

Haglöfs

GHG Accounting Methodology and Results 2021

Supplement to Haglöfs Sustainability Report 2021

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About Haglöfs

Haglöfs is an outdoor brand with headquarters in Sweden from where outdoor clothing, footwear and hardware are designed, developed and marketed. Haglöfs does not own any factories, instead it works with a network of approx. 70 trusted materials suppliers and clothing, footwear and hardware manufacturers across 14 different countries. The majority of products are shipped to warehouses in Sweden from where they are distributed to various sales channels.

Haglöfs is a fully owned subsidiary of ASICS Corporation since 2010. ASICS Corporation's headquarters are located in Kobe, Japan and it is listed on the Tokyo Stock Exchange.

Key stats 2020

- 240 employees
- 876.01 MSEKSEK in sales
- 1.62 million products sold worldwide
- Sweden, Finland, Norway top 3 markets
- Sold in 21 markets via:
 - Wholesale
 - E-commerce
 - 13 Haglöfs stores

Carbon Footprint

For several years Haglöfs has previously reported Scope 1 & 2 emissions and limited Scope 3 emissions covering inbound logistics and business travel, it is well established that the most significant portion of scope 3 emissions for a clothing and footwear brand lies in the production of the goods sold¹. In 2020 the measurement was expanded to include the product of goods sold establishing a baseline for this wider footprint against which a commitment to reduce emissions by 50% by 2030 could be measured. In addition, Haglöfs has committed to take responsibility for the remaining emissions over this time through the purchase of a quantity of carbon credits equivalent to their footprint.

Reporting

The following document outlines the methodology used to calculate Haglöfs carbon footprint as reported in Haglöfs Sustainability Report 2021

www.haglofs.com/sustainability/progress

Contact

Email: sustainability@haglofs.se

¹WRI and Aii, Roadmap to net zero (2020), McKinsey & Co, Fashion on Climate (2020), Quantis, Measuring Fashion (2018)

Reporting standard

Haglöfs carbon footprint is calculated according to the Greenhouse Gas (GHG) Protocol Corporate Accounting and Reporting Standard (Rev. ed. March 2004) published by the World Business Council for Sustainable Development (WBCSD) and the World Resource Institute (WRI) with reference to the Corporate Value Chain (scope 3) Accounting Reporting Standard and GHG protocol Scope 2 Guidance.

Boundaries and consolidation of data

Period covered

1st January 2021 - 31st December 2021

Consolidation approach

Operational control approach has been followed

Organisational boundaries

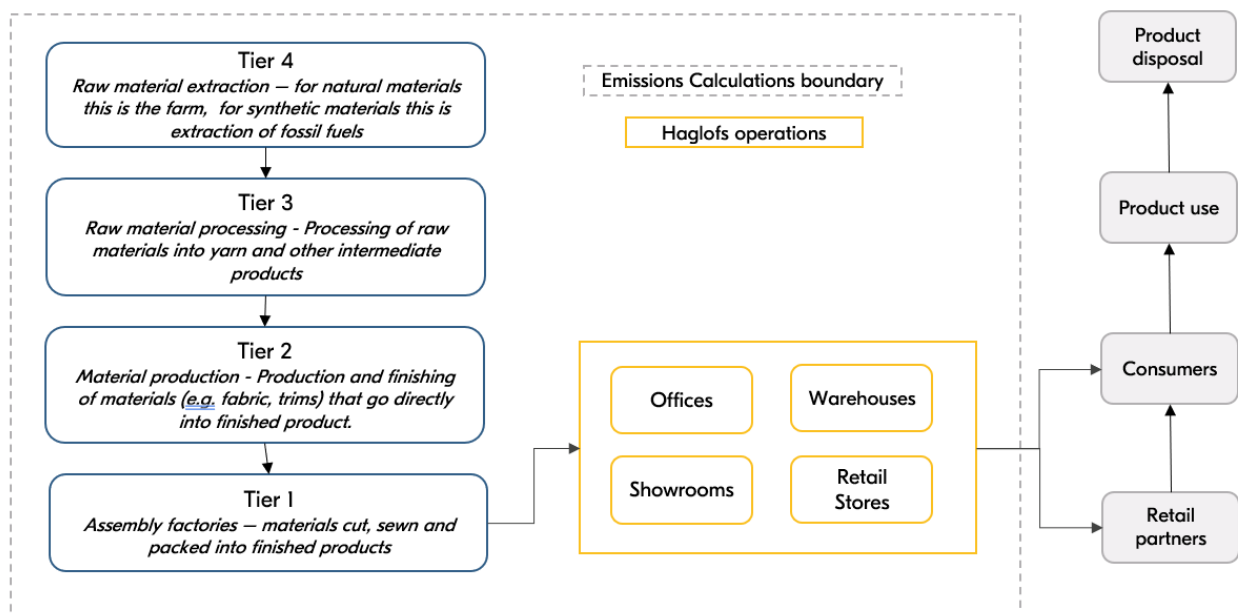
Included in the accounting is Haglöfs AB and all its subsidiaries collectively referred to as 'Haglöfs':

