

The competitiveness of Finnish firms in the changing business landscape

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Abstract

This report explores the pressures caused by megatrends and sudden disruptions in the international business environment, as well as the influences these have on companies. Specifically, this report focuses on Finnish companies in the Nordic and the EU contexts. In doing so, the report aims to address the following question: How are megatrends and disruptions interpreted, and how do systems and companies respond to them? Building on a fresh synthesis of recent academic research, industry reports, statistical data and qualitative interviews and workshop discussions, the report highlights how (1) megatrends and geopolitical developments may influence the competitiveness of Finnish firms dramatically, (2) Finland in general is searching for its identity and new 'success story', (3) key actors at different levels have varying views of the situation, and (4) the future meaning of competitiveness itself deserves careful reconsideration in the changing business landscape.

Key words: Competitiveness, Finland, Finnish companies, geopolitics, megatrends, sustainability

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1. Introduction

1.1 Shock from changes

Throughout the past two decades, we have witnessed a plethora of shocks that have strongly influenced global trade, trade governance systems, national economies and international relations. The financial crisis of 2008 caused a historically severe drop in global trade and long-term influences on our economies. The trade war between the US and China that escalated in 2018 was the outcome of the increasing challenges stemming from World Trade Organization (WTO) led global trade governance that has faced increasing challenges to respond to the demand of more versatile needs of member states. The sudden disruption brought about by COVID-19 demanded rapid developments from global and national governance as well as from companies of all sizes and industries, requiring that they revamp their strategies and operations. The latest shock stemming from Russia's invasion of Ukraine put security at the core of national and regional policy discussions, particularly those in the Baltic Sea Region.

These shocks are underlined by longer-term global change trajectories—megatrends—that will have deep and wide impacts on societies (Linthorst & de Waal, 2020). Academic research has identified multiple megatrends (see e.g. Linthorst & de Waal, 2020 and Retief et al., 2016) with different emphases and levels of detail. These can be divided into five, more general categories: the climate crisis-based push for sustainability, multipolarity of global power, redirection of economies, integration of technology into all aspects of our societies and ageing and more versatile populations (Sitra, 2023). These interconnected megatrends will have both short- and long-term impacts on the way business environments develop and how companies build their strategies (Sitra, 2022).

These more rapid disruptions and longer-term global scale developments have increased the uncertainties that both political decision-makers and businesses experience in the international business environment. This growing uncertainty increases the ambiguity of decision-making, as it will become increasingly challenging to anticipate what the next few years will bring, let alone further in the future.

This report builds on research exploring the pressures caused by megatrends and sudden disruptions in the international business environment, as well as the influences these have on companies. Specifically, this report focuses on Finnish companies and more widely the Nordic region and the EU. In doing so, the report aims to address the following question: How are megatrends and disruptions interpreted, and how do systems and companies respond to them?

To answer this question, this study builds on academic research, industry reports and analysis, statistical data and qualitative interviews. Data for the research has been collected between October 2022 and May 2024. The results and conclusions presented in this report stem from the analysis of the document materials and interviews. The report is part of a research project "Finnish companies as pathfinders for the changing future business environment (TULEVA – Suomalaisyritykset tulevaisuuden edelläkävijöinä muuttuvassa liiketoimintaympäristössä). The two-year project was funded by Suomen ulkomaankaupan edistämisrahasto (SUE), and the authors are highly grateful for this support.

1.2 Understanding competitiveness

Competitiveness is a key concept when exploring the future of Finnish companies. The turmoil stemming from multiple global-scale changes has destabilised the operating environment for Finnish companies, requiring that they change and develop in response (Sitra, 2022). Competitiveness has become synonymous with the economic success and strength of a nation, an industry or an individual company. As national markets open up and competition tightens, competitiveness allows organisations to create tools that enable continued success. Therefore, its maintenance and development have become key goals of nations and companies alike. Although competitiveness as a concept is difficult to define, as its meaning changes over time, it has become a permanent fixture in economic and policy discussions (Bhawsar & Chattopadhyay, 2015).

Competitiveness is comprised of four elements: efficiency, choice, resources and objective. Thus, analyses of competitiveness are holistic evaluations of how nations, industries and companies are managing the totality of their competencies in achieving success (Bhawsar & Chattopadhyay, 2015; Garelli, 2012). These different levels are interconnected, meaning that firms are responsible for creating economic value while nations and industries establish an environment that either encourages or discourages firms from achieving that economic value (Garelli, 2012).

National competitiveness refers to a nation's ability to provide an operating environment for firms that enhances companies' ability to compete in international markets (Bhawsar & Chattopadhyay, 2015). National competitiveness has been strongly connected to productivity, but this is a relatively narrow view of the concept (Porter, 1990; Krugman, 1996). National competitiveness is jointly created by policymakers who establish laws and regulations and firms that engage in value-added activities in a specific industry in a particular country to sustain the value added over long periods despite international competition (Moon, Rugman & Verbeke, 1998). Thus, national competitiveness is a product of the set of institutions, policies and factors that determine a country's level of productivity (Global Competitiveness Report, World Economic Forum, 2013). The objective is to aid companies in value creation and profit generation while boosting national prosperity. National competitiveness is usually measured by national productivity, the balance of trade, labour productivity, the foreign exchange rate and foreign direct investments (FDI) (Bhawsar & Chattopadhyay, 2015). At the global level, different organisations also provide aggregated competitiveness indexes that annually rank countries (e.g. World Bank and the World Economic Forum).

Industry competitiveness refers to the joint ability of companies operating within a certain industry to compete in international markets and be consistently profitable, bringing lucrative returns on investments (Bhawsar & Chattopadhyay, 2015). The concept can be extended to include the degree to which an industry gratifies the needs of customers through products/services, price, quality and innovation, as well as the needs of various stakeholders, such as by providing a safe workplace to workers (Momaya, 1998). Industry competitiveness measures include productivity, cost competitiveness, export market share, balance of trade, export growth, profitability and technology indicators (Bhawsar & Chattopadhyay, 2015).

