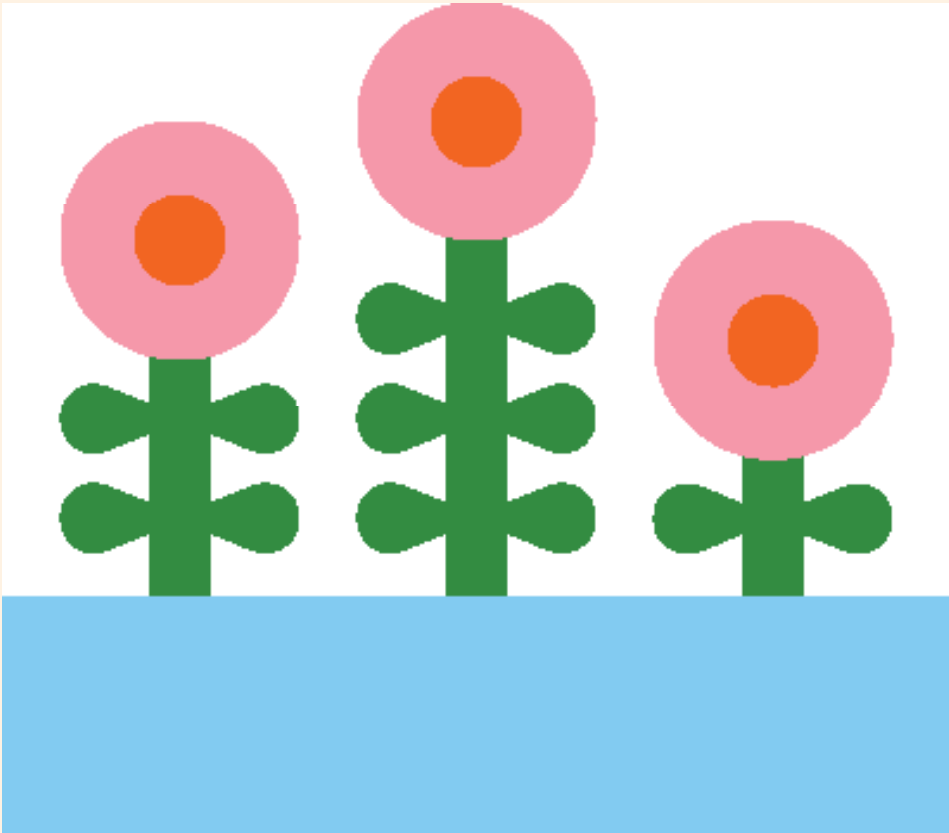


Climate Report

2023



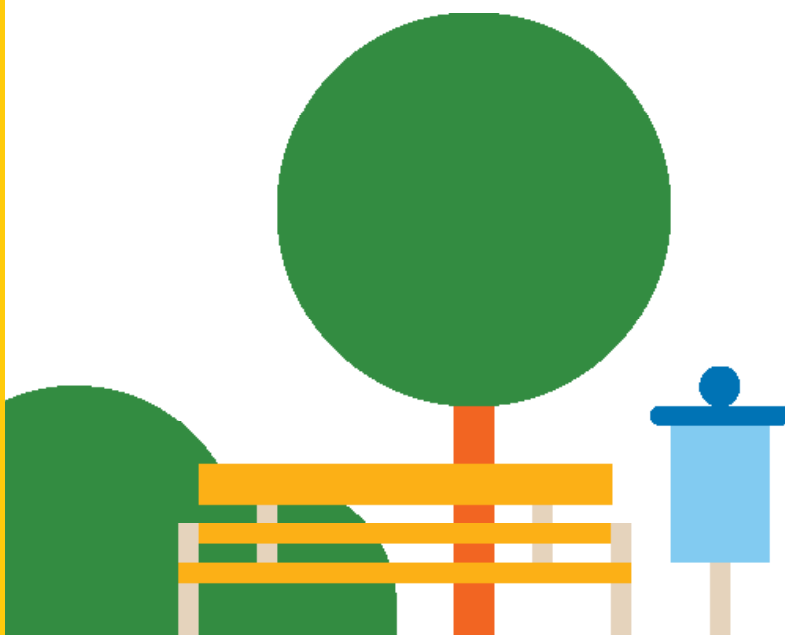
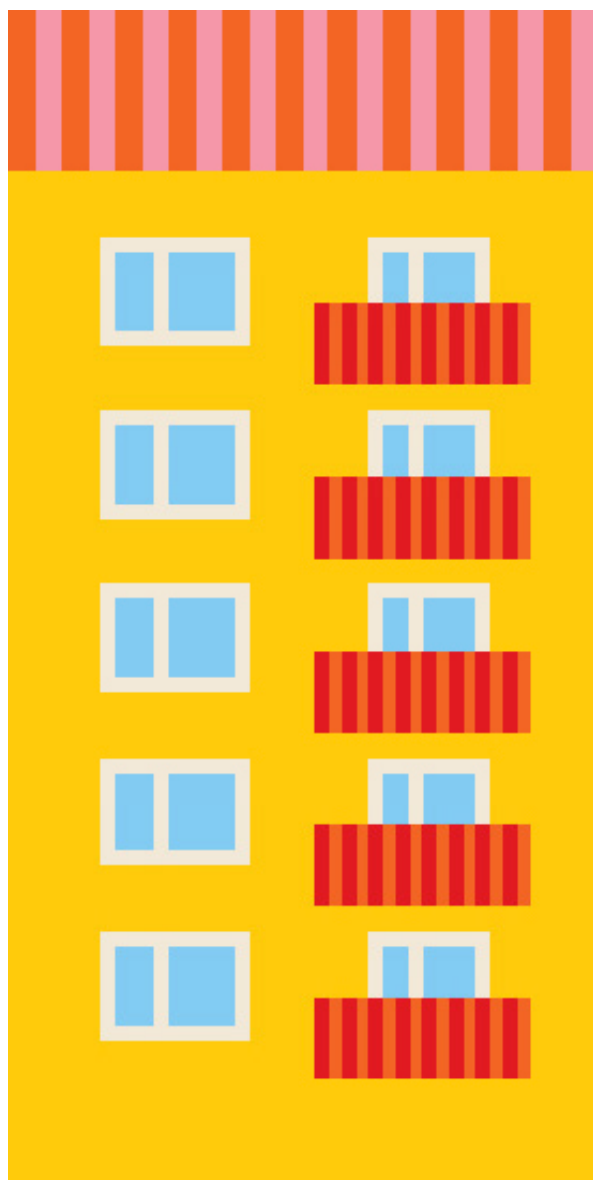
Introduction

The real estate sector in Sweden is a significant contributor to Sweden's greenhouse gas (GHG) emissions, representing 22% of Sweden's total GHG emissions. To reach EU climate targets, the transition of the real estate sector is a priority both due to scale of energy use and climate impact and to free up energy for the green transition of other sectors. Our largest climate impact is indirect and through our lending to private, tenant owner association and corporate clients. SBAB prioritizes our work to combat climate change by measuring and reporting our emissions and adopting science based decarbonization targets for our lending portfolio.

The SBAB Climate Report outlines our methodology, data, limitations, and results in calculating our:

- a. financed emissions through lending to private, tenant owner association and corporate clients, and
- b. emissions through our operations.

The Climate Report also presents our decarbonization target and activities to achieve the target.





Financed emissions

Data and sources

Our dataset includes lending to companies, tenant-owner associations, and private customers, representing our portfolio secured by immovable property located in Sweden. The data used to calculate financed emissions is based on the latest updated information, as of 31 December 2023.

Our largest source of external data is from energy performance certificates (EPC) collected from the Swedish National Board of Housing, Building and Planning (Boverket). The EPC includes data on energy performance (EP), energy use, energy label, heated floor area (Atemp) and primary heating sources. Data on the Loan to Value Ratio (LTV) is from SBAB's internal

systems. The LTV is the outstanding loan divided by property value. The property value, which is the denominator of the LTV ratio is fixed at the 2022 baseline level such that the differences in financed emissions can be isolated to the changes made to the property or our share of the financing and not due to increases or decreases in the property value.

