups. Governmental actors inside Finnish Lapland would be the Regional Council of Lapland, the largest city governments like Rovaniemi (capital of Finnish Lapland), Kemi and Tornio, and the administrations in many towns and municipalities as for instance, Inari, Ivalo, Kemijärvi, Enontekiö, Kittilä, Kolari, Ylläs, Posio, Salla and Ranua. Another group of actors could be the diverse companies and entrepreneurial businesses across the main sectors, forestry, mining, tourism, reindeer herding, fishery, and energy. Academia is of relevance with the University of Lapland and Lapland University of Applied Sciences, both institutions are active in joining networks and have diverse focus areas when it comes to sustainable development practices. The stakeholder network does not end on the borders of Finnish Lapland, but the region is well connected with national and international frameworks and institutions and plenty of co-operations also with IGOs and NGOs. In this respect is Finnish Lapland a member of the Barents Regional Council (BRC) and an active member in the ongoing Barents Cooperation process together with northern regions from Norway, Sweden, and Northwest Russia (Barents Regional Council). Business Finland as funding and knowledge provider to improve and accelerate business growth across Finland has the SDGs on the agenda and utilizes them amongst others to highlight entry potentials for Finnish businesses to international markets (Business Finland - Go for Sustainable Development Goals 2019).

The interviewee experts from Finnish Lapland outlined several stakeholder groups in particular and it is worth underlining these findings here, too. In the regional perspective the residents of Lapland were put in the spotlight, both indigenous and non-indigenous groups. In this respect also the Sami Parliament of Finland has been named as an institution that should be involved in the regional development discussions. The interviewees also found a consensus by underlining the relevance of supporting all kinds of businesses. Lapland has seen a strong increase of SMEs and entrepreneurial businesses in the decade of the 2010s, largely but not only due to a growing tourism sector and for them, in order to succeed, it is of relevance to provide knowledge, expertise, networking opportunities and start-up funding. Multiple organizations are involved in the provision of such support mechanisms. These are, the aforementioned Lapland Center for Economic Development (Lapin ELY-Keskus), the Lapland Chamber of Commerce, business development organizations that are attached to cities and municipalities (e.g., Business Rovaniemi, Kemin Digipolis Oy, Kemijärven Kehitys Oy). The Finnish Entrepreneurs (Suomen Yrittäjät) and the specific Lapland branch is a member-based network that allows the ones who join to get access to services, such as consulting and participation rights to join events. New entrepreneurs have the opportunity to utilize support services often free of charge, as for example Business Rovaniemi helps with the registration processes for the business- and the tax register in Finland. Therefore, we perceive that the interviewees focused a lot on stakeholders´ contributions to the SDG #9: Industry, Innovation and Infrastructure and SDG #8: Decent Work and Economic Growth. One more specific finding that all interviewees agreed on was the relevance of integrating stakeholders into the implementation processes of the SDGs. Here is a perceived challenge that parts of the society (in the interviews often referred to as the “residents”) do not have in-depth knowledge about the UN SDGs. However, when it comes to specific necessities towards sustainable development, such as climate action, quality education, life on land and industry, innovation and infrastructure (SDGs ## 13, 4, 15, 9), it is crucial to take the local residents on board in strategic planning and one important tool are stakeholder meetings.

3.1.7. Future outlook Finnish Lapland

The SDGs remain on the rise in Finnish Lapland in terms of awareness and perceived significance. Overall, sustainability initiatives as aforementioned in many ongoing projects and efforts are finding their way into more policies and strategies and whenever the capital provision is established, the implementation will be the consequence. Interviewees pointed out that there is still a need to accelerate implementation more and getting even more stakeholders involved to step away from academic and normative approaches to large extent and achieve a holistic way of utilizing the SDGs, to gain quantifiable impacts. To what extent the SDGs are pivotal to overcome the economic and societal Covid-19 crisis impacts will also be seen. Multiple challenges, such as a resurrection of the tourism industry needs to be organized and also supply chain disruptions are a crucial aspect. The crisis has seen shortages of wood supply across the global markets in late 2021 (Woodworking Network) and here might also be opportunities for the industries in Finnish Lapland. However, whatever way the "disturbed" supply chains and sector will be re-established, taking into account the content and guidance from the diverse SDGs will be crucial to implement mid- and long-term success.

3.2. Iceland

This chapter introduces the findings from Iceland based on interviews with three Icelandic experts; one from a municipality (MUN-I); one from a governmental body (GOV-I); and one from the business sector in tourism (BUS-O-I) as well as on data collected in relation to these interviews. The chapter is structured into the following sub-chapters: Background Iceland, awareness, most relevant UNSDGs, achievements and shortcomings, governance and responsibility, stakeholders, and future outlook.

3.2.1. Background Iceland

As Iceland is generally considered to be entirely within the limits of the Arctic region, this report focuses on Iceland as a whole instead of focusing on a specific region as in the Norwegian and Finnish cases. Iceland's 2021 Arctic Policy states:

> "There is no universal definition of the 'Arctic region', but according to commonly used criteria, Iceland lies mostly or completely within its boundaries, as does most of its exclusive economic zone."

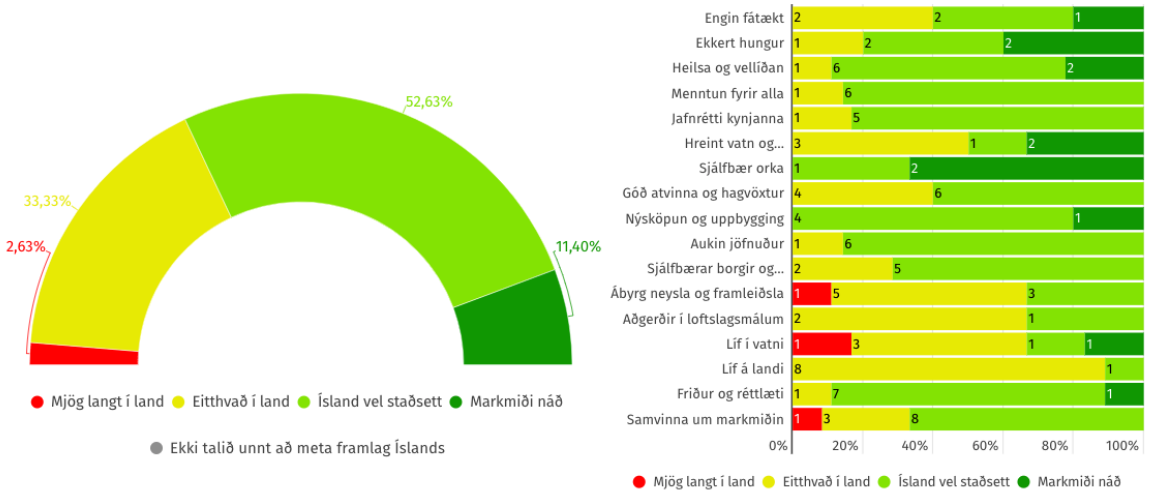
The policy from 2021 places a great emphasis on the SDGs and their guidance towards sustainable development. It focuses on the task of the Arctic States to slow down climate change and respond to its consequences, as well as on Iceland's aim to exceed its international obligations towards greenhouse gas emissions and climate actions by striving for carbon neutrality by 2040. The Policy, moreover, emphasizes responsible fisheries management and sustainable use of marine resources (p. 16). Thus, in the Arctic context, sustainability, and the SDGs are indeed high on the agenda for Iceland.

The commitment on behalf of the Icelandic government to implementing the SDGs is further stressed in Iceland's Voluntary National Review (VNR) from 2018 (Sustainable Development Goals Knowledge Platform, n.d.) where the process towards meeting the goals is explained, as well as its progress. The government appointed a working group in 2017 with the goal of analyzing the status

of the 169 targets for the SDGs and to propose a prioritization of targets for the government. The working group identified 65 of the targets as priority targets (Heimsmarkmiðin, n.d. f), based on the most evident shortcomings and the aim of meeting the goals by 2030 (Heimsmarkmiðin, n.d., d).

The progress of the implementation of the SDGs can be monitored through a dashboard available on the government's online platform for information on the SDGs in Iceland (only available in Icelandic). It is based on the assessment of experts from the ministries of Iceland, as well as on Iceland's position in relation to the criteria for the targets and the SDGs indicator monitored by Statistics Iceland. The dashboard uses colors to visualize the progress where red indicates that a great effort is needed to meet the goals, yellow that some improvement is still needed, light green that Iceland is well positioned and dark green that the goal has already been met. The goals are listed in their numerical order with goal number one first on the list. According to the dashboard the Icelandic government has already fully implemented 12 of the 169 targets and has made real progress for another 65 targets. Only 3 of the targets need much improvement but for 38 of them, further work is still needed. Out of the 169 targets, 51 proved difficult to measure, see *table 3* below:

Table 3. Screenshot from the Working Group's Official website (Heimsmarkmiðin, n.d., a)



3.2.2. Awareness and communication channels

When asked whether the UN SDGs and their global recognition resulted in an acceleration of sustainable development in Iceland, two of the interviewees say that it helped by creating a framework and guidance for many of the initiatives already in place (GOV-I, BUS-O-I). Diverse projects and outreach activities, such as conferences, are now linked to the SDGs. It doesn't necessarily result in great changes but now there is something to aim for and a guideline for measuring performance (BUS-O-I). One interviewee points out that this indicated that many have been working towards the SDGs without realizing the clear connection to the goals (GOV-I).

