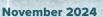
A MACDONALD-LAURIER INSTITUTE AND ONRAD ADENAUER STIFTUNG PUBLICATION

# EUROPEAN NORTH NATO'S new northern flank

Alexander Dalziel







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## Contents

Executive summary   <i>sommaire</i>	4
Introduction	7
Fennoscandia: the geography	9
Russia and the PRC as threats to the European Arctic	10
Nordic credibility and coherence in the Atlantic and Europe	20
Geoeconomics and geology in the European Arctic	27
The European Arctic: implications for Canada and its allies	31
Conclusion	33
About the author	35
References	36

The author would like to acknowledge his debt to conversations held in Ottawa, Helsinki, and Tallinn, as well with an array of interlocutors from Norway, Sweden, Germany, and the US. He dedicates the paper to the memory of Dr. William Copeland, teacher, mentor, and friend: this paper is indelibly marked by enriching conversations about Finland and geopolitics over three decades. Any errors of fact or judgment in the paper are solely the responsibility of the author.

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### Executive summary | sommaire

If a NATO-Russia confrontation is coming, it could very well start in the European Arctic.

Canada, as an Arctic neighbour and NATO ally, should act quickly to develop closer partnerships with the three countries that govern that slice of the Arctic: Norway, Finland, and Sweden. They are key allies in countering threats, and not just Russia's, to our collective security.

These Nordic countries are on the front lines and understand that Russia is a real threat to their future and to global security, including in the Arctic. They understand the implications of Russia's aggression in Ukraine and campaign of clandestine war in Europe as a fact that must be faced directly. Similarly, because of the People's Republic of China (PRC's) support for Russia in its war against Ukraine, and its espionage, coercive behaviours, and interference activities in Europe, the Nordic nations are wary of the PRC's increased Arctic presence.

Thankfully, Finland and Sweden both recently joined Norway in NATO. This makes the European Arctic more secure. Finland, Sweden, and Norway bring strong, coherent, and credible defence and security contributions to NATO and its "northern flank." The emergence of a Nordic geopolitical bloc, in part shaped by its portion of the Arctic, is of the utmost significance to Canada, a NATO ally and polar neighbour.

Norway, Sweden, and Finland are now aligned with each other and the US on defence. They are active in regional security initiatives in the North Atlantic, the North Sea and the Baltic Sea and they are rapidly ramping up defence spending. The US is taking note of this exemplary behaviour. Canada should look to these nations for a clear guide on how to succeed in investing in defence and meeting obligations to our allies.

Beyond defence, the European Arctic is also economically significant to the broader democratic world. Norway (not an EU member but a close trading partner), Sweden, and Finland are potentially decisive contributors to the EU's energy and high-tech sectors. The EU's efforts to shore up strategic supply chains will hinge on developing Norway, Sweden, and Finland's mining sector. The most significant deposits are often in the northernmost territories. These three countries may become natural resource players of disproportionate importance to the EU, North America and globally. There are several ways Canada should work with Norway, Sweden, and Finland for mutual benefit, through NATO and through closer economic co-operation. Together Canada and these three countries, in concert with other allies such as the US and Germany, have the potential to counter both China's efforts to dominate the mining of critical minerals and Russia's efforts to dominate its neighbours.

Savvy Canadian policy must recognize the value of comprehensive collaboration with the countries of the European Arctic and the other Nordic countries of Denmark and Iceland. Canada's recent proposal to pull together the democratic Arctic countries to talk about Arctic security is an excellent step forward but follow-through is a must.

For the sake of our national security, the defence of our territory and our values, Canadians must ensure that their government moves from talk to action; the time for strategic collaboration with Norway, Sweden, and Finland is now. **MLI** 

Si un affrontement entre l'OTAN et la Russie devait avoir lieu, il pourrait bien débuter dans l'Arctique européen.

En tant que voisin arctique et allié de l'OTAN, le Canada doit rapidement renforcer son partenariat avec les trois pays – Norvège, Finlande et Suède – qui gouvernent une partie de cette région. Ces pays sont des alliés clés pour contrer les menaces sur notre sécurité collective, et pas seulement celles émanant de la Russie.

Ces pays nordiques dits de « première ligne » sont conscients de la menace réelle que représente la Russie pour leur avenir et la sécurité internationale, y compris en Arctique. Ils comprennent que les conséquences de l'agression de la Russie en Ukraine et de sa guerre clandestine en Europe doivent être attaquées de front. De même, les pays nordiques sont méfiants face à l'influence croissante de la Chine en Arctique, car elle soutient la Russie dans sa guerre avec l'Ukraine et mène des activités d'espionnage, de coercition et d'ingérence en Europe.

Heureusement, la Finlande et la Suède ont récemment rejoint la Norvège au sein de l'OTAN, ce qui renforce la sécurité de l'Arctique européen. La Finlande, la Suède et la Norvège apportent à l'OTAN et sur son « flanc nord » une contribution solide, cohérente et crédible en matière de défense et de sécurité. L'émergence d'un bloc géopolitique nordique, façonné en partie par une part de l'Arctique, revêt une extrême importance pour le Canada, allié de l'OTAN et voisin polaire.

En matière de défense, la Norvège, la Suède et la Finlande se rapprochent des États-Unis. Elles participent activement aux opérations de sécurité régionale dans l'Atlantique Nord, la mer du Nord et la mer Baltique et relèvent rapidement leurs dépenses de défense. Les États-Unis ont pris note de leur engagement exemplaire, et le Canada devrait s'en inspirer pour parvenir à investir davantage dans sa défense et respecter ses engagements envers ses alliés. Mis à part la question de la défense, l'Arctique européen revêt également une importance économique pour le monde démocratique dans son ensemble. La Norvège (non-membre de l'UE mais partenaire commercial étroitement lié), la Suède et la Finlande pourraient jouer un rôle décisif pour le secteur énergétique et les activités hautement technologiques de l'UE. Les efforts de l'UE pour renforcer ses chaînes d'approvisionnement stratégiques resteront tributaires du développement minier de la Norvège, de la Suède et de la Finlande. Les gisements les plus importants se trouvent souvent dans les territoires les plus septentrionaux, faisant de ces trois pays des leaders potentiels dans le domaine des ressources naturelles pour l'UE, l'Amérique du Nord et le reste du monde.

Il y a plusieurs manières par lesquelles le Canada devrait collaborer avec la Norvège, la Suède et la Finlande dans l'intérêt collectif, grâce à l'OTAN et à une coopération économique intensifiée. Le Canada, ces trois pays, ainsi que des alliés comme les États-Unis et l'Allemagne, peuvent contrer les ambitions chinoises sur l'exploitation des minéraux critiques et les tentatives de la Russie à dominer ses voisins.

Toute politique canadienne avisée doit reconnaître la valeur d'une vaste collaboration avec les pays de l'Arctique européen et d'autres au nord, comme le Danemark et l'Islande. La récente proposition du Canada de réunir les pays démocratiques de l'Arctique pour discuter de la sécurité dans la région constitue un bon début, mais il reste encore du travail à faire.

Pour assurer leur sécurité nationale, la défense du territoire et le maintien de leurs valeurs, les Canadiens doivent veiller à ce que leur gouvernement passe de la parole aux actes : le moment est venu de collaborer stratégiquement avec la Norvège, la Suède et la Finlande. MLI

### Introduction

Uncertainty in the Arctic is growing. Russia's full invasion of Ukraine in February 2022 showed it is willing to attack a neighbour to achieve its authoritarian and imperialist goals. For the Arctic, that means Canada needs to work with close allies to ensure stability and deter Russian aggression. And it will need to bring them closer. Norway, Sweden, and Finland are at the top of the list of countries that Canada should look to for closer collaboration.

The European Arctic is one of the likeliest places where Russia might test NATO. There, Russia shares a long border with Finland and Norway, and Russia houses some of it deadliest weaponry nearby. As the countries of the European Arctic, Norway, Sweden, and Finland are attuned to the threat and have been stepping up their game. Sweden and Finland's biggest move was joining NATO – it will make Russia think twice before moving in on the European Arctic. But they also know the work to deter Russia's aggression can't stop just because they've joined NATO – and Canada should work with them towards that end.

Sweden, Norway, and Finland's story is not just about their own backyards. While they have a combined population of only just over 21 million people, they are becoming a disproportionately influential factor on the international stage (and in the arenas that count for Canada). They are fully committing to NATO, matching commitment with spending and initiative. They are increasingly uneasy with the People's Republic of China (PRC) and its interference and espionage. And its not just a matter of guns and spies. All three nations have the potential to become disproportionately important to economic security, not just for Europe, but for their allies, Canada and the US, on the other side of the Atlantic Ocean. That is because they have large deposits of critical minerals, the most valuable minerals for building digital hardware and renewable energy technologies. They can help North America, Europe, and the rest of the democratic world vie with the PRC and Russia in Eurasia and protect supply chains from foreign interference and coercion.

Throughout the paper, these countries will be referred to as the Fenno-Scandinavian countries, or as part of Fennoscandia. That is because "Nordic," which would otherwise be the natural term, includes two other countries, the Kingdom of Denmark (because of Greenland) and Iceland – also both Arctic countries. Because autonomous Greenland is geographically and culturally part of the North American Arctic, it will be discussed in a later paper. But Denmark and Iceland's status as Arctic players will occasionally be relevant to the paper. As a convenient shorthand, "Fennoscandia" captures the particular geography of this northern segment of the European continent, as well as the interacting cultures of its Scandinavian and Finnic peoples, which includes the indigenous Saami.

This paper will also use a geopolitical lens to understand the region's role in international security. It will look at the region as a geographically and politically connected "bloc" of countries capable of coordinated action using what resources they have available – human, natural, and institutional – to compete with other players, friendly and unfriendly. The core of the argument is that Norway, Sweden, and Finland are integrating it into a coherent and credible bloc and that they share Canada's interests and the interests of other important allies like the US and Germany. The paper will also talk of "geoeconomics," a concept that examines how countries can use their economies to become safer and more competitive in a world where authoritarian economic manipulation and coercion threaten our prosperity.

Fennoscandia is a place for Canadians to watch and one they should push their elected officials to have closer ties with. Canada can work with them to make the world a safer place and push back on the authoritarians who threaten our collective security. In that regard, they are tier-one allies and partners, ranking only below the US in importance for Canada.

Ultimately, Canadians should encourage their government to follow through on some recent productive ideas, like those put forward in Iqaluit this year by Canada's foreign minister, to find new ways to bring the democratic countries of the Arctic together (Global Affairs Canada 2024).

