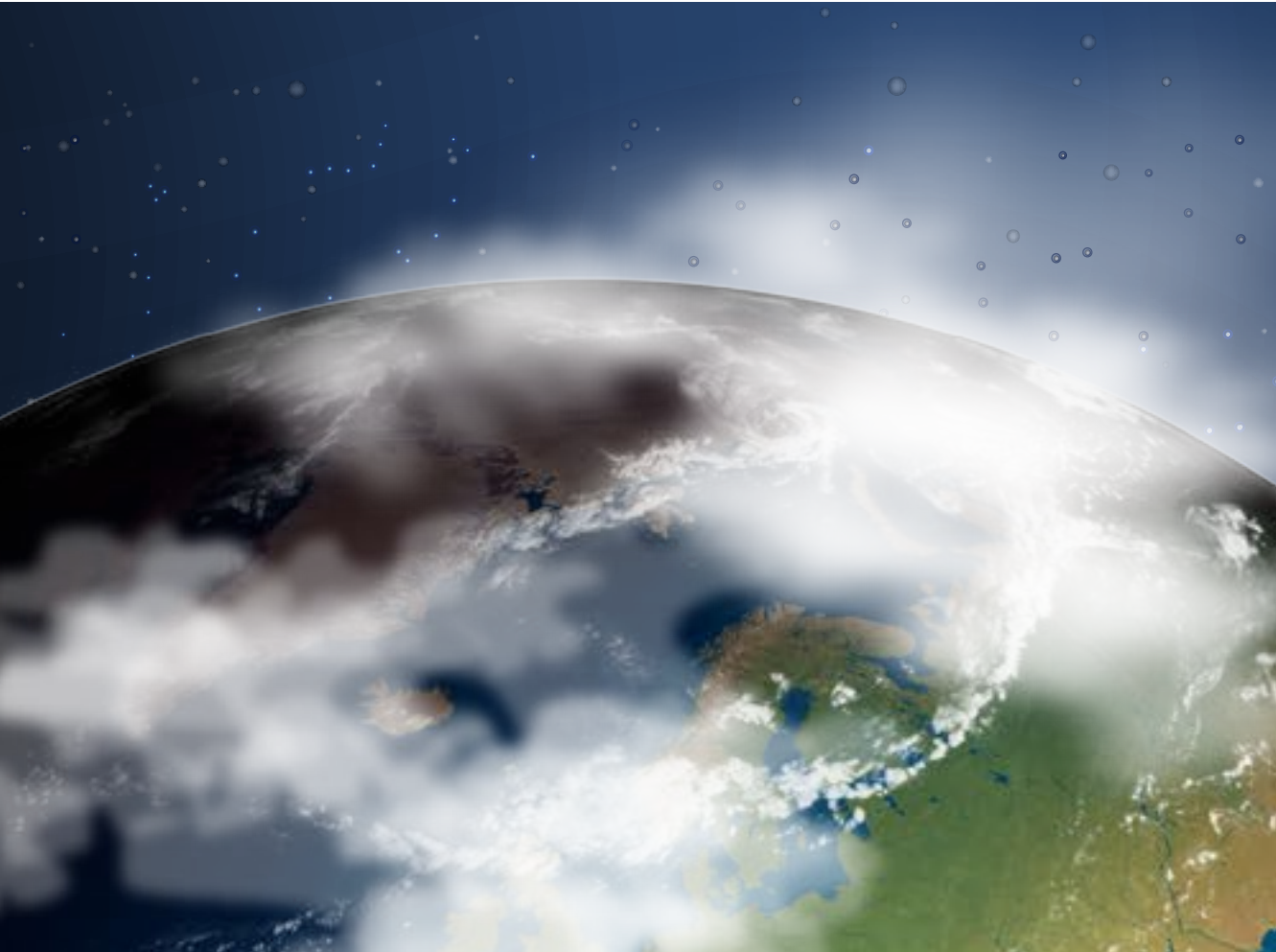




Puolustusvoimien tutkimuslaitos
Julkaisu 19

ERA OF UNREST: Finnish Future Operating Environment 2040

Antti Pihlajamaa et al.



Finnish Defence Research Agency Publications no 19
Puolustusvoimien tutkimuslaitoksen julkaisuja numero 19

ERA OF UNREST:
Finnish Future Operating Environment 2040

Research leader, MAJ Antti Pihlajamaa
COL (ret.) Mikko Kauppala
MAJ Markus Gardberg
MAJ Mika Ihamäki
Ph.D. Miina Kaarkoski
LTC Teemu Kilpeläinen
MAJ Aleksi Leskinen
LTC Tapani Linnamaa
M.Soc.Sc. Eemil Mitikka
LCDR (ENG) Arto Nyrhinen
MA, LLM Helena Ranta
MAJ Lauri Räsänen
CDR (ret.) Kari Salin
CAPT (N) (ret.) Arvi Tavaila
MA Sari Voinoff
CAPT (Eng.) Juha Wiljakka



PUOLUSTUSVOIMIEN TUTKIMUSLAITOS
FINNISH DEFENCE RESEARCH AGENCY

RIIHIMÄKI 2026

Cover: Johanna Suominen
Eikira/Pixabay

ISBN 978-951-25-3606-1 (printed)
ISBN 978-951-25-3607-8 (online publication)
ISSN 2342-3129 (printed)
ISSN 2342-3137 (online publication)

Puolustusvoimien tutkimuslaitos
Finnish Defence Research Agency

PunaMusta
Tampere 2026

Abstract

The objective of the Finnish Future Operating Environment Study 2040 (FIN FOE 2040) is to identify and describe the defining characteristics of the Finnish operating environment in 2040. The study also assesses the impacts of the operating environment on Finland's defence. The research constitutes a continuum for the Strategic Foresight Study 2044.

The research identified five extensive drivers of change involving the operating environment: great power competition, threats emerging from the security environment, Finland's alliances and partnerships, warfare and military capabilities, as well as society and total defence. Each driver of change is further divided into 2–6 manifestations through which the drivers will bring about changes in Finland's operating environment.

Based on the drivers of change, two scenarios complementing the Strategic Foresight Study 2044 were produced ("Uncertainty will continue" and "War in Europe"). Five wide-scope characteristics typical of the described operating environment were identified in them: uncertainty, hecticness and unrest, layered military national defence, selected partnerships and operating as part of society. The operating environment description was extended by four What If scenarios. The drivers of change and scenarios were discussed at a national workshop in March 2025 and at an international one in May 2025.

In the hectic and restless future, external actors will still determine the constraints of Finland's operating environment. However, Finland should avoid short-sighted, reactive activity and keeping the defence system in constant overdrive. This might require reconsideration of certain principles and presumptions concerning military national defence. The defence system which draws a distinction between war and peace has a bearing on legislation, powers, organisational structures, resources and operating culture, among other things. These issues should be handled in order to act with an adversary to which no such distinction exists.

The traditional ethos of survival is a well-working approach and always present in some way or another in an increasingly

uncertain operating environment. The literal or cynical interpretation of survival may, however, become a self-fulfilling prophecy. As a member of NATO, Finland has better chances of influencing its own future.

Key words: operating environment, Finland, strategic foresight

Contents

Abstract	3
1 Introduction	7
1.1 Global uncertainty and the future operating environment	7
1.2 Framework of the study	7
1.3 Research design	8
2 Drivers of change in Finnish operating environment in 2040	9
2.1 Great power competition	10
2.1.1 Rules and the modus operandi of great power competition	11
2.1.2 The United States' commitment to Europe	11
2.1.3 China's role in Europe	12
2.1.4 Russia's great power aspirations	12
2.1.5 Great power competition in the Arctic region	13
2.2 Threats emerging from security environment	14
2.2.1 Russia as a military threat	14
2.2.2 Hybrid influencing by Russia	15
2.3 Finland's alliances and partnerships	15
2.3.1 Significance of partnerships	16
2.3.2 European Union	16
2.3.3 NATO	17
2.3.4 Bi- and multilateral defence cooperation	17
2.4 Warfare and military capabilities	18
2.4.1 Changing character of war	18
2.4.2 Military capabilities and disruptive technologies	18
2.4.3 Role of nuclear weapons	19
2.4.4 Impact of climate and environmental change on warfare	20
2.5 Society and total defence	20
2.5.1 Willingness to defend and conscription	21
2.5.2 Psychological resilience and ability to function in society	21
2.5.3 Resources of military national defence	22
2.5.4 Differentiation of regions	22
2.5.5 Security of supply	23
2.5.6 Global enterprises and influential people	23
3 Impacts of the drivers of change: Finnish operating environment 2040	24
3.1 Scenario 1: Uncertainty will continue	25
3.2 Scenario 2: War in Europe	28
3.3 Characteristics of the 2040 operating environment	30
3.3.1 Uncertainty	31

3.3.2	Hecticness and unrest	31
3.3.3	Layered military national defence	32
3.3.4	Selected partnerships	33
3.3.5	Operating as part of society	33
3.4	What If?	34
3.4.1	What If – The world is divided into spheres of influence	34
3.4.2	What If – The transatlantic link is broken	35
3.4.3	What If – The nuclear taboo is broken	36
3.4.4	What If – The will to defend the country plummets	37
4	Discussion: Finland as an actor in the operating environment 2040	38
	Appendix 1	43
	Notes	52

1 Introduction

1.1 Global uncertainty and the future operating environment

Finland's security environment has changed radically over the past few years. The war in Ukraine, Russia's aggressive foreign policy and the NATO memberships of Finland and Sweden have brought about fundamental changes in the strategic environment of Finland and the whole Northern Europe. These changes will have long-term effects on Finland's operating environment as well.

Global changes can be expected to continue. Among other things, the shifting military focus of the United States to the Indo-Pacific Region, possible changes to the commitment of the U.S. to the military security of Europe, and the growing interests of China in the Arctic region are opening up opportunities for alternative futures. The global drivers of change of the strategic environment affect Finland's operating environment as well, for example, through changes to regional power dynamics and available military capabilities.

1.2 Framework of the study

The objective of Future Operating Environment 2040 is to identify and describe the special characteristics of Finland's operating environment in 2040. The study operationalises the classified review of Finland's strategic environment conducted by the Finnish Defence Research Agency (FDRA) in 2021–2024. The future operating environment is approached from a strategic-operational perspective in which changes on the strategic level are understood to reflect on the operating environment as well.

In delimiting the scope of the study, the guiding geographical perspective is the area in which operations are conducted to defend the Finnish territory. According to the delimitation, the study focuses geographically on Finland and its adjacent areas (the Baltic Sea region, Europe's Arctic region, the Nordic countries, and the North Atlantic).

However, an operating environment covers more than just the geographical perspective. It does not only refer to the physical environment, as the operating environment is understood to include the cognitive and virtual dimensions as well. The concept of the operating environment comprises the impacts caused by multiple actors, environmental conditions, infrastructure,

available military capabilities and societal development. All these pose pre-conditions for operating possibilities in different domains of warfare. Broadly interpreted, the question related to Finland's operating environment is a political one: As a member of NATO, Finland's operating environment may extend far beyond Finland's territory depending on the decisions of the political leadership.

1.3 Research design

The study discusses the following three research questions:

- 1) What will be the key drivers of change affecting the Finnish operating environment in 2040?
- 2) What impacts will the evolution of the drivers of change have on the operating environment in 2040?
- 3) How will the future operating environment affect Finland's room to manoeuvre?

The study was carried out in three phases. Each of them was related to one main question. In phase 1, the drivers of change involving the Finnish operating environment were established drawing from prior research by the FDRA as well as from foresight and operating environment studies conducted in recent years by NATO and its member nations.¹ The analysis of the drivers of change was covered at a national workshop in March 2025 and at an international one in May the same year.² The first research question is reported in Section 2.

