



# Carbon Accounting Report 2021

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## XXL ASA

This report provides an overview of the organisation's greenhouse gas (GHG) emissions, which is an integrated part of the organisation's climate strategy. Carbon accounting is a fundamental tool in identifying tangible measures to reduce GHG emissions. The annual carbon accounting report enables the organisation to benchmark performance indicators and evaluate progress over time.

This report comprises XXL ASA and its operations in Norway, Sweden, Finland, Austria and Denmark. It includes all locations and facilities, meaning all stores, two central warehouses, headquarter and office facilities.

The input data is based on consumption data from internal and external sources, which are converted into tonnes CO<sub>2</sub>-equivalents (tCO<sub>2</sub>e). The carbon footprint analysis is based on the international standard; *A Corporate Accounting and Reporting Standard*, developed by the Greenhouse Gas Protocol Initiative (GHG Protocol). The GHG Protocol is the most widely used and recognised international standard for measuring greenhouse gas emissions and is the basis for the ISO standard 14064-1.

## Reporting Year Energy and GHG Emissions

Emission source	Description	Consumption	Unit	Energy (MWh)	Emissions tCO <sub>2e</sub>	% share
<b>Transportation total</b>				<b>800.1</b>	<b>194.0</b>	<b>0.8 %</b>
Diesel		48,969.0	liters	523.0	132.5	0.6 %
Petrol		15,231.0	liters	147.6	35.6	0.2 %
Diesel (NO)		9,712.4	liters	101.1	20.3	0.1 %
Diesel (SE)		2,732.0	liters	28.4	5.7	-
<b>Stationary combustion total</b>				<b>1,466.5</b>	<b>163.9</b>	<b>0.7 %</b>
Burning oil		274,000.0	kWh	274.0	67.6	0.3 %
Wood pellets		730,000.0	kWh	730.0	11.0	-
Natural gas		462,468.5	kWh	462.5	85.3	0.4 %
<b>Scope 1 total</b>				<b>2,266.6</b>	<b>358.0</b>	<b>1.6 %</b>
<b>Electricity total</b>				<b>33,983.7</b>	<b>1,596.2</b>	<b>7.0 %</b>
Electricity Austria		2,046,196.3	kWh	2,046.2	280.3	1.2 %
Electricity Finland		5,255,191.0	kWh	5,255.2	488.7	2.1 %
Electricity Nordic mix		26,682,270.3	kWh	26,682.3	827.2	3.6 %
<b>Electric vehicles total</b>				<b>14.8</b>	<b>0.5</b>	<b>-</b>
Electric car Nordic		14,800.0	kWh	14.8	0.5	-
<b>District heating location total</b>				<b>6,389.8</b>	<b>376.3</b>	<b>1.6 %</b>
District heating SE/Orebro/Kumla		978,592.0	kWh	978.6	66.3	0.3 %
District heating SE/Stockholm		1,020,246.0	kWh	1,020.2	50.0	0.2 %
District heating SE/Goteborg		526,475.0	kWh	526.5	23.7	0.1 %
District heating SE/Uppsala		479,777.0	kWh	479.8	74.8	0.3 %
District heating SE/Tannefors		100,877.0	kWh	100.9	9.4	-
District heating SE/Sundsvall		215,850.0	kWh	215.9	23.5	0.1 %
District heating SE/Jonkoping		239,866.0	kWh	239.9	15.4	0.1 %
District heating SE/Vasteras		179,164.0	kWh	179.2	8.8	-
District heating SE/Norrkoping		127,770.0	kWh	127.8	15.8	0.1 %
District heating SE/Karlstad		130,000.0	kWh	130.0	5.6	-
District heating Sweden mix		638,179.0	kWh	638.2	31.1	0.1 %
District heating SE/Lulea		373,960.0	kWh	374.0	3.4	-
District heating SE/Ostersund		114,300.0	kWh	114.3	0.9	-
District heating SE/Vaxjo		320,393.0	kWh	320.4	1.0	-
District heating SE/Halmstad		269,369.0	kWh	269.4	29.4	0.1 %
District heating SE/Malmo		176,590.0	kWh	176.6	17.3	0.1 %
District cooling SE/Stockholm		258,577.0	kWh	258.6	-	-
District cooling SE/Goteborg		63,910.0	kWh	63.9	-	-
District Cooling SE/Tannefors		114,252.0	kWh	114.3	-	-
District Cooling SE/Jonkoping		61,632.0	kWh	61.6	0.1	-
<b>District heating general total</b>				<b>118.7</b>	<b>1.2</b>	<b>-</b>
Electric heat/cooling pump Nordic		118,700.0	kWh	118.7	1.2	-
<b>Scope 2 total</b>				<b>40,506.9</b>	<b>1,974.2</b>	<b>8.6 %</b>
<b>Waste total</b>				<b>-</b>	<b>409.9</b>	<b>1.8 %</b>
Residual waste, incinerated		660,342.1	kg	-	331.5	1.4 %
Paper waste, recycled		1,431,102.4	kg	-	30.5	0.1 %
Metal waste, recycled		235,266.8	kg	-	5.0	-