- Nordic Outdoor Group Aktiebolag – NOGAB,
- Haglöfs Deutschland GmbH,
- Haglöfs Oy, Haglöfs AS,
- Haglöfs Danmark A/S
- Haglöfs UK Ltd.

Operations consist of facilities owned or leased by Haglöfs including offices, sales showrooms, warehouses and retail stores as listed in Appendix 1. Haglöfs does not own or have any financial interest in any factories used for production of goods sold.

Scope of assessment

The main system boundaries are shown in the diagram below:



Included in the assessment are Haglöfs operations as well as emissions arising from the production and distribution of goods sold as detailed in the following table:

Inclusion/exclusions		
Scope - category		
Scope 1		
1.1	Stationary combustion sources	Use of natural gas for heating or food preparation
1.2	Mobile combustion sources	Company operated cars
1.3	Process emissions	n/a no processing activities
1.4	Fugitive emissions	Refrigerants for fridges and air conditioning units in offices, stores, warehouses
Scope 2		
2.1	Electricity consumption	Purchase of electricity for offices, showrooms, warehouses, and retail stores
2.2	Heat, steam or cold consumption	Purchase of heating for offices, showrooms, warehouses, and retail stores not produced at site
Scope 3		
1	Purchased goods and services	Raw material extraction, material processing, and materials assembly into finished products (Tier 4 to Tier 1) for all goods purchased for sale to the consumer. Includes product, transportation, and retail packaging materials. Includes transportation of materials between processing steps (Tier 4 to Tier 2) Packaging of raw materials excluded as data not currently available and not considered significant relative to other materials. Indirect materials not sold to the consumer, such as office materials, store interiors, or other materials used for marketing and sales purposes excluded as not considered significant relative to direct materials
2	Capital goods	Not assessed
3	Fuel and energy related activities	Scope 3 emissions from the production and distribution of electricity and fuels from Scope 1&2
4	Upstream transportation and distribution	Transportation of materials to assembly factories (Tier 2 to Tier 1) Transportation of purchased goods from assembly factories to Haglöfs warehouses and onwards to sales channels Note: transportation of materials between factories (Tier 4 to Tier 2) is included in the purchased goods and services data.
5	Waste generated in operations	A check on waste generated in warehouses and HQ office in 2019 indicated emissions generated is insignificant therefore not included
6	Business travel	Air and rail travel purchased through company travel agency included. Taxis, private cars, rental vehicles or other travel by public transport not purchased through travel agency not included and considered insignificant in comparison to air travel. Due to Covid majority of business travel has been on hold since March 2020
7	Employee commuting	Not assessed
8	Upstream leased assets	n/a
9	Downstream transportation and distribution	Not assessed
10	Processing of sold products	n/a
11	Use of sold products	Not assessed

12	End-of-life treatment of sold products	Not assessed
13	Downstream leased assets	n/a
14	Franchises	n/a
15	Investments	n/a

Quantification of carbon footprint

Results²

Scope 1&2 (Market based)

Scope	Source	Ton CO ₂ e	% of total
1	Company operated vehicles	120	44.2
1	Refrigerant leakage	0.5	0.2
1	Heating	0.1	0.0
2	Purchased Electricity	60	21.8
2	Purchased Heating	96	34.8
Total		277	100%

Scope 1&2 location based: 251 ton CO₂e

Performance indicators (S1&2 market based):

