

Arctic Conferences: What is the economic impact of choosing locations outside the Arctic to discuss Arctic issues?

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Arctic conferences are a unique setting where representatives of institutions/Indigenous peoples, stakeholders, politicians, scientist/young researchers, activists, and Arctic enthusiasts can meet while still having something in common. While there are hundreds of varied sizes, themes, and formats of Arctic conferences, before the global pandemic the number and variety of Arctic conferences were steadily growing in the world. But what are the impacts of these experiences and what is the value of holding these conferences in the Arctic itself? This article examines and analyzes the correlation between a number of Arctic conferences that were held specifically in the Arctic and in central regions of Canada, Finland, Norway, and Russia between 2012 and 2021. The data collection results identify a difference in the number of participants, focuses, investments, and potential regional impacts between conferences in the Arctic-regions versus those in centers or major cities. This article seeks to answer the question does the economic impact of Arctic conferences contribute to Arctic regional development? Additionally, this article highlights potential economic losses of the Arctic regions due to the ongoing organization of international Arctic events outside of the Arctic region.

Introduction

Apart from the major Arctic conferences that involve thousands of attendees ranging from early-career individuals to professionals, such as the Arctic Science Summit Week, the Arctic Frontiers, the Arctic Circle Assembly, and the International Arctic Forum, there are many hundreds of others that take place inside and outside of Arctic countries which gather their attendees for international or local discussions on different interdisciplinary aspects. These include climate change, politics, geopolitics, security, indigeneity, science, technology, and youth. This aforementioned information raises the following questions: if an Arctic conference is held outside of the Arctic, then what about the Arctic regions? Are these conferences for the Arctic regions? What do all these people meet for? What are the major focuses of these conferences? Can anyone interested in the Arctic attend

and participate in a conference? Why do some conferences last a couple of hours and others last several days? And what are the reasons to organize Arctic conferences beyond the Arctic regions?

Despite the diversity and relatively long history of the various Arctic gatherings — conferences, forums, meetings, workshops, seminars, symposiums with diverse focuses, goals, participation, and locations — the first analysis of the Arctic conferences had only been conducted in 2020 by Beate Steinveg. Steinveg's exploration and further works brought innovative, highly important and valuable analyses of the Arctic conferences and their historical development, which then became the first steps in understanding the importance of Arctic conferences. However, there is still an enormous research gap about the impact and influence of Arctic conferences on the Arctic itself; nor is there any complete statistical data about the Arctic conferences and their venues.

In order to further steps towards bridging this research gap, this article provides an extensive dataset which examines the number of Arctic conferences which were held specifically in the Arctic regions, in comparison to those that were held in central areas. We argue that international Arctic conferences are not for the Arctic regions and while focusing on diverse Arctic issues, the Arctic regions lose not only economically but also miss opportunities to develop its human capital, infrastructure, tourism, and education. This article includes innovative statistical data regarding the international Arctic conferences hosted in Canada, Finland, Norway, and Russia between 2012 and 2021. Moreover, the database includes information about venues, attendance and focuses on the considered Arctic conferences. Additionally, we assume potential losses of the Arctic regions due to the hosting of international conferences outside of the Arctic region by answering the question of whether the economic impacts of the Arctic conferences contribute to the Arctic regional development.

Importance of Arctic Conferences

According to Iii Mark Hickson, conferences are opportunities for networking, presenting, exchanging, and evaluating ideas and projects. Gatherings help colleagues to get to know each other, meet and see those who are working on the same or similar ideas (Hickson, 2006: 3-4). Conferences are most likely the unique discussion platforms where stakeholders from different fields meet each other. The main principals of every conference are dialog and negotiation, when every speaker has time to present, and every attendant has a right to ask questions. Heather Exner-Pirot and Joël Plouffe note the growth in the consolidation of people into different forums and institutions after the Cold War (Exner-Pirot & Plouffe, 2013). Additionally, Iii Mark Hickson mentions that due to globalization the previous scientific focus of conferences has turned into “communication” (Hickson, 2006: 5). Today the format and focus of the conference are changing as well, and due to the vast range of conferences the largest and most internationally noteworthy events have turned into “exceptionalism”, which could be defined by participants affiliation and citizenship, presentations topics, and by national and international political agendas.

Today's Russian-Ukrainian war revealed several weaknesses of Arctic conferences and forums. On February 25, 2022, representatives of Finland and Sweden cancelled their attendance at the Arctic 360 conference in Toronto, because of Russia's participation there (Quinn, 2022). Additionally, the biggest International Arctic Forum in Russia “Arctic: Territory of Dialogue” was cancelled on March 14th, 2022 by Russian authorities even though the Russian Chairmanship in the Arctic Council was not cancelled, where Russia acts as the Chair. This current global exceptionalism and governance demonstrates how powerful institutions, forums and conferences could be, or want to

be. As a result, the importance of the Arctic conference should not be underestimated and their agendas, venues, participation, and influences should be analyzed.

In order to organize a conference, there are many details that should first be considered. To start, how is a conference funded, and who is it funded by? Usually, the answer to this question sets the agenda for the conference, because governmental or business money could not be against national policies or companies' reputation. Secondly, a draft of the program or theme of the conference should be defined before the conference announcement, primarily because, based on the above information, potential speakers and participants will be able to submit their applications. The third factor is the location of the conference, because hundreds or thousands of attendees should be able to come to this site (via land, air or rail transport) and buy tickets for this trip, preferably online. Attendants will also need different types of accommodation (from cheap hostels to VIP suits), as well as some cafes and restaurants. Additionally, modern conferences should have technologically equipped space(s) for presentations and be able to conduct international video calls and online participation.

Taking into account the above-mentioned factors, we assume that in terms of the Arctic regions with their remote locations, challenging infrastructure and inferior telecommunication systems, big international conferences are more likely to be held in easy to reach regions, with an already developed infrastructure. The location and logistics could be less important factors for some attendees, as well as the main reason for not traveling to the conference for others (Han & Verma, 2014; Falk & Hagsten, 2018). Comparing the three largest Arctic conferences: the Arctic Circle Assembly, the International Arctic Forum and Arctic Frontiers, the latter is less accessible, because attendees must first travel to Oslo and then on to Tromsø; however, it does not prevent 1500 participants from attending.

Moreover, in the case of holding a conference in a central region, all investments stay there including sponsors' and partners' investments, income from accommodation, restaurants, logistics, labor forces, and taxes. As a result, we see a vicious circle: there is a significant amount of money for international Arctic conferences, but this money is not for developing Arctic regional infrastructure without which regions cannot hold a similar level of conference. At the same time, centers have all the needed facilities to welcome thousands of international guests, gain financial support and further investment for managing a conference. Consequently, capitals become even richer due to attendees spending money during the conference; and Arctic regions remain in the same place or become even less developed (Sarabipour et al., 2020; Majaneva et al., 2016).

With a deep understanding of inability for most of the Arctic regions to hold an international conference, the fact is that far away from the Arctic people, the "south"/capital/center takes different decisions on Arctic related issues, which highly concerns Arctic inhabitants. As a result, this vicious circle strengthens the idea of continuation, of colonialism, and regional independence. In light of this this inequality and persistence of regional dependence from the center, we argue that Arctic issues should be discussed in the Arctic region, and it should gain all the possible benefits.

Theory and methods

For many researchers, the Arctic region is a site for international discussions (Heininen et al., 1995; Steinveg, 2020) and international Arctic conferences are the sites for these negotiations. According

to Geoffrey M. Hodgson, an institution is a formal social structure with certain rules/behaviors (Hodgson, 2006: 4); similarly, every conference has its own set of guidelines and focuses. A conference's administration follows this set of rules and coordinates the program, the participants, and the sites. The major Arctic conferences -- International Arctic Forum, Arctic Frontiers, and the Arctic Circle --- are usually connected to federal governments and sponsors. Consequently, these conferences become more commercialized and political, rather than scientific (Depledge & Dodds, 2017; Steinveg, 2020; Steinveg, 2021; Safonova et al, 2021; Marchenkov, 2020). Taking into account the importance of international Arctic conferences and the high interest associated with it, we can assume that an Arctic conference is a form of Arctic institution and in this article, Arctic conferences will be analyzed through liberal institutionalism and neo-regionalism, which identifies regions as a valuable and important unit of governance, with an important role within the Arctic region for institutions and conferences (Hettne & Inotai, 1994).