Plastic waste, recycled		123,101.9 kg	-	2.6	-
EE waste, recycled		21,550.5 kg	-	0.5	-
Wood waste, recycled		173,693.9 kg	-	3.7	-
Wood waste, incinerated		27,880.4 kg	-	0.6	-
Organic waste, recycled		4,771.0 kg	-	0.1	-
Cardboard waste, recycled		1,620,510.4 kg	-	34.5	0.2 %
Refinery sludge waste, incinerated		7.0 kg	-	-	-
Hazardous waste, recycled		1,079.2 kg	-	-	-
Residual waste, recycled		38,808.3 kg	-	0.8	-
Glass waste, recycled		4,270.0 kg	-	0.1	-
Silicon waste, landfill		- kg	-	-	-
<b>Downstream transportation and distribution total</b>			-	<b>2,981.1</b>	<b>13.0 %</b>
Truck 17t+	E-com CWN	56.8 tCO <sub>2</sub> e	-	56.8	0.2 %
Truck 17t+	E-Com Omni	476.2 tCO <sub>2</sub> e	-	476.2	2.1 %
Truck 17t+	E-com kajakk	0.9 tCO <sub>2</sub> e	-	0.9	-
Truck 17t+	Finland CW	169.6 tCO <sub>2</sub> e	-	169.6	0.7 %
Truck 17t+	Finland Omni	26.6 tCO <sub>2</sub> e	-	26.6	0.1 %
Truck 17t+	Bring	1,215.3 tCO <sub>2</sub> e	-	1,215.3	5.3 %
Truck 17t+	Danmark CW	165.6 tCO <sub>2</sub> e	-	165.6	0.7 %
Truck 17t+	Sverige CW	284.7 tCO <sub>2</sub> e	-	284.7	1.2 %
Truck 17t+	Returfrakt	0.1 tCO <sub>2</sub> e	-	0.1	-
Truck 17t+	Sverige Omni	81.8 tCO <sub>2</sub> e	-	81.8	0.4 %
Truck 17t+	SE - AT	62.0 tCO <sub>2</sub> e	-	62.0	0.3 %
Truck 17t+	Transport AT - SE	4.2 tCO <sub>2</sub> e	-	4.2	-
Truck 17t+	Transport AT - GB	- tCO <sub>2</sub> e	-	-	-
Truck 17t+	Transport til butikker ♦sterrike fra Sentrallager Sverige	17.7 tCO <sub>2</sub> e	-	17.7	0.1 %
Truck 17t+	Transport til butikker Finland fra Sentrallager Sverige	0.5 tCO <sub>2</sub> e	-	0.5	-
Truck 17t+	Transport til Varehus ♦sterrike	323.8 tCO <sub>2</sub> e	-	323.8	1.4 %
Truck 7.5-17t	Transport til varehus Norge	95.4 tCO <sub>2</sub> e	-	95.4	0.4 %
<b>Purchased goods and services total</b>			-	<b>17,029.5</b>	<b>74.2 %</b>
Acrylic fabric (T1-4)		15,550.9 kg	-	164.7	0.7 %
Cotton fabric, conventional (T1-4)		125,105.1 kg	-	1,162.2	5.1 %
Elastane/Spandex fabric (T1-4)		28,211.5 kg	-	302.1	1.3 %
Glass, virgin		0.9 kg	-	-	-
Down insulation		1,026.9 kg	-	1.4	-
Leather, goat (T1-4)		788.9 kg	-	22.6	0.1 %
Leather, cow (T1-4)		27,970.9 kg	-	1,027.4	4.5 %
Lyocell fabric (T1-4)		812.9 kg	-	11.3	-
Modal fabric (T1-4)		527.0 kg	-	9.2	-
Rubber, synthetic		11,168.5 kg	-	31.2	0.1 %
Nylon/Polyamide (PA) fabric (T1-4)		124,665.1 kg	-	1,604.4	7.0 %
Cotton fabric, organic (T1-4)		6,902.8 kg	-	57.4	0.2 %
Polyester fabric (T1-4)		608,569.1 kg	-	6,408.2	27.9 %
Polypropylene fabric (T1-4)		10,802.9 kg	-	84.0	0.4 %
Polyurethane fabric (T1-4)		31,877.1 kg	-	304.4	1.3 %
Viscose/Rayon fabric (T1-4)		9,560.8 kg	-	139.1	0.6 %
Cotton fabric, recycled (T1-4)		111.5 kg	-	0.9	-
Nylon fabric, recycled (T1-4)		2,285.0 kg	-	20.7	0.1 %

