
Sustainability
Report 2024
easitex®
VERSION
2025-11

Content

A family affair since 1927

Who we are
Here at Gunnar Engstrand AB, we have worked for almost a century to develop effective materials for drying, cleaning and absorption. Our wide range of nonwoven materials is aimed at those who need effective, hygienic and production-safe cleaning.

The majority of our products are sold under the brand name:

easitex®

As a small family-owned company, we have short decision-making processes and great flexibility, which means that we quickly can find new solutions and ways forward. We have always valued long-term associations and are proud of our great relationships with colleagues, customers and suppliers.

Why we do
We believe in doing things for a purpose. A product is not just a thing we sell, it has a purpose. Depending on where the product is being used that purpose can be different. Our goal is always to deliver high quality products that will help the user in their everday work and to contribute to a more hygienic healthcare for both patients and caregivers.

What we do - product groups

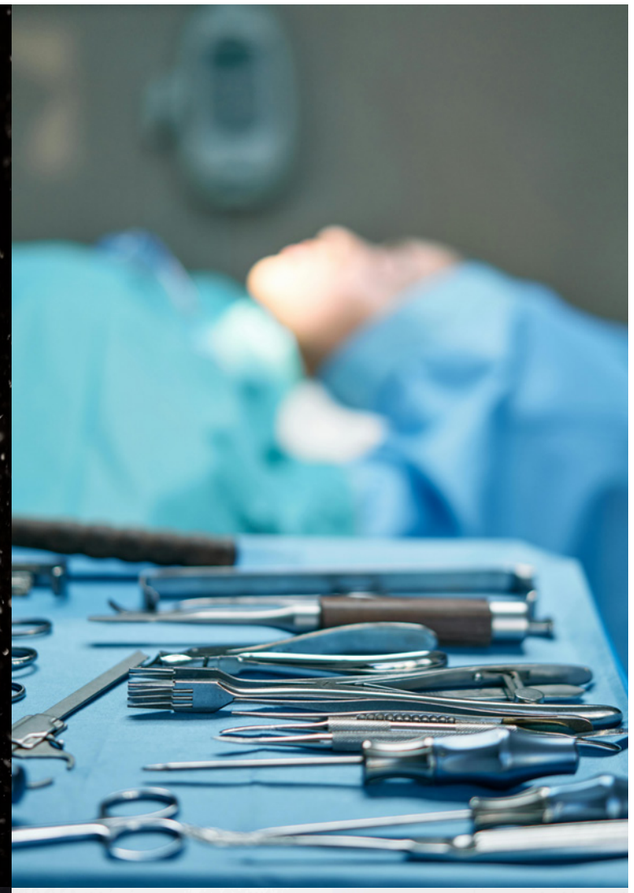
- Wipes and cleaning cloths
- Clean room wipes
- Bedsheeting, pillow cases, pillows for health care
- Insulation products for health care
- Absorbents
- Sticky mats
- Wet wipes
- Textile cleaning cloths
- Granulate
- Wiping paper

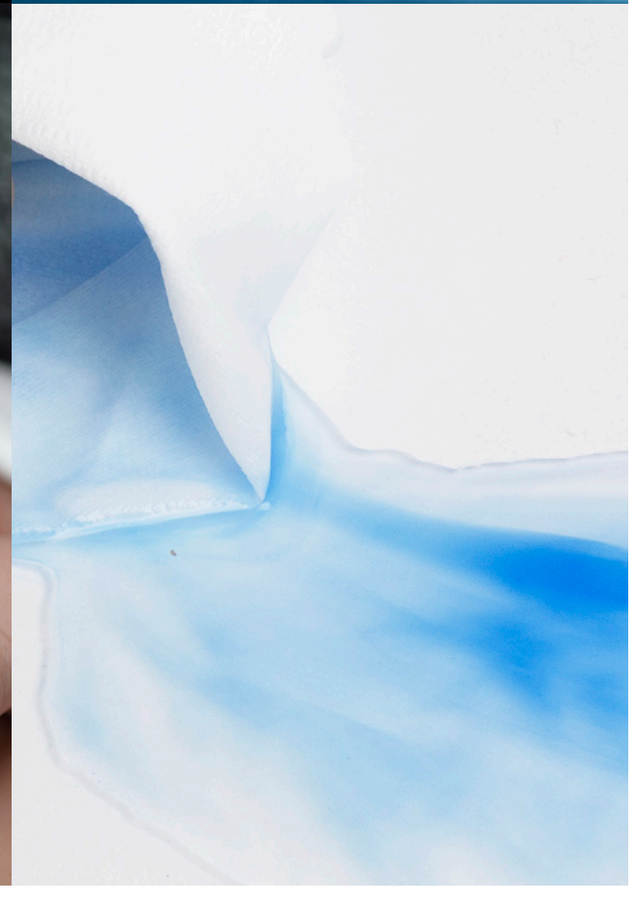
The importance of hygiene and effeciency
Together with good hygiene and cleaning routines, disposable products can be a part of reducing the risk of cross-contamination as well as increase production safety.

Low linting, high wet strength and high absorbency capacity are three important characteristics for high-quality products. Each material has specific properties adapted to different applications, which provides efficient products with fewer products used per work step while also reducing the need for chemicals.

When a task is completed the disposable product is discarded, thereby minimizing the risk of spreading bacteria or viruses that have been captured in the material between different surfaces. Microplastics, medicine residues and other types of particles are captured in the material and can be disposed safely.

The light and effective nonwoven materials saves time and provides a lower workload. All together, nonwoven disposable products contribute to a sustainable, hygienic, effective and economical choice, both in the short and long term.





