

The Swedish Textile Initiative for Climate Action

2022 PROGRESS REPORT

GREENHOUSE GAS EMISSIONS REPORTED FOR YEAR 2020

IT'S TIME FOR SMART AND BOLD POLITICAL LEADERSHIP

While the world's attention is understandably focused on the war in Ukraine, the IPCC has released another report full of bad news. The key take-away: *Emissions have continued to rise, and it will be "impossible" to stay below* 1.5°C without stronger climate action this decade. Climate change is already impacting every corner of the world, and more severe impacts are in store if we fail to halve greenhouse gas emissions and immediately scale up adaptation.

While news like this can be paralyzing, at STICA we continue to press ahead, helping companies in our network move from intention to action. In doing so, we gain practical insights that we communicate to policy makers, financial actors and other key stakeholders, so that they can create the incentives needed to accelerate change. During the past year, despite the impact of Covid-19 on their businesses, we have been especially heartened that a majority of STICA member companies maintained their commitment to climate action and set bold targets, and more companies joined the initiative.

In this report, for the first time, a majority of member companies are disclosing the full scope of their emissions. This is a very important step in terms of understanding what to focus on in the coming years— and also in the name of transparency. We hope their leadership will inspire other companies to do the same; to use climate action as a prerequisite and driver for business transformation. That said, transparency is not the end goal. The focus moving forward must be on actions that will reduce company and industry emissions.

Most importantly, I want to highlight an inconvenient truth. No matter how ambitious companies are in regard to climate action, without substantial changes

in legislation, serious financial investment and rapid innovation, the pace of greenhouse gas reductions for STICA member companies and the industry overall will be too slow, and most likely, insignificant. This means our political leaders and industry champions need to get serious about their critical role in enabling this industry to transform at the pace and scale required. They need to design and support legislation to ensure the business case for investing in ambitious climate action is undeniable and unavoidable.

We therefore call upon our political and industry leaders to be much, much bolder. We are ready and willing to work with you to develop ambitious solutions that will accelerate change at the pace and scale required.



MICHAEL SCHRAGGER,
INITIATIVE DIRECTOR

CONTENTS

About STICA	
Progress to Date	ć
The Climate Impact of Apparel & Textiles Revisited – A Special Focus on Scope 3 Emissions	7
Member Company Requirements	10
Member's Reporting	11
Our Methodology	12
The Strengths and Limitations of the Current STICA Methodology	13
Company Reporting – Scopes 1, 2 and 3	18
Results and Analysis	22
CEO Perspectives	
Anders Carlsson, CEO, Blåkläder	27
Susanne Ehnbåge, CEO, Lindex	28
Jarno Vanhatapio, Founder & former CEO, NA-KD	29
Joakim Levin, Co-founder & CEO, Nudie Jeans Co.	30
Ponraj Arumugam, Sr. General Manager – Fabric Division, Textown (Supplier Partner to Kappahl)	31
Current Challenges	32
A Call to Action to Policy Makers	35
Stakeholder Voices	37
Contact Information	43



ABOUT STICA

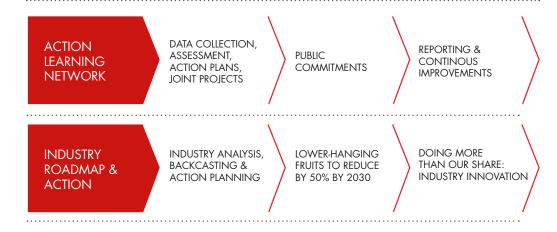
Sweden and the Nordic region have a reputation for leadership in climate action and sustainable development. Sweden's long-term target is net-zero greenhouse gas emissions by 2045, at the latest¹.

To contribute to achieving this goal, leading Swedish NGO Sustainable Fashion Academy (SFA), in collaboration with well-recognized apparel and textile companies and industry stakeholders, launched The Swedish Textile Initiative for Climate Action (STICA). STICA's aim is to enable apparel and textile companies, as well as the entire Nordic apparel and textile industry, to reduce their climate impacts in line with the 1.5°C warming pathway, while strengthening their global competitiveness. Ultimately, STICA's aim is to ensure that Sweden and the Nordic region do more than their share – well before 2050. STICA believes this is the only way to avert a climate crisis.

STICA is organized into two work streams. 1) The Action Learning Network supports committed and ambitious companies in their journey to reduce their emissions in line with the 1.5°C pathway and to transform their businesses. Companies participating in this network represent a broad range of segments and business models, from fashion and outdoor, to workwear and laundry and accessories. 2) Industry Level Action, where the goal is to collaborate with key stakeholders to develop a roadmap and implement an action plan that ensures the entire Swedish apparel and textile industry reduces its emissions and delivers solutions that enable the global industry to reduce its emissions.

STICA was initiated and is led by The Sustainable Fashion Academy, a non-profit organization whose mission is to accelerate progress toward science-based sustainability targets and the Global Sustainability Development Goals, by harnessing the power and influence of the apparel and textile industry. The SFA's role in STICA is to ensure independence, integrity, and progress. For more information, please visit STICA's website.

WORKSTREAMS



BUILDING ON EXISTING INITIATIVES WHENEVER POSSIBLE

Figure 1. STICA workstreams

¹ Currently, this target refers to only territorial emissions, but consumption-based targets, which would include emissions from the production of product and services, are now also under serious consideration.

MEMBER COMPANIES

Acne Studios	ACTIVE BRANDS	AXEL ARIGATO	Bergans	BJÖRN BORG 🌘	<u>BLÅKLÄDER</u>	BROTHERS
BUBBLEROOM	casall	CELLBES	CRAFT ::-	DACMAR		
> elis	ELLOS GROUP ellos Jotex stayhard	Elodie Details.	ETIKETT KOMPANIET	ETON	FENIX OVDDOR International AG	FRISTADS
ginatricot	H ₂ M	HEMTEX	HULTAFORS GROUP	ISBJÖRN X.	Kappahl	Kid
LINDEX	 ₩ Q	N A-K D	NELLY.COM	Newbody Family	MORRØNA	Nudia Jeans co
odd molly	Peak Performance	POLARN O. PYRET	RUDHOLM GROUP	SANDQVIST	Sandryds	Snickeis Workwear
staclium	Tenson°	TIGER OF SWEDEN		VARNER	VOLVO	

PROGRESS TO DATE

During 2021, STICA focused both on supporting company members in their journey and influencing change at the industry level. Here are a few of the activities that took place during the past year:

FOR COMPANIES:

- STICA hosted 15+ webinars covering a range of topics, including how to calculate and report Scope 3 emissions; target setting; how and when to use generic data and real data; how engage partner suppliers in climate action; how to employ internal carbon pricing strategies; best practices in product level calculations; how to build climate action roadmaps; etc.
- Company members participated actively in working groups, including country groups focused on energy efficiency and renewable energy; data and reporting tools; the user phase and communication; transport; and materials sourcing.
- STICA developed a range of support tools, including a standard supplier questionnaire; a questionnaire for brands and retailers; an action planning tool; and a questionnaire for real-estate owners.
- STICA hosted a Kickstarting Climate Action webinar series for companies not currently participating in STICA.

AT THE INDUSTRY LEVEL:

- STICA hosted an EU-level webinar focused on ensuring the upcoming EU Sustainable Textile Strategy and subsequent legislation, including sufficient provisions to ensure the industry meets its climate targets.
- STICA submitted a position paper to the EU and engaged with parliamentarians and the EU Commission.
- STICA hosted a series of round tables with key Swedish stakeholders to discuss acceleration of climate action.
- STICA initiated a partnership with key Swedish stakeholders to develop a method to measure and track the greenhouse gas emissions of the Swedish apparel & textile industry.

It is very important to acknowledge the incredible efforts of the company representatives participating in STICA, as well as our advisors, for advocating ambitious climate action internally at their companies and in the industry as a whole. A special thank you is warranted for our dynamic steering group and founding company members: Åsa Andersson and Peak Performance; Felicia Reuterswaard and H&M Group; Sandra Roos and Kappahl.

THE CLIMATE IMPACT OF APPAREL & TEXTILES REVISITED - A SPECIAL FOCUS ON SCOPE 3 EMISSIONS

The Paris Agreement, a legally binding international treaty on climate change, was adopted by 196 countries at COP 21 in Paris, in 2015. These countries agreed to limit global warming to well below 2°C, preferably to 1.5°C, compared to pre-industrial levels. In 2018, the IPCC stated in its special report "Global Warming Of 1.5°C" that a global temperature rise of more than 1.5°C will likely result in severe consequences for people and the planet. Scientists tell us we need to halve our emissions every decade in order to limit warming to no more than 1.5°C.

The apparel and textile industries are responsible for a significant amount of greenhouse gas emissions. While data in the sector needs to be improved, recent studies estimate that the apparel industry could account for approximately 2-7% of total global emissions. Given the anticipated growth of the industry in emerging markets and our need to halve emissions by 2030, it is crucial that the textile industry do its part and more.²³⁴⁵

Studies from WRI⁶, McKinsey⁷ and Quantis⁸ show that there is general agreement that the majority of the apparel industry's greenhouse gas emissions are generated in the value chain, especially during fiber and material production, yarn production, preparation of fabrics and dyeing, assembly and transportation within production.

Figure 2. Apparel and footwear value chain. Sadowski, Yan and Adan, Apparel and Footwear Sector Science-Based Targets Guidance (2019).

APPAREL AND FOOTWEAR VALUE CHAIN











TIER O

production

process.





TIER 4

RAW MATERIAL EXTRACTION

Cultivation and extraction of raw materials from the earth, plats or animals. TIER 3

Process of raw materials into yarn and other intermediate products.

PROCESSING

MATERIAL PRODUCTION

finished product.

Production and finishing of materials (e.g. fabric, trims) that go directly into

TIER 1

FINISHED OFFICE, RETAIL, DISTRIBUTION ASSEMBLY CENTERS

Assembly and manufacturing of final products. CONSUMER USE

Consumer care: washing, drying, dry cleaning, etc. real-estate not involved in

END OF LIFE Reuse, recycle, landfill.



LOGISTICS Shipping of materials and products across value chain

- 2 Ellen MacArthur Foundation and McKinsey & Co, Redesigning Fashion's Future (2017)
- 3 WRI and Apparel Impact Institute, Roadmap to Net Zero (2020)
- 4 McKinsey & Co., Fashion on Climate (2020)
- $5\,\, Quantis, Measuring\, Fashion: Insights\, from\, the\, Environmental\, Impact\, of\, the\, Global\, Apparel\, and\, Footwear\, Industries\, (2018)$
- 6 WRI and AII, Roadmap to Net Zero: Delivering Science-Based Targets in the Apparel Sector (2021)
- 7 McKinsey & Co., Fashion on Climate (2020)
- 8 Quantis, Measuring Fashion (2018)



Sweden is no different. In Sweden, 80% of the climate impact from clothing consumption originates from fossil fuel energy used in the supply chain, Tier 1-4 plus transportation. Additional emissions are generated during customer transport to and from the store, and during use and care. For brands and retailers, only a small percentage of emissions are generated by their own operations.

