



Global Compact
Network Finland

COMMITMENT TO THE SCIENCE BASED TARGETS INITIATIVE IN FINLAND

A Progress Report, May 2023



This report is written by Thirdrock Finland Oy and UN Global Compact Network Finland

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THANK YOU

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Foreword

Youth's Message to the Business World - The Decisive Years Full of Threats and Opportunities

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“The goal of limiting global warming to 1.5 degrees requires immediate and radical emission reductions in all sectors. If we delay any longer, we will lose a short and very quickly closing window in which to secure the future of humanity.”

THE RHETORIC of The Intergovernmental Panel on Climate Change (IPCC) has hardened as new information on the effects of climate change reveals an increasingly harsh picture of the world's state. We are living the decisive years, and unfortunately, the global situation does not seem promising.

A recent source for optimism has been the business world and the increasing number of companies that commit to ambitious climate goals. The rise in SBTi commitments in the Finnish private sector is particularly encouraging, as this report outlines. The SBT initiative has genuine potential to steer companies' emission targets in the right direction, and especially sector-specific guidelines are the strength of the initiative. This is exactly what we must work towards.

However, Finnish companies lag behind other Nordic enterprises in terms of science-based climate work. In fact, Finland ranks in the middle among other OECD countries in the number of SBTi commitments. It is vital that we do not fall behind our European competitors, as this is an opportunity we cannot afford to lose. Finland has world-class potential to be a major power and

exporter of the future's green economy. The business sector recognizes this opportunity and, for example, the work the Confederation of Finnish Industries (EK) and the Climate Leadership Coalition (CLC) do in promoting the green transition amongst Finland's business field has been of paramount importance.

Ambitious pioneers in climate work are needed. Today, companies have a key position to lead the change. Finland's national carbon neutrality goal of 2035 is something to be proud of, and simultaneously, it provides our industries a crucial competitive edge on the rapidly emerging green markets. By becoming one of the first carbon neutral countries in the world, we are globally posing the question: why can't you do the same. We have the science, technology and economic conditions to achieve carbon neutrality. All we need is the will to grab this opportunity.

Although the facts speak a harsh language and the rush is intense, in the big picture, the longer-term outlook is more important than individual meetings, years or even the topical energy crisis. In a society ravaged by crises and the deepening climate change, we must seek positive green alternatives and future-oriented views. Furthermore, we encourage everyone to involve youth in this work. We are eager to build bridges and be the change.

We urge every company to be a frontrunner in the green transition. Both a commitment to the SBT initiative and concrete measures to achieve the goals are a good start. It will not only save our planet but provides us with a competitive edge and potential for future economic prosperity.

Akseli Rouvari & Hanna Höijer

Youth Climate Delegates of Finland and COP28 delegates, Finnish National Youth Council Allianssi

Data and methodology

THIS REPORT relies on publicly available data, primarily sourced from the Science Based Targets initiative's (SBTi) website, the Finnish Government's annual climate reports, data from the Finnish energy authority as well as annual reports, sustainability reports, and websites of the surveyed companies. The report analyses the scope 1, 2, and 3 emissions and related targets of Finnish companies. The report also features success stories of some companies with most ambitious targets and good track record on climate action. Success stories are based on the sustainability report of selected companies as well as the sustainability-portion of their websites.

Overall, at the time of writing this report, there are 79 Finnish companies who have committed to

the SBTi. 13 companies out of the 79 did not provide information on their emissions or the information provided was inadequate for analysis. These companies were excluded from analysis related to emission reductions.

The list of companies committed to the SBTi was obtained on 28th of February 2023 from the SBTi's website. Companies who have committed to the SBTi, or changes in company statuses and targets after that date, are not reflected in this report. For the most up-to-date list of committed and validated companies, please visit sciencebasedtargets.org.

The data for this report will be updated in October to provide up-to-date information on Finnish companies' SBTi commitments in the lead up to COP28.



Introduction to the Science Based Targets initiative

THE SCIENCE BASED TARGETS INITIATIVE

(SBTi) is a global effort aimed at encouraging companies and organizations to set ambitious, measurable targets to reduce greenhouse gas emissions in line with the latest climate science. Climate change is one of the most significant challenges facing our planet, and it is essential that companies and organizations take proactive steps to reduce their environmental impact.

The SBTi was launched in 2015 as a collaboration between the United Nations Global Compact, the World Resources Institute (WRI), the World Wildlife Fund (WWF), and Carbon Disclosure Project (CDP). The initiative provides a robust framework and guidelines for companies to develop and validate their targets for both direct and indirect emissions. The SBTi criteria for setting targets are aligned with the goals of the Paris Agreement, which aims to limit global warming to well below 2°C above pre-industrial levels and pursue efforts to limit the temperature increase to 1.5°C. As part of committing to SBTi, companies can aim to be even more

ambitious by setting net-zero targets according to the Science Based Targets initiative's Net-Zero Standard. Net-zero targets are goals set by companies to achieve a balance between the greenhouse gas emissions they produce and the emissions they remove from the atmosphere.

The SBTi framework includes two main steps: first, companies need to assess their current emissions and set targets for reducing them. Secondly, companies need to track and report their progress annually. Additionally, companies can develop a roadmap outlining the actions they will take to achieve their targets, which is especially necessary as emission reductions require a systematic approach to be successful. Today there are more than 4,600 companies globally taking action, from which over 2,000 have set science-based targets and 1,720 committed to net-zero. Companies committed to cut emissions in line with climate science now represent 38 trillion USD, more than one third of the global market capitalization¹.

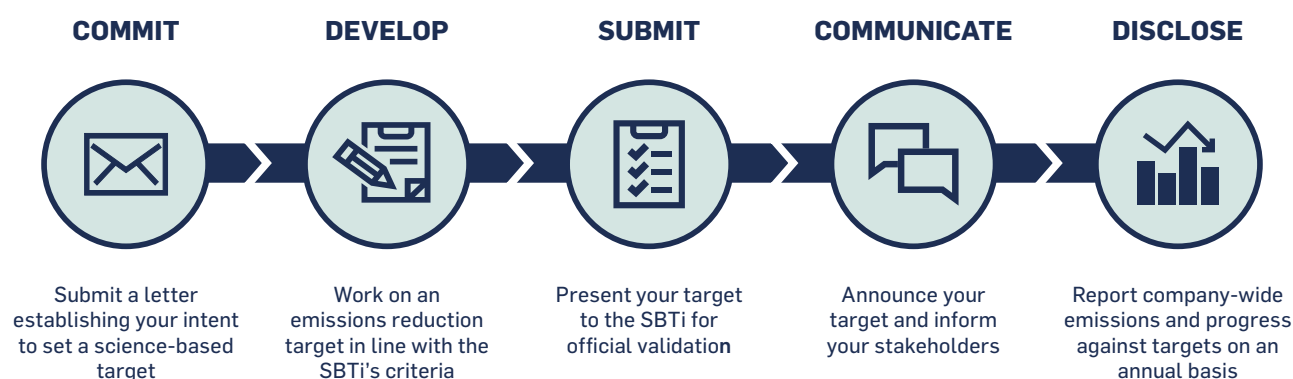


FIGURE 1: A step-by-step process; the process of receiving an SBTi validation.²

The SBTi offers several benefits for companies that participate in the initiative. First, by setting science-based targets, companies can demonstrate their commitment to addressing climate change and reducing their environmental impact. Second, by taking proactive steps to reduce their emissions, companies can improve their competitiveness and enhance their reputation with stakeholders. Finally, by tracking progress and reporting on emission reduction efforts, companies can identify areas for improvement and optimize their emission reduction strategies.

In conclusion, the Science Based Targets initiative is a critical global effort aimed at encouraging companies and organizations to take proactive steps to reduce their greenhouse gas emissions. By participating in the initiative, companies can demonstrate their commitment to sustainability, improve their competitiveness, and help to mitigate the impact of climate change on our planet.

Three categories can commonly be used to categorize a company's GHG emissions:

SCOPE 1 | Direct emissions from sources that are owned or managed by the company, such as factories or cars.

SCOPE 2 | Indirect emissions caused by the use of district heating, cooling, and electricity.

SCOPE 3 | All additional indirect emissions that the corporation neither directly owns nor is in control of. Upstream and downstream make up Scope 3.

Upstream emissions are connected to activities that take place before a corporation takes possession of a good or service, including the procurement of raw materials.

After a product or service leaves the company, there may be downstream emissions from activities like transportation or product use.