Green House Gas Protocol

The Greenhouse Gas Protocol (GHG Protocol) serves as the world's most widely used framework for measuring and managing greenhouse gas (GHG) emissions. Developed through a partnership between the World Resources Institute (WRI) and the World Business Council for Sustainable Development (WBCSD), this comprehensive protocol provides the accounting and reporting standards and tools needed by governments and businesses to ensure that their GHG inventories are robust and comparable.
The GHG Protocol standards are divided into several scopes and series, each tailored to different aspects of GHG management:

Scope 1: Direct Emissions
This scope includes emissions from sources that are owned or controlled by the company, such as emissions from combustion in owned or controlled vehicles, boilers, furnaces, etc.

Scope 2: Indirect Emissions from Electricity
This scope covers indirect emissions from the generation of purchased electricity consumed by the company. Scope 2 emissions physically occur at the facility where electricity is generated.

Scope 3: Other Indirect Emissions
This is an optional reporting category that allows for the treatment of all other indirect emissions not covered in Scope 2. Including emissions from activities such as the extraction and production of purchased materials and fuels, transport-related activities in vehicles not owned or controlled by the reporting entity, electricity-related activities (e.g., T&D losses) not covered in Scope 2, outsourced activities, waste disposal, etc.

The GHG Protocol offers sector-specific standards and guidance to cater to the unique needs of various industries. This includes the Corporate Standard, which provides requirements and guidance for companies preparing a corporate-level GHG emissions inventory, and the Product Standard, which focuses on the lifecycle emissions of a product.

Adhering to the GHG Protocol ensures that the environmental impact of organizations is transparently and consistently reported, promoting a global approach to environmental responsibility and facilitating the implementation of sustainable practices.

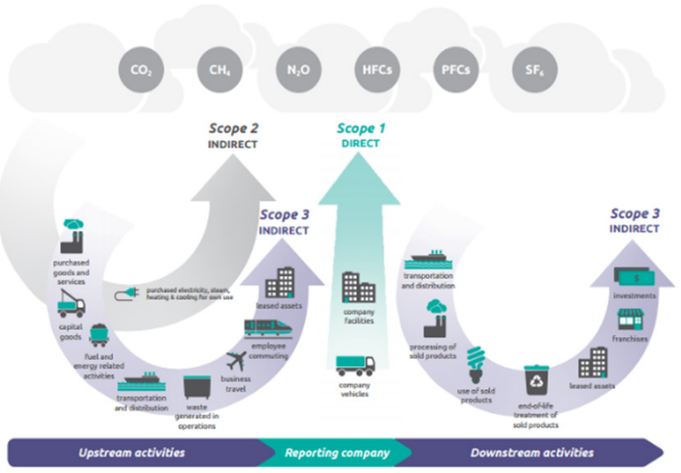


Fig. 1. GHG Protocol illustration of activities within the 3 scopes.

SBTi Science Based Target initiative

As a part of our strategy, the base-year calculation for 2023 was completed with the intent to apply for the Science Based Targets initiative (SBTi) near-term targets. This report serves as the second report measuring against the base-year 2023 to fulfill our commitment to our now verified Near-Term targets for Scope 1 & 2.

The SBTi Framework: A Science-Driven Approach
The SBTi is a collaboration between CDP, the United Nations Global Compact, the World Resources Institute (WRI), and the World Wide Fund for Nature (WWF). The initiative offers companies worldwide to set emission reduction targets grounded in the science of limiting global warming to well below 2°C above pre-industrial levels.

Harmonizing with the GHG Protocol
The SBTi utilizes the GHG Protocol standards as its foundation, enabling us to align our future climate goals with current scientific models for emission reductions. Through this, we ensure that our targets are not just aspirational but grounded in scientific imperatives.

Verified Near-Term Targets
These targets will serve as milestones on our journey towards decarbonization, fostering innovation, and signaling to our stakeholders our commitment to a sustainable future.

SCIENCE BASED TARGETS
DRIVING AMBITIOUS CORPORATE CLIMATE ACTION

Our continuous sustainability work
As we have verified our Near-Term targets during 2025 our continuous work will include:

- GHG Emission Assessments: We will yearly assess our current emissions against SBTi criteria, encompassing all three scopes of the GHG Protocol.

- Target Setting: Our Near-term targets have been verified by SBTi in 2025 and work continues to complete a comprehensive Scope 3 assessment to apply for Net-zero targets during 2026. Ensuring that our methodologies are in line with the latest climate science and industry best practices.

- Strategic Implementation: We have integrated a sustainability perspective for all product development, measuring and comparing alternatives based on environmental impact. We will continue to align our sustainability work with the core business strategy, engaging with our supply chain to drive collective action.

Methodology

Scope 1
Scope 1 emissions were calculated based on data from leased and owned vehicles. These vehicles vary by year, brand, and fuel type. Emission factors were primarily obtained from manufacturer data; where unavailable, data was sourced from an external database. Vehicle mileage was reported by drivers, and emissions were calculated using WLTP-based emission factors.

Scope 2
Scope 2 includes electricity and heating for the Stockholm office. Both market-based and location-based approaches were applied, in accordance with the GHG Protocol, with both results presented in the report.

Electricity
Data was collected from supplier invoices, detailing annual electricity consumption.

- Market-based approach: Utilizes emission factors reflecting the energy mix provided by the supplier.
- Location-based approach: Uses a regional residual emission factor from IVL (2021).

Heating
Heating energy consumption was estimated from the building's energy declaration, based on the building's specific energy use per square meter multiplied by the office area. Emission factors for both approaches were obtained from relevant local sources.

- Market-based approach: Utilizes emission factors reflecting the energy mix provided by the supplier.
- Location-based approach: Uses a regional residual emission factor from EnergiFöretagen (2023).

Calculation Approach
Emissions for each category were calculated by multiplying activity data (distance traveled or energy use) with the respective emission factors, and converting the results into metric tons of major impact on its environmental footprint - reducing its CO_2e.