The article is based on a comparative analysis which has been conducted qualitatively and quantitatively. The data collection and the analysis had been conducted by the following criteria:

- Field study: Canada, Finland, Norway, and Russia.
- Arctic regions: Canada: Yukon, Northwest Territory, Nunavut; Finland: Lapland, Norway: Finnmark, Troms, Nordland; Russia: Yamal-Nenets region.
- Centers: Canada: Ontario, Québec; Finland: Uusimaa, Southwest Finland; Norway: Østlandet, Vestlandet; Russia: Moscow, St. Petersburg.
- Status of a conference: international.
- Format of a conference: offline, minimum two days of its program.
- Attendance: public with an open call.
- Timeframe: within 2012 – 2021.
- Data searching key words: “Arctic” and its synonyms in a title of conferences: Polar, North, Northern, Circumpolar, Nordic etc. Conferences define as “conference”, as well as forums, summits, international seminars, and symposiums.

These criteria were based mainly on limited data about Arctic conferences, its venues, participants, and agendas. Due to the variety of Arctic events and the inability to analyze all conferences' agendas with Arctic related presentations, the main selective criteria were found by searching key words in the title of conferences. In order to analyze the impact of international conferences on the Arctic regions, only conferences with a minimum two-day duration have been taken into account. The start of the research period was defined as 2012 because according to Beate Steinveg, the first sharp increase in number of Arctic conferences was in 2013 (Steinveg, 2020: 39). Therefore, the analyses from 2012 will outline the growth in more details. Analyses of conferences until 2021 also enable the research to indirectly outline one of the biggest impacts of the COVID-19 pandemic on travelling, change of format, and number of Arctic conferences.

Literature and data analysis

The existing literature regarding conferences is usually focused on a specific conference(s), which is more of a report rather than an analysis. Nevertheless, there is ample research about virtual and

hybrid conferences, their effectiveness, and attendance of conferences in general. There is, however, a lack and a gap regarding the analysis and evaluation of Arctic conferences. Interestingly, only after twenty years of an annually increasing number of Arctic conferences B. Steinveg and M. Safonova started to analyze the events in 2020-2021. Steinveg analyzed Arctic conferences through historical perspectives, Arctic governance, and global interest to the Arctic. Meanwhile, Safonova et al (2021), examined the influence of Arctic projects and conferences on the image of the Russian Arctic. All the authors highlighted a research gap in the analyses of Arctic conferences, but they also emphasized the importance of the increasing number and forms of Arctic projects/events.

During the data collection phase, we were faced with an enormous gap of statistical data regarding the Arctic conferences. Unfortunately, only a handful of conferences have websites and even less have archived information or reports about the previous events. One of the main problems in searching for the information was the inability to use working hyperlinks, especially for webpages from early 2010s. Even when we found a link for a conference there was an error because some links/links of the conferences or its organizers were no longer available. This is most likely due to the termination of websites or domains because if a conference was held once or several times in the early 2010s, to keep the website running today would require ongoing maintenance and payment for storage and domain hosting services. Therefore, the main goal to collect all the data regarding the number of participants, represented countries, information about further or previous conferences was not fully succeeded. Additional limitations appeared after February 24th, 2022, when sanctions were placed on Russia and therefore Russian sources in general. These sanctions meant that some websites, especially administrative ones, appeared to be unavailable or hacked.

Ultimately, by utilizing different browsers, accessing social media posts, applying a variety of search techniques, and requesting information from the organizers, more than 300 different Arctic events were analyzed and the main data pertaining to international Arctic conferences had been collected¹. Clicking and turning hundreds of open sources one by one showed information about existing conferences, but on the other hand, only a few of them include details about actual implementation of conferences, participation, program, or previous experiences. Therefore, the additional goal of this paper is to provide an open access to the conducted database by the support and official policy of the University of Lapland; meanwhile the existing lack of data gives space for future researchers who aim to analyze the Arctic conferences.

Summarizing all criteria, definitions, and sources in the Appendix, you see four tables for each country by every year within the considered period of time (2012 – 2021). The colours in the tables help to visualize the difference in the number of conferences where “blue” is a conference, which was held in the Arctic region and “pink” is a conference in a central region. In order to determine the probability of the economic impact of a conference held in the region on the regional development a formula was developed. The final formula enabled us to understand the minimal losses for the Arctic regions, in case these conferences were organized in a central region:

$$X * Y * 2 * 100 = Z$$

X – Number of Arctic conferences outside of the Arctic region.

Y – Average number of participants at an Arctic conference inside the Arctic region. The calculation was based on accessible collected data.

2 – Minimum days of the conference.

100 euro^{*2} – an estimated sum, which every participant (individually or by an organization) minimally spends during a two-day conference (includes accommodation, meals, transportation, tourism, and other additional costs, depending on the region and currency exchange).

Z – euro, the minimum loss of potential regional income.

The common practice of participatory fees for some conferences were not taken into account, due to the inability to accurately track if this income went to organizers to cover expenses or to some other beneficiary.

The following paragraphs determine the main aspects, tendencies, forms, and features of international Arctic conferences in Russia, Canada, Norway, and Finland, as well as demonstrates the potential losses for the Arctic regions.

Russia

After the analysis of 70 various names of the Arctic conferences in Russia, less than a half have been selected for the database (see Appendix 1) due to the considered criteria. The outlined correlation between the number of Arctic conferences in the Arctic and central region within the last ten years is 21 and 53 respectively. The main reasons for this difference are usually explained by Russian centralization, willingness to attract more speakers and attendees. For the past several years, Russia has had a tendency to make each conference international and Arctic related, even if there is one participant from a foreign country (regardless of if that participant is a Russian citizen or not) this conference might turn to an international level. Another reason for holding conferences in centers rather than in Yamal is infrastructure: transportation variety, roads, airport, labor, accommodation capacity etc. There is no doubt that the hosting capacity of Moscow (10 million) and Salekhard (60 000) could not be compared; even though the Yamal region has ample experience in welcoming international and high-level guests. According to the data received, the maximum number of participants in Yamal was 700 people³ in 2013 at the International Arctic Forum “Arctic: Territory of Dialogue”, whereas the maximum number of attendees in the central region is 3600 participants at the same conference and it has become the largest international conference globally (in terms of the number of participants) and the most important Arctic event for Russian Arctic policy.⁴ The second biggest international Arctic conference in Russia is “The Arctic: present and future” forum, with around 1500 participants on average. These two platforms gather Arctic international leaders, academics, business representatives and specialists. For the last three years these conferences have been held in St. Petersburg and attracted more than 11,000 attendees and speakers. In the history of these conferences (15 all together), only three of them had been held in the Arctic regions: twice in Arkhangelsk and once in Salekhard.

Arkhangelsk’s regional experience in hosting the International Arctic Forum in 2017 gave rise to a number of local and organizational problems for the conference. More than 1500 participants from many different countries arrived in the city which was faced with several infrastructural challenges: the small capacity of the Northern (Arctic) Federal University, and a lack of transport and personnel to maintain the international level of the conference. Due to this experience in 2017, organizers decided to move the forum to St. Peterburg. Initially, Archangelsk was supposed to be a regular host for the International Arctic Forum and for this purpose the Russian government planned to invest 500 million rubles, specifically for the region and the University’s renovation.⁵ The plans for this investment were later halted and ceased due to the decision that it was too

complex of a project to be implemented and would be inefficient. Similar problems also arose in 2013 in Salekhard, Yamal with the International Arctic Forum “Arctic: Territory of Dialogue”. Fundamentally, due to the lack of high-level accommodation, organizers had to limit the number of participants.