Polyester fabric, recycled (T1-4)	55,128.8 kg	-	475.8	2.1 %
Wool, recycled (T1-4)	37.2 kg	-	0.3	-
Rubber (footwear)	2,332.7 kg	-	10.9	-
Tencel fabric (T1-4)	384.9 kg	-	3.8	-
Wool, fine (T1-4)	128,182.0 kg	-	5,187.5	22.6 %
<b>Business travel total</b>		-	<b>202.9</b>	<b>0.9 %</b>
Continental/Nordic, RF	332,374.0 pkm	-	51.0	0.2 %
Domestic, RF	571,401.0 pkm	-	140.5	0.6 %
Intercontinental, RF	58,986.0 pkm	-	11.4	-
<b>Scope 3 total</b>		-	<b>20,623.4</b>	<b>89.8 %</b>
<b>Total</b>		<b>42,773.5</b>	<b>22,955.6</b>	<b>100.0 %</b>
<b>KJ</b>			<b>153,984,701,650.1</b>	

## Reporting Year Market-Based GHG Emissions

Category	Unit	2021
Electricity market-based	tCO <sub>2</sub> e	7,625.4
Scope 2 market-based	tCO <sub>2</sub> e	8,003.4
Total market-based	tCO <sub>2</sub> e	28,984.8

This report comprises XXL ASA and its operations in Norway, Sweden, Finland, Austria and Denmark. It includes all locations and facilities, meaning all stores, two central warehouses, headquarter and office facilities.

### Carbon Accounting

In 2021, the total GHG emissions for XXL ASA were calculated to be 22 955,6 CO<sub>2</sub>- equivalents (tCO<sub>2</sub>e). The emissions are allocated to the different scopes accordingly: 358 tCO<sub>2</sub>e, 1,56% to Scope 1, 1974,2 tCO<sub>2</sub>e 8,6% to Scope 2 and 20 623,4 tCO<sub>2</sub>e, 89,84% to Scope 3.

2021 is the third year that XXL are reporting on emissions from Scope 1, 2 and the following categories in Scope 3: business travel, goods transportation, and waste. Additionally in 2021, emissions from all textiles have been added to the category purchased goods and services. The reporting of historic emissions data from before 2019 is limited to electricity consumption, goods transportation, air travel and waste.

It should be noted that estimations have been made for all stores that are not part of the centralized electricity. In these cases, calculations have been based on area (m<sup>2</sup>) and estimated from similar stores. Some estimations have also been made to calculate waste fractions in stores located in centre solutions.

#### Scope 1

**Transportation:** Consumption of fossil fuels used in company vehicles (owned, rented, leased). Total emission of fossil fuels in 2021 amount to 194 tCO<sub>2</sub>e.

**Stationary combustion:** Consumption of burning oil and wood pellets at the central warehouse in Norway. Total emissions from stationary combustion constitute 163,8tCO<sub>2</sub>e.