According to the interviewees, the creation of the SDGs and their global recognition thus accelerates sustainability to some extent by creating an overview, and in turn a greater pressure

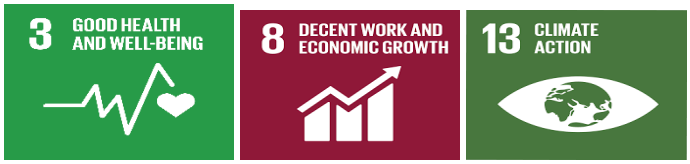
towards meeting the goals (GOV-I). One of the interviewees notes that the mere existence of the SDGs makes the progress towards sustainable development more visible, as well as opportunities for improvement. Besides the effects of the SDGs, the interviewees note that other international trends and processes have also played a part in accelerating sustainability in Iceland, one of them being the concept of circular economy (GOV-I, BUS-O-I). It has now become a trend in Iceland for companies that weren't too concerned with sustainability before, to look for ways to maximize utilization in their value chain (BUS-O-I). The discussion on sustainable development in general, as well as the Paris Agreement (2015), was also mentioned as examples of activities that accelerate sustainability in Iceland (GOV-I).

The interviewees note an increased awareness on the implementation of the SDGs in Iceland in the years 2017 and 2018, and that real progress began with the establishment of the working group in 2017. The working groups objectives include mapping the progress and linking together the work already taking place in Iceland (GOV-I). The outputs of the working group include a dashboard (Heimsmarkmiðin, n.d., a) showing the progress towards meeting the SDGs as mentioned before, toolkits for municipalities and the private sector for the implementation of the SDGs (Heimsmarkmiðin, n.d., c), and an online platform that gathers information on the different initiatives in Iceland in one place. All the interviewees mentioned that online accessibility to information on implementation is excellent in Iceland.

The interviewees noted that there are many other organizations and forums that promote SDG implementation, other than the governmental working group. These include the City of Reykjavík, Festa - Center for Sustainability, Kópavogur Municipality, Stjórnvísi (Iceland's national body for quality management and performance improvement), Nordic Council of Ministers, OECD, and many more, see further discussion in chapter 3.2.5 on stakeholders.

3.2.3. The most relevant UNSDGs

Table 4. Most relevant UNSDGs – Iceland

Interviewee	Top 3 SDGs
GOV-I	
MUN-I	

BUS-O-I	

The respondents specify the following SDGs as the most relevant: #3 Good health and well-being, #7 Affordable and clean energy, #8 Decent work and economic growth, #10 Reduced inequalities, #11 Sustainable cities and communities, #12 Responsible consumption and production, #13 Climate action, out of which two identified SDG #12, and two identified SDG #13. One interviewee (BUS-O-I) notes that the Arctic doesn't have the perfect conditions for food production and therefore responsible consumption and production is vital. This is agreed by another interviewee (GOV-I) who notes that the main challenges in the Arctic are SDGs number #12 Responsible consumption and production and #13 Climate action. In the Arctic context, they point out that sustainable cities are very important due to the lack of infrastructure and public transportation in the Arctic region. They also note that SDG #7 Affordable and clean energy is the basis for all other SDGs (BUS-O-I). Additionally, they underline that in the social context, SDG #10 Reduced inequalities is most important to increase equality (GOV-I). The third interviewee (MUN-I) criticizes the question itself since it shows a lack of understanding of sustainability. Nevertheless, the interviewee notes that if bound to choose, they choose SDGs number #3 Good health and well-being, #8 Decent work and economic growth and #13 Climate action.

3.2.4. Achievements and shortcomings

Achievements

When it comes to achievements in implementing the SDGs to this date, all the interviewees note that Iceland is doing well so far, but that it needs to continue the work. According to Iceland's VNR the government contributes to SDGs #5 Gender equality, #7, Affordable and clean energy, #13 Climate action, #14 Life below water and #15 Live on land through its international cooperation where it shares its expertise in gender equality, the use of sustainable energy and natural marine resources, and land restoration. It furthermore emphasizes how its foreign policy and international development cooperation promotes the SDGs by focusing on human rights, including LGBTI rights, gender equality and the empowerment of women (Sustainable Development Goals Knowledge Platform, n.d.).

One of the interviewees (BUS-O-I) point out that electricity is produced with renewable energy in Iceland, as well as central heating but what remains to be done is energy transition in transportation (#7: Affordable and clean energy). The government has now in place an action plan and policy measures to ensure carbon neutrality and a roadmap for Iceland to become independent from fossil fuel by 2040 (Heimsmarkmiðin #7, A Sustainable Energy Future). The share of renewable energy sources in transport was around 11.4% in June 2021, indicating that Iceland reached its goal of a 10% share by 2020 (#7.2, Ministry of Industries and Innovation). According to the interviewees, companies are also beginning to respond to the challenge, linking their climate actions to the SDGs. This is in line with an increased interest from the private sector

in the implementation of the SDGs (see further discussion in section on stakeholders). Eventually, one interviewee (MUN-I) notes that we still have a long way to go and emphasizes that the SDGs are meant for long-term measures, therefore it can be difficult to analyse Iceland's achievements.

Obstacles to implementation

When it comes to obstacles to implementation, two of the interviewees (BUS-O-I and GOV-I) note that financing is the biggest obstacle. In the case of tourism, small companies don't have the capital for upholding a position of a SDGs specialist dedicated to its evaluation and implementation. It needs proper training and enough resources for evaluation and report writing. In the case of the government, following up on the indicators has lacked the proper financial resources. There should be a full position at Statistics Iceland dedicated to data collection on the SDG implementation in Iceland, but the position can not be secured due to lack of capital. Nevertheless, there is a general governmental will for implementation, although reservations have been made by the Ministry of Industries and Innovation when it comes to conservation of the seabed. This could be because of a llack of sufficient mapping and research on the sea bed surrounding Iceland (Kjarninn 2019, Heimsmarkmið Sameinuðu þjóðanna um sjálfbæra þróun 2018). Another obstacle mentioned by an interviewee (MUN-I) is the extensive implementation process, as implementing requires diligence and is time-consuming. They also note that general lack of knowledge about sustainability is an obstacle. In this regard, one interviewee (BUS-O-I) pointed out that many companies in tourism in Iceland don't know how well they are doing as they lack a proper understanding of the vocabulary used in the SDGs, thus a seminar on the SDGs would be beneficial for the tourism sector in Iceland.

Shortcomings

When it comes to perceived shortcomings and limits of the SDGs, the interviewees (BUS-O-I and GOV-I) point out that the SDGs are too wide in scope, too idealistic (BUS-O-I), and lack a more detailed definition (BUS-I). In this regard, the interviewee mentioned the example of reduced pollution and how that could be interpreted variously in different circumstances. One interviewee (GOV-I) notes that the SDGs are modeled on developing countries, therefore measurements on poverty, for example, might be different in Iceland than in other countries. Other issues, e.g., regarding malnutrition may not be applicable in Iceland, but Iceland could set its own measurements, e.g., regarding obesity. One interviewee (GOV-I) notes that Iceland often wants to take the SDGs further than the UN. Another interviewee (MUN-I) notes that the SDGs could have been better translated in Icelandic, as much of the concepts seem very international, and localizing it would be beneficial. The interviewee took an example of a company with 20 people for whom the phrasing of the SDGs can seem very distant and superficial.

3.2.5. Governance and responsibility

As previously stated, the Icelandic government decided to appoint a working group for the promotion, implementation, and analysis of the Sustainable Development Goals in Iceland (Heimsmarkmidin, n.d., e). The working group does not have a mandate over the implementation of the SDGs in Iceland. It is a forum for increased awareness and collaboration on the SDGs and has provided municipalities and the private sector with tools for incorporating the SDGs into their own work and policies (GOV-I). The working group began as a forum with representatives from some of the ministries of the Icelandic government, and the Icelandic Statistics, but with ties to

the other ministries through the work of a contact group. The structure has changed since then and now includes representatives from all ministries of the Icelandic government, as well as the Association of Local Authorities in Iceland and Statistics Iceland. It furthermore includes observers from the UN Association in Iceland (Heimsmarkmidin, n.d., e), and from a Youth Council for the SDGs that was established in April 2018. The main objective of the Youth Council is to serve as a forum for young people to share their views and recommendations for the implementation of the SDGs and create awareness of the SDGs and sustainable development among young people, and in Icelandic society in general (Stjórnarráð Íslands, 2020.) The council has regular meetings with the government of Iceland and has shared its recommendations (Stjórnarráð Íslands, 2021) and action plan (Stjórnarráð Íslands, 2019) for the implementation of the SDGs. The working group is chaired by a representative from the Prime Minister's Office and a representative from the Ministry for Foreign Affairs who serves as the vice-chairman (Heimsmarkmidin, n.d., e).

Iceland has thus a platform for collaboration and information sharing through the governmental working group. Since the working group does not have a mandate for the implementation of the SDGs outside of the Icelandic government, municipalities, the private sector and the third sector are developing initiatives on their own, influenced by other sources than from the Icelandic government. One example of this is a collaboration between Kópavogur municipality and OECD where Kópavogur has served as a positive case for a territorial approach to the SDGs. The collaboration has created an enhanced incentive for municipalities in Iceland to incorporate the SDGs into their policies and work. This highlights that the implementation of the SDGs is not only driven by the Icelandic government, rather a wider scope of actors within local, regional and global governance, such as the OECD (OECD, 2020) that is also highly active in the implementation.

Furthermore, it is worth mentioning that the collaboration between the government and the municipalities has been further enhanced since 2021. An example of that is the creation of a collaborative platform between the government and municipalities in Iceland, aforementioned toolkit for the municipalities that was published by the working group, and a series of workshops held by the Icelandic Association of Local Authorities funded by the compensation fund (Icelandic *Jöfnunarsjóður*). In addition, the working group is also developing specific indicators for the municipalities in collaboration with Statistics Iceland (GOV-I, Icelandic Association of Local Authorities).