- Emissions/product sold: 0.17 kg CO₂e/product sold
- Emissions/turnover: 316 kg CO₂e/MSEK

Scope 3

Category	Subcategory	Ton CO ₂ e	% of total
1 - Purchased goods and services			
	Tier 1 (product assembly)	2010	8.5%
	Tier 4-2 (materials production - Clothing)	14181	60.2%
	Tier 4-2 (materials production - Hardware)	2687	11.4%
	Tier 4-2 (materials production - Footwear)	1335	5.7%
	Tier 4-2 (materials production - Packaging)	495	2.1%
3 - Fuel and energy related activities			
		101	0.4%
4 - Upstream transportation and distribution			

² Total emissions are reported in metric tons carbon dioxide equivalent (ton CO₂e) including where applicable the impact of the seven Kyoto gases carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), hydrofluorocarbons (HFCs), nitrogen trifluoride (NF₃), sulphur hexafluoride (SF₆) and perfluorocarbons (PFCs).

Transportation Tier 2-1	94	0.4%
All other transportation - Road	75	0.3%
All other transportation - Sea	481	2.0%
All other transportation - Rail	2	0.0%
All other transportation - Air	1610	6.8%
All other transportation - Mixed/unknown	468	2.0%
6 - Business Travel		
Air	19.6	0.1%
Rail/other	0.0	0.0%
TOTAL	23560	100%

Performance indicators (S1&2 market based + S3):

- Emissions/product sold: 14.7 kg CO₂e/product sold
- Emissions/product manufactured: 14 kg CO₂e/product made
- Emissions/turnover: 27.21 ton CO₂e/MSEK

Methodology

Activity data and assumptions

Scope 1 & 2

Company cars

- Reports from leasing companies were used to obtain quantities of fuel used.
- Where data not available assumptions made based on average fleet data

Refrigerants

- Reporting by local stores and country offices on A/C units and fridges on site
- Where data not available assumptions made on number of units per site
- Where data not available on refrigerant type, charge and leakage, assumptions made based on commonly available unit types

Electricity and heating

- Market-based method is reported for scope 2 emissions from energy use to allow tracking of increasing use of renewable energy
- Data from invoices or meters from offices, warehouses, and stores
- Where data not available e.g. included in rent, estimations made based on the size of the facility and locally relevant energy use data.

Scope 3

1 - Purchased goods and services

Tier 1

- Location based method used for reporting electricity use in scope 3

- Energy use data collected via both supplier questionnaires and Higg FEM 2020³ submissions
- Energy use was then adjusted according to the % of total production which was carried out by the facility for Haglöfs during the year
- Where data not available assumptions made based on previous years data or averages from other comparable factories

Tier 2-4: Clothing and hardware

- Quantity of products purchased extracted from internal systems
- Quantity of different materials needed to produce each product collected from internal systems
- Higg MSI used as cradle to gate emission factors for each material type.
 - Note MSI includes transportation between processing stages with a standard assumption of 200km between each tier

Tier 2-4: Footwear

- Insufficient data was available at the material level therefore LCAs were used to extrapolate the T2-4 impacts for representative footwear items

Transportation of materials from T2-T1

- No actual data available
- Estimations made of transport modes and routes based on country-of-origin data for materials and www.searates.com/services/distances-time

3- Fuel and energy related activities

- Activity data same as that used for scope 1&2 energy data

4 - Upstream transportation and distribution

- Reports from logistics providers.
- Where data not available invoices were used to estimate emissions relative to spend with the providers

6- Business travel

- Report from travel agency covering air and rail travel.

Emission Factors

Category	Emission Factor Source
Transportation	Network for Transport Measures www.transportmeasures.org/en/wiki/evaluation-transport-suppliers
Fuels	Higg MSI v3.3 at higg.org , UK Government GHG Conversion Factors for Company Reporting 2021
Electricity and heating	EEA 2019, UK Government GHG Conversion Factors for Company Reporting 2021, AIB 2020 European Residual Mixes, energy supplier own declarations where available,
Materials (cradle to gate) for clothing and hardware	Higg MSI v3.3 at higg.org
Materials (cradle to gate) for footwear	LCA by Massachusetts Institute of Technology (MIT) on ASICS running shoe, 2012 https://dspace.mit.edu/handle/1721.1/102070 and supplier own LCA

³ Note due to the timing of the Higg FEM cycle 2021 data not yet available to be used at time of calculations

Quality of data

It is acknowledged that there are challenges, particularly in scope 3, with data quality, availability, and precision a challenge due to the need to collect information from outside of Haglöfs own operations. As a result a programme of continuous improvement is needed to refine the data year on year. The aim is to be transparent on how the approach is adapted as methods improve.