#### FIGURE 1: Map of Fennoscandia



Source: MLI

# Fennoscandia: the geography

A closer look at the geography of Fennoscandia will demonstrate the importance of the region. Fennoscandia includes the territory of Norway, Sweden, and Finland; it often includes the Kola Peninsula in Russia. Other terms that come up to describe the region are "North Calotte," consisting of the northernmost territory of Finland, Norway, and Sweden (see for instance Norwegian Government 2020); and "Cap of the North," which comes up in official Fennoscandinavian discussions about the European Arctic (for instance, see Bye 2024). The region is the homeland of the Indigenous Saami (alternate Sámi) people, known in the Saami language as the Sápmi, which extends across Norway, Sweden, and Finland into the Kola Peninsula (Nordic Centre for Spatial Development 2018).

That means the security of the Baltic Sea and the European Arctic intertwine. With the addition of Finland and Sweden, NATO countries now line the Baltic Sea. Finland, Sweden, and Denmark, from their Baltic coasts, face Russia's St. Petersburg and Kaliningrad regions. Canada too is present in the Baltic Sea region through its military presence in Latvia. Wedded to this maritime geography is Finland and Norway's collective border of 1,536 kilometres with Russia. Fennoscandia's proximity to Russia over land and water ensures that its influence is felt acutely. This makes the region a focal point for transatlantic security and defence concerns – that is, for Canada and the US. This paper will focus on the Arctic dimensions of the Fennoscandia-Russia relationship, but there is a feedback loop with the more densely populated Baltic region. The European Arctic is not isolated from the broader dynamics of European security.

# Russia and the PRC as threats to the European Arctic

Norway, Sweden, and Finland agree that Russia and the PRC are threats – and concur on many of the details of that threat with their European and North American allies, including Canada. The commonality is both in words and actions. The recent strategic policy adjustments in the European Arctic emerge from factors outside of the region. In the main, that is Russia's mounting of a full-scale invasion of Ukraine in February 2022. Similarly, the Fennoscandic perception of the PRC has dimmed, primarily because of its de facto support of Russia's war in Ukraine, its espionage activity, and its perceived unreliability as an international actor. These last points have particular bearing on how Oslo, Stockholm, and Helsinki see the PRC's articulated Arctic ambitions (Dalziel 2024).

In this section, the paper will first examine the Fenno-Scandinavian views of the Russian Federation as a threat, and then turn to the PRC. It will use the stated official positions of Norway, Sweden, and Finland, as presented in key national strategic documents. In each section, it will analyze how these assessments relate to their territories near and above the Arctic Circle. In their threat assessments – and despite their preference for a stable, peaceful region as representative democracies – they all see the European Arctic as a part of the contemporary geostrategic struggle with authoritarian Russia and the PRC.

#### The Russian challenge

While it now forms one of the potential theatres for conflict – and, somewhat novelly in the Arctic context, for a land conflict (rather than in the air or at sea) – such a conflict in the European Arctic is now less likely because of Finland's and Sweden's NATO memberships. The deterrence that the alliance brings has to date proven effective in curtailing Russian aggressive designs against its other member states. It is therefore now a strategic imperative to conceive of deterrence and response in this region. Along with the Black Sea, the Nordic-Baltic region poses one of the two most likely points where Russia might attempt to engage in hostilities with members of the NATO alliance. Most notable in this regard is that the northernmost regions of the Fenno-Scandinavian geography abut Russia's strategically crucial Kola Peninsula. We will now examine the situation in more detail.

Norway, Sweden, and Finland have a common assessment of Russia as a threat. They get the seriousness of that menace very clearly. Their postures began to shift with Russia's initial invasion of Ukraine in 2014, and its full invasion in February 2022 prompted them to come to the same conclusion: that Russia is a common and potentially existential threat. Some analysis of the relationship over the last decade will show the trajectory.

After 2014, Norway, Sweden, and Finland attempted to balance a stronger military posture and ongoing co-operation with Russia on Arctic matters. As late as 2020, Norway in its Arctic strategy proposed a suite of 16 activities in the polar region, of which 5 more or less directly addressed co-operation with Russia; Russian actions in Ukraine had rendered these obsolete by 2022 (Norwegian Government 2020). Similarly, Finland in its 2021 Arctic strategy expressed a determined commitment to co-operation and dialogue with Russia but noted at that time that Russia's behaviour elsewhere was deleterious to Arctic security (Finnish Government 2021). Sweden, for its part, observed in 2020 that the Arctic was now a "dividing line" between Russia and Western countries, but that Sweden would work to preserve peace and stability in the region (Government Offices of Sweden 2020). February 2022 destroyed the foundations for such approaches. But the Fenno-Scandinavian nations have not jettisoned co-operative mechanisms entirely, as witnessed in Norway's efforts as chair to keep the Arctic Council format intact, if at a low level of activity (Jonassen 2024a).

Now that Norway, Sweden and Finland treat Russia largely as a threat that needs to be deterred, at least two factors are relevant to the European Arctic. First, they see questions of Baltic and Arctic defence and security as intertwining, and the latter region as gaining increasing salience. This is not always obvious: Finland and Sweden do not conceptually distinguish the Arctic from the rest of their national territories in the same manner (in different ways) as do their other Arctic allies, like Canada, which often see the Arctic as a distinct part of their national defence and security. Second, they all see themselves as subject to Russian attempts to conduct "hybrid" warfare, and these considerations impinge on their Arctic territories. These still evolving assessments are leading to new initiatives to reinforce their mutual security.

#### Intertwined Baltic and Arctic regions

First, the intertwining of Nordic and Baltic regions reflects the Fenno-Scandinavian countries' vital defence and security interests and the strategic importance that Russia ascribes to its northwestern territory. From the Russian perspective, these emerge from preoccupations of territorial defence, regional and global power projection, and economic prosperity. The defensive position of St. Petersburg and the strategic role of the Kola Peninsula are the key geographic points. St. Petersburg is Russia's second-largest city; it and its immediate vicinity contain 6.4 million people. It is Russia's main access point to Europe and beyond via the Baltic Sea and the Atlantic Ocean. Perceptions of its insecurity in Russia have been heightened by Ukraine's ability to conduct long-range drone strikes.

Similarly, the Kola Peninsula is sensitive strategic geography for the Russian Federation, militarily and economically. Militarily, it protects the northwestern approach to Russia and offers unfettered access to the North Atlantic Ocean. It is an integral component to Russia's global power projection, where much of its strategic nuclear missile submarine fleet is based. It is the main base of Russia's Northern Fleet, the largest of its naval forces. Given the heightened importance of the strategic nuclear deterrence to Moscow at a moment of conventional weakness due to the concentration and degradation of its assets in Ukraine, Kola's strategic importance is currently elevated (Mikkola, Paukkunen, and Toveri 2023).

The Kola Peninsula is also integral to Russia's economic development goals. It is a gateway to Russia's burgeoning plans to develop the Northern Sea Route (NSR) eastwards to the Pacific Ocean and natural resources in its northern interior, along its coasts, and in the Arctic Ocean. The Murmansk region is the Arctic's largest population centre with approximately 677,000 inhabitants. Supply routes between Murmansk and St. Petersburg have long been important, materially and symbolically. New natural resource and energy projects are underway there (Dalziel 2024).

In a context of deterrence, it will be difficult to differentiate the Baltic and Arctic components of Norwegian, Swedish, and Finnish defence. Their strategic postures reflect that intertwining. When discussing a new national defence plan out to 2036 in April 2024, Norwegian defence minister Bjørn Arild Gram drew attention to his country's transformation as a player that strengthens security and defence across the Nordic and Baltic region (Norwegian Government 2024). Sweden articulates a neighbourhood concept based around regional responsibilities that meld the Baltic Sea, North Sea, and European Arctic (Swedish Defence Commission 2024), speaking of the need to be ready to respond to Russia anywhere in Swedish territory and to have the ability to send its forces to support its Norwegian, Finnish, and Baltic allies. The Finnish government provides a spare summation of the assessment: "the Baltic Sea and the Arctic region form a unified geostrategic area" (Finnish Government 2024).

Russia's ill-starred invasion of Ukraine has weakened the Russian military, but Norway, Sweden, and Finland take a long-term perspective. All three subscribe to a "rebound theory" about the Russian threat (for example, Finnish Government 2024). Although Russia's current threat is lower because of a military distracted by and badly weakened in Ukraine, they assess that, over the decade, Russia will rebuild its military. Russian and NATO exercises along a longer frontier will make the Finnish-Norwegian border and the Barents Sea strategic interfaces. More poignantly, recent statements from senior military officials in Norway and Sweden have expressed the concern of a gravely deteriorating situation with Russia in next five years (Kirby 2024; EER News 2024). Actions reflecting that assessment in relation to their Arctic regions include Sweden's decision to establish a Norrland infantry unit. And they have noticed Russia's strategic adjustments. Norway's NIS intelligence agency observes, for example, that one of the effects of Russia's war in Ukraine has been to move more of its strategic (i.e. nuclear capable) bomber aircraft to bases on the Kola Peninsula. Furthermore, Norwegian authorities assess that the Northern Fleet's maritime forces have not diminished because of the Ukraine war and remain the "greatest military threat to Norway" (Norwegian Intelligence Service 2024).

In short, they do not believe that Russia has ceased to be a threat because of its military's poor performance in Ukraine – they draw the basic lesson that Russia is willing to use violence to reassert its "great power" status. It is a clearheaded assessment of the endurance of the Putin regime's threat to European peace and security.

#### Northern hybrid warfare

They also share concerns about Russia's "hybrid" warfare campaigns. Russian leaders have spoken of "countermeasures" to respond to Finland's and Sweden's entries into NATO. Some have been in the conventional military domain, for instance the move on March 1, 2024, to reorganize the domestic military commands and place the Northern Fleet under a re-established Leningrad Military district, which extends from the Gulf of Finland through to the Barents Sea (Nilsen 2024a) (an evolution on the Russian side that reflects a similar perception of the Baltic and Arctic regions as intertwined). But Norway, Sweden, and Finland concur that such "countermeasures" are likely to include "active measures" (Russian parlance for subversion and sabotage), along with intensive intelligence gathering. Three of the affected areas are migration flows, maritime infrastructure, and covert espionage.