The specific emission factors used to calculate our financed emissions is presented below. We apply emission factors for the specific heating source used by a building. If the building uses a combination of energy sources, an equal distribution between these energy sources and their respective emission factors is applied.

Heating source	Gas emission factor (gCO ₂ e/kWh)	Source
Electricity	latest available	IEA
Oil	267.3	Natursvårdsverket
District heating	45,8	Energiföretagen
Geothermal heating	0	IPCC / GHG protocol
Gas	203.8	Natursvårdsverket
Biofuel	0	IPCC / GHG protocol

Below is the energy consumption data per building type from the Swedish Energy Authority²

Type of building	kWh/m ²	Source
Single or two-family houses	40	Energimyndigheten (Energiindikatorer i siffror 2023)
Multi-family dwellings	52	Energimyndigheten (Energiindikatorer i siffror 2023)
Premises	133	Energimyndigheten (Energiindikatorer i siffror 2023)
Multi-family dwellings: tenant owner association	16 (30% of the electricity usage of apartment buildings)	Boverket - Förslag till svensk tillämpning av nära-nollenergibyggnader
Multi-family dwellings: tenant owned apartment	36 (70% of the electricity usage of apartment buildings)	Boverket - Förslag till svensk tillämpning av nära-nollenergibyggnader

²⁾ The data is from Energimyndigheten, Energiåret i siffror 2023

Methodology for properties with an EPC

SBAB's financed emissions calculation is based on the Partnership for Carbon Accounting Financials (PCAF)³ methodology for real estate exposures. The following formula was used to calculate the financed emissions, with the LTV ratio serving as the attribution factor.

$$\text{Financed emissions} = \sum b,e \frac{\text{Outstanding amount}_b}{\text{Property value}_b} \times \text{Building energy consumption } b,e \times \text{Emission factor } e$$

Attribution Factor

(with b = buildings and e = energy source)

To transform a buildings energy use to CO₂e emissions, the following calculation steps are performed:

1. Emission from heating and hot water consumption per square meter [gCO₂e /m²] = Energy Performance [kWh/m²] * Emission factor [gCO₂e /kWh]⁴
2. Emission from electricity usage per square meter [gCO₂e /m²] = Electricity consumption [kWh/m²] * Emission factor [gCO₂e /kWh]
3. Building emission [gCO₂e /m²] = Total emission from heating and hot water consumption + Total emission from electricity usage
4. Total emissions from the building [gCO₂e] = Building emission [gCO₂e /m²] * Atemp [m²]
5. SBAB's total financed emissions per building [gCO₂e] = Total emissions from the building [gCO₂e] * SBAB's share of financing [LTV]

Methodology for Tenant Owner Associations and Tenant-owned apartments

The PCAF methodology does not currently include a method for calculating emissions for tenant-owner associations and tenant-owned apartments, a very common type of housing in Sweden. In consultation with a group of Swedish banks under the Swedish Banking Authority, developed and published a common methodology. SBAB follows the common methodology.

To avoid double counting emissions, we applied an allocation factor of 0.3 to the tenant-owner associations and an allocation factor of 0.7 to the tenant-owned apartments. In addition to this factor, the financed emission calculation of the tenant-owner associations is performed according to the PCAF methodology. For example, this means that if the bank has financed the tenant-owner association fully but none of the tenant-owned apartments, the bank has financed 30% of the property's emissions. Conversely, if the bank has not financed the tenant-owner association at all but fully financed the tenant-owner apartments, the bank has financed 70% of the property's emissions.