As for the constant international Arctic conferences in Yamal, there is only the International Forum and Exhibition Yamal Arctic Oil and Gas, which annually holds around 200 participants from national and international oil and gas companies, related institutions, and other specialists. Interestingly, in the long history of the aforementioned conference, it has always been held in Yamal (Salekhard then Novy Yrengoy); however, in 2022 it is going to be held in Tumen, which is a relatively big, non-Arctic, Russian city.

The organizer of this conference is “Vostock Capital,” a consultation and event-managing company registered in Moscow with a third-party agency for organizing major international and local events, this is a common practice in Russia. An example of this practice brings to mind the Roscongress Foundation, a government oriented Russian institution and main high-level event company. There is no doubt that the special and experienced agencies are able to organize conferences on a high level, but in terms of regional conferences this practice limits regional labor work as well as all taxes that are leaking out of the region.

Reportedly, among all of the analyzed international Arctic conferences in Russia there are seven regular ones, and 22 different conferences which are held irregularly. Most of the conferences cover a diverse range of Arctic related issues and involve a large variety of participants: from young researchers and activists to experts and high-level authorities. The next most popular focus of the international conferences in Russia are those pertaining to the economics, investments, and Arctic natural resources, which usually welcomes business, industrial and political representatives. Other issues such as ecology, culture, indigeneity, youth, health, architecture, legality, permafrost, polar bears have been covered in the last ten years, but these conferences have been held only once or twice (see Appendix 1).

By using our aforementioned formula, we can compare the international Arctic conferences in Yamal with those in Moscow and St. Petersburg. Through this calculation we can estimate the regions economical loss, which is in the realms of 2,862,000 euro.⁶ This sum of almost three million euro is a potential income which could have been spent on different regional needs, such as infrastructure, education, youth work and other fields. It should be noted that Yamal is the most developed Arctic region in Russia but there are other Arctic regions in Russia that do not even have proper water supply, adequate internet connection and health care infrastructure or other basic human needs. Of course, there is no guarantee that the above sum of money, if obtained by the region, would be spent on these essential needs but at the same time it could be a valuable support for local small businesses, social entrepreneurs, and other regional activities.

By summarizing the analyzed data and calculated potential loss as seen above, the differences between venues become clear. Most of the international Arctic conferences are held in Moscow and St. Petersburg and all of them involve many times more participants, through this added capacity there are more obvious local benefits. The preference to suit capacity over geography extends to the previous conference in Yamal, the “International Forum and Exhibition Yamal Arctic Oil and Gas” in 2022, which was shifted to a bigger city – Tumen. This proves that organizing larger conferences with around 1000 participants needs more infrastructural

considerations, such as: accommodation, transportation, labor force, presentation rooms, and equipment. Unfortunately, due to this venue's difference, as well as Russia's internal centralization of power, the discussions concerning the Arctic usually take place in central regions. Consequently, Russian Arctic inhabitants and Arctic Indigenous peoples are not involved in the discussions about the Arctic regions and lose the potential benefits.

Canada

Due to several infrastructural, geographical, and political factors, the Russian Arctic could be only compared with Canada. The remoteness of the Canadian Arctic region leads to high costs for participants to attend a conference, if at all. The analysis of more than 50 Arctic conferences in Canada transformed into the detailed analysis of 28 international ones. In the analysis of the Russian conferences the main obstacle was a choice of the Arctic region, due to the wide geographical spread and Arctic conferences' locations (for instance Murmansk, Arkhangelsk, Salekhard). Yet, in Canada's case, zero conferences have been held in or above the Arctic Circle and only three conferences have been held in the Canadian Arctic regions at all: Yellowknife (Northwest Territories), Whitehorse (Yukon) and Iqaluit (Nunavut), and the Arctic Indigenous Investment Conference is the only one among those, which was held more than once.

In contrast to the European conferences, where usually all the conferences could be defined as international because the participants come from closely located countries, in Canada and Russia there are many local and national Arctic conferences which were not taken into account in this paper. By utilizing the criteria and analyzing conferences within that criterion, ultimately only 16 international conferences were found to be applicable. However, outside of the considered central territories there are various international Arctic conferences, hosted in almost all of the Canadian provinces (see Appendix 2). Although, if we look at the number of conferences held outside the Arctic region in the last 10 years - 56 compared to the 6 hosted in the Arctic regions (see Appendix 2) - this difference demonstrates how much the regional limits could be. Additionally, due to the wide spread of Canadian conferences outside of the Canadian Arctic we can see a statistical significance, which has been included in the additional calculations section of the database.

Analysis of the Canadian international Arctic conferences has shown that the relatively regular conferences are:

- The ArcticNet's Annual Scientific Meeting – hosting a diverse focus on Arctic issues and gathering around 500 scientists, policy makers and various stakeholders.
- The International Arctic Change - with the largest average participation (1350 representatives of northern communities, government, industries, educational institutes)
- The Arctic Shipping Summit - which used to be held in Montreal.

Looking at the additional section of the database there are three more regular conferences, those being: the Marine and Arctic Security Conference, the AMOP Technical Seminar and the Arctic Oil & Gas Symposium; as well as the largest one, the Arctic Oil and Gas North America Conference. It is interesting to note that according to the obtained data, there are more conferences on energy resources and engineering in the Canadian Arctic than their Russian counterpart. In terms of attendees, Canada does not hold any big international Arctic conferences with over 1500 participants from diverse Arctic and non-Arctic states.

The inability to find all of the required data regarding number of participants and the regularity of conferences allowed us to only estimate a calculation of the Canadian Arctic regional economic losses. According to the formula, we get: 56 conferences outside of the Arctic region; 120 participants on average (according to the existed data); and Z – 1,344,000 euro – the minimum amount of potential regional losses. This approximated sum is less than double that of Russia's (2,862,000 euro). Nevertheless, this estimated sum indicates that the actual regional economic loss is much greater.

The Canadian experience of the international Arctic conferences is not so data-rich in comparison with the European examples, even though the existing conferences are usually held outside of the Canadian Arctic and very few welcome participants in the Canadian Arctic. Yet, in Canada there are many national Arctic conferences that should be also analyzed in terms of their efficiency and value toward the Canadian Arctic regions. Unfortunately, the limited available data regarding the international Arctic conferences in Canada does not provide the whole picture of the Canadian Arctic tendencies and focuses, at the same time it proves that Canada underestimates the Arctic conferences and their possible benefits/influences on the Arctic regions.

Norway

Upon analyzing the Norwegian international Arctic conferences hosting experience, we see a very different picture in comparison to Russia and Canada. The main difference being that most of the Arctic conferences are held in the Arctic regions: Finnmark, Troms, and Nordland. The collected data of more than 60 international Arctic related conferences in Norway allowed us to include 26 conferences and add them to the final table (see Appendix 3). Among those is one of the main global international Arctic conferences “Arctic Frontiers,” which averagely welcomes 1000 participants in Tromsø. Every year for five days, this city turns to the international platform where international guests (scientists, experts, industries, and institutional representatives) meet each other in the Arctic. Additionally, Tromsø is a venue for other international Arctic conferences, such as:

- The Nordic Forum for Security Policy 2014: The Arctic and Barents region – Cooperation, Human Rights and Security Challenges.
- The Barents Indigenous Peoples' Congress & Conference 2015.
- The ESSAS - Ecosystem Studies of Subarctic and Arctic Seas.
- The Understanding Peace in the Arctic.
- The 11th Polar Law Symposium, A Changing Arctic Conferences (see Appendix 3)⁷

The High North Dialogue Conference and the Kirkenes Conference are annual conferences which are regularly hosted in Bodø and Kirkenes respectively. The latter of which is the most northern conference in Norway, annually involving politicians, NGOs, academics, and various other organizations. In contrast to the Canadian or Russian experiences, most of the Norwegian Arctic conferences are focused on the Arctic environment and sustainable development (7 out of 26), the most popular themes of which are natural resources, logistics and economy, and Indigenous culture and knowledges (8 examples). The other 11 conferences are focused on either diverse or very specific issues, such as Svalbard, geopolitics, polar law, innovations, and international collaboration.