Scope 1 and 2:

In an improvement vs 2020, 24% of emissions in Scope 1 & 2 are estimated. Since most of the facilities used by Haglöfs are leased, data on heating and electricity usage is not always available and often hidden in the rental cost. There is limited opportunity to improve access to this data. Data on fuel use in some company cars is not currently available however there is the opportunity here to improve data collection and reduce level of estimated emissions. As cars move to hybrid models a change in how data collection is also needed to improve capture of emissions related to electricity use.

Scope 3:

Logistics: 3% of the emissions are estimated due to a lack of data from some carriers. An RFI of 2 is used for air freight however some discussion remains as to the correct factor to be applied. Changes in the RFI have a significant impact on the emissions from logistics

Tier 1: For data from product manufacturers all the emissions were calculated based on primary data shared by the factories via a mixture of supplier questionnaires and Higg FEM submissions. The aim is to encourage more suppliers to report through the Higg FEM to improve efficiency and increase the number of suppliers obtaining verification of their modules to continue to increase the quality of the data. 2021 saw an increase in the amount of verified data submitted vs 2020

Tier 2-4: Clothing and hardware – while activity data down to the material level was obtained from internal systems, the emission factors used are for generic material types which limit the potential to observe improvements going forward for example in energy efficiency improvements or the use of renewable energy in specific factories. Where possible, factory specific information should be used to start to replace the generic emission factors

Tier 2-4: Footwear – footwear data was limited to product level rather than the material level data collected for clothing and hardware. Emission factors used were taken from LCAs of representative products only rather than Haglöfs specific products. The aim is to start to integrate more Haglöfs specific material level activity data to obtain a more accurate assessment of the impact of footwear.

Restatements:

2020 carbon footprint was restated to reflect the following changes

- Update of emission factors used for calculation of impact of materials production
 - MSI EF were updated in Jan 2022 to v3.3
 - Replacement of estimated data with actual data

Targets and Reduction Activities

Base Year

2020 was the first year Haglöfs measured Scope 3 emissions related to the manufacturing of purchased goods sold which represents the most significant part of total emissions. This allowed Haglöfs to set emissions reductions targets covering a wider scope of emissions than previously measured. For this reason, 2020 was set as the baseline year from which reductions towards 2030 will be reported.

It is acknowledged that 2020 was an unusual year in business due to the Covid pandemic, with reduced sales due to closure of physical retail, and limited travel due to restrictions the calculated footprint is likely to be lower than a 'normal' year.

Targets

- 50% absolute reduction in emissions and net zero⁴ by 2030 across scope 1, 2 and the newly expanded scope 3 categories as outlined in this document
- Climate neutral⁵ from 2021 onwards

Strategy and 2021 activities

Haglöfs climate strategy is based on 4 focus areas:

1) Measure and report:

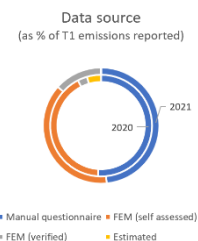
To ensure measures are targeted at the areas where the biggest impact can be achieved and to monitor progress Haglöfs carbon footprint will be measured on a yearly basis

a. 2021 activities

- Increased suppliers reporting energy data through the Higg FEM and increased suppliers with verified data
- Restated 2020 footprint to reflect updated Higg MSI data as well as improved data collection

b. Future focus

- Continuous improvement of data quality, availability, and precision
- Increasing number of suppliers reporting data through the Higg FEM



2) Energy reduction

Production of materials used in the manufacturing of Haglöfs products is the largest source of emissions. Focusing on reducing the impact from this area will have the biggest impact through selection of materials with lower carbon footprints produced in factories with energy efficient practices.