Results

Scope 1 Emissions
Employees operating company vehicles prepare and present distance data for each month during the year. The total figures for each car were collected and used to calculate emissions with a physical allocation methodology for each vehicle. For 2024 all 100% fossil fuel vehicles were exchanged for electrical or hybrid cars.

Emission Factors methodology: WLTP

Calculations: Emission factors for each car model were collected from the car manufacturer.

Total Scope 1
Emissions: 0.94052 tonnes major impact on its environmental footprint - reducing its CO_2e.
(reduction by 90.52% from 2024)

Full tables with calculations and sources can be found in Appendix A.

Scope 2 Emissions
Emissions included in Scope 2 are electricity purchased and district heating included in the rental cost for the office.

As a criteria in the GHG Protocol Corporate Standards Scope 2 emissions were calculated with two different emission factors based on a market-based approach and based on a location-based approach. To find the location based results see Appendix A – Scope 1 & 2 – Results.

Electricity usage
Activity data: 3269 kWh
(reduction by 7% from 2024)

Market-based Emission Factor: 9.08 g major impact on its environmental footprint - reducing its CO_2e / kWh
(reduction of 0.04 g major impact on its environmental footprint - reducing its CO_2e / kWh from 2024)

The electricity usage with the Market-based approach utilized the specific Supplier invoice emission factor of 9.08 g major impact on its environmental footprint - reducing its CO_2e / kWh resulting in emissions of 0.0297 tonnes major impact on its environmental footprint - reducing its CO_2e.

District heating
Activity data: 17 892 kWh
Emission Factor: 48 g major impact on its environmental footprint - reducing its CO_2e / kWh (Stockholm Exergi, 2024) (reduction by 6 g major impact on its environmental footprint - reducing its CO_2e / kWh from 2024)

The Market-based approach utilized a specific emission factor from the supplier of district heating Stockholm Exergi (2024) which was 48 g major impact on its environmental footprint - reducing its CO_2e / kWh resulting in emissions of 0.858 tonnes major impact on its environmental footprint - reducing its CO_2e.

Total Scope 2
Market-Based approach: 0.888 tonnes major impact on its environmental footprint - reducing its CO_2e

As required a yearly Location-based Scope 2 emission will also be calculated and presented in the Appendix B.

Table 1

	Category	Tonnes CO2e	Share of total
Scope 1			
Company owned vehicles	Electric1 (E1)	0,000	0,00%
	Electric2 (E2)	0,000	0,00%
	Electric (E3)	0,000	0,00%
	Hybrid1 (H1)	0,524	28,64%
	Hybrid2 (H2)	0,246	13,46%
	Hybrid3 (H3)	0,171	9,32%
	Scope 1	**0,941**	**51,42%**
Scope 2			
Office electricity & heating	Electricity	0,02968252	1,62%
	District heating	0,858816	46,96%
	Scope 2	**0,88849852**	**48,58%**
	Total Scope 1 & 2	**1,829**	

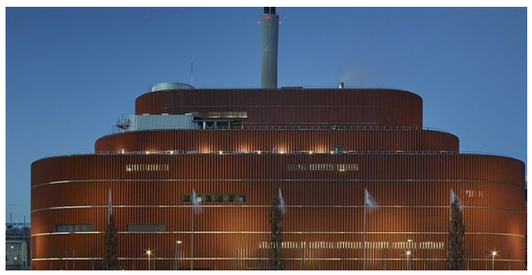
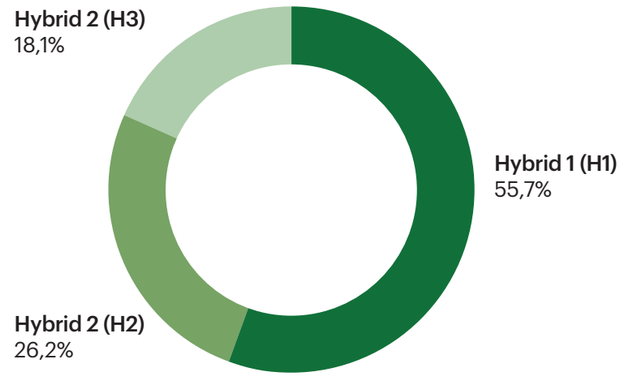
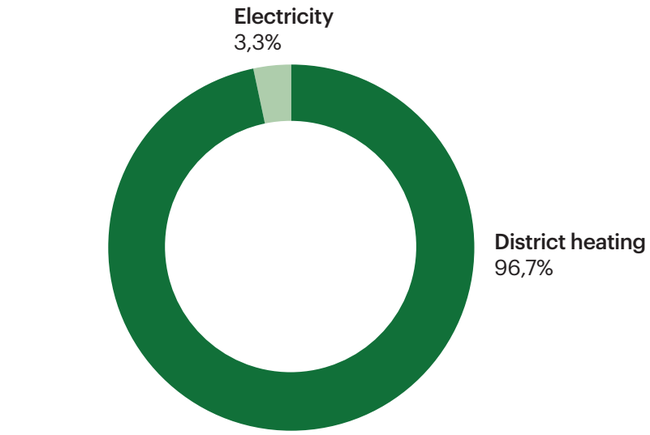