#### Scope 2

**Electricity:** Electricity consumption in own or rented premises (buildings).

The main body of both tables included in this report presents location-based emissions using the emission factor Nordic electricity mix for all electricity consumption in Norway and Sweden, and location specific energy mixes for locations in Finland and Austria.

XXL had an electricity consumption of 33 983,7 MWh in 2021, compared to 34 529,1 MWh in 2019. This constitutes a reduction of 1,58 %. Total emissions from electricity consumption in 2021 constitute 1596,2 tCO<sub>2</sub>e, which reflects a decrease in emissions of 20,3 % from 2020.

This decrease is in large explained by a change in the local energy mixes and emission factors used in this report. Particularly the emission factor for Nordic electricity mix has decreased by 24,4 % from 2020 to 2021, suggesting that electricity is being produced from sources with lower GHG emissions in 2021, compared to previous years (e.g. hydropower or other renewable sources instead of coal). Also the

emission factor for Electricity Finland has decreased by 21,2 % from 2020 to 2021 and the energy mix in Austria has decreased by 8,1 %.

The market-based emissions are presented on page 4 of this report. As XXL do not purchase any guarantees of origin, a residual mix emission factor has been used. In 2021 emissions from electricity consumption amount to 8025,6 tCO<sub>2</sub>e when calculated with a market-based emission factor. The practice of presenting electricity emissions with two different emission factors is further explained under Scope 2 in Methodology and Sources.

District heating: District heating consumption in own or rented premises (buildings).

Total emissions from district heating contributed to 377,5 tCO<sub>2</sub>e in 2021.

Electric vehicles: Use of own or rented electric vehicles.

Total emissions from the use of electric vehicles amount to 0,5 tCO<sub>2</sub>e for 2021.

### Scope 3

Business travel: Emissions from air travel reported per region.

Emissions from flights have been reduced from 2020 to 2021 because of the Covid-19 pandemic. Emissions from air travel amounted to 346,1 tCO<sub>2</sub>e in 2020, whereas they in 2021 make up 202,9 tCO<sub>2</sub>e.

This constitutes a reduction of 41,4 %.

Mileage allowance: Reported amount of km driven by employees and paid by the company. Mileage allowance has been reported previous years, but not been included for 2021.

Goods transportation: Reported tCO<sub>2</sub>e from the transportation of goods between central warehouses and stores, and transportation of goods ordered online.

Emissions from goods transportation account for 2981,1 tCO<sub>2</sub>e and constitutes the second largest share of XXL ASAs total emissions. Emissions from the transportation of goods has decreased by 14,1 % from 2020 to 2021.

Waste: Reported waste fractions in kg with consideration of treatment method.

Emissions from waste amount to 409,9 tCO<sub>2</sub>e in 2021. This is a reduction compared to 2020 (12,6 %). Note that waste fractions with emissions lower 0,1 tCO<sub>2</sub>e are marked with a line (-) in the presented tables.

Purchased goods and services: Reported tCO<sub>2</sub>e from the textiles from all the clothes XXL sells.

Emissions from textiles account for 17 029,5 tCO<sub>2</sub>e in 2021. The textiles constitute the biggest share of the emissions (78,3 %). In general, it is normal for a company like XXL to have their biggest share of emissions in the category purchased goods and services.