Firm competitiveness is defined as a company's adaptability and ability to realise long-run profits (Bhawsar & Chattopadhyay, 2015). This is determined by whether a company can both fulfil customer needs and make profits (Chikan, 2008). Thus, a firm's competitiveness is an outcome of everyday operations and the firm's ability to take advantage of its capabilities (Cetindamar & Kilitcioglu, 2013). Measures of firm competitiveness include cost, quality, deliverability of products and services, core competencies, market share, information technology applications, human resources and technology (Bhawsar & Chattopadhyay, 2015).

Thus, at all levels, competitiveness stems from the ability of a nation, an industry or a company to compete in open and fair markets. Our current business environment is changing rapidly and even radically, thus changing the landscape of competition and making the achievement of long-term competitiveness challenging. This has caused nations, industries and companies to look for partners and collaborators (Bhawsar & Chattopadhyay, 2015). At the national level, this can be seen in the increasing number of trade agreements and the importance of establishing such agreements with key markets. At the industry level, cooperation to increase competitiveness is one of the main aims of different industry associations that operate at global, regional and national levels. At the firm level, cooperation or co-opetition, where the cooperating firms are also competitors, can be formed with suppliers, customers or other stakeholders with different aims and levels of commitment. Cooperation provides nations, industries and firms with more resources (from materials to knowledge) to maintain or develop competitiveness, as the continuously and rapidly changing environment demands constant rethinking and re-planning of operations.

To explore the possibilities for Finland and Finnish firms, this report will explore three different perspectives on change. First, Section 2 focuses on the wider context of global changes in which Finland is embedded. Second, Chapter 3 describes the current state and recent developments in exports and the competitiveness of Finland and the Nordic countries. Third, Chapter 4 discusses the interpretations of competitiveness and related challenges and opportunities among actors at different levels, starting with actors operating at the EU level and ending with the level of individual Finnish firms. Lastly, Chapter 5 provides policy recommendations highlighting key takeaways.

2. Changing business environments and the Baltic Sea Region

Changes that occur at the global level have various effects at the regional and local levels, and vice-versa. Therefore, it is necessary to some extent understand the wider context where the focal entity under study is embedded. This report was written from the perspective of Finnish export companies. Therefore, the wider context explored is the Baltic Sea Region and the EU. The EU has made a strong strategic choice to engage in a high-impact sustainability transition and to push for the restructuring of the global trade

governance system run by the WTO (European Environment Agency, 2023; The European Parliament, 2023). The Baltic Sea Region has a macro-regional strategy and it is one of the four regional strategic areas in the EU. The EU Strategy for the Baltic Sea Region (EUSBSR) covers three main areas: saving the sea, connecting the region and increasing prosperity (EUSBSR, 2024). These objectives relate to an array of policies in support of achieving these aims. Additionally, Finland as a nation has strongly committed to the UN Sustainable Development Goals (SDGs) and has instituted multiple policy and investment programmes to propel the sustainability transformation (Ministry of Foreign Affairs, 2024; Ministry of Finance, 2024). Thus, the sustainability transition is of high importance and a clear priority for the EU, Baltic Sea Region and Finland, alongside the shared assumption of the importance of open economies and fair trade systems.

The EU's focus on sustainability stems from the looming consequences of climate change and the global-level agreements and goals to tackle these challenges. The sustainability-driven policy includes tools in the form of sustainability transition supporting regulations and investment schemes such as the Green Deal, thus influencing competitiveness. The leading economic powers—the US, the EU and China—have adopted differing approaches to support the transition. These approaches are anticipated to have positive influence on the sustainability transition but challenge the competitiveness of the regions (Kleimann, 2023). Thus, although the UN SDGs provide global-level common ground and aim for sustainability transitions, a similar synergy is lacking at the regional and national levels. As a result, the international business environment at the industry and company levels is not developing to be more open and fair; rather, current developments create more complexity and in the worst case may hamper companies' ability to enhance competitiveness in international markets.

The global value chains are in a state of transition. The climate crisis has compounded the pressure to curb consumption and the pursuit of economic growth. Demographic changes and technological developments have also changed consumption and market behaviours. Together, these changes have shaken existing global and regional cooperation structures and traditional power distributions. The COVID-19 pandemic further exacerbated these already ongoing changes and shook familiar structures in industry and commerce, as well as in many other areas of life. In addition, the changing global economic power structures and increasing tensions in international relations challenge global value chains as the economic decision-making rationale is mixed with value-based political rationale. After the two world wars, globalization, economic growth and increasing living standards have developed simultaneously. This has created mutual interdependencies, making the global economy highly interconnected. The risks and challenges related to these interconnections have become evident in the aforementioned crises. However, the risks and challenges influence regions and nations differently as the depth and magnitude of these interconnections (e.g. the share of imports/exports as a percentage of GDP, or inward/outward foreign investments) varies. The EU is highly interconnected and therefore has a great interest in supporting the renewal of the multilateral trade system. Similarly, multilateral trade system and open and fair international markets are essential for the Baltic Sea Region and small open economies, such as Finland.