To halve emissions by 2030, the industry will need to decarbonize material processing, production and garment manufacturing, and minimize waste. But it will not be sufficient to only reduce emissions in the supply chain. Companies will also need to take action to reduce overstock, decarbonize retail operations, and improve their material mixes. Emissions created during consumer use can also be addressed by reducing washing and drying, increasing the use of circular business models, and increasing collection and recycling.

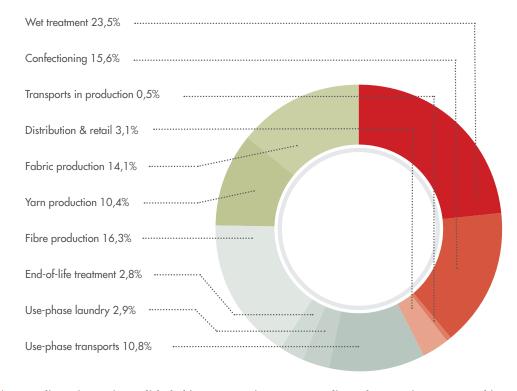


Figure 3. Climate impact in Swedish clothing consumption. Source: Sandin et. al. 2019. Mistra Future Fashion.

REDUCING SCOPE 3 EMISSIONS

Companies participating in STICA have a number of options for reducing their emissions in their supply chains. These may include: 1) using materials more efficiently to minimize waste; 2) sourcing more sustainable materials; 3) investing in the development of the next generation of materials with better climate profiles; 4) sourcing from energy-efficient factories; 5) eliminating coal as an energy source in supply chains; and 6) sourcing from factories that use renewable energy.

Additionally, companies can invest in the development of new circular business models that lead to an increased number of uses, and ultimately should replace linear models and the need for virgin products and materials. These models include repair, subscription and resale.

KEY INTERVENTIONS FOR REDUCING EMISSIONS TOWARDS NET ZERO

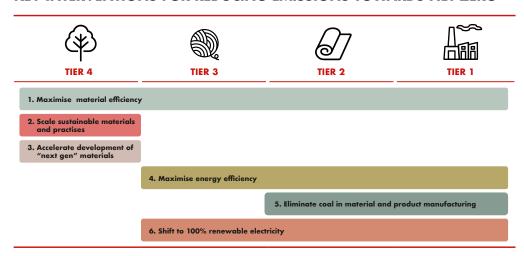


Figure 4. Key interventions for reducing emissions towards Net Zero.

Source: WRI, AII, 2021. Roadmap to Zero

Below is a diagram further illustrating the selection of actions a company may take in implementing its emission reduction strategies for 2030 and transforming its business.

REDUCTION ROADMAP FOR A GENERIC COMPANY IN STICA AND THE POTENTIAL OF 8 KEY REDUCTION AREAS

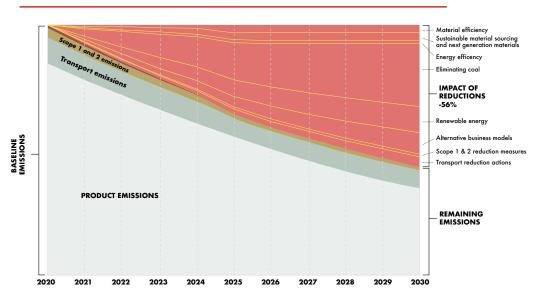


Figure 5. Reduction roadmap for a generic company in STICA and the potential of 8 key reduction areas



MEMBER COMPANY REQUIREMENTS

TO ENSURE CREDIBILITY, TRANSPARENCY AND PROGRESS, STICA REQUIRES COMPANY MEMBERS TO:

Set targets, measure, and report in accordance with STICA guidelines, which are informed by the Science Based Targets initiative methodology and the GHG Protocol. STICA provides guidelines for how to measure and report, as well as education and training. Company targets and methods do not need to be approved by the Science Based Targets initiative, although this is encouraged. Requirements include:

- Public targets for Scopes 1, 2 and 3.
- Targets in line with what it will take to limit warming to no more than 1.5°C, which in practice means reducing absolute emissions by roughly half by 2030.
- If a member company cannot commit to the targets and reductions required to stay on a 1.5°C pathway, the company can select a temporary target, explain why, and present a plan for what is needed to be able to do so. These exceptions are addressed on a case-by-case basis.
- Here is more detailed information about STICA's calculation and reporting guidelines and target setting requirements.

Report progress on an annual basis (Scopes 1, 2 and 3 according to the Greenhouse Gas Protocol). Members need to report progress for all scopes. New members are permitted to wait one year before reporting.

Make their targets and commitments public. Companies and organizations should present their impacts and progress publicly. STICA also publishes members' progress annually.

Submit Greenhouse Gas Reduction Action Plans on an annual basis, to ensure climate action is embedded into the core business of the company.

Share knowledge and insights with other companies and engage in joint projects where possible and practical. Company and organizational representatives are expected to participate in webinars and engage in working groups when relevant. This ensures the network is robust and that learning is shared effectively.

Support action at the industry level. Without changes at the industry level, there are limits to what a company can do to reduce its emissions and transform its business. By engaging at the industry level and by supporting STICA in doing so, companies also prompt more fundamental structural changes.



MEMBER'S REPORTING

THIS SECTION PROVIDES INFORMATION ABOUT:

- The STICA calculation and reporting methodology;
- The strengths and limitations of the STICA methodology;
- Member companies' greenhouse gas emissions reporting;
- An analysis of the results.
- \bullet We also include reflections from a select group of member CEOs and supplier partners.

OUR METHODOLOGY

STICA requires that its members follow the methodology and recommendations of the Greenhouse Gas Protocol standard when reporting greenhouse gas emissions. To ensure quality, robustness, and consistency, companies are required to follow the guidelines and support documents within STICA, including guidance on emission factor sources and how to handle scope, exclusions, assumptions and estimates made.

In the STICA reporting, companies are required to disclose emissions with Scope 1, Scope 2 and selected categories from Scope 3. These categories cover purchased goods and services (excluding indirect material, such as office supplies and store interiors), purchased transport up- and down-stream, and finally, fuel- and energy-related emissions. In addition to these required disclosures, many companies also choose to disclose emissions from the recommended categories: business travel, use of sold products, and the excluded parts of purchased goods and services.

The required scope of reporting is based on a combination of the relative size of these categories in terms of emissions, and the recommendation from the Science Based Targets initiative, not including the indirect use phase, such as washing and drying. STICA requires its members use the operational control approach and the market-based method, as described in the GHG Protocol. For target setting, STICA requires companies align with a set of criteria, and set targets in the medium term, towards 2025-2030. These criteria are available here.

When calculating greenhouse gas emissions, companies use a variety of data sources and estimated values. For production of sold products, most companies use a combination of actual data from suppliers, and estimated values for the parts of the supply chain where actual data is not yet available.

IF YOU DON'T MEASURE YOUR EMISSIONS, YOU CAN'T MANAGE THEM

The first step in decreasing emissions is mapping and measuring them. The Greenhouse Gas Protocol was established in the late 1990s and is the global standard for accounting and reporting emissions from private and public sector operations, value chains and climate actions. The standard is divided into three scopes:

DIRECT

SCOPE 1

Direct GHG emissions occur from sources that are operated by the company.

Company operated cars and refrigerant leakage.

INDIRECT

SCOPE 2

GHG emissions from the generation of purchased energy by the company.

Electricity consumption and district heating for offices and stores.

SUPPLEMENTAL

SCOPE 3

Indirect GHG emissions that occur in the value chain of the company.

Emissions for tranportations of goods, upstream production, business travel.

THE STRENGTHS AND LIMITATIONS OF THE CURRENT STICA METHODOLOGY

When reviewing and interpreting the results reported for each STICA member company, it is important to keep in mind both the strengths and limitations of the methods used for calculations and reporting. In this section, we specifically address some of these under the following headings: 1) The strengths and limitations of the GHG Protocol; 2) The STICA scope; 3) Accounting for product quality and longevity; 4) Data quality and uncertainty; and 5) Target-setting methods.

THE STRENGTHS AND LIMITATIONS OF THE GHG PROTOCOL

Firstly, the STICA method is based on the GHG Protocol. Few frameworks within sustainability have reached the same widespread use and level of acceptance. All major reporting initiatives and frameworks rely on these rules and requirements for consistency over time. However, the GHG Protocol also has some limitations, such as:

- **Comparability** between companies is not an explicit objective of the GHG Protocol. STICA acknowledges this, but also sees value in showing company results together, to help inspire and challenge STICA members. The reader is advised to consider this when reading the report.
- **Inclusion criteria** for Scope 3 is not specifically outlined in the GHG Protocol for Scope 3, meaning that the activities included in disclosures may vary significantly. To counter this, STICA has defined the parts of the members' businesses to be included, using the Science Based Targets guidance for apparel and footwear as well as screenings made by individual companies.
- **Biogenic emissions** and/or emissions from changes to how land is used (often called LULUCF) is partially addressed in the current version of the GHG Protocol, but an addition focusing on land-use emissions is under development and is likely to become a required part of GHG-accounting in the future. This will add significant emission sources and thereby data collection and reporting work. STICA is currently monitoring this but has not yet created guidance for member companies on how to address this.

STICA, along with most other initiatives, has chosen the GHG Protocol for accounting and reporting as this is currently the best available option. We feel comfortable that we have mitigated the main drawbacks of the current protocol and how it is applied to the apparel and textile sector. STICA continuously monitors the development of frameworks and accounting rules to ensure we are using the most robust and relevant standards.

THE STICA SCOPE

As mentioned in the methodology section, STICA member companies are required to report emissions from selected parts of their value chains in addition to Scope 1 and 2. These requirements are described briefly below, together with a reasoning for why they are required:

- **Purchased goods and services** (direct) include emissions from producing the products that the companies sell, from production of raw material through to a finished product and packaging. In most cases, this is by far the most significant emission source for a textile company, and on average may represent 80% or more of its emissions and should be a crucial part of any textile company's reporting.
- The transportation and distribution that companies purchase is also a significant source of emissions from trucking, air freight and maritime shipping. These emissions are accessible for companies both in terms of data and on reduction opportunities and are natural to include in the emissions accounting.
- **Fuel- and energy-related activities** such as production and distribution of fuels used in Scope 1 and 2 activities are often included in accounting and seen as an extension of the Scope 1 and 2 emissions.

In addition to these, STICA offers some support in measuring and reporting emission from optional Scope 3 categories, briefly described below:

- **Purchased goods and services** (indirect) cover emissions from store interiors, hangers, office equipment etc. that is not sold by the company, but rather used to keep the company working. This is optional to include, to decrease the reporting burden on companies, and to help them focus on the major emission sources.
- **Business travel** is often included in company accounting, even though in many cases it may be a fraction of the emissions. This is generally due to the fact that companies have direct control over how employees travel and the data is readily available. STICA has opted not to require this, again to reduce the reporting burden and to focus on major emission sources. A number of companies still report emissions in this category, however.
- The use of sold products and consumer transport are not required to be included in the reporting. Primarily, this is based on the uncertainty in the underlying data, where consumers' use and transport are very difficult to measure credibly, and any emissions reductions can be hard to substantiate. However, the use-phase and consumer transport can be a significant source of emissions, and it is likely there will be more focus on this in the near future.