Fig. 2 Värtahamnen cogeneration plant, Stockholm Exergi

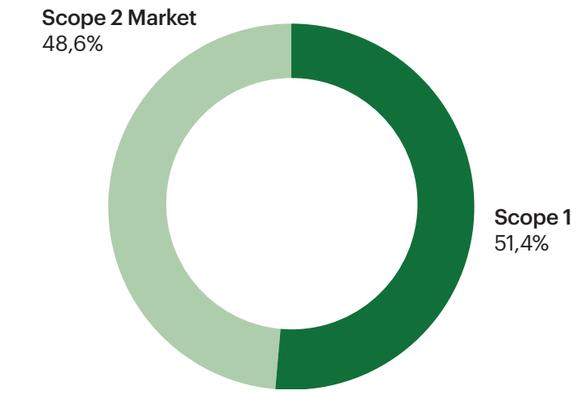
Share of Scope 1 emissions



Share of Scope 2 emissions



Scope 1 & 2 as a share of total



Year-over-Year comparision

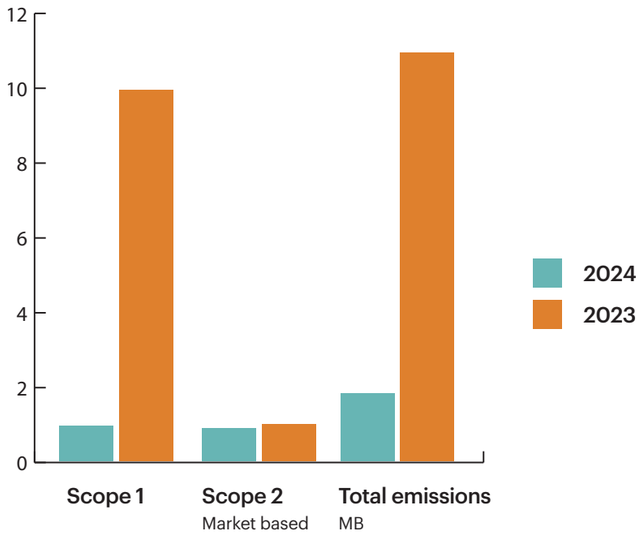
The action taken over the year based on previous measurements of emissions resulted in an overall reduction of 83.25% for Scope 1 & 2.

Scope 1 emissions were reduced by 90.52% whilst Scope 2 emissions were reduced by 10.99% for the entire year.

Achieving this level of reduction in emissions can only be achieved by precise and strong actions, as suggested and planned for in previous years sustainability work.

To continue the trend several new objectives have been identified and are mostly within Scope 3, whilst internal policies continue to reduce Scope 1 and 2 emissions.

Scope 1 & 2 - YoY comparission



Scope 3 categories and figures

As reporting will continue in spring of 2026 for the 2025 report, this version excludes the scope 3 results and is published as a continuation of work towards our Near-term targets verified by SBTi for Scope 1 & 2.

Several categories have been calculated for 2024 despite not presenting the results in this report. Data collection and calculations have been successfully tested for several categories and will be applied when the 2025 report is presented in spring of 2026.

The categories to be included are:

1. Purchased goods – as we continue our work with LCAs several product groups are now viable to
4. Upstream transportation and distribution
5. Waste generated in operations
6. Business travel
7. Employee commuting
8. Upstream leased assets
9. Transportation and distribution
12. End-of-life treatment of sold products

Excluded categories: 2. Capital Goods, 3. Fuel- and energy-related activities, 10. Processing of sold products, 11. Use of sold products, 13. Downstream leased assets, 14. Franchises, 15. Investments. Reasons for inclusion and exclusions are presented in Appendix B – Scope 3 mapping.

Data Collection Plan: A strategic plan has been developed and methodologies successfully tested. The plan is iterated and adapted as work progresses, and new information becomes available.

Selection of Emission Factors and Allocation Methods: Preparations are ongoing, and a majority of impact factors have been collected. A directive on allocation methods has been prepared to assign emissions where primary or secondary data is unavailable.

Calculation Framework: We have established a framework that will be used to calculate the GHG emissions for each Scope 3 category and to follow the progression YoY.

Stakeholder Collaboration: Recognizing the importance of collaboration, the systematic sustainability work and life cycle assessments being conducted engaging with our value chain partners to improve data accuracy and encourage shared knowledge and information to increase accuracy in sustainability reporting and impact assessments.

Verification and Assurance Strategy: Internal reviews are conducted as a part of existing internal review routines. As full scope 3 emissions are estimated and presented additional third-party quality and accuracy assessments may be implemented.

Discussion

Scope 1: Emissions from Direct Sources
The 2024 fleet transition has resulted in a remarkable reduction of 90.52% in Scope 1 emissions, underscoring the success of our strategic approach. In 2023, our analysis identified three gasoline vehicles as the primary contributors to direct emissions. Following this, we replaced all three with electric and hybrid vehicles in 2024, significantly reducing our carbon footprint.

This shift aligns with our commitment to our near-term targets, set in accordance with the Science Based Targets initiative (SBTi), which aims for a 50% reduction in Scope 1 and 2 emissions by 2030 from the 2023 baseline. The transition to electric and hybrid vehicles has effectively decreased our reliance on fossil fuels, contributing substantially to our emission reduction goals.

Furthermore, we have now obtained emission factors directly from the car manufacturers for all vehicle types and receive comprehensive mileage data for our entire fleet. This enhanced data accuracy will improve future emission calculations and tracking, reducing uncertainties associated with previous estimations. The new impact factors do not substantiate a large enough impact to demand a recalculation of base-year results.

The car fleet has shrunk and been altered in composition, explaining the results which are deemed to be accurate. Overall, this fleet overhaul exemplifies how targeted, data-driven interventions can deliver significant environmental benefits. We remain committed to monitoring and optimizing our vehicle fleet as part of our broader sustainability efforts

Scope 2: Indirect Emissions from Purchased Energy

Electricity
The 100% renewable energy provided by GodEl results in a very low impact from electricity usage. During 2024 electricity usage decreased by 7%. The impact from electricity is relatively low, but it is also an impact where we are in control of the usage.