When asked who they would like to work more closely with on sustainability and the SDGs, the interviewees mention Vakinn, the official quality and environmental certification for Icelandic tourism run by The Icelandic Tourist Board (Vakinn, n.d.), the Green Steps Program (Græn skref, n.d.), a program for government agencies in Iceland with the overall aim of decreasing environmental impact from daily operations in the public sector (graenskref.is), as well as the other Nordic states. One interviewee pointed out the possible constraints of having too many institutions or forums working on the SDGs with everyone creating their own sets of measurements. Such a trend could complicate and prolong the implementation of the SDGs.

When asked about the status of international collaboration between regions in the Arctic in implementing the SDGs, the interviewees all note that there is an informal collaboration when it comes to sustainability in general, although a comprehensive collaboration between the Nordic or Arctic states on the SDGs has not been formalized. They note other forums where sustainability is discussed, although SDG implementation is not specifically addressed, e.g., West Norden, Nordregio, and OECD etc. Further focusing on future prospects of a Nordic cooperation, one

interviewee (GOV-I) notes that the Nordics should join forces and use the Nordic region as a brand. Another interviewee (BUS-O-I) notes that if the Nordics become fully sustainable and lead the sustainable development, it would automatically mean a competitive advantage for the region. When further asked about what the Nordic region should strive to become socially sustainable the interviewees note that it is important for the Nordics to continue to promote increased sustainability, green solutions, equality, minority rights, and multiculturalism, in line with the Nordic Council of Ministers vision of a green, competitive and a socially sustainable Nordic region.

When the interviewees were asked to identify the relevance of international actors with regards to implementing SDGs in the Arctic, the following actors were mentioned: The Nordic Council of Ministers, Business Sweden, the Arctic Council, the OECD, and the EU. Furthermore, the UN was mentioned by all interviewees.

3.2.6. Stakeholders

When asked to identify the key stakeholders in their region to enable SDG implementation, the interviewees mention the Capital of Reykjavík, Festa - Center for Sustainability, Meet in Reykjavík, municipalities in Iceland in general, more collaboration with companies, youth, NGOs, academia, and citizens in general, as well as the government of Iceland**.** All the interviewees agree that it is not possible to implement the SDGs on your own, support is needed for a successful implementation and to make sure everyone is headed in the same direction.

When it comes to important stakeholders for an enhanced private and public partnership, all the interviewees mention Festa - Center for Sustainability as being one of the most prominent entities regarding the SDGs and sustainability. Festa is a non-profit organization with more than 150 associated members, including both small and large companies, as well as public organizations, universities, and municipalities. Festa builds bridges between and within the public and private sectors, with the aim of supporting companies and organizations to lead by example when it comes to sustainable economy (Festa, n.d.). Another important step worth mentioning is a regulation from 2016 that requires companies to report on their social responsibility, including environmental and social impact, matters of personnel, their policies regarding human rights and how they counteract corruption (Alþingi, 2016). This has led to increased awareness of sustainable development and social responsibility within the private sector with an increased number of companies now reporting on their contribution to the SDGs in their sustainability reports.

The interviewees note that companies and municipalities in general are showing increased interest in the implementation of the SDGs (GOV-I, BUS-O-I, MUN-I). One of the interviewees notes a growing trend from a state-centric focus to a local one. More and more cities and provinces are evaluating and reporting on their progress, with the municipality of Kópavogur leading the trend (GOV-I). In addition, many NGOs have also joined in and are now implementing the SDGs in their work.

Academic institutions are also getting involved. The University of Iceland has established an initiative in collaboration with the Icelandic government to host a series of events to encourage an open dialogue about the SDG's where the University's academics analyze the SDGs, discuss their implementation, and possible obstacles in this regard (University of Iceland, n.d., b). In addition, the University has incorporated the SDGs into the University's policy for 2021-2026 (University of

Iceland, n.d., a). The University of Bifröst has also incorporated the SDGs into their policy for 2030 with a specific focus on SDG number #4 Quality Education, #5 Gender Equality, #9 Industry, Innovation, and Infrastructure, and #16 Peace, Justice, and Strong Institutions (University of Bifröst, n.d., p. 8). The University of Akureyri has not incorporated the SDGs into their policy but has nonetheless incorporated the battle against climate change and sustainability into the policy for 2018-2023 (University of Akureyri, 2018). The University of Reykjavík does not specify the SDGs in their policy, but does, however, mention sustainability (Reykjavik University, 2011). This is understandable as the policy was adopted in 2011, before the creation of the SDGs. The Agricultural University of Iceland has also incorporated the SDGs into their current policy (Agricultural University of Iceland, 2019). Thus, all the universities in Iceland have incorporated sustainability into their work and policies in one way or another but the emphasis on the SDGs differs quite a bit.

3.2.7. Future outlook Iceland

When asked about the future outlook for the implementation of SDGs in the Arctic, the interviewees are mostly optimistic. All the interviewees agree that there is a clear invocation to continue the work, and companies want to focus on sustainability. Iceland is being promoted as a leader in sustainability, which is important economically and socially. One interviewee (BUS-O-I) still notes that Covid has had a negative impact on the implementation of the SDGs as it has put many companies in emergency mode. Implementing the SDGs might thus be one of the first things that companies have to cut out. Another interviewee (GOV-I) points out there are also lessons to be learned from Covid and that the general discussion on the way forward after Covid is sustainability. Building back better and greener. Covid has taught us that human behavior can be changed, that we can find a way to overcome difficulties and further stressed the importance of cooperation when faced with global challenges of this kind. We managed to learn how to sanitize and keep a safe distance, and it is thus also possible to learn how to avoid unsustainable consumption patterns. The SDGs can guide us on this journey where the focus is not only on economic growth but on just transition, and that growth should not come at the cost of social justice, equality and welfare.

3.3. Norway

This chapter introduces the findings thematizing SDG implementation in Norway based on interviews with five Norwegian experts: A regional organization (RO-N), two municipalities (MUN-N-1, MUN-N-2), a business organization (BUS-O-N) and a business association (BUS-A-N). The chapter is structured into the following sub-chapters: Background Norway, awareness, most relevant UNSDGs, achievements and shortcomings, governance and cooperation, stakeholders, and future outlook.

3.3.1. Background Norway

In 2019, the Norwegian Ministry of Local Government and Modernization (KMD) stated in its "*National expectations for regional and municipal planning 2019-2021*" that the 17 UN SDGs must represent a main political agenda to address the greatest challenges of our time (KMD, 2019). From an international perspective, Norway has been an early advocate for the adoption of Agenda 2030. While Prime Minister Erna Solberg was elected by the UN Secretary General to be the Co-

Chair of the SDG Advocates group in 2016 (Halonen et al, 2017)[1], Norway was also one of the first countries to submit a voluntary national review (VNR)[2] to the UN High-level Political Forum on Sustainable Development (NCM, 2021). A second VNR has been additionally published in 2021. Norway's ambitions towards achieving the SDGs can be seen back in recent global SDG Index scores published in the latest Sustainability Report by Sachs et al. (2021). Here, Norway is ranked on 7th place. Regarding individual SDGs, Norway's performance is particularly high for the goals 1 (no poverty), 3 (good health and well-being), 5 (gender-equality), 7 (affordable and clean energy), 10 (reduced inequalities) and 17 (partnerships) (KMD, 2021). In contrast, key challenges for reaching the SDGs remain unsustainable consumption patterns, greenhouse gas emissions and the state of biodiversity. (KMD, 2021). Besides, according to the OECD, Norway reached 25 of 102 relevant indicators[3] and is not far from reaching several others (Ministry of Finance, 2019).

To meet the agenda 2030, the national expectations for regional and municipal planning 2019-2021 ascribe a key role to regional counties and municipalities to implement the SDGs in their individual planning documents (Meijer & Wolk, 2021). As a reason for this, the government highlights the local and regional authorities' responsibility for much of the social and physical infrastructure impacting people's living conditions and opportunities for development, but also their closeness to local businesses, and organisations (Bardal et al, 2021). According to the KMD (2021) the safeguarding of national and regional interests (including SDGs) applies to all municipalities, regardless of competence and size.

In general, the perceived relevance of the Agenda 2030 among Norwegian public institutions at national and local level can be described as high. 84% of Norwegian municipalities state that the SDGs are very important for municipal development (Mineev et al, 2020). However, despite this positive attitude towards the SDGs, there is a contrast in practice: Only one in four municipalities has developed a coherent strategy for how the SDGs should be implemented (Mineev et al, 2020). Also, more recent research by Aasen et al (2020) emphasizes that only 28% of all municipalities agree largely or very largely that the SDGs are an important management tool for municipal policy and priorities (and only 18% agree on that the SDGs should function as management tool for financial plans). Besides, just 25% of Norwegian municipalities see an own general obligation to work with the SDGs.

In such contexts, the size of a municipality seems to be of significance as well: While 17% of smaller municipalities with 10000 or fewer habitants largely or very largely agree that the SDGs are an important management tool for municipal policies and priorities, 42% of municipalities with more than 10000 habitants share this opinion (Aasen et al, 2020).
Such developments can be set in relation to a more recent web research by Mineev et al in June 2020 about the implementation of Agenda 2030 in municipalities in northern Norway. In Northern Norway, which is characterized by sparse populations and regional centers that drain surrounding

[1] The SDG Advocates group comprises 17 inspiring and influential ambassadors who increase global awareness of the SDGs and the need for measures to speed up the process (UNASDAdvocates, 2021).