Multiple global developments that obstruct democratic values, particularly Russia's war on Ukraine, have called forth the importance of security as being among the most influential factors affecting business environments. Thus, sustainability and security are now essential considerations among both business and policy decision-makers. The Finnish State Council's report on foreign and security policy (2020) characterises Finland's operating environment as undergoing strong changes due to the tensions between the great powers. Security had been a concern of mounting significance even before Russia invaded Ukraine. However, the war changed the focus of the discussions, particularly those occurring in the Baltic Sea Region and Finland (Mikulska & Min, 2023). The earlier concern over security stemmed from the changes in multilateral cooperation both in terms of the goals and the expanded value base of stakeholders. China's rapid economic growth, the integration of several emerging markets into the global economy and the WTO have shifted the power balance affecting the global economy and trade. This, together with the pressures caused by climate change and digitalisation, has shaped national and regional economic and policy priorities and goals. The rise of protectionism has been seen in the US as new surface of 'America first' ideology, the EU's 'open strategic autonomy' trade policy strategy and China has its 'Made in China' strategy. These developments reflect the changes in the perspectives on the benefits and risks related to economic interconnectedness. While concerns about the use of economic means to promote the strategic interests of foreign states have grown, trade policy has increasingly become part of the security policy toolbox. This development has been coloured by populist and protectionist perspectives that have arisen to challenge the values of free trade and democracy.

An example of the mixing of economic and security policies can be seen in the security-based supervision of FDI, which has been tightened in recent years in the EU and the US (OECD, 2022b). The tightening of regulation is above all a result of China's growing economic influence. Especially within the EU and the US, populism and protectionism have gained power in recent years. As a result, nations are trying to get a grip on the changing world by returning to traditional trade policies (Albertoni & Wise, 2021). Protectionist actions have also contributed to the destruction of the familiar arrangements determining world trade, undermining the multilateral trade governance system and creating a new kind of uncertainty in international business. The rise of protectionist measures is hampering cooperation at the international relations level, and this will challenge and change factors affecting competitiveness at the regional and national levels, as evolving relations will influence power balances and shift trade flows and investments.

At the national level, Finland responded to the increasing and abruptly realised security threats stemming from Russia's attack on Ukraine by joining NATO in April 2023. This decision contributed to maintaining the security and stability of the business environment in Finland and the Baltic Sea Region. Thus, although not necessarily directly, the deepening of cooperation with NATO countries has had a positive influence on the future competitiveness of Finland.

A new direction for multilateral cooperation is therefore urgently needed. However, the global operating environment, which has become more contradictory in terms of its goals, has also made it difficult for multilateral negotiations to progress in the WTO, the UN and most regional negotiations (e.g. the free trade agreement between the EU and the US was negotiated for three years until the agreement was undermined in the fall of 2016). In recent decades, an increasingly heterogeneous group of states with different value bases has been integrated into the global economy. With this, finding common goals and means has become even more challenging, and cooperation negotiations have increasingly shifted to focus on regional trade agreements, the number of which has increased from 15 in 1980 to 82 in 2000 and 311 in 2020 (WTO, 2023). This multi-polarisation of the geopolitical and economic operating environment has been identified as a force for change at the global level. The contents of the agreements have also become more detailed but not necessarily more comprehensive. Under such circumstances, creating new agreements at WTO is difficult, as is renewing existing agreements.

When the global cooperation structure crumbles due to changing power relations and changes in trade and business, the international business environment will appear even more uncertain. As a result of such uncertainty, stability might be increasingly sought through protectionist policies. Changes in business, such as those resulting from growing global value networks and digital trade, will require new, international regulations and agreements to manage and monitor trade and business. At the same time, multi-level information security issues will arise. Furthermore, the COVID-19 pandemic highlighted several vulnerabilities in supply chains and created space for protectionist strategies, exposing the weaknesses of interconnectedness of our economies through global supply chains. Trade policy measures have also become a part of today's foreign and security policies, where protectionist measures and economic sanctions are increasingly being used to resolve conflicts, to address domestic political problems or to achieve broader foreign policy goals. The boundaries delineating economic, foreign and security policies are blurring. For example, geo-economic influence and prevention are increasingly being governed by a blend of policies to secure regional or national markets. Geo-economic influence includes the use of both 'sticks', such as sanctions and import duties, and 'carrots', such as tax benefits, financing and investments, to protect and boost national and regional economy. Therefore, the cooperation—in its many forms that were created after the world wars—has brought us new opportunities to develop competitiveness, but recently it has become increasingly challenging to develop this cooperation further or even to maintain the existing relations.

3. Finland's exports and competitiveness

3.1 Overview of recent developments in Finland

Recent crises—the COVID-19 pandemic, Russia's war against Ukraine and high inflation—have negatively impacted Finland's economy and foreign trade, and geopolitical tensions are continuing to cause economic insecurity on a global scale. Following the onset of the COVID-19 pandemic, Finland's export of goods experienced two years of growth but declined again in 2023. According to the preliminary data from Finnish Customs, the value of exported goods decreased by 6.9% and volume by 2.7% in 2023. In 2023, Finland's most important export markets were the US with an 11.1 % share, Sweden with

a 10.7% share and Germany with a 10.5% share of all exported goods. The rise of the US to become Finland's number one export partner was significantly impacted by a cruise ship export worth EUR 1.9 billion. Finland's exports to Russia, which have plummeted since Russia's full-scale invasion of Ukraine in February 2022, have continued to decrease, causing exports to Russia to account for less than 1% of Finland's total exported goods in 2023. (Finnish Customs, 2024) Finland's exports to China also decreased in 2023 particularly as the result of weak domestic demand in China (BOFIT, 2024).