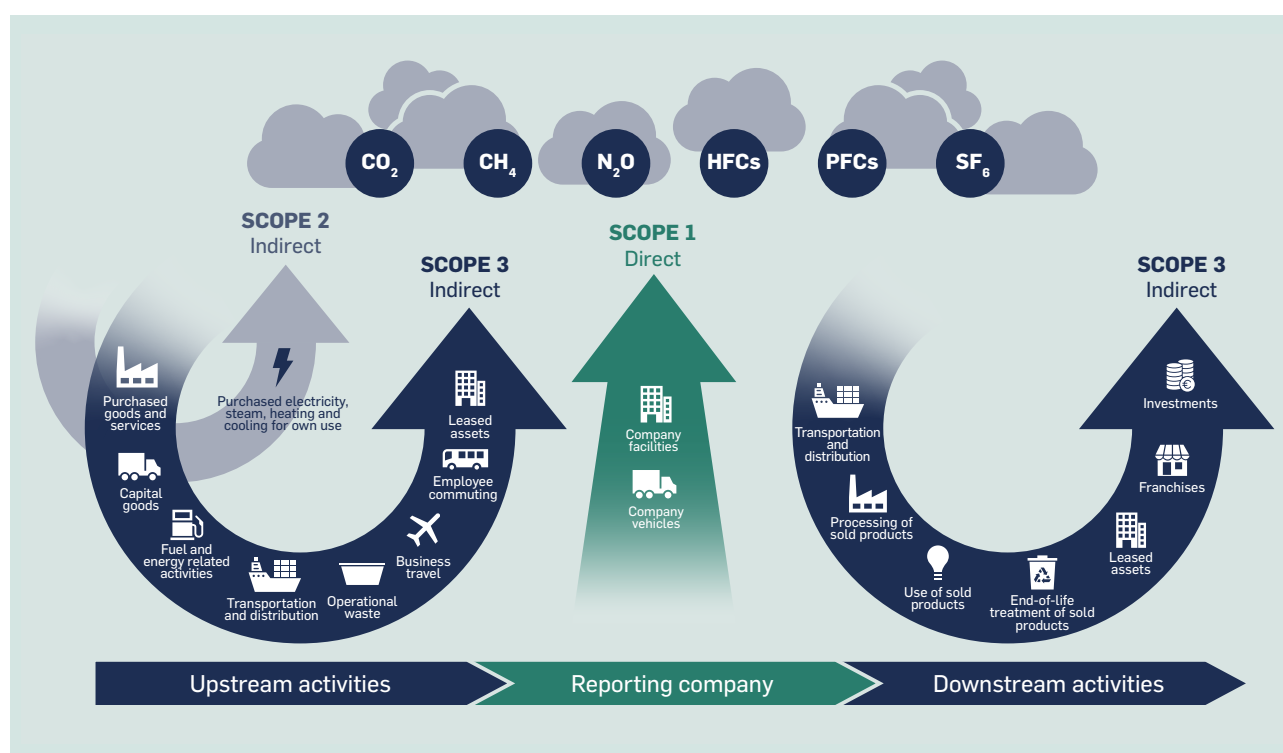


FIGURE 2: Overview of GHG Protocol scopes and emissions across the value chain.³

SBTi commitment in Finland

WORLDWIDE, the number of SBTi committed businesses is expanding quickly as shown in Figure 3, and Finland is no exception. There are currently 79 businesses in Finland committed to the SBTi. The industries represented by these businesses are widely varied and include manufacturing, energy, finance, and retail. The most represented sectors are the food and beverage sector, electrical equipment and machinery, software and services, and forest and paper products.

Both large corporations and small and medium-sized enterprises (SMEs) have made SBTi commitments as illustrated in [Figure 4](#). Large companies, i.e., companies with over 500 employees, are in majority. A bit over a half of the 79 Finnish companies that have made SBTi commitments are public limited companies (Plc) whereas 44% are limited companies (Ltd). In addition, there is one consumer cooperative and one mutual insurance firm among Finland's committed companies. Of all committed companies, 14 are wholly or partially state-owned.

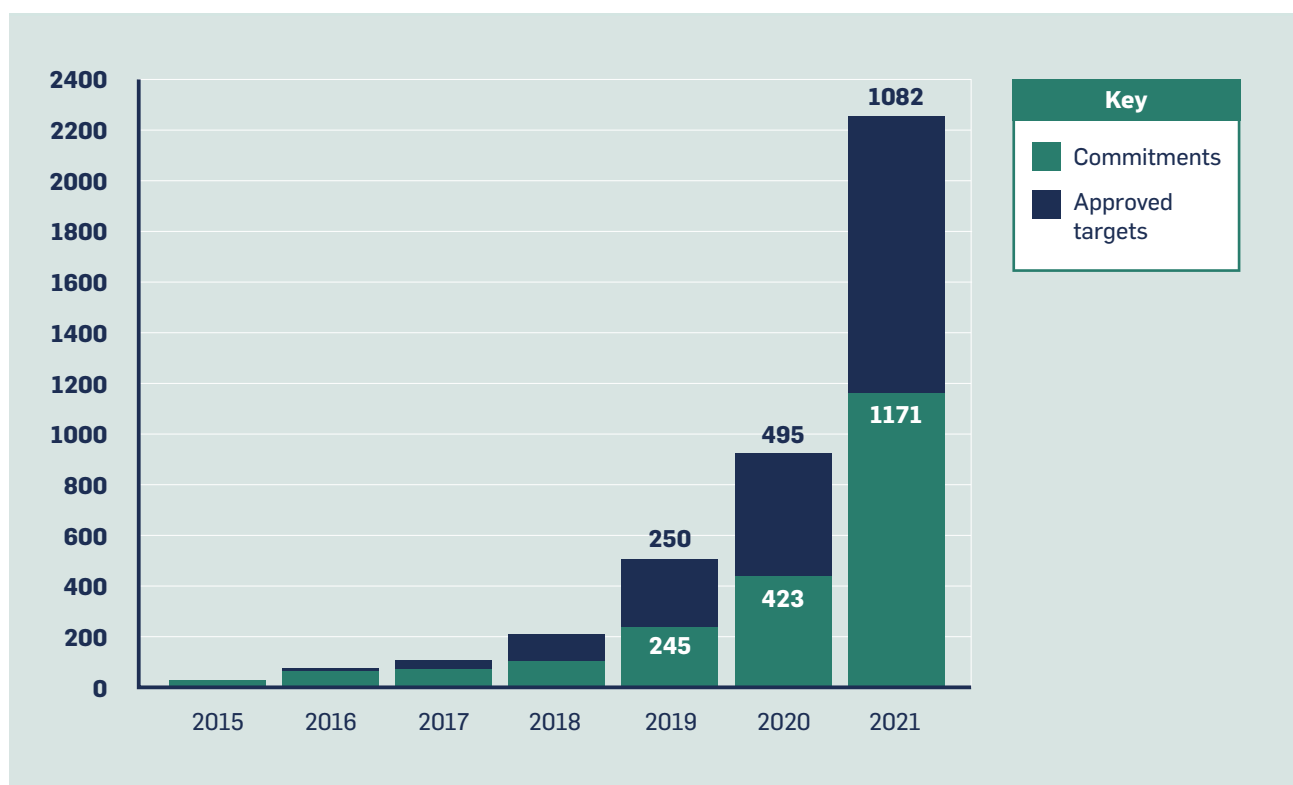


FIGURE 3: Representing the annual cumulative number of companies globally with approved targets and commitments between 2015–2021.

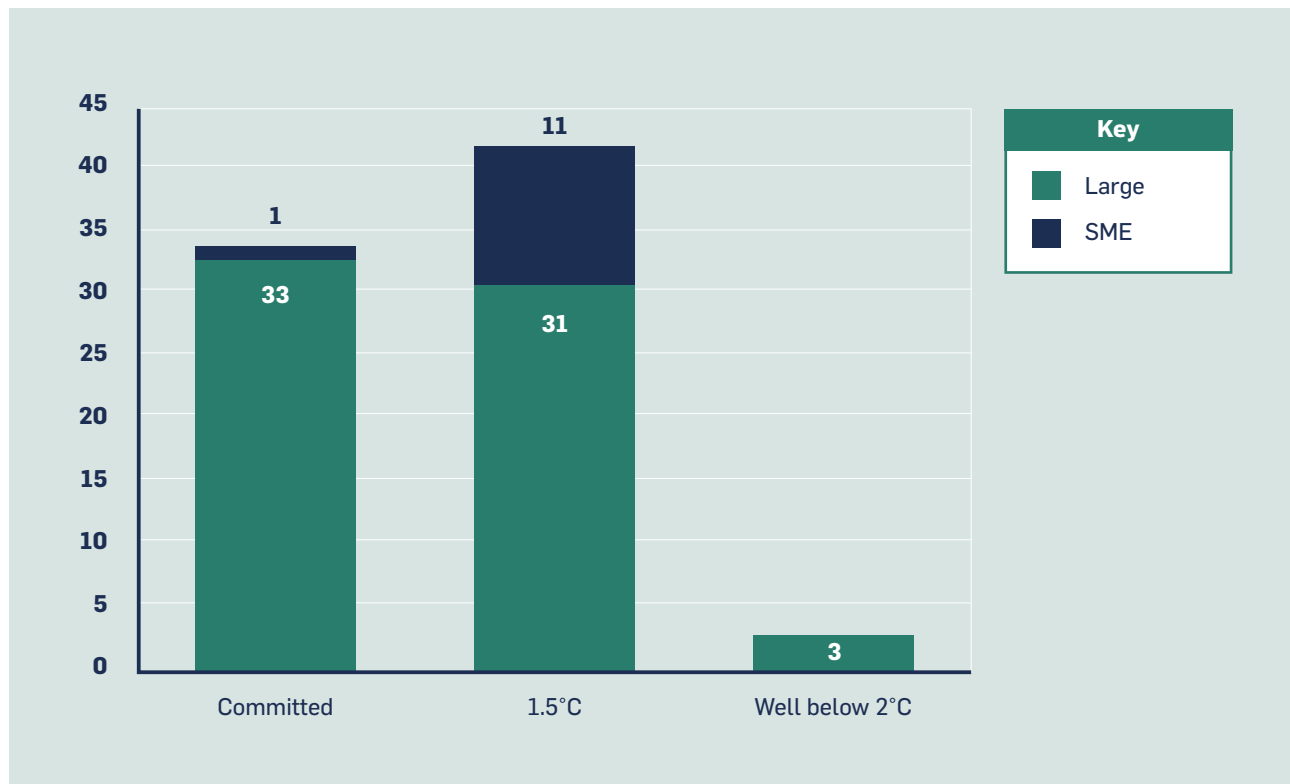


FIGURE 4: The number of Finnish businesses committed to SBTi. Committed means the target is in development. 1.5°C represents the most ambitious target type. Note: Companies have 500 or more employees, while SMEs have fewer than 500.

Three sizeable corporations have made commitments to achieve targets that are aligned with the well below 2°C trajectory. 42 businesses have targets aligned with keeping global warming within 1.5°C. Among these are 11 SMEs and 31 large companies. The remaining 34 companies, of which one is an SME, are currently committed to SBTi but their targets have not yet been validated. Drawing

conclusive developmental remarks on how Finnish companies have joined the SBTi is challenging due to the absence of historical data on the initiative's website at the time of writing this report, and the fact that companies do not always disclose the year they joined. However, in 2019, WWF Finland⁴ reported that Finland has 19 companies committed to SBTi, meaning that 58 companies have joined since.