Tenant Owner Associations Calculation

1. Emission from heating and hot water consumption per square meter [gCO₂e /m²] = (Energy Performance [kWh/m²] * Emission factor [gCO₂e /kWh]) * 0.3
2. Emission from electricity usage per square meter [gCO₂e /m²] = (Electricity consumption [kWh/m²] * Emission factor [gCO₂e /kWh]) * 0.3
3. Building emission [gCO₂e /m²] = Total emission from heating and hot water consumption + Total emission from electricity usage
4. Total emissions from the building [gCO₂e] = Building emission [gCO₂e /m²] * Atemp [m²]
5. SBAB's total financed emissions per building [gCO₂e] = Total emissions from the building [gCO₂e] * SBAB's share of financing [LTV]

Tenant-Owned Apartments⁵ Calculation

1. Emission from heating and hot water consumption per square meter [gCO₂e /m²] = (Energy Performance [kWh/m²] * Emission factor [gCO₂e /kWh]) * 0.7
2. Emission from electricity usage per square meter [gCO₂e /m²] = (Electricity consumption [kWh/m²] * Emission factor [gCO₂e /kWh]) * 0.7
3. Building emission [gCO₂e /m²] = Total emission from heating and hot water consumption + Total emission from electricity usage
4. Average building emission per Tenant Owner Association [gCO₂e /m²] = All building emissions [gCO₂e] / Number of buildings belonging to the Tenant Owner Association
5. Total emissions from the Tenant Owned Apartment [gCO₂e] = Average building emission per Tenant Owner Association [gCO₂e /m²] * Atemp for the Tenant-Owned apartment [m²]
6. SBAB's total financed emissions per Tenant Owned Apartment [gCO₂e] = Total emissions from the Tenant owned apartment [gCO₂e] * SBAB share of financing [LTV]

³) Methodology described in The Global GHG Accounting and Reporting Standard for the Financial Industry

⁴) If the building has two heating sources the assumed distribution between emission factors of the heating sources is 50/50.

⁵) Calculations are made on all buildings included in the applicable Tenant Owner Association

Methodology for properties without an EPC

To estimate emissions from those properties where the EPC is not available, properties without an energy label, the energy performance and emissions are estimated using methodology and proxies and data from PCAF building emission factor database. Data on actual building area, is multiplied by the data on average emission intensity per square meter provided by PCAF for different property types. If data on actual building area is not available, average building areas from PCAF will be applied.

PCAF Proxies	Single-family houses	Multi-family dwellings	Premises
Emission intensity (kgCO ₂ e/m ²)	3.3	3.2	12.6
Average building area (m ²)	127	1,092	356