In phase 2, the impacts of drivers of change on Finland's operating environment in 2040 were assessed. Two scenarios were drawn up for describing the operating environment: "Uncertainty will continue" and "War in Europe". Based on these scenarios, the effects that are characteristic of Finland's future operating environment and general features were identified. The second research question is discussed in Section 3.

In addition to the two scenarios, four What If situations were created in order to widen one's understanding of possible operating environment futures outside the basic premises and presumptions of the study. The What If scenarios include: "The world is divided into spheres of influence", "The transatlantic link is broken", "The nuclear taboo is broken" and "The will to defend the country plummets".

Phase 3 discussed the effects of the operating environment on Finland's room to manoeuvre. The third research question is reported in Section 4.

2 Drivers of change in Finnish operating environment in 2040

After the end of the Cold War, the line of demarcation between the East and the West was relocated from Central Europe to Finland's neighbouring areas. The significance of this line was emphasised as international tensions increased in the 2010s. Finland's security environment turned more unstable and its operating environment more complex.

We can identify various present-day drivers of change that will have an impact on what Finland's operating environment in 2040 is going to be like. The great power competition is bound to affect Finland, located close to the line of demarcation between the East and the West. Threats emerging directly from Finland's neighbouring areas will also change the operating environment. However, it is not only external factors that affect the operating environment but internal factors play a role, too: Finland's alliances as well as societal factors and factors related to total defence also determine Finland's operating environment to a certain extent. In addition, general developments in warfare and military capabilities are changing the operating environment in a manner that Finland cannot afford to ignore.

Figure 1 presents the drivers of change and their manifestations identified for this study. Manifestation refers to phenomena through which the driver of change in question will affect Finland's operating environment. The drivers of change and their manifestations were derived from previous studies by the FDRA and recently published international operating environment studies. In this study, the more than 60 phenomena identified in earlier research projects were grouped into five broad driver of change categories, which are further divided into 21 manifestations. The five categories are

- Great power competition
- Threats emerging from the security environment
- Finland's alliances and partnerships
- Warfare and military capabilities
- Society and total defence

This section provides a brief description of each driver of change and its manifestations. Two perspectives take precedence in the discussion:

continuities and uncertainties related to the manifestations. Continuities refer to phenomena that are considered to remain unchanged in the 2040 operating environment.

Uncertainties, in turn, refer to phenomena that carry potential to change and are unlikely to remain as they are today. Considering a phenomenon uncertain takes no stance on the level of desirability of the described future pathway nor its likelihood. Rather, uncertainties open up alternative future pathways, developing the operating environment to different directions. Hence, identifying continuities and uncertainties is of utmost importance when foreseeing the future operating environment.

Great power competition	Rules and the modus operandi of great power competition	Warfare and military capabilities	Changing character of war
	The United States' commitment to Europe		Military capabilities and disruptive technologies
	China's role in Europe		Role of nuclear weapons
	Russia's great power aspirations		Impact of climate and environmental change on warfare
	Great power competition in the Arctic region		
Threats emerging from security environment	Russia as a military threat	Society and total defence	Willingness to defend and conscription
	Hybrid influencing by Russia		Psychological resilience and ability to function in society
Finland's alliances and partnerships	Significance of partnerships		Resources of military national defence
	European Union		Differentiation of regions
	NATO		Security of supply
	Bi- and multilateral defence cooperation		Global enterprises and influential people

Figure 1. *The drivers of change in Finland's operating environment 2040 and their manifestations.*

2.1 Great power competition

Great power competition is a driver of change that is linked to global changes. Its manifestations have a major impact on Finland, although they are not directly dependent on developments in Finland's neighbouring areas. Five manifestations are rules and the modus operandi of great power competition, the United States' commitment to Europe, China's role in Europe, Russia's great power aspirations, and great power competition in the Arctic region.

2.1.1 Rules and the modus operandi of great power competition

By 2040, the rules-based international order will be increasingly challenged.³ States' peacefulness, willingness to cooperate, or respect for other countries' independence and sovereignty can no longer be taken for granted. At the same time, many western countries, small and medium-sized in particular, will still see the value of the rules-based order and seek to maintain it. However, there will be a greater incentive for great powers to act against the rules-based order, or at least interpret its rules favourably to their interests.

The negative outlook for the rules-based international order does not mean that the only future scenario for the world is anarchy. The great powers may choose to adhere to the now-existing rules and norms at least on some level to attract and engage partners. The great powers may also make favourable deals among themselves, which is not in the spirit of the rules-based international order but would nevertheless provide a framework for their actions. In other words, the great powers play a key role in determining the future international order; their modus operandi – such as military force, economic means, and partnerships – will have a major impact on international order in 2040.

2.1.2 The United States' commitment to Europe

Restricting China's power by strengthening military deterrence has been an important element in the US foreign policy, especially since Donald Trump's first term. Because of China's ambitions for more power, the focus of the US military's main effort will be, more strongly than today, in the Indo-Pacific region by 2040. The United States may transfer its forces and capabilities from Europe to the Indo-Pacific region to safeguard its strategic interests there.⁴

This does not mean, however, that the United States' military commitment to Europe will automatically end. It is not in the US's strategic interests to abandon Europe completely, nor does a new focus of main effort necessarily mean a complete withdrawal for a great power such as the US. Flexible bilateral agreements and storing materiel in advance will enable power projection, if need be, even if the number of permanent troops decreases. The United States' military presence in Europe will depend on the threat perception of the ruling administration and what it considers the relative value of Europe to be. In other words, the impact of the faltering commitment on military cooperation will remain uncertain.⁵

The impact of the United States' faltering commitment on Europe's unity is also uncertain. Strengthening their military security by seeking additional security from the US will remain in the interests of European countries also in the future. This may lead to a situation in which European countries are increasingly competing for the United States' attention, which, along with the unevenly shared responsibility for the defence of Europe, may add to political tensions between the European countries. However, a smaller role of the US may also improve the cohesion of Europe, making the countries take more responsibility for their military security.

2.1.3 China's role in Europe

By 2040, China will become increasingly interested in the Arctic region, especially due to natural resources and maritime routes in the region. China will seek to secure its regional interests by cooperating with Russia, but it may also use its bilateral (economic) relations with other countries in the region. However, China's close cooperation with an aggressive Russia may raise doubts about China in many countries. Dependency on China will be viewed critically, but trade with China will nevertheless continue.⁶

China's future role in Europe is also uncertain. China may seek to benefit from the US main effort being increasingly focused on the Indo-Pacific region by presenting itself as a technological and economic alternative to the US. This would increase China's power in Europe. On the other hand, if the focus of the United States' main effort in the Indo-Pacific region were of a more permanent nature, it would tie up China's military resources to its neighbouring areas, restricting its capability for military presence in Europe.⁷

Sino-Russian relations are also a source of uncertainty. China will be cooperating with Russia, if it serves China's strategic goals. Russia will be a useful actor for China to be able to challenge the US hegemony and to create a multi-polar international order. However, China will not consider Russia as equal. China will remain the stronger party, which may force Russia to make concessions to China and back up its interests in the Arctic region more strongly than before, for example by military means or by its natural resources.

2.1.4 Russia's great power aspirations

Russia wants to be treated as a great power, and it will not commit to international rules or norms. For Russia, forming a sphere of influence provides

a means to pursue its permanent strategic interests: status as a great power and international influence.⁸ Possible directions for expanding the sphere of influence include, in particular, the former Soviet countries or those in the area of the former Yugoslavia, but also Northern Europe. Russia will try and take advantage of the deteriorating Euro-Atlantic relations, inciting anti-Americanism, but at the same time seeking direct deals with the US over the heads of the European countries. Should the United States' main effort shift permanently to Asia, Russia may see an opportunity to expand its sphere of interest in Europe by force. Nuclear capabilities will remain an important part of Russia's aspirations to present itself as a great power.

The war in Ukraine is tying up Russia's military resources. Russia will have to continue rebuilding its capability also after the war. Financial resources will slow down this process but will not stop it, which creates uncertainty as to Russia's ability to use military force to achieve a great power status. Improving its armed forces will require a lot of public resources, which may destabilise domestic developments in the country. In spite of this, bolstering the country's military strength may consolidate Russian society, at least if its citizens consider benefits of a great power position to be worth the efforts made to achieve the status.⁹

2.1.5 Great power competition in the Arctic region

The Arctic region will be strategically important also in the future.¹⁰ The shortest trajectory of ballistic missiles between the continents of Asia and North America goes through the Arctic region. The Arctic is important for Russia especially because of the strategic nuclear capabilities Russia has placed in the Kola Peninsula. The region will grow even more important as climate change opens routes for trade and makes utilisation of natural resources easier, although the pace of this change is uncertain as yet. The intensity of the rivalry over the use of the Arctic region will depend on the great power relations and the Arctic countries' desire to co-operate.

The great powers may have conflicting interests in the Arctic region. Due to rising nationalism, reaching a consensus is becoming more difficult. One potential point of a future conflict is Svalbard. It is also in China's ambitions to benefit from the natural resources of the Arctic region, and it may possibly use military means to pursue its ambitions. The US may respond to China's actions by increasing its military presence in the Arctic region, even if the US military's main effort were in the Indo-Pacific region. Then again, natural disasters as a consequence of climate change may give rise to international agreements about protection of the region, or, at least, to increasing cooperation there.

2.2 Threats emerging from security environment

Unlike the previous driver of change – great power competition – threats emerging from security environment are dependent on factors and dynamics at play in the immediate vicinity of Finland. Russia is the actor which will determine the threat in Finland's security environment also in the future. Consequently, both manifestations of this driver of change are related to Russia. Russia as a military threat manifests its threat to Finland, which in the worst-case scenario may lead to the use of military force. Hybrid influencing carried out by Russia, in turn, highlights Russia's influencing activities below the threshold of war. Despite the Russia focus of the driver of change, it is possible that there will also be other state and non-state actors that support Russia's aspirations.

2.2.1 Russia as a military threat

Russia considers most European countries to be unfriendly, which is why it is developing its military infrastructure on its Western borders. Finland's and Sweden's NATO memberships were a strategic defeat to Russia, requiring, as Russia sees it, a counterforce. This is why Russia is building up its military force close to the Finnish border by reinforcing units and capabilities of the Military District of Leningrad to match up to their view of the threat.¹¹ Increasing importance of the Arctic region will give Russia a reason to strengthen its military capability also in Northern areas. At the same time, the use of Belarus to pursue Russia's military goals will create a growing threat to the Baltic countries and Poland.

This is to say that Russia will remain a military threat to Finland. Finland may be attacked directly for the purpose of capturing territory, or Russia may aim at isolating Finland from other NATO countries in order to create a buffer zone on Russia's north-western border. The character of the military threat against Finland may be different, depending on the objectives.

What the military threat posed by Russia will turn out to be by 2040 is strongly dependent on developments in the war in Ukraine and possible wars to come. The ongoing war in Ukraine does not necessarily prevent Russia from building up military infrastructure in areas close to Finland. The biggest uncertainty is related to the time Russia will need to restore its capability and to the relative weight of Russia's Northwestern areas in the development of its armed forces. Russia's partnerships and the country's domestic, economic and technological developments add to the uncertainty as to the quality of military force being built. To what extent Russia will be capable of producing or acquiring high tech capabilities is unclear.

2.2.2 Hybrid influencing by Russia

Russia's hybrid influencing activities in Northern Europe will continue.¹² Influencing below the threshold of war is one of Russia's standard methods to destabilise Northern Europe and its security. Hybrid influencing activities will take place whatever the situation, both during peace and war.