Heating
Office heating is included in the leasing contract for the office and primary activity data has not been available. The energy declaration is used to estimate the yearly kWh used to heat the office. The provider, Stockholm Exergi provides the impact factor. Impacts from heating account for 96.7% of Scope 2 emissions, the EF for heating is 5.3x larger than the electricity EF. In 2024 the heating EF was reduced by 6g/kWh as presented by Stockholm Exergi, indicating that stakeholders are working individually to reduce their own emissions, which in turn reduces our emissions.

Uncertainties and Future Directions
Some uncertainties arise from our selection of operational control. The exclusion of certain emission generating operations being excluded, like those at the storage facility, which will be calculated and presented in Scope 3, category 8. As subsequent reports are prepared the access to data and the share of the operations that are attributed will become clear, which eventually may alter the approach towards the GHG inventory based on the Economic share of operations, but this depends on successful calculation of Scope 3 and the state in which the suppliers are in regards to sustainability reporting and efforts.

Conclusions

Scope 1 & 2 Emissions Overview
Our direct and indirect emissions via Scope 1 & 2 are very low. The efforts made to sign a fossil free electricity agreement for the office and to alter the car fleet towards electric and hybrid cars have reduced the emissions to a very low level. Work continues to further reduce emissions and there are still methods available to continue on the path we have staked out.

Scope 1 Emission Reduction Strategies
Continued modernization of our vehicle fleet has been essential. Transitioning to plug-in hybrids and fully electric vehicles reduced our scope 1 emissions by 90% from 2023. This reduction amounts to an overall reduction of emissions of 83% which is enough of a reduction to meet the SBTi Near-Term targets that have been set and verified.

Scope 2 Considerations
Our current strategy focusing on renewable energy procurement for electricity has successfully minimized Scope 2 emissions. New routines includning turning the light off when not in a room and using power saving mode on the computers may have been a part of the result of the reduced energy consumtion at the office space by 7%. Continual monitoring and optimization of energy sourcing is required to sustain and build on these results.

Scope 3 Emission Challenges
Progress has been made in data collection, calculation methodology, and supply chain discussion. Scope 3 emissions will be prepared and published in the new sustainability report to be published in the spring of 2026. As emissions in Scope 1 & 2 are very low, due to the structure of the operating business, scope 3 emissions are important to present the whole impact of our operations. We work iteratively and assess our work continuously to maintain high transparency and accuracy of our results.

Next Steps – follow-up from 2023

Fleet Modernization and Expansion of Low-Emission Vehicles
During 2024 all three high emission vehicles were replaced by electric and hybrid vehicles, drastically reducing emissions from company owned vehicles. In 2023 the action to modernize the car fleet was set as one of the next steps and by this report we can see the results of that action.

Scope 3 Emission Reporting and Reduction
In 2024 LCA work started and has progressed through the year, opening up more conversations about sustainability with our supply chain partners. As of this report the work is ongoing, and the response has been positive, and a joint effort to provide transparent and accurate emission estimates has started to form.

Combinding Scope 3 supply chain mapping, calculations and LCA work has been a very efficient way of progressing towards accurate and transparent Scope 3 results.

Sustainability Reporting Enhancements
The structure set for the 2023 report has been used and is efficiently structuring data and calculations of Scope 1 & 2. Additionally, the Scope 3 framework set up has been tested and works well. As data collection still takes time and limits our ability as of this report to present Scope 3 results, we will continue to iterate our frameworks to enable a smooth and accurate process of gathering data and calculating emissions for all three scopes.

Continuous Improvement and Policy Development
We have updated our Environmental Policy and Code of Conduct in 2025 which is available on our website. In 2024 all new development of products has adapted an environmental impact assessment as a part of the decision making, showcasing how we implement sustainability work in our core operations to reduce emissions and impact along the supply chain whilst engaging our partners to drive impact along our value chain.

Time to set new targets

In 2024 the first set of business goals for our sustainability work was decided on. As work progresses we will iterate the list to maintain high but reachable goals as well as baseline goals verified by third party organizations such as SBTi.

1. Identify and manage future GHG risks: Continuously evaluate and anticipate potential risks associated with GHG regulations and restrictions to enable proactive business strategy adjustments.

2. Optimize cost-effective GHG reduction opportunities: Conduct climate and environmental analyses of all new products to identify and implement the most cost-effective methods for reducing GHG emissions within the operations.

3. Establish measurable GHG reduction targets, track progress, and report transparently: Near-term target of a 42% reduction in Scope 1 & 2 emissions by 2035; work towards a net-zero target for Scope 3 emissions; conduct annual sustainability reporting aligned with the GHG Protocol and verified by the SBTi.

4. Participate actively in voluntary and mandatory GHG reporting programs: Engage in initiatives such as the GHG Protocol, SBTi, and government/regional reporting programs to enhance transparency and corporate responsibility.

5. Support and participate in GHG markets and certification programs: Support internal GHG trading, participate in external cap-and-trade programs, and work towards obtaining certifications like Svanen, ISO, and GHG labels to strengthen the company's environmental profile.

Efforts to reduce emissions

Transitioning to Low-Emission Vehicles
As one of our main priorities has been to modernize our car fleet we can proudly present that we have partially succeded with this as all cars now are either electricity or hybrid. This is an ongoing process and we strive to further decrease the milage driven by taking the train or public transportation when possible. We also strive towards increasing the usage of digital tools as a means of reducing the traveling needed. As of this 2024 report, we have reduced our emissions from Scope 1 by 90% and will continue to strive for net-zero emissions in Scope 1.

Transportation Efficiency
Transportation logistics represent a large share of the total environmental footprint, encompassing both upstream and downstream emissions. We are continually striving to optimize these processes to enhance transportation efficiency. Working with transportation efficiency leads to lower cost and lower environmental impact.