ACCOUNTING FOR PRODUCT QUALITY AND LONGEVITY

It is important to highlight the issue of product quality and therefore product longevity, and the role this can and should play in the accounting of a company's emissions and in its emissions-reduction strategies. The theoretical discussion on longevity is as follows: even if one high-quality product has larger GHG-emissions in the production phase than another, if this product is used many more times because it is of better quality, then this could result in lower GHG-emissions overall. This is because the higher-quality product would, in theory, be used more – and therefore decrease the need for the consumer to buy an additional product. As a result, this can lead to a decrease in the total amount of GHG-emissions when comparing the total emissions of using one product versus many for the same purpose.

In theory, this can be true. But in reality, it can be hard for a company to know if the emissions **actually** decrease, this is because:

- It can be difficult to prove how long a customer actually uses a product. In theory, a customer can buy a better product that lasts longer, but still not use it more. This is because customers often underutilize high-quality products.
- Customers also tend to overconsume products due to factors like fashion trends, low prices and procurement policies, leading to the purchasing of more products than needed.
- The emissions per product will still matter. For instance, if the lower-quality product creates **significantly less GHG-emissions** than the high-quality product, the benefits of buying and using the higher-quality product might no longer be sufficiently significant to offset the production emissions.

When accounting for emissions in a company-wide perspective, the quality and longevity can be included in performance tracking and targets by including them in KPIs that are connected to the number of uses that their products have, such as "total GHG-emissions"/"number of uses". This allows companies to use longevity and quality improvements as a direct measure in reducing emissions. For economic-based KPIs like emissions per revenue or "value added," such quality and/or longevity increases are included in economic terms, as a higher-quality product would fetch a higher price. As we've seen, the actual number of uses is very difficult to measure, so measurements of any such targets and KPIs must be clearly defined and justified, and will need to be considered credible by STICA. We are following the EU's development of the Product Environmental Footprint closely, as this methodology will likely include a way to measure product longevity.

DATA QUALITY AND UNCERTAINTY

When surveyed, many of the STICA members quote data collection and quality as a significant challenge. Data availability, quality, representativeness, and the sheer volume of data raise challenges for truly understanding a company's impact and options for emissions reductions. Like many of the world's commodities, textile value chains are complex and span much of the globe today. From the cotton field to the finished pair of jeans, there may be a large number of companies handling, processing, reselling, laundering and packing the product. This means it is unrealistic for an individual company to expect to collect data from all of these actors. Instead, many companies combine average data from parts of the value chain with actual data from others. Currently, and for the foreseeable future, this is the reality for industry.

Using average data and emissions factors carries some uncertainty, especially when used on a general level. For example, many companies use weights of different materials and a global average for manufacturing the fabric required. This means the processes used, the energy sources or even the countries of origin are unknown, introduce significant uncertainty into the equation. Even when these are known, there is still a need for emission factors representing the specific processes, energy sources or geographies involved, and these are often difficult to track down, or do not exist.

In summary, we see three drivers of this uncertainty: 1) the company's own data and the level of detail; 2) the availability and representativeness of emission factors or average data; and 3) the quality of the data in these emission factors. We will elaborate on the latter below.

Currently, STICA recommends using the emission factors from the HIGG Material Sustainability Index (MSI) when working with average data. From STICA's perspective, the HIGG MSI is currently the most widely accepted database for working with average data and emission factors in the industry. However, as with other secondary data sets, the MSI has some limitations:

- **Data accuracy** is a problem when the content of an emission factor is lacking. The data can be old, non-representative of processes or geography, or have other limitations in the specifics of how it is used. Generally speaking, the accuracy of the data in an emission factor relates to how it is applied. A global average cotton production factor for 2021 is a poor indicator for cotton produced in Egypt using irrigation agriculture in 2009, but it is useful to represent a market mix. This is often the case with all types of emissions factors, and the MSI is no exception.
- **Method accuracy** occurs where the method applied is not representative of the reality of a production system or market, or is used for comparisons between materials. An example of this is allocation methods: in a wool production system where both meat and wool are produced together, this is apparent. The emissions from this system can then be allocated to these two products, for example by using economic terms, such as the share of the income generated by each, or by physical terms such as protein content. Depending on the choices made when creating the factor, the different methods can give very different outcomes in emissions.
- **System-wide impacts, or marginal issues** reflect the fact that using emissions factors, such as those from the MSI that attempt to capture current global average data when making decisions on for example, fiber choice can be problematic. For example, if companies move from using conventional to recycled polyester, they will create additional demand for recycled polyester that may be produced in a new way and that does not reflect the data we have for the global average of recycled polyester production.
- Data ownership and bias combined with a lack of transparency is also problematic. Most available average data is owned by private companies, hindering users from disclosing more details on their impacts. Much of the available data is also difficult to access in a practical way, often being fixed values for GHG-emissions, rather than energy consumption figures that would be more useful. A significant share of global average data is also produced by business networks and industry organizations, which causes concerns on the built-in biases in some of the datapoints. For example, LCA impacts for individual fiber types, such as cotton or polyester are often produced by cotton or plastics industry associations.

STICA acknowledges that using some average data is an absolute necessity for the foreseeable future, and there will always be uncertainty and inaccuracy in this way of working. STICA is actively working to improve the way we work with the data, and together with the member companies, is looking to increase the amount of actual data, as well as to improve the quality of available average data.

The uncertainty in the average data outlined above could lead to questionable conclusions on material or process choices, and STICA recommends that our members carefully consider this uncertainty when choosing a reduction strategy. However, the quest for the perfect data should not delay company progress and lead to inaction. In such a complex system, there will always be some uncertainty to navigate.

TARGET-SETTING METHODS

To stay below 1.5° C warming by the end of the century means a drastic reduction of emissions. The Science Based Targets initiative has, roughly speaking, translated this into a requirement for all companies to cut their emissions by 50% in absolute terms by 2030. This is based on the carbon budgets set out by the IPCC for keeping warming in line with 1.5° C.

A number of methods are available to guide companies in setting GHG-emissions targets. Generally speaking, these are: absolute reduction targets; relative or intensity targets based on either physical or economic intensities; sectoral or product emission targets, such as the SDAs from the Science Based Targets initiative, or the One Planet Plate from WWF; supplier engagement targets. The absolute reduction method is often considered the most ambitious and credible approach, as it ensures that a company reduces its total emissions. In other words, this approach effectively caps the emissions of the company. This is why STICA strongly recommends that its members set absolute reduction targets.

However, setting targets in this way does not account for some unique challenges or situations:

- An absolute target implies that because a company has emitted large amounts of greenhouse gases historically, **it should be entitled to a larger share** emissions budget. A company that is twice the size and therefore may have twice the emissions will have twice the emissions budget to work with.
- **New entrants** to the market or small companies usually have very low emissions from the start. In this case, an absolute target requiring them to halve their emissions by 2030 can be difficult to achieve because their emissions budget is very small to begin with. This will be the case even if they have products that on average incur a fraction of the emissions of established companies.
- **High-performing** companies who have already taken significant action to reduce their emissions are also required to halve their emissions, like those who have not yet started. To some extent this means they will have a harder time fulfilling the target as they have already picked the lowest-hanging fruit of emissions reductions.
- A variant of the above is companies **aiming to take market share** in a slowly expanding sector. In this case, an absolute cap on a company's emissions could, in theory, be at odds with the goal of reducing the total emissions of an industry sector. For example, a company that produces products that have a relatively lower greenhouse gas profile could out-compete companies with worse-performing products. As this company grows, its products could replace those from companies with higher greenhouse gases, thereby reducing the overall emissions of the sector. But, as the company grows, its overall company emissions would increase, while the sector's overall emissions would decrease. This is the theory, but it is based on many assumptions and is difficult to substantiate.

STICA is aware of these challenges and therefore temporarily allows companies to use other target types while requiring transparency on how these targets influence their absolute emissions. You can read more about our current target-setting requirements here.





In this section you will find company specific information in two tables, the first with Scope 1 and 2 information and the second with Scope 3 information. The companies are listed in alphabetical order to make it easier to find a specific company. However, you can also find the company information organized according to company revenue here.

Some companies have reduced their emissions, while other companies' impact has increased. 2020 was heavily affected by Covid-19, which has had an impact on the companies' sales and purchases over the year, in turn likely affecting their overall emissions. While some companies were more affected by reductions in purchase volumes, others managed to grow during the year. However, the change in emissions is only reflected for the companies with a base year prior to 2020 in these tables.

SCOPE 1&2 REPORTING

Table 1. Company-level information outlining the size of the company and progress toward their Scope 1 and 2 target for the reporting year of 2020. Note that a few other companies were members of STICA in 2021 but will not report any figures until November 2022. There are also a few companies that did not yet set any targets, these companies are currently developing their targets and will be submitting these to STICA during the year.

STICA company member	Revenue (MSEK)	Scope 1&2 emissions in 202 (tonnes CO2e)	Change in absolute 0 emissions since base year (tonnes CO2e)	Change in absolute emissions since base year (%)	Target description	Required annual reduction from 2020
Acne Studios	2 370	792	-47	-6%	Reduction of 50% in absolute emissions by 2030 from a 2018/2019 base year.	-4,4%
Active Brands	-	680***	-	-	Reduction of 50% in absolute emissions by 2030 from a 2020 base year.	-5,0%
Axel Arigato	317	53	-2	-4%	Reduction of 80% in absolute emissions by 2025 from a 2019 base year.	-15,1%
Bergans	591	212	-397	-65%	Reduction of 60% in absolute emissions by 2025 from a 2018 base year.	-
Björn Borg Group	705	354	-	-	Reduction of 50% in absolute emissions by 2030 from a 2020 base year.	-5,0%
Blåkläder	1 551	643	-101	-14%	Reduction of 50% in absolute emissions by 2030 from a 2018 base year.	-3,6%
Brothers	248	119	-	-	Reduction of 100% in absolute emissions by 2030 from a 2020/2021 base year.	-10,0%
Bubbleroom	364	8	-	-	Reduction of 100% in absolute emissions by 2030 from a 2020 base year.	-10,0%
Casall Sport	206	100	-55	-36%	Reduction of 50% in absolute emissions by 2030 from a 2018/2019 base year.	-1,4%
Cellbes	587	92	-33	-27%	Reduction of 50% in absolute emissions by 2030 from a 2018 base year.	-2,3%
Craft	588	352	-	-	Reduction of 42% in absolute emissions by 2030 from a 2020 base year.	-4,2%
DB Journey	167	21	-1	-6%	Reduction of 100% in absolute emissions by 2030 from a 2019 base year.	-9,4%
Didriksons	512	268	-68	-20%	Reduction of 50% in absolute emissions by 2025 from a 2018 base year.	-5,9%
Elis	2 100	11 929**	Target not yet set	Target not yet set	Target not yet set	Target not yet set
Ellos	3 175	299	-4	-1%	Reduction of 50% in absolute emissions by 2025 from a 2018 base year.	-9,7%
Etikettkompaniet	17	14	-	-	Reduction of 50% in absolute emissions by 2030 from a 2020 base year.	-5,0%
Eton	457	264	-279	-51%	Reduction of 50% in absolute emissions by 2030 from a 2018 base year.	-
Fjällräven	-	798	-453	-36%	Reduction of 40% in absolute emissions by 2025 from a 2019 base year.	-0,8%
Fristads	1 260	523	-400	-43%	Reduction of 50% in absolute emissions by 2030 from a 2018 base year.	-0,7%
Gina Tricot	1 700	1 383	-	-	Reduction of 50% in absolute emissions by 2030 from a 2021 base year.	-5,0%