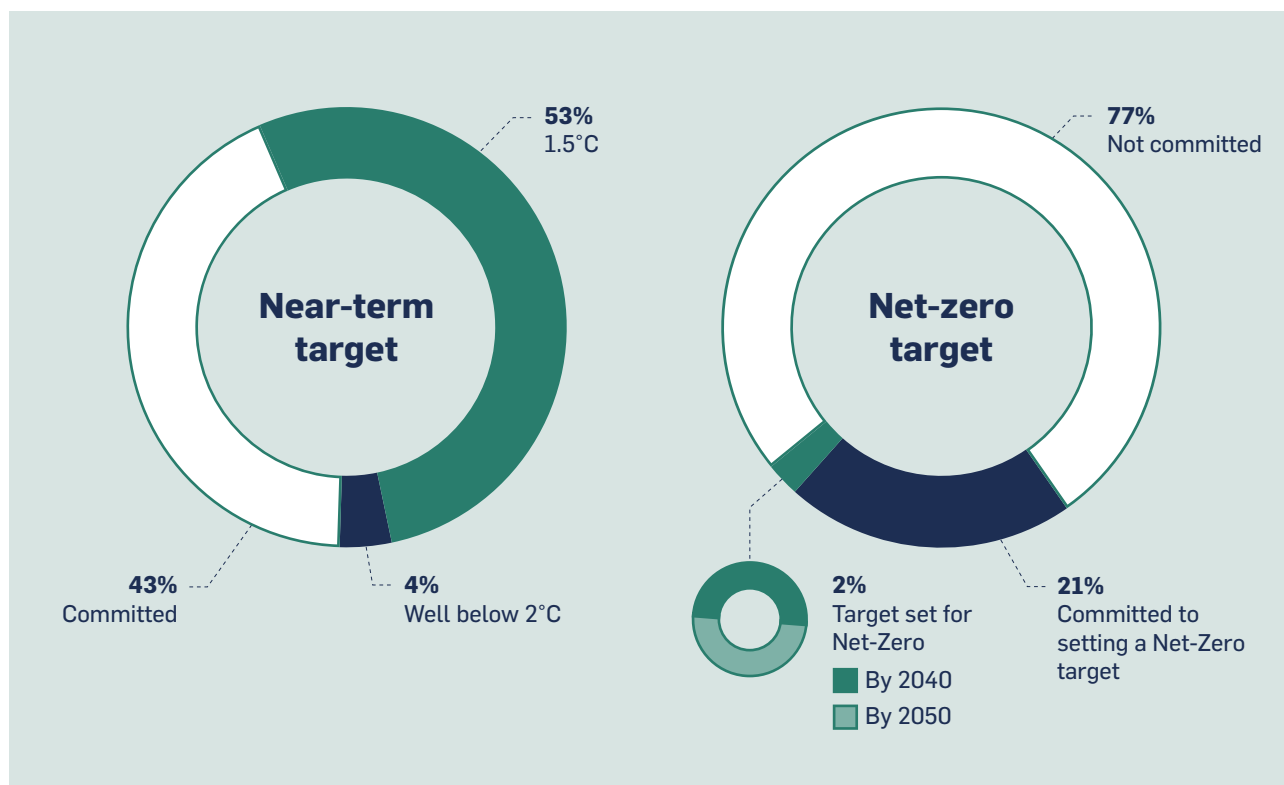


FIGURE 5: Target distribution in Finnish SBTi committed companies regarding near-term and net-zero targets.

How ambitious are the targets?

A new strategy to raise the minimum ambition in corporate target setting from "well below 2°C" to "1.5°C" above pre-industrial levels was published in July 2021 by the Science Based Targets initiative in parallel with global efforts to bring 1.5°C back on the table⁵. Hence, it is not feasible to see the "well below 2°C" targets as ambitious enough as it is not anymore in line with SBTi guidance.

Although the difference between 1.5°C and 2°C may seem small, there is a significant difference in the outcomes. Limiting global warming to 1.5°C might result in 10 million less people being subjected to

the effects of sea level rise, 61 million fewer people being exposed to drought, and 11 million fewer people being exposed to intense heat. Staying within 1.5°C degrees of warming may also half the number of vertebrate and plant species that will experience severe range loss by the end of the century. However, the scientific community has stated that humanity is already locked in a trajectory to exceed 1.5°C degrees of warming⁶. Still, every fraction of a degree matters when it comes to climate change and ambitious action is needed from companies.

After committing to the SBTi, companies have two years to set science-based climate targets aligned with the Paris agreement. The minimum requirement from SBTi for companies who have committed to the SBTi after 2021 is a near-term 1.5°C objective. The large number of Finnish companies still in the commitment phase is indicative of the recent surge in SBTi's popularity. Only four Finnish companies have set the outdated well below 2°C target. Currently less than one in four have committed to the most ambitious net-zero target and only two companies have approved net-zero targets.

The majority of Finland's SBTi committed businesses have a target reduction in scope 1 and scope 2 of 40% to 60%. Only seven businesses, however, have

set a 90–100% reduction goal for their scope 1 and 2 emissions. The remaining five firms have settled on a target of little under 40% of emission reduction within these scopes, while seven companies have set a target of 60–90% reduction in these scopes.

Taking a closer look at the sectors where these organizations operate shows that it's crucial to assess the level of ambition behind their scope 1 and 2 objectives. For an operation that produces energy, the decrease of scope 1 and 2 emissions may be impressive when compared to their net emissions. However, for many organizations, scope 3 accounts for the majority of emissions, while scopes 1 and 2 might not have a significant impact.

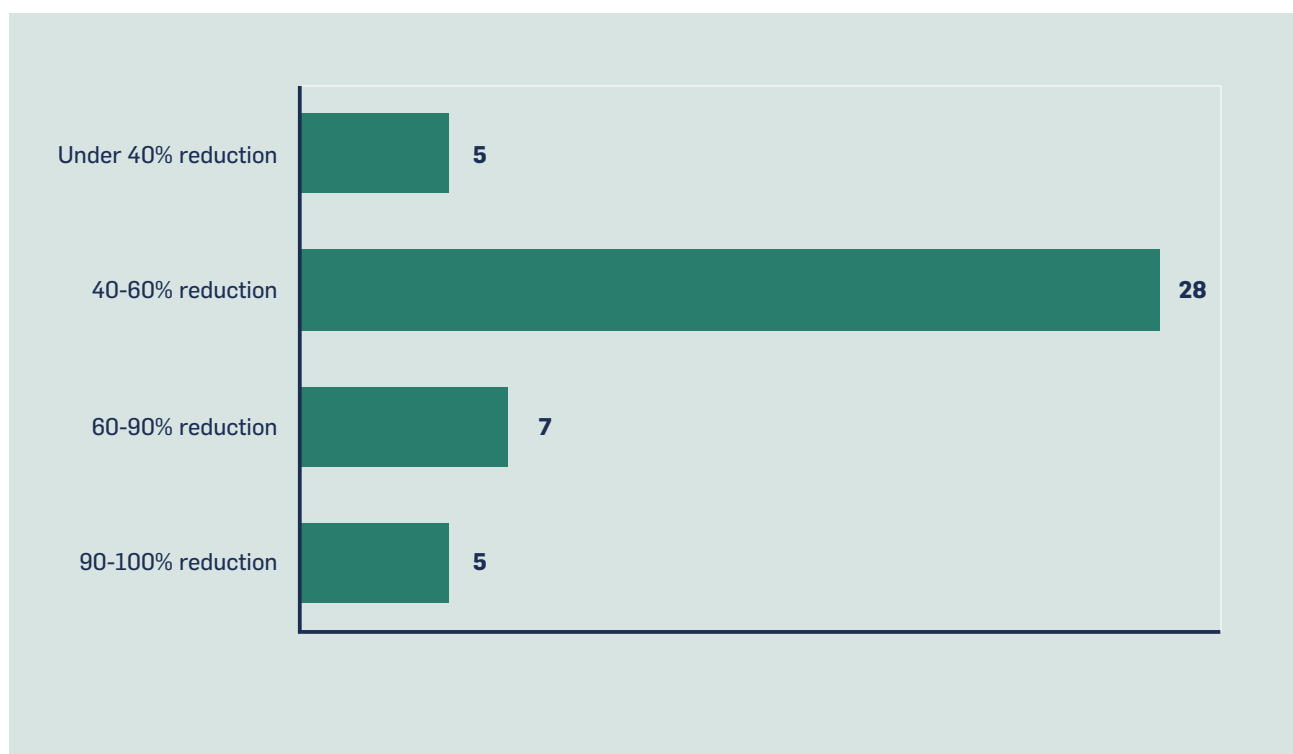
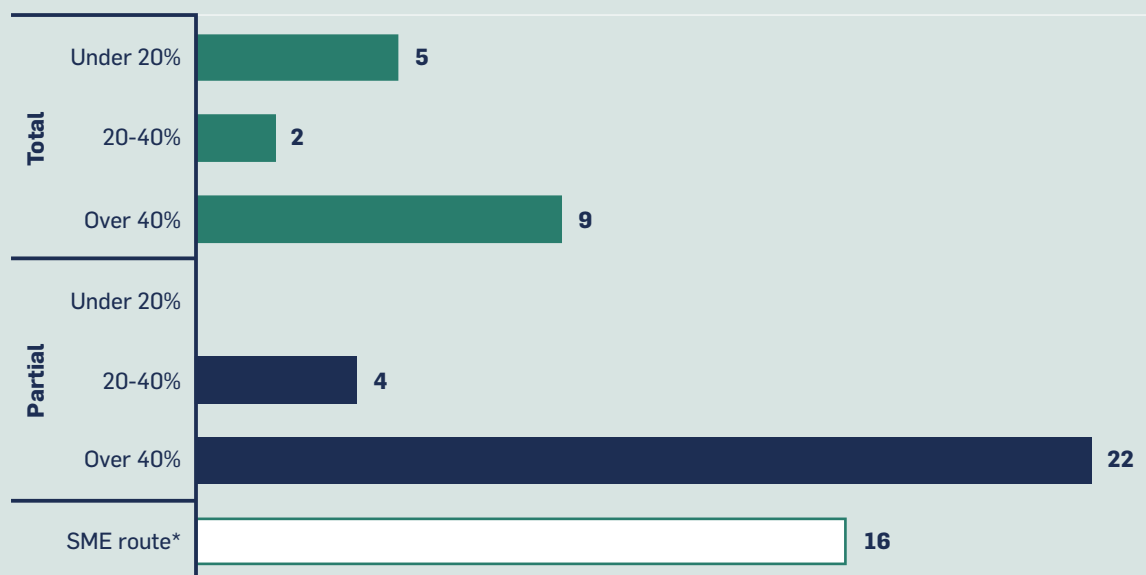


FIGURE 6: Scope 1 & 2 reduction targets, number of companies.