Due to the lack of data and unsystematic storage and maintenance of this data, as perpetrated by organizers/host institutions, we have been faced with a lack of data on the number of participants. Nevertheless, Appendix 3 demonstrates the difference in the number of conferences held in the region vs those held in the center: 42 and 14, respectively. This difference is conditioned not only by the Norwegian Arctic policy - the focus and development of the Arctic regions, but also by the presence of Arctic institutes and universities in those Arctic regions: the Norwegian Polar Institute, The University of Tromsø – The Arctic University of Norway, University of Bergen, and International Barents Secretariat. Involvement from these institutions determines the development of these regions, the participation of specialists and investments, contribution from residents, as well as holding international Arctic conferences.

Geography plays an important role in the Arctic, due to the remoteness of the Arctic regions and distance from those remote areas to the center, it can be a sizable distance and transportation opportunities are relatively limited. While there is no railway to the northern part of Norway, there are 2-3 flights from Oslo to Tromsø per day; transportation difficulties do not stop the conference participants from attending. The attendees' willingness to travel explains that if there are not any other options for a conference's site, people will come to a remote region, and after having a long travel, those who attend will usually stay for a couple of days to explore the surrounding area and rest. One interesting Norwegian case should be noted – the Svalbard Science Conference, which is biennially held in Oslo, remarkably the remotest Norwegian region, Svalbard is discussed in the capital. Of course, for attendees it is easier and cheaper to come to Oslo than to Svalbard; however, the main attendees are researchers, scientists, and stakeholders, who are more likely to be interested in a visit to Svalbard instead of to Oslo.

Despite the lack of data and the small difference between locations of regional and central conferences, the calculation of Norway's potential loss of holding international Arctic conferences outside of the region will be made according to the following data: 14 outside conferences * 495 attendees * 2 day * 100 euro = 1,386,000 euro. Almost one and a half million euro has been lost by the Norwegian Arctic regions due to the venue choice. The estimated sum is relatively small but could be a means of supporting some local projects in Finnmark or other regional needs/Arctic educational programs.

Although the Norwegian Arctic policy is quite active, and within the Norwegian Arctic there are several universities and institutions, there is always a way to develop and improve. Finding a way to maintain conferences in Tromsø, Bodø and Kirkenes would allow international guests to visit other Norwegian cities aside from Oslo and shifting some small Arctic conferences to other areas would extend their touristic routes and develop needed facilities; as a result, more attendees will come to the Norwegian Arctic regions to stay, use, and buy local services.

Finland

International Arctic conferences in Finland play a diverse and important role in the country. The first statistical analysis opened up more than 100 conferences within the last 10 years. Compared to the other analyzed countries, Finland has the largest number of Arctic conferences (as well as in the Arctic regions). Like Tromsø for Norway, Rovaniemi is the main city to held Arctic conferences in Lapland and Finland as a whole.

After the detailed evaluation of those 100, 40 international Arctic conferences with more than one day of its program have been selected for the final database (see Appendix 4).⁸ There are several major Arctic conferences that are taking place constantly and attract hundreds of scientists, experts, authorities, and young researchers. For the Lapland regions the main three conferences are:

- Biennial Rovaniemi Arctic Spirit.
- Annual Arctic Business Forum.
- Annual Arctic Design Week.

When analyzing the focuses of these 40 international Arctic conferences in Finland, a quarter of them bolstered emphasis on environmental issues, another 9 conferences gathered very diverse aspects and the second half highlighted the following topics: art and design, digitalization, law, media, education, and international cooperation.

The largest of these conferences, which have been held in Rovaniemi, are the Arctic Biodiversity Congress in 2018 (500 attendees) and the Arctic Art Summit in 2019 (400 attendees), whereas the annual Rovaniemi Arctic Spirit attracts 250 participants on average. For the Arctic conferences in the central Finnish regions, the collected data demonstrates that these conferences have double or an even greater number of participants. For instance, in 2019, 7655 participants attended the Nordic Business Forum⁹; the next two conferences with 600 and 500 participants are the UArctic Congress 2018¹⁰ and Arctic Science Summit Week 2014, respectively.¹¹

There are two academic events that should be noted: the biennial Media Education Conference and the annual Northern Political Economy Symposium. The latter had been held in various Lappish locations: Pyhänturi, Suvanto, Salla, Loma-Vietonen and Rovaniemi. The diversity of these venues allows participants to visit these places, since they are less likely to visit for purely pleasure. Such conferences provide an opportunity to combine work with valuable and useful travel.

Our statistical analysis of the Finland-based experience of an international Arctic conference revealed that the majority of the Arctic conferences were held in the Arctic region. However, it is important to calculate how many conferences could have been hosted if the rest of the 29 conferences were moved from the central regions to the Arctic. According to the formula, the minimal losses within the last 10 years is 1,241,200 euro¹², this sum is the smallest when compared to the other countries in this research. The above total is a minimal estimation and additionally to money and economic perspectives, there are many other long and short-term aspects that regions might gain due to the hosting of more international conferences.

When comparing Finland to Norway, Canada, and Russia we discover that Finland is the most Arctic regional-oriented country. Finnish Arctic regions are active in their policies and more importantly they initiate and maintain these activities. The University of Lapland and the Arctic Center play the biggest role of these active conferential policies, since they are usually initiating and organizing many different Arctic events. Even the COVID-19 restrictions have not changed the picture dramatically in Lapland but moved to involve more participants online, which made the conferences a hybrid affair. An interesting note is that the conferences in Rovaniemi have been held even under the COVID-19 restrictions in 2020 and 2021 but none have been organized in Helsinki. Moreover, International Arctic conferences in Lapland have important agendas and

attract high-level visitors to Rovaniemi. Infrastructural solutions, such as railways provide an environmentally friendly alternative for international guests and low-cost flights (as for Norway's case as well) make these trips affordable for many participants, including young career researchers and Arctic enthusiasts.

Best practices and experiences of regional Arctic conferences: Comparative analysis

Summarizing the conducted data about the international Arctic conferences in Canada, Finland, Norway, and Russia we see a common correlation between the numbers of participants and the venues of conferences. A larger conference will more likely be held in the central region, for instance:

- The International Arctic Forum “Arctic: Territory of Dialogue” with 3600 attendees.
- The Nordic Business Forum – 6500 participants.
- International Arctic Change conference with almost 1500 average attendance.

None of the 57 considered names of conferences in the Arctic regions have more than 500 attendees, except the Arctic Frontiers in Tromsø (average 1000 participants) and Arctic: Territory of Dialogue in 2013 in Salekhard (700 attendees).

Combining the summaries of each considered country we begin to see that the largest number of Arctic conferences within the Arctic regions are hosted in Finland, meanwhile, almost the same number of conferences were held in Canada and Russia, but in central regions (see Table 1 and graph 1). According to the data, during the last 10 years there were 124 international Arctic conferences that had been held in the Arctic regions and 152 in the central areas of the four countries. Despite active Finnish and Norwegian Arctic regional policies, the total difference in venues demonstrates Arctic regional dependence on central political agendas. From a logistical point of view, holding an international conference in the center is easier to organize, implement, accommodate, and entertain but the vicious circle of “fewer existing facilities – less opportunities” limits the Arctic regions with possible benefits as well as makes them more dependent on their non-Arctic counterparts.