SCOPE 1&2 REPORTING

STICA company member	Revenue (MSEK)	Scope 1&2 emissions in 2020 (tonnes CO2e)	Change in absolute emissions since base year (tonnes CO2e)	Change in absolute emissions since base year (%)	Target description	Required annual reduction from 2020
H&M	187 031	72 580	+11 118	+18%	Reduction of 56% in absolute emissions by 2030 from a 2019 base year.	-7,4%
House of Dagmar	38	1	-1	-56%	Reduction of 50,4% in absolute emissions by 2030 from a 2018 base year.	-
Kappahl	4 224	12 962	-4 223	-25%	Reduction of 80% in absolute emissions by 2030 from a 2017 base year.	-5,5%
KID	3 017	730**	-	-	Reduction of 50% in absolute emissions by 2030 from a 2020 base year.	-5,0%
Lindex	5 057	11 128	-3 293	-23%	Reduction of 100% in absolute emissions by 2023 from a 2017 base year.	-25,7%
MQ Marqet	744	295	-	-	Reduction of 100% in absolute emissions by 2030 from a 2020 base year.	-10,0%
NAKD	1 952	187	-	-	Reduction of 80% in absolute emissions by 2025 from a 2020 base year.	-16,0%
Nelly NLY AB	1 394	96	-136	-59%	Reduction of 95% in absolute emissions by 2023 from a 2018 base year.	-12,1%
Newbody	206	12	-	-	Reduction of 50% in absolute emissions by 2030 from a 2020 base year.	-5,0%
Norröna	600	77	+2	+3%	Reduction of 60% in absolute emissions by 2025 from a 2018 base year.	-12,5%
Nudie Jeans	382	403	-83	-17%	Reduction of 51% in absolute emissions by 2030 from a 2018 base year.	-3,4%
Odd Molly	201	10	-100	-91%	Reduction of 50% in absolute emissions by 2025 from a 2018 base year.	-
Peak Performance	1 191	636	-111	-15%	Reduction of 50% in absolute emissions by 2030 from a 2019 base year.	-3,5%
Polarn O. Pyret	638	162	-62	-28%	Reduction of 100% in absolute emissions by 2030 from a 2017/2018 base year.	-7,2%
Rudholm HK	398	264	+163	+160%	Reduction of 46,2% in absolute emissions by 2030 from a 2019 base year.	-20,6%
Sandqvist	96	15	-9	-39%	Reduction of 46,2% in absolute emissions by 2030 from a 2019 base year.	-0,7%
Sandryds	131	76	-12	-14%	Reduction of 50% in absolute emissions by 2025 from a 2018 base year.	-7,3%
Snickers Workwear	1 286	475	-318	-40%	Reduction of 50% in absolute emissions by 2030 from a 2018 base year.	-1,0%
Stadium	6 947	7 550	-281	-4%	Reduction of 85% in absolute emissions by 2025 from a 2017 base year.	-16,3%
Tenson	109	133	Target not yet set	Target not yet set	Target not yet set	Target not yet set
Tiger of Sweden	678	346	-51	-13%	Reduction of 50% in absolute emissions by 2025 from a 2018/2019 base year.	-7,4%
Totême	348	7	-0	-4%	Reduction of 50% in absolute emissions by 2030 from a 2019/2020 base year.	-4,6%
Varner	9 555	22 315	-1044	-4%	Reduction of 50% in absolute emissions by 2030 from a 2019 base year.	-4,6%
Volvo Merchandise	110	7	-1	-13%	Reduction of 50% in absolute emissions by 2030 from a 2019 base year.	-3,7%

SCOPE 3 REPORTING

Table 2. Company-level information outlining the size of the company and progress toward their Scope 3 target for the reporting year of 2020. Note that a few other companies were members of STICA in 2021 but will not report any figures until November 2022. There are also a few companies that did not yet set any targets, these companies are currently developing their targets and will be submitting these to STICA during the year.

STICA company member	Revenue (MSEK)	Total Scope 3 emissions 2020 (tonnes CO2e)*	Production emissions 2020 (tonnes CO2e)*	Transport emissions 2020 (tonnes CO2e)*	Other emissions 2020 (tonnes CO2e)*	Change in absolute emissions in reported scope since base year (tonnes CO2e)	Change in absolute d emissions in reported scope since base year (%)	Target description	Required annual reduction from 2020
Acne Studios	2 370	30 384	18 497	10 543	1 343	-	-	Reduction of 50% in absolute emissions by 2030 from a 2020/2021 base year.	-5,0%
Active Brands	-	21 461***	17 259***	4 202***	0***	-	-	Reduction of 50% emissions per unit by 2030 from a 2020 base year.	-5,0%
Axel Arigato	317	3 234	2 694	533	8	-	-	Reduction of 30% emissions per unit by 2025 from a 2020 base year.	-6,0%
Bergans	591	8 914	5 799	2 996	119	-	-	Reduction of 50% in absolute emissions by 2030 from a 2020 base year.	-5,0%
Björn Borg Group	705	28 853	23 927	812	4 113	-	-	Reduction of 50% in absolute emissions by 2030 from a 2020 base year.	-5,0%
Blåkläder	1 551	38 244	34 284	2 983	977	-	-	Reduction of 30% emissions per unit by 2030 from a 2019 base year.	-3,0%
Brothers	248	6 249	6 022	169	58	-	-	Reduction of 30% in absolute emissions by 2030 from a 2020/2021 base year.	-3,0%
Bubbleroom	364	No Scope 3 disclosure	No Scope 3 disclosure	No Scope 3 disclosure	No Scope 3 disclosure	Target not yet set	Target not yet set	Target not yet set	Target not yet set
Casall Sport	206	2 486	2 466	20	0	-	-	Reduction of 50% in absolute emissions by 2030 from a 2019/2020 base year.	-5,0%
Cellbes	587	14 294	12 761	1 316	217		-	Reduction of 42% in absolute emissions by 2030 from a 2020 base year.	-4,2%
Craft	588	No Scope 3 disclosure	No Scope 3 disclosure	No Scope 3 disclosure	No Scope 3 disclosure	Target not yet set	Target not yet set	Target not yet set	Target not yet set
DB Journey	167	4 775	3 847	815	114	-2 198	-32%	Reduction of 50% in absolute emissions by 2030 from a 2019 base year.	-1,8%
Didriksons	512	14 218	12 402	1 745	71	-	-	Reduction of 30% in absolute emissions by 2030 from a 2020 base year.	-3,0%
Elis	2 100	24 766**	9 548**	3 705**	11 513**	Target not yet set	Target not yet set	Target not yet set	Target not yet set
Ellos	3 175	207 060	200 415	6 378	267	-	-	Reduction of 50% in absolute emissions by 2030 from a 2020 base year.	-5,0%
Etikettkompaniet	17	No Scope 3 disclosure	No Scope 3 disclosure	No Scope 3 disclosure	No Scope 3 disclosure	Target not yet set	Target not yet set	Target not yet set	Target not yet set
Eton	457	8 848	5 428	3 387	33	-	-	Reduction of 30% in absolute emissions by 2030 from a 2019 base year.	-3,0%
Fjällräven	-	31 705	28 759	2 321	625	-1 033	-3%	Reduction of 50% emissions per unit by 2025 from a 2019 base year.	-9,4%
Fristads	1 260	34 906	31 862	2 944	100	-26 578	-43%	Reduction of 50% in absolute emissions by 2030 from a 2019 base year.	-0,7%
Gina Tricot	1 700	34 929	30 408	4 097	424	-	-	Reduction of 50% in absolute emissions by 2030 from a 2021 base year.	-5,0%
H&M	187 031	17 387 060	12 350 974	477 840	4 558 246	-274 940	-2%	Reduction of 56% in absolute emissions by 2030 from a 2019 base year.	-5,4%

SCOPE 3 REPORTING

STICA company member	Revenue (MSEK)	Total Scope 3 emissions 2020 (tonnes CO2e)*	Production emissions 2020 (tonnes CO2e)*	Transport emissions 2020 (tonnes CO2e)*	Other emissions 2020 (tonnes CO2e)*	Change in absolute emissions in reported Scope since base year (tonnes CO2e)	Change in absolute d emissions in reported Scope since base year (%)	Target description	Required annual reduction from 2020
House of Dagmar	38	434	402	23	9		-	Reduction of 30% in absolute emissions by 2030 from a 2020 base year.	-3,0%
Kappahl	4 224	152 595	106 589	4 745	41 262	-27707	-15%	Reduction of 49% in absolute emissions by 2030 from a 2017 base year.	-3,4%
KID	3 017	88 536**	81 709**	6 245**	582**		-	Reduction of 50% in absolute emissions by 2030 from a 2020 base year.	-5,0%
Lindex	5 057	116 053	103 920	8 763	3 371	-51 293	-31%	Reduction of 50% in absolute emissions by 2030 from a 2017 base year.	-1,9%
MQ Marqet	744	18 234	17 416	753	65		-	Reduction of 50% in absolute emissions by 2030 from a 2020 base year.	-5,0%
NAKD	1 952	69 327	57 996	9 843	1 487	-	-	Reduction of 50% in absolute emissions by 2030 from a 2020 base year.	-5,0%
Nelly NLY AB	1 394	25 533	23 016	2 402	114		-	Reduction of 50% in absolute emissions by 2030 from a 2020 base year.	-5,0%
Newbody	206	No Scope 3 disclosure	No Scope 3 disclosure	No Scope 3 disclosure	No Scope 3 disclosure	Target not yet set	Target not yet set	Target not yet set	Target not yet set
Norröna	600	5 968	4 246	1 367	356		-	Reduction of 80% in absolute emissions by 2029 from a 2020 base year.	-8,9%
Nudie Jeans	382	8 960	6 029	1 937	994	-406	-4%	Reduction of 50,4% in absolute emissions by 2030 from a 2018 base year.	-4,6%
Odd Molly	201	1 614	1 259	352	3			Reduction of 50% in absolute emissions by 2030 from a 2020 base year.	-5,0%
Peak Performance	1 191	19 039	18 069	865	104	-	-	Reduction of 50% emissions per unit by 2030 from a 2020 base year.	-5,0%
Polarn O. Pyret	638	10 846	9 947	736	163		-	Reduction of 50% in absolute emissions by 2030 from a 2020/2021 base year.	-5,0%
Rudholm HK	398	36 629	14 874	21 654	101	-	-	Reduction of 40% in absolute emissions by 2030 from a 2020 base year.	-4,0%
Sandqvist	96	1 840	1 370	461	10	-	-	Reduction of 30% in absolute emissions by 2030 from a 2020 base year.	-3,0%
Sandryds	131	7 774	7 507	249	18	-	-	Reduction of 50% in absolute emissions by 2030 from a 2020 base year.	-5,0%
Snickers Workwear	1 286	42 132	40 509	1 013	610		-	Reduction of 42% in absolute emissions by 2030 from a 2020 base year.	-4,2%
Stadium	6 947	178 348	172 832	4 721	795	-15 602	-8%	Reduction of 50% in absolute emissions by 2030 from a 2017 base year.	-4,2%
Tenson	109	3 729	3 360	342	27	Target not yet set	Target not yet set	Target not yet set	Target not yet set
Tiger of Sweden	678	17 037	15 184	1 756	97	-	-	Reduction of 50% in absolute emissions by 2030 from a 2018/2019 base year.	-5,0%
Totême	348	4 988	3 421	1 548	19	-	-	Reduction of 42% in absolute emissions by 2030 from a 2020/2021 base year.	-4,2%
Varner	9 555	314 752	306 095	6 079	2 578	-58 477	-16%	Reduction of 55% emissions per unit by 2030 from a 2019 base year.	-3,9%
Volvo Merchandise	110	1 983	1 409	563	11	-1 613	-45%	Reduction of 46,2% in absolute emissions by 2030 from a 2019 base year.	-0,1%

^{*}This represents the companies' total reported Scope 3 emissions and not just the STICA scope or the target scope.