For a small open economy like Finland, exports are very important. Finland was able to increase its global market share in the export of goods until the financial crisis of 2008 (Huovari et al., 2022). Since then, exports in the technology and forest industry sectors in particular have suffered due to the collapse of the Finnish mobile phone industry and the decreasing global demand for paper (Huovari et al., 2022; Finnvera, 2023b). The export of services, in turn, has seen more positive development, boosted by the growth of the export of services in the information and communications technology (ICT) sector (Huovari et al., 2022). Exports account for 40% of Finland's GDP, which is a much more significant ratio than that for large economies such as China or the US but less than that for Finland's closest reference group, the other Nordic countries. According to the state-owned specialised financing company Finnvera, Finland has the potential to increase the share of exports in its GDP by as much as 15 percentage points by strengthening its competitiveness. One of the main reasons for the weak development of Finnish exports has been Finland's sluggish economic growth and weak cost competitiveness since the financial crisis, although cost competitiveness has recently been improving. (Finnvera, 2023a)

In addition to cost competitiveness, factors related to Finland's industrial and export structure, the main export markets, national institutions, education, research and development (R&D) and demographic change can influence competitiveness (Finnvera, 2023a). Because the majority of Finland's exported goods—approximately 57% in 2023—are directed to the EU countries (Finnish Customs, 2024), the economic downturn in the euro area and in Finland's main export markets, such as Germany and Sweden, has weakened the outlook for Finnish exports. What is particularly important to Finland's economy is curbing inflation and rising interest rates in the euro area (Bank of Finland, 2023; Finnvera, 2023b). In the future, Finnish exports could also be strengthened by diversifying them and increasing the export of services, particularly in sectors with high productivity (Finnvera, 2023a; 2023b).

Finland has long been a forerunner in R&D. In the peak years of 2009 and 2010, Finland's total R&D expenditure accounted for almost 4% of its GDP. However, since then, there has been a downward trend, and for several years, Finland's R&D expenditure as a percentage of its GDP has stagnated at below 3%. (OECD, 2024) Finland has set a goal to increase its R&D expenditure to 4% of its GDP by 2030, for instance, by urging companies to increase R&D activities and doubling the EU's R&D funding to Finland (Finnish Government, 2024). R&D is also connected to productivity, which is an important contributor to competitiveness. Productivity can be boosted, for instance, at the national level by strengthening human capital and technological development and at the firm level by innovation. (Huovari et al., 2022)

One of the key elements of competitiveness is the availability of a skilled workforce (Finnvera, 2023b). Finland will face future workforce-related challenges, especially declines in the working-age population and in education levels, if the current trend is not reversed. Finland's excellent education system has long been one of its great competitive advantages and keys to the country's success. It also forms the basis for skilful labour, R&D and innovation. However, in recent years, several studies have indicated that Finland is falling behind both in basic and higher education. According to the findings of the OECD's Programme for International Student Assessment (PISA) 2022, the performance of Finnish students has deteriorated in terms of mathematical, reading and scientific literacies, although all areas still remain above the OECD average (Ministry of Education and Culture, 2023). With regard to higher education, the OECD's Education at a Glance 2022 report indicates that while the OECD average for the share of 25–34-year-olds with a tertiary degree increased from 27% in 2000 to 48% in 2021, in Finland, the share has remained practically stable throughout the past two decades, increasing only from 39% to 40%. Thus, although Finland was among the top OECD countries in terms of the share of young adults with a higher education two decades ago, Finland has now fallen well below the OECD average. (OECD, 2022a) Higher education benefits not only individuals but also society. It is associated with higher employment rates and lower unemployment, better earnings and longer careers (OECD, 2022a; Finnish Institute of Occupational Health, 2023).

One of the structural factors that will affect Finland's economic and societal development in the future is demographic changes. Finland's population is ageing rapidly, which, together with the recent decline in fertility, will decrease the size of the working-age population. Decreases in both the size of the working-

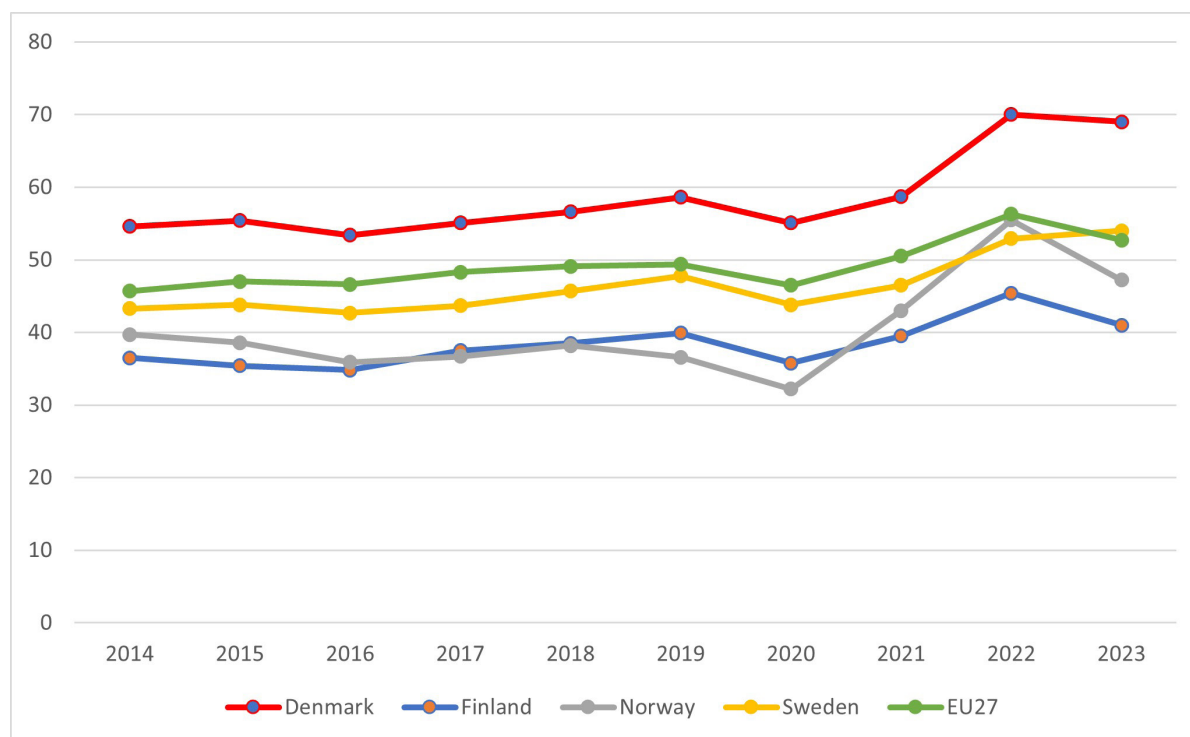
age population and education levels will ultimately affect human capital and, consequently, Finland's future competitiveness. (Finnish Institute of Occupational Health, 2023) At the firm level, ageing can also decrease the willingness to take risks (Finnvera, 2023a).