The database shows that there is a motivation from attendees to participate in the international Arctic conferences even if held in some remote Arctic areas (for example Tromsø, Rovaniemi, Salekhard, Yellowknife and others). We think that there is no need to organize all the Arctic conferences only in the Arctic, for example, The Nordic Business Forum in Helsinki is more focused on business and leadership rather than in the Nordic and Arctic issues. However, we strongly believe that main Arctic events with policy/decision makers should be held inside the Arctic. The Arctic regions and its inhabitants (including Indigenous peoples) should be able to participate in the ongoing discussions, as well as representatives for the centers should be aware of local needs and be able to see with their own eyes the current local situation.

Among all the analyzed conferences the most popular focus of the international Arctic conferences was multidisciplinary. These conferences, with highly diverse programs, usually welcome a variety of participants: from young researchers to high-level authorities. Until the middle of the 2010s, one of the most popular themes of the international Arctic conferences was “Arctic natural resources and logistical issues”, comprising of exploration, engineering, industries, transportation etc.

Luckily, this tendency had been changed and for the last five years the main focus has transformed to discuss environmental issues, which covers climate change, Arctic nature, and sustainable development.

Table 1. Summary of all conferences by years

	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	Total
Conferences in the Arctic regions											
Russia	2	3	2	1	1	3	2	2	1	4	21
Canada	2	0	0	0	0	1	1	2	0	0	6
Finland	5	6	5	9	5	7	5	8	2	3	55
Norway	4	4	4	6	5	6	4	4	3	2	42
Total	13	13	11	16	11	17	12	16	6	9	
Conferences in the central regions											
Russia	2	5	4	5	6	8	6	5	4	8	53
Canada	6	8	7	9	7	5	7	5	1	1	56
Finland	2	5	4	2	3	4	4	5	0	0	29
Norway	1	3	1	1	0	1	3	3	0	1	14
Total	11	21	16	17	16	18	20	18	5	10	

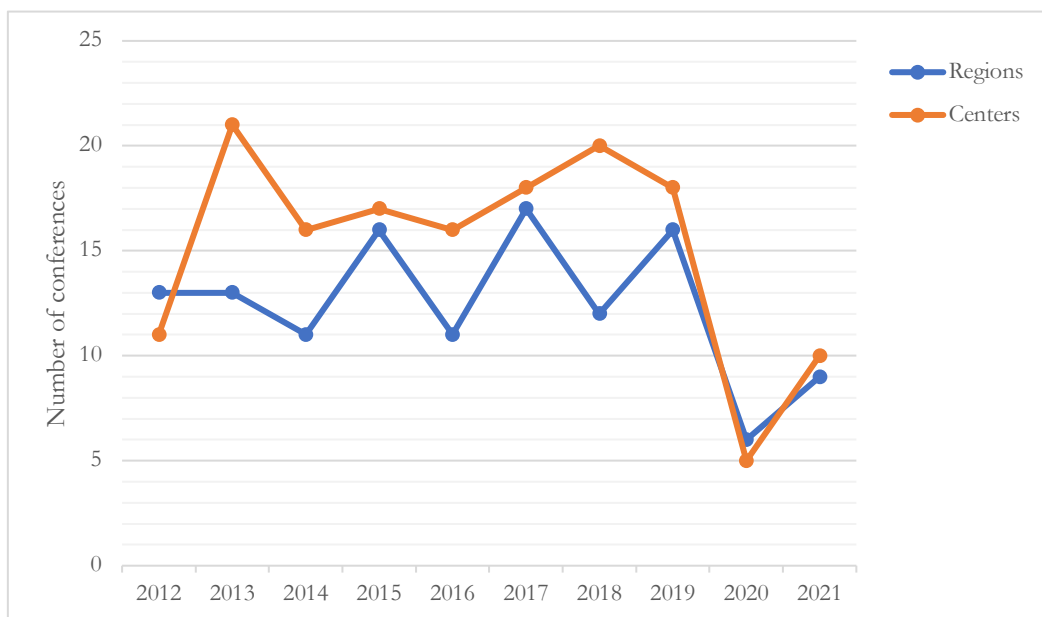


Figure 1. International Arctic conferences inside and outside of the Arctic regions

The statistical analysis of this paper demonstrates the differences in Arctic policies of the considered countries. The goal of this paper was not just to accumulate the number of conferences, but to see where Arctic conferences were actually held. The estimation of economic potential losses of Arctic regions was based on the assumption that if the number of conferences that took place outside, in the centers, would have taken place in the arctic-region itself, multiplied by the average number of participants that region could have hosted, this is then multiplied by a minimum of two days of a guests' visit and 100 euro, the minimum sum that they could spend in the region. Due to the lack of accessible data, we can assume that the full loss sum could be even higher. The total estimated sum = 6,833,200 euro of Arctic regional losses, where almost a third of the sum is attributed to the Russian Arctic, whereas Norway and Canada share a nearly equal amount – over 1.3 million euro, meanwhile Finland has a relatively minimal loss – around 1.2 million euro. These minimal estimated sums were earned through the discussion and participation of topics relating to Arctic issues but have stayed outside of the Arctic regions.

It is important to note that despite economic factors, there are other indirect outcomes for the Arctic regions if these international conferences were held there: for local people it turns into an opportunity to participate, meet colleagues, exchange their thoughts, discuss openly about their needs, and advertise awareness of ongoing international Arctic discussions. For participants, being inside the Arctic is always a benefit to be inclusive, especially for politicians/decision makers and youngsters who sometimes, due to a lack of experience or deep Arctic understanding, rarely visit the real Arctic and do not see all of the regional potentials and challenges from the inside. One of the best practices of such an inclusive platform is the Calotte Academy. This Academy is an early-career focus event which gathers young scholars together in order to exchange their experiences. For more than 30 years the Calotte Academy has hosted hundreds of participants who attend the seminars and visit different Arctic regions in Finland, Norway, Sweden, and Russia. Among the various and important goals of the seminar is the aim to function as a support for young researchers and instigate/maintain cross border cooperation. It is incredibly important to hold this Academy directly in the Arctic regions and not in the capitals of these countries. Staying in the local hotels or guest houses, having meals in local cafeterias and restaurants, visiting different institutions, organizations, and companies, talking with locals, and seeing the Arctic-reality are extremely important aspects for the future of Arctic regional development. Although the Calotte Academy is not considered a conference, it is one of the best examples when participants annually come to different Arctic regions, get to know the sites better, support local businesses and services, see everything with their own eyes and, most importantly come to understand in practice the real needs and challenges of the Arctic regions. Therefore, we strongly believe that holding more conferences in the Arctic regions will contribute to regional development: local business will become more active, companies from big cities will see the business opportunities in the regions, more people will be involved in the organization of the conferences, and more participants will be able to visit the site, and more likely, to adjust their projects and research.

From a scientific point of view, the analysis of international Arctic conferences is highly significant due to the importance for Arctic stakeholders to participate. Every attendee follows their interests in the conference: from meeting new people, to declaring internationally important political statements. However, we also see a scientific need to analyze the outcomes of these Arctic conferences, and in order to do this there is a high demand for accessible data and structural storage of this data. This approach would aid future scientists, as well as project and event managers, and

avoid the duplication or even multiplication of ideas, projects, or conferences with slightly different titles. Proper data organization procedures will increase the value of further conducted work and would fit in well with the Arctic conference's values of "implementation," "knowledge application" and continuation of joint communication.