**The reporting is under development and will be updated during 2022. Currently, parts of the required STICA scope are not included.

***Incomplete data review.



RESULTS AND ANALYSIS

In this section, we present the results for all STICA member companies, first on average and then on an aggregated level. We present the company results in relative terms, per product sold and per unit revenue.

In some cases, we have excluded H&M from the graphics and tables, as the volume of H&M's emissions mean they skew the results for all companies. Where they are excluded, this is clearly indicated. H&M alone stands for about 91% of the total reported emissions from STICA members.

EMISSIONS FROM THE AVERAGE STICA MEMBER COMPANY

For most of the member companies, the majority of emissions come from the production of sold products. It is important to keep in mind that emissions from the use-phase and consumer transport are not included here. These could be another major emission source but are currently not a part of the scope.

On an aggregated level, as illustrated by the graph, Scope 1 and 2 emissions only represent about 5% of the total emissions by STICA members. The remaining 95% covered by Scope 3 is, in turn, dominated by emissions from production.

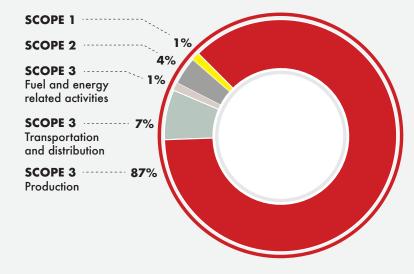


Figure 6. Distribution of emission sources on an aggregated level. H&M is excluded from this graph.

This aggregated view confirms what we expect when looking at apparel and textile companies' emissions. The aggregate hides, however, the internal variations between the members, and this can vary significantly in certain cases. Most companies' Scope 1 emissions represent 0.5-2% of company emissions, and for Scope 2 about 2-8%. But for a few companies this is significantly higher: 40% for Scope 1 and 10% for Scope 2. This is primarily due to different business models (rental and laundry) and direct ownership of manufacturing sites. For Scope 3, the emissions for most companies represent 95% or more of emissions, but there are also a few outliers here as well whose emissions represent between 40% to 80% of their total Scope 3 emissions. In summary, most companies within STICA follow the average, but there are a few outliers that differ from the bulk of the members.

EMISSIONS FROM STICA MEMBER COMPANIES - AGGREGATED RESULTS

The aggregated emissions for the STICA member companies are shown in Table 3 below. The emissions excluding H&M are shown, and H&Ms results are presented next to them. Note that H&M does not split its emissions in the same way as the rest of the members. Each company's emissions are shown in Table 1 under Members reporting.

Category	Emissions 2020 excl H&M [ton CO2e]	Emissions 2020 H&M [ton CO2e]
Scope 1	15 713	11 973
- Company operated vehicles	5 237	
- Fuel use	1 270	
- Other	9 206	
Scope 2	60 490	60 607
- Electricity	38 743	
- Heating and other	21 747	
Scope 3 - required*	1 585 427	12 839 368
- Production	1 443 535	12 350 974
- Transports	125 384	477 840
- Of which is inbound	78 374	
- Of which is outbound	47 010	
Fuel and energy related activities	16 508	10 554
Total	1 661 629	12 911 948

Table 3. Emissions per category in the required STICA scope

Table 3 shows the emissions per category reported within the required STICA scope. Note that four companies have not yet reported their Scope 3 emissions, so for them only the Scope 1 and 2 emissions are included. These results are shown using the market-based approach; if the location-based approach were to have been applied, the Scope 2 emissions would have been 53 483 tonnes CO2e excluding H&M's emissions, and an additional 564 552 tonnes CO2e from H&M.



RELATIVE EMISSIONS BETWEEN STICA MEMBER COMPANIES

To put emissions into perspective we have used two KPIs for all STICA companies: 1) the number of products sold; and 2) the net revenue. In some cases, companies use these as intensity measures when setting targets, but here they are used simply as way of showing the relative emissions among the member companies.

It is tempting to compare the results here, and to some extent we will do this, keeping in mind that the framework (GHG Protocol) and the STICA methodology are not optimized to compare performance between companies, but rather within them over time. We should also keep in mind that the large variation in product types and business models represented makes comparisons between companies complex. We will analyze this further here.

Emissions per unit sold are shown in Figure 7. We can see that, on average, the total emissions per product sold are 7.5-10 kg CO2e, but with an evenly distributed variation. Five companies stand out with significantly higher per-unit emissions – 19 kg CO2e or higher – more than five times higher than the lowest group of seven companies that are below 3.5 kg CO2e. Some of the difference may be because of the varying types of products sold, from outdoor apparel and shoes to baby clothes, lingerie, and socks. It is, however, relevant to look at the spread of companies here, and over time, to see how the individual companies progress.

Emissions per unit revenue are shown in Figure 8. The average company has emissions of about 25 tonnes CO2e per million SEK revenue. But as with the per-product KPI, the spread is significant – if somewhat less so than for the per-unit emission. We see a group of four companies with significantly higher emissions – 60 tonnes per million SEK and more – and a group of about eight companies at 15 tonnes per million SEK and less. Here again, it is important to consider the different types of products and their economic value in relation to the material and production emissions.

In general, we can see that companies producing low-priced products can have relatively low emissions per unit sold, but when we look at per-revenue figures, the reverse is true.

Revenue can be affected by outside factors, such as exchange rates, raw material and price increases and inflation, making it an uncertain value to use. If used cautiously, however, it can provide some insight into the relation between the value that the company creates and the emissions. Another interesting metric here could be profit or "value added".

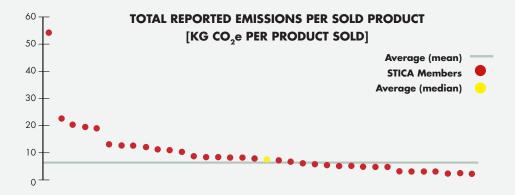


Figure 7. Total reported greenhouse gas emissions per sold product for STICA members, presented from the largest to the smallest emission per sold product. This illustrates how some companies sell larger volumes of clothing and some less. Climate action and changes in business model will decrease emissions per sold product. Companies in graph 3 have been anonymized, and companies that did not report number of sold products have been excluded.

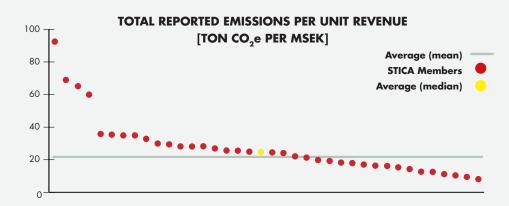


Figure 8. Total reported greenhouse gas emissions per net revenue for the STICA members (tonne CO2e per MSEK), sorted from the largest to the smallest GHG emissions per net revenue. This illustrates how some companies sell larger volumes of clothing and some less. Companies in the graph have been anonymized, and companies that did not report number of sold products have been excluded.

ANALYSIS

Pandemic effects

This report presents the emissions for 2020, during the Covid-19 pandemic. It is difficult to say exactly what the effects of the pandemic are on company emissions as a whole. In some cases, where a company reports significant double-digit emissions reductions in Scope 3 from its baseline calculation, the cause is mainly due to a significant reduction in sales during the pandemic. But in other cases, some companies have seen increased sales, depending on segment. Logistics and production planning were also affected as factories shut down, transport companies tried to adapt, etc.

Target progress - Scope 1 and 2

Almost all of the STICA members have set Scope 1 and 2 targets in line with the 1.5° C pathway, taking an important step in their work to mitigate the impact of their business operations. Some of those who have not yet committed are in a process of updating targets or setting science-based targets. We refer to the STICA target-setting requirements for further details as to how companies are required to set their targets.

Out of the 42 STICA members that have set targets in scope 1 and 2, eleven have used the current reporting period (2020) or later as a base year, and there is thus no basis for evaluating how they are progressing versus targets. Of the remaining 31 companies, 18 are progressing according to the target and have decreased their emissions by at least as much as they set out to do annually in their targets, four of which have already fulfilled their target in advance of their plans.

The remaining 13 companies are progressing to a varying degree, but not as fast as required by the set targets. Three of the companies have instead increased their Scope 1 and 2 emissions. See Table 1 for company specific targets and performance.

When working on reducing emissions, companies should expect some lag between implementing measures and the effects of this in their accounting, and when setting targets for a time period as long as ten years, we should not expect reductions to materialize immediately. In light of this, the reductions seen should be considered well in line with what to expect from most of the companies at this stage. It is, however, important to keep following this to make sure that reductions continue to align with commitments as we get closer to the target dates.

What are the main emission sources for companies?

As seen in Figure 6 on the expected distribution of emissions, more than 90% of emissions within the STICA scope comes from Scope 3. The only exception here is Elis, whose business model is focused on laundry and rental, and therefore has only about 65% of emissions in Scope 3.

Within Scope 3, the main emission source is the production of sold products. On average, this is about 85% of the total emission. For some companies, however, this is as low as 40-60% due to the different types of business models.

Transport constitutes the second-largest source, at an average 7-14%, but in some cases as high as 25-30%, due to the heavy reliance on airfreight both for in- and outbound transport flows.

In summary, for most companies, working to reduce the emissions from their own operations (Scopes 1 and 2) is important, but it will only impact an estimated 5% of a company's total emissions. As expected, however, it is crucial for STICA member companies to reduce emissions in their supply chain. This does not mean transport emissions should be neglected, especially for companies relying on airfreight. However, reducing emissions from transport will only address an estimated 10% of the total emissions for an average STICA member.

Scope 3 – diving deeper: emissions from production (Tier 1 and Tiers 2-4, plus packaging)

When it comes to the emissions within production, companies currently report according to three categories:

Tier 1 for emissions in the production of finished products for the companies. In general, this is the direct supplier that companies interact with. Emissions here come mainly from electricity and fuels used in the facilities. On average, the Tier 1 emissions represent 25-30% of product emissions, but normally 10-40% depending on the product types, production countries and energy sources. Data quality is relatively high here, as many companies work more with their direct suppliers, and rely less on secondary data.