There is uncertainty as to the means used in hybrid influencing. As these activities go on from one year to another, Western countries will learn to fix the vulnerabilities in their society. New means of influencing that take the West by surprise will be harder and harder to come up with. Consequently, Russia may use more direct and bold means to influence, but the situation may also be frustrating to Russia, if the benefits gained from influencing seem insignificant. Hence, while the intensity of hybrid influencing activities may vary, they are not about to end in the foreseeable future.

Hybrid influencing is not only single acts of vandalism or disturbance which could be dealt with by concrete actions, such as amendments to legislation or increasing the protection level of potential targets. An elementary part of hybrid influencing activity is continuous information influencing, which aims at influencing the cognitive dimension – in other words, people's minds.¹³

Another uncertainty related to hybrid influencing is the extent of support Russia will receive from other actors. Both governmental and non-governmental actors are being exploited in the influencing activities, and their means may include, for example, terrorism and organised crime. How far these actors are willing to go and what risks they are willing to take depend on their relation with Russia as well as their own interests.

2.3 Finland's alliances and partnerships

The persistently tense security environment and the great power rivalry will accentuate the importance of alliances and partnerships for Finland. It will be difficult for a small actor like Finland to survive in an unstable world, with an aggressive military great power as a neighbour, without external support. Alliances as a driver of change has four manifestations: significance of partnerships, the European Union, NATO, and bi- and multilateral defence cooperation.

2.3.1 Significance of partnerships

Alliances and partnerships are and will be vital for Finland. It is important for Finland to make sure we have capable and willing partners, no matter what the framework of cooperation.

Partnerships always involve uncertainty. Their value and importance may be viewed differently in different countries, which means that some countries may be more willing to respond to changes in their allies' and partners' security or operating environment than others. It is often the case that countries expect to gain concrete benefits in return of the support they have provided, while in some cases partnership may be considered to have value in itself and worth investing resources in, even without immediate benefits.¹⁴ Russia's actions may have a disruptive or a unifying impact on partnerships: commitment to partners will either weaken in fear of negative consequences to oneself, or partners will see a common threat which unifies them.

2.3.2 European Union

Geopolitical issues will be emphasised on the EU's agenda, but the EU is not about to start competing with NATO.¹⁵ The EU's influence on Finland's operating environment will primarily be related to building military capability of the European countries. The issues through which the EU will influence Finland's operating environment include capability cooperation, support of European defence industry and security of supply as well as military mobility.

It is uncertain, however, to what extent the tensed security situation will affect the unity of the EU. The level of unity will have an impact on the EU's decision-making concerning security issues. The member states will have divergent views of security threats and what should be done to counter them. Not all countries will necessarily be equally willing to commit themselves to the reinforcement of their military capability, which will have consequences on their ability to defend their own area and support others in a crisis. The future position of the Northern region in the EU's security and defence policy is yet another question. Conditions in the Northern operating environment require capabilities and skills that few countries have. The situation will not change if Northern Europe is overlooked on the EU's agenda. Then again, if the area becomes more of a priority, there may be new actors in Finland's operating environment in the future.

2.3.3 NATO

For over 75 years, NATO has provided the foundations for Europe's military security. Its role will remain central in Europe's security architecture. Throughout its history, NATO has demonstrated the ability to adjust to a changing threat environment, and it will remain the foundation for security in the Allied countries. Adjustment to different situations has not always been fast or without internal disputes, but dedication to maintain collective security has always risen above the hindrances.¹⁶ Obviously, a process of establishing a new actor to replace NATO would be extremely difficult and slow; there is no desire to let NATO collapse.

NATO's main effort focused on Central Europe throughout the Cold War. Developments in the security environment evoke needs to focus on Northern Europe more than before. However, the Southern members of the Alliance do not necessarily share this view. Reaching a consensus in the expanded NATO is not going to be any easier in the future. The eventual position of the Northern region within NATO is yet to be seen, as is the question of how the security needs in Europe will be integrated into NATO's agenda.

In an uncertain security environment, collective defence will be ever more important to small NATO countries. From Finland's perspective, a critical NATO-related uncertainty is the implementation of NATO's deterrence and defence. Readiness to plan does not guarantee readiness to implement due to the US level of military commitment and unpredictable development of military capabilities in different European countries. This means that the military plans will not necessarily be implemented in full, which has consequences for Finland's defence.¹⁷

2.3.4 Bi- and multilateral defence cooperation

Despite Finland's NATO membership, bi- and multilateral defence cooperation will continue. As the NATO member states have divergent capabilities and views on threats, the role of regional state groups in implementing deterrence and defence will grow.¹⁸ The member states may also find that NATO does not and will not meet all of the security needs arising from, for example, hybrid threats or unprecedented armed conflict.

The integration of the regional state groups into the European, NATO-led security architecture is one of the major uncertainties in defence cooperation. It is by no means self-evident that the regional state groups would serve the purpose of complementing NATO; there may be overlap and conflicts both within the groups and in relation to NATO.¹⁹

As to the Finland's bilateral cooperation, the key question is regional influence of different European states. Certain countries, such as Germany and Poland, may have more weight in the future from the Finnish perspective. Germany has ambitious plans to reinforce its military capability, though their realisation calls for decisions and actual measures. Poland is already putting a substantial amount of money into reinforcing its defence capabilities. These possible developments do not diminish the significance of other partnerships.

2.4 Warfare and military capabilities

Developments in warfare and military capabilities are essential in any attempts to foresee the future operating environment. In this report, this driver of change is analysed by discussing its following manifestations: character of war, military capabilities and disruptive technologies, nuclear weapons, and consequences of climate and environmental change.

2.4.1 Changing character of war

International situation is tense, and ceaseless rivalry between various actors below the threshold of armed conflict will continue. Some actors may threaten to use military force, or use restricted or symbolic force. Warfare will still be among the means governments may use; countries may be ready to go for war to pursue their own goals. A war may escalate into an undertaking that engulfs the entire society. Non-governmental actors will add to uncertainty related to actors in war, making it more difficult to monitor the situation and keep up the suitable response capability.

We do not know how the stance of different actors on the use of armed force, or on threats to use it, will change. Will armed force become an even more acceptable and effective instrument of power than it is today, a means that can be adopted more quickly than before to support other means? This would make the use of armed force and threats to use it more and more of a new normal instead of a deviation. The use of armed force becoming commonplace would inevitably bring about changes in building and maintaining deterrence. It would have to be more systematic, with increased effectiveness.

2.4.2 Military capabilities and disruptive technologies

The most significant technological advances in military capabilities include artificial intelligence, quantum technology applications, autonomous

systems, exploitation of space and novel materials.²⁰ These phenomena and the development of the related disruptive technologies will have a major impact on future military applications. The applications will be, to an increasing extent, dual-use products.

AI can be used to accelerate data analysis and to provide more support for decision-making, for example by generating a larger number of alternative courses of action than before. Advances in quantum technology will accelerate decoding, creating a need to introduce new, more secure coding systems. Autonomous systems combined with AI will intensify the effect especially in the air domain, increasing losses, which in turn will bring about new protection needs and challenge the production volumes of defence materiel. Taking intelligence systems and information networks to space will make the battlefield more transparent. Thanks to the new materials, systems will become lighter, more durable and more difficult to observe.

It is uncertain, however, to what extent these new capabilities will be reality and in use in 2040. Technological innovations evolving into effective capabilities may be swift, thanks to the dual use for example, but this is by no means self-evident, since building a capability is typically a time-consuming process. Many of the capabilities available in the 2040 operating environment are probably being used already or have at least come on the market. Limited financial resources may slow down the introduction of new capabilities or at least limit the range to be introduced, in which case the spearhead capabilities will be prioritised. Efforts to build capabilities in co-operation with allies may be difficult due to conflicting interests.

Despite technological leaps, changes in the effectiveness of capabilities cannot be taken for granted. Since counter-weapons are also being developed all the time, new technologies will not necessarily have a crucial impact on battlefield dynamics. Remote warfare capabilities will still enable a surprise and hard-to-repel attack, aiming at immediate and extensive effect. The capabilities of the adversary will reach the whole of Finland also in the future. The increasing range of the capabilities will be less important a factor than the increasing volumes and the accelerating tempo of their use.

2.4.3 Role of nuclear weapons

Nuclear weapons will continue to serve as the ultimate guarantee of national security in many countries. All actors will have to modernise their nuclear capability to keep up a credible nuclear deterrence, which means that nuclear armament is not about to end.²¹ The increasing tensions in the

security environment, possibly resuming nuclear weapon tests, more aggressive nuclear rhetoric and the growing use of dual-use technologies will add to a risk of misinterpretation and the uncertainty related to the nuclear weapons.

The nuclear taboo has held for over 80 years. It is not a given that it will continue to hold in the future. The critical uncertainty related to the nuclear weapons is whether they will turn from a means of building deterrence into a means of warfare. A possibility of nuclear weapons being acquired by new actors adds to the uncertainty. Both governmental and non-governmental actors, should they find themselves threatened in the future, may be more and more tempted to acquire them, South Korea for example.²²

As the US's attention is focused more and more on the Indo-Pacific region, pressure to change the European nuclear architecture will increase. It cannot be taken for granted, however, that Europe will be able to bring together various national interests, which would be required to build a credible European nuclear deterrence.

2.4.4 Impact of climate and environmental change on warfare

Climate and environmental change will change many physical aspects in Finland's operating environment.²³ Ice cover in the Arctic region is growing smaller, the average temperature is rising, and extreme weather and climate events are getting more and more frequent. Ground frost, snow cover and duration of winter will no longer be what they used to. There will, however, still be four distinct seasons in the region in 2040, which will set specific conditions for operating in Finland.

As far as consequences of climate and environmental change are concerned, uncertainty is related primarily to the rate of change. This rate will affect, for example, the emergence of new operating possibilities in the Arctic Sea regions. A fast-paced reduction of the Arctic Sea ice would create new seafaring possibilities, creating opportunities for new operators. A fast rate of change would also complicate the foresight of Finland's conditions; one could no longer be sure that lakes freeze over by a certain time of the year, for example.

2.5 Society and total defence

Finland will be spreading the responsibility for its defence across all levels of society also in the future. Societal factors, such as attitudes of its citizens,

general atmosphere, infrastructure as well as institutional structures create the framework for the execution of military national defence. At the same time, changes in any of the factors may affect the operating conditions. This report will discuss six manifestations of this driver of change: willingness to defend and conscription; psychological resilience and ability to function in society; resources of military national defence; differentiation of regions; security of supply; and global enterprises and influential people.²⁴

2.5.1 Willingness to defend and conscription

Finland's defence will still be based on its citizens' obligation to defend their country and a large reserve. For this reason, it is of vital importance that the conscription system stays functional and people's national defence will high. Citizens may, however, change as regards their relation to the state, and will not necessarily find the narrative of Finland worth defending to the same extent than today.

There are major uncertainties related to conscription. The declining numbers of young people, immigration, citizens' poorer psychological and physical performance as well as military alliances are factors that may affect the legitimacy of the conscription in society and its ability to produce a sufficient number of wartime troops.

As a consequence of the citizens' changing relation to the state, uncompensated commitment to national defence can no longer be taken for granted. While some citizens will still consider national defence as their duty, there will be an increasing number of those who need further justification for the need to defend Finland. The key factor affecting the citizens' national defence will be the rate and extent of this change in society and the response to the change.

2.5.2 Psychological resilience and ability to function in society

People's psychological resilience will be tested in the future. Trust between citizens and the structures and institutions of society will be questioned and challenged. Individuals will differ in their ability to function in society in times of crises. Some will be able to look after themselves more or less independently and support both their fellow citizens and society as a whole, while others will be in a much poorer position. The information environment will become ever more important to people's psychological resilience.