## Annual GHG Emissions

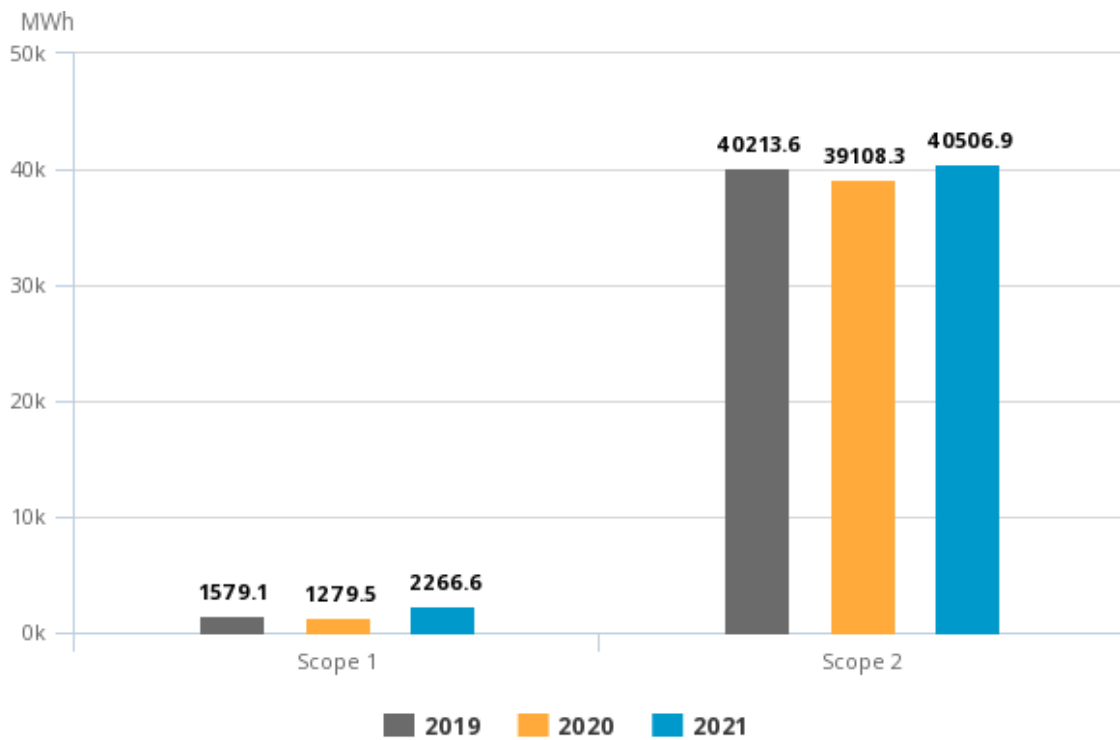
Category	Description	2019	2020	2021	% change from previous year
<b>Transportation total</b>		<b>125.0</b>	<b>96.4</b>	<b>194.0</b>	<b>101.2 %</b>
Diesel (SE)		47.0	10.8	5.7	-47.7 %
Petrol		8.1	9.8	35.6	261.9 %
Diesel		31.5	38.0	132.5	248.8 %
Diesel (NO)		38.4	37.8	20.3	-46.4 %
<b>Stationary combustion total</b>		<b>59.8</b>	<b>48.4</b>	<b>163.9</b>	<b>238.6 %</b>
Burning oil		46.6	37.5	67.6	80.3 %
Wood pellets		13.1	10.9	11.0	1.0 %
Natural gas		-	-	85.3	100.0 %
<b>Scope 1 total</b>		<b>184.8</b>	<b>144.9</b>	<b>358.0</b>	<b>147.1 %</b>
<b>Electricity total</b>		<b>1,872.8</b>	<b>2,002.0</b>	<b>1,596.2</b>	<b>-20.3 %</b>
Electricity Nordic mix		1,099.2	1,126.7	827.2	-26.6 %
Electricity Finland		631.8	666.2	488.7	-26.6 %
Electricity Austria		141.8	206.4	280.3	35.8 %
Electricity Austria	Electric vehicles	-	2.8	-	-100.0 %
<b>District heating location total</b>		<b>395.9</b>	<b>339.3</b>	<b>376.3</b>	<b>10.9 %</b>
District heating SE/Stockholm		80.5	47.4	50.0	5.4 %
District heating SE/Goteborg		20.9	19.2	23.7	23.4 %
District heating SE/Orebro/Kumla		43.1	55.5	66.3	19.4 %
District heating SE/Uppsala		56.2	75.2	74.8	-0.4 %
District heating SE/Tannefors		11.3	7.1	9.4	31.3 %
District heating SE/Sundsvall		15.7	13.1	23.5	79.6 %
District heating SE/Jonkoping		11.0	11.5	15.4	33.7 %
District heating SE/Vasteras		19.4	19.8	8.8	-55.6 %
District heating SE/Norrkoping		1.0	11.7	15.8	35.0 %
District heating SE/Karlstad		4.5	4.1	5.6	37.5 %
District heating Sweden mix		86.9	16.7	31.1	86.3 %
District heating SE/Lulea		6.3	7.3	3.4	-54.0 %
District heating SE/Ostersund		3.1	1.9	0.9	-51.2 %
District heating SE/Vaxjo		6.1	6.4	1.0	-85.1 %
District heating SE/Halmstad		25.7	24.1	29.4	21.8 %
District heating SE/Malmo		4.0	18.3	17.3	-5.3 %
District cooling SE/Stockholm		-	-	-	100.0 %
District cooling SE/Goteborg		-	-	-	100.0 %
District Cooling SE/Tannefors		-	-	-	100.0 %
District Cooling SE/Jonkoping		-	-	0.1	100.0 %
<b>Electric vehicles total</b>		<b>0.4</b>	<b>-</b>	<b>0.5</b>	<b>-</b>
Electric car Nordic		0.4	-	0.5	-
<b>District heating general total</b>		<b>-</b>	<b>-</b>	<b>1.2</b>	<b>-</b>
Electric heat/cooling pump Nordic		-	-	1.2	100.0 %
<b>Scope 2 total</b>		<b>2,269.1</b>	<b>2,341.3</b>	<b>1,974.2</b>	<b>-15.7 %</b>
<b>Waste total</b>		<b>470.4</b>	<b>469.1</b>	<b>409.9</b>	<b>-12.6 %</b>
Paper waste, recycled		37.6	32.7	30.5	-6.7 %
Metal waste, recycled		2.7	2.7	5.0	83.2 %
Organic waste, recycled		-	0.1	0.1	82.3 %