In Norway and Finland's case, Russia's manipulation of migrant flows is a priority and sensitive issue. In 2023, Finland faced repeated influxes of migrants orchestrated by authorities in Russia, consistent with the manipulation of migrant flows further south in Poland and Lithuania by Belarus (Lavikainen 2023). The Finnish government has described these as an instance of a "hybrid attack" (Finnish Government 2024), in what its Security and Intelligence Service's (often known by its Finnish language acronym, SuPo) director calls "weaponized migration" (Finnish Security and Intelligence Service 2024). While the most recent events exclusively targeted Finland, Norway has dealt with similar activities as recently as 2015 (Finland also faced weaponized migration at that time) (Spansvoll 2023). According to one researcher (Lavikainen 2023), the linkage between Russian organized criminal elements and state officials in 2023 was overt.

Protecting critical infrastructure from Russian operations is also a priority for the European Arctic countries. Incidents involving the destruction of the Nord Stream 2 natural gas pipeline in 2022, the severing of submarine fibreoptical cables off Norway in 2022, and damage to pipelines and cables between Finland, Sweden, and Estonia in 2023 have focused minds on the vulnerability of these infrastructures to hostile, deniable acts. Russian actors were suspects in all these events (Dalziel and Vanhanen 2023). Moreover, Russia is jamming GPS signals on a regular basis in northern Finland and Norway, although whether this is a direct attempt to disrupt civil aviation or a by-product of Russian use of electronic countermeasures to ward off drone attacks from Ukraine (Nilson 2024b) is still to be determined. Regardless, it presents a serious threat to the safety of Finns, Swedes, and Norwegians.

> Protecting critical infrastructure from Russian operations is a priority for the European Arctic countries.

In the case of Norway, the concern extends to the approximately 9,000 kilometres of pipeline infrastructure that connects its offshore oil and gas fields to the mainland and to Europe, which are vulnerable to "external influences," including via cyber tools and remotely operated vehicles, according to the Norwegian National Security Authority (NSM) (2024). Finland's security service assessed in 2024 that Russia posed an elevated threat to critical infrastructure (Finnish Security and Intelligence Service 2024b); Finland is reforming its critical infrastructure regulation, looking at port security and

digital and energy infrastructures among others (Finnish Ministry of the Interior 2024). Sweden's 2024 National Security Strategy identifies Russia as one of the main threats to conduct sabotage against critical infrastructure (Government Offices of Sweden 2024a).

The Finnish, Norwegian, and Swedish security services highlight Russian espionage as the primary and persistent threat to their countries, targeting political, military, and technological information. They have ejected large numbers of diplomatic personnel for suspected espionage activities in 2022 and 2023; an individual without diplomatic immunity arrested in Norway in 2022 admitted to being a Russian spy (Olsen 2024). Swedish intelligence notes that Russia is increasingly turning to proxies to conduct espionage (Finnish Security and Intelligence 2023; Swedish Security Service 2024; Norwegian Security Police 2023).

Furthermore, these assessments are bleeding into law enforcement co-operation. For example, Sweden and Finland are developing flexible legal regimes to enable regional, cross-border policing – crucial to combatting hybrid warfare activities. Finnish police now have the freedom in extreme cases – where there is a threat to life – to enter northern Sweden without requesting permission from their Swedish counterparts. Given the suspected role of organized crime elements in migrant smuggling and sabotage in the region and in Europe more broadly and the breaches of national law they entail, such enhancements improve responsiveness and enforcement (Giles 2024). Conceived as a way to tackle organized crime more effectively (Jonassen 2024b), this new legislation reinforces the trend that in the European Arctic the public safety and national security interests of the three polities intersect – and that they have the high degrees of mutual trust required to find joint solutions to strengthen their abilities to respond.

#### **Deteriorating Fenno-Scandinavian perspectives on the PRC**

Aligning with their closest North American and European allies, the Fenno-Scandinavian countries have a deteriorating view of the PRC. This is evident in the public documents published by their governments, militaries, security services, and intelligence agencies since 2020. They show a deep concern about how the PRC is supporting Russia's aggression in Ukraine, as well as about its espionage activities, the manipulation of information, and its malign influence on domestic political decision-making and economic security. These reconsiderations have led the Fenno-Scandinavian countries to adopt a more skeptical view of the PRC's ambitions in the Arctic.

#### Geopolitical costs of supporting Russia

First, China's support for Russia's war in Ukraine has seriously damaged its standing in Norway, Sweden, and Finland, by enabling in their view the country that they perceive as their only real military threat in a war of aggression. Finland's government under Prime Minister Petteri Orpo has identified the PRC's support of Russia as "consequential" for Nordic and European security (Government of Finland 2024). Their security and intelligence agencies depict a corrosive authoritarian dynamic. The Norwegian Intelligence Service saw both as involved in an international illiberal project aiming to "undercut" the influence of Europe and the US and split them apart (Norwegian Intelligence Service 2024). These agencies also see the co-operation as durable: according to the Swedish Security Service's counter-intelligence head, China and Russia will cooperate to meet their specific goals (Swedish Security Service 2024), while Finnish SuPo assessed that the PRC-Russia relationship is driven by "common goals" and increased interdependence (Finnish Security and Intelligence Service 2023).

#### Fennoscandia and PRC espionage

At a national level, PRC espionage and interference has put these countries ill at ease. Norway's security police (PST) identifies PRC political interference as a threat, with Chinese nationals and dissidents in Norway as the priority targets (2023). Sweden's Security Service assesses that PRC intelligence activities are a threat to the country's "independent decision-making" – a concern shared by the Finnish national security community – and attributes several operations against the government to PRC intelligence operatives (Swedish Security Service 2024; Finnish Security and Intelligence Service 2023). Norway, Sweden, and Finland all attribute cyber espionage activities to the PRC (Norwegian Security Police 2023; Swedish Security Service 2024; Finnish Security and Intelligence Service 2023).

PRC economic espionage, especially in the high-technology sector, is a leading national security concern. China's economy is its most important "instrument of power," according to Norway's NIS (2024). Norwegian PST describes China as aiming to steal new technology to aid the modernization of the People's Liberation Army (2023). Sweden's national security strategy (2024) speaks of protecting the country's economic security from "authoritarian states" and "intelligence-related threats," and its Security Service is more specific, identifying China alongside Russia as the top threats to steal Swedish technology; strikingly, it describes the PRC's threat to Sweden's economic security as being as great as Russia's threat to the country's territorial integrity (Swedish Security Service 2024). For its part, Finnish SuPo observes that the PRC's "superpower struggle" with the US has incentivized more espionage to seize "breakthrough technologies" (Finnish Security and Intelligence 2023).

These countries face heightened stakes because they have several geoeconomically valuable assets. In the telecommunications sector, Sweden and Finland house the headquarters of Ericsson and Nokia, respectively, two of the major rivals to China's Huawei. Growth in their mining sectors could strengthen the EU's and transatlantic community's capacity to contest the PRC's dominance of the mining and processing of critical minerals (see page 27, Geoeconomics and geology in the European Arctic). And they possess world-leading advanced defence industrial enterprises (see page 20, Credibility: political and hard power in the European Arctic).

We should not mistake the Fenno-Scandinavian nations' deteriorating views of the PRC for an exact alignment with the US position; they remain open to selective, cautious engagement. Norway, Sweden, and Finland are still pragmatic and will likely continue to speak of the need for "de-risked" economic relations, a formulation consistent with EU language, less radical than US talk of decoupling. Sweden's 2024 national security strategy encapsulates a position common to them: "... relations with China must be anchored in a European strategy with close transatlantic co-operation." The Finnish Government's *Report on Foreign Policy and Security* (2024) captures the approach: "China will remain an important trading partner... but we must be aware of the growing risks, prepare for them and prevent them." As we will see later in this paper, these positions are shaped by Finland and Sweden's membership in the EU, and Norway's extremely close ties to the EU common market. Bridging and potentially tolerating policy gaps will thus be a dynamic that will require ongoing negotiation by decision-makers on each side of the Atlantic.

#### Arctic implications

Norway, Sweden, and Finland all take an increasingly dim view of the PRC's presence in the Arctic. The variance in language between their respective pre-2022 Arctic strategies and subsequent policy documents highlight the shift. Finland flagged in 2021 that China's growing interest in the region could lead to quarrelling over interests among it, the US and Russia (Finnish Government 2021). While not rejecting the idea of China's interest presenting opportunities, Sweden raised in 2020 a suite of "challenges" emerging from China, citing its global ambitions, expanding naval reach, selective commitment to international law and military co-operation with Russia as matters to explore further (Government Offices of Sweden 2020). Norway's language was the most guarded, like the others noting China's importance to climate change negotiations, but otherwise calling for a "clear and consistent," "fact-based" handling of China (Norwegian Government 2020).

By 2024, a more pessimistic view had taken hold. In Norway, its intelligence and security agencies have not gone so far as to label the PRC a threat to the region. However, they contend the PRC is looking to gain "footholds" politically, economically, and militarily in the Arctic. They believe that PRC intelligence efforts will focus strongly on the Arctic, prioritizing its "long-term positioning in the High North" by strengthening its intelligence gathering and generating economic dependencies through land purchases and natural resource exploitation (Norwegian Intelligence Service 2024; Norwegian Security Police 2023). In reassessing Finland's Arctic policy in 2022, non-governmental analysts advising then Prime Minister Sanna Marin's office saw an opening for China to have access to and influence over the region due to Russia's need for political and economic support (Koivurova et al. 2022), while its security service described the PRC-US rivalry as having consequences for the Arctic (Finnish Security and Intelligence Service 2023a). The Swedish Security Service assessed (2024) that malign PRC interest in northern Sweden is likely to escalate because of the rising importance in the mining and outerspace sectors; its intelligence gathering and attempts to influence decisionmaking in the Swedish high north - and attempts to get Arctic-oriented high tech - were likely to grow accordingly.

As we have seen, the Arctic provides a focal point for Norwegian, Swedish, and Finnish decision-makers in their dealings with the threats and challenges presented by Russia and the PRC. Their positioning in those dealings is profoundly shaped by the two other main geopolitical blocs today: the US and the EU. The next two sections will turn to those. First, we will look at the three countries in the transatlantic context and how they are shoring up relationships in their region and Europe. Next, we will show how the natural resource wealth held by these countries ties into the EU's geoeconomic goals. These two dimensions are replete with implications for the European Arctic.

# Credibility and coherence in the Atlantic and Europe

By joining NATO, Finland and Sweden have transformed the entire Nordic region into a coherent geopolitical sub-bloc. For the first time in centuries, Denmark, Norway, Sweden, and Finland have a unified defence posture – the most significant formalized strategic shift that has occurred as a result of Russia's full-scale invasion of Ukraine in February 2022. Barriers to defence co-operation have been removed and the full presence of all the Nordic countries in the alliance will strengthen transatlantic links. The Nordic nations are among the most committed countries in Europe to having the US as a guarantor of and partner in their defence and security. The decisions by Finland and Sweden to join NATO are the most obvious examples. The next decade will see this defence posture, as well as political coordination, consolidate.