***The SBTi introduced an expedited option for SMEs because smaller companies often lack the resources needed to set scope 3 targets.**

FIGURE 7: Scope 3 reduction targets, number of companies.

The scope 3 reduction targets of Finnish companies are introduced in Figure 7. Because smaller businesses frequently lack the resources and capacity required to establish scope 3 targets and track progress against them, the SBTi created an expedited option for SMEs. The SBTi's quick and easy method for SMEs balances their requirement to account for emissions throughout their value chains without placing an undue load on them. Hence the SMEs are out of scope when assessing the ambition level of the scope 3 reduction targets.

The majority of large Finnish companies (24 companies) have set scope 3 reduction targets that cover only a portion of the scope 3 categories. This is acceptable, because the SBTi criteria demands that

at least 67% of scope 3 emissions must be covered by the target. However, this makes it difficult to reflect the ambition level of the targets as well as raises questions about the degree of ambition. Fortunately, the majority of the large companies (22) have set a scope 3 emission reduction target of more than 40%, with only four setting a target of 20–40% and none setting a target of less than 20%. Based on the data, 16 large Finnish companies have established emission targets that cover their total scope 3 emissions. Nine companies have set a reduction target of more than 40% for scope 3 emissions, two have set a reduction target of 20–40%, and five have settled for a reduction target of less than 20% for scope 3 emissions.

How are Finnish companies making progress in achieving their targets?

Among the Finnish companies committed to SBTi the total GHG emissions have decreased by approximately 3% in three years (2019–2021). This evaluation includes some inaccuracy as it was not possible to consider the possible evolvments and expansions in companies' GHG calculations. Those GHG emissions results that increased over three times during the reviewed period have been excluded from the estimations. The reason to such notable increase in GHG emissions refer to expansions of what is included

in the calculation or possible unit errors in companies' GHG emission footprint calculation.

Consequently, the communication of Finnish SBTi committed businesses could be improved. According to the sustainability reports and articles released on companies' websites, the terminology related to SBTi, and good reporting practices is somewhat ambiguous. The manner in which businesses reported total GHG emissions and progress was inconsistent, making comparison and evaluation of progress difficult.

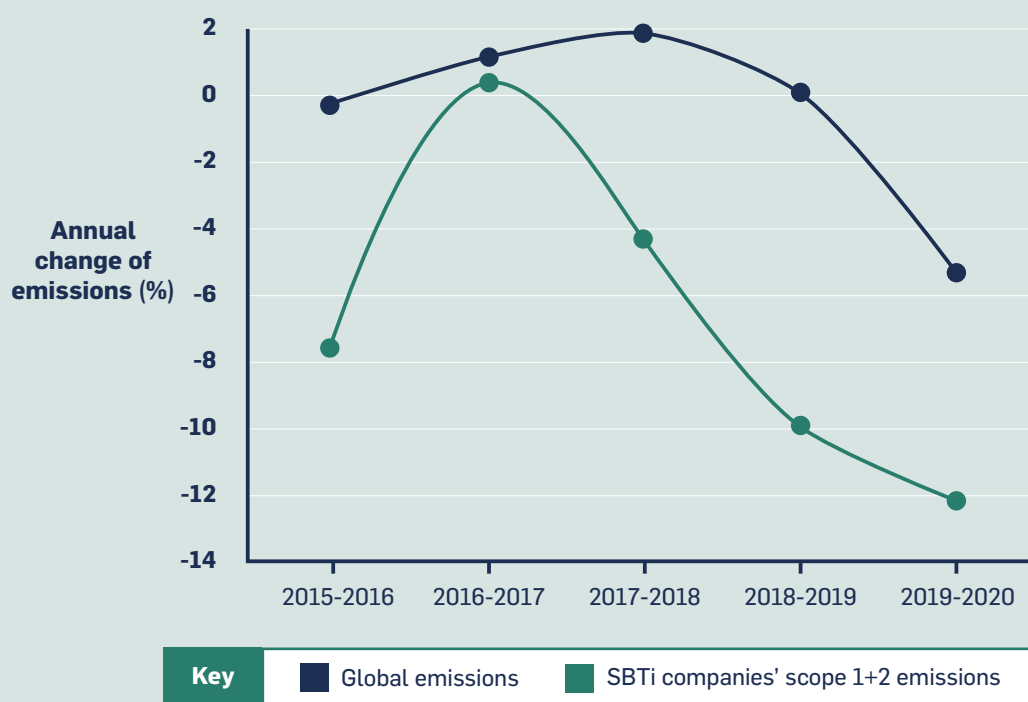


FIGURE 8: Gross scope 1 and 2 emissions' change rate from companies globally with approved targets vs. the global economy (2015–2020).⁷

SBTi has determined a minimum ambition for near-term and net-zero targets. Net-zero target, i.e., -90% emission reductions from 2020 to 2050, would mean an average of 8–9% emission reductions every year. As for near-term emission reductions, SBTi has set a near-term ambition of 4.2% annual reduction. During the first years, emission reductions should be the highest, as the most impactful and easiest emission reduction actions are implemented. Progressing with emission reductions becomes more difficult every year. This is also in line with IPCC scenarios, which illustrate initially a rapidly decreasing curve and then leveling off. It seems that the emission reductions in Finnish SBTi companies are not yet proven to be as significant as they should be based on the international reference companies presented in [Figure 8](#).

In general, organizations with approved SBTi targets are cutting emissions more quickly than other companies, and they collectively cut scope 1 and 2 emissions by 12% in 2020 as illustrated in [Figure 8](#). As a result, total emissions decreased by 29% between 2015 and 2020, as opposed to 25% between 2015 and 2019. This shows that SBTi committed businesses have provided extra reductions in contrast to their

peers within their countries, which goes beyond the effect of COVID on global emissions⁸.

To meet science-based targets for a 1.5°C alignment, emissions must be reduced by 4.2% annually. A typical SBTi-approved company, with a linear rate of 8.8% scope 1 and 2 reductions per year for the near-term target period has been even more ambitious than the 1.5°C trajectory. However, there is a discrepancy in reporting practices: of the 692 organizations examined in the year 2021 by the SBTi⁸, 46% claimed progress on all targets, whereas 26% reported improvement on at least one. The lack of available information on progress toward targets for 28% of the companies highlights the necessity for standardized reporting against science-based standards.

Based on this, Finnish companies that have committed to SBTi and have set reduction targets have a much better chance of lowering their emissions faster than other Finnish companies. Even if the reduction is not always linear, identifying the organization's most emission-intense operations through GHG calculations, setting targets, and regularly monitoring progress enables systematic emission reduction in companies.



SUCCESS STORY: FAZER

Fazer Group commits to reduce absolute scope 1 and scope 2 GHG emissions 42% by 2030 from a 2020 base year. Fazer Group also commits to reduce absolute scope 3 GHG emissions 42% within the same time frame. Fazer Group commits that 53% of its suppliers by spend covering purchased goods and services and upstream transportation and distribution, will have science-based targets by 2025.

Fazer is one of the largest corporations in the Finnish food industry. Currently, it has approximately six thousand employees working in several countries and almost 40 countries are recipients of its exports of goods. Fazer has three business areas, Fazer Bakery, Fazer Confectionery, and Fazer Lifestyle Foods, operating in the bakery, confectionery, non-dairy and plant-based food markets. In addition, Fazer is also a major player in the Nordic grain milling market and increasingly in foodtech.

Fazer has been working with social and environmental sustainability for many years. In the energy and emission area, Fazer has already achieved considerable efficiency gains and moved to 100% renewable electricity.

In 2021 Fazer committed to science-based targets with a 42% greenhouse gas emission reduction target for scope 1 & 2. Fazer knew that a wider scope, and thus, a tougher commitment also including scope 3, was necessary to address the lion's part (~95%) of emissions. As such, Fazer also declared a scope 3 target to reduce 42% of greenhouse gas emissions throughout the value chain until 2030. Only a few companies in Finland have set comparable targets, joining partners in the rapid response to climate change.

To reach these ambitious targets Fazer has recently updated their long-term energy and climate action plan, in which electrification, changing natural gas to biogas, increasing heat recovery, improving ventilation, and investing in bioheat are some cornerstones. Fazer will in parallel continue focusing on energy efficiency and continue switching to renewable energy in manufacturing facilities.

The goal for scope 3 emissions is harder to address, where one of the biggest challenges is the company's organizational distance from primary production (i.e. agriculture).

One of the strategies to reduce scope 3 emissions is to involve and engage suppliers in the quest for emission reductions. Fazer has therefore also set a target for 53% of its suppliers to commit to science-based targets by 2025. Reaching this target will be driven by active management of the supplier base. Examples include engagement, training, and supplier requirements, but development will also come via the general development of responsible business practices among suppliers and society in general.

A second strategic path is to continue managing the offering towards more plant-based and other more sustainable products. This is done through innovation, product development and marketing efforts.

A third key driver is optimizing the use of raw materials in Fazer's production processes. Reaching our goal of 50% reduced food loss in our own production processes will also have a positive effect on minimizing our emissions. Fazer's food loss target is since January 2023 part of Fazer's short-term incentive plan.

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“As the food system is responsible for a substantial share of global emissions, Fazer wants to contribute to their reduction. Therefore, we set an ambitious scope 3 emission reduction target, and to achieve it, the whole value chain must cooperate. This will benefit all of us, and all our stakeholders.”