Data quality score

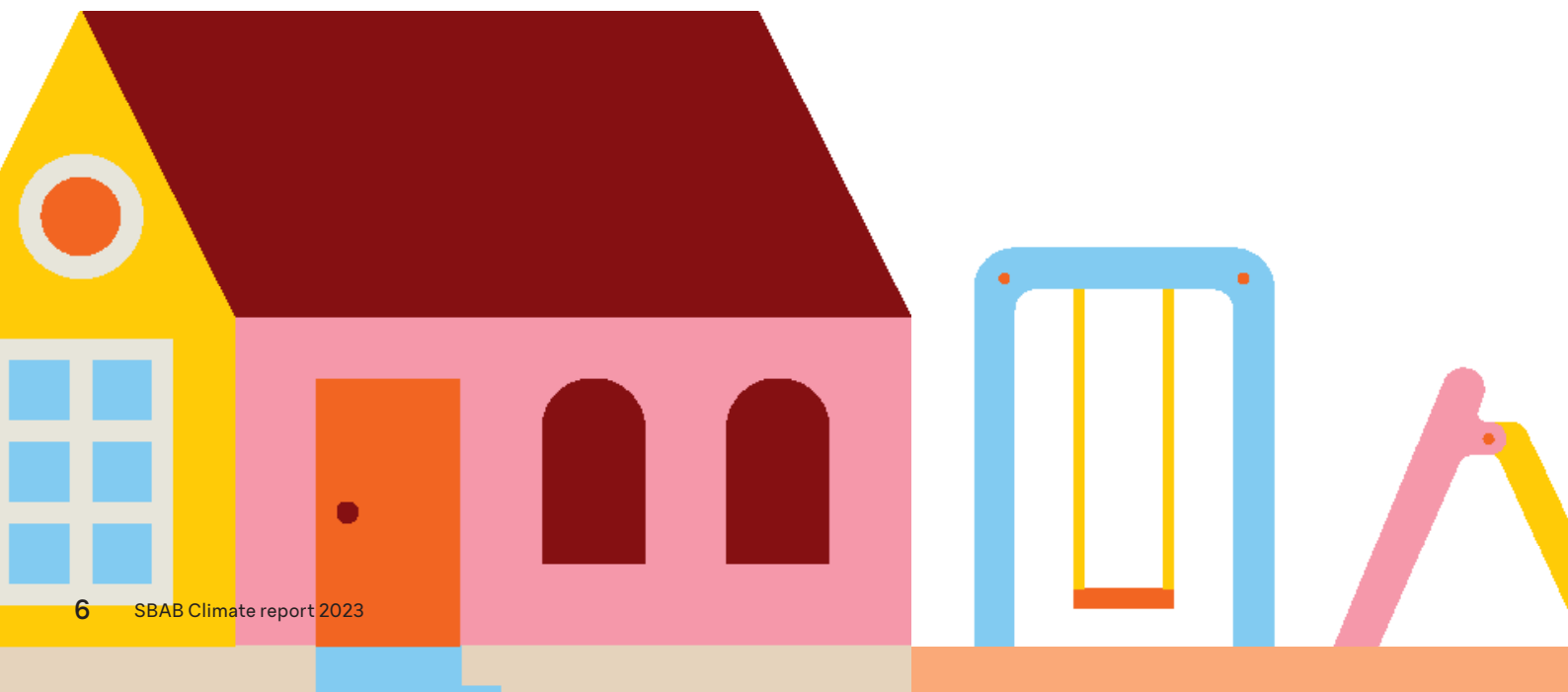
To transparently disclose the data quality in the analysis, we use the PCAF methodology, which provides a data quality matrix (score of 1 being the highest data quality and 5 the lowest). For our emissions calculated with the use of an energy label and information from an energy declaration, we have a data quality score of three. Since we can match 77% of our portfolio to an energy declaration, the majority of our data has a data quality score of three, where we use energy performance and heated floor area data from official energy labels combined with Swedish country-specific average emission factors. For the emissions calculated without an energy label (23% of our portfolio), we have a data quality of four if we have floor area, and five if we do not.

Total financed emissions (2023)

SBAB summarizes our total financed emissions by building type and per energy class to help prioritize and plan our activities connected to the climate target. We recalculated our baseline year (2022) emissions due to significant updates in our source for emission factor for electricity (IEA) and using proxies on emissions intensity from PCAF building emission factor database, where energy label is not available. Therefore, we present both the recalculated baseline emissions (2022) and the latest (2023) emissions.

Building type	Emissions per building type (Tonne, CO ₂ e)		% of portfolio	
	2023	2022	2023	2022
Single family homes	17,173	17,893	33.9%	35.02%
Holiday homes	1,139	1,235	1.1%	1.1%
Multi-family dwellings: tenant-owned apartments	19,550	20,304	33.8%	34.5%
Other multi-family dwellings including tenant owner associations and rental buildings	19,984	17,723	29.2%	27.6%
Commercial real estate: Offices and business locations	1,122	846	1.9%	1.7%
Total financed emissions	58,969	58,001	100%	100%

Energy labels	Emissions per energy class (Tonne, CO ₂ e)		% of the total portfolio	
	2023	2022	2023	2022
A	56.5	33	0.6%	0.5%
B	2,109	1,418	7.2%	5.6%
C	5,251	4,211	13%	11%
D	8,199	7,422	16%	15%
E	15,832	15,597	23.8%	23.6%
F	12,406	11,542	12.8%	12.8%
G	4,239	3,798	3.4%	3.4%
No energy label	10,877	36,566	22.9%	27.7%
X	0	282	0%	0.6%
Total financed emissions	58,696	58,001	100%	100%