Conclusion

Analysis of international Arctic conferences inside and out of the Canadian, Finnish, Norwegian and Russian Arctic regions indicated a difference in numbers, participants, focuses, investment, and potential impacts, as well as similarities in the main regional Arctic challenges. The idea that all the Arctic events in the world should be held in the Arctic is unrealistic and there is no need because this in turn would lead to Arctic exceptionalism, and there is a need to keep the Arctic diverse whilst maintaining interest and importance of Arctic-based research. However, the governmental centralization and active policy making towards the Arctic strengthens the ideas that the Arctic related issues decided outside of the Arctic region. Central governments of the Arctic countries, especially in Canada and Russia accumulate their Arctic institutions and organize big international Arctic conferences in their major cities. As a result, Arctic regions become even more remote, requiring more investment for infrastructural changes, and their dependence on the center increases. The European Arctic, in the example of Finland and Norway, has a slightly different picture. There are many Arctic institutions and universities in the countries' Arctic territories, which are actively engaged in their activities, including initiating various international Arctic conferences, and conducting active international cooperation.

Answering the question of this paper - whether the economic impact of Arctic conferences contribute to the Arctic regional development; our answer will be yes. Even a small amount of money, which is running out of the Arctic region is valuable for Arctic inhabitants and their current or potential local projects and initiatives. Small social enterprises and businesses, schools and youth projects, Indigenous initiatives, etc. all of these small puzzle pieces are parts of the big Arctic picture. The regions should be involved in the decision-making processes pertaining to the Arctic, or at the very least, be the venue for these important meetings. Delegates and conference participants should see the picture in person, talk to local people and try to understand their factual needs in order to achieve the common interests between visitors and Arctic regional inhabitants.

Notes

1. Taking this opportunity, we would like to thank the University of Lapland, the Arctic Center, the UArctic, the ARCUS, NARFU, the Northern Forum, the Calotte Academy teams, for saving and storing the data year by year, as well as for some honest replies on conferences' data requests that they do not have and did not save the information from the previous years.
2. Inflation rates were not taken into account.
3. "Third international forum Arctic - Territory of Dialogue to consider ecological security issues", 24 SEP. 2013, TASS. URL: <https://tass.com/world/701201>
4. Gorbacheva, E. (2019). "Jussi Huotari reflects on the Arctic: Territory of Dialogue forum". URL: <https://blogs.helsinki.fi/tynkkynen/2019/04/15/jussi-huotari-reflects-on-the-arctic-territory-of-dialogue-forum/>

5. Nilsen, T. (2019). "Russia Relocates Prestigious Arctic Conference Away from Arkhangelsk." URL: The Independent Barents Observer. <https://thebarentsobserver.com/en/arctic/2019/01/russia-relocates-prestigious-arctic-conference-away-arkhangelsk>
6. $X * Y * 2 * 100 = Z$, where X – 53 conferences outside of the Arctic region; Y – 270 average number of participants in Yamal conferences; Z – 2 862 000 euro – the minimum lack of possible regional income.
7. In order to continue the work of statistical analysis in future, there is additional section in the dataset with six Arctic conferences, that match the criteria, but were held in other Norwegian regions as southern Agder and eastern Trøndelag. These conferences were not considered in the potential economic loss formula.
8. Three additional international Arctic conferences were included to the final database but were not included to the statistical calculations.
9. Nordic Business Forum. Past Events. URL: <https://www.nbforum.com/past-events/>
10. "UARctic Congress 2018 Concludes in Finland", 07 Sep. 2018. URL: <https://www.uarctic.org/news/2018/9/uarctic-congress-2018-concludes-in-finland/>
11. Remarkably, one of the main Arctic institutions – UArctic favored and chose St. Petersburg and Helsinki as venues of its congresses, rather than Arctic regions.
12. 29 outside conferences * 214 average participants * 2 days * 100 euro = 1,241,200 euro

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Appendices

Appendix 1: Russia

REGION CENTER	2	3	4	5	6	7	8	9	10	11	12	Total	Average attendance	Focus	Attendees
International Arctic Forum "Arctic Territory of Dialogue"													700/3600	Diverse	administration, international organizations, representatives of scientific and business communities
International Forum "The Arctic Today and the Future"	St. Petersburg	St. Petersburg	St. Petersburg	St. Petersburg	St. Petersburg	St. Petersburg	St. Petersburg	St. Petersburg	St. Petersburg	St. Petersburg	St. Petersburg		1470	Diverse	administration, international organizations, representatives of scientific and business communities
International conference "The Arctic: Developments from the Perspective of the Humanities"					Moscow	Moscow	Moscow	Moscow	Moscow	Moscow	Moscow		370	Economic, science, innovation	authorities, scientists, local and international business
International Exhibition and Conference for oil & gas resource development of the Russian Arctic and continental shelf					St. Petersburg	St. Petersburg	St. Petersburg	St. Petersburg	St. Petersburg	St. Petersburg	St. Petersburg		580	Arctic natural resources	authorities, energy companies, specialists and young scientists
International Forum and Exhibition Yamal Arctic Oil and Gas	Sakhalin	Sakhalin	Sakhalin	Sakhalin	Sakhalin	Sakhalin	Noviy Urengoi	Noviy Urengoi	Noviy Urengoi	Noviy Urengoi	Noviy Urengoi		220	Arctic natural resources	rational and international oil & gas companies, business, agencies, specialists
International Conference "The Arctic: History and Modernity"					St. Petersburg	St. Petersburg	St. Petersburg	St. Petersburg	St. Petersburg	St. Petersburg	St. Petersburg		300	Arctic regional development	scientists
International Arctic Legal Forum "Protection and Sustainable Development of The Arctic: Legal Aspect"					St. Petersburg	St. Petersburg	St. Petersburg	St. Petersburg	St. Petersburg	St. Petersburg	St. Petersburg		300	Arctic legal issues	authorities, scientists, experts,
Arctic days in Sakal. Petersburg	St. Petersburg													Diverse	authorities, scientists, researchers, indigenous representatives
Arctic days in Moscow					Moscow	Moscow	Moscow	Moscow	Moscow	Moscow	Moscow		1500	Diverse	representatives of business, scientific and political industries
Arctic and Amuric days in Moscow													1500	Diverse	representatives of business, scientific and political industries
Open Arctic "International Scientific Conference"													2000	Ecology and diverse	scientists
International Conference on Renarfrost	Sakhalin												500	Renarfrost	scientists
International Forum on Conservation of Polar Bears														Polar bear	authorities, institutions, experts, scientists
"The Arctic Region of Cooperation and Development" international conference														Experience of Arctic international cooperation	authorities, academics, community and business structures recognized experts
International Science and Application Conference "POLAR GEOPHYSICS OF YAMAL: Observations, Instruments, Data bases and Information systems related to the Oil and Gas industry."													100	Arctic natural resources	scientists
The Northern Dimension: Synergism of logistics strategies														Logistics diversification in financial, service, innovation and other sectors	scientific and business communities' representatives
UArctic Congress 2016													450	Diverse	authorities, scientists, institutions
"International Cooperation in the Arctic: New Challenges and Vectors of Development"														Diverse	authorities, scientists, institutions
International Conference "Materials and Technologies for the Arctic"													150	Energy, technology, resources	rational & international representatives of oil & gas, shipping industries, scientists, academics
Geography of the arctic regions														Diverse	scientists
"Archeology of the Arctic" International Conference													60	Archaeological research	scientists
International Arctic medical forum													300	Healthcare in the Arctic	specialists and scientists
Conference on language contact in the circumpolar world														Circumpolar language contact	researchers
International Circumpolar Mass Media Congress "Arctic Media World"													200	Economics, cooperation, ecology	specialists
International conference "Yamal humanitarian readings"														Arctic historical and cultural heritage	scientists
Forum of young leaders of the Arctic Council Committee "ICE: Inspiration, Communication, Efforts"													100	Young leaders	entrepreneurs, activists, researchers, volunteers, activists and bloggers
Arctic Dialogue														Politics, cooperation, economics, ecology	young researchers, experts
26th International Conference on Port and Ocean Engineering under Arctic Conditions (POAC26)													200	Coastal and offshore engineering in ice-covered areas	scientists, technologists, and design and development engineers
International Interdisciplinary Scientific and Practical Conference "Man in the Arctic"													150	Diverse	science and business
REGION CENTER	2	3	4	5	6	7	8	9	10	11	12	Total	Total		Attendees
												21	270		967