Christoph Vitzthum,
President & CEO, Fazer Group

Impact of Finnish SBTi companies to Finland's climate ambitions

FINLAND has set an ambitious climate goal to become carbon neutral by 2035. For Finland to be able to achieve this goal, companies operating in Finland need to reduce their emissions measurably. For example, in 2021 Finnish broadcasting company YLE reported how SSAB's steel factory in the Finnish town of Raahе solely emits 7% of Finland's total emissions⁹. It is evident that for Finland to reach its 2035 target, companies with ambitious science-based targets have an important role.

The total scope 1 and 2 emissions of Finnish SBTi companies that have reported their emissions amount to 22.3 Mt CO₂e (Figure 9). This number includes the scope 1 and 2 emissions of 66 companies. Finland's emissions in the year 2021 were 47.7 Mt CO₂e, a total which includes emissions under the EU emission

trading system and emissions of certain sectors outside of it, such as transportation and agriculture¹⁰. Every country that is a part of the Paris agreement, including Finland, count and report only the emissions that are produced in their geographical territory. Due to this practice of carbon accounting, goods that are, for example, produced abroad but consumed in Finland are not counted as part of Finland's emissions. In comparison, companies' emissions are not subject to geographical limits, and as such can seem relatively large in juxtaposition with the total emissions of Finland. This should be considered when comparing emissions between companies and countries. Only the scope 1 and 2 emissions of 61 companies amount to nearly half of the total reported emissions of Finland.

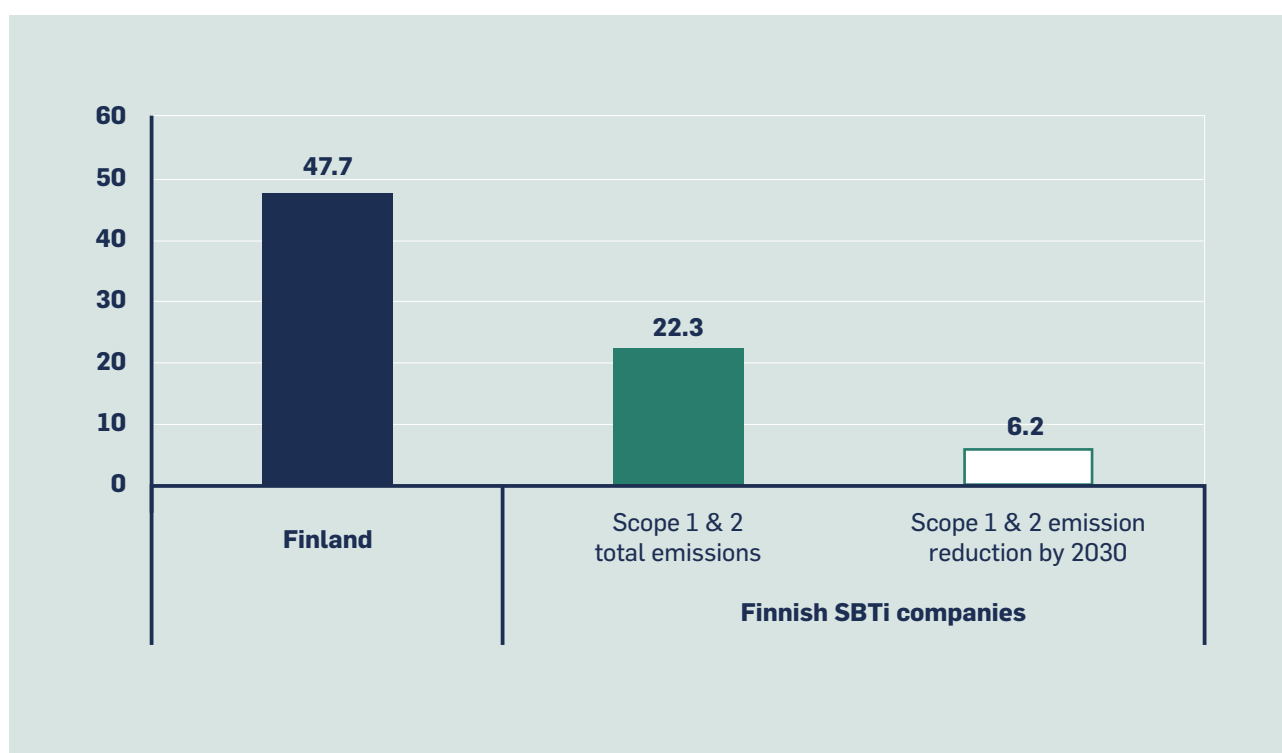


FIGURE 9: Emissions of Finland and scope 1 & 2 emissions of Finnish SBTi companies (Mt CO₂e).

As currently 39 Finnish SBTi companies have set emission reduction targets, the total yearly reduction in scopes 1 and 2 amounts to 6.2 Mt CO₂e. The yearly reduction would be 13% of the total reported emissions of Finland in 2021. Although a large part of scope 1 and 2 emission reductions would not be included in the emissions of Finland, they are substantial in comparison to it. Despite the differences in carbon accounting methods, this goes to show that companies have a major role to play in reducing emissions both in Finland and globally. Scope 3 emissions are not included in the figure because there are some companies that have not set reduction targets for it. If they were to be included, the companies' figures would be substantially larger than the reported emissions of Finland.

For further analysis of SBTi companies' impact in Finland's emission reduction goals, the emission trading system offers a relevant point of view. The EU's emission trading system is a market-based tool designed to reduce greenhouse gas emissions. It works by restricting the amount of greenhouse gases that can be emitted by heavy industry, such as power

plants and factories. It is highly significant also to Finland as companies involved in emission trading accounted for 43 percent of Finland's total emissions in the year 2021¹⁰. As emission trading is one of the most important tools of emission reduction within the EU it also holds a significant role in Finland's emission reduction.

Figure 10 showcases the total emissions of companies involved in emission trading in the selected years. The graph also highlights the amount of emissions of companies who are involved in the emission trading and also with SBTi. In 2019–2021 the companies involved were Helen, UPM, Metsä Group, Stora Enso and Outokumpu. The companies often had different sectors of their production listed independently but for the graph the emissions are accounted under one totality. The five companies described compose 33 percent of the total emissions of Finnish companies involved in the emission trading. This goes to show that the five companies that are a part of SBTi can have a real impact in the reduction of Finland's emissions in the emission trade-sector.

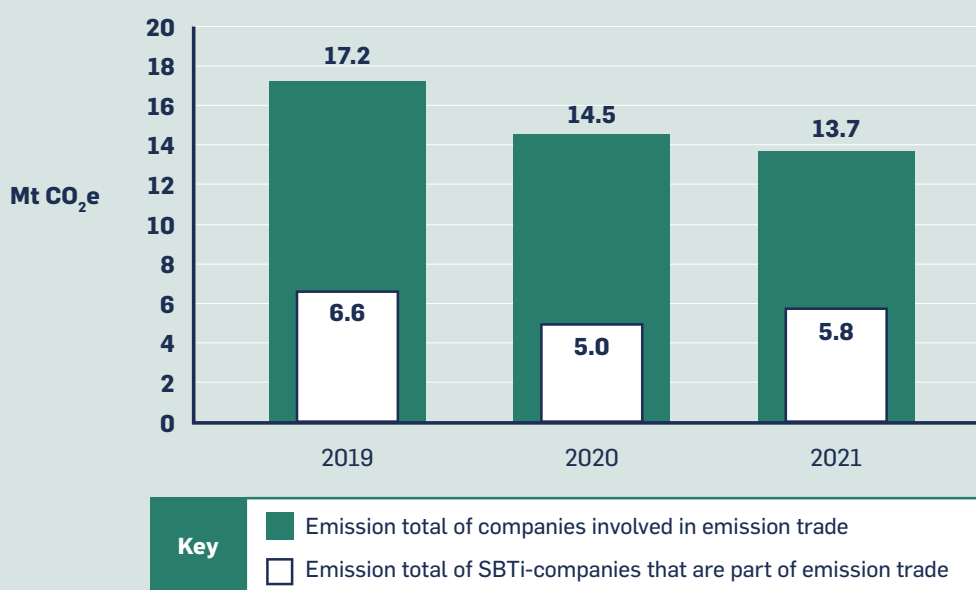


FIGURE 10: Emissions of Finnish companies involved in emission trading (Mt CO₂e).

State-owned companies and the SBTi

The Finnish Government has a possibility to impact the ambition and scale of companies' emission reductions, for example by encouraging state-owned companies to set science-based targets. There are great examples from other countries that have successfully done this.

The Norwegian Government is the first in the world that requires its 70 state-owned companies to set science-based targets¹¹ and the United States

is encouraging public procurement to be aligned with science-based targets¹². Japan has incentivized Japanese companies to set science-based targets for several years, with the result of over 430 companies committed in February 2023¹³.

Finland has 70 partially or wholly state-owned companies, of which only 14 have committed to the SBTi. Please see [Attachment 1](#) for more details on state-owned companies' commitments.



SUCCESS STORY: HELEN

Helen Ltd commits to reduce scope 1 and 2 GHG emissions 77% per MWh electricity and heat generated by 2030 from a 2019 base year.

Helen Ltd also commits to reduce scope 1 and 3 GHG emissions per sold electricity and heat 77% per MWh within the same timeframe.

Helen is one of the biggest energy companies in Finland providing heat, cooling and electricity for over 550 000 customers. Besides its role in providing these services, it has an impact in transforming Finland's energy system into carbon neutral. Helen is the first energy company in Finland to commit to SBTi.

In the spring of 2023 Helen made an important step of closing Hanasaari coal power plant. The coal plant made up 20 percent of the emissions of the city of Helsinki and 2 percent of the whole of Finland. In addition to Hanasaari, Helen is also closing a coal power plant in Salmisaari. Combined the two decisions speed up the departure from coal at least five years earlier than originally planned. These impactful decisions emphasize the willingness and ambition of Helen's transition to production of green energy as well as the overall impact that energy companies can have in emission reduction.

As societies are moving away from fossil energy, there is a growing need to replace them with more sustainable alternatives. To tackle this need, Helen has made large investments to carbon neutral energy systems. In the year 2021 the value of investments was 184 million euros and currently Helen has 20 projects related to carbon neutral energy. One of the projects is Vuosaari bioenergy heating plant which utilises wood chips that is a by-product of the forest industry and would not be utilised otherwise. The Vuosaari bioenergy heating plant is expected to reduce 700 000 tonnes of CO₂ emissions annually. The company is also reducing district heating emissions

with electrification: they have invested, for example, in heat pumps utilising waste and environmental heat and in electric boilers.