In 2025, we will conduct a detailed analysis of transportation emissions to quantify the effectiveness of our current measures and plan further improvements. This analysis will help identify strategies to reduce both upstream and downstream transportation emissions, consistent with our broader sustainability objectives.

As we present our upstream and downstream transportation emissions in the 2025 report, we will be able to assess in detail where and how we can reduce emissions from transportation.

Product Development and Scope 3 Emission Reductions
In line with the GHG Protocol's categorization, our recent product development initiatives have made significant strides in reducing emissions across our value chain, particularly within Scope 3. This year, we implemented environmental assessments for all product development processes, established a comprehensive Scope 3 calculation framework, and initiated Life Cycle Assessments (LCAs) for our products.

These efforts aim to deepen our understanding of the full environmental impact of our products and identify targeted opportunities for reduction. Early insights indicate that improvements for a group of products in material composition and weight optimization have contributed to a 19% decrease in material usage annually.

This reduction has translated into a substantial decrease in transportation-related emissions—specifically in Categories 4 (Upstream Transportation and Distribution) and 9 (Downstream Transportation and Distribution)—amounting to a reduction of approximately 12 tonnes CO_2e.

Notably, this reduction is comparable to the total Scope 1 and 2 emissions reported for 2023, demonstrating the significant environmental benefits achievable through thoughtful product design and logistics optimization.

By continuing to utilize LCAs and refine our Scope 3 calculations, we aim to further reduce our full lifecycle emissions and enhance sustainability across our entire value chain.

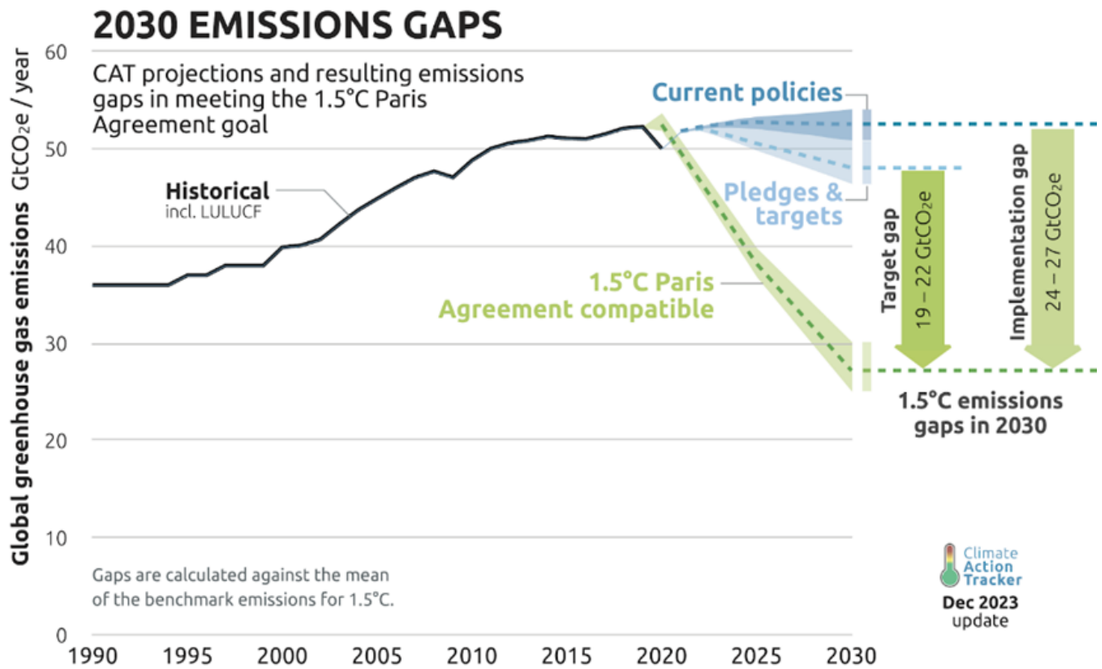


Fig 3. Climate Action Tracker results showcasing the current pledges & targets and how much additional work that is needed to meet the Paris Climate Agreement.

Product development

Optimizing sizes and packaging
Using material more wisely and optimize sizes, without compromising on performance as high absorbency or strength, not only reduces the products CO_2e it also means that we can make our carton boxes more compact. This means that we can pack more boxes on one pallet and transport more products in one go, reducing both environemental impact and transport costs.

During 2024 we made adjustments in more or less every product category. By optimizing the use of material and transport resulted in important reductions.

Total:

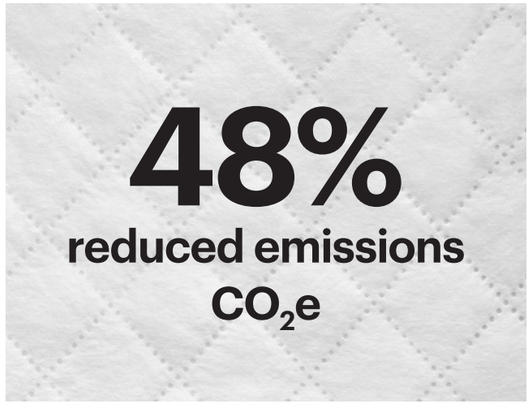
Increased transport efficiency:	29,03%
Fewer containers (%):	18,78%
Material reduction (t):	244,24
Material reduction (%):	19,01%

Going from virgin fibre to recycled fibre
During 2024 we developed our insulation products for healthcare with 60% recycled material. This change had a major impact on its environmental footprint - reducing its CO_2e with **48%**.