Climate Target

SBAB has a decarbonization target for our lending portfolio to private, commercial and tenant owner association clients and is concentrated in the mortgage and commercial real estate sectors. The targets are set using methodologies that are science based and based on a decarbonization pathway for the real estate sector in Sweden aligned with the 1,5 degree pathway (CRREM⁶). The climate targets are emissions intensity based

(kgCO₂e per m²) with a 30% reduction in emission intensity until 2030 and a 50% reduction in emission intensity until 2038 from lending to our private, tenant owner and corporate clients. The baseline year for both targets is 2022. The targets may be revised and adopted by our management and board during 2024 due to a more ambitious decarbonisation pathway launched by CRREM in November 2023. From 2022 to 2023 our emissions intensity reduced by 1,6%.

Building type	Emission boundaries	Metric	Financed Emission intensity, Baseline (2022)	Financed Emission intensity (2023)
Single family homes	GHG scope 1&2	kgCO ₂ e per m ²	3.4	3.24
Holiday homes	GHG scope 1&2	kgCO ₂ e per m ²	3.52	3.27
Multi-family dwellings: tenant-owner apartments	GHG scope 1&2	kgCO ₂ e per m ²	5.14	5.12
Other forms of multi-family dwellings, including tenant-owner associations and rental buildings	GHG scope 1&2	kgCO ₂ e per m ²	3.54	3.49
Commercial real estate: Offices and business locations	GHG scope 1&2	kgCO ₂ e per m ²	8.69	7.47
Total	GHG scope 1&2	kgCO₂e per m²	4.28	4.21

Boundaries

SBAB measured emissions from our lending secured by immovable properties in Sweden. However, we have not included emissions from lending to commercial clients for construction. Under 2024, SBAB will collect environmental product declaration data (klimatdeklaration), where available, and use proxies, where data is not available for collection, to estimate emissions from the building process.

Actions to reach decarbonization target

SBAB continues to steer our clients towards a 1.5-degree scenario world and develop products and services that facilitate the climate transition towards our 2038 targets. Due to the inclusion of the climate target as one of our five central business goals, additional focus has been on our sustainable product and service offering and green bond framework.

During 2023, we improved our internal systems to store and access the relevant data to enable efficient steering and to further integrate the financed emissions calculation, climate risk data and EU taxonomy classification into our business strategies and risk evaluations.

With our corporate clients we launched a sustainability linked loan, with a process to link favourable interest rates if our corporate clients can report and meet ambitious and benchmarked targets linked to environmental and social goals. To our tenant owner customers, we offer support in energy efficiency, through

a partnership with Ecoclimate. A new calculator for energy usage guiding our private customer's in their potential energy effectiveness measures was developed under 2023 and will be launched in 2024, along with a specific loan for private clients for energy effectiveness measures, with a favourable interest rate.

SBAB is also committed to improving our data quality and calculations for our financed emissions, given that the target-setting methodology, as well as climate science will evolve over time.

Limitations

Despite our climate target being one of our five central business goals and prioritized highly within the organization, we understand that our ability to meet our targets is also dependent on many factors including energy prices, regulation and subsidies. If the mortgage and commercial real estate sectors are not decarbonizing, SBAB will not succeed in delivering upon our targets. However, SBAB is committed to proactively working together with customers, partners, the government and civil society on this journey.

Going forward, the aim is to increase the quality of the data and limit the use of estimates. Furthermore, the pathways and climate science continue to develop and the geopolitical situation around the world continues to change. Therefore, the targets will be reviewed at least every five years, to ensure alignment with the latest climate science.

⁶On the findings of climate science on global warming and on the political decisions agreed upon in the Paris Agreement, the real estate industry requires guidance in order to meet the sector's decarbonization ambition regarding the respective 'fair share' of the real estate industry. To enable Net-Zero commitments and ensure a decarbonized economy in the Carbon Risk Real Estate Monitor initiative (CRREM initiative) has derived country-specific carbon- and energy-reduction pathways that are aligned with the requirements of the Paris Agreement to limit global warming to a maximum of 1.5°C, thus ensuring that defined sector thresholds are not exceeded. CRREM follows the sectoral decarbonization pathway.