Tiers 2-4 for emissions from the production of raw materials, all the way to a fabric ready to use in Tier 1. Emissions here come mainly from energy and fuels used in the facilities and on farms. On average, the Tier 2-4 emissions represent 70-75% of an average company's emissions, but can be as low as 50%, or up to 90% of total production emissions. Currently, these calculations rely heavily on global average production data for relevant fiber types and should be considered estimates. Only a few companies have actual data from suppliers.

Packaging used in the supply chain, mainly focusing on the Tier 1 packaging. Emissions here mainly come from the production of packaging materials. On average, the emissions from packaging represent 1-2% of the total emissions but can be as high as 6-8%.

Transport between each stage of the supply chain is included in these figures but represents only a marginal share of emissions. Transport data within the supply chain is, in most cases, based on average data and could vary significantly if airfreight is used and if the materials travel greater distances.

This analysis indicates that companies should continue to collect data and reduce emissions from their direct suppliers (in Tier 1), where they can have a significant impact. This will, however, only allow them to influence a quarter of their emissions. It is therefore crucial that they also start developing strategies to influence the rest of their suppliers, both in terms of getting more accurate data and in taking actions to reduce their emissions.





CEO PERSPECTIVE BLÅKLÅDER

ANDERS CARLSSON, CEO

This is the first time your company has calculated and reported on your Scope 3 emissions within STICA. What insights did you gain from doing this?

At Blåkläder, we are aware of the fact that the absolute majority of our climate footprint originates from the manufacturing process, from fibre to garment. We can conclude that around 98% is generated outside the internal business and comes from use of energy in all process steps. The obvious focus is to continue to cut the emissions generated in the supply chain - how we can convert to renewable energy sources, help to improve manufacturing processes and look at alternative materials. Our sewing factories already use solar panels and we will continue our mission to encourage similar investments throughout our entire supply chain. This will not only benefit the emission reduction for Blåkläder, but all parties in business with the same manufacturing units.

What significant challenges or opportunities will you face as you try to reduce your greenhouse gas emissions during the coming years?

The overall behaviour of consumption is a challenge to overcome, as most garments are not worn out but lose their attraction for one reason or another when it comes to fashion. Recycling or other initiatives to reduce emissions are good, but for workwear, longevity is key. The garments are most often completely worn out under tough conditions. The challenge here is the balance between recycling, organic cotton and the lifespan, as the choice almost always comes with a compromise. It's not obvious that they are a part of the solution, but this we need to explore more to gain better knowledge. The longer a product is kept in use, the better it is from all perspectives. It's clear that we need to address the supply chain even more going forward, since it's here we can save emissions. But again, to compromise on longevity of the garment will not be a viable solution.

What help do you need from politicians and policy makers, banks and investors, and other key stakeholders to make it possible to achieve your goals?

We truly believe that there already are a lot of strong ongoing initiatives as well as ground breaking developments of new technology in the textile industry. Driving this progress in the right direction will require a balance, to implement the most effective actions for the time being and not to force changes prematurely with opposite effects. A concrete example is the textile recycling technology, which today is very limited but where a lot of new, exciting development is happening. Recycling waste in general and implementing circular economy is key to our common future, but the circular flows could be approached from a more holistic perceptive and not industry by industry. It would be great if we, the textile industry, could have a common road map to make it easier for consumers and decision makers to understand the complexity within the textile industry when it comes to sustainability and emissions in a bigger context.

CEO PERSPECTIVE

LINDEX

SUSANNE EHNBÅGE, CEO

This is the first time your company has calculated and reported on your Scope 3 emissions within STICA. What insights did you gain from doing this?

This is the third time we calculate our Scope 3 emissions, but it is the first time we have integrated actual data from some of our biggest suppliers. The most important insight is that a consolidated supply chain and close dialogue with suppliers are key. Also, we see that it will be important to frequently collect this data to understand it, compare different suppliers' data to one another and verify the data. This will be a journey and an ongoing recalibration process where we will have to recalculate our base year as more data becomes available to us.

What significant challenges or opportunities will you face as you try to reduce your greenhouse gas emissions during the coming years?

Reducing our greenhouse gas emissions by 50% by 2030 latest will require courage, innovative thinking, and transforming the way we do things today. We believe that our biggest challenges will be to decarbonize the large fabric mills that we do not yet have a relationship with. This is where our biggest impact is, and this is where decarbonization needs to happen. We will face challenges with lack of access to renewable energy in some of our production markets. However, we will have opportunities to explore new business models and ways of creating value without increasing our emissions. We also see opportunities in new partnerships, new types of investments and new innovations when pressure for transformation increases and legal frameworks are put into place.

What help do you need from politicians and policy makers, banks and investors, and other key stakeholders to make it possible to achieve your goals?

We need legal frameworks that are sharp and to the point and that drive actual change while creating a level playing field. We need support in investing in our existing supply chain in, for example, Bangladesh through finance support like green loans backed with government guarantees, reduced taxes and tariffs as well as advocacy in production countries. We need transformation to circularity to be incentivized through reduced labor costs. Legislation must create a level playing field and must not allow competitors from outside of the EU to put their goods in the EU market without being subjected to the legal requirements. That would heavily undermine all the efforts and investments that the EU member enterprises are undertaking.





CEO PERSPECTIVE NA-KD

JARNO VANHATAPIO, FOUNDER & FORMER CEO

This is the first time your company has calculated and reported on your Scope 3 emissions within STICA. What insights did you gain from doing this?

The most important thing for NA-KD is that we know the baseline for our emissions as we continue to work relentlessly to reduce them. As an e-commerce company, our Scope 3 emissions account for close to 100% of our emissions. This makes collaboration with our value chain partners critical for us to succeed in reaching our climate reduction target of 50% absolute reduction by 2030, compared to our 2020 baseline.

What significant challenges or opportunities will you face as you try to reduce your greenhouse gas emissions during the coming years?

Our biggest challenge by far is our growth. We will continue to grow as a company and even though we reduce emissions per product (and service) sold, we will still have a huge challenge to reduce our absolute emissions. We see great opportunity in expanding NA-KD Circle, our fully integrated marketplace for customers to sell and buy NA-KD preloved fashion. Growing circular business models to become a significant part of our revenue in the future is fundamental for us to be able to reach our climate reduction target by 2030.

What help do you need from politicians and policy makers, banks and investors, and other key stakeholders to make it possible to achieve your goals?

To reach our 50% absolute climate reduction target by 2030, we need to collaborate with our customers and within the industry. As a brand, NA-KD alone cannot change the industry. We need to collaborate as peers to drive this change, and we need policy makers to make it profitable to invest in and create circular business models. We also need policy makers to take part in the challenge of inspiring consumers to choose more sustainable products and brands.

CEO PERSPECTIVE

NUDIE JEANS CO

JOAKIM LEVIN, CO-FOUNDER & CEO

This is the first time your company has calculated and reported on your Scope 3 emissions within STICA. What insights did you gain from doing this?

We have mapped and calculated our Scope 3 emissions since 2018, but it's the first year we've reported the results through STICA. We have focused on collecting a large share of actual data from our suppliers, which has been possible thanks to our long-term transparency work and direct contact with many of our suppliers, in all tiers. The emissions mapping has given us an understanding of our emissions hotspots, which in turn is essential when creating our action plan. In 2021 we have focused on having individual follow-up meetings with our key suppliers to increase their awareness on this subject and understand how we can support them in the work of transitioning to renewable energy.

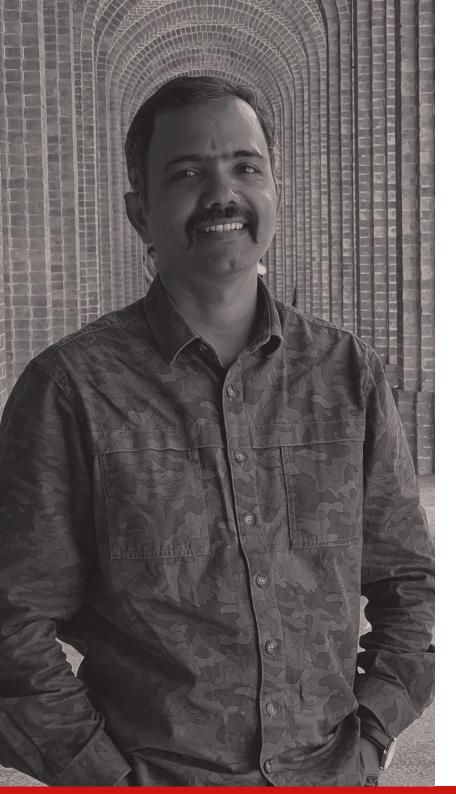
What significant challenges or opportunities will you face as you try to reduce your greenhouse gas emissions during the coming years?

62% of Nudie Jeans' total emissions come from our supply chain. For us to reach our targets, we are very dependent on our suppliers to decrease their emissions. Creating close communication with our key suppliers about our climate work, presenting our challenges and their role in this work has therefore been important to us. The first step is to increase the knowledge of this topic among our suppliers and to find ways to support them in their development. Even though we know this is a process, we are optimistic about the developments we see among our suppliers. If we get our largest suppliers on board on this work, we will hopefully see large reductions in our total emissions.

What help do you need from politicians and policy makers, banks and investors, and other key stakeholders to make it possible to achieve your goals?

In our supplier countries, we can see a need for support in the transition to increased use of renewable energy. There are large investments needed at our suppliers, both in terms of onsite electricity production through solar cells and wind power and also in updating the equipment to more energy-efficient machinery. Support from a national level in the transitions would be valuable for our suppliers. Regulations and economic incentives such as taxes or subsidies for CO2 emission can also be effective actions to speed up the transitions on a larger scale.





CEO PERSPECTIVE TEXTOWN

TEXTOWN (SUPPLIER PARTNER TO KAPPAHL)

PONRAJ ARUMUGAM, SR. GENERAL MANAGER - FABRIC DIVISION

What significant challenges or opportunities will you face as you try to reduce your greenhouse gas emissions during the coming years?

The textile industry is one of the most energy-intensive industries. In Bangladesh, 90% of all energy comes from natural gas, which releases less GHGs than any other fossil fuel. Getting commercially viable green energy is the biggest challenge we face, just like rest of the world, yet solar energy is coming up as one of the alternative energy sources in Bangladesh. One of the important challenges is the higher cost of solar energy and its price impact on finished products. In addition to energy sources, we are investing in new technologies and machineries where we can save a significant amount of GHG-emissions. For example, we are using enzyme-based chemicals (instead of conventional harmful chemicals) in pretreatment of wet processing, which need less energy to process and reuse energy wherever possible. We expect new technologies in the energy sector with cheaper green energy.

What do you expect from your business partners, like brands and retailers, to help you achieve your greenhouse gas emissions targets?

Since renewable energy costs are higher, brands/retailers should differentiate the products made with green energy and conventional energy sources by providing incentives or any other financial aids. So far, products made with either of the energy sources compete blindly, which is not a fair competition. Using 100% renewable energy is still not possible for the whole supply chain. But encouraging the use of green energy through incentives will definitely boost green energy investments, and gradually renewable energy sources will increase, which will result in a cut in GHG-emissions.

What help do you need from politicians and policy makers, banks and investors, and other key stakeholders to make it possible to achieve your goals?