The product development with sizes and material used for this product group alone resulted in a reduction by:

Total:

Increased transport efficiency:	34.83%
Fewer containers (%):	25%
Material reduction (t):	39.6806
Material reduction (%):	24.53%

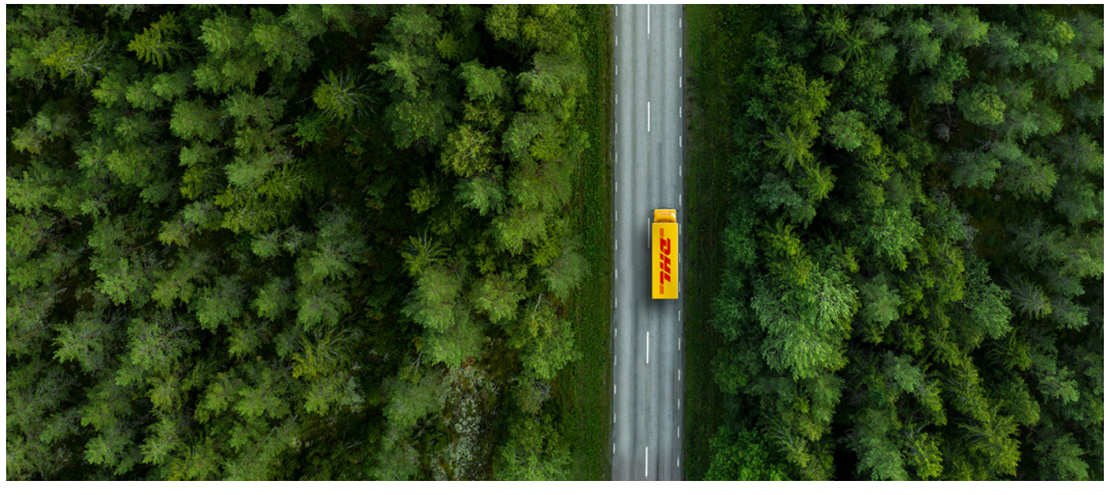


”Skicka grönt”

Fossilfree transport
Our transport accounts for a large part of our emissions, but it is also one of the parts of our value chain that we can help influence. Since 2022, we have therefore used ” Skicka grönt” (the Send Green) option for our parcel shipments via DHL, which means that the corresponding volumes are sent with fossil-free transport within the forwarder’s network.

In October 2024, we took another step by including ”Skicka grönt” for our piece and pallet shipments. This means that over 80% of our future shipments will be booked with ”Skicka grönt”, which helps support the development of fossil-free vehicles, where the proceeds go entirely to investments in greener transport solutions. Our commitment to Send Green is a long-term initiative to support a more sustainable future.

This step reduced our emissions during 2024 with 4,7 ton = aprox 10%.



- **Organisations we support:**
  Barncancerfonden, Bris,
  Naturskyddsföreningen,
  Läkare utan gränser, SOS Barnbyar,
  Städa Sverige, Nattvandrarna,
  Nolltolerans mot mobbning.
- We are conducting systematic improvement work
- We are certified according to ISO 14001:2015 & ISO 9001:2015

Active support

In May 2022, our first shipment of supplies went to Ukraine with the help of **Aid4Ukraine** Sweden. Since then, there have been many deliveries and we continue to support Ukraine. We donate, among other things, bed linen products, blankets and wet wipes. Products that are useful and that suddenly have become in short supply. It is a concrete way for us to contribute with help where its needed.

Appendices and References

References

Climate Action Tracker (2023). 2030 Emissions Gap: CAT projections and resulting emissions gap in meeting the 1.5°C Paris Agreement goal. December 2023. Available at: https://climateactiontracker.org/global/cat-emissions-gaps/. Copyright ©2023 by Climate Analytics and NewClimate Institute.

Greenhouse Gas Protocol. (2004). A Corporate Accounting and Reporting Standard. World Resources Institute and World Business Council for Sustainable Development.

Greenhouse Gas Protocol. (2015). Scope 2 Guidance: An Amendment to the GHG Protocol Corporate Standard. World Resources Institute and World Business Council for Sustainable Development.

Greenhouse Gas Protocol. (2013). Technical Guidance for Calculating Scope 3 Emissions: Supplement to the Corporate Value Chain (Scope 3) Accounting & Reporting Standard. World Resources Institute and World Business Council for Sustainable Development.

Science Based Targets. (n.d.). Home. from https://sciencebasedtargets.or

Scope 1

Kia (2025). Sportage. Available at: https://www.kia.com/se/nya-bilar/sportage/upptack/ (Accessed: 08/11/2025).

Audi (2025). Q4 e-tron. Available at: https://www.audi.se/se/web/sv/models/q4-e-tron/q4-e-tron.html (Accessed: 08/11/2025).

Tesla (2025). Model Y. Available at: https://www.tesla.com/sv_se/modely (Accessed: 08/11/2025).

Volvo (2025). V60 Hybrid. Available at: https://www.volvocars.com/se/cars/v60-hybrid/ (Accessed: 08/11/2025).

Scope 2

Stockholm Exergi (2025). Årsredovisning 2024 [Annual Report 2024]. Available at: https://www.stockholmexergi.se/content/uploads/2025/04/Arsredovisning_2024_for_skarm.pdf (Accessed: 08/11/2025)

IVL Svenska Miljöinstitutet. (2021). Emissionsfaktorer för nordisk elmix med hänsyn till import och export. Retrieved from https://www.ivl.se/publikationer/publikationer/emissionsfaktorer-for-nordiskel-mix-med-hansyn-till-import-och-export.html

Energiföretagen Sverige. (2023). Guide för allokering i kraftvärmeverk och fjärrvärmens elanvändning 2023 [PDF document]. Retrieved from https://www.energiforetagen.se/4af4c7/globalassets/energiforetagen/statistik/fjarrvarme/miljovardering-av-fjarrvarme/hjalp-vid-berakning/guide-for-allokering-i-kraftvarmeverk-och-fjarrvarmens-elanvandning-2023.pdf

SCIENCE BASED TARGETS

GREENHOUSE GAS PROTOCOL

Boundaries

Organizational boundary
For Gunnar Engstrand AB (GEAB), the organizational boundary is confined to GEAB itself. This demarcation is due to the absence of subsidiaries, the non-ownership of real estate, and the lack of other emission-generating capital goods. As such the Organizational boundary is confined to the organization that is GEAB.