a. 2021 activities

- Progressed towards goal of 100% recycled or renewable materials in main fabrics for clothing and hardware by 2025
 - Over 50% of winter 2021 collection contains recycled or renewable materials from the preferred materials list
- Kicked off pilot project through the European Outdoor Group (EOG) to collaborate with competitors in shared suppliers to support suppliers through energy efficiency programs

b. Future focus

⁴ Where net zero refers to removing a quantity of emissions from the atmosphere equal to the remaining footprint after 50% reduction

⁵ Where climate neutral refers to purchasing a quantity of carbon credits equivalent to the carbon footprint covering Haglöfs operations, manufacturing and distribution

- i. Continue progress towards 2025 materials target
- ii. Increase use of lower energy dyeing techniques
- iii. Improve understanding of the energy efficiency performance of suppliers to allow targeted improvement measures

3) Renewable energy

Even with better materials choices and more efficient factories, energy will always be energy required to manufacture and transport Haglöfs products therefore a transition to the use of renewable energy will be fundamental in achieving large scale reductions in overall emissions. We aim to use renewable energy in our own operations and support suppliers to do the same

- a. 2021 activities
 - i. Progressed towards goal of 100% renewable energy in the electricity purchased
 - 1. 99.5% where Haglöfs controls of the bill
 - ii. Transitioned company car fleet to hybrid models
- b. Future focus
 - i. Integrate renewable energy use into sourcing strategy
 - ii. Develop strategy to support roll out of renewable energy with key partners in key sourcing countries

4) Carbon removal

- a. 2021 activities
 - i. Purchased sufficient high-quality carbon credits to offset full reported 2021 carbon footprint
- b. Future focus
 - i. Over time transition from avoidance or reduction type offsets to projects which are removing carbon from the atmosphere. By 2030 all offsetting be from projects which remove carbon from the atmosphere

Carbon Instruments

2021 Purchased Credits

The following carbon credits have been purchased and retired to offset against Haglöfs 2021 carbon footprint supporting a claim of climate neutral across Haglöfs operations and the production and distribution of goods sold.

All offsets are certified against either Gold Standard (GS) or the Verified Carbon Standard (VCS) in combination with the Climate, Community and Biodiversity Standard (CCB) with the exception of carbon removal projects purchased through the Puro Earth marketplace which use the CORC standard⁶

The total of 26200 tons CO₂ is greater than the carbon footprint reported above to allow for variability in the data.

⁶ <https://puro.earth/supplier-verification>

Name of project	Location	Project type	Standard	Quantity (tons CO ₂)	Additional info
Infravest Changbin & Taichung	Taiwan	Wind	GS	4000	https://registry.goldstandard.org/credit-blocks/details/264090 https://registry.goldstandard.org/credit-blocks/details/264087
InfraVest 2011 Wind Bundle	Taiwan	Wind	GS	22000	https://registry.goldstandard.org/credit-blocks/details/264096 https://registry.goldstandard.org/credit-blocks/details/264093
Bussme, Biochar	Sweden	Biochar	CORC	200	https://registry.puro.earth/carbon-sequestration
Total				26200	tons CO ₂

Historical retirements

The table below provides a historical record of carbon credits retired in previous years

Name of project	Location	Project type	Standard	Quantity (tons CO ₂)	Registry link
Retired against 2020 carbon footprint					
Siam solar energy 1	Thailand	Solar Thermal	GS	100	https://registry.goldstandard.org/credit-blocks/details/141052
Ceramic Water Purifiers by Hydrologic	Cambodia	Energy Efficiency	GS	60	https://registry.goldstandard.org/credit-blocks/details/141055
Infravest Guanyin wind farm	Taiwan	Wind	GS	30	https://registry.goldstandard.org/credit-blocks/details/141058
Dora-II Geothermal power	Turkey	Geothermal	GS	100	https://registry.goldstandard.org/credit-blocks/details/141049
Renewable Energy-Wind	China	Wind	GS	5000	https://registry.goldstandard.org/projects/details/416
Revolutionising Reforestation	Kenya	Reforestation	VCS + CCB	5000	https://registry.terra.org/myModule/rpt/myrpt.asp?r=206&h=131261 AND https://registry.terra.org/myModule/rpt/myrpt.asp?r=206&h=130721
Protecting biodiversity hotspots	Indonesia	REDD (rainforest protection)	VCS + CCB	5000	https://registry.terra.org/myModule/rpt/myrpt.asp?r=206&h=130439
Guanare Reforestation Project	Uruguay	ARR (afforestation, reforestation)	VCS + CCB	5000	https://registry.terra.org/myModule/rpt/myrpt.asp?r=206&h=139091
Moelven	Norway	Carbon removal, wooden building elements	CORC	330	https://registry.puro.earth/carbon-sequestration