Investments in renewable energy sources and upgrades in machineries with less energy usage should be recognized. Loans for these should be made available with very minimal interest rates, and other financial aid should be provided to make the green energy commercially viable.

CURRENT CHALLENGES

IN THIS SECTION WE HIGHLIGHT SOME OF THE CURRENT CHALLENGES STICA COMPANY MEMBERS FACE.

As outlined in the previous sections, companies aiming to reduce their greenhouse gas emissions can act in a range of areas. However, each of these action areas have their own specific challenges. Here is a brief summary of some of these challenges as outlined in a recent WRI report Roadmap to Zero: Delivering Science-Based Targets in the Apparel Sector:

Maximizing material efficiency. Existing manufacturing processes limit what is currently possible, as it can be difficult to integrate waste into the current production processes.

Using preferred materials. Today, these materials tend to cost more, have limited availability, and can vary in quality.

Sourcing next-generation materials. Most next-generation materials are in an early stage of development and also need to compete on cost, quality and scalability. The timeline from innovation to commercial scalability can be decades long.

Maximizing energy efficiency in manufacturing. Manufacturers may not have the capital to invest in efficiency improvements or new equipment, and brands do not yet know how they can help to fund these investments. Banks are also hesitant to lend money for this.

Eliminating coal in textile mills and manufacturing facilities. Today, coal is cheap and readily available in many manufacturing countries. Alternatives are difficult to implement.

Shifting to 100% renewable energy in manufacturing. To achieve this, a facility needs to be located in a region with sufficient renewable electricity resources and/or where onsite renewable energy (solar panels) is not limited by space. To supplement onsite renewables, companies need to procure energy from offsite sources or through renewable energy products (power purchase agreements and renewable energy certificates). Additionally, manufacturers may not have the capital to invest in efficiency or new equipment. Banks are also hesitant to lend money for this.

Shifting to circular business models. The low cost of fashion, limited infrastructure (lack of places to repair clothes), consumer attitudes towards these models and the nascent state of recycling technology and counter-productive regulation all slow the development of these models.

IN ADDITION:

Limited or lack of knowledge of what and how to reduce emissions. This is new territory for many companies and their suppliers. More knowledge is needed before action can take place.

Change takes time. Due to the lack of significant business incentives and the complexity of implementing climate friendly solutions in a company's value chain, the speed of reduction is not at the pace and scale required.

THE ELEPHANT IN THE ROOM: MEETING TARGETS WHILE GROWING A COMPANY

Setting a target is a crucial first step in reducing emissions but will not, in and of itself, decrease emissions. Companies need to identify possible opportunities for emissions reductions and implement them. As presented in a previous section, one common way of looking at possible reductions over time is as an area diagram as shown below. Again, we've added a number of the more commonly cited actions that can reduce greenhouse gas emissions companies and the potential of these for a fictional "average" STICA company, grouped into eight categories:

REDUCTION ROADMAP FOR A GENERIC COMPANY IN STICA AND THE POTENTIAL OF 8 KEY REDUCTION AREAS

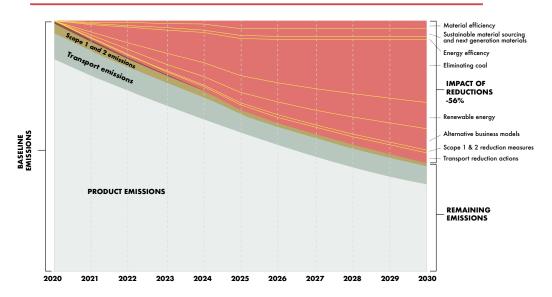


Figure 9. Reduction roadmap for a fictional STICA company, assessing the potential emissions reductions that are achievable from a set of key actions that companies could take.

Implementing these key actions would allow this company to reduce emissions by as much as 56% over a 10-year period. In addition to these, there are many actions companies could take to further decrease emissions. One should also consider the

innovation gap between now and the target year. We cannot expect now to see all potential actions that could be taken by 2030, meaning that companies should accept some gaps between what potential reductions they see today and the targets set. It is also important to keep in mind that the innovation gap is even larger for coming net-zero targets beyond 2030.

Even so, there is an elephant in the room that can prevent companies from reaching their target: company growth ambitions. Commercial businesses are, by design, expected to grow. It is therefore not unusual for companies in the apparel and textile sector to have annual growth targets of more than 10%, and in some cases 20% or more. Growing at these rates presents an overwhelming challenge when combined with absolute emissions reduction targets.

Let us illustrate this in more detail: A company expecting to grow at a relatively moderate pace of 4% annually would be required to reduce emission by almost 70% per unit by 2030 to stay within its "budget" under the terms for an absolute reduction. For companies with 10% or even 20% growth, the percentage of reductions could be 84% and 94%, respectively. Reaching a 94% reduction level means in practice a net-zero target on product level, which is extremely ambitious for 2030, considering the innovation gap mentioned above.

ABSOLUTE REDUCTIONS UNDER DIFFERENT GROWTH SCENARIOS

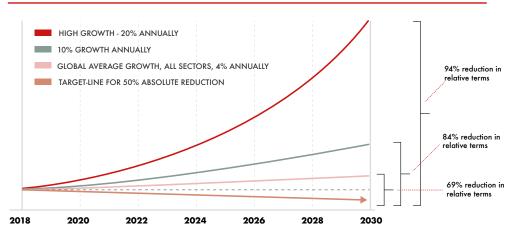


Figure 10. The implications of an absolute target under three different growth scenarios.

We will now consider what a similar reduction roadmap could look like with 20% annual growth, as some of the fast-growing STICA members expect. By looking at a company expected to grow by 20% annually, we learn that growth quickly overtakes the reduction potential of the identified actions we outlined above, and it almost triples the absolute emissions by 2030, even though the actions taken and the reduction ambition are the same. Without these actions, the emissions would have been more than six times the baseline.

REDUCTION ROADMAP FOR A GENERIC COMPANY IN STICA AND THE POTENTIAL OF 8 KEY REDUCTION AREAS [TONNES CO2E, ASSUMING 20% GROWTH]

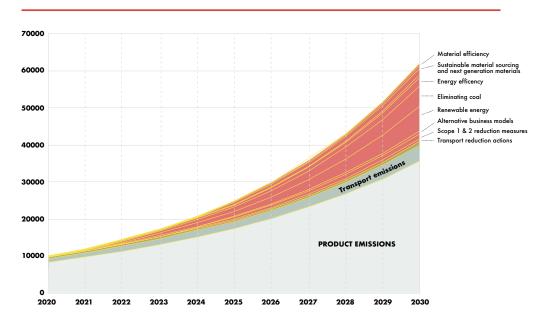


Figure 11. Emission development for a fast-growing company. Even though actions are being implemented, absolute emissions increase significantly.

CIRCULAR BUSINESS MODELS - CAN A BUSINESS GROW AND MEET ABSOLUTE REDUCTION TARGETS?

A key component of any successful reduction plan is likely to be a decoupling of material and products from economic growth, through rental, second-hand or subscription business models. This implies that economic growth of 10% would not translate into a 10% increase in sold goods and thereby greenhouse gas emissions (with the assumption that emissions per produced product remain at the same level). Using the projected economic growth as a baseline for emissions allows companies to understand the potential of these business models in reducing company-wide emissions.

These business models are still in their infancy, and companies implementing them report difficulties in penetrating the markets and making them profitable. To some extent, consumers are not yet ready to change the way they fill their closets. In the roadmaps example, based on the effects and market penetration companies expect to see, the potential is about 1.2 percentage points of the 56% achieved by 2030.

In short, if apparel and textile companies are going to achieve their targets in line with what science requires, they need to be able to grow with little or no emissions. To achieve this, the industry needs to speed up its transformation and companies need substantial economic incentives that steer their businesses in this direction. This is why policy and legislation, finance and innovation are so critical for all STICA member companies.



A CALL TO ACTION FOR POLICY MAKERS

Although there is a range of actions and investments individual companies can and should make in order to reduce their emissions in the coming years, the complexity and cost of these actions make it difficult for companies to implement them at the pace and scale required. It is therefore essential that politicians and policy makers take the lead by creating an enabling environment for ambitious action. STICA therefore calls on our political leaders, government representatives and industry champions to:

- Require that apparel and textile companies disclose their greenhouse gases according to the most robust reporting standards. This disclosure must include all three scopes, as defined by the GHG Protocol, and should be relevant for smaller and medium-sized companies, not just the largest multinational companies.
- Craft sufficient financial policy incentives for apparel and textile companies to invest in climate action with partners in their supply/value chains.
 Today, only a small percentage of companies and their supply chain partners invest in existing climate friendly solutions, and few financial actors invest in the development of the innovations needed in areas like new materials or dry dying.
 Government financial programs that help to de-risk the investments required to implement and scale existing climate solutions and for the development of new climate-friendly textile innovations are urgently needed.

- Craft financial policy that incentivizes apparel and textile companies to develop circular business models, such as repair, subscription and resell models, which should replace resource-intensive business models. Although more companies are experimenting with these models, most are not yet profitable and are therefore not impactful. They will only become the norm, replacing the traditional linear models, if the infrastructure and right economic incentives are in place to make them more attractive than traditional, linear business models.
- Ensure that all companies that place products and services on national markets abide by the same rigorous standards. In other words, companies that invest in serious climate action should not be penalized in the marketplace by other companies who are not subject to the same legislation. In fact, the reverse should be true, with companies demonstrating serious climate action being sufficiently rewarded so this becomes the norm, not the exception. We therefore ask legislators to consider how legislation and policy incentives, like a carbon border adjustment mechanism (CBAM) or excise taxes, could be applied to the apparel and textile industry to reward good performers and penalize poor performers.
- Establish mechanisms to track the progress or lack thereof of the apparel and textile industry overall on the country and EU levels. This monitoring should be led by independent organization(s), assessed on an annual basis, and should include an analysis of key obstacles, opportunities and action steps.



- Include legal requirements for smaller and medium-sized companies, as they comprise a significant and growing share of the apparel and textile marketplace. Policy and support should also address the special challenges and needs faced by smaller and medium-sized companies (SMEs), which have more limited resources and leverage in their supply chains.
- Work with governments and other stakeholders in countries where currently a majority of textile production takes place to ensure industry actors and stakeholders receive the financial and technical support they need to transition to renewable energy at the pace and scale required. Additionally, support for the energy transition must include a climate justice framework so vulnerable workers are not made redundant in the process.

THERE ARE ALSO TRAPS THAT SHOULD BE AVOIDED:

- Do not overestimate the role consumers can and should play as the driving force for change. Trustworthy consumer information and engagement is important, but research indicates that consumer information and engagement is not sufficient to influence company climate investments or market transformations at the pace and scale needed. Relying on consumer pressure and influence can also distract from prioritizing actions that can have a larger and more long-lasting impact. This means that legislation and policy must go significantly beyond empowering consumers to ensure sufficient economic incentives that reward good climate performance.
- Do not solely rely on requiring disclosure requirements for greenhouse gases at the product level. Even if a company can develop products with a better greenhouse gas profile, ultimately it is the aggregate impact of a company's entire product portfolio and the aggregate impact of the industry overall that is the most important indicator of climate progress or a lack thereof.