Appendix 2: Canada

	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	Total	Average attendance	Focus	Attendees
ArcticNet's Annual Scientific Meeting	Vancouver	Halifax										500	Diverse	scientists, policy and decision makers, representatives of government and non-governmental organizations, the private sector, northern stakeholders and media
International Polar Year Conference	Montreal												Polar regions, global change, and related environmental, social and economic issues	researchers, policy- and decision-makers, industry, NGO, circumpolar communities, Indigenous peoples
Circumpolar Conference on Education for Indigenous People	Iqaluit											120	Arctic indigenous education	educators, researchers, indigenous leaders, education ministers and decision makers, scientists, students, policy makers and other professionals
Arctic Science Summit Week (ASSW)	Montreal												Diverse	experts, national ambassadors and indigenous leaders
Mark Gordon Arctic Security Conference	Toronto	Toronto										100	Security in the Arctic	business, political leaders and non-governmental organizations
World Arctic Forum		Toronto										200	Environmental, indigenous, security issues	arctic researchers, post-doctoral fellows, graduate students, northern community representatives, government and industry
International Arctic Change				Qinawa								1350	Environmental, social, economical and political challenges and opportunities	dan managers, Arctic and Antarctic scientists, students, Aboriginal and northern residents, leading agency representatives
Polar Data Forum II				Wexlerloo								109	Polar data management	leading experts and stakeholders
Arctic Shipping Summit				Montreal	Montreal								Arctic shipping operations, technology and ship design for ice-going vessels	researchers, managers, policy makers, tour operators, students
Quebec Forum of Arctic Circle				Montreal	Quebec								Social, economic and environmental development of the Arctic region	indigenous business leaders and entrepreneurs
5th International Conference in Arctic Fox Biology													Arctic foxes	indigenous governments and corporations, global financial institutions, government leaders, the private sector, stakeholders
Arctic Indigenous Investment Conference													Indigenous Development Corporations and Businesses	Industry professionals
Arctic360's Conference													Challenges and opportunities for investment, Arctic regional development	students, academics and industry researchers
Arctic Shipping Forum North America	Iqaluit											150	Technological developments for the Arctic region	scholars
Northern Research Basins Symposia													Hydrological research	
International Conference on Arctic Engineering and Application (ICAA)													Arctic engineering	
REGION	2	0	0	0	0	1	1	2	0	0	Total 6	Total 129		
Marine and Arctic Security Conference		St. John's	St. John's	St. John's	St. John's	St. John's	St. John's	St. John's					Environment and Security	industry, academic leaders, Northern Leaders, research and other key stakeholders.
AAOJ Technical Seminar	Vancouver	Halifax	Canmore	Vancouver	Halifax	Calgary	Halifax						Spills of oil and chemicals in the environment	Professionals
Arctic Oil & Gas Symposium	Calgary	Calgary	Calgary	Calgary	Calgary	Calgary	Calgary	Calgary					Northern Infrastructure and resource development	government and industry professionals
Indigenous Knowledge Resurgence, Implementation and Collaboration		Winnipeg											Indigenous issues	Specialists, stakeholders, authorities
Arctic Observing Summit (AOS)		Vancouver											Diverse	Specialists, authorities, institutions, partners
International Symposium on the Changing Arctic Cryosphere			Edmonton										Environmental	N/A
International Congress of Arctic Social Sciences (ICASS VIII)			Prince George										Arctic social science research	indigenous peoples, northern residents, decision-makers and politicians, academics
Northern Regions Mining Summit				Vancouver									Social, cultural and economic impact and opportunity of mineral resource development	local, state and national governments, industry and the support sector, as well as research organizations
Arctic Oil and Gas North America Conference							St. John's						Arctic Natural resources	industry players, community leaders and government officials
34th International Conference on Ocean, Offshore and Arctic Engineering (OMAE2015)							St. John's						Ocean, Offshore and Arctic Engineering	researchers, engineers, managers, technicians and students
ACUNS Student Conference							Calgary						Northern studies	Young researchers
Arctic Technology Conference							St. John's						Offshore resources	energy professionals
CENTER	6	8	7	9	7	5	7	5	1	1	Total 56	Total 420		

Appendix 3: Norway

Year	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	Average attendance	Focus	Attendees
Arctic Dialogue	Bodo	Bodo	Bodo	Bodo	Bodo	Bodo	Bodo	Bodo		Bodo	300	Sustainable development in the Arctic	major stakeholders
High North Dialogue Conference											300	Sustainable development in the Arctic	major stakeholders
Kirkenes Conference	Kirkenes	Kirkenes	Kirkenes	Kirkenes	Kirkenes	Kirkenes	Kirkenes	Kirkenes	Kirkenes	Kirkenes	1000	Diverse	politicians, NGOs, academics and organizations
Arctic Frontiers	Tromsø	Tromsø	Tromsø	Tromsø	Tromsø	Tromsø	Tromsø	Tromsø	Tromsø	Tromsø	300	Diverse	science, government and industry researchers, research managers and stakeholders
Staburd Science Conference						Oslo		Oslo		Oslo		Staburd research	researchers
Barents Rescue 2013 - Initial Planning Conference (IPC)	Tonsberg	Tonsberg								Bodo		N/A	N/A
Arctic Region Oil & Gas conference	Svananger	Narvik		Svananger								Oil, gas and hydrocarbons industry	industry professionals
International Narvik Conference on Arctic Ports												Ports, logistics, shipping, resources and trade flows	specialists
International Conference on Arctic Ocean Acidification	Bergen											Environment, fisheries and management of marine ecosystems	scientists, climate scientists, social scientists, policy- and decision-makers, stakeholders
Arctic Oil and Gas Conference		Oslo	Lillestrøm									Technology: innovations and operational excellence for safe, sustainable and economical development of Arctic resources	Arctic oil & gas experts
Nordic Forum for Security Policy 2014: THE Arctic and Barents region – Cooperation, Human Rights and Security Challenges			Tromsø									Human rights and security challenges in the Arctic and Barents regions	actors and institutions
Barents Region and Beyond - Internationalizing Higher Education				Bodo								International collaboration in education	scholars and young researchers
Barents Indigenous Peoples Congress & Conference 2015				Tromsø								N/A	N/A
Northern Conference				Molde				Oslo				Logistics	scholars
Arctic Indigenous Education Conference (AIEC)					Grovdalgrøvdalen							Arctic indigenous education	scientists
Sami School History Conference					Grovdalgrøvdalen							Arctic indigenous education	scientists
ESSAS - Ecosystem Studies of Subarctic and Arctic Seas						Tromsø					187	Dynamic nature of marine ecosystems	scientists, stakeholders
Understanding Peace in the Arctic						Tromsø						Arctic geopolitics and society	scientists
Arctic Art Summit						Harsad						Art and culture of northern Norway	artistic and cultural leaders
The 11th Polar Law Symposium							Tromsø,					Polar law and policy	established scholars and post-doctoral and doctoral researchers
7th International Conference on Radioactivity in the Arctic & other Vulnerable Environments						Oslo						Radioactivity within Arctic and other vulnerable ecosystems	scientists
Northern Future Forum						Oslo						Innovation and new technology, sharing economy	prime ministers, policy innovators, entrepreneurs and business leaders
Forum for Arctic Modeling & Observational Synthesis							Bergen					Arctic marine	sea ice modelers, theoreticians and observationalists
6th Northern Dimension Parliamentary Forum								Bodo				Transport, maritime security, sustainable tourism and health, environmental cooperation	indigenous peoples' representatives, regional inter-parliamentary organizations, governmental institutions and councils
International Science and Policy Conference on Implementation of the Ecosystem Approach to Management in the Arctic								Bergen				Scientific, policy and indigenous understandings and experience of the ecosystem	experts and practitioners
A changing Arctic									Tromsø			Arctic nature	scientists, stakeholders, indigenous representatives
REGION	4	4	4	6	5	6	4	4	3	2	Total 42	Total 495	Total 300
CENTER	1	3	1	1	0	1	3	3	0	1	14	450	194
Arctic NGO Forum	Arendal											Arctic environment	NGO and stakeholder
Arctic Biodiversity Congress			Tromsheim									Arctic biodiversity	academia, governments, industry, civil society and indigenous peoples
International Conference on Port and Ocean Engineering under Arctic Conditions (POAC)				Tromsheim								Coastal and offshore engineering	scientists, technologists, and design and development engineers
The International Conference on Arctic Margins (ICAM)				Tromsheim								Arctic geology	scientists
14th International Arctic Uniqueness Conference							Roros					Arctic uniqueness and their landscapes	scientists, specialists
36th International Conference on Ocean, Offshore and Arctic Engineering (OMAEO2017)						Tromsheim						International cooperation in ocean, offshore and arctic engineering	researchers, engineers, managers, technicians and students