Hjelmsäters Egendom,	Sweden	Carbon removal, biochar	CORC	50	https://registry.puro.earth/carbon-sequestration
Total				20670	tons CO ₂

Other

Name of project	Location	Project type	Standard	Quantity (tons CO ₂)	Registry link
Wester Coshievile	Scotland	Reforestation	Woodland Carbon Code PIU (ex-ante)	30	Markit Environmental Registry - Public Reports
Total				30	tons CO ₂

Appendix 1: Operations

Facility type	Name	Address	Country
Office	Bromma Office (HQ)	Gustavslundsvägen 141, 167 51 Bromma	Sweden
Warehouse + office	Avesta office & warehouse	Industrigatan 18, 774 35 Avesta	Sweden
Warehouse	Avesta warehouse 2	Grabbogatan 1, 774 35 Avesta	Sweden
Office/showroom	Finland office/showroom	Vantaankoskentie 14 01670 VANTAA	Finland
Office/showroom	Norway office/showroom	Mølleparken 4, 0459 oslo	Norway
Office/showroom	UK office/showroom	Steveley Mill Yard, Staveley, Cumbria, LA8 9LR	UK
Office/showroom	Goteborg office/showroom (U)	Björnvägen 17A Umeå	Sweden
Office/showroom	Goteborg office/showroom (M)	Göteborgsvägen 89, 43130 Mölndal	Sweden
Office/showroom	Denmark office/showroom	Langhøjvej 1 C, True, 8381 Tilst	Denmark
Office/showroom	Benelux office/showroom	Taurusavenue 165, 2132 LS Hoofddorp	Benelux
Office	Germany Office	Haglöfs Deutschland GmbH, Grünwalder Weg 34, 82041 Oberhaching	Germany
Showroom	Germany showroom (MOC)	Haglöfs Deutschland GmbH, c/o MOC Ordercenter Raum B106, Lilenthalallee 40, 80939 München	Germany
Showroom	Germany showroom (HDK)	Haglöfs Deutschland GmbH, c/o Häuser der Konfektion GbR, Haus 1 – Etage 4, Mahdentalstraße 108, 71065 Sindelfingen	Germany
Office/showroom	France office/showroom	6 Rue Du Bulloz, Parc de Glaisins, 74940 Annecy Le Vieux	France
Retail Store	Stockholm Brand Store	Haglöfs Brandstore Kungsgatan 10, 111 43 Stockholm	Sweden
Retail Store	Göteborg Brand Store	Haglöfs Brandstore Kungsgatan Göteborg	Sweden
Retail Store	Göteborg (Hede) Outlet Store	Haglöfsbutiken Unit 36B, Hede Fashion outlet, Kungsparksvägen 80, 434 39 Kungsbacka	Sweden
Retail Store	Oslo Brand Store	Haglöfs AS, Grensen 8, 0159 Oslo, Norge	Norway
Retail Store	Åre Brand Store	Haglöfs AB, Årevägen 101, 837 52 Åre	Sweden
Retail Store	Chamonix Brand Store	Haglöfs, 35 Rue du Docteur Paccard, 74400 Chamonix	France
Retail Store	Barkarby Outlet Store	Flyginfarten 4, 17738 Järfälla	Sweden
Retail Store	Avesta Outlet Store	Dalahästen, Åsbo, 77461 Avesta	Sweden
Retail Store	Haparanda Outlet Store	Norra Esplanen 8, 95331 Haparanda	Sweden
Retail Store	Oslo (Vestby) Outlet Store	Norwegian Outlet AS, Vestbyveien 155, Vestby 1540	Norway
Retail Store	Helsinki Brand Store	Keskuskatu 5 00100 Helsinki	Finland
Retail Store	Helsinki Outlet Store	Helsinki outlet village Tatti 17 00760 Helsinki	Finland
Retail Store	Båstad Pop up Brand Store	Haglöfs AB, Köpmansgatan 9D, 26933 Båstad	Sweden