Helen's scope 1 emissions in 2019 were 3 237 626 tCO₂e and in 2021 Helen's emissions were 2 780 767 tCO₂e. There was slight growth in emissions from 2020 (2 724 969 tCO₂e) due to fuel market prices and a cold end of the year, however the specific emissions of energy decreased in 2021. Indeed, as energy companies' scope 1 emissions are significant, their reduction can have a major impact on Finland's ambitions of being carbon neutral by 2035. Besides reducing emissions, power companies have a role in building and innovating new possibilities for greener energy. In this, Helen has so far been an exemplary success story.

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“Investments into a diverse production structure boost our energy self-sufficiency at the same time as we continue our transition towards carbon-neutral energy production.”

Maiju Westergren,
Senior Vice President, Sustainability and
Public Affairs, Helen

Comparison to SBTi commitments in other countries

AS A GLOBAL COLLABORATION, the Science Based Targets initiative has garnered participation from companies worldwide, demonstrating a shared commitment among businesses, Governments, and other organizations to address climate change and promote a sustainable future.

Figures 11 and 12 highlight the difference between the number of companies with SBTs among OECD countries. Figure 11 is a straightforward visualisation of the total number of companies by country that are either committed to the SBTi or have already gone through the process and have approved targets. Within this, Finland is in the middle rank, outside the top ten in 14th place. As for other Nordic countries, Finland is placed behind Sweden (5th) and Denmark (7th) but situated in front of Norway (16th) and Iceland (26th). The top 4 are all some of the biggest economies in the world, such as the USA and the United Kingdom. However, while this kind of ranking gives an overview of the number of SBTi companies among OECD countries, it does not necessarily provide a balanced view of the relative popularity of SBTi in a country. This dilemma is approached in [Figure 12](#) in which the number of SBTs is compared to the GDP (Gross Domestic Product) of each country. The number of companies is shown in proportion to 100 billion US dollars of GDP, for example, Denmark has 38 companies with SBTs per 100 billion US dollars of GDP.

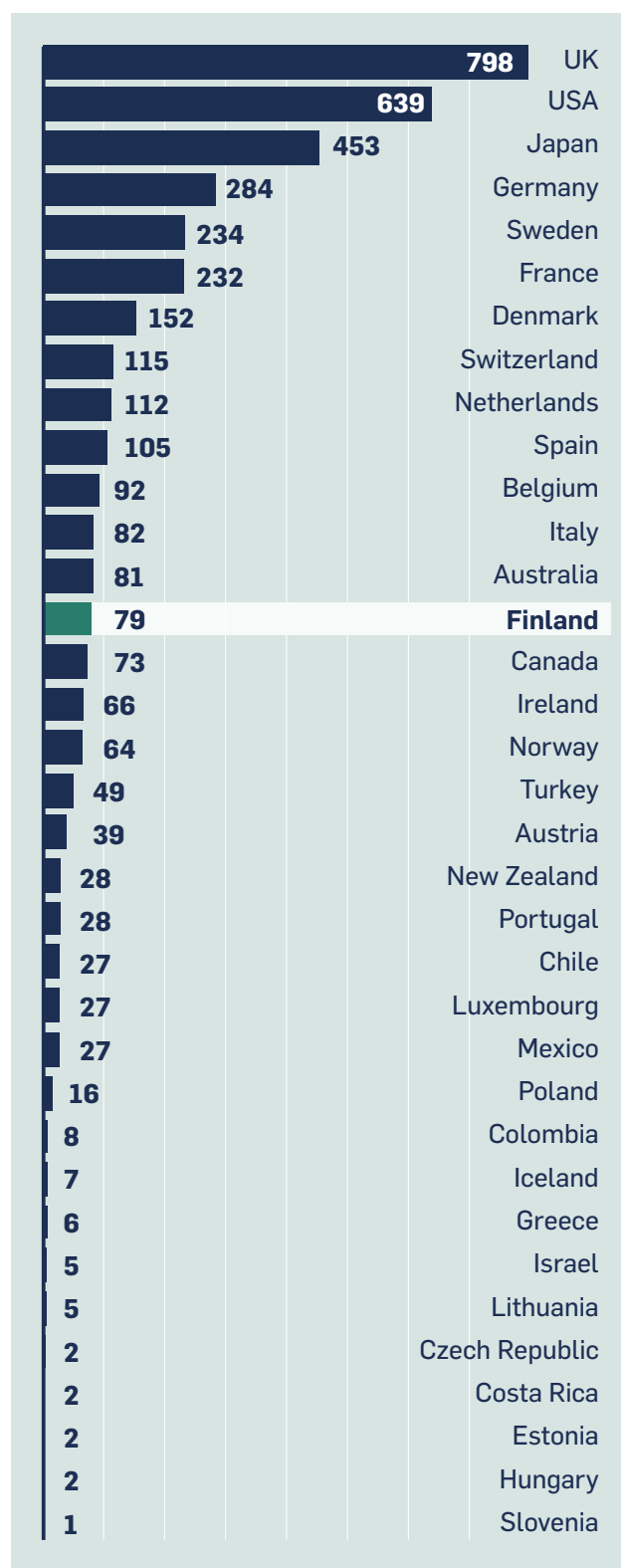


FIGURE 11: Number of SBTi companies by country (OECD).

Traditionally, Gross Domestic Product (GDP) is a measure of the total value of goods and services produced within a country's borders over a specific period, usually a year. It is a commonly used measure of a country's economic performance and economic diversity and is often used to compare the economic growth of different countries. It provides a rough relative estimate of the total economic output of companies in a country and corresponds with the total number of companies within a country. When the number of SBTi companies is shown in proportion to a country's GDP, a different picture arises. The relative popularity of SBTi is highest among the Nordic countries, such as Denmark, Sweden, Iceland, and Finland, and in other European countries. The top 10 consists of only European countries, with New Zealand coming in at 11th place. Among OECD countries, it is safe to say that SBTi has most influence in Europe. In Northern America for example, the influence of SBTi remains relatively small in comparison.

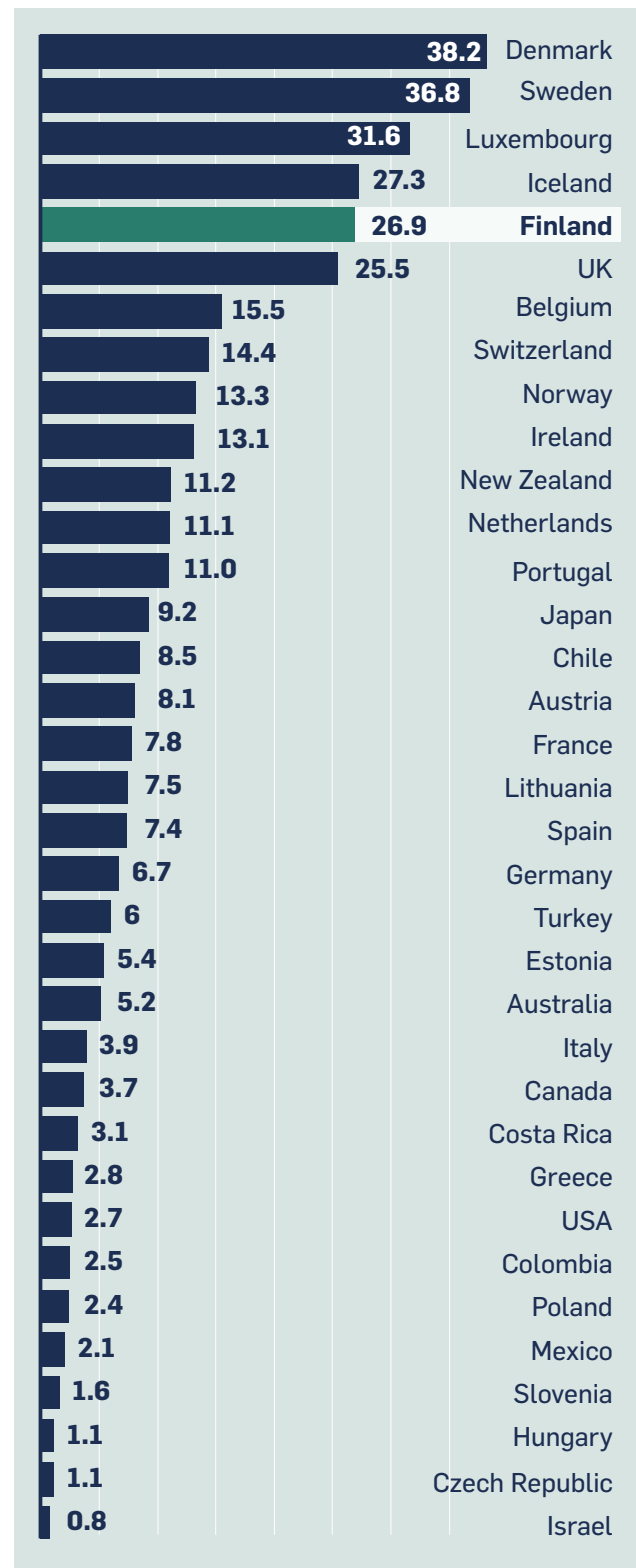


FIGURE 12: Number of SBTi companies by unit of 100 billion US dollars of GDP (OECD).