[2] Voluntary national reviews (VNRs) can be described as "cornerstones" in the follow-up system, which is premised on international sharing of knowledge and experience (Lillehagen et al, 2020)

[3] The OECD's *Measuring Distance to the SDG Targets* Study is intended as an analytical tool to assist countries in identifying strengths and weaknesses across the goals and targets of the 2030 Agenda, and as such differs in nature from Voluntary National Reviews (VNRs) or other reporting processes (OECD, 2021)

areas (Ellingsen et al, 2018), 20 of 83 municipalities are aware of the SDGs. 9 of these 20 municipalities refer to the SDGs as a holistic framework (11 address few selected SDGs) and 8 elaborate on the SDGs in their strategy plans (Mineev et al, 2020). From these 8, 6 are the largest municipalities in northern Norway.

Lastly interesting in a national context are Norwegian municipalities' perception of guidance and support by regional counties in terms of SDG implementation. From a whole Norwegian perspective, 16% of municipalities perceive guidance and support from regional counties to a large or very large extent. In contrast, 39% perceive guidance and support as very small (Aasen et al, 2020). The remaining 55% answer the question with "do not know" (Aasen et al, 2020).
The bigger contrast of perceived relevance and practical implementation of Agenda 2030 in Norway has more recently also been criticized by the Office of the Auditor General's investigation of the management and review of the national follow-up of the SDGs. Here, it is stated that the national follow-up of the SDGs has not been coordinated effectively enough (Riksrevisjonen, 2020). The document further mentions that Norway does not have a comprehensive plan for the implementation of Agenda 2030 and the SDGs. As a result, reporting processes do not provide sufficient quality information to the government on the status and national follow-up on the SDGs (Riksrevisjonen, 2021).

From these background perspectives, the following chapters discuss the SDG implementation in northern Norway from our interviewees' point of view (see chapter 2).

3.3.2. Awareness and communication channels

In general, all interviewees are aware of the SDGs and the global efforts to implement them. Although most interviewees state that their specific practices related to sustainable development have been relevant even before the introduction of Agenda 2030, the rise of the SDGs and their global recognition has led to an increased focus on sustainable development. Here, it seems that the effort to integrate the SDGs in organizational processes has just started very recently in interviewed municipalities and counties. While both municipalities report a much stronger focus on the SDGs since circa 2020, a more regional attention in this context developed in 2019. Regarding the latter, this was mainly a bottom-up approach: The initiative to implement the SDGs on a professional level started mostly among advisors within the organization. In business organizations with focus on tourism, the practical involvement of sustainable development since 2015 has rather been integrated as a gradual process (BUS-O-N).

In general, the interviewees perceive an increasing focus on SDG implementation within the public sector, private sector, academia, but also larger society. MUN-N-1 and BUS-A-N specifically emphasize a strong initiative in the business sector and among supply-chains, also from a local perspective, in terms of SDG implementation. According to BUS-A-N, the focus on sustainable development and the SDGs has strongly increased here and there has been a rise of new business models contributing to such efforts. Besides, both interviewees highlight the good preparedness and innovative capacity of entrepreneurs in this regard.

On the other hand, a stronger focus on SDG implementation in the public sector is acknowledged (MUN-N-2, BUS-O-N). Here, MUN-2 notices a rise of frameworks and toolkits.
The municipal interviewees also observe a growing focus on sustainability and the SDGs within society (MUN-N-1, MUN-N-2): While MUN-N-2 thinks that the general citizen is much more

concerned about the SDG implementation and keeping on track in this context, MUN-M-1 observes a lot of awareness among the young generations in this regard. Here, environmental attitudes and an associated responsibility in terms of sustainable development in an Arctic context are emphasized. In contrast, the BUS-O-N notices less initiative within society from a tourism perspective and acknowledges much room for improvement here. Lastly, MUN-N-1 underlines that there is a lot of awareness of the SDG agenda among politicians in the region, here the national regulations towards the SDGs have a large impact on the regional politics.
Lastly, MUN-N-1 and BUS-O-N notice the increasing attention of SDG implementation in academia and that the role of research and development is further growing significantly.

Further, a growing awareness of SDG implementation is going hand in hand with increasing numbers of associated public publications such as policy papers, private sector's letters of intent or sustainability reports in Troms and Finnmark. Here, an increasing involvement of SDGs in regional and municipal strategy- or planning papers is highlighted (MUN-N-1, MUN-N-2, RO-N, BUS-A-N). This includes the main municipal strategy (Kommune Plan) and regional planning strategy. However, at the same time, there is still a great variation recognized regarding the quantity of municipalities in northern Norway which actively implements the SDGs in respective planning documents (RO-N). In contrast to other respondents, the BUS-O-N interviewee observes more possibilities for initiating SDG implementation in regional planning papers. Here, most focus is perceived to still be on industrial development (BUS-O-N).

Moreover, linked to the regional planning strategies, the BUS-A-N respondent highlights the "Hydrogen Zone Arctic", a specific strategy for Troms and Finnmark which targets the establishment of a sustainable value chain for hydrogen.

Furthermore, one municipal respondent emphasises the publication of the municipalities' Climate Budget report since 2016 (MUN-N-1). The report entails detailed information about climate accounts for municipal operations including e.g., transportation, electricity, waste management or heating systems.

Besides, the BUS-A-N interviewee highlights the "Ung I Nord Barometer 2020", a project initiated by the Knowledge Bank of Sparebanken. The Barometer provides knowledge about how young people in Northern Norway perceive positive and negative aspects of life in the Arctic region of the country, what shapes their perceptions here, and what life choices they make (BUS-A-N).

A further document that is published by the Norwegian Ministry of Foreign Affairs is the High North report (Nordimrådemeldinga). The report is a policy paper that concerns the international relations with neighboring countries in the Barents region as well as the North Calotte network (Ministry of Foreign Affairs, 2021) (RO-N).

Besides, the new OECD report, which is in its initial stage of preparation, will focus much more on the environmental analysis as well as opportunities associated with the green shift in the Arctic (RO-N).

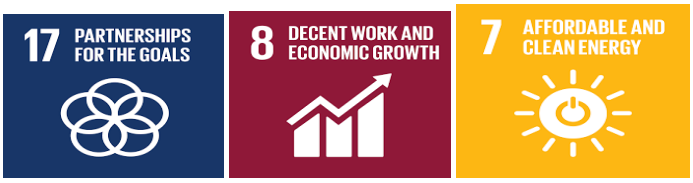
On top of that, a rise of sustainability reports is acknowledged by MUN-N-1, RO-N, BUS-A-N and BUS-O-N. Particularly MUN-N-1 describes the integration of sustainability in business structures as essential and that it is an influential factor regarding if a company gets a contract in the municipality's local business sphere. Probably as a driving factor, the RO-N also acknowledges an

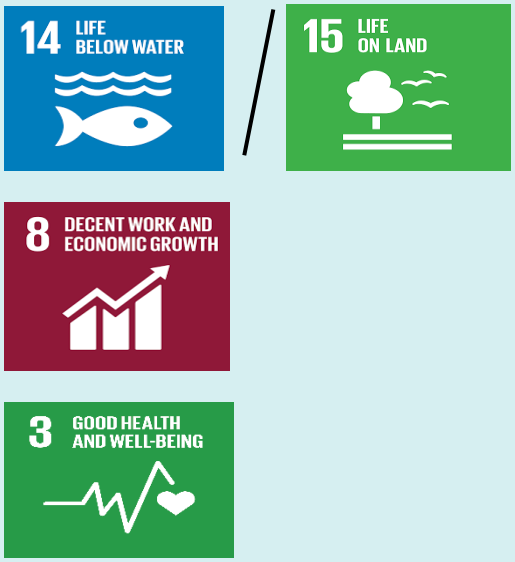
increasing activity when it comes to funding sustainable projects or the integration of environmental certifications. More specifically, the increase of sustainability measures in the tourism sector is highlighted (RO-N). The RO-N also mentions the Confederation of Norwegian Enterprises as an interest organization that has a strong focus on sustainability. Lastly, however, there is a general lack of knowledge about the scope of SDG integration in the business sphere and how sustainability is individually addressed by different sectors and companies (RO-N).

3.3.3. The most relevant SDGs

The table below shows the top 3 SDG rankings from the Norwegian interviewee perspectives. But the ranking should be interpreted with caution: Due to the broad and integrative character of the SDGs, most of the respondents verified that it is difficult to give an absolute answer in this regard. For instance, it is highlighted that the SDGs cannot be seen in isolation and must be viewed as a whole concept (MUN-N-1, RO-N). From this perspective, the interviewees treated the SDG-ranking rather as "important SDGs that the organization is currently working with". Furthermore, few respondents did not mention an individual goal per se, but important features that highly correspond with a respective goal (BUS-A-N, BUS-O-N). E.g., the BUS-O-N respondent highlighted the importance of ocean- and nature protection which has been set into relation with goal #14 (life below water) and goal #15 (life on land).
The results can be seen in the table 5 below.

Table 5. Most relevant UNSDGs - Norway

Interviewee	Top 3 SDGs
MUN-N-1	
MUN-N-2	
RO-N	

BUS-A-N	
BUS-O-N	

Related to the SDG rankings in table 5, the interviewees define major priorities with respect to the definition of sustainable development according to the Nordic Council of Ministers.

More from a business perspective, with a “green Nordic region” the interviewees associate the responsibility of industries to not damage the environment and to minimize environmental impacts as much as possible (BUS-O-N, MUN-N-2). This should also be considered in application schemes when it comes to companies investing into projects in the Norwegian Arctic. This involves strict measures that integrate environmental sustainability into project portfolios (BUS-O-N). In addition, there should be a business focus on more climate neutrality in terms of clean energy use as well as circular economic features as already seen in smaller entrepreneurial enterprises (BUS-A-N).