A key component of psychological resilience is the extent to which people trust institutions and fellow citizens in society. The way in which differing attitudes and experiences, and polarisation in general, will be echoed in perceived trust is a critical uncertainty related to crisis resilience. At the same time, structures of the welfare state are being dismantled due to needs to cut expenses, which will create uncertainty as to society's ability to support the survival and psychological resilience of the citizens with poorer readiness. The number of citizens whose inclusion in or commitment to society is low will keep growing, which may have an adverse effect on crisis resilience.

2.5.3 Resources of military national defence

The growing tensions will create a need to invest more and more in military national defence. NATO's target is that by 2035, each Ally would allocate 3.5 % of GDP for defence expenditure. In addition, a further 1.5 % may be allocated for efforts to protect critical infrastructure, to improve civilian readiness and resilience, to reinforce defence industry and to support other defence-related activities. Finland is also expected to meet the targets of NATO, while at the same time, the ageing population and the long-lasting efforts to balance the government budget are creating a pressing need to cut public expenditure and to allocate resources elsewhere.

The extent to which Finnish society is, in this unstable financial situation, ready to invest in resources of military national defence is unclear. Especially in absence of an immediate threat, some political opinions may turn in favour of allocating resources for something that has a more direct effect on voters' everyday life.

It is also uncertain whether the resources to be allocated for military national defence will ever be able to produce the capability required in the 2040 operating environment. Because several countries are reinforcing their armed forces simultaneously, demand for defence material is high – and so is their price. Threats are becoming more diverse, which will tie resources of the Finnish Defence Forces to tasks of internal security more than before. The tensed security environment and expensive defence material may force us to compromises, either in the quantity or in the quality of our capability.

2.5.4 Differentiation of regions

Regional differentiation has been reality in Finland for a long time and will continue. The population is concentrating into towns, and services and other vital conditions in sparsely populated areas are deteriorating.

In terms of the operating environment, this differentiation will create uncertainty. On the one hand, this is related to inequality and insecurity people may experience if public services are available only in specific areas, in a way that is found unfair. On the other hand, regional differentiation may also have consequences for the physical operating environment. This will be the case if the infrastructure in the sparsely populated areas falls into decay while new infrastructure is being built in the population centres at a fast pace.

2.5.5 Security of supply

Security of supply is becoming a more complex and difficult issue due to international tensions, economic developments and climate change. International partners and cooperation are an integral part of the security of supply. Digitalisation and society's increasing dependency on technology are posing new threats to security, affecting security of supply as well.

The greatest uncertainty related to security of supply rises from the question of how much society will be willing and able to invest in it. Investments made in security of supply may not always be deemed necessary – until the risks requiring these investments are realised.

2.5.6 Global enterprises and influential people

In a world that is dependent on technology, producers of global technology services hold great power. Global enterprises and the people running them and pulling the strings exercise great power, no thanks to an official position of power but to the huge popularity of the services they provide. Nevertheless, their power may well extend to political issues, as far as to the functioning of the international system.

In the midst of divergent national interests, states may find it hard to try and control the power of global enterprises and powerful individuals. In some cases, states may benefit from these services, eventually reaching the point of growing overly dependent on them. Consequently, new actors will emerge that have at least an indirect influence on the operating environment and whose interests will have to be considered. A key uncertainty related to this development is whether states will be able to harness the power of global enterprises and powerful individuals to the service of the states' interests rather than become dependent on them.

3 Impacts of the drivers of change: Finnish operating environment 2040

This section presents two scenario-based descriptions of the Finnish operating environment. Based on the drivers of change mentioned in Section 2, the descriptions present two possible scenarios in the operating environment. The description is not seeking to be an exhaustive description of the future operating environment but to act as a foundation for Section 4.

This research has purposefully selected two scenarios where the key differentiating factor is the use of military force. The first scenario “Uncertainty will continue” is a continuation of 2025, projected 15 years in the future where the use of military force is a significant threat. The second scenario “War in Europe” describes a more threatening situation, where an open war is ongoing, and it has an impact on Finland as well.

These scenarios should be seen as a continuum, where in the second scenario deterrence has failed and the uncertainty of the first scenario has escalated into a war. In both scenarios Finland’s operating environment is affected by great power competition. The United States’ commitment to European security is weakening and Russia strives to strengthen its position in a way that forces Finland to increase its military security. China is an increasingly visible actor in Europe, also in the High North. NATO, the EU and different partnerships support Finland’s objective to ensure its security but their importance and impact vary. Military capabilities evolve especially as a result of disruptive technologies but development is seen as gradual in both scenarios. In both scenarios, Finnish society is seen to become more diverse, more polarised and regionally focused. This leads to a decrease in mental resilience, but will to defend the country does not plummet. The future pathways of the drivers of change that have influenced the scenarios have been presented in Appendix 1.

After the scenarios, the report will present a summary of the characteristic traits of the 2040 operating environment. The summary is based on the research group’s observations on the scenario, based on which they identified the permanent points and changes in the operating environment. By dividing these into themes, the group identified five larger characteristics and the sub-characteristics describing them.

At the end of the section, the report presents four What If scenarios, where the assumptions behind the basic scenarios are not all in effect. These scenarios strive to expand our understanding of the possible operating environment without commenting on how likely they are.

3.1 Scenario 1: Uncertainty will continue

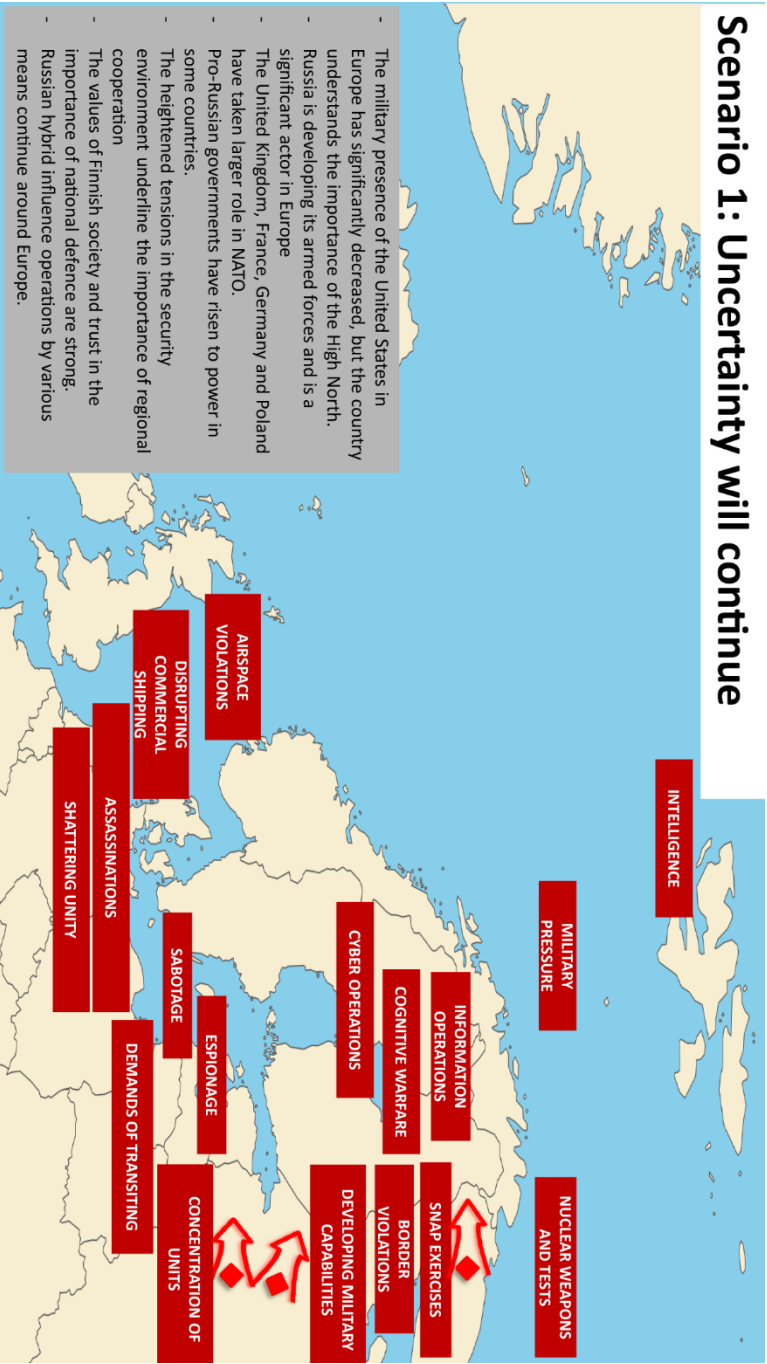


Figure 2. Uncertainty will continue.

The United States is the strongest actor in the world, but China is challenging it politically, militarily and economically, threatening to take control of Taiwan. The United States has consolidated most of its military force to the Indo-Pacific region in order to contain the threat caused by China. It is aware of the importance of the High North in the global competition of the great powers and is able to project force to the region. The nuclear deterrent in Europe is still based on the nuclear weapons of the United States.

Russia has grown stronger by working together with China. It is a significant actor in Europe, but despite its great power ambitions, its global influence is limited. Nuclear weapons and threatening to use them is an attempt by Russia to strengthen its great power position. Russia is occupying the territories in Ukraine it captured after the 2022 offensive. At the same time, it is improving the capabilities of its armed forces, which were burdened by the war.

The situation inside Russia is unpredictable. The sale of hydrocarbons is able to elevate the standard of living of the citizens but the war in Ukraine and political oppression is creating discontent in the population. The West has not been able to establish a shared vision on supporting Ukraine and how to permanently resolve the conflict.

As the United States' military role in Europe has weakened, the United Kingdom, France, Germany and Poland have increased their role in NATO. Most of the NATO countries emphasise the importance of collective defence, but they have different views on how it should be implemented and resourced, which slows developing NATO's deterrent and defence.

The uncertainty in the security environment increases the importance of regional cooperation arrangements. European states seek to strengthen their security by developing bilateral and multinational regional defence initiatives, which might create tensions within the Alliance. The European countries have improved their military capabilities and restocked their stores. As a result, particularly European defence industry manufacturing dual-use products receive new orders for an extended period. In time the number of orders decrease, which creates uncertainty for the future of the defence industry.

Geopolitical questions are in focus on the EU's agenda. The long-lasting war in Ukraine has, however, given rise to different views inside the EU on such topics as strengthening military capabilities and attitudes toward Russia, particularly toward the cheap energy still offered by Russia. The pro-Russian governments in power in some EU countries are eager to ease international tensions with Russia because of economic interests. The increasing effects of climate change are also raising internal tensions in the EU as the number of climate refugees has increased, particularly in Southern Europe.

The unstable security situation in Europe is manifested as continuous hybrid influence. The risk for the use of military force has increased. Warfighting capability is developed with a focus on managing the multi-dimensional battlespace. Large-scale kinetic effect is still the crucial tool, which is supported by high-technology capabilities. The armed forces will use the element of surprise whenever possible when launching direct military actions.

In Finland, national defence issues fight over resources and attention with other significant societal issues. Despite the state of the national economy, the resources of military national defence meet NATO's recommended level. Alliance and cooperation agreements support the predictability of security of supply and the ability to respond to crisis quickly. Long-term efforts in the field of resilience and for a functioning society create the prerequisites for military national defence, even though society is polarised and the abilities of individuals have diverged. The will to defend the country is high and reforms of conscription ensure that the reserve-based system remains functional.