Plastic waste, recycled		2.0	2.1	2.6	22.8 %
EE waste, recycled		0.5	0.5	0.5	-5.7 %
Wood waste, recycled		5.1	4.7	3.7	-20.9 %
Residual waste, incinerated		395.2	389.3	331.5	-14.9 %
Cardboard waste, recycled		27.2	32.6	34.5	5.8 %
Residual waste, recycled		0.1	0.4	0.8	108.0 %
Hazardous waste, recycled		-	-	-	-53.6 %
Glass waste, recycled		-	-	0.1	135.4 %
Industrial inert waste, landfill		-	-	-	-100.0 %
Silicon waste, landfill		-	-	-	-
Plastic waste, incinerated		-	3.0	-	-100.0 %
Sorted waste, recycled		-	-	-	-100.0 %
Wood waste, incinerated		-	0.8	0.6	-25.3 %
Industrial waste, landfill		-	-	-	-100.0 %
Refinery sludge waste, incinerated		-	-	-	133.6 %
Concrete waste, recycled		-	0.1	-	-100.0 %
<b>Business travel total</b>		<b>987.8</b>	<b>346.1</b>	<b>202.9</b>	<b>-41.4 %</b>
Domestic, RF		372.3	-	140.5	100.0 %
Continental/Nordic, RF		393.6	298.1	51.0	-82.9 %
Intercontinental, RF		69.0	-	11.4	100.0 %
Mileage all. avg. car		98.1	16.8	-	-100.0 %
Mileage all. car (NO)		54.8	31.3	-	-100.0 %
<b>Downstream transportation and distribution total</b>		<b>2,308.2</b>	<b>3,495.1</b>	<b>2,981.1</b>	<b>-14.7 %</b>
Truck 17t+	Transport til varehus Norge	98.5	103.9	-	-100.0 %
Truck 17t+	Transport til Kunde Østerrike	0.2	47.8	-	-100.0 %
Truck 17t+	Annen Transport	0.1	-	-	-100.0 %
Truck 17t+	Transport til Varehus Østerrike	632.8	424.6	-	-100.0 %
Truck 17t+	Retur fra Kunde Østerrike	0.6	10.3	-	-100.0 %
Truck 17t+		75.5	846.3	1,215.3	43.6 %
Truck 17t+	Transport til Kunde Finland	203.6	255.1	-	-100.0 %
Truck 17t+	Annen transport	2.7	377.7	-	-100.0 %
Truck 17t+	Transport til Varehus Sverige	1,086.3	0.7	-	-100.0 %
Truck 17t+	Pakker Norge	207.9	1,321.0	-	-100.0 %
Truck 17t+	Returfrakt	-	4.9	0.1	-98.0 %
Truck 17t+	Transport til kunde fra butikk	-	51.7	-	-100.0 %
Truck 17t+	Transport til kunde fra Varehus Sverige	-	51.1	-	-100.0 %
Truck 17t+	E-com CWN	-	-	56.8	100.0 %
Truck 17t+	E-Com Omni	-	-	476.2	100.0 %
Truck 17t+	E-com kajakk	-	-	0.9	100.0 %
Truck 17t+	Finland CW	-	-	169.6	100.0 %
Truck 17t+	Finland Omni	-	-	26.6	100.0 %
Truck 17t+	Danmark CW	-	-	165.6	100.0 %
Truck 17t+	Sverige CW	-	-	284.7	100.0 %
Truck 17t+	Sverige Omni	-	-	81.8	100.0 %
Truck 17t+	SE - AT	-	-	62.0	100.0 %
Truck 17t+	Transport AT - SE	-	-	4.2	100.0 %
Truck 17t+	Transport AT - GB	-	-	-	100.0 %
Truck 17t+	Transport til butikker ♦sterrike fra Sentrallager Sverige	-	-	17.7	100.0 %
Truck 17t+	Transport til butikker Finland fra Sentrallager Sverige	-	-	0.5	100.0 %
Truck 17t+	Transport til Varehus ♦sterrike	-	-	323.8	100.0 %