Regarding a “competitive Nordic region”, the BUS-O-N respondent highlights the importance of preserving ownership associated with business projects in the Norwegian Arctic. This includes the necessity of local ownership and local management practices when it comes to value-creation. This is seen as a counteraction against the tendency of increasing foreign investment into business in the Arctic regions.

Besides, one municipal respondent underlines the interest to be an attractive city with diverse business opportunities that simultaneously integrate carbon neutrality and smart environmentally friendly services. Moreover, although there are enough jobs, there is nevertheless a strong interest to promote and develop labor that is defined by high quality skills. There is always a need for more engineers, teachers, strategic thinkers' etcetera (MUN-N-1).

Eventually, the interviewees describe a "socially sustainable Nordic region" as a place where culture and local identity are respected and protected (BUS-O-N). This includes the preservation of Sami identities, the Finnish Immigrant Heritage and the valuation of associated acts (BUS-O-N, BUS-A-N, MUN-N-2). Besides, the diverse international community in cities is appreciated. Eventually, regions must become more attractive for young people and there is a need for more skilled labor in the Arctic regions on the long-term.

3.3.4. Achievements and shortcomings

Achievements and activities

This next paragraph provides a more detailed overview about special achievements and activities that the interviewees associate with the SDG implementation in northern Norway and from their individual perspectives.

In addition to initiatives to implement the SDGs more comprehensively in municipal and regional strategic policy papers, both municipal respondents highlight their organizations' special efforts to be carbon neutral until 2030 (MUN-N-1, MUN-N-2). Here, MUN-N-2 refers more specifically to its participation in the EU's "100 Climate neutral Cities by 2030" initiative. Linked to such efforts, MUN-N-1 has more recently employed a specific Climate, Energy and Environment advisor focusing on the optimization of sustainability (with some special focus on climate-neutrality) associated with different kinds of municipal operations. This position is described as rather unique in the Finnmark region. Moreover, the MUN-N-1 interviewee emphasizes a rising number of projects that are associated with the local circular economy, this includes for example growing initiatives in the furniture industry. On top of that, the municipality participates in a 2-year project that intends to make organizational purchases more sustainable and greener (MUN-N-1). Also, the integration of electrified vehicles has been growing within the municipality during the last years and it is intended to push this development further during the next 5 years (MUN-N-1). In addition, the municipalities repetitively observe more attention and awareness towards the SDGs among the local population including politicians. MUN-N-1 recognizes such developments especially among young people, a circumstance which is seen as a strong prerequisite for future actions driving sustainable development. From an exclusively municipal perspective, MUN-N-2 further acknowledges an increasing effort when it comes to measuring sustainability in organizational activities and achievements. Accordingly, sustainability measurements have meanwhile found their way into Key Performance Indicators (KPI's) and several other indexes provide insights into sustainability measurements. This is complemented by more data collection regarding impacts on climate and environment (MUN-N-2).

Linked to the more recent SDG implementation in regional planning strategies, the RO-N confirms the achievement that the SDGs have become a trendsetting guideline in regional policies and internal practices (since at least 2020). Linked to statements of the municipal interviewees, there is a more significant regional focus on sustainability within Troms and Finnmark. This involves a rise of green purchasing, increasing efforts in climate accounting, a more important role of

environmental certification, more green public procurement, more business partnerships that promote climate-neutrality and a stronger sustainable upgrading of the transport system (e.g, electrification of vehicles) (RO-N). Besides, the RO-N emphasizes the increase of funding opportunities when it comes to projects associated with SDG targets. Lastly, the promotion of the SDGs via the government has recently found a ground in regions and several municipalities. The still recent integration of the SDGs in the public discourse and increasing internal actions according to it, are an achievement that can bring sustainable development in the north forward.

Turning more towards a business perspective, "the business sector is in a very ready stage to contribute to the SDGs" (BUS-A-N). In recent years, northern Norway has become more attractive for new businesses and related projects. The county of Nordland has lately experienced new achievements such as the establishment of new battery cell factories in Mo I Rana (BUS-A-N). The factory steered by the company Freyr is presented as a green Nordic solution to meet an accelerating demand for batteries. This includes the development of giga-scale batteries and a 600 MW wind farm in the Rana and Nesna municipalities delivering energy for stationary use, shipping, aviation electric vehicles and the offshore sectors (Rana utvikling, 2021). This came also with positive effects for the labor market development (BUS-A-N). As a side note, (not mentioned but related to the input of the BUS-A-N respondent), the county of Nordland is producing 10% of Norway's electrical power (15 Twh), it is the second largest hydropower producer in the country, and it is also the largest fish-farming county with 65% of exports originating from Nordland (Nordland Fylkeskommune, 2021). Meanwhile, there have been effortful initiatives in the northern Norwegian business sphere to integrate the SDGs in large-scale and small-scale companies. Accordingly, the UN initiative UN Global Compact has developed "Action Platforms" which aim to support companies in advancing the ambitions of the 2030 Sustainable Development Agenda (BUS-A-N, UN Global Compact, 2021). Here, each Action Platform convenes representatives from business, local networks, academia, civil society, government, and the UN to solve complex sustainability challenges (UN Global Compact, 2021). Moreover, the BUS-A-N respondent stresses an internal research program that aims to gain knowledge about specific challenges of small- and medium-sized enterprises regarding the implementation of SDGs and transforming their business models towards sustainability. The project was based on several insight phases and has been able to cluster different problem areas into problem categories considering external framework conditions and available internal resources. In response to the findings, several suggested solutions were collected and once again categorized. Eventually, each solution category was associated with more specific actions and initiatives contributing to achieving increased sustainability. Besides, the BUS-A-N respondent also mentions a growing development of integrating courses on sustainability and SDGs in businesses. Lastly, the awareness and initiative towards the SDGs can be seen back in the entrepreneurial business development in northern Norway. Here, many start-ups often contribute to sustainable innovation. Examples are alternatives in food production such as seaweed harvesting (e.g., Lofoten Seaweed), or producing new high-end material from fish skin. The start-up "Norskin" produces such extremely durable and formable material with a much smaller carbon footprint than traditional leather (BUS-A-N, Norskin, 2021). According to the respondent, there are many more examples in such contexts.

Also, the BUS-O-N respondent observes an increasing awareness and initiative towards the SDG realm. Accordingly, there has been a development of more sustainable certification systems within the business sector. This goes hand in hand with rising sustainable innovations and increasing efforts to produce and consume a wide range of products more locally (BUS-O-N). Furthermore, the respondent notices a greater respect for sustainability in the tourism sector.

Shortcomings and challenges

All interviewees also associated some major shortcomings and challenges related to the SDG implementation in northern Norway.

First of all, both municipalities perceive more opportunities to actively implement the SDGs in the public sector and business sector. In this regard, there are more possibilities recognized to integrate the circular economy into existing businesses. According to the MUN-N-1, there is a lot more potential to make circular economy a more integrated business concept which could promise more value-creation and job opportunities. Not specifically related to this statement, MUN-N-1 additionally notices more potential to target and involve the young generations in the Troms and Finnmark region to contribute to the SDG implementation. This was not practically concretised but is set in relation to the aforementioned stronger environmental values of young people perceived by the respondent (MUN-N-1). On top of that, MUN-N-2 puts emphasis on the possibility to make the transport system in northern Norway more sustainable. Accordingly, the car is still the number one transport option of citizens and visitors within the municipality and there is more space for upgrading public and collective transport systems (MUN-N-2). In this regard, the interviewee underlines the importance of more research and data collection regarding how travelers and citizens move in central regional areas.

While the municipal respondents focused rather on practical shortcomings associated with SDG implementation, the RO-N brings more administrative parameters to the discussion. To start with, there is a lack of comprehensive overview of sustainability measures and SDG involvements in the region and individual municipalities, also considering individual community plans. Finding a tool that can overcome this is difficult, and this comes with challenges to measure the progress on SDG integration on a regional scale. Moreover, there is a diversity of views and perceptions regarding what the term sustainability means in academia, the private sector and public sector. While there is a wide range of initiatives, there is at the same time no clear framework concerning what shapes sustainability and what it means in the context of the region of northern Norway (and what not) (RO-N). As a result, there is a need for a more common language, here the EU taxonomy is suggested as useful to overcome this circumstance (RO-N). Linked to such observations, another challenge concerns the coordination of SDG implementation efforts between industry, the public sector as well as academia and making impactful strategic choices in this context (RO-N). The rise of the SDGs and their holisticness address all kinds of sectors which presupposes a new way of thinking that is characterized by a collective mindset instead of more individual and autonomous activities as well as decision-making processes within sectors. Accordingly, there is a need for more cooperation and common dialogue to implement the SDGs. Linked to such aspects, challenges are furthermore associated with the internal and external coordination of companies and finding the right solutions at the operational level of companies (RO-N).

Shifting the scope more towards a business perspective again, according to the BUS-A-N respondent, a circumstance that delays the implementation of the SDGs is that regional counties and municipalities are too slow when it comes to bringing the SDG implementation forward. This decreases opportunities and the potential to be more sustainable. On top of that, it is perceived by the respondent that local governments and authorities do not support the business sector in implementing the SDGs enough (BUS-A-N). In this regard, it is stated that the Norwegian Trade Associations (Næringsforeninger) are often much better equipped in terms of resources and knowledge than local governments. This has implications regarding how fast a change towards

SDG practices can happen: While the establishment of a framework to implement the SDGs in northern Norway would take about one additional year of time if it would be guided by the regional county and local authorities, this would not be the case for the Trade Associations. The Trade Associations, also referred to as Chambers of Commerce, are member institutions (there are 15 in whole Norway,) that aim to promote trade and represent the interests of the business society, nationally as well as internationally (Association of Norwegian Chambers of Commerce, 2021).