Alliances and partnerships are key factors in the European Arctic. Norway, Sweden, and Finland are now fully plugged into NATO. Simultaneously, they all benefit from the political and economic heft of the EU – Sweden, and Finland as member states, and Norway as an external partner that moves in lockstep on most foreign policy issues and is a close economic partner. Their ardent transatlanticism and official or de facto Europeanism place them firmly on one side of the geopolitical equation.

Their entry into NATO permits all the Nordic countries, including Denmark and Iceland, to have a stronger say in the alliance. Denmark, which will be discussed in the next paper in this series as part of the North American Arctic, shares an orientation towards the north because of Greenland and the Faroe Islands, and its defence and security policies parallel its northern Nordic neighbours in Ukraine, the Baltic Sea, and the North Atlantic. Combined with the strategic relevance of the Baltic States and the rise of Poland as one of the main European military powers, the combined power and influence of the Nordics further shift the centre of gravity – and balance of initiative – in NATO to Europe's northeast (Dailey, Skaluba, and Zarembaite 2023).

This section will examine how the Fenno-Scandinavian countries are building their transatlanticism at an alliance-level and then through the web of bilateral agreements they have signed with the US to keep it as a factor in their day-to-day deterrence. Next, the paper will explore some of the key initiatives that Norway, Sweden, and Finland are undertaking, sometimes in concert and sometimes independently, to knit themselves regionally and internationally into European and, more novelly, North American security. All these factors point to the emergence of a coherent and influential Nordic geopolitical sub-bloc.

#### Credibility: political and hard power in the European Arctic

Knitting the US into Fennoscandia's security depends on credibility. Norway, Sweden, and Finland bring both valuable defence assets and relevant industrial capabilities to the alliance. They already have, with some variances across countries, formidable modern arsenals. A few examples can be drawn from their air forces, navies, and armies. In the air, Norway currently operates 27 F-35 fighter aircraft, while Sweden has 94 JAS 39 Gripens and Finland a fleet of 61 F-18s. That capability will grow: Norway is slated to take delivery of 15 more F-35s, and Finland will eventually receive 64 of them to replace the F-18s starting in 2026. Sweden has 60 new Gripen Es on order (Royal Norwegian Air Force 2024; Felstead 2024; Finnish Air Force 2021; Finnish Air Force 2024). At sea, Norway and Sweden have invested in new submarine fleets: Norway will take receipt of six new vessels starting in 2029, while Sweden will have five operational by 2028 (Janes 2024; Ahlander 2023). On land, Finland has western Europe's largest arsenal of artillery (Kauranen 2023).

They have strong national commitments to increased defence spending. Their defence spending began to rise in 2014, after Russia's initial invasion of Ukraine. It has greatly accelerated since 2022. Most will be above NATO's baseline of 2 per cent of GDP spent on defence by 2024: Norway has accelerated defence spending plans to reach 2 per cent, raising spending by some 8 per cent from its 2023 level; Sweden aims to hit 2.2 per cent; Finland will be at 2.3 per cent. Moreover, the spending has a long-term base: Norway, for instance, has a defence plan that extends out to 2036; Sweden plans to sustain defence expenditures at 2.6 from 2028 onwards; Finland's current estimates indicate it will allocate 2 per cent of GDP to defence out to 2027 (Norwegian Government 2023 and 2024; Government Offices of Sweden 2024; Finnish Ministry of Defence 2024). These ambitious plans strengthen the Nordic voice in NATO and in the EU – and provide important material and rhetorical leverage to argue in Washington for the US's involvement in their security.

The Fenno-Scandinavian countries all have considerable defence industrial sectors, led by Norway's Kongsberg, Sweden's Saab, and Finland's Patria Group. Kongsberg is a leader in missile technology, including advanced surface-to-air and anti-ship systems; Saab is well known for its Gripen fighter aircraft, and is an advanced manufacturer of a variety of naval platforms, including submarines and high-speed surface vessels; Patria Group produces a range of products, including an array of armoured vehicles and artillery and mortar systems (Kongsberg 2024a and 2024b; Saab 2024; Patria Group 2024). Cold weather expertise is another industrial strength; for instance, they have capabilities in icebreaker construction at Finland's Helsinki Shipyards and at Norway's Vard and at Aker Arctic in icebreaker design (Helsinki Shipyards 2024; Vard 2024; Aker Arctic 2024).

Finally, their co-operation is likely to be even more effective because it has deep political roots. They have a legacy of coordinated interaction expressed in institutions like the Nordic Council, created in 1952, and the Nordic Council of Ministers, created in 1971. Political co-operation emerges from similarities of language (in the cases of Denmark, Iceland, Norway, and Sweden; in Finland, Swedish is also an official language), culture, political structure, and history. Its ambit is growing, with Estonia now regularly named as a member of the Nordic community. In addition, the "NB8" of the five Nordic countries and the Baltic states of Estonia, Latvia, and Lithuania is a mature political format that further deepens regional cohesion and coordination. Moreover, as highly democratic countries with high rankings in transparency, media freedom, and human rights observance, they will continue to have exemplary reputations in much of the world.

#### **Fenno-Scandinavian coherence**

As the Nordic-Baltic Cooperation (NB8) grouping suggests, these three countries also bring an active and coherent regional approach via other formats that again gives them disproportionate strength as geopolitical actors. NATO provides an overarching framework for unprecedented opportunities for defence co-operation in Fennoscandia and with their allied neighbours – opportunities that they are seizing. NATO membership grafts on top of a burgeoning regional defence co-operation and efforts to interweave the region's security in mini-lateral transatlantic co-operation. That starts at the Nordic level, and then extends to the Baltic Sea, North Sea, and North Atlantic. Again, the Arctic is an agenda item in many of these formats. Moreover, the trend lines indicate more coordination and interoperability, and not just in the realm of defence. Some of this directly relates to their far norths, and more broadly integrates them into regional readiness.

The membership of Finland and Sweden better positions NATO to respond in the Baltic States of Estonia, Latvia, and Lithuania, where the enhanced Forward Presence (eFP) Battle Groups are present to deter Russian aggression. That has knock-on benefits for Arctic co-operation. Canada leads the Battle Group in Latvia, and the US the one in Poland, and thus it will incidentally bolster relationships with North American Arctic countries. For example, Sweden is contributing to the Canada-led Battle Group in Latvia (Latvian Ministry of Defence 2024). These links will further integrate the European Arctic into transatlantic defence. In a NATO where the northern flank is a fully endorsed concept, its member states will see greater value in strengthening comprehensive security across the North America and European Arctics.

#### Transatlantic and regional webbing

The Fenno-Scandinavian countries will strengthen a web of relationships to exert influence in the NATO alliance over the next decade. Some of these will be dynamic bilateral and "mini-lateral" agreements. That transatlantic webbing grafts atop regional ties. It is to those that we will now turn.

They are not leaving their defence and security purely under the rubric of NATO. Importantly, they are doing what international relations theorists call "tethering," using bilateral tools to link the US more closely to them (Ripsman

and Kovac 2021). An operational example is Norway's agreement to host US and allied nuclear-powered submarines, signed in 2020. Defence Co-operation Agreements (DCA) with the US came into force in Sweden and Finland in 2024 (Yle News 2024; Sverige Riksdag 2024). Norway has had one with the US in force since 2022, and in 2024 ratified an update that added eight new areas to the agreement. The DCAs provide the legal foundations for US forces to use Norwegian, Finnish, and Swedish military bases, including the prepositioning of military hardware. In relation to the European Arctic, six of the 12 bases in Norway, five of the 15 in Finland and four of the 17 in Sweden are in the European Arctic (Edvardsen 2024; Finnish Ministry of Foreign Affairs 2024; Government Offices of Sweden 2024b), again drawing the region deeper into transatlantic defence structures.

Coherence is also strengthened by legacies of co-operation combined with NATO membership. A multidimensional Finnish-Swedish defence co-operation had been evolving for much of the post-Cold War period. They doubled down on this after Russia's initial invasion of Ukraine in 2014. Now trilateral relations with Norway can be coherently integrated, reflected for instance in improving Finnish-Norwegian defence co-operation (Creutz et al. 2023).

At a regional level, the signature Nordic defence arrangement is NORDEFCO, the objectives of which are to coordinate regional policies and implement them at the national level. Its membership includes all five Nordic countries, and its areas of collaboration include capabilities, armaments, and training. Since 2022, it has grown in importance, and now reflects a body that can coherently advance collective Norwegian, Swedish, and Finnish interests in a NATO framework (Nordic Defence Cooperation 2023; Ålander et al. 2024). NORDEFCO also pays special attention to Estonia, Latvia, and Lithuania, as well as "improved co-operation with European partners" (Nordic Defence Cooperation 2018).

Other initiatives embed the Fenno-Scandinavian region in a broader northern European geography that stretches to the North Sea and Atlantic Ocean. One is the UK-led Joint Expeditionary Force (JEF), a ten-country grouping of Nordic and Baltic countries along with the Netherlands established in 2014 and centred around building readiness and interoperability. It conducts concrete exercises (for example, undertaking military operations to protect subsea critical infrastructure and to develop cold-weather war-fighting skills on land) in close conjunction with other NATO partners (Allied Air Command Public Affairs Office 2024; British Army 2023).

Formats such as NORDEFCO and JEF are likely to remain dynamic factors in Baltic and European Arctic security over the next decade, weaving the region more tightly together and with key allies. The issue at hand for Canada and other European allies like Germany is where they can lead, partner, or join these or new initiatives. The next section shows that the appetite for such dynamism is already spurring such initiatives.

#### Flexing mini-lats

Norway, Sweden and Finland are pioneering new mini-lateral formats that bring together allies on both sides of the Atlantic Ocean. Invigorated Norwegian and Danish co-operation is taking shape, as captured in a 2024 Letter of Intent to strengthen surveillance and maritime co-operation in North Atlantic and Arctic waters, as well as to improve their air defences and look at developing joint capabilities (Danish Ministry of Defence 2024).