Although deaths now outnumber births in Finland, the population is currently still growing due to immigration. Immigration is important in terms of the future of the workforce. However, the low employment rate of people with immigrant backgrounds, especially outside the EU, is currently a challenge in Finland. Immigration can only counter the negative effects of demographic change if immigrants' equal participation in working life and their cultural and social integration in Finland are guaranteed. (Finnish Institute of Occupational Health, 2023) The global competition for professionals is tough for a small and remote country like Finland. However, Finland has many strengths that can be made use of in attracting a skilful workforce and getting them to stay, such as the country's political stability, safety, clean nature and benefits brought about by the welfare state. In addition, the attitudes of Finnish society towards immigration and internationalisation will play a significant role in creating an attractive image of the country. (The Finland Chamber of Commerce, 2024).

3.2 Finland's exports and competitiveness compared to other Nordic countries

Finland, Denmark, Norway and Sweden are all small open economies that depend on foreign trade. As illustrated in Figure 1, of these four countries, Denmark has the largest share of exports in terms of the percentage of its GDP. The main driver of Danish exports, which is also a key sector of the Danish economy, is the pharmaceutical industry. Industrial production in Denmark expanded by almost 50% during the past three years, thanks to the strong growth of the pharmaceutical industry, which represents a fifth of total industrial production. (Nordea, 2024) In terms of foreign trade, and compared to other Nordic countries, Denmark also benefits from its geographical location in mainland Europe and favourable logistical conditions (Finnvera, 2023b). Norwegian wealth, in turn, stems in particular from extensive oil and natural gas resources, and almost all oil and gas produced in Norway is exported. In 2022, crude oil and natural gas exports accounted for over 70% of the total value of Norway's exported goods (Norwegian Petroleum, 2024). Recently, Norway has benefited from the high energy prices caused by the energy crisis (Finnvera, 2023b).

Figure 1 The value of exported goods and services as percentages of the GDP, 2014–2023



Source: Eurostat 2024.

While Denmark and Norway emphasise certain key sectors that are important for their economies, the export performances of Finland and Sweden are perhaps more comparable. Sweden's share of exports as a percentage of its GDP is more than ten percentage points higher than Finland's share, which is also

the lowest among the four countries (Eurostat, 2024). This is partially related to factors that cannot be changed, such as Finland's less-than-ideal geographic location in terms of exports, considering the long distances between Finland and its export markets. Furthermore, recent geopolitical developments, particularly Russia's invasion of Ukraine, have affected Finland more negatively than the other Nordic countries. Due to the war, Finland's connections to the East via the Russian border have been severed, making Finland even more logistically inaccessible than before. The collapse of trade with Russia also hit Finland harder than the other Nordic countries. (Finnvera, 2023b)

In terms of exports, Sweden in particular outperformed Finland after the financial crisis of 2008, from which the Swedish economy was able to recover faster. In turn, unit wage costs increased more rapidly in Finland than in Sweden, which weakened Finnish cost competitiveness compared to Sweden and impacted Finnish exports negatively. Furthermore, due to its own monetary policy, Sweden has been able to better adapt to economic crises. (Maczulskij & Nilsson Hakkala, 2023) In recent years, Sweden's goods exports have also been boosted by the weakening of the Swedish krona against the euro and the US dollar (Business Sweden, 2023).

According to the Finnish Innovation Fund Sitra, Finnish public discourse on competitiveness has mostly concentrated on maintaining competitiveness while international discussions on competitiveness are more diversified and future-oriented, emphasising future goals and factors in improving competitiveness, as well as the sustainability and responsibility of business activities in relation to the environment, society and governance (Hämäläinen, 2022). Sustainability is also a focus of the World Economic Forum's Future of Growth Report 2024, which assessed countries' potential for growth across four pillars—innovation, inclusion, environmental sustainability and systemic resilience. Regarding the Nordic countries, Sweden's performance is strong across all four pillars, while Finland's performance in innovation is a bit weaker and Denmark is weaker in sustainability. All three countries¹ rank well above average across all four pillars among high-income countries. (World Economic Forum, 2024) According to the World Competitiveness Ranking 2023 released by the International Institute for Management Development, Denmark ranked first among 64 countries, while Sweden ranked 8th, Finland 11th and Norway 14th. The ranking measures the competitiveness of countries based on their economic performance, government efficiency, business efficiency and infrastructure. Denmark is performing excellently in business efficiency, infrastructure and government efficiency. Sweden's and Finland's strengths include infrastructure and business efficiency, and Norway's are infrastructure and government efficiency. Regarding individual factors decreasing competitiveness, prices and tax policies are considered to be weaknesses for all four countries. (IMD, 2023)

Finland, Denmark, Norway and Sweden are modern, high-tech countries, stable democracies and welfare societies with well-functioning infrastructure and quality education systems. Hence, they share similar strengths contributing to their competitiveness and perform well in rankings that measure conditions for long-term growth. However, they are also affected by global developments, resulting in common, shared future challenges. Geopolitical tensions have intensified since Russia's full-scale invasion of Ukraine, and security, economic and sustainability issues have become more intertwined. Demographic changes, particularly ageing populations and decreasing fertility, concern all Nordic countries, threatening the future capacity of their pension and health care systems (Heleniak, 2023), as well as the future availability of the workforce. The green transition, which is well underway in the Nordic countries, offers new opportunities for Nordic businesses that have expertise in green technology and sustainability. However, because this transition affects various sectors, industries and regions differently and will have wide-ranging consequences for society at large, ensuring a just green transition is also a challenge for the Nordic countries (Lundgren et al., 2023).