Linked to aforementioned statements by the BUS-A-N interviewee, the BUS-O-N respondent perceives that counties and municipalities could implement harder goals when it comes to sustainable development and the SDGs. Hence, the current focus is still rather of theoretical or administrative nature which leaves much space for more necessary practical SDG measures (BUS-O-N).

On the other hand, the BUS-O-N respondent acknowledges more potential when it comes to the stimulation of SDG practices in different sectors. For example, application schemes associated with Innovation Norge (IN) often emphasize aspects that address sustainability in various projects, but there is often a shortcoming (or lack of) more detailed information regarding how to-, and what to realize in such contexts (BUS-O-N). Moreover, the interviewee recognizes that many certification systems (independent of their initiator) are not effective enough today. This aspect was similarly associated with more practical shortcomings such as implementing SDGs seriously in business structures (BUS-O-N).
On top of that, the interviewee acknowledges the challenge to actually measure social or society-related, but also cultural sustainability. Here, it is tricky to establish parameters and moreover, it is hard to generalize progress on such SDGs because there are many local (more isolated) communities. Accordingly, there is a much more drastic focus necessary when it comes to addressing SDGs to local and indigenous communities. This is highlighted more specifically from a tourism perspective: There is a need to support the voices of local people more efficiently who are impacted by tourism activities. Hence, the “local annoyingness” concerning the tourism sector further remains a serious conflict issue in northern Norway (BUS-O-N).

Eventually, such statements can be summarized by what has already been underlined by the RO-N, the need for a common language and regarding society as a whole.

3.3.5. Governance and cooperation

National

An essential part of the interview guide thematizes how regions cooperate on national and international level to implement the SDGs. Regarding the former, a special focus has been on the collaboration of Arctic regions with their individual capital region. This included also how a preferred collaboration with the capital region should look like. Here, the regulations concerned with SDG implementation that come from the state via, according to the RO-N, “one-way communication” to which municipalities and regions must adhere, were once more highlighted. Aside from this, the municipalities do not emphasize any collaboration with the capital region but

both organizations desire a much closer cooperation in this regard. Here, MUN-N-1 underlines that municipalities should ask the government for more help and assistance. Especially when it comes to institutional or administrative infrastructures for SDG implementation or more guidance for planning procedures, there are no such activities perceived. Moreover, MUN-N-2 acknowledges the regional distance between the Arctic and capital region as problematic: The understanding of perspective and the grasping of local matters makes communication difficult concerning effective SDG implementation. Accordingly, MUN-N-1 emphasizes the importance of national networks, but also institutions, to foster information exchange and communication of needs. Examples for such networks include e.g., the involvement of County Governors (Stasforvalteren), the Norwegian Environmental Agency (Miljødirektoratet) or over-regional institutions and organizations associated with areal- and sea planning.

On the other hand, some forms of collaboration with the capital region are mentioned. The RO-N highlights the political cooperation with the capital region via representatives that are elected by the regions in Norway. The state administrator (Statsforvalteren) ensures the cooperation on an official level. This happens also under the umbrella of sustainable development and the SDGs. On top of that, RO-N (and more generally BUS-A-N) acknowledges an increase of state funding to foster the green shift in (northern) Norway. This happens also increasingly via state-owned organizations and initiatives such as Innovation Norway or the climate accounting initiative (klimasats) by the Norwegian Environmental Agency. However, support from such actors is often fragmented among individual sectors and there is little comprehensive coverage of these financings. Besides, the RO-N mentions that new regulations from the national level are discussed in hearings (høringer) where many stakeholders are obliged to give feedback on new national policies and regulations.

Next, BUS-O-N acknowledges an ongoing orientation and dialogue towards the capital region more from a business perspective. Hence, there is a lot of business expertise in terms of skills and consultancy that originate from the capital region and influencing businesses in the northern part of the country. In terms of SDG integration, BUS-A-N additionally highlights the essential role of value-chains that link the northern and southern regions of Norway. Hence, a lot of value-creation happens in the North and many products are exported to southern regions of the country. In this regard, a lot of cooperation about SDGs happens via the value chain of industries that operate over the whole country. However, aside from business collaboration, there is a desire for more cooperation between regions in Norway.

International

The respondents also highlight different forms of international collaboration of regions in the High North. Here, the municipalities do not actively collaborate on an international basis, however, MUN-N-2 aims to be an international role model for SDG implementation. Accordingly, there is existing cooperation with other municipalities in circumpolar Europe, but this was not further elaborated on.

The RO-N is first involved in an interregional EU support scheme called Interreg. EU Interreg is a program that promotes social and economic integration across national borders through regional cooperation. Here, Interreg also involves programs that target collaboration between Norwegian regions that are located along or on either side of a national border (Sweden, Finland, Russia, and

Denmark), but also collaboration between national regions that are geographically close to each other and meet common challenges (Interreg Norway). In this context, sustainability perspectives are first and foremost based on themes: For example, the Norwegian program on Northern Periphery and Arctic supports collaborative projects within research & innovation, competitiveness, environment, resources, and climate.

Second, next to Interreg, the RO-N is also part of other cross-border working groups such as the North Calotte Cooperation. The North Calotte Council supports the economic, social, and environmental development in the North Calotte area and contributes to the cooperation in Arctic Europe. Here, the coordination of cross-border conservation and environmental cooperation is an essential part (North Calotte Council, 2021).

Third, the RO-N emphasizes national and regional working groups in the Barents Cooperation that focus directly on sustainable development and the environment. For example, joint conservation management plans between municipalities and state institutions are established for shared river territories. Moreover, the removal of several environmental pollution grounds in Russia that were agreed to be eliminated is supported by the Barents cooperation. Additional initiatives of the Barents Cooperation are the Action Plan on climate Change, webinar series on voluntarily commitments to climate work

Aside from the RO-N, the BUS-A-N confirms several forms of international collaboration in the north Norwegian region. First, the Arctic Mayor forum aims to give local governments a voice in the development of the Arctic (BUS-A-N). So far, the Arctic governance system has no formalized procedure for local communities to be involved in Arctic policymaking. Therefore, mayors and elected leaders represent local governments within the Arctic states, forming a platform for cooperation and advocacy associated with the interests of Arctic communities (Arctic Mayor forum, 2021). Second, BUS-A-N emphasizes the Arctic Frontiers partnership network. The network aims to set the agenda for sustainable development in the Arctic by linking policy with business and science. In this context, it is a main goal of Arctic frontiers to combine academia with governmental decision makers and leading business actors (Arctic Frontiers, 2021).

3.3.6. Stakeholders

The interviewees were asked to mention stakeholders to whom they would ascribe a key role in the SDG implementation process. Here, the respondents consider different perspectives.
More broadly, MUN-N-2 associates a shared responsibility when it comes to SDG implementation. As the SDG awareness in the municipality is high among all sectors, the respondent ascribes a key role to all sectors including the business sector, the public sector, but also the civil society. In this context, the key role is inclusive, all have the same responsibility to implement the SDGs. A shared responsibility is side noted by RO-N, as well.

The RO-N ascribes a key role regarding SDG implementation to itself. Here, the institution views its abilities as an important driver in terms of coordinating implementation efforts, especially by using the Regional Planning Strategy as a guiding concept. This can also be linked to associations by MUN-N-1 who sees politicians as drivers for SDG integration, especially those who are in a more direct contact with over-regional politicians.

Moreover, BUS-A-N acknowledges the business- and private sector as key stakeholders. In this context, a special role is ascribed to the Arctic Cluster Team (ACT) which is a partnership consisting of enterprises from different parts of the process industry value chain. A central agenda of the ACT is to be a driving force for the Norwegian sustainable transition and to fulfil the country's obligations under the Paris agreement (2015). A further response by BUS-A-N can be linked here. The interviewee similarly ascribed a key role to the leading industrial sectors in northern Norway, especially the fishery-, and transport sector. According to the respondent, the fishery sector has not only the capital and economic power to enforce the SDG implementation, but has also a high financial and social acceptance. These are supporting characteristics to promote and drive SDG implementation. On the other hand, also the transportation sector is increasingly working together with northern Norway's most essential value chains and is ambitious when it comes to SDG implementation. Here, the National Transport Plan takes an important objective to develop an environmentally friendly and safe transport system until 2050 (MUN-N-1, Norwegian Ministry of Transport, 2021). The respondent also acknowledges the fast improvement of sustainable technologies in this regard.

Moreover, BUS-O-N ascribes a key role to the civil society in respect of the local population. This view hints to a large extent on consumption patterns of individuals and the importance that SDG guidelines are also dependent on bottom-up processes that must involve society. For example, the separation of garbage often remains a problem. People often do not follow rules or certain policies because they do not trust the system or are not informed about why certain measurements are necessary. This certainly highlights the importance of dialogue and a need to clarify to the individual when it comes to implementing certain SDGs and associated measurements that involve citizens.

Lastly, MUN-N-1 ascribes much relevance to stakeholders that can be associated with research & development. Hence, the constant input by science and innovation can bring SDG implementation forward. According to the respondent, there is a need for "more nerds", or people who can think innovatively, finding new niches and bridging different needs.