Other mini-lateral initiatives are extra-regional in scope and add to the transatlantic webbing strategy, notably by bringing Canada into the equation. The flagship examples are Finland's Icebreaker Collaboration Effort (ICE) Pact signed in July 2024 with Canada and the US that aims to strengthen industrial capacity in icebreaker shipbuilding, drawing on established Finnish expertise to advance projects such as the US Coast Guard's Polar Security Cutters and Canadian Coast Guard's two new Polar Icebreakers (Government of Canada 2024; White House 2024; Prime Minister of Canada 2024; President of the Republic of Finland 2024); and Norway's Letter of Intent with Canada and Germany, which aims to collaborate to strengthen maritime security in the North Atlantic and Arctic (Brewster 2024; Department of National Defence 2024). Both agreements also have a reverse directionality, bringing European security solutions to North America. And both have the Arctic as a primary focus.

These strategic innovations help to shore up the regional defence picture, improve political coordination in managing the transatlantic relationship, and further anchor the European Arctic's defence and security in larger institutional architectures. Most importantly, by pooling resources, they strengthen European resilience and display to the US their contributions to Atlantic and Arctic security, a point seized upon by Germany regarding the trilateral Letter of Intent with Canada and Norway (German Ministry of Defence 2024). The 2024 US Department of Defense Arctic strategy (2024) states that there are new opportunities for the US military to work in the European Arctic because of the consolidated defence picture, and the Fenno-Scandinavian countries are wisely optimizing themselves to accommodate those ambitions, in order to keep US deterrence present in their national security.

#### The transatlantic Arctic

Accentuating their Arctic status augments Fenno-Scandinavian coherence, an asset that draws in foreign partners to strengthen their overall security. All three integrate the Arctic into their grand strategies. Their November 2022 trilateral Statement of Intent captures the trajectory, expressing their intention of developing their operational co-operation "especially [in] the northern parts" of their countries (Ministry of Defence of Finland, Ministry of Defence of Norway, and Ministry of Defence of Sweden 2022). That, in turn, presents a coordinated offer of security and defence co-operation to allies. Norway expressed this succinctly in its 2020 Arctic strategy, where it noted Washington's interest in the region and Oslo's intention to facilitate it (Norwegian Government 2020). Judging by the US Department of Defense's 2024 Arctic Strategy, those efforts have found a receptive audience: the document contains multiple initiatives for US armed forces in the European Arctic to develop capabilities and establish better domain awareness. Furthermore, the ICE Pact and Germany-Norway-Canada Letter of Intent on maritime security also reflect that the "northern flank" concept is an effective manner to attract non-circumpolar countries to get involved in Nordic security.

To summarize, the Fenno-Scandinavian countries are working to make their northern reaches more relevant to and more deeply integrated in transatlantic structures, as a space that contributes to their overall national security and defence. But the Arctic as an asset is not exhausted by transatlantic strategy: these three countries have geological assets to put on the table. The next section will look at the geoeconomic potential of northern Norway, Sweden, and Finland, which could make them cornerstones of the EU's economic resilience and, in some cases, actors of international significance in the strategic sector of critical minerals.

# Geoeconomics and geology in the European Arctic

The next decade will likely see the European Arctic become more geoeconomically important. Geoeconomics is the sub-division of geopolitics that looks at competition between states via economic means. The region contains significant deposits of the critical minerals upon which digital manufacturing and renewable energy production depend. This makes the region vital for initiatives to "re-shore" supply chains that authoritarian countries currently dominate. In fact, Scandinavia's Arctic is crucial to the EU's efforts to diversify its sources of critical minerals, strengthen the security of its supply chains, and achieve a transition to net-zero emissions. It also makes Fennoscandia increasingly geoeconomically significant to the EU, the transatlantic community, and, in some sectors, the globe.

There are a few reasons to think that this will be the case. First, their geologies have diverse and sometimes world-class deposits of critical mineral groups; in some cases, they are the only deposits found in the EU. The mineral resources of Norway, Sweden, and Finland are spread across their geographies. Some concentrate in the Arctic; others are present in their central and southern regions. Regardless of where the resources are located within their territories, Fennoscandia has significant potential as sources of critical minerals. This potential can help diversify supply away from China and Russia.

Second, EU policy is aiming to reduce dependence on single or dominant suppliers, and that will provide investment to see these deposits turn into mines. And while high labour costs and debates over land use are factors in northern Europe, these three countries also have infrastructure advantages in terms of electricity, roads, and ports. We will look at these now in turn.

Cobalt, graphite, niobium, platinum group metals, scandium, silicon, titanium, and vanadium are all available in the European Arctic. The EU has declared them all to be "critical" (European Commission 2023 and 2024). The geoeconomic significance of these is laid out in Table 1 (see page 28), based on data gathered by Nordic Innovation (2021). The table depicts the size of the deposits and their relevance to the geoeconomics of the EU, particularly in relation to minerals in which the PRC and Russia dominate. In that regard, they may offer a supply-chain alternative to the countries most

#### TABLE 1: Arctic deposits of critical minerals in the European Arctic

Critical mineral	Deposits	Geoeconomic relevance*
Cobalt	<ul> <li>Two active mines in Finland, including one in the Arctic</li> <li>All three have large upside potential, especially Finland and Sweden</li> </ul>	<ul><li>PRC's refinement of 63 per cent</li><li>100 per cent of European mining</li></ul>
Graphite	<ul> <li>Norway and Sweden have combined known deposits of 28,485,766 metric tonnes, mostly in the Arctic, a globally significant amount</li> </ul>	<ul> <li>60 per cent of global production in the PRC</li> <li>Norway and Sweden constitute about 90 per cent of EU mine production</li> </ul>
Niobium	<ul> <li>A large unexploited deposit in northern Finland, near the Russian border</li> </ul>	<ul><li>Brazil mines 91 per cent of global supply</li><li>99 per cent of European deposits</li></ul>
Platinum and palladium	<ul> <li>Finland holds high-quality deposits, concentrated in the country's north</li> </ul>	<ul> <li>Russia mines 41 per cent of global palladium production and South Africa 69 per cent of platinum</li> <li>99 per cent of EU deposits</li> </ul>
Scandium	<ul> <li>Mining of Norway's known deposits, estimated at the low end at about 50,000 metric tonnes, would make it a global power in this mineral</li> </ul>	<ul> <li>China and Russia hold upwards of 90 per cent of current global production</li> </ul>
Silicon	<ul> <li>Norway already holds 6 per cent of the global market</li> <li>It and Sweden have several other, in one case very large, deposits</li> </ul>	The PRC produces 66 per cent of global silicon
Titanium	<ul> <li>Norway is a leading miner</li> <li>Medium to large deposits in the norths of all three countries</li> </ul>	<ul> <li>Production concentrates in China and Russia (67 per cent)</li> <li>90 per cent of EU resources</li> </ul>
Vanadium	<ul> <li>Norway, Sweden, Finland hold almost 10 per cent of the world's known vanadium deposits, many in the European Arctic</li> </ul>	<ul> <li>83 per cent of global mining is in the PRC and Russia</li> </ul>

\* Statistics are for 2020. Source: Nordic Innovation 2021 likely to employ economic coercion as a tool of statecraft against the EU and North America.

Rare earth elements (REEs), which are crucial to computing hardware and have numerous applications in the energy sector, have not been included in this chart, because the most significant deposits in Norway, Sweden and Finland are further south. Overall, the three countries are currently estimated to possess some 9 per cent of global REE deposits, some of these very large. They are not yet exploited. For example, Norway's Fen field near Oslo is one of Europe's biggest deposits of REEs. There are potential areas for REE exploration in Sweden's Arctic and advanced exploration is underway in Finland north of the Arctic Circle at Sokli (Nordic Innovation 2021; Masterman, Watson, and Whitney 2023; Mining.com 2023). The purpose of this paper is to assess the European Arctic, but the nationwide features of their geology reinforce the point that these countries are likely to have disproportionate status in the EU and transatlantic community as reliable sources of the most important minerals in manufacturing and energy production and a growing sector developing the technologies, management techniques and general expertise to harness them. While other parts of Europe have potential for REEs, for example along the rim of the Adriatic Sea, Norway, Finland, and Sweden so far account for over twothirds of the EU's known deposits (Nordic Innovation 2021; Deady, Shaw, and Goodenough 2017; Goodenough et al. 2016). A Fenno-Scandinavian cluster in this sector is likely to take shape (REE Minerals 2023).

The main reason for this is that Norway, Finland, and Sweden are positioned to benefit from EU policy and incentives. The *European Critical Raw Materials Act* (CRMA), which came into force in March 2024, demands by 2030 that 10 per cent of mining and 40 per cent of refining be done within the EU; it places a ceiling of 65 per cent of any mineral coming into the EU from a single "third country." To reach these goals, it offers aid to secure financing, either through EU programs, national governments, or the private sector. Furthermore, the CRMA aims to support accelerated permitting (European Commission 2024).

These goals and that ceiling almost certainly will prompt investment, as Norway, Sweden and Finland have the most significant known deposits in Europe of many of the CRMA's "critical" and "strategic minerals," notably of REEs, cobalt, graphite, scandium, silicon, and vanadium. The largest EU member states are rallying investment. For instance, the French, German, and Italian governments have all set up raw materials funds (that as of May 2024 had a total of 2.5 billion Euros) to stimulate mining and processing in the EU (Pacheco 2024). The EU's energy needs and its quest for strategic stability will be a major factor in drawing Norway, Sweden, and Finland into the bloc's geoeconomics calculations.

Finally, infrastructure advantages will most likely make the European Arctic mining sector more attractive – even in the face of some countervailing factors. First, infrastructure such as roads, railways, and ports are well developed. They have significant hydroelectric power, particularly in Norway and Sweden (Milne 2024), and reliable nuclear-energy-backed grids, especially in Finland; these will prove valuable in showcasing potential projects as meeting net-zero greenhouse gas goals, in what are the energy-intensive processes of mining and refining these resources. In instances such as cobalt and silicon, refining already exists (Nordic Innovation 2021), although it would have to expand to become internationally significant. Finally, the relative proximity of labour sources and markets will aid their development (Nordic Innovation 2024).

There will be hurdles. To gain social licence, potential mining developments will need to reconcile several outstanding concerns, including traditional land-use activities like reindeer herding by Saami communities near what, in some cases, could be open-pit mines, and the minimization and management of waste from refining processes (Berglund 2023) – REEs are especially notorious for dirty refining processes. These, along with slow European government licencing, will likely reduce the pace and limit the scale of mining in Fennoscandia (Milne 2024).