3.2 Scenario 2: War in Europe

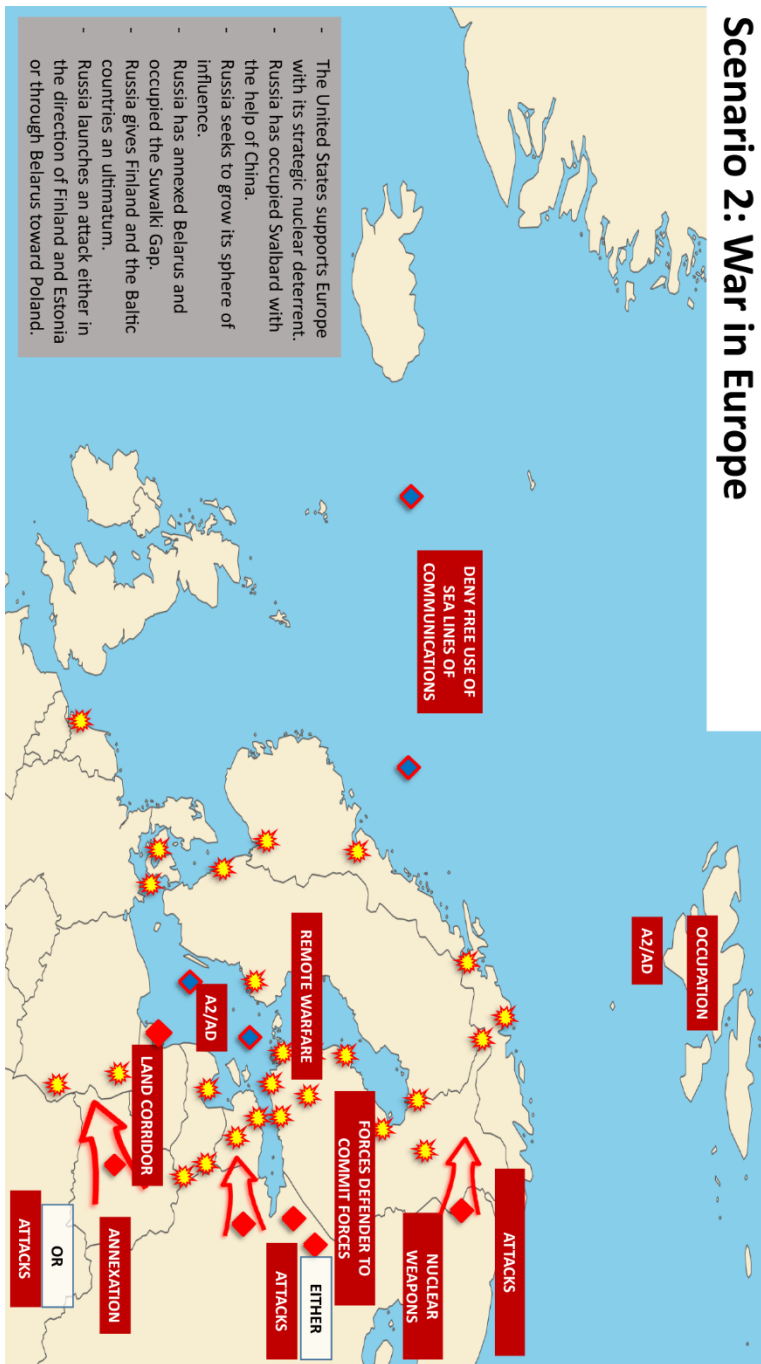


Figure 3. War in Europe.

The global hegemony of the United States has diminished. China has achieved almost equal status with the United States, seized control of Taiwan and extended its military presence around the world. The United States seeks to contain Chinese influence and to restore Taiwanese sovereignty, which is why it detaches itself from European security architecture apart from certain strategic capabilities and nuclear deterrent. However, at the same time the United States is exploring the possibility for a large trade, customs and raw material deal with China.

The relationship between Russia and China has grown closer. Russia is seeking to position itself as the third global superpower alongside the United States and China by utilising its cooperation networks and agreements. It has declared itself to be the victor of the war in Ukraine and occupies eastern Ukraine. It is exploiting the United States' withdrawal from Europe and seeks to expand its sphere of influence. Russia has created a land connection to Kaliningrad by occupying the Suwalki Gap. Russia has annexed Belarus and Belarussian armed forces are participating in the occupation of the Suwalki Gap. With the help of China, Russia has taken control of Svalbard as well and is threatening the free use of the North Atlantic.

NATO has activated Article 5 with the occupation of the Suwalki Gap. The implementation of the defence plans of all Joint Force Commands has been started, but there are delays in the execution. The member states can only provide limited high-technology capabilities to NATO. Also, NATO's capabilities for large-scale attrition warfare are insufficient due to cuts of the previous decades and the limited European military-industrial capacity. NATO has difficulties in concentrating its forces across the Baltic Sea to support the Baltic countries while the Suwalki Gap is under Russian occupation.

The EU strongly condemns Russia's actions and asks that its member states show their support for Poland and Lithuania. Providing and coordinating assistance is also being discussed based on bilateral and multi-lateral agreements.

Per its Alliance obligations, Finland prepares to support NATO operations elsewhere in Europe and simultaneously to defend its own territory together with its Allies. The tightening security situation is causing rifts

in the willingness to defend of some population groups. However, most of the population is still ready to defend the country by force of arms. Finland has raised its defence expenditure to NATO's recommended commitment. Security of supply is supported with alliance-based contracts.

Russia sends an ultimatum to Finland and the Baltic countries and demands security guarantees from them to secure its north-west flank. Finland declines discussions with Russia. In order to secure its strategic interests in the Kola Peninsula, Russia launches an attack into Northern Finland with the aim of rapidly advancing through Finland and Sweden toward the ports on the Norwegian coast.

Likewise, the Baltic countries decline Russia's ultimatum. Russia initiates an offensive in the Baltic countries, with its main effort on the southern bank of the Gulf of Finland. After capturing Narva, Russian forces pose a threat to Tallinn. Simultaneously, Russia seeks to deny NATO's freedom of action in Northern Europe by attacking Poland from the southern side of Kaliningrad and by isolating Finland and the Baltic countries with long-range fires.

Russia concentrates forces from other military districts to ensure the prerequisites for continuing the attack. Its attack is based on the use of large-scale kinetic effects, which are bolstered by a limited number of high technology capabilities. Russia prepares to wage extended attrition warfare to achieve its goals if necessary and threatens to use nuclear weapons.

3.3 Characteristics of the 2040 operating environment

Five characteristics and their sub-factors were identified in the operating environment:

- uncertainty
- hectic pace of events and unrest
- layered-nature of military national defence
- selected partnerships
- operating as part of society.

3.3.1 Uncertainty

The operating environment of 2040 includes much uncertainty. It is caused by both the adversary and other actors. The number of actors increases and the relationships between them change. Nothing can be considered as obvious or certain. Our understanding of the operating environment must be increasingly more comprehensive.

Changed relationship with Russia: Before joining NATO, Finland was still able to have a dialogue with Moscow and there was at least some kind of a relationship with Russia, even though the military threat was always clear to Finland. In the operating environment of 2040, Russia is more openly a hostile actor that can create concrete security threats against Finland at any time.

Russian influence attempts: Russia attempts to influence Finland, both as part of the great power competition and to secure its own north-western direction. The influencing may be more overt or covert and combine both old and new methods, but Finland must be able to manage long-term influencing.

New actors: Finland's main threat is Russia, but new actors, such as China and non-state actors complicate the operating environment and create uncertainty in it.

Uncertain partnerships: Partnerships are a matter of life and death to Finland as a front-line state. At the same time Finland must consider the following fundamental question: To what extent can we rely on them if the situation deteriorates?

3.3.2 Hecticness and unrest

Uncertainty in the 2040 operating environment also creates a situation where there is pressure to maintain enhanced readiness 24/7. Surprising things may occur wherever and whenever. Several disruptions may be ongoing simultaneously and there may not be time to recover from them.

Increased military tensions: Increased military tensions in Finland's operating environment is the new normal.

Situational awareness: The hectic pace of events and unrest places demands on the situational awareness. Key factors must be identified from a large mass of information and their meaning must be understood. What complicates maintaining the situational awareness is that Finland may be

influenced by new actors, and there is no clear understanding of the activities of those actors.

Constant readiness: The unsettled operating environment forces Finland to maintain a continuously high readiness, which puts a strain on the defence system if it continues for an extended period.

Importance of response capability: More and more is happening in the operating environment and at an increasingly faster pace, and the defence system must respond. All situations cannot be foreseen. Then the operating environment highlights the ability to respond and to create a response in those situations that have not been predicted.

3.3.3 Layered military national defence

Military national defence has many layers and dimensions in the future operating environment: these layers and dimensions affect both the requirements and implementation of national defence.

Creating deterrence: As part of the Alliance, Finland has the opportunity and partially pressure to think about creating deterrence in a different way. For example, what is the Finnish position on deterrence by punishment, which had a small role prior to NATO membership?

Large-scale warfare: The war in Ukraine has demonstrated that the use of military force may not be limited, but may still require the use of hundreds of thousands of soldiers and use of conventional weapons on a massive scale.

Quick and surprising use of military force: Preparing for large-scale warfare does not automatically create readiness for responding to a surprise attack. Despite the example of the war in Ukraine, also limited aggression based on surprise is possible.

Protection: Protection is present in the operating environment in a multitude of ways. It refers to, for example, protecting the mobilisation of units against an ever-present drone threat and protecting the citizens against information operations.

Defence industrial foundations: In a potentially prolonged conflict, defence must be supported with a strong defence industry. It includes utilising domestic expertise, innovations and production, as well as identifying

international opportunities in the increasingly technical operating environment.

Varying operating environments: Even though the climate continues to change, Finland continues to have different physical operating environments. The sparsely populated area of Northern Finland with few roads is a different operating environment from Southern Finland. A unit meant for Northern Finland may be more effective in Swedish and Norwegian Lapland than in the urban environment of the Finland's capital region.

3.3.4 Selected partnerships

Finland currently has 31 Allies in NATO but the operating environment and resources force us to prioritise. The critical question is, which of those Allies are force multipliers for Finland's security.

Dynamics of regionalisation: Because of different types of threats and capabilities, only some NATO countries have the will and the ability to operate in the High North. Likewise, different actors in Northern Europe lay emphases to different things, for example regarding the importance of the Baltic Sea and the Arctic.

Common and own interests: In regards to regionalisation, Finland has to be able to fit its own interests with those of others and to recognise the types of partnerships that best advance those interests.

Managing dependencies: Partnerships also include a risk of dependencies. It is important to build or select partnerships so that the dependency on a single partner (state or non-state) or their services does not become too large.

3.3.5 Operating as part of society

As a small country Finland operates inevitably so that it utilises all of the resources of society. Support from society and the legitimacy of the activities in the eyes of the people is a vital prerequisite for successful operating.

Contribution of the entire society: Military national defence needs the resources of the rest of society also in the future. All of society must be mentally prepared to direct the necessary resources to national defence.

Prioritisation: For practical reasons, the defence of the entire country cannot be taken literally at all times. With hybrid influencing, the emphasis of internal security issues creates demands for the Finnish Defence Forces,

and it does not always have the resources to respond. These factors force Finland to make decisions on what operations to prioritise and it will have an impact on the entire society.

Rifts in society: Requiring the contribution of the entire society has a drawback: possible rifts in societal cohesion can make the contribution more challenging. As the rifts appear, prioritising becomes increasingly challenging.

3.4 What If?

The What If scenarios look at possible futures of the operating environment beyond the basic premise of the research.

3.4.1 What If – The world is divided into spheres of influence

Great power competition and its negative effects can lead to the great powers agreeing on spheres of influence between them. A sphere of influence refers to an area that other great powers accept as the sphere of interest of one great power, and do not seek political, economic or military influence over smaller countries in the region. While agreeing upon spheres of influence, the following factors are important:

- historical and cultural relationships,
- economic and technological cooperation,
- geopolitical location, and
- natural resources and other resources.