As discussed and referring to the national expectations for regional and municipal planning, the government expects a strong initiative of municipalities to implement the SDGs. Concerning the question how equipped municipalities themselves actually are to enforce SDG implementation, the views of the respondents are contested. While MUN-N-2 thinks that this is dependent on the SDGs, MUN-N-1 views local municipalities as very equipped. Especially from a financial point of view, municipalities have a lot of capital to enforce SDG implementation. Hence, purchase departments have big opportunities to invest into the SDGs. This underlines the strong need for more collaboration among municipalities, not only because of their resources, but also because they all have the same value chain in terms of transport, consumer goods or business landscape. Although BUS-A-N similarly views municipalities as well-equipped in this regard, the respondent nonetheless describes politicians as too slow when it comes to enhancing the SDG implementation. Hence, once more the interviewee ascribes the most important role to the business sector to implement the SDGs.

On the other hand, the respondents mention several essential supranational actors and their relevance. MUN-N-2 views the United Nations and the Arctic Council as most essential stakeholders for the development of the SDG implementation. But the respondent clearly emphasizes the importance of (more) supranational support in terms of enforcing more

awareness and activity towards SDG implementation. Especially in the current phase where the SDG implementation has just begun, supranational actors can spread awareness of the SDGs more comprehensively and give direction here. In this context, MUN-N-1 highlights communication as an essential feature of supranational actors in terms of what is internationally important to involve the SDGs, creating transparency of where key problems arise and giving direction for governments to act upon this information. Communication would also include the creation of shared meaning: For example, the term "sustainability" is often framed and understood in different ways and supranational actors can give direction in such discussions. The holistic focus on sustainability in terms of e.g., the SDGs themselves is an example for that, also acknowledging that attention is ascribed to truly all SDGs.

The essential role of supranational actors when it comes to cooperation around the SDG implementation is further underlined by BUS-A-N. Hence, leading institutions such as the UN, the Arctic Council, the Barents Euro Arctic Council or Barents Regional council are key stakeholders that enforce increased cooperation and communication. Here, the UN and the Arctic Economic Council were emphasized as instances that should especially lead the way forward from this perspective towards SDG implementation on a supranational level.

Linked to aforementioned arguments, BUS-O-N mentions the good network capacity of supranational players such as the Barents Cooperation. Further, the capacity to increase cross-border collaboration and projects as well as the dissemination of research to industries is considered as important, too. The respondent further acknowledges that an impact of supranational initiatives on SDG implementation has rather a smaller impact on the (tourism-) industry, but a bigger impact on the behavior of governments giving them means to create policies. Finally, the interviewee acknowledges supranational actors as essential to form arenas for discussion with special focus on social perspectives and the question regarding what do the people really need instead of focusing on tendentially more economic matters.

The RO-N more specifically reviews the roles of the UN, Arctic Council, Sami Parliament, the Barents Euro Arctic Council or Barents Regional Council, the Arctic Economic Council, the Regional Council, the Norwegian Ministry of Foreign Affairs, and the EU. The RO-N sees the UN as agenda-setters for everything concerning the sustainability goals, however it does not consider the UN as a real player on a regional level. The Arctic Council represents a leading player in research-based approaches to climate change and environmental issues. All 6 working groups within the institution are based on research and set out guidelines for policy within the 8 Arctic states. In several fields, the AC has worked extensively with waste management in the sea, among other things. Moreover, the international department of RO-N works together with the Ministry of Foreign Affairs, the ministry needs to be regionally rooted to give their work legitimacy. This work is also increasingly associated with the SDGs. Besides, the Sami parliament affects the RO-N's work by binding agreements on regional scale. Next, over the last years, the Barents Euro Arctic Council and Barents Regional Council have been strong representatives of the Barents region. Working towards shared global pressures such as the need for green change, concentrated population centers and meeting specific sustainability criteria, both institutions have become a platform to discuss challenges linked to sustainable development in the Barents region. This considers e.g., the integration of the EU's Green Deal, the adoption of a climate action plan for the Barents region or the establishments of regional networks and funding. Lastly, the EU is mentioned as a driving force to meet the SDGs by initiatives such as the aforementioned EU Green Deal or the UN taxonomy, demands that can affect regional policies in northern Norway greatly in the future.

3.3.7. Future outlook northern Norway

Eventually, all interviewees expect a growing relevance of the SDG implementation towards the future. According to the municipalities, many environmental pressures will increase, this includes to a large extent the heavy pollution of oceans which is linked to economic and natural pressures for the fishery and aquaculture industry (MUN-N-1). This highlights the growing demand for regulative measures such as the SDGs themselves in terms of environmental and socio-economic regulations.

In this regard, the MUN-N-2 interviewee acknowledges that the SDGs have integrated themselves as a global toolkit according to which many stakeholders and people have started to act. The SDGs and the UN climate report continue to put pressure on society and the private sector, and the trend is expected to continue. This is commented by the RO-N: According to this respondent, it is also a strength that the SDGs have become a holistic goal in themselves which brings together different needs of ecological, economic, and social sustainability dimensions. Here, especially the relevance of the green shift is rising, fueled by the EU's taxonomy which sets concrete frameworks here. This has meanwhile influenced the financial market in terms of increasing cash flows towards the green shift. Such developments show that the green shift is here to stay, and similarly the SDGs (RO-N).

However, current developments suggest that it will not be possible to reach the SDGs in 2030, especially from an environmental perspective. Here, a longer-term perspective is necessary (BUS-O-N). But still, the SDG significance will develop further here, particularly the pace towards renewables will increase in the energy sector. In the end, the BUS-O-N respondent emphasizes once again the importance of more social sustainability. Hence, the Arctic is a region of cultural as well as local identity and it must be protected as a place where future generations can live. There must be a fine balance between exploiting the Arctic in terms of several industries and protecting it in respect to nature and people's lives (BUS-O-N).

Eventually, the business sector will further push efforts to make the SDGs an integral part of future business strategies and models. Here, SDG efforts are expected to be more efficient than initiatives in regional or municipal policies (BUS-A-N).

In the end, the wider society's concern for the SDGs can be treated as an optimistic hint towards the future. Here, again, the young generations' motivation and initiative to contribute to sustainable development in the Arctic represents hope and a hint for a brighter future (MUN-N-1).

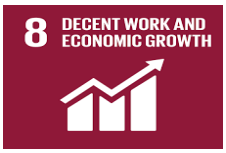
4. Discussion and conclusion

The overarching goal of this study was the gathering and updating of knowledge concerned with the current status of SDG implementation in the Nordic Arctic. Here, an initial focus was on Arctic regional governments, local authorities and the business sector operating in Finland (Finish Lapland), Iceland and Norway (northern Norway). Comparing and putting research findings into each other's perspective, 6 takeaways can be suggested in respect to the research question of this work.

First (1), all three Nordic countries report a rising awareness of the SDGs after at least 2017. In Finland and Iceland, the awareness rose from late 2017/early 2018 while in Norway, this was the case mostly in 2019. Most Finnish municipalities in Lapland are knowledgeable about the SDGs: Although implementation is often still pending, many intend to implement them in the future. The SDGs have moved away from being academically centered in Finnish Lapland and moved into the tourism sectors. In the case of Iceland, the SDGs accelerated the pursuit towards sustainability, and currently, there are many organizations and forums that promote SDG implementation. All the Icelandic interviewees underlined the Festa-Center for Sustainability as being one of the most prominent entities regarding the SDGs and sustainability, and the Kópavogur municipality when it comes to implementation. In the case of Norway, the effort to integrate the SDGs in organisational processes has just started very recently in interviewed municipalities and counties. In Norway, there is an emphasis within both public and private sectors to implement the SDGs. All in all, all countries can report an evident increasing awareness of SDG implementation, along with an increased will to implement them.

Second (2), there is a tendency that some SDGs are more commonly perceived as most relevant among the national respondents in terms of that there is currently a stronger working focus on them. This is presented below in table 6. In this regard, the most mentioned SDG is SDG 13 (climate action) with a score of six times followed by the second-most mentioned SDG 12 (responsible consumption and production) with a score of 5 times. SDGs number 7 (affordable and clean energy), 8 (decent work and economic growth) and 11 (sustainable cities and communities) are all mentioned on four occasions each. SDGs number 9 (industry, innovation, and infrastructure), 14 (life below water), and 17 (partnership for the goals) are all mentioned twice each. However, in contrast, SDGs number 1 (no poverty), 2 (zero hunger), 4 (quality education), and 5 (gender equality) are never mentioned in this context. According to the receptions from Finnish interviewees, this has been related to the wealthy status and industrial progress of their home country, a characteristic that can be generalized among the focus countries. Hence, from this perspective, regional governments have not to take this largely into account compared with those in other parts of the globe, where this matters much more. However, nevertheless, the findings concerning most relevant (and not relevant) SDGs should be treated with caution as several respondents restrict the importance of those to utmost current regional needs. This implicates further development and future variation in this context which also emphasizes the relevance of monitoring current works on specific SDGs among regions in the future.

Table 6. Most relevant SDGs - Comparative focus

Relevant SDGs	Finland	Iceland	Norway	Sum
	1	1	1	***3***
	1			***1***
	2	1	1	***4***
	1	1	2	***4***
	2			***2***
		1		***1***
	2	1	1	***4***
	1	2	2	***5***

	1	2	3	***6***
			2	***2***
	1		1	***2***
			1	***1***
			2	***2***

Third (3), our results suggest that the SDG implementation processes within our three case countries have their own individual interplay between public sector, private sector, and academia. Such dynamics can also be linked to the individual governance structures within the countries including how the SDG implementation has been introduced, how it is generally coordinated and communicated, but also regarding developments in which responsibilities and roles of coordination have still to be negotiated. An acknowledgement of such backgrounds is important because it may have essential implications for over-regional and transnational cooperation, co-management as well as shaping a mutual understanding in a transnational Arctic region with uniquely shared circumstances.