To fully understand the European Arctic's geoeconomic competitiveness, we must also consider Norway's particular role in European energy security. Maritime hydrocarbon exploitation and deep-sea mining off Norway's coasts are part of the story. Norway is already a major oil and gas provider to the EU. For example, by September 2023 Norwegian natural gas was covering 48 per cent of Germany's imports, Europe's largest consumer, an increase of 250 per cent since 2020; overall, Norwegian natural gas accounted for 30 per cent of total EU and UK consumption in 2023 and was slated to grow in 2024 (Humpert 2023; Norsk Petroleum 2024; Tan 2024). These Norwegian exports have strengthened the EU's energy security and resilience as it weens itself off Russian natural gas. Natural gas extraction from the Barents Sea will last, according to current forecasts, into the 2040s, and Norway's government is vigorously promoting more exploration there (Meredith 2023; Wood Mackenzie 2023). Given their proximity to Russia, the security of these critical infrastructures, on land and at sea, will be a priority concern of Oslo, Berlin, and Brussels.

Norway, too, is among the world's most active proponents of seabed mining, with the Barents and Norwegian seas as the principal areas of interest (Fouche and Adomaitis 2023). Prospecting has indicated zinc, copper, cobalt and REE deposits (Norwegian Offshore Directorate 2024). The timelines for undersea mining projects to come into production likely exceed the time horizon of this paper (although licencing will commence as early as 2025), and if it is to be a viable sector, it will have to surmount multiple hurdles, not the least the damage it might entail to little-known ecosystems and the cost of extraction (Humpert 2024; Gkritsi 2024).

# The European Arctic: implications for Canada and its allies

This assessment shows the coherence, credibility, and economic relevance of the European Arctic to Canada and its allies. Norway, Finland, and Sweden's shared perspective on Russia, numerous alignments on the PRC, ambitious defence policy, extensive defence-political assets, and natural resource potential open a range of possibilities for creative engagement with and by their allies. The main implications for Canada and key allies like Germany will be in adjusting to this new reality in NATO, triangulating how this space fits into relations with the US and working in concert to develop its geoeconomic potential (Federal Government of Germany 2024).

First, Canada needs to internalize in its policy-making that a consolidated, well-organized Nordic voice advocating a "northern flank" perspective is a new and almost certainly durable influence in NATO – significantly increasing the entire Arctic's significance to the alliance (Koivurova et al. 2022). Moreover, Fennoscandia's postures will frequently align with those of Denmark, Poland, and the Baltic states of Estonia, Latvia, and Lithuania. As we will see in the

third and final instalment in this series on the North American Arctic, while they contrast sharply in climate and infrastructure, there are multiple fusion points when it comes to the defence of the territories and coastal waters of the European and North American Arctics. These developments will certainly put more pressure on Canada to increase its concrete contributions to Arctic security. Simply put, Norway, Finland, and Sweden will be essential to Canada if it is to fulfill its ambition to put the Arctic at the centre of its defence politics, as stated in the most recent defence policy (National Defence 2024).

Second, the European Arctic states will impact relations with the US and its future in transatlantic defence and security. Co-operation with them will be productive and arguably crucial for Canada and allies like Germany, France, and the United Kingdom in managing skepticism about NATO in the US. Among the most transatlantic of European partners, Norway, Sweden, and Finland will show a unified face in convincing the next US president of the value of their contributions to and investments in NATO. By piggybacking on that effort, Canada and Germany could amplify their commitment to rebalancing the burden-sharing in the alliance and maximize their own reputations as security contributors in Washington.

Norway, Finland, and Sweden will be essential to Canada if it is to fulfill its ambition to put the Arctic at the centre of its defence politics.

It would be a stance sure to reap other political benefits, including in economic, climate, and human rights policy.

There is an inverse to this point: a widening gap between Canadian and allied policy with their Fenno-Scandinavian allies will provide a sharp contrast on which NATO-skeptic constituencies will focus. If these much smaller countries pull a disproportionately large amount of weight in the alliance, through enhanced defence spending, regional initiatives, and co-operation with the US, critics of Canada and Germany, for example, will have more fodder to pose (legitimate) questions about why two of the biggest NATO members in terms of their populations and economies are not making contributions to the alliance – and international security and stability – proportionate to their sizes and resources. This is more than a matter of national pride – it is a matter of national necessity. The world cannot afford to have Canada and Germany on the sidelines.

Finally, Canada and its allies in Europe can benefit their own security and prosperity by helping the European Arctic's geological potential become productive reality. Canada and Germany will be important factors in supplying the requisite capital, skills, technology and industrial capacity to form sustainable value chains. Their natural resource, industrial and supply chain policies and strategies would gain a considerable boost in achieving these outcomes by a vision that includes the northernmost parts of Europe. To that end, Canada and Germany can dedicate new effort and creativity to ensuring transatlantic solidarity in economic security in energy and critical resources through collaboration with their partners Norway, Sweden, and Finland.

### Conclusion

Canada needs allies and Norway, Sweden, and Finland are among the best of them.

Working with them and the rest of the Nordic community is not just nice but necessary to do. The European Arctic and its governments are dynamic players in international security, disproportionate to the size of their populations and economies. Their territory is integral to European, North Atlantic, and Arctic security. The European Arctic is, along with the Baltic and Black seas, one of the places where a Russia-NATO conflict could break out. That outcome is not pre-determined, and by joining NATO, Finland and Sweden have made the region is less vulnerable.

But the work does not stop there to maintain peace and stability. Now Finland and Sweden can co-operate more with neighbours like Norway and allies like Canada and the US to deter Russia. Russia's existential threat will drive the policies of Norway, Sweden, and Finland towards ambition, commitment, and creativity in NATO and in transatlantic economic security, which will shape their part of the Arctic for the next decade and beyond.

Canadians will be safer and wealthier if we work closely with them. The current government's initiative, led by Foreign Minister Mélanie Joly, to bring together an "A7" of the democratic countries of the Arctic to discuss and coordinate security in the region is overdue and therefore welcome (Global Affairs Canada 2024). Follow-through is a must. Canada and the Fenno-Scandinavian countries can be a potent force to influence any US administration to remain involved in the collective security of the Arctic. Part of that security is Canada-Nordic co-operation to develop the economy of the north, working with indigenous communities and its citizens to build meaningfully together. This multidimensional co-operation must remain a priority for any Canadian government. ML

# About the author



Alexander Dalziel, a senior fellow at the Macdonald-Laurier Institute, has more than 20 years of experience in Canada's national security community. Previously, he held positions with the Privy Council Office, Canada School of Public Service, Department of National Defence, and Canada Border Services Agency. During that time, he worked across

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# References

Ahlander, Johan. "What Sweden's submarines bring to NATO." Reuters. July 3, 2023. Available at: https://www.reuters.com/world/what-swedens-submarines-bring-nato-2023-07-03/.

Aker Arctic. 2024. "Company: About Aker Arctic." Accessed August 8, 2024. Available at: https://akerarctic.fi/en/company/.

Ålander, Minna, Joel Linnainmäki, Antti Pihlajamaa, and Iro Särkkä. 2024. *Finland's Partnerships as a NATO Member: Prospects For Defence Cooperation In A Multilateral Framework*. Finnish Institute of International Affairs. Available at: https://www.fiia.fi/wp-content/uploads/2024/06/fiia\_report\_76\_ finland-s\_partnerships\_as\_a\_nato\_member.pdf.

Allied Air Command Public Affairs Office. 2024. "Joint Expeditionary Force Trains Protecting Critical Undersea Infrastructure." NATO.org, June 6, 2024, accessed July 25, 2024. Available at: https://ac.nato.int/archive/2024/JEF\_ nordic\_warden\_24.

Berglund, Nina. 2023. "Sparks fly over electrification plans." NewsInEnglish. no, August 9, 2023, accessed November 6, 2023. Available at: https://www. newsinenglish.no/2023/08/09/sparks-fly-over-electrification-plans/.

Brewster, Murray. 2024. "Canada, Germany and Norway discussing a security pact to cover the North Atlantic and Arctic." CBC News. June 20, 2024. Available at: https://www.cbc.ca/news/politics/canada-germany-norway-nato-submarines-1.7240569.

British Army. 2023. "Exercise Joint Viking 2023." Accessed July 25, 2024. Available at: https://www.army.mod.uk/deployments/exercise-joint-viking/.

Bye, Hilde-Gunn. 2024. "Nordic Leaders With Joint Move on the Cap of the North Ahead of NATO Summit." *High North News*, June 26, 2024, accessed August 24, 2024. Available at: https://www.highnorthnews.com/en/nordic-leaders-joint-move-cap-north-ahead-nato-summit.

Creutz, Katja, Kristin Haugevik, Matti Pesu, and Øyvind Svendsen. 2023. "From partners to allies: Finland and Norway in a new era." NUPI Policy Brief, December 20, 2023. Available at: https://www.nupi.no/en/publications/ cristin-pub/from-partners-to-allies-finland-and-norway-in-a-new-era.

Dailey, Ann Marie, Christopher Skaluba, and Viltaute Zarembaite. 2023. "Navigating Sweden's NATO membership: Insights for political and operational adaptation." Atlantic Council Issue Brief, December 22, 2023. Available at: https://www.atlanticcouncil.org/in-depth-research-reports/issue-brief/ navigating-swedens-nato-membership-insights-for-political-and-operationaladaptation/#swedens-geography-and-defense-capabilities.

Dalziel, Alexander. 2024. *Eurasian North: The Geopolitics of Russia and China in the Arctic.* Macdonald-Laurier Institute and Konrad-Adenauer-Stiftung, June 2024. Available at: https://macdonaldlaurier.ca/eurasian-north-the-geopolitics-of-russia-and-china-in-the-arctic/.

Dalziel, Alexander, and Henri Vanhanen. 2023. "Undersea, Under Threat: Recent events in the Baltic highlight new threats to subsea critical infrastructure." *Inside Policy*, Macdonald-Laurier Institute, November 6, 2023. Available at: https://macdonaldlaurier.ca/undersea-under-threat/.

Danish Ministry of Defence. 2024. *Letter of Intent between Denmark and Norway on Enhanced Defence Cooperation*. Available at: https://www.fmn. dk/globalassets/fmn/dokumenter/-letter-of-intent-between-denmark-and-norway-.pdf.

Deady, Eimear, Richard Shaw, and Kathryn Goodenough. 2017. *Research and development for the Rare Earth Element supply chain in Europe*. Eurare. Available at: https://cordis.europa.eu/docs/results/309/309373/final1-eurarebrochure-vfinal.pdf.