Truck 7.5-17t	Transport til varehus Norge	-	-	95.4	100.0 %
<b>Purchased goods and services total</b>		-	-	<b>17,029.5</b>	-
Acrylic fabric (T1-4)		-	-	164.7	100.0 %
Cotton fabric, conventional (T1-4)		-	-	1,162.2	100.0 %
Elastane/Spandex fabric (T1-4)		-	-	302.1	100.0 %
Glass, virgin		-	-	-	100.0 %
Down insulation		-	-	1.4	100.0 %
Leather, goat (T1-4)		-	-	22.6	100.0 %
Leather, cow (T1-4)		-	-	1,027.4	100.0 %
Lyocell fabric (T1-4)		-	-	11.3	100.0 %
Modal fabric (T1-4)		-	-	9.2	100.0 %
Rubber, synthetic		-	-	31.2	100.0 %
Nylon/Polyamide (PA) fabric (T1-4)		-	-	1,604.4	100.0 %
Cotton fabric, organic (T1-4)		-	-	57.4	100.0 %
Polyester fabric (T1-4)		-	-	6,408.2	100.0 %
Polypropylene fabric (T1-4)		-	-	84.0	100.0 %
Polyurethane fabric (T1-4)		-	-	304.4	100.0 %
Viscose/Rayon fabric (T1-4)		-	-	139.1	100.0 %
Cotton fabric, recycled (T1-4)		-	-	0.9	100.0 %
Nylon fabric, recycled (T1-4)		-	-	20.7	100.0 %
Polyester fabric, recycled (T1-4)		-	-	475.8	100.0 %
Wool, recycled (T1-4)		-	-	0.3	100.0 %
Rubber (footwear)		-	-	10.9	100.0 %
Tencel fabric (T1-4)		-	-	3.8	100.0 %
Wool, fine (T1-4)		-	-	5,187.5	100.0 %
Scope 3 total		3,766.5	4,310.3	20,623.4	378.5 %
Total		6,220.4	6,796.5	22,955.6	237.8 %
Percentage change		100.0 %	9.3 %	237.8 %	

### Annual energy consumption (MWh) Scope 1 & 2



### Annual Market-Based GHG Emissions

Category	Unit	2019	2020	2021
Electricity market-based	tCO <sub>2</sub> e	7,626.1	8,977.2	7,625.4
Scope 2 market-based	tCO <sub>2</sub> e	8,022.4	9,316.5	8,003.4
Total market-based	tCO <sub>2</sub> e	11,973.7	13,771.6	28,984.8
Percentage change		100.0 %	15.0 %	110.5 %