With the creation of these spheres of influence, some states in the world will simply end up as part of the sphere of influence of some great power. The states that control the sphere of influence and the states belonging to it form a block. However, disputed areas will remain outside the blocs. More than one great power is interested in these areas due to geopolitical tensions, for economic and technological reasons, resource competition or due to system level ideological competition. On the other hand, there are also areas that do not interest the great powers for similar reasons. Some medium-size states may strive for independence from blocks and resist the block creation attempts by the great powers. At the same time, they maintain relationships that are beneficial for them, trying to seek advantage from where ever it is available at a given time.

The key question for a small state is into which of the named categories – in a block, disputed area, not interesting, or seeking independence – it ends up in. Ending up as part of a block may stabilise the operating environment, but how desirable that is depends on the lead state of the block. A disputed area is potentially the most unstable option, for then a small state may be faced with continuous influence attempts. An area that is not interesting possibly offers stability, but also limits the chances of a small state for strengthening its security with the help of a great power. Seeking independence is a risky option for a small state. Advantages and benefits may be available from many directions but, on the other hand, such a state may be seen as unreliable, so other states do not wish to commit to it.

3.4.2 What If – The transatlantic link is broken

The transatlantic link would primarily break as a result of changes in the United States' politics and grand strategy. Europe mainly sees the transatlantic link as desirable and worth preserving, as a way to increase its security, and it has no interest in severing that link. For the United States the link is not similarly a matter of life and death. While containing Chinese influence with increasing effort, it may decide to decouple itself from the European security architecture if it is seen to be more of a security consumer than a security provider.

The breaking of the transatlantic link would be a significant hit on NATO's credibility and the Alliance might even collapse. When the strongest member of the alliance leaves, it might weaken the willingness of the other member states' commitment to collective security, if they feel like they do not get a return for their investment. NATO might not be formally disbanded but its structures would possibly become meaningless and the Alliance would not have the ability to execute operations. NATO's operating capability would decrease considerably if the United States withdrew. The nuclear deterrent in Europe has mainly been relaying on the United States, and it would collapse if the United States withdrew. In addition to shaking NATO, it would also call into question the bilateral DCA agreements between the United States and various countries. Ammunition procurement and maintenance of American weapon systems might become more difficult.

If the transatlantic link broke, the European countries would be forced to react. No European country would be able to guarantee its security alone. One option would be to maintain NATO as close to what it currently is, but with a European focus, or to establish different, smaller security structures. They could include, for example, regional geography-based interest groups

or a core group of larger European states, which would use more power and influence in European security matters. There might also be attempts to increase the security policy role of the European Union. In a situation with weakened formal commitments, uncertainty would increase and trust within the continent would weaken, thus exposing the European countries to Russian influence attempts.

A network-type security architecture would not solve the central questions of European security: From where do we get the capabilities to defend Europe and the common will to use those capabilities?

3.4.3 What If – The nuclear taboo is broken

The nuclear taboo²⁵ can be broken by any nuclear power or a non-governmental actor in possession of nuclear weapons. Many factors can impact the breaking of the taboo. Key drivers are geopolitical tensions, collapse of the treaty system prohibiting nuclear weapons, an arms race, and misunderstandings and escalation of situations.

Because of geopolitical tensions and increased uncertainty, the role of nuclear weapons in states' security policy grows. States can no longer trust that the international rules-based order works. The ability of the United States to manage international crises weakens and the world is divided into competing centres of power.

The international treaty system cannot sufficiently respond to the increase of global nuclear energy production or to the proliferation of nuclear materiel and nuclear technologies. Advances in military technology and dual-use factors have offered new possibilities for utilising nuclear weapons.

International competition and geopolitical tensions will escalate the arms race that extends to weapons used in space. All nuclear powers are modernising and expanding their nuclear arsenals. Most will also review their deterrent strategies. Particularly, China's rapid increase of nuclear armament will change the strategic balance of the nuclear powers.

Increasing nuclear weapons rhetoric increases concerns over the use of nuclear weapons. The use of nuclear weapons is possible, for example to end a protracted war. If countries conduct nuclear tests and otherwise demonstrate a readiness to use nuclear weapons, the risk of misunderstandings and unintended escalation increases further.

The breaking of the nuclear taboo has far-reaching consequences that are difficult to predict. The use of nuclear weapons may change their role from deterrent to tools of war. Historical examples on the fates of nuclear-free states have an impact on the understanding of the role of nuclear weapons in national security. That is why particularly small states may consider acquiring nuclear weapons to ensure their territorial integrity. Additionally, the possession of nuclear weapons may offer small states or non-state actors a tool for waging war against a larger state or a method for nuclear blackmail.

If other states adhere to the nuclear taboo, it is also possible that the state breaking the taboo becomes a target for international moral condemnation and becomes a long-time pariah. Such an act may also undermine the regime internally and turn the people against it.

From a military perspective the breaking of the nuclear taboo may change the character of war and the dynamics of the battlefield and thus impact the war. Nuclear weapons can be used as planned to cause military and societal effects, which may turn regions into wastelands and paralyse functions in society. Due to the large destruction and escalation potential of nuclear weapons, their use or the threat of it may pressure the state leadership into making decisions where there is not enough time to sufficiently assess the consequences of the decisions.

3.4.4 What If – The will to defend the country plummets

After the Cold War era, Finland has typically had an internationally high and stable will to defend the country. Quick and drastic changes have not been typical in this phenomenon. However, Russia's attack into Ukraine in 2022 demonstrated that changes in the security policy situation in Finland's neighbouring area and in Europe can rapidly impact the attitudes and actions of Finns, as happened with the support for NATO membership.

In terms of will to defend one's country, the key questions are the following: what is society's current perception in terms of threats and Finland's ability to react to those threats; what are individuals' experiences in regards to belonging in this society; and the perception of the citizens on the state and society as something worth defending.

The will to defend the country may plummet in a situation where Finland is facing a real threat of war, and where, additionally, societal pathways have distanced individuals and population groups from each other and from

the obligations of society. Economic and social inequality, bleak outlook of the future and an uncertain world have in the long term had a great impact on individuals and on the attitudes in society. As a result of developments, the citizens' trust in the authorities, in institutions and in one another has significantly weakened and also trust in Finland's defence has suffered. Finns do not trust the support of allies, and the historical fear of being left to survive alone depresses the attitudes in society. The enemy has waged successful cognitive warfare by utilising polarisation and lack of trust in society. If realised, the plummeting of the will to defend the country would have significant consequences on the defence system based on general conscription.

4 Discussion: Finland as an actor in the operating environment 2040

*"We cannot do anything about geography, nor can you."*²⁶

In the hectic and restless operating environment of the future, Finland will have to reflect on its capacity as an actor. To what extent is it necessary to examine the principles, values and presumptions guiding the organisation and development of military national defence? How is military power looked at as an instrument of building security? How to avoid short-sighted, reactive activity and keeping the defence system in constant overdrive? How should the relationship of military national defence with society be developed, for example, how to align the operational requirements set for conscription and its social dimension?

Working on practical solutions to such issues is difficult. In the future as well, external actors will determine the constraints of Finland's operating environment. The redistribution of power between the great powers and the building of a new world order, developments in the adjacent areas, general trends of warfare and societal development in Finland pose preconditions for developing the defence system that cannot be disregarded. In these respects, the future does not look particularly bright.

Power seems to be shifting away from Europe, which, in the future, may make the backup of Finland's security policy falter, making the operating environment more volatile. Russia is rearming itself, and more strongly, in Finland's neighbouring areas, even if Moscow has its hands tied by the ongoing war in Ukraine with no end in sight. The importance of the Alliance has lost some of its shine in its everyday reality focused on keeping the most important Ally on track, allowing for less time for deepening and developing relationships between Allies in a comprehensive way. Warfare

is becoming more costly, and the possibilities of nations in peace to keep up to par with states in war are doubted. The Finnish society, for one, is facing a number of issues difficult to resolve ranging from balancing the economy and enhancing the weakening dependency ratio to managing the changes taking place in an increasingly polarised society.

The future operating environment will place Finland in a situation difficult to deal with, if not completely new. Finland has an openly hostile neighbour that hardly makes any difference between war and peace. On the contrary, Finland's defence system is built on an opposite principle which sees war as a non-desired alternative to peace. This view has a bearing on legislation, powers, organisational structures, resources and operating culture, among other things. Finland and the Finnish defence system draw a distinction between war and peace, so it is difficult to avoid the question how to act with an adversary to which no such distinction exists. The shift between the scenarios described in Section 3 may take place in numerous different ways – actually, in both directions and several times. The threats are not going anywhere, but possibilities afforded by the operating environment will not, if interpreted cynically, be opening up in similar amounts.

There hardly exists any simple theory of victory for the future, because the future will always surprise you in some way anyway. Reasons still remain for reflecting if there actually is something that could be done about geography. Geography will, perhaps, never change – at least not by 2040, regardless of climate change – but what it will entail may change. Since the Cold War, Northern Europe has been positioned as a flank in NATO's thinking. The Northern Flank has been secondary compared with the actual front. For both operational and political reasons, in today's complex operating environment, it is impossible to clearly demarcate the Central Front which ran through Germany during the Cold War. The front is everywhere – also in people's minds – and in the enlarged Alliance different views will continue to exist as for where the front and flank lie.

When seeking operational backup, it would, no doubt, be useful if Northern Europe were regarded less as a flank in NATO in the future. The long border with Russia and the growing importance of the Arctic Region offer Finland opportunities for getting this idea solidified. At the same time, the long-term development of the defence system during the past decades, following the European political counter current and continuing it with determination now that Finland is a member of NATO, underline Finland's chances of making itself useful from the Alliance's point of view. However, Finland should not be seen as an actor too self-contained able to make it on its own. On the contrary, Finland should be seen also in the future as

a country worth supporting for investments in which the Allies would have opportunities to get return from the viewpoint of their security.

On the other hand, the idea of Northern Europe being a flank or one of many other focal points involves opportunities. Tensions elsewhere attract Russia's attention as well, and, for example, the countries of the former Soviet Union pulling away from Russia sets the country before choices. In such situations – from an opportunistic point of view – Finland may have an interest in diverting Russia's attention elsewhere even more. One must – true enough – beware of the delusion of perspectives: Russia has considerable military resources for fighting flanks as well. Instead, the multiple-front situation may have a significant, even though rapidly changing effect on Russia's political will.

Regardless of how Northern Europe will be positioned in NATO's internal debate in the future, Finland's operating environment must be understood widely in the continuation NATO's operational planning will pose requirements on Finland that determine the physical boundaries of the operating environment. Nonetheless, it makes more sense to understand the operating environment as a space in which Finland is defended – directly or indirectly. It includes the physical, virtual and cognitive dimension of warfare, and it may adapt according to the requirements posed by the situation at hand. This is why drawing a precise geographical demarcation line is impossible. What is essential in the character of the operating environment is that it does not make sense to consider it according to state borders but operational requirements.

As a member of the Alliance, Finland faces pressure to participate in the building of NATO's deterrence and defence on the basis of its size. Even if safeguarding Finland's own territory comes first and also serves the Alliance, being brutally realistic, extending the borders of the operating environment outside the country's own territory may also help, perhaps, push uncertainty and war further away.

When it comes to examining issues of a permanent nature imposed by geography, it is difficult to arrive at a perfect solution. Certain realities, such as difficult access to Finland, will remain issues despite logistical development. Efforts can still be made to play down the effects of geography, for example by partnerships or alliances. When assessing them, one has to weigh both the partners' ability and willingness to help Finland in a tight spot. It may be difficult to find partners that would be optimal solutions for Finland in both respects. Working with the most capable partners might involve uncertainty. They might not necessarily have an existential need to

protect Finland, if bigger issues involving the world order are on the table. The most willing, in turn, may consider that they and Finland could share a similar fate, but their ability to provide military support may be considerably lower. Surely enough, ability and willingness should not be seen as opposites, if resources can be found for developing different kinds of partnerships at the same time.