Department of National Defence. 2024. "Defence Minister Blair concludes productive visit to Washington, D.C. for NATO Summit." July 12, 2024. Available at: https://www.canada.ca/en/department-national-defence/ news/2024/07/defence-minister-blair-concludes-productive-visit-towashington-dc-for-nato-summit.html. Edvardsen, Astri. 2024. "New Agreement Gives US Access to Four New Military Areas in the North." *High North News*. February 7, 2024, accessed July 26, 2024. Available at: https://www.highnorthnews.com/en/new-agreement-gives-us-access-four-new-military-areas-north.

EER News. 2024. "Norwegian army chief warns against Russia threat." January 22, 2024. Available at: https://news.err.ee/1609229460/norwegian-army-chief-warns-against-russia-threat.

European Commission. 2023. "Critical Raw Materials: ensuring secure and sustainable supply chains for EU's green and digital future." March 16, 2023, accessed August 25, 2024. Available at: https://ec.europa.eu/commission/presscorner/detail/en/ip\_23\_1661.

European Commission. 2024. "Questions and Answers on the Critical Raw Materials Act." Available at: https://ec.europa.eu/commission/presscorner/detail/en/QANDA\_24\_2749.

Federal Government of Germany. 2024. *Germany's Arctic Policy Guidelines*. September 18, 2024. Available at: https://www.auswaertiges-amt.de/blob/2676060/81478190b657d4f85a73e0feaf6ce00c/arktis-leitlinien-data.pdf.

Felstead, Peter. 2024. "Scandinavian ascendance: the modernisation of the Swedish Air Force." European Security and Defence. July 1, 2024. Available at: https://euro-sd.com/2024/07/major-news/39100/swaf-modernisation/.

Finnish Air Force. 2021. "The Lockheed Martin F-35A Lightning II is Finland's next multi-role fighter." December 10, 2021. Available at: https:// ilmavoimat.fi/-/lockheed-martin-f-35a-lightning-ii-on-suomen-seuraavamonitoimihavittaja?languageId=en\_US.

Finnish Air Force. 2024. "Boeing F/A-18 Hornet." Accessed August 24, 2024. Available at: https://puolustusvoimat.fi/en/equipment#/asset/view/id/201.

Finnish Security and Intelligence Service. 2023a. Yearbook. Available at: https://supo.fi/en/year-book.

Finnish Security and Intelligence Service. 2023b. "Intelligence and influence operations are targeting Finland." Available at: https://supo.fi/en/intelligence-and-influence-operations.

Finnish Security and Intelligence Service. 2024. "The threat of Russian intelligence and malign influence remains elevated in Finland." March 26, 2024. Available at: https://supo.fi/en/-/the-threat-of-russian-intelligence-and-malign-influence-remains-elevated-in-finland.

Finnish Government. 2021. *Finland's Strategy for Arctic Policy*. Prime Minister's Office. Accessed March 7, 2024. Available at: https://julkaisut.valtioneuvosto. fi/handle/10024/163247.

Finnish Government. 2024. *Government report on Finnish foreign and security policy*. Available at: https://julkaisut.valtioneuvosto.fi/handle/10024/165723.

Finnish Ministry of Defence. 2024. *Composition of the defence budget*. Accessed August 7, 2024. Available at: https://www.defmin.fi/en/ministry\_of\_defence/economy\_and\_activities/defence\_budget#75746f87.

Finnish Ministry of the Interior. 2024. "Government to improve protection of infrastructure critical to functioning of society." January 19, 2024. Available at: https://valtioneuvosto.fi/en/-//1410869/government-to-improve-protection-of-infrastructure-critical-to-functioning-of-society.

Finnish Ministry of Foreign Affairs. 2023. *Defence Cooperation Agreement with the United States (DCA)*. December 18, 2023. Available at: https://um.fi/documents/35732/0/DCA%20Finland%20Prime%20English\_signed%20 (2).pdf

Fouche, Gwladys, and Nerijus Adomaitis. 2023. "Norway moves to open its waters to deep-sea mining." Reuters. June 20, 2023, accessed November 6, 2023. Available at: https://www.reuters.com/sustainability/climate-energy/norway-moves-open-its-waters-deep-sea-mining-2023-06-20/.

German Ministry of Defence. 2024. "North Atlantic Treaty Organization-Gipfel 2024: Kooperationen zur Stärkung der Allianz und der Ukraine." July 7, 2024, Accessed August 25, 2024. Available at: https://www.bmvg.de/de/aktuelles/intensivere-kooperationen-mit-nato-partnern-vereinbart-5814780.

Giles, Keir. 2024. "Russian disruption in Europe points to patterns of future aggression." Chatham House, May 1, 2024. Available at: https://www.chathamhouse.org/2024/05/russian-disruption-europe-points-patterns-future-aggression.

Gkritsi, Eliza. 2024. "Norway's Deep-Sea Mining Decision Is a Warning." wired. com January 12, 2024, accessed July 19, 2024. Available at: https://www.wired. com/story/norway-deep-sea-mining-arctic-svalbard-batteries-environment/.

Global Affairs Canada. 2024. "Joint statement following the Strategic Dialogue between Canada, Kingdom of Denmark, Finland, Iceland, Norway and Sweden." September 29, 2024. Available at: https://www.canada.ca/en/global-affairs/ news/2024/09/joint-statement-following-the-strategic-dialogue-betweencanada-kingdom-of-denmark-finland-iceland-norway-and-sweden.html.

Goodenough, Kathryn et al. 2016. "Europe's rare earth element resource potential: An overview of REE metallogenetic provinces and their geodynamic setting." *Ore Geology Reviews*. Available at https://www.sciencedirect.com/science/article/pii/S0169136815300755.

Government of Canada. 2024. "Polar Icebreakers." Accessed July 26, 2024. Available at: https://www.canada.ca/en/public-services-procurement/services/ acquisitions/defence-marine/national-shipbuilding-strategy/projects/largevessels/polar-icebreakers.html.

Government Offices of Sweden. 2020. *Sweden's Strategy for the Arctic Region 2020*. Accessed March 7, 2024. Available at: https://www.government.se/contentassets/85de9103bbbe4373b55eddd7f71608da/swedens-strategy-for-the-arctic-region-2020.pdf.

Government Offices of Sweden. 2023. *Defence Cooperation Agreement with the United States*. December 6, 2023. Available at: https://www.government.se/government-policy/military-defence/defence-cooperation-agreement-with-the-united-states/.

Government Offices of Sweden. 2024a. *National Security Strategy*. Available at: https://government.se/globalassets/government/national-security-strategy. pdf.

Government Offices of Sweden. 2024b. "Military Budget." Accessed August 7, 2024. Available at: https://www.government.se/government-policy/military-budget/.

Helsinki Shipyards. 2024. "Icebreaking Vessels." Accessed August 8, 2024. Available at: https://helsinkishipyard.fi/products/icebreaking-vessels/.

Humpert, Malte. 2023. "Norway Supplied Almost Half of German Natural Gas Imports During First Nine Months of 2023." *High North News*. October 3, 2023, accessed November 6, 2023. Available at: https://www.highnorthnews.com/en/norway-supplied-almost-half-german-natural-gas-imports-during-first-nine-months-2023.

Humpert, Malte. 2024. "Norway Takes Next Step to Mine Seabed Minerals to Dismay of Environmental Groups." *High North News*, June 28, 2024. Available at: https://www.highnorthnews.com/en/norway-takes-next-step-mineseabed-minerals-dismay-environmental-groups.

Janes. 2024. "Norwegian and German U212CD submarines to be based together in Norway." June 11, 2024. Available at: https://www.janes.com/osint-insights/defence-news/defence/norwegian-and-german-u212cd-submarines-to-be-based-together-in-norway.

Jonassen, Trine. 2024a. "Without Russia, the Arctic Council Will Not Survive." *High North News*. February 1. 2024, accessed August 21, 2024. Available at: https://www.highnorthnews.com/en/without-russia-arctic-council-will-not-survive.

Jonassen, Trine. 2024b. "Finnish Police Could Intervene in Northern Sweden." *High North News*. June 7, 2024, accessed August 21, 2024. Available at: https://www.highnorthnews.com/en/finnish-police-could-intervene-northern-sweden.

Kauranen, Anne. 2023. "What can Finland's armed forces and arsenal offer NATO?" Reuters. April 4, 2023. Available at: https://www.reuters.com/world/europe/what-can-finlands-armed-forces-arsenal-offer-nato-2023-04-04/.

Kirby, Paul. 2024. "Swedish alarm after defence chiefs' war warning." BBC News, January 10, 2024, accessed August 24, 2024. Available at: https://www.bbc.com/news/world-europe-67935464.

Koivurova, Timo, Markku Heikkilä, Johanna Ikävalko, Stefan Kirchner, Sanna Kopra, Harri Mikkola, Riina Pursiainen, Susanna Sepponen, Matleena Moisio, and Adam Stepien. 2022. *Arctic cooperation in a new situation: Analysis on the impacts of the Russian war of aggression*. Government of Finland Report 2022:3. Available at: https://julkaisut.valtioneuvosto.fi/bitstream/handle/10024/164521/VN\_Selvitys\_2022\_3.pdf.

Kongsberg. 2024a. "Kongsberg signs development contract for Supersonic Strike Missile (3SM)." Accessed August 8, 2024. Available at: https://www.kongsberg.com/kda/news/news-archive/2024/kongsberg-signs-development-contract-for-supersonic-strike-missile-3sm/.

Kongsberg 2024b. "Norway acquires new NASAMS air defence systems." Accessed August 8, 2024. Available at: https://www.kongsberg.com/kda/news/ news-archive/2024/norway-acquires-new-nasams-air-defence-systems2/.

Kovac, Igor, and Norrin Ripsman. 2021. "Material Sources of Grand Strategy." *The Oxford Handbook of Grand Strategy*. Edited by Thierry Balzacq and Ronald R. Krebs. Oxford University.

Latvian Ministry of Defence. 2024. "Sweden is ready to deploy a combat battalion in Latvia." January 9, 2024, accessed July 26, 2024. Available at: https://www.mod.gov.lv/en/news/sweden-ready-deploy-combat-battalion-latvia.

Lavikainen, Jyri. 2023. "Russia's Hybrid Operation at the Finnish Border: Using Migrants as a Tool of Influence." FIIA Comment 12, November 2023. Available at: https://www.fiia.fi/en/publication/russias-hybrid-operation-atthe-finnish-border.

Masterman, Steven, Brett Watson, and Erin Whitney. 2023. *Critical Minerals in the Arctic: Forging the Path Forward*. Wilson Center, July 2023. Available at: https://www.wilsoncenter.org/event/critical-minerals-arctic-forging-path-forward.