LEWIS PERKINS

PRESIDENT, APPAREL IMPACT INSTITUTE

How much money is needed to ensure the apparel industry can reduce its greenhouse gas emissions in line with what science is requiring? And on what should this money be spent on?

Our recent report with Fashion for Good identified that it will take one trillion USD for the industry to reach net zero by 2050. Our work with WRI pointed to several large solutions that are ready to go and can have an immediate impact. They mostly center around transitioning to clean energy and they include renewable energy, phasing out coal and energy efficiency improvements. Together, these solutions account for 45% of the total emissions reduction potential and are ready to be scaled today. Other solutions, including next-generation materials and switching to dry processing are extremely important but require additional innovation before they are ready to reach scale.

What do politicians and policy makers, and even other stakeholders, like financial institutions and investors, need to do to make it possible for companies and the industry to reduce their emissions at the pace and scale required?

Right now, our programs in energy efficiency and renewable energy are being funded by brands, manufacturers, and philanthropy, but less than 1% of facilities are being reached each year, so we need to bring in financial capital to accelerate the pace. These are large, capital-intensive investments, so the facilities themselves often don't have enough funds available to make the investment. There is still an important role for brands and philanthropy to help de-risk the projects and potentially fund some of the aggregation and certification activities that would make these projects easier for investors to find and participate in, but investors are going to fund the majority of the work. Additional regulations and incentives can help accelerate that even further.





STAKEHOLDER VOICE LARS FOGH MORTENSEN

CIRCULAR ECONOMY, CONSUMPTION AND PRODUCTION EXPERT, EUROPEAN ENVIRONMENTAL AGENCY

What significant challenges or opportunities do you foresee for companies and the industry as they aim to reduce their emissions during the coming year?

At the European Environment Agency, we have found that textiles have the fifth-largest impact on climate change from an EU consumption perspective. To reduce this, companies in Europe have an important role to play in reducing emissions, not only from activities in Europe, but equally so for reducing emissions through the value chain of their products and services. A first step could be to get an overview of emissions through the life cycle of products and services. Another one is to take steps to ensure reductions, through efficiency, better design etc., for all elements of the value chain.

Based on your analysis, what more can and should our industry do to reduce its emissions?

Our analyses show that by far the biggest share of the emissions related to textile products sold in Europe occurs outside Europe. In fact, 73% of greenhouse gas emissions related to textiles consumption occur outside the EU, while only 27% are within the EU. This shows that, in addition to the activities many companies are already taking to reduce emissions from activities within the EU, emissions outside the EU also have to be tackled. This is best done in dialogue with and through requirements to all elements of the value chain for each product or service.

What do politicians and policy makers – and even other stakeholders, like financial institutions and investors – need to do to make it realistically possible for companies and the industry to reduce their emissions at the pace and scale required?

From a policy perspective, it is really important to look at the brand-new EU strategy for sustainable and circular textiles. This is where the European Commission points to planned changes in legislation to better cover impacts from textiles as well as how the industry can be best supported in reducing environment and climate impacts. Reducing impacts cannot be done by companies alone but needs to be done with the support of policy makers and financial institutions, providing the necessary regulatory and financial framework and support, as well as consumers and public authorities being willing to purchase those products and services causing the least emissions over their life cycle.

Source: Textiles and the environment: the role of design in Europe's circular economy — European Environment Agency (europa.eu).

ALICE BAH KUHNKE

VICE-PRESIDENT, GREENS/EFA; CO-CHAIR,
THE EUROPEAN PARLIAMENT'S INTERGROUP ON THE GREEN NEW DEAL

What responsibility does the EU have in ensuring the apparel and textile industry reduces its emissions in line with what science says is required (1.5°C)?

Climate justice must be at the heart of global transition to climate neutrality. This means that the EU (with high historical emissions) must take a greater responsibility. Textiles are, on average, the fifth biggest contributor to climate change from an EU consumption perspective. At the same time, the EU is one of the biggest global markets for textiles and home to many of the sector's most powerful companies. Not only does the EU therefore have a strong responsibility to act, but it also has a great possibility to seize the opportunity to future-proof the industry by making it truly sustainable.

What do politicians and policy makers need to do to make it realistically possible for companies and the industry to reduce their emissions at the pace and scale required?

We need to make sure there is a paradigm shift for business models. Sustainable circular business models need to completely replace linear ones, and this is no small task. However, industry representatives have made it clear to me that many actors in the industry want to change and want to be part of the solution. It is our role as policy makers to show leadership by implementing policy that rewards the frontrunners and incentivizes and pushes all actors to follow. This will require binding harmonized legislation for all EU companies. Voluntary initiatives put the concept of a level playing field at risk and delay progress





LINDITA XHAFERI-SALIHU

LEAD, SECTORAL ENGAGEMENT IN CLIMATE ACTION, UN CLIMATE CHANGE

What significant challenges or opportunities do you foresee for companies and the industry as they aim to reduce their emissions during the coming years?

Every industry and every company has unique challenges and opportunities when it comes to reducing their emissions and building a net-zero future. Main challenges include uncertainty on where to begin and how to build the business case, lack of data, and clear plans for action as well as budgetary issues. A significant challenge is also support from appropriate stakeholders – both internal and external – policy environments and availability of solutions in some geographies. This transition requires huge leaps in energy efficiency, renewable electricity generation and the creation of cutting-edge technologies. Solutions are on the rise and opportunities exist now for companies to save energy and materials costs, serve new customer needs, enhance their reputations and better attract and retain talent. It is certain that transition must happen urgently, and science says that the cost of inaction will significantly outweigh the cost and effort needed to transition to a net-zero future.

What more can or will your organization do to accelerate progress in climate action in the apparel and textiles industry? What will be your focus during the coming year?

At the Fashion Industry Charter, we have been focusing on setting a higher ambition level for the fashion industry and rallying different stakeholders around those goals as much as possible. Our work ahead focuses on turning pledges into near-term action plans and enhancing accountability for delivering on commitments through better tracking of progress and impact. For example, sig-natories are asked to submit plans indicating how will they achieve a 50% reduction by 2030, what opportunities and dependencies they have identified in this process and how they plan to address those. We are encouraged that several companies are willing to collectively move ahead in some of the key action areas such as phasing out coal, for example.

What do politicians and policy makers – and even other stakeholders, like financial institutions and investors – need to do to make it realistically possible for companies and the industry to reduce their emissions at the pace and scale required?

It is important to bear in mind that achieving net-zero goals will not happen in isolation. So, we need to inevitably think about the systems level and build partnerships to drive change across that system. It is critical that governments introduce the right policy instruments that give sufficient predictability, so that technologies can develop, mature, become commercialized and deployed at scale, and economic actors can move faster towards a low-emission and sustainable future. Finance is another key part in implementing climate action plans, and public finance can provide the right conditions for private financing to reach the scale needed by, for example, reducing investment risk. Bottom line: Synergies between these actors needs to happen, and businesses, stakeholders and governments must find opportunities to integrate each other into their processes in this transition. This means radical collaboration, information sharing and co-operation that is far from business as usual.

MICHAEL SADOWSKI

RESEARCH CONSULTANT TO WORLD RESOURCES INSTITUTE

What things should companies and the industry do to reduce their emissions at the pace and scale required by science?

In the Roadmap to Net Zero, WRI and AII presented six key actions that the apparel sector should take to reduce GHG-emissions in line with climate science (i.e. 45% by 2030, net zero by 2050). These include significantly increasing the use of low-carbon materials, shifting away from coal for thermal energy, and moving to 100% renewable energy across the value chain. To give the sector a chance to meet this ambition, companies will need to fully integrate these actions into how they run their businesses, for example incentivizing and supporting manufacturers that invest in energy efficiency and renewable energy.

What are the biggest challenges or roadblocks to achieving this?

Over the last number of decades, the apparel industry has evolved to a model in which brands and retailers design and market products and outsource the manufacturing of them – the latter of which entails most of the GHG-emissions (and other sustainability impacts). This has resulted in a dynamic in which a brand's impacts occur far from its headquarters, thus reducing visibility and accountability. In setting science-based climate change targets, brands are committing to share accountability with their value chain partners to reduce emissions. This is a major challenge but also an enormous opportunity to drive collective action.

What does the industry need from policy makers, investors and other stakeholders to enable it to reduce its greenhouse gas emissions at the pace and scale required?

While some companies may not want to hear this, policy makers should set clear and consistent regulations that support sector decarbonization. This could include requirements to reduce emissions in line with 1.5°C, as well as supportive policies for efforts such as renewable energy. The transition to net zero will require massive investment – up to one trillion USD, according to All and Fashion for Good – and investments of different flavors will be needed, for example low interest loans for efficient machinery, R&D for new materials and more. We also need healthy civil society and media to hold apparel companies accountable for their progress.





JOHANNA MYRMAN KRISTOFFERSEN

CLIMATE BUSINESS DIRECTOR/DEPUTY DIRECTOR FOR FOOD, CLIMATE AND ENERGY DEPARTMENT, WWF SWEDEN

What is your organization currently doing to enable apparel and textile companies, as well as the entire industry, to reduce greenhouse gas emissions in line with what is required to limit warming to a 1.5°C temperature increase?

This is just an example of what we do: In WWF's global Climate Business Network we engage with companies across diverse sectors and at different stages in their climate action journey to rapidly advance their climate ambition, cut emissions from their own operations and throughout their supply chain, and add their voice to drive strong climate policy. The goal of the Climate Business Network is to broaden corporate participation in the effort to tackle climate change: it aims to encourage and support companies at every stage of their climate change mitigation journey, demonstrating that climate action is vital, achievable, practical and compatible with corporate growth. In this network we currently have four fashion retailers. At WWF Sweden, we also have a bilateral multiyear partnership with H&M Group and IKEA supporting with developing their climate strategy according to the latest science and guidance (e.g., SBTi Net-Zero), for example. We also support H&M with several supplier engagement projects, and to a lesser extent with working on policy engagement activities.

What significant challenges or opportunities do you foresee for companies and the industry as they aim to reduce their emissions during the coming years?

To achieve the necessary emissions reduction throughout the value chain in line with what science expects to limit the average global temperature increase to 1.5°C (or, if not possible, well below 2°C) will require, amongst other things, collaboration, innovation, new business models, significant investments and favorable policy environment.

What do politicians and policy makers – and even other stakeholders, like financial institutions and investors – need to do to make it realistically possible for companies and the industry to reduce their emissions at the pace and scale required?

World leaders must listen to the warnings from the IPCC and strengthen their support to address climate impacts and build resilience and while fulfilling the Global Goal on Adaptation objectives as a matter of urgency. Two elements of implementation will be especially important. Firstly, channeling significantly scaled-up public and private finance for implementation of NDCs and National Adaptation Plans (NAPs), including the conditional elements of NDCs. Secondly, developing and implementing strategies for sectoral transformation towards achieving decarbonization and building climate resilience through global, regional and local initiatives.



CONTACT INFORMATION

For more information about this report or about STICA, please visit the STICA website or contact Michael Schragger at michael@sustainablefashionacademy.org.

STICA

The Swedish Textile Initiative for Climate Action