These issues are not easy, nor are there unambiguous solutions for them. A small country naturally has its limitations when it comes to using military power to build security. Its activities cannot copy the great power way of operating, because a small country's ability to ward off escalation is limited. In all situations, a country must also be able to cope with the consequences of the use of military power. As regards defending Finnish territory, the use of military power is naturally not a choice but an imperative. However, if the operating environment stretches beyond state borders, one is increasingly in a situation where the use of military power also involves choices: Is Finland in or not? Writing out principles based on which decisions regarding the use of military power would make these situations easier to deal with.

How to avoid reactive action is an equally difficult issue. Basically, a defensive actor is always reactive to some extent. This is why an advance warning should produce sufficient time allowing reacting during which it is important to boldly make the decisions called for by the situation. It is essential to reduce situations through which the adversary could produce events requiring reaction. This kind of approach naturally requires that work already started be continued with determination and will never be completed. It is essential to recognise that the operating environment does not need to be something that requires simply adapting. Instead, efforts are needed to exert active influence also outside national borders.

A small country is bound to have only limited resources for impacting the operating environment. One way of impacting may involve using surprise and uncertainty. Stopping the Eagle S in the Gulf of Finland in December 2024 was a good example of surprise. The case can be considered to reduce the attractiveness of a similar influence operation in the future, even if holding the actors legally responsible is clearly difficult. In other words, Finland's reactions do not always need to be predictable. A suitable amount of ambiguity can be seen as a way of influencing the operating environment and partly raising the threshold of military power being used against Finland.

Using both the element of surprise and uncertainty are linked to communication. Communication and the dimension of information occupy a central role in the operating environment. As a member of the Alliance, Finland may be faced with pressure to streamline communication to fit NATO's wider scope communication. At the same time, there is reason to recognise that the Finnish preference for restraint and communicating by acting may be a well-working solution in the future as well since Finns are good at that.

Finnish citizens must also be included as a target audience of communication. The defence administration is going to receive a significant increase in available resources during the next ten years, provided that the defence appropriations follow the goals set by NATO. Due to the current weak situation in State economy, social interest in the use of funds increases, and the Defence Forces' accountability as a receiver of large amounts of financial resources increases. Both citizens and the society in general expect more return for their money, which calls for open communication regarding the responsible use of funds.

The Finnish approach has been regarded as survival. The ethos continues to be a well-working approach and always present in some way or another in an increasingly uncertain operating environment, because there is only so much Finland can do to influence external evolution. The literal or cynical interpretation of survival may, however, become a self-fulfilling prophecy. As a member of NATO, it is no longer just about surviving. Instead, Finland has better chances of influencing its own future. The idea of just surviving must not keep Finland from taking action. When operating opportunities open up, they should be leveraged actively.

Appendix 1

Scenario 1
Scenario 2 (if different from scenario 1)

		Future pathway 1	Future pathway 2	Future pathway 3
Great power competition	Rules and the modus operandi of great power competition	Era of deals	Power of partnership	Era of self-help
		The great powers will be willing to close mutual deals if they see profits in them.	The great powers will seek ideological and permanent partnerships that foster their power aspirations.	The founding principles in the great power rivalry will be self-help and use of own power. Alliances, if any, will be based on a zero-sum game and opportunism.
Great power competition	The United States' commitment to Europe	Unbroken transatlantic link	Ad hoc arrangements	United States withdrawing
		The role of the US in NATO will remain unchanged and it will continue allocating resources for building NATO's deterrence and defence.	The US's main effort will focus on the Indo-Pacific Region. Its commitment to Europe will depend on whether a region has any relevance for the great power competition. If need be, it may project force in such regions.	The United States will focus on keeping China from getting stronger. It will withdraw from the European security architecture, excluding certain strategic capabilities and nuclear deterrence.
Great power competition	China's role in Europe	Restricted bilateral trade	Focus on natural resources	Power talks
		China will carry out hybrid influencing activities in Europe. China's relation to an aggressive Russia will have become even closer, which has made European	China will use soft power to solidify its status. In cooperation with Russia, it will make deals and agreements to secure its access to natural	Northern Europe will be impacted by China's power politics. It will blatantly pursue its own political and economic interests, seeking an exclusive right to exploit the

		Future pathway 1	Future pathway 2	Future pathway 3
		countries more cautious in their cooperation with China and restrict it, particularly in technology.	resources in the Arctic region.	natural resources of the Arctic region.
Great power competition	Russia's great power aspirations	Status safeguarding	Building its sphere of interest	A second-class great power
		Russia will seek to secure its status in the great power rivalry, at the same time reinforcing its military capability. Nuclear weapons and threats to use them will become even more important in Russia's strategic deterrence and military policy.	Russia will aggressively seek to expand its sphere of interest by reinforcing its units close to the borders of NATO member states. It will use financial inducements and claims concerning the European security architecture to undermine the unity of the West.	Poor public finances and societal pressure will force Russia to focus on safeguarding its key areas and securing its strategic capabilities.
Great power competition	Great power competition in the Arctic region	Controlled	Tensions	Rivalry
		Disputes over the use and control of the Arctic region and the distribution of its natural resources can be dealt with.	Potential for conflicts in the Arctic region will grow. However, competition over the use of resources will have limits.	The military strategic importance of the Arctic region will grow. No consensus can be established as to the use and control of the region. Strategic interests will be secured by military means.

		Future pathway 1	Future pathway 2	Future pathway 3
Threats emerging from security environment	Russia as a military threat	Aggressive	Strengthened	Uncertain
		Russia will have reinforced its military capability since the end of the war in Ukraine, being an immediate military threat to the NATO member states bordering Russia.	Financially struggling Russia will have restored some of its military capability thanks to its cooperation with China. It will not be capable of large-scale military aggression.	Russia will be on the brink of collapse due to financial and societal difficulties. This will make Russia less of a military threat; on the other hand, chaotic collapse might give rise to new uncertainties and threats.
Threats emerging from security environment	Hybrid influencing by Russia	Direct means	Long-lasting, covert activities	Use of military force
		Russia will target overt hybrid influencing activity at Europe's critical infrastructure and increase military pressure.	Russia will continue its covert hybrid influencing efforts, pursuing its goals indirectly and undermining the Western unity.	Russia will use armed force extensively against military and civilian objects as well as vital functions of society, at the same time continuing other hybrid influencing activities.

		Future pathway 1	Future pathway 2	Future pathway 3
Finland's alliances and partnerships	Significance of partnerships	Reciprocal cooperation	Threat will divide	Threat will unite
		Concrete benefits for both parties will be a prerequisite for cooperation. The cooperation will be based on reciprocity and a balanced input/output ratio.	Risks involved in cooperation will exceed its potential benefits. Commitments to other countries will be avoided because commitments may have adverse effects.	Cooperation will be welcomed to counter a common threat, although it will tie up resources with no certainty of benefits. Cooperation will not necessarily be balanced in terms of input by the parties involved.

		Future pathway 1	Future pathway 2	Future pathway 3
Finland's alliances and partnerships	European Union	Rigid implementation	Conflicting interests	Threat will make stronger
		The EU will recognise a need to respond to the extended security situation, but its rigid decision-making system cannot keep up with the pace of developments. Efforts will be made to boost the member states' military capabilities with the EU's instruments, but implementation is slow.	Big EU countries will gain more power at the expense of smaller ones. Divergent interests and goals will strain the relations between the member states and partly impede decision-making. Capability-building undertakings will not proceed as planned.	Threats will increase solidarity within the EU. The EU will be capable of effective decision-making required by the prevailing security situation. Its actions will support the member states in their efforts to enhance their military capabilities and security of supply.
Finland's alliances and partnerships	NATO	NATO will remain	NATO will falter	NATO will become more active
		NATO will have a Defence Plan for Europe, but limited capability to implement it fully. Not all of the NATO Allies will be able to meet NATO's requirements. The Alliance will avoid becoming a party in a conflict or crisis.	NATO's readiness to implement its defence plans will have weakened due to insufficient investments of the member states and their divergent perceptions of threat. The Alliance will avoid internal tensions, escalations and becoming a party in a crisis.	Cohesion between the European member states will improve. The member states will be able to meet NATO's requirements, and NATO will be able to implement its defence plans. NATO will have a more prominent role in responding to hybrid influencing activities.

		Future pathway 1	Future pathway 2	Future pathway 3
Finland's alliances and partnerships	Bi- and multi-lateral defence cooperation	Closer cooperation	Fragmented cooperation	Dying cooperation
		European countries will seek to enter regional, bi- and multilateral defence cooperation schemes and initiatives to enhance their security. Such initiatives will complement the European security architecture, adding flexibility to response and providing an instrument for the planning and implementation of NATO's collective defence.	European countries will be involved in a wide range of cooperation schemes. These are, however, poorly coordinated with discrepancies and overlapping. For this reason, their implementation and use of resources will be ineffective. These initiatives will have little impact on security in Europe.	European countries will have become frustrated with the futile bi- and multilateral initiatives which are characterised by the parties' conflicting interests and divergent needs. Some initiatives will be dropped while others will wither away.

		Future pathway 1	Future pathway 2	Future pathway 3
Warfare and military capabilities	Changing character of war	War will become commonplace	War as a surprise	War as extremity
		Use of armed force will have become more commonplace. Use of armed force or threats to use it to pursue own goals will be more common than before.	The threshold of armed conflict will be lower than before. Crossing the threshold will not, however, be a standard solution. This will allow an element of surprise in the use of force.	Use of armed force will be an extreme means. If need be, all resources in society will be allocated to warfare.

		Future pathway 1	Future pathway 2	Future pathway 3
Warfare and military capabilities	Military capabilities and disruptive technologies	Technowar	More and more unequal war	Slowly changing war
		Remote warfare and autonomous, information, cyber and space capabilities will play a decisive role in warfare. The use of AI, speed and tempo will have increased.	Parties will wage war from different starting points: While one party will rely on conventional capabilities, the other one will also exploit high technology in its operations.	Military operations will be supported by high technology capabilities. However, massed kinetic effect and conventional land warfare will still dominate.
Warfare and military capabilities	Role of nuclear weapons	Immediate threat	Symbol of a great power	Ultimate guarantee of security
		Nuclear weapons will become substantive among the means countries may resort to. There will be more threats to use them, and nuclear tests will be carried out. Use of nuclear weapons will be a realistic option.	Nuclear weapons will become increasingly important, but above all, in the context of strategic rivalry between the greatest nuclear powers (The United States, China and Russia.) European countries will maintain their nuclear capability but stay out of the rivalry.	The states will modernise their nuclear weapons but their number will not grow. Nuclear weapons will be considered the ultimate guarantee of national security both in the East and the West, with the primary purpose of building deterrence. The nuclear states will practise using them, although their actual use will be unlikely.

		Future pathway 1	Future pathway 2	Future pathway 3
Warfare and military capabilities	Impact of climate and environmental change on warfare	Rapid change	Slow change	
		Shrinking Arctic Sea ice will enable merchant shipping and open more possibilities for military operations in the region. In Finland, climate change will give rise to more frequent extreme weather phenomena and add to the uncertainty related to the environment.	Shrinking of the Arctic Sea ice will be slow. The region will still be difficult to operate in. Climate change will have observable consequences in Finland, but they will not have a considerable impact on the conditions for military operation.	

		Future pathway 1	Future pathway 2	Future pathway 3
Society and total defence	Willingness to defend and conscription	Solid rock	Fractures in rock	Crumbling rock
		Citizens' will to defend their country will be high and reforms in general conscription will make sure that the system based on the reserves remains functional. Citizens will have committed themselves to defending Finland and to NATO's collective defence.	Citizens' will to defend their country will be fairly good, though differences between population groups in this respect will be substantial. General conscription will have faced unresolved problems, and NATO's collective defence will give rise to tensions in society.	Citizens' will to defend their country will be low, especially in younger generations. The institutional status of general conscription will be threatened, because citizens have started questioning the civic obligations imposed on them by the state.