Meredith, Sam. 2023. "Norway faces backlash from campaigners for 'reckless' pursuit of Arctic oil and gas." May 22, 2023, accessed August 14, 2024. Available at https://www.cnbc.com/2023/05/22/norway-urges-energy-giants-to-ramp-up-search-for-arctic-oil-and-gas.html.

Milne, Richard. 2024. "Can Sweden deliver its much hyped green energy boom?" Financial Times, August 13, 2024. Available at: https://www.ft.com/content/c5031202-a458-4118-a02a-93870e32b065.

Mining.com. 2023. "Finland discovers rare earth minerals at the Sokli deposit." October 30, 2023, accessed November 6, 2023. Available at: https://www.mining.com/finland-discovers-rare-earth-minerals-at-the-sokli-deposit/.

Ministry of Defence of Finland, Ministry of Defence of Norway, and Ministry of Defence of Sweden. 2022. "Statement of Intent on Enhanced Operational Cooperation." November 22, 2022, accessed September 19, 2023. Available at https://www.government.se/contentassets/ b83319c0b1124396b8336c2608476db4/soi\_senofi\_22112022\_for\_ signature\_final.pdf.

Mikkola, Harri, Samu Paukkunen, and Pekka Toveri. 2023. *Russian Aggression and the European Arctic: Avoiding the Trap of Arctic Exceptionalism*. FIIA Briefing Paper 359. Available at: https://www.fiia.fi/wp-content/uploads/2023/04/bp359\_russian-aggression-and-the-european-arctic\_harri-mikkola-samupaukkunen-pekka-toveri.pdf.

Nilsen, Thomas. 2024a. "Putin's signs northwestern regions into Leningrad military district (sic)." *The Barents Observer*, February 26, 2024, accessed March 2, 2024. Available at: https://thebarentsobserver.com/en/security/2024/02/putins-signs-northwestern-regions-leningrad-military-district.

Nilsen, Thomas. 2024b. "Russian Jamming Now Messing with GPS Signals for Norwegian Aviation Practically Every Day." *The Barents Observer*, February 23, 2024, accessed March 5, 2024. Available at: https://thebarentsobserver.com/ en/security/2024/02/russian-jamming-now-messing-gps-signals-norwegianaviation-practically-every-day.

Nordic Centre for Spatial Developments. 2018. "Sámi and Sápmi – Addressing the issues of indigenous people and natural resources in the northernmost parts of Europe." Available at: https://www.nordregio.org/wp-content/uploads/2018/03/Sami\_ENG.pdf.

Nordic Defence Cooperation (NORDEFCO). 2023. "Home." Accessed October 29, 2023. Available at: https://www.nordefco.org/default.aspx.

Nordic Defence Cooperation. 2018. *Nordic Defence Cooperation Vision 2025*. November 13, 2018, accessed November 6, 2023. Available at: https://www.nordefco.org/files/nordefco-vision-2025-signed.pdf.

Nordic Innovation. 2021. *The Nordic supply potential of critical metals and minerals for a Green Energy Transition*, by Eilu, P., Bjerkgård, T., Franzson, H., Gautneb, H., Häkkinen, T., Jonsson, E., Keiding, J.K., Pokki, J., Raaness, A., Reginiussen, H., Róbertsdóttir, B.G., Rosa, D., Sadeghi, M., Sandstad, J.S., Stendal, H., Þórhallsson, E.R. & Törmänen T. Available at: https://www.nordicinnovation.org/2021/nordic-supply-potential-critical-metals-andminerals-green-energy-transition.

Nordic Innovation. 2024. "Critical Raw Materials Act: a key opportunity for the Nordics." July 4, 2024, accessed July 22, 2024. Available at: https://www.nordicinnovation.org/news/critical-raw-materials-act-key-opportunity-nordics.

Norsk Petroleum. 2024. "Exports of Oil and Gas." Norwegian Offshore Directorate, Minister of Energy. Available at: https://www.norskpetroleum. no/en/production-and-exports/exports-of-oil-and-gas/#natural-gas.

Norwegian Government. 2020. *Arctic Strategy*. Accessed August 2023. Available at: https://www.regjeringen.no/globalassets/departementene/ud/ vedlegg/nord/arctic\_strategy.pdf.

Norwegian Government. 2023. "A Strong Defence Budget for Demanding Times." October 6, 2023, accessed August 7, 2024. Available at: https://www. regjeringen.no/en/aktuelt/a-strong-defence-budget-for-demanding-times/ id2997543/.

Norwegian Government. 2024. "New Norwegian Long Term Plan on Defence: 'A historic plan." April 5, 2024. Available at: https://www.regjeringen.no/ en/aktuelt/new-norwegian-long-term-plan-on-defence-a-historic-plan/ id3032878/.

Norwegian Intelligence Service. 2024. *Fokus* 2024. Available at: https://www.etterretningstjenesten.no/publikasjoner/focus/Focus24\_contents.

Norwegian National Security Authority (NSM). 2024. *Risiko 2024: Nasjonal sikkerhet– et felles ansvar* (*Risk 2024: National Security - a Shared Responsibility*). Ministry of Justice and Public Security. Available (in Norwegian) at: https://nsm.no/getfile.php/1313477-1719434219/NSM/Filer/Dokumenter/Rapporter/Risiko 2024.pdf.

Norwegian Offshore Directorate. 2024. *Seabed Minerals*. Accessed July 19, 2024. Available at: https://www.sodir.no/en/facts/seabed-minerals/.

Norwegian Police Security Service (PST). 2023. *National Threat Assessment 2023*. Available at: https://www.pst.no/globalassets/2023/ntv/ntv\_2023\_eng\_web.pdf.

Olsen, Jan. 2024. "Norway likely won't proceed with spying trial for a Russian citizen who was a part of Russia-US swap." AP, August 9, 2024. Accessed September 20, 2024. Available at: https://apnews.com/article/norway-russia-spy-swap-prosecution-057531663801af6cd299f49332fa7384.

Pacheco, Maria. 2024. "France, Germany, Italy seek private input for €2.5bn critical mineral investment." Euronews. May 17, 2024, accessed July 22, 2024. Available at: https://www.euronews.com/green/2024/05/17/france-germany-italy-seek-private-input-for-25bn-critical-mineral-investment.

Patria Group. 2024. "Protected mobility and defence systems." Accessed August 8, 2024. Available at: https://www.patriagroup.com/products-and-services/protected-mobility-and-defence-systems.

Pesu, Matti. 2023. *NATO in the North: The Emerging Division of Labour in Northern European Security*. Finnish Institute of International Affairs Briefing Paper 370, September 2023. Available at: https://www.fiia.fi/wp-content/uploads/2023/09/bp370\_nato-in-the-north.pdf.

President of the Republic of Finland. 2024. "Finland, the United States and Canada to intensify their icebreaker collaboration." July 11, 2024. Available at: https://www.presidentti.fi/en/finland-the-united-states-and-canada-tointensify-their-icebreaker-collaboration/.

Prime Minister of Canada. 2024. *Canada, Finland, and the United States joint statement on ICE Pact.* July 11, 2024. https://www.pm.gc.ca/en/news/statements/2024/07/11/canada-finland-and-united-states-joint-statement-ice-pac.

REE Minerals. 2023. "Franzefoss Minerals and REE Minerals to develop Europe's largest deposit of light rare earth elements — REE Minerals." Press Release October 19, 2023. Available at: https://www.reeminerals.no/news/franzefoss-minerals-ree-minerals.

Royal Norwegian Air Force. 2024. "The Royal Norwegian Air Force." Accessed August 24, 2024. Available at: https://www.forsvaret.no/en/organisation/air-force.

Saab. 2024. "Air" and "Naval." Accessed August 8, 2024. Available at: https://www.saab.com/products/air and https://www.saab.com/products/naval.

Spansvoll, Runar. 2023. "Studying Moscow's Coercive Campaign Against Norway: The Bear is Awake." *The RUSI Journal* 168(3). Available at: https://doi.org/10.1080/03071847.2023.2220756.

Sverige Riksdag. 2024. "The Riksdag votes in favour of defence agreement with the USA." June 18, 2024, accessed July 26, 2024. Available at: https://www.riksdagen.se/en/news/articles/2024/jun/18/the-riksdag-votes-in-favour-of-defence-agreement\_cms2fa8b58c-5dc6-455f-b909-95d1d9477599en/#.

Swedish Defence Commission. 2024. *The Swedish Defence Commission's report on the development of the military defence: Excerpts.* Swedish Ministry of Defence. Available at: https://www.regeringen.se/contentassets/79646ada8654492993fe7108d95ac6d5/sammandrag-pa-engelska-av-starkt-forsvarsformaga-sverige-som-allierad-ds-20246.pdf.

Swedish Security Service. 2023. Säkerhetspolisen 2023/24. Available at: https://sakerhetspolisen.se/ download/18.6dad4d9a18e62da82643a5/1713275525308/SP\_Yearbook Eng\_Accessible TGA.pdf. Tan, Florence. 2024. "Norway keen to explore hydropower, carbon capture storage projects in Indonesia." Reuters. July 4, 2024, accessed July 19, 2024. Available at: https://www.reuters.com/business/energy/norway-keen-explore-hydropower-carbon-capture-storage-projects-indonesia-2024-07-05/.

United States Department of Defense. 2024. 2024 Arctic Strategy. Available at: https://media.defense.gov/2024/Jul/22/2003507411/-1/-1/0/DOD-ARCTIC-STRATEGY-2024.PDF.

Vard. 2024. "Naval and Coastguard Vessels." Accessed August 8, 2024. Available at: https://www.vard.com/shipbuilding/security-naval-and-coastguard-vessels.

White House. 2024. "Biden-Harris Administration Announces New Polar Partnership "ICE Pact" Alongside Finland and Canada." July 11, 2024. Available at: https://ca.usembassy.gov/new-polar-partnership-icepact/.

Wood Mackenzie. 2023. "Norway's 800 km Barents Sea gas pipeline back on agenda." July 10, 2023, accessed August 14, 2024. Available at: https://www.woodmac.com/press-releases/norway-barents-sea-pipeline3/.

Yle News. 2024. "Finnish parliament unanimously approves defence agreement with USA." July 1, 2024, accessed July 26, 2024. Available at: https://yle.fi/a/74-20097360.





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- The Right Honourable Stephen Harper

May I congratulate **MLI** for a decade of exemplary leadership on national and international issues. Through high-quality research and analysis, **MLI** has made a significant contribution to Canadian public discourse and policy development. With the global resurgence of authoritarianism and illiberal populism, such work is as timely as it is important. I wish you continued success in the years to come.

– The Honourable Irwin Cotler

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