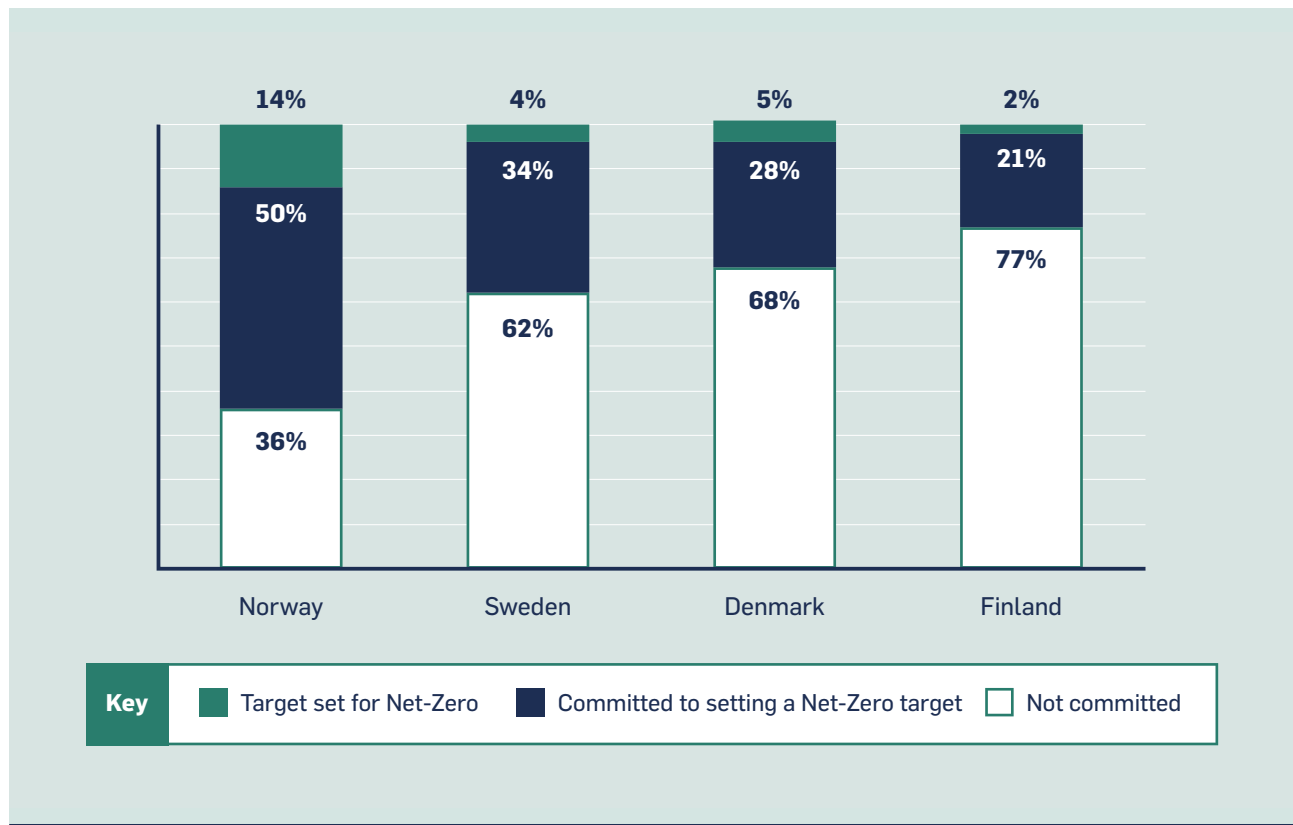


FIGURE 13: Net-zero targets of SBTi companies in Nordic countries.

Of the total number of Nordic SBTi companies the majority have not committed to setting net-zero targets (Figure 13). In Finland, 21% of SBTi companies have committed to setting a net-zero target, and only 2% of companies have a validated net-zero target. In Denmark and Sweden, the proportions are slightly better, but a clear majority have not committed to setting net-zero targets there either. In Norway, however, 50% of SBTi companies have committed

to setting net-zero targets, and 14% percent already have. In Iceland the number of SBTi companies remains quite small, but over 40% of them have committed to setting targets. Iceland is excluded from this comparison as the number of SBTi companies is so small compared to other Nordic countries. Overall, Finnish companies have committed to net-zero the least among the Nordic countries.

SUCCESS STORY: CARGOTEC

Cargotec commits to reduce absolute scope 1, 2 and 3 GHG emissions by 50% by 2030 compared to a 2019 baseline.

Cargotec is a company specializing in cargo and load handling solutions. Its far-reaching impact can be witnessed in the harbours, busy roads, and oceans of the world. Acknowledging the impact it has on climate, Cargotec is committed to reducing its carbon footprint and exploring positive possibilities to benefit a wide range of businesses. This is apparent also in the company's strategy, as Cargotec's performance targets for its core businesses include climate-related goals:

- Double the sales growth of eco portfolio solutions compared to traditional products
- Reduce greenhouse gas emissions throughout Cargotec's value chain by 25% by 2025 and 50% by 2030.

Approximately 99 percent of Cargotec's emissions are scope 3 emissions, with the biggest share originating from the use-phase of its diesel-powered products. One of the biggest challenges companies face today, including Cargotec, is the decoupling of sales growth from emission growth. This is evidenced by the 5% increase in emissions at Cargotec in 2022, which was due to record-high sales. Cargotec's total emissions were 5,199,438 tCO₂e in 2021 and 5,881,445 tCO₂e in 2022. However, the company understands where the increase came from and has a solid plan in place to get back on track.

As Cargotec's supply chain emissions mostly come from the production of steel, the company aims to have early access to fossil-free steel. To accelerate this change, Cargotec has entered into a partnership with the steel manufacturer

SSAB. Hiab, part of Cargotec, introduced the first load handling equipment made with fossil-free steel (apprx. 60% of the steel) in 2022. As the transition to fossil-free steel can take some time, Cargotec will also utilize scrap steel and other alternatives in their production.

In tackling emissions in the use phase of its sold products, Cargotec's eco portfolio is the company's best tool. The eco portfolio includes equipment, services and software that help both Cargotec and its customers to reach their sustainability targets. The criteria for solutions that can be included in the portfolio was updated in 2022. After the update, all of the portfolio's climate solutions are aligned with the EU Taxonomy, and its circular solutions will be taxonomy-aligned once the relevant objective is finalised by the EU. In 2022, Cargotec's eco portfolio accounted for 31% of its total sales.

”

“Our science-based emission reduction targets are a natural fit in our overall science-based sustainability work. They form the foundation for Cargotec's strategy: seizing business opportunities from climate action.”

Soili Mäkinen,
SVP Sustainable Business Development, Cargotec

Conclusion and discussion

OVERALL, the level of participation among Finnish companies in the Science Based Targets initiative varies depending on the perspective. While Finland ranks in the middle among other OECD countries in terms of the number of SBTi commitments, it falls behind Sweden and Denmark and ahead of Norway and Iceland. However, when considering the GDP of these countries, Finnish companies' level of commitment is relatively strong, placing Finland in the top five of the OECD countries, but behind Sweden, Iceland, and Denmark. In terms of the commitment level to net-zero, Finland falls behind all other Nordic countries.

Despite these differences, it is important to note that several large businesses among Finland's SBTi-committed companies have the potential to make a significant impact on Finland's emission reductions. This highlights the usefulness of the SBTi as a framework for large enterprises to plan and legitimize emission reduction alongside other tools such as

emission trading systems. Indeed, when reviewing the ambition level of reduction levels of scope 1, 2 and 3 among Finnish SBTi companies, it could be argued that large SBTi companies can have real aspiration in their emission reduction targets, excluding net-zero, which was not ambitiously pursued by Finnish companies.

The emission reduction targets of the Finnish SBTi companies are yet to materialize. Based on the available data, Finnish companies have not been successful in reducing their emissions by a degree that would put them on the required trajectory. Therefore, it is crucial to monitor and assess the progress of SBTi companies towards meeting their declared targets. This enables stakeholders to evaluate the effectiveness of these companies' sustainability efforts and identify areas where additional support and action may be required to ensure that they stay on track towards achieving their goals.

Future development

Because of the need for tracking, SBTi needs a definitive stance on how emissions should decrease over time. While a company may achieve their long-term SBT of 2050, the method used to attain the target may result in emissions continuing to grow, for example, over the next five years, followed by a slow and then rapid decrease of emissions in the final few years. Such a trajectory may not align with the 1.5°C or well below 2°C pathway. While it is commendable that SBTi always requires companies to establish short-term targets, this approach does not fully address the issue. As stated previously, the total market capitalization of SBTi-committed companies amounts to 38 trillion USD, representing a third of global market capitalization. Despite this commitment level, global emissions are still increasing. More companies joining the SBTi is likely to curb the increase somewhat, but in addition to this

the commitment level of SBTi companies should also be increased.

Furthermore, there were 13 companies that did not adequately disclose their emission data. This calls for further developments in the tracking of how companies are achieving their emission targets. At the time of writing this report, the analysis of this is difficult, as SBTi does not offer sufficient historical data on its website.

Moreover, many companies have set highly ambitious supplier engagement targets, which require a specific number of suppliers to commit to the SBTi. However, the tracking and reporting of progress related to these targets was inadequate, making it difficult to assess the level of commitment of suppliers towards the initiative. This further underscores the need for credible reporting and tracking mechanisms to ensure the successful implementation of SBTs. Overall, addressing these shortcomings is critical for the

effective implementation and success of SBTs among Finnish companies. The SBTi is currently developing an SBTi Progress Framework, which will hopefully address these challenges¹⁴.

As for future development of SBTi in Finland, in the past couple of years the number of SBTi companies in Finland has roughly doubled and the number of companies can be expected to still grow, for example, among medium-sized companies. Many large Finnish companies have already found their way to the SBTi. Furthermore, as stated above, many of the current SBTi

companies have supplier engagement targets. This way larger companies are also transferring pressure along the value chain to medium-sized and smaller companies. Lastly, being part of SBTi is already a stable signal of ambitious climate work, meaning that for a company to be a credible actor in the fight against climate change, they are expected to commit to the SBTi. The need for companies to signal their legitimate climate work and stakeholder pressure should ensure that more companies will join the SBTi.

The essential role of SBTi in achieving ambitious climate targets

Despite the challenges involved in monitoring and reporting emissions, it is evident from the analysis of this report that SBTi has a crucial role in guiding companies towards setting their emission reduction targets. Notably, several major Finnish companies such as Nokia, UPM, Stora Enso, and Kone have joined the initiative, and they rely on SBTi's sectoral guidelines.