		Future pathway 1	Future pathway 2	Future pathway 3
Society and total defence	Psychological resilience and ability to function in society	Strong together	Declining abilities	Divided nation
		Mental resilience and citizens' ability to function in society will support military national defence. Citizens will trust the public institutions and each other. Citizens will possess the ability to manage in crisis situations and act in an information environment that is difficult to control.	Mental resilience and ability to function in society will enable military national defence, despite differences in people's abilities and skills. Differing experiences and polarisation in general will have affected institutions and mutual trust.	Mental resilience and ability to function in society will be crumbling, which will compromise the operational preconditions for military national defence. Society will be divided with no mutual trust.
Society and total defence	Resources of military national defence	Sufficient resources	Limiting realities	Struggle for resources
		Resources for military national defence will be sufficient, despite challenges in public finances. Security is a state monopoly, with a contribution from the private sector.	Resources for military national defence will have been reduced and adjustments made accordingly. The private sector will have become ever more important in producing security in cyber, information and space domains.	Resources for military national defence will have collapsed, with a drastic effect on its operations. Affluent citizens will have turned to the private sector, challenging the role of public authorities as the producer of security.
Society and total defence	Differentiation of regions	Whole Finland populated	Population concentrating	Population in cities and towns
		Infrastructure in sparsely populated regions will have been maintained and improved in a manner that supports military national defence. Authorities will be able	Infrastructure in sparsely populated regions will have been maintained. Public services will have concentrated on more densely populated areas. Consequently,	Infrastructure in sparsely populated regions will no longer be maintained, and public services will no longer be available. Finland will be divided into densely

		Future pathway 1	Future pathway 2	Future pathway 3
		to provide services in towns and sparsely populated regions alike.	citizens' sense of security and trust will have declined in sparsely populated areas.	populated towns and cities and deserted rural areas.
Society and total defence	Security of supply	Sufficient	Insufficient	Compromised
		Security of supply will be an integral part of military national defence. Alliance-based agreements will have secured predictability and the ability to respond to crises rapidly.	Security of supply will have suffered from scarce resources and disagreement about goals. Tensed security environment will have impeded methodical preparedness efforts.	Security of supply will be critically compromised. Security of supply solutions will be short-sighted and their implementation will have suffered from the shortness of resources and lack of alliance agreements.
Society and total defence	Global enterprises and influential people	Socio-economic actor	Accommodating actor	Global policy actor
		Global enterprises will be neither loyal nor neutral in their relation to different states, but use their technological power to affect society in a way that pursues their own interests - which will possibly differ from the interests of states and societies.	Global enterprises will adhere to the norms set by the international system and societies.	Individuals in positions of power and the global enterprises backing them will try and influence relations between states, although these fall outside the direct interests of the enterprises.

Notes

¹ Mayer Michael & Landsend Monsen Ingunn Helene (2024), *The future Arctic operating environment*, Norwegian Defence Research Establishment; Ministry of Defence of the UK (2024), *Global Strategic Trends Out to 2055*, Development, Concepts and Doctrine Centre; Isacson, Joachim et al. (2024), *Nordic Synthesis. Implications from Global Strategic Trends 7*, Defence Futures; NATO ACT (2023), *Strategic Foresight Analysis 2023*, FIN Restricted; NATO ACT (2021), *Regional perspectives report on the Arctic*, NATO Unclassified; European Defence Agency (2023), *Enhancing EU military capabilities beyond 2040*, <https://eda.europa.eu/publications-and-data/thematic-policy-reports/enhancing-eu-military-capabilities-beyond-2040-brochure>; Neretnieks, Karlis (2024), Nato och den nordisk/baltiska regionen – ett strategiskt och operativt bedömande, *Handlingar och Tidskrift* 2:2024, <https://kkrva.se/hot/2024/2/11-neretnieks-nato-och-den-nordiska.pdf>; Murray, John M. (2021), *Future operational environment: Forging the future in an uncertain world 2035-2050*, U.S. Army Futures Command, <https://apps.dtic.mil/sti/html/trecms/AD1128552/index.html>; U.S. Army Training and Doctrine Command (2024), *Operational Environment 2024-2034: Large-Scale Combat Operations*, <https://adminpubs.tradoc.army.mil/pamphlets/TP525-92.pdf>; Roberts, Peter (ed.) (2019), *The Future Conflict Operating Environment Out to 2030*, Royal United Services Institute, <https://www.rusi.org/explore-our-research/publications/occasional-papers/future-conflict-operating-environment-out-2030>.

² In addition to representatives of the Finnish Defence Research Agency, 24 Finnish experts from various fields of central government and universities and research institutions attended the one-day national workshop. 46 experts from ten countries participated in the two-day international workshop.

³ See e.g. Vinjamuri Leslie (2025), Envisioning the future international order. In Vinjamuri Leslie (ed.), *Competing visions of international order. Responses to US power in a fracturing world*, Chatham House, <https://www.chathamhouse.org/2025/03/competing-visions-international-order/13-envisioning-future-international-order>; Samson Paul, S. Yash Kalash Nikolina Zivkovic, Tracey Forrest and Bessma Momani (2024), *Scenarios of Evolving Global Order*, The Center for International Innovation, <https://www.cigionline.org/publications/scenarios-of-evolving-global-order/>.

⁴ Dalton Toby and Bartoux Anna (2024), *US Policy Toward the Indo-Pacific through 2030: Continuity, Consequences, and Change*, <https://www.38north.org/2024/10/us-policy-toward-the-indo-pacific-through-2030-continuity-consequences-and-change/>.

⁵ Tanghe Mila and Davis Gordon B. Jr. (2025), *The Future of US Bases in Europe: General (Ret.) Gordon B. Davis*, Center for European Policy Analysis, <https://cepa.org/article/the-future-of-us-bases-in-europe-general-ret-gordon-b-davis/>.

⁶ Tingstad Abbie, Pezard Stephanie and Shokh Yuliya (2024), *China-Russia Relations in the Arctic*, RAND, <https://www.rand.org/pubs/perspectives/PEA2823-1.html>.

⁷ Kaushal Sidharth, Balletta René, Shetler-Jones Philip and Lindley Elizabeth (2024), *China's Strategic Options in the Euro-Atlantic*, Royal United Services Institute, <https://www.rusi.org/explore-our-research/publications/occasional-papers/chinas-strategic-options-euro-atlantic>.

⁸ Aubin Lukas (2024), *Russia in the Post-Soviet Space: What Strategies of Influence?*, French Institute for International and Strategic Affairs, <https://www.iris-france.org/la-russie-dans-lespace-post-sovietique-queelles-strategies-dinfluence/>.

⁹ Massicot Dara (2024), *Russian Military Reconstitution: 2030 Pathways and Prospects*, Carnegie Endowment, <https://carnegieendowment.org/research/2024/09/russian-military-reconstitution-2030-pathways-and-prospects?center=middle-east&lang=en>.

¹⁰ Greenwood Jeremy (2023), *Great power competition and overseas basing in the Arctic*, Brookings, https://www.brookings.edu/wp-content/uploads/2023/02/FP_20230207_arctic_basing_greenwood.pdf.

¹¹ See e.g. Kukkola Juha (2024), *The Leningrad Military District: the past and future of the Northwestern direction*, Finnish National Defence University, <https://www.doria.fi/handle/10024/190009>.

¹² See e.g. Bilal Arsalan (2024), *Russia's hybrid war against the West*, NATO Review, <https://www.nato.int/docu/review/articles/2024/04/26/russias-hybrid-war-against-the-west/>; Praks Henrik (2024), *Russia's hybrid threat tactics against the Baltic Sea region: From disinformation to sabotage*, Hybrid CoE, <https://www.hybridcoe.fi/publications/hybrid-coe-working-paper-32-russias-hybrid-threat-tactics-against-the-baltic-sea-region-from-disinformation-to-sabotage/>.

¹³ Hoyle Aiden and Šlerka Josef (2024), *Cause for concern: The continuing success and impact of Kremlin disinformation campaigns*, Hybrid CoE, <https://www.hybridcoe.fi/publications/hybrid-coe-working-paper-29-cause-for-concern-the-continuing-success-and-impact-of-kremlin-disinformation-campaigns/>.

¹⁴ Elefteriu Gabriel (2023), *Why alliances matter*, Council of Geostrategy, <https://www.geostrategy.org.uk/research/why-alliances-matter/>.

¹⁵ Iso-Markku Tuomas, Jokela Juha and Saari Sinikukka (2022), *Euroopan puolustus-olottuvuuden kehitys 2025–2045*, The Finnish Defence Research Agency.

¹⁶ See also Ellehuus Rachel (2023), *NATO Futures. Three trajectories*, Center for Strategic and International Studies, <https://www.csis.org/analysis/nato-futures-three-trajectories>.

¹⁷ Zandee, Dick and de Baedts Roman (2024), *The US elections and the future of NATO. A scenario analysis*, Clingendael, <https://www.clingendael.org/publication/us-elections-and-future-nato-scenario-analysis>; Dembinski Matthias and Spanger Hans-Joachim (2025), *NATO's Uncertain Future*, Friedrich-Ebert-Stiftung, <https://library.fes.de/pdf-files/international/22159.pdf>.

¹⁸ Särkkä Iro, Ålander Minna, Linnainmäki Sibel and Pihlajamaa Antti (2024), *Finland's partnerships as a NATO member: Prospects for defence cooperation in a multilateral*

framework, Finnish Institute of International Affairs, <https://fiia.fi/julkaisu/finlands-partnerships-as-a-nato-member>.

¹⁹ Pihlajamaa Antti (2024), *The Joint Expeditionary Force in Northern Europe: Towards a more integrated security architecture?* Finnish Institute of International Affairs, <https://fiia.fi/julkaisu/the-joint-expeditionary-force-in-northern-europe>.

²⁰ Kauppala Mikko et al. (2024), *Strategic Foresight Study 2044*, FIN Restricted, Finnish Defence Research Agency, s. 33–35 .

²¹ Lavikainen Jyri (2022), *Ydinasevaltioiden doktriinien, ydinasedeterrenssin ja ydinasesuorituskkyjen kehittyminen vuosina 2025–2045*, Finnish Defence Research Agency.

²² Ranta Helena (2025), *Ydinaseiden leviämisen kehitysnäkymiä vuoteen 2045*, Finnish Defence Research Agency, FIN Restricted.

²³ See also Mayer and Landsend Monsen, pp. 15–17 and 29–30.

²⁴ Ihamäki Mika et al. (2024), *Suomalaisen yhteiskunnan kehitys 2025–2045*, Finnish Defence Research Agency, FIN Restricted.

²⁵ Nuclear taboo refers to the widely accepted and normative prohibition of the use of nuclear weapons. It is based on the understanding that nuclear weapons are so destructive that their use is morally and ethically indefensible. The taboo categorically covers all nuclear weapons, not only large bombs, specific nuclear weapon types or their methods of use.

²⁶ Joseph Stalin is said to have told the President of Finland J.K. Paasikivi before the Winter War 1939.

Puolustusvoimien tutkimuslaitos

Ylöjärven toimipiste

Esikunta, asetekniikkaosasto, räjähd- ja suojelutekniikkaosasto
PL 5, 34111 Lakiala

Riihimäen toimipiste

Doktriiniosasto, informaatiotekniikkaosasto, toimintakykyosasto
PL 10, 11311 Riihimäki

Puh. 0299 800

ISBN 978-951-25-3606-1 (printed)

ISBN 978-951-25-3607-8 (online publication)

ISSN 2342-3129 (printed)

ISSN 2342-3137 (online publication)