In Finland, a lot of initiatives to implement the SDGs came from the Regional Council of Lapland to address the “common goal of green development” in the region. Here, there is a strong focus on the business sector and specific measures to implement the SDGs are based on a voluntary agreement between industrial actors across the region and associated networking practices. This happens to a large extent under the Lapland Green Deal and Lapland Agreement, but also the Growth for Cooperation Agreement. But at the same time, SDG implementation efforts in the Finnish business sector can be bridged with the public sector via the Arctic Smartness Cluster leaving much room for cooperation. Here, the assembly consisting of stakeholders from the public and private sector strives for achieving common goals associated with several SDGs. Eventually, also the local municipalities in Finnish Lapland have established their Hinku-Network aiming to

bring forward SDG implementation in terms of achieving carbon-neutrality. Similarly, also this network relates to other sectors via the establishment of national-, regional, and private sector networks where a lot of communication can take place towards common-goal achievement. While the Finish SDG implementation efforts follow their own dynamics in the public and private sectors, but are bridged in form of different networks, the Icelandic SDG implementation shows a more inclusive pattern. Here, the governmental working group for the implementation and promotion of the SDGs is a forum that provides toolkits and guidelines for the private sector, but also for the many municipalities. Here, transparency is high, a dashboard maps the current progress towards meeting the SDGs which is also accessible for the wider society via an online platform. Eventually, the working group coordinates SDG efforts within the business and public sector at the same time. This makes it a broad forum which incorporates close collaboration, between sectors and within sectors. This can be linked to a statement by one of the Icelandic respondents: One must be careful to not having too many institutions and forums involved in the SDG implementation process as it leads to more difficulty due to complexity.
Lastly, The Norwegian concept of SDG implementation is certainly fragmented among sectors as well. There is a lot of initiative in the business sector and there are various forms of collaboration and meeting platforms for business, industry, and entrepreneurial stakeholders. Similarly, several municipalities in northern Norway are eager to implement the SDGs, however, there is not very much collaboration between them. Similarly, on a regional scale, governmental bodies have started to mobilize internal practices towards SDG implementation. But, in contrast to Finland and Iceland, findings suggest that there are fewer communicative links between these initiatives. Accordingly, the RO-N describes a lack of overview about which municipalities are currently working on the SDG implementation, the same concerns individual businesses. Moreover, the coordination of SDG implementation between the public, private and academic sector is described as difficult. Simultaneously, one respondent perceives that local and regional governments do not support the business sector enough. This suggests that efforts towards the SDGs by the public and private sector are developing rather independently in (northern) Norway. This has implications for the responsibility to implement and coordinate the SDGs in the country. Very recently, the National Expectations for Regional and Municipal planning have ascribed the coordinative responsibility to regional counties and municipalities. As discussed, these organizations have just started to mobilize their knowledge and to depart with their rather new official role. Towards the future it remains a question how fast counties and municipalities can execute this role in Arctic Norway. This suggests an implication for further research in terms of what tools or strategies these organizations could use to gain a more comprehensive overview about current SDG efforts in northern Norway. Here, the Norwegian government could play a supporting role considering its e.g., funding initiative, but also based on the wish for more coordinated governmental support according to our municipal respondent. Establishing regional and municipal bodies as efficient coordinators for SDG implementation would also have positive implications for further collaboration with other Nordic Arctic countries. Also, the other Nordic Arctic countries concentrate SDG responsibility towards regional governments (such as in Finland) or national governments (such as Iceland) and a shared tendency in this regard could make over-regional collaboration more structured.

A fourth (4) takeaway, related to the third one, is that the individual interplays between the public, private and academic sector within the three focus areas have implications for the establishment of governmental policies. The SDGs had been largely designed to be applicable in

governmental policies in different levels, “fostering alignment across local, national and international actions” and one of the major implementation challenges addressed by the United Nations is the necessity to “overcome fragmented or siloed policies” for sustainable development (UNSSC). There are many policies continually launched in all three study areas. Notable examples are for instance the “Lapland Green Deal and Road Map from the Regional Council of Lapland (Finland), the Icelandic Action Plan towards carbon neutrality and fossil-fuel independency or in Northern Norway, the more local Tromsø municipality plan 2020-2030 that evolves around the implementation of the SDGs. As highlighted above, the coordination strategies in the three study areas might be partially different, diverging from top-down to more local independence elsewhere, however we perceive the SDGs entered and still enter policies in regional, but also local levels (cities/towns/municipalities).

Fifth (5), the national findings stress the continuous importance of a balanced and elaborated stakeholder analysis, communication, and management within the SDG implementation process. The analysis of the interview contributions has reflected well on ongoing discourses when it comes to interactions and interrelations of diverse actors in all three study areas. In this summary, it is worth once more to highlight the perceived necessities to take as many actors on board as possible to implement the SDGs. Apart from the regional and local governments and the operating industries, it is crucial to integrate the local communities as well. In Finnish Lapland and Northern Norway, it is of relevance to discuss with indigenous groups, industrial development (growth), health and well-being and life on land. In terms of youth integration, in all three study areas the younger generation(s) and their attitudes and behaviors are essential to enforce the SDGs, such as, climate action, smart city developments and responsible consumption and production. Beneficial stakeholder platforms in this respect can be the major annual European Arctic conferences “Arctic Frontiers” (Tromsø), “Arctic Circle” (Reykjavik) and the biannual Arctic Spirit conference, including the Arctic Youth Forum (Rovaniemi). Interviewees also highlighted these conferences as drivers for new sustainability policies, sometimes with reference to the Arctic Council and Arctic Economic Council as supranational cooperation platforms with its multiple working groups.

Sixth (6) and lastly, another large-scale consensus from the analysis is the prerequisite of establishing and utilizing financing/funding mechanisms in order to implement the SDGs. Financing bodies can be diverse, and, in this respect, it matters which specific purpose requires capital provision. Clean energy and circular economy initiatives are often linked to already guaranteed budgets, in this respect a strategic reorientation may be sufficient in case the sustainable solution does not exceed the costs of the conventional one, for instance in terms of the construction of buildings or waste management. Initiatives that go beyond regular budgets, particularly if implementation in project levels is the followed approach, may seek international capital sources and multiple interviewees in all study areas highlighted EU mechanisms, such as the EU Green Deal and Horizon Europe. Financing challenges do not only affect the public sector, but also private businesses to a large extent. As discussed, especially in Iceland and Finnish Lapland, not all SMEs and entrepreneurs in the tourism sector have the capabilities to educate staff about sustainable practices and report about their sustainability impacts eventually. The role of the private sector can be also very significant in terms of investments that contribute to SDG implementation as the diverse challenges and intended pathways (as described in the policies), require enormous amounts of capital and a question is to what extent the public sector can cover those and how much private investors could contribute with so-called responsible investments.

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Appendix

Interview guide

Interview Guide – *Implementing the Sustainable Development Goals (SDGs) in the Arctic (ISDeGoNA)*

1: Governance and SDGs:
1a: Did the appearance of the UN SDGs and their strong global recognition increase your specific practices that correspond to sustainable development across the region, (or have you been on the pace before)?
1b: When it comes to SDG implementation in Troms and Finnmark, do you perceive there is a diverse focus on this initiative across public and private sectors or even local residents, or is it rather selective, for instance, only in academia?

2: Utilization in policy papers
2a: Are you aware of publications in your region that intent to promote the implementation of UN SDGs (E.g., policy papers from regional authorities, private sectors` letters of intent, sustainability reports)?

3: Arctic specific SDGs
If possible, could you provide an own ranking of which top 3 SDGs matter for the Arctic (and/or for your own region)?

4 Implementation of the SDGs from regional (Arctic) perspectives
When it comes to the Implementation of the SDGs in regional (Arctic) perspectives, what is your viewpoint on:
4a: Achievements to this date!
4b: Perceived shortcomings and limits of the SDGs when it comes to implementation!

5: SDGs and relevance in local events and communication
5a: The UN adopted the SDGs in September 2015, at what point in time did those approximately caught your attention for your organizational processes?
5b: When it comes to regional events (e.g., conferences or similar,) and communication channels with the public, what is the relevance of the UN SDGs?

6: NCM - three major priorities! (Specific relevance in terms of sustainable development)
The Nordic Council of Ministers has defined three major priorities with respect to sustainable development. In this regard, could you briefly refer to those in terms of:
6a: What matters in your area in terms of “a green Nordic region”?
6b: What matters in your area in terms of “a competitive Nordic region”?
6c: What matters in your area in terms of “a socially sustainable Nordic region”?

7: Inter-regional cooperation under the umbrella of SDGs implementation
7a: Is there existing cooperation with- and support from the capital region?
7b: What is the desired cooperation in this regard?

8: SDG implementation and stakeholder involvements

8a: Who are the key stakeholders in your region to enable SDG implementation?
8b: Do stakeholders' matter for SDG implementation or could regional/local governments enforce those themselves?

9: The Arctic and cross-country perspective
9a: How do regions collaborate internationally in the High North to implement the SDGs?

10: Supranational actors and the implementation of SDGs
10a: How do you perceive the relevance of supranational actors in terms of developing the implementation of SDGs in the High North regions?
For inspiration, e.g.:
- United Nations
- Arctic Council
- Arctic Economic Council
- Barents Euro Arctic Council or Barents Regional Council
- …

11: Outlook on future SDG implementation!
11a: Finally, what is your outlook for the implementation of SDGs in the Arctic? Do you perceive rising or declining significance in the mid- and long-term perspectives?