4. Views of competitiveness among actors at different levels

4.1 EU-level actors balancing competitiveness with other goals

To explore EU-level actors' perspectives of the business environment, we conducted interviews and organised a workshop in Brussels at the end of 2022. Participants included officials of the European Commission and representatives from various organisations and associations that operate at the EU level to promote the interests of their member firms.

¹ Norway was not included among the countries analysed in the World Economic Forum's report.

In general, these informants focused on the big picture—that is, the European business environment caught in between the pressures stemming from external powers. Two themes were highlighted as having key importance—environmental sustainability objectives and security issues. With regard to the first theme, the EU has set clear priorities in terms of mitigating climate change through various regulatory instruments, particularly through the Green Deal. A challenge emerges from the fact that such a ‘stick-like’ approach works differently than the ‘carrots’ offered in the US via the Inflation Reduction Act (IRA). For instance, this ‘stick-like’ approach may generate an overly bureaucratic and costly home environment for European companies operating in global markets. Moreover, the rapid and ambitious sustainability enhancement objectives need to be handled globally, and trade policies are the way for the EU to pursue its values and goals externally, influencing the EU’s accessibility for foreign businesses through various requirements. Given the complex, connected international markets, designing appropriate policy instruments is a difficult task for EU-level actors. They must create policies that support the generation of a global business environment that demands green solutions be produced in the EU but at the same time does not prevent the solutions’ feasible generation and broader sustainable economic growth by severing important supply chains for European businesses.

Aside from highlighting the challenges associated with supporting sustainable business internally and transferring it outside the EU through various policy instruments, the interviewees brought up the security-related issues that have limited the attention and resources for promoting the green transition in Europe. First, the COVID-19 pandemic and then Russia’s invasion of Ukraine changed the (retrospectively naïve) assumption that Russia, together with other authoritarian countries, would be willing to adopt European values and objectives. The cutting of ties to Russian energy, the resulting de-risking operations with respect to China, and the funds allocated now and in the future to supporting Ukraine in the war hamper international business, investments and general economic growth in the EU, augmenting inflation and the pre-existing internal demographic and institutional fragility challenges.

Consequently, EU-level actors expressed being highly focused on the dynamics of the EU at large, and their views of the competitiveness challenges focused on high-level issues. Despite the key problems described above, these actors reported that European businesses are forerunners in the green transition, proceeding rapidly and ambitiously in terms of related developments. They argued that this will generate a key competitive advantage for the EU in the future. The green transition entails short-term costs, but in the long run, such investments will make the EU the leader in this area—one that the whole world needs to follow one day. Furthermore, these actors agreed that the sustainability and security goals have significant overlap, particularly in the long run. In addition, the EU’s main asset is that it is the world’s largest single market, the economic attractiveness of which underpins the power and leverage the EU has. To maintain and develop this advantage for the future, these interviewees called for new ways to secure access to critical raw materials, 100% green budget for the EU, better targeted public investments, and the building of new, international trade alliances with more effective negotiations, for instance. Maintaining and developing the EU’s assets for the future requires determined and increasingly innovative work that acknowledges the changing geoeconomic landscape.

4.2 Nordic-level actors comparing their competitiveness with that of others

At this level, the interviewees comprised actors who aimed to promote the interests of various industries internationally in the context of Nordic countries, including representatives of industry associations. They act as messengers between EU policymakers and national governance and business. During the interviews, these informants reported on both international business environment issues and national challenges. These interviews were conducted in 2023, and later in the same year we organised a workshop in which the interviewees came together to share and discuss their views.

What most significantly distinguishes the views of these actors from those of the EU-level actors is their more detailed understanding of the challenges associated with the practical implementation of regulatory frameworks in business networks. For example, regarding the sustainability regulations, such EU-level instructions or demands can sometimes hinder the green transition or even be counterproductive—the frameworks give a push towards the right direction, but sometimes, they do not comply with the variety of solutions underway in the business field, where various pioneers are proactively developing solutions for a competitive advantage. Instead, the frameworks are more or less thrown out to the field, and then their end-users are left to interpret their practical meaning in relation to the business of each firm and their wider business network. Therefore, these interviewees would like to see more carrots instead of the

heavy use of sticks against companies. They also argued that the rise of populism in European politics is causing policymaking to increasingly be after quick 'silver bullets' to complex problems, and the distance between politicians and businesses is wider than before, complicating the process of discovering true solutions to wicked issues.

At the same time, the Nordic actors highlighted the problems the suddenly changed security environment will generate for the competitiveness of the Nordic industries. The war is continuing at a rather close geographical proximity, resulting in new kinds of cybersecurity and supply chain issues for companies in all fields. These changes may have considerable impact on the global business environment, which is of particular importance for the Nordic countries as small and open economies that depend on foreign trade. Given the current attempts to advance European strategic autonomy and reduce the dependence on external supply chains, the security issues may also slow the progress of the green transition. For example, the EU cannot become dependent on Chinese low-cost solar panels or wind turbines, yet it will face difficulties in reaching its ambitious goals without them.

However, as with the policymakers, many of these interviewees found that the Nordic countries are forerunners in meeting the rising sustainability demands, arguing that their ability to do so will only strengthen the competitiveness of the Nordic industries. The subsidy race was cited as the greatest challenge, as the Chinese and Americans are rapidly developing and implementing sustainable solutions, and none of the Nordic countries can compete in terms of costs; therefore, their competitive advantage has to emerge from superior solutions. The generation of sustainable solutions demands energy, investments and expertise, for which there is increasing, or at least occasional, scarcity.