Appendix 4: Finland

	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	Total	Average attendance	Focus	Attendees
International Conference "In the Spirit of the Rovaniemi Process"		Rovaniemi		Rovaniemi									Diverse	politicians, representatives of regions and municipalities, business leaders, people
Rovaniemi Arctic Spirit	Rovaniemi	Rovaniemi	Rovaniemi	Rovaniemi	Rovaniemi	Rovaniemi	Kemi	Rovaniemi	Rovaniemi	Rovaniemi		250	Diverse	business and investors
Arctic Business Forum	Heinola	Heinola	Heinola	Heinola	Heinola	Heinola	Heinola	Heinola	Heinola	Heinola		150	Business and investments	business representatives and international investors
Arctic Shipping Forum	Heinola	Heinola	Heinola	Heinola	Heinola	Heinola	Heinola	Heinola	Heinola	Heinola		6900	Arctic Shipping sector	people interested in business management, shipping
Nordic Business Forum	Jyväskylä	Jyväskylä	Heinola	Heinola	Heinola	Heinola	Heinola	Heinola	Heinola	Heinola			Business	people interested in business management, leadership
Arctic Design Week	Rovaniemi	Rovaniemi	Rovaniemi	Rovaniemi	Rovaniemi	Rovaniemi	Rovaniemi	Rovaniemi	Rovaniemi	Rovaniemi			Design and Art	design and art practitioners, academics, teachers and the business communities
Media Education Conference (MEO)	Philmari			Salla				Salla		Rovaniemi			Media and education	scientists
Northern Political Economy Symposium				Saana				Rovaniemi		Rovaniemi			Diverse	scholars, students and academics; government agencies, policy makers, grants and various stakeholders
AIFCS 5th Polar Law Symposium	Rovaniemi							Rovaniemi		Rovaniemi		75	Arctic and Arctic research	scholars, students and academics; government agencies, policy makers, grants and various stakeholders and scientists
Science Policy Initiative – Selected Impacts of Arctic Research	Rovaniemi												Diverse	scientists
NOF/ROMA	Namati	Tutku						Tutku					Logistics	scientists
11th Biennial Conference of the Nordic Association for China Studies		Epo											Diverse	scientists
2nd POLAC Conference		Epo											Coastal and offshore engineering in ice-covered waters	scientists, technologists, and design and development engineers
Presenting the sacred: Recognition of Sacred Sites of Indigenous Peoples for Sustaining Nature and Culture in Northern and Arctic Regions		Rovaniemi, Philmari											International and national law, policy and practice	scientists, sacred natural sites specialists, Indigenous Peoples Organization, policy makers, conservation and civil society leaders
International Conference on Port and Ocean Engineering under Arctic Conditions		Epo											Ice engineering issues	coastal engineers
Conference on Best Environmental Practices in the Mining Sector in the Barents Region		Rovaniemi											Environmental and social impacts of mining	ambassadors, researchers, industrial operators and representatives of NGOs
ASW 2014			Heinola									470	Diverse	prime ministers, policy innovators, entrepreneurs and business leaders
Northern Future Forum 2014			Heinola										Diverse	researchers, managers, educators, students and reindeer herders
NF Seminar "Reindeer herding and land use management – Nordic perspectives"			Rovaniemi									100	Reindeer herding and land use questions in the Nordic reindeer herding area	researchers, managers, educators, students and reindeer herders
Barents studies past, present and future			Rovaniemi										Mining, industry, education, trade and politics of knowledge	senior and younger scholars, various stakeholders
Barents Research – Initial Planning Conference (IPC)			Rovaniemi										N/A	N/A
Northern Research Barents Symposia			Rovaniemi										N/A	N/A
Arctic Conference				Kemi								150	Hydrological research	scientists
Nordic Week 2015													Arctic environment, technical oil recovery, the role of science in Arctic energy of oil and gas, monitoring and surveillance	experts
4th China-Nordic Arctic Cooperation Symposium				Rovaniemi									N/A	N/A
New Forms of Law and Governance for and from The Arctic Seminars				Rovaniemi									Nordic-Asian Arctic cooperation	researchers, industry representatives, policymakers and community leaders
10th Polar Law Symposium				Rovaniemi									Role of law and other institutions in governance of natural resources in the Arctic	scientists
2017 Arctic Energy Summit				Heinola								300	Diverse	scholars, professional and doctoral researchers, several hundred industry officials, scientists, academics, policy makers, energy professionals and Indigenous and community leaders
Symposium on Teacher Education of the Arctic Region: Diversity and Identity in the North				Rovaniemi									Education in the Arctic	educational researchers
Indigenuity in the Arctic: Local and Global Experiences				Heinola								500	Indigenous peoples	academics, local indigenous communities
Arctic Biodiversity Congress 2018				Rovaniemi								100	Arctic biodiversity	scientific, indigenous, policy, NGO, academia and industry audiences
Arctic Resilience Forum				Rovaniemi								600	Resilience-related work	policy-makers, and various key stakeholders
UArctic Congress 2018				Heinola				Heinola, Oulu					Environmental Protection, Connectivity, Meteorological Cooperation, and Education	researchers, stakeholders
Challenges in Arctic Social Work conference								Heinola					Environmental change, challenges for education	scientists
Arctic Area Summit				Rovaniemi				Rovaniemi				400	Art and cultural sector in the circumpolar Arctic	artists and representatives of art and cultural policy
10th Circumpolar Agriculture Conference				Rovaniemi				Rovaniemi				170	Local agriculture, food production and rural development	researchers, practitioners, managers, educators and students
Polar Data Forum III				Heinola				Heinola					Polar Data System	scholars, data analysis
Clean and Global North				Heinola				Heinola					Environmental issues	officials, experts and representatives of the private sector, civil society and academia
Nordic Conference on Legal Informatics 2019: Digital Rights, Digital Lawyers, Digital Courts				Rovaniemi				Rovaniemi					Digital Rights, Digital Lawyers, Digital Courts	scholars, stakeholders
Arctic Career Guard Seminar								Tutku					Maritime	researchers, experts, stakeholders
REGION	5	6	5	9	5	7	5	8	2	3	Total	Total		
CENTER	2	5	4	2	3	4	4	5	0	0	29	1400		
10th International Congress on Circumpolar Health: Focus on Future Health and Wellbeing - ICCOH				Oulu								350	Human health and well-being	scientists, researchers, health care professionals, policy analysts, government agency representatives and community leaders, Young researchers
International Symposium on Cold Region Development						Tampere		Oulu				200	Business, logistic, ecology	scholars
The 10th Nordic Environmental Social Science Conference													Cross-disciplinary environment	scholars