One of the greatest strengths of SBTi lies in its ability to provide guidelines for a wide array of business sectors. This is evident from the data on Finnish companies, which are divided into 27 different industries on the SBTi dashboard. The cross-sectoral nature of SBTi is particularly important as it allows the initiative to act as a universal legitimate approval of companies' climate targets, irrespective of their

field of operation. While specific business sectors can create climate coalitions within their respective sectors, having an actor outside of specific sectors that companies can join and approve their emission reduction targets through is also important. This serves a wider community of stakeholders as SBTi is utilized as a source of information not only by corporations but also by NGOs and research institutes.

Furthermore, the cross-sectoral nature of SBTi can be further enhanced by a wider selection of sector guidance as they are a vital gateway for companies to join the initiative. Overall, SBTi plays an important role in legitimizing companies' climate goals, enhancing stakeholder trust, and accelerating the global transition to a low-carbon economy.

ENDNOTES

- 1** Science Based Target initiative, 2022. Companies committed to cut emissions in line with climate science now represent \$38 trillion of global economy. (sciencebasedtargets.org)
- 2** Science Based Targets initiative (n.d.). (sciencebasedtargets.org)
- 3** Greenhouse Gas Protocol (n.d.). (ghgprotocol.org)
- 4** WWF, 15 Suomalaisyritystä vähentää päästöjään ilmastotietoon mukaan – Lisää yrityksiä tarvitaan ilmastokriisin ratkaisuun, 2019. ([wwf.fi](https://www.wwf.fi))
- 5** COP26 keeps 1.5C alive and finalises Paris Agreement, 2021. (ukcop26.org)
- 6** Climate change: No 'credible pathway' to 1.5C limit, UNEP warns, 2022. (news.un.org)
- 7** Science Based Target initiative, 2021. (sciencebasedtargets.org)
- 8** Science Based Target initiative, 2021. (sciencebasedtargets.org)
- 9** Sipilä, T., 2021. Maailman ensimmäinen erä fossiilivapaata terästä on valmiina – uusi teknologia vähentää pian Suomen hiilidioksidipäästöjä seitsemän prosenttia. Yle (yle.fi)
- 10** Ilmastovuosikertomus, 2022. (ym.fi)
- 11** The Norwegian Government, 2022. (regjeringen.no)
- 12** Science Based Target initiative, 2022. (sciencebasedtargets.org)
- 13** Science Based Target initiative, 2019. (sciencebasedtargets.org)
- 14** Science Based Targets initiative, 2023. (sciencebasedtargets.org)

ATTACHMENT I:

List of Finnish companies' SBTi commitments (February 2023)

COMPANY	SECTOR	TYPE	STATE OWNERSHIP	NEAR-TERM TARGET	NET-ZERO COMMITTED
A-Insinöörit Oy	Construction and Engineering	Ltd		Committed	No
Ahlstrom-Munksjö Oyj	Forest and Paper Products - Forestry, Timber, Pulp and Paper, Rubber	Plc		Committed	Yes
Alma Media	Media	Plc		1.5°C	Yes
Anora Group Plc	Food and Beverage Processing	Plc		Committed	Yes
Atria plc	Food and Beverage Processing	Plc		1.5°C	No
Berner Ltd	Consumer Durables, Household and Personal Products	Ltd		Committed	No
CapMan Plc	Banks, Diverse Financials, Insurance	Plc		Committed	Yes
Cargotec	Electrical Equipment and Machinery	Plc		1.5°C	No
Castrén & Snellman Attorneys Ltd	Professional Services	Ltd		1.5°C	No
Caverion Corporation	Trading Companies and Distributors, and Commercial Services and Supplies	Plc		Committed	No
Citycon Oyj	Real Estate	Plc		1.5°C	No
Delete Group Oyj	Real Estate	Plc		Committed	Yes
Elenia Oy and Elenia Verkko Oyj	Electric Utilities and Independent Power Producers and Energy Traders (including fossil, alternative and nuclear energy)	Plc		Committed	Yes
Elisa Corporation	Telecommunication Services	Plc	State-owned (partial)	1.5°C	Yes
EnerKey Oy	Software and Services	Ltd		1.5°C	No
Fazer Group	Food and Beverage Processing	Ltd		1.5°C	No
Finnair Plc	Air Transportation - Airlines	Plc	State-owned (partial)	Committed	No
Fiskars Corporation	Consumer Durables, Household and Personal Products	Plc		1.5°C	Yes
Framery Trade Oy	Building Products	Ltd		1.5°C	No

COMPANY	SECTOR	TYPE	STATE OWNERSHIP	NEAR-TERM TARGET	NET-ZERO COMMITTED
Futurice Oy	Software and Services	Ltd		Committed	Yes
Granlund Group	Construction and Engineering	Ltd		Committed	No
Helen Ltd	Electric Utilities and Independent Power Producers and Energy Traders (including fossil, alternative and nuclear energy)	Ltd		1.5°C	No
HKScan Corporation	Food and Beverage Processing	Plc		Committed	No
Huhtamäki Oyj	Forest and Paper Products - Forestry, Timber, Pulp and Paper, Rubber	Plc		Well-below 2°C	No
Juustoportti Group	Food and Beverage Processing	Ltd		1.5°C	No
Kemira Oyj	Chemicals	Plc	State-owned (partial)	Committed	No
Kesko Corporation	Food and Staples Retailing	Plc		1.5°C	No
Kiilto	Chemicals	Ltd		Committed	Yes
KONE Corporation	Electrical Equipment and Machinery	Plc		1.5°C	No
Konecranes Oyj	Electrical Equipment and Machinery	Plc	State-owned (partial)	1.5°C	No
Lassila & Tikanoja plc	Professional Services	Plc		Well-below 2°C	No
Lindström Group	Textiles, Apparel, Footwear and Luxury Goods	Ltd		Committed	Yes
Marimekko Corporation	Textiles, Apparel, Footwear and Luxury Goods	Plc		Committed	No
Matkahuolto	Ground Transportation - Highways and Railtracks	Ltd		Committed	No
Meira Oy	Food and Beverage Processing	Ltd		1.5°C	No
Metso Outotec	Electrical Equipment and Machinery	Plc	State-owned (partial)	1.5°C	No
Metsä Board Corporation	Forest and Paper Products - Forestry, Timber, Pulp and Paper, Rubber	Plc		1.5°C	No
Multimek Oy	Construction and Engineering	Ltd		1.5°C	No

COMPANY	SECTOR	TYPE	STATE OWNERSHIP	NEAR-TERM TARGET	NET-ZERO COMMITTED
Nokia Group	Technology Hardware and Equipment	Plc	State-owned (partial)	1.5°C	No
Nokian Tyres plc	Tires	Plc	State-owned (partial)	Well-below 2°C	Yes
Oilon Group Oy	Electrical Equipment and Machinery	Ltd		1.5°C	No
Okartek Oy	Containers and Packaging	Ltd		1.5°C	No
Olvi Plc	Food and Beverage Processing	Plc		Committed	No
Orion Corporation	Pharmaceuticals, Biotechnology and Life	Plc		Committed	No
Orthex	Consumer Durables, Household and Personal Products	Plc		1.5°C	No
Outokumpu Oyj	Mining - Iron, Aluminum, Other Metals	Plc	State-owned (partial)	1.5°C	No
OY Prevx Ab	Building Products	Ltd		1.5°C	No
Patria Oyj	Aerospace and Defense	Plc	State-owned (partial)	Committed	No
Paulig Group	Food and Beverage Processing	Ltd		1.5°C	No
Posti Group Ltd.	Air Freight Transportation and Logistics	Ltd	State-owned	1.5°C	Yes 2040
PunaMusta Media PLC	Media	Plc		Committed	No
Purmo Group Plc	Building Products	Plc		Committed	Yes
Reima Group Oy	Textiles, Apparel, Footwear and Luxury Goods	Ltd		1.5°C	No
Reka Cables Ltd.	Electrical Equipment and Machinery	Ltd		Committed	Yes
Rovio Entertainment Corporation	Software and Services	Plc		Committed	Yes
Sanoma Corporation	Media	Plc		Committed	No
Scanfil Oyj	Electrical Equipment and Machinery	Plc		Committed	No
Sinituote Oy	Consumer Durables, Household and Personal Products	Ltd		1.5°C	No

COMPANY	SECTOR	TYPE	STATE OWNERSHIP	NEAR-TERM TARGET	NET-ZERO COMMITTED
SOK Corporation	Retailing	Consumer's co-op		1.5°C	No
Solita Oy	Software and Services	Ltd		Committed	No
Sponda Ltd	Real Estate	Ltd		1.5°C	No
Stockmann Oyj Abp	Retailing	Plc		Committed	No
Stora Enso	Forest and Paper Products - Forestry, Timber, Pulp and Paper, Rubber	Plc	State-owned (partial)	1.5°C	No
Tammer Brands	Retailing	Ltd		1.5°C	No
Teknikum Group Ltd.	Chemicals	Ltd		Committed	No
Third Rock Finland Oy	Professional Services	Ltd		1.5°C	Yes 2050
TietoEVRY	Software and Services	Plc	State-owned (partial)	1.5°C	No
Tokmanni Oy	Retailing	Ltd		1.5°C	No
UPM-Kymmene Corporation	Forest and Paper Products - Pulp & Paper, Forestry, Timber, Rubber	Plc		1.5°C	No
Uponor Corporation	Building Products	Ltd		1.5°C	No
Vaisala	Technology Hardware and Equipment	Plc		Committed	No
Valio Ltd.	Food and Beverage Processing	Ltd		1.5°C	No
Valmet	Electrical Equipment and Machinery	Plc	State-owned (partial)	1.5°C	No
Valmet Automotive	Automobiles and Components	Ltd		Committed	No
Varma Mutual Pension Insurance Company	Banks, Diverse Financials, Insurance	Mutual insurance company		Committed	Yes
Veikkaus Oy	Hotels, Restaurants and Leisure, and Tourism Services	Ltd	State-owned	Committed	No
Viking Malt	Food and Beverage Processing	Ltd		1.5°C	No
YIT Oyj	Construction and Engineering	Plc		Committed	No
Ylva	Real Estate	Ltd		1.5°C	No



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A Progress Report, May 2023