Operational boundary
Our operational boundary extends to include all direct and indirect emissions — categorized within Scope 1, Scope 2, and Scope 3, as defined by the GHG Protocol.

Scope 1 encompasses direct emissions from sources that are owned or controlled, such as our car fleet.

Scope 2 covers indirect emissions from the generation of purchased electricity and heating that is consumed.

Scope 3 represents both upstream and downstream emissions that are a consequence of our operations but occur from sources not owned or controlled. This includes upstream activities such as raw material extraction, processing conducted by other companies, as well as downstream activities such as transportation, use, and end-of-life treatment of products sold.

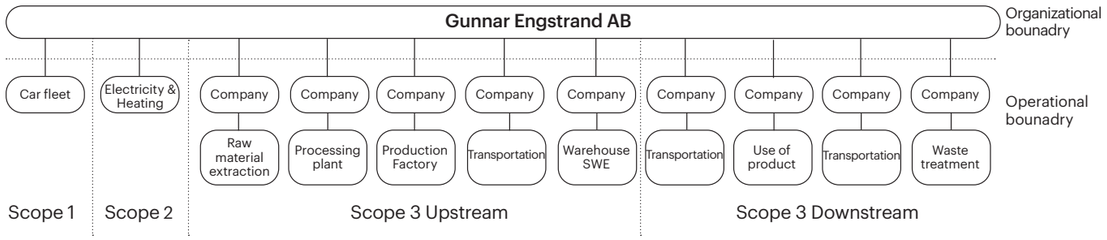


Fig 4. Illustration of the Organizational and operational boundaries of GEAB identified ahead of GHG inventory mapping.

Appendix B

Location Based results Scope 2
Activity data: 3269 kWh (Supplier invoice)
Location-based Emission Factor: 90.4 major impact on its environmental footprint - reducing its CO_2e / kWh (IVL, 2021)

The Location-based approach utilized an emission factor as presented by IVL (2021) on nordic energy mix emission factors which was 90,4 g major impact on its environmental footprint - reducing its CO_2e / kWh resulting in emissions of 0.317 tonnes major impact on its environmental footprint - reducing its CO_2e.

Activity data: 17 892 kWh
Location-based Emission Factor: 468 g major impact on its environmental footprint - reducing its CO_2e / kWh (Energiföretagen, 2023)

The Location-based approach utilized an emission factor as presented by EnergiFöretagen (2021) on nordic energy mix emission factors for district heating which was 468 g major impact on its environmental footprint - reducing its CO_2e / kWh resulting in emissions of 8.373 tonnes major impact on its environmental footprint - reducing its CO_2e.

Results Location-based approach:
8.669 tonnes major impact on its environmental footprint - reducing its CO_2e

Scope 3 categories mapping

Upstream

1. Purchased goods (Included)
As the control approach has been applied the category Purchased goods will include all purchases of products from factories that are subsequently sold. This category is expected to hold the majority of emissions within the operational boundary.

Data needed:
- LCA results for purchased products.

4. Upstream transportation and distribution (Included)
Transportation of purchased products is a central part of the operations and includes several modes of transportation to deliver products to the storage facility.

Sections of transportation identified:
- T1 - Raw material extraction to processing plants.
- T2 - Processing plant to production factory.
- T3 - Production factory to storage facility.

Data needed:
- Mode of transportation
- Distance travelled
- Ideal: Emission report from supplier.

5. Waste generated in operations (Included)
Production of purchased products include waste generation, as production includes several processes from extraction of raw material, processing of raw material and production of the final product. The raw materials range from biomass-fossil fuels to recycled plastics.

LCA calculations will provide base data to estimate waste in each section.

Sections of waste identified:
- Waste in raw material extraction process
- Waste in processing stage
- Waste in production process

Categories of waste treatment:
- Landfill
- Incineration
- Composting
- Recovery for recycling

6. Business travel (Included)
This category includes all business travel conducted during the year that are not done with the company owned/leased car.

Categories:
- Air travel
- Rail travel
- Bus travel

Data needed:
- Ideal: Emissions report from supplier of service (SJ, SAS, SL)
- Alternative: Distance traveled

7. Employee commuting (Included)
This category includes all employees commuting to and from the office.

Categories:
- Private car
- Bus travel
- Rail travel

Data needed:
- Number of employees commuting to work.
- Mode of commuting
- Distance commuted on a daily basis.
- Number of days commuted per week.

8. Upstream leased assets (Excluded)
As there are no leased assets this category is irrelevant due to the selected GHG inventory method.

Downstream

9. Downstream transportation and distribution (Included)
This category includes transportation between the storage facility, customers and transportation from customer to the waste management facilities.

Data needed:
- Emission report from supplier of transportation services

Alternative:
- Distance to customer
- Mode of transportation
- Distance from customer to waste management site

10. Processing of sold products (Excluded)
As products sold by GEAB do not require any further processing this category is not relevant.

11. Use of sold products (Excluded)
Products sold by GEAB do not require any energy or additional activity generating emissions, hence this category is excluded.

12. End-of-life treatment of sold products (Included)
The products are eventually managed as waste, as a means of working towards recycling and a circular economy mapping how the products are treated as waste is crucial.

Data needed:
- KG/M3 Landfill
- KG/M3 Incineration
- KG/M3 Composting
- KG/M3 Recovery for recycling

13. Downstream leased assets (Excluded)
As there are no leased assets this category is irrelevant due to the selected GHG inventory method.

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