The same problems are prevalent around Europe, and to overcome such challenges, the EU is discussing whether and how to enter the subsidy race. The largest countries, such as France and Germany, have the resources to support their economies through public funding, but for the smaller economies, such as the Nordic countries, this development would generate inequality within the EU. Thus, the interviewees at this level were cognizant of the potential disadvantages entering the subsidy race might entail. They also acknowledged that it is worth considering whether the collective pooling of support—for collectively defined goals—is a better way to support sustainable competitiveness in the EU. The interviewees observed that some regulations are implemented differently in Northern Europe than in the South, calling for a level playing field for all European companies. Acknowledging also the overregulation and the red tape, the interviewees argued that the European Green Deal with its numerous goals is a well-functioning sign of direction for the industries. The advantages of being part of the EU are also evident in other ways—Norway as a Nordic country outside the EU does not benefit from the Union's policy instruments and leverage in trade agreements, for instance.

To support the competitiveness of the Nordic industries, these interviewees called for a free global marketplace for green products, global carbon pricing and the reform of the WTO. However, with regard to the tools at hand, the interviewees highlighted the importance of deepening already strong Nordic collaboration to address shared concerns about fair and open trade and create opportunities in pursuing the green transition.

4.3 Finnish actors searching for the key to increasing competitiveness

At the national level, the interviewees comprised business representatives from key export industries and those from associations and public organisations dealing with the Finnish industries. These interviews and the workshop were organised in 2022–2023.

These interviewees observed a rapidly increasing demand for more sustainable solutions, as companies in various industries will soon be forced to take such questions into consideration as a result of regulatory changes, and thus pushing the development requirements forward in their supply chains. Aside from technical expertise and process development experience, Finnish businesses currently benefit from the availability of clean energy and electricity and the establishment of large ecosystem-wide R&D programmes for specific industries. Moreover, numerous Finnish firms have been proactive in considering what the green transition might mean for them, looking for alternatives to reduce their emissions and offering customers greener alternatives.

However, many reported that such demand has not yet materialised widely in prices, meaning that customers would not actually choose the more environmentally friendly and expensive alternatives in the product portfolio. Some were also struggling with unspecified demands, such as what to develop in

practice and where to invest in this respect, before understanding what a customer actually prioritises or what kind of regulatory frameworks there will emerge in practice. Given the subsidy race with competitors outside Europe, the interviewees reiterated the fact that regulations must support not only social and environmental sustainability but economic sustainability as well. Hasty decisions without careful and comprehensive impact analyses may eventually flip from supportive to limiting measures from the competitiveness perspective—and without competitive business, there are no investments and progress in the green transition either.

The interviewees called for clearer and more coherent regulatory paths instead of micro-management, which may hinder investments in innovation activity. For instance, there was a time when wood-based products were considered sustainable, but given the new biodiversity and deforestation objectives, companies that invested heavily in developing presumably sustainable wood-based alternatives to plastic products suddenly turned from being the friends of the environment to its enemies. Such experiences, combined with unspecified regulatory demands, can have paralysing consequences for innovation activity as firms wait for clearer instructions, giving policymakers power to determine what they should innovate. Innovation is the source of future competitiveness, and most of the interviewees proudly reported being proactive developers of new solutions. Such risk-taking and ambitious, proactive development seem to be tied to the views and characteristics of company management, particularly in resource-constrained small and medium-sized companies. The views of such firms are of key importance, as they represent the clear majority of firms in Finland. If large companies are asking for clearer regulations, it is no wonder that smaller firms face challenges in interpreting how to develop their products and processes to meet future requirements while running their everyday business profitably by focusing on meeting their existing customers' current demands.

Based on the interviews, Finnish actors, including Finnish small and medium-sized companies, should strengthen their presence in the EU's decision-making bodies and be 'larger than their size' to generate policies and politics in favour of Finnish businesses. With regard to the institutional environment, there were complaints that despite the high activeness of specific Finnish individuals in the EU, this group present in those decision tables is getting smaller and smaller due to retirements, for instance. Moreover, for Finland, the EU often seems like a far-away place that is seemingly uninfluenceable, making related issues cognitively far as well. However, the only way to influence the system Finland is a part of is to be present and proactive. The same can be said about Finland's presence in international markets, also outside the EU—a lot is being done to promote the expertise of Finnish businesses, but there is demand for more promotion.

Furthermore, the development of Finnish businesses more widely is also an issue internally. The public funding available for R&D activities seems to be primarily utilised by companies that have expertise in applying for it. To develop wider business networks, smaller firms also need to benefit from such financing. As such, more businesses could become involved in discovering and defining Finland's future competitive edge. In the context of the interviews, businesses and other types of actors keep repeating the idea of Finland as the forerunner in the green transition and digitalisation, but when competitors invest in these sectors even more heavily, what is Finland's next step, and what would Finland's role be in advancing these industries? Finland as a whole should define its future vision and both its national and international priorities: What kind of an EU would be optimal for Finland? How can Finland go about developing a trajectory that it can pursue? What would that 'story' entail internally?

When it comes to immediate needs, the interviewees brought up the need for considerable investments, smooth permission processes, a well-balanced national economy, the availability of a skilled workforce, predictable national regulations, impactful research infrastructure and information sharing in its various forms between different actors. Moreover, they called for the need for industries to make sense of the details and practical implications of the current regulatory tsunami so that it can be turned into a practical source of competitive advantage amid the changing global business environment.