Emissions from our operations

Data and sources

Data is collected from SBAB offices in Stockholm, Karlstad, Gothenburg, and Malmö, as well as from the Booli office. Booli is a subsidiary of SBAB. The climate calculations are based on the latest available data as of 31 December 2023.

The tool used to calculate our emissions is Our Impacts⁷ and all data and information is verified by external consultants at U&We. The Our Impact tool includes emission factors that are collected from international and scientifically approved sources. In any cases where specific emission factors for Sweden are available, they were used. Sweden specific emission factors were used, for example, for renewable electricity, district heating and emissions data from the Swedish Railways (SJ).

Data quality

Data can either be actual, i.e., taken from accounting, reports etc., or estimated according to a method of calculation. 100 per cent of the emissions for 2023 are based on actual data. We improved our data quality during 2023.

Methodology

The standard used in the calculation is the Greenhouse Gas Protocol (GHG Protocol), developed by the World Resources Institute and the World Business Council for Sustainable Development.

Emissions⁸

tCO ₂ e	2023	2022	2021	2020	2019	2018	2017
District heating	10.3	22.3	29.4	15.7	26.0	24.7	23.9
District cooling	0.1	0	0	0.2			
Electricity	28.9	26	37.4	52.6	26.5	12.1	10.8
Water consumption	0.5	0.3	0.5	0.3	0.3	0.4	
Waste for incineration	0.1	0.1	0.1	0.1	0.4	0.06	0.4
Company cars	0	0	0	0.7	15.4	15.5	21.4
Flight	66.6	38.6	9	35.8	131.6	130.3	115.9
Trains	0.2	0.1	0.1	0	0.4	0.4	0.4
Copying paper	0.3	0	0	0.8	0.7	0.5	
Employees' cars	17.3	29.5	22.1	23.6	11.7	5.6	7.3
Taxi	5	2.3	0.7	1.1	3.3	3.6	3.7
Server centres	22.3	54.7	31.8	24.8	88.6		
IT equipment	366.9	119.4	322.8	439.3	209.2		
Hotel nights	6.4	18.5	8	6.8	19.6		
Total	525	311.8	461.9	601.8	533.7	193.3	183.8

⁷⁾ Our Impacts is a tool for organizations that want to collect data to calculate their carbon footprint and set ambitious climate targets. The tool is web-based and thus enables a decentralized data collection. The tool works according to accounting principles and allows for auditors to perform audits directly in the program platform. The tool generates reports on the company's carbon footprint and compiles the results according to the requirements of the GHG Protocol.

⁸⁾ The emissions from our operations were calculated using a market-based methodology. More information on the methodology and calculations in full can be found in our Climate Accounting 2023 (Klimatbokslut 2023) and Climate Analysis 2023 (Analys Klimatbokslut 2023) published in Swedish on sbab.se

Reduction target for emissions from our operations

SBAB has a reduction target of 15% until 2025 on scope 2 and 3 upstream⁹ (SBAB has no scope 1 emissions). In our process to set a Science Based target, we will need to update our current reduction target for emissions from our operations.

A working group with representatives from departments of tech, user experience, facility management and sustainability work actively to achieve our targets and improve our climate impact.

⁹ Scope 3 downstream, financed emissions, is reported in section 3 of this report.

Conclusion

SBAB took significant steps in our work with climate with increased focus on the areas where we have the largest potential impact, which is guiding and providing incentives to our customers to be more energy efficient and climate smart. By setting a climate target with related annual targets as that is one of our five central business goals, we can continually focus on improving internal data systems, understanding our customer's needs, and developing our products and service offering to support

customers through the green transition. This year, we learned more about our customer's needs when it comes to making decisions related to energy efficiency measures; and used that information to develop energy calculators, and launch and test new products and partnerships to create incentives towards a green transition. With our financed emissions reporting, we seek to be transparent and committed to adapt our work to the latest climate science.

SBAB!