## Annual Key Energy and Climate Performance Indicators

Name	Unit	2019	2020	2021	% change from previous year
Total tCO <sub>2</sub> e / MNOK revenue		0.7	0.7	2.3	251.8 %
Total CO <sub>2</sub> / FTE		-	-	7.1	-
Total tCO <sub>2</sub> e / warehouse		72.3	75.5	249.5	230.4 %

## Methodology and sources

The Greenhouse Gas Protocol initiative (GHG Protocol) was developed by the World Resources Institute (WRI) and World Business Council for Sustainable Development (WBCSD). This analysis is done according to *A Corporate Accounting and Reporting Standard Revised edition*, currently one of four GHG Protocol accounting standards on calculating and reporting GHG emissions. The reporting considers the following greenhouse gases, all converted into CO<sub>2</sub>-equivalents: CO<sub>2</sub>, CH<sub>4</sub> (methane), N<sub>2</sub>O (laughing gas), SF<sub>6</sub>, HFCs, PFCs and NF<sub>3</sub>.

For corporate reporting, two distinct approaches can be used to consolidate GHG emissions: the equity share approach and the control approach. The most common consolidation approach is the control approach, which can be defined in either financial or operational terms.

The carbon inventory is divided into three main scopes of direct and indirect emissions.

Scope 1 includes all direct emission sources. This includes all use of fossil fuels for stationary combustion or transportation, in owned and, depending on the consolidation approach selected, leased, or rented assets. It also includes any process emissions, from e.g. chemical processes, industrial gases, direct methane emissions etc.

Scope 2 includes indirect emissions related to purchased energy; electricity and heating/cooling where the organisation has operational control. The electricity emission factors used in Cemasys are based on national gross electricity production mixes from the International Energy Agency's statistics (IEA Stat). Emission factors per fuel type are based on assumptions in the IEA methodological framework. Factors for district heating/cooling are either based on actual (local) production mixes, or average IEA statistics.

In January 2015, the GHG Protocol published new guidelines for calculating emissions from electricity consumption. Primarily two methods are used to "allocate" the GHG emissions created by electricity generation to the end consumers of a given grid. These are the location-based and the market-based methods. The location-based method reflects the average emission intensity of the grids on which energy consumption occurs, while the market-based method reflects emissions from electricity that companies have purposefully chosen (or not chosen).

Organisations who report on their GHG emissions will now have to disclose both the location-based emissions from the production of electricity, and the market-based emissions related to the potential purchase of Guarantees of Origin (GoOs) and Renewable Energy Certificates (RECs).

The purpose of this amendment in the reporting methodology is on the one hand to show the impact of energy efficiency measures, and on the other hand to display how the acquisition of GoOs or RECs affect the GHG emissions. Using both methods in the emission reporting highlights the effect of all measures regarding electricity consumption.

The location-based method: The location-based method is based on statistical emissions information and electricity output aggregated and averaged within a defined geographic boundary and during a defined time period. Within this boundary, the different energy producers utilize a mix of energy resources, where the use of fossil fuels (coal, oil, and gas) result in direct GHG-emissions. These emissions are reflected in the location-based emission factor.

The market-based method: The choice of emission factors when using this method is determined by whether the business acquires GoOs/RECs or not. When selling GoOs or RECs, the supplier certifies that the electricity is produced exclusively by renewable sources, which has an emission factor of 0 grams CO<sub>2</sub>e per kWh. However, for electricity without the GoO or REC, the emission factor is based on the remaining electricity production after all GoOs and RECs for renewable energy are sold. This is called a residual mix, which is normally substantially higher than the location-based factor. As an example, the market-based Norwegian residual mix factor is approximately 7 times higher than the location-based Nordic mix factor. The reason for this high factor is due to Norway's large export of GoOs/RECs to foreign consumers. In a

market perspective, this implies that Norwegian hydropower is largely substituted with an electricity mix including fossil fuels.

Scope 3 includes indirect emissions resulting from value chain activities. The scope 3 emissions are a result of the company's upstream and downstream activities, which are not controlled by the company, i.e. they are indirect. Examples are business travel, goods transportation, waste handling, consumption of products etc.

In general, the carbon accounting should include information that users, both internal and external to the company, need for their decision making. An important aspect of relevance is the selection of an appropriate inventory boundary which reflects the substance and economic reality of the company's business relationships.

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