5. Conclusions on the future competitiveness of Finnish industries

Combining academic literature, industry reports, statistics, and direct interviews and workshop discussions with various stakeholders at different levels, this comprehensive report studied the wider context of Finnish industries' competitiveness, its current state and future opportunities. The global economy has been led by the value base of Western economies, and the increased integration of global economy has made the value base much more versatile. The prevailing global governance structures built

on multilateral systems require restructuring in order to provide support for the further development of global-level welfare. The development of welfare, in turn, is strongly stemming from technological advancements and leaps in our knowledge base, the opening up of new markets, and the harmonization of the global trade rules. The most recent developments have challenged this development and given rise to protectionist policies and questioned democratic values. This hampers the cooperation at the level of international relations, industries and individual companies that originally boosted their competitiveness development. At the same time, we face global level challenges, such as the climate crisis with its drastic change pressures on the way our societies are run, and the rapidly evolving AI integration to numerous aspects of our societies, both of which require new forms of collaboration and the sharing of knowhow as well as resources.

Our study explored the current state and possible future development needs of the competitiveness of Finnish industries in this turbulent context. The results are summarised into the following four key issues:

1. Megatrends and geopolitical developments may change the business landscape and thereby the competitiveness of Finnish firms dramatically.

Such changes are visible already in business networks and interdependencies. Amid all the changes and requirements, it is important to clarify the objectives of competitiveness at the national level: where are we investing, and what are we prioritising? Technological changes appear quickly, whereas regulatory changes are slow to follow—can Finland continue such framework-driven development if other countries, at least key competitors, run faster with technological development as the priority? Technological development needs are necessary to our future competitiveness, but will it be sufficient? Sustainability transition is a global-level need, and the EU has taken this transition as one of its core tasks. However, this change requires much more than technological solutions. In order to build the Finnish competitiveness in this respect, we need to understand the immediate influences of the regulatory and international market developments as well as have a long-term vision to evaluate which of these short-term challenges are relevant to solve. The urgent need for new technological solutions to produce sustainable energy, transform industrial processes, and rewrite business models are a visible part of the sustainability transition. However, the underlying assumptions about how our societies run need to change as they are based on continuously increasing consumption of resources. Both the economic growth as well as the increase of welfare have strongly built on increased use of resources, and although we have begun the transition towards more sustainable societies and anticipate drastic changes, we cannot yet imagine what a sustainable society is.

2. Finland is searching for its identity and new ‘success story’ in the changed competition environment.

Finland has a good reputation as a strong innovator and pathfinder in different high-technology areas. Finland has had multiple success stories of which the rise of Nokia is the most well-known. It seems that our emerging vision for future competitiveness continues to base on the technological innovation capabilities as we seek a globally significant role as the provider of technology-based solutions for sustainability transition. To keep up with the global technological competition in this respect, Finland needs to guarantee the availability of skilled workforce in the future, which requires reversing the trends of declining working-age population and education levels as well as invest in continuous education, research and development. Moreover, since Finland does not have the resources to compete with the heavy public support provided to competitors in the US and China, for example, Finnish companies need to search niche areas of expertise, establish strong, international collaboration partnerships, and invest strongly in R&D, for example in wider industry-academia collaboration. Still, can Finland continue leaning on the myth of its technological advantage and cleantech expertise when others are devoting even more effort and resources to such development? Should we have one or several niche areas of expertise? With whom should we collaborate in developing these and how? Shall we move from technologies to services, or do we end up producing hardware? Finding new paths may require abandoning some old ones, and to avoid dead-ends, there is a need to take a break and imagine what will be around the corner.

3. Different actors have differing views of how we are doing in international business, which hampers the generation of collective actions.

The EU policymakers focused on the long-term perspective, defining their goals and agendas (for competitiveness and other issues too) through a future-oriented lens, whereas businesses operate in the present and have to deal with competition quarter by quarter and simultaneously manage regulatory frameworks. In addition, the policymakers did not seem to be fully aware of the costs that the green transition, for instance, generates for businesses in the form of required resources for handling new bureaucracy, research, measurement, and reporting, or of the innovation-limiting effects the detailed regulations may result in. However, at the same time, some companies were calling for such guidance from regulators as that would show the way forward and provide rules to the game. In between, the Nordic-level actors expressed awareness of the problems involved in the implementation of EU policies, but as with the policymakers, their impression was that companies are quite actively proceeding with the green transition, and they welcome such regulatory frameworks to strengthen their competitiveness. However, the national-level discussions with individual firms highlighted the grass-roots understanding of the implementation challenges, showing that complex and ambiguous frameworks do not help in enhancing competitiveness when competitors benefit from various types of ‘carrots’. How can we go about bringing different actors relevant to the competitiveness of Finnish industries on the same page? Despite different views on the key challenges, some issues were shared—all actors saw problems in information-sharing between different actors, as well as in the fair sharing of costs of green transition. Thus, based on the mutual understanding of the existence of these key challenges, focusing on solving them through the establishment of new communication channels and green investment support systems might offer first steps towards the generation of the joint way forward.

4. The future meaning of competitiveness remains blurred—and open!

Our understanding of competitiveness focuses largely on business feasibility and profitability, but as a result of climate change and geopolitical developments, other matters may become highly relevant in the future, changing the rules of the game further. Thus, it is important to generally analyse competitiveness changes and their occurrence from the perspective of various time frames. Looking far into the future, we can ignore present-day issues and explore what could be possible in the future. Diving into the nightmares and dreams of the future and letting go of past stories of excellence and pride may open up avenues to new ideas that may constitute the heart of the Finnish industries’ future competitiveness. If we cannot imagine it, how could we achieve it? The future does not exist but it is created through everyday actions, whereby collective action is the way to shape even entire markets—we just need to define our preferred vision for them.

The insights compiled in this report show the variety of ways to understanding the current state and future of competitiveness, focusing on the perspective of Finnish industries amid the changing global trade system. While these insights do not aim to offer detailed suggestions for respective policymakers or other actors, they together with the above discussed questions should be carefully reflected in different actor groups—future-oriented thinking, critical analyses of what is to change and should be changed, and the bold mixing of views and ideas of different actors are necessary for the generation of a shared view, and thereby agency, towards the transformations required in developing the international competitiveness of the Finnish industries.

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