

# Sellier & Bellot

Corporate Carbon Footprint 2024  
Scope 1–3 Results

February 2025



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# Carbon footprint calculation methodology

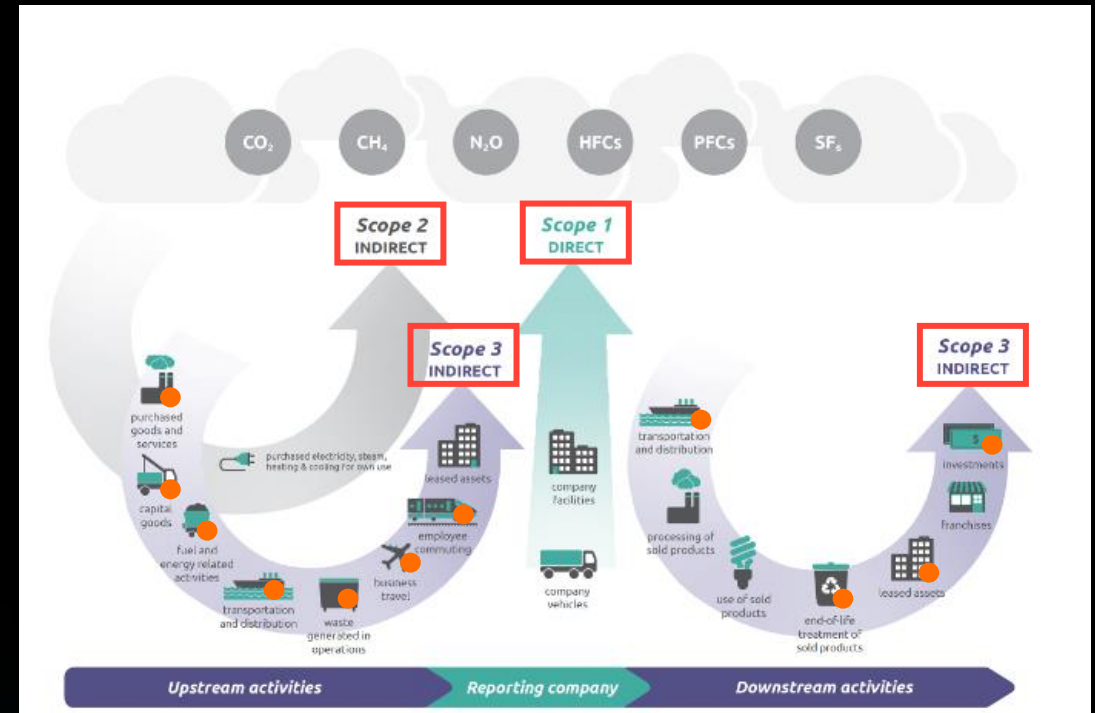


# Carbon footprint calculation methodology

## The scope of the CCF calculation

Category	Approach
<b>Scope 1</b> Direct emissions	Included
<b>Scope 2</b> Indirect emissions (electricity, steam, heat, or cooling)	Included
<b>S3.1</b> Purchased Goods and Services	Included
<b>S3.2</b> Capital Goods	Included
<b>S3.3</b> Fuel- and Energy-Related Activities not Included in Scope 1 and Scope 2	Included
<b>S3.4</b> Upstream Transportation and Distribution	Included
<b>S3.5</b> Waste Generated in Operations	Included
<b>S3.6</b> Business Travel	Included
<b>S3.7</b> Employee Commuting	Included
<b>S3.8</b> Upstream Leased Assets	Not included
<b>S3.9</b> Downstream Transportation and Distribution	Included
<b>S3.10</b> Processing of Sold Products	Not included
<b>S3.11</b> Use of Sold Products	Not included
<b>S3.12</b> End-of-Life Treatment of Sold Products	Included
<b>S3.13</b> Downstream Leased Assets	Included
<b>S3.14</b> Franchises	Not included
<b>S3.15</b> Investments	N/A

The CCF calculation was done for Scope 1, Scope 2 and Scope 3 (relevant categories)



Source: GHG Protocol; <https://ghgprotocol.org/blog/you-too-can-master-value-chain-emissions>

### Legend:

Included in Scope 3 calculation

Not included in Scope 3 calculation

# Carbon footprint calculation

## Step-by-step

### Single steps:

1. **Choosing company boundaries**
2. Identification of activity data
3. Identification of valid emission factors
4. Use of conversion factor and conversion coefficients
5. Assessment of the type of greenhouse gases and, if necessary, the use of GWP (Global Warming potential)
6. Calculation of emissions



### Choosing company boundaries

- Determining the company's boundaries and the concept of "control" are key aspects in determining whether emitted emissions will be classified as Scope 1, Scope 2 or Scope 3.
- In general, where it is possible to directly control emissions, they should be classified as Scope 1 or Scope 2.
- **Control approach** with an operational control was used for the CCF calculation.
- The operational control approach is currently **the most common** approach seen in Non-financial reporting.

# Carbon footprint calculation methodology

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### Identification of activity data

- Activity data represent, for example, the energy carriers (coal, oil and oil products, natural gas...) and energy (considers electricity...) consumed entering the combustion processes of energy production (obtained by measurement, calculation or from invoices), but also information on purchased goods, waste production, business trips and other data related to Scope 3
- Data on **fuel** consumption (from records or invoices),
- The obtained consumption value must be recalculated according to the caloric value (here according to the current NID and the value for the given state)
- Data on consumption/leakage of **F gases** (from records or invoices). The obtained value in kg considers the consumption from cooling and air conditioning or other relevant equipment
- Data on the consumption of purchased **electricity, heat, cooling...** (from measurements or invoices)
- Activity data were collected by means of quantitative questionnaires completed by individual entities

EMS Ref.	Table 5.1	Unit	Value	Comment	Explanatory notes
13-6, 18-16	A1	Fuel consumption of coal and coal products	MWh		Sum of black coal and lignite below
	1	Lignite	MWh		In case of conversion to energy units, please, indicated type of calorific value used (GCV/NCV) and value in the comment box.
	2	Supplier-specific emission factor	CO2e/MWh		Location-specific or Supplier-specific emission factor is used in GHG emissions calculation. Source of emissions factor should be provided in the comment. Fill in only if available!
	3	Brown coal	MWh		In case of conversion to energy units, please, indicated type of calorific value used (GCV/NCV) and value in the comment box.
	4	Supplier-specific emission factor	CO2e/MWh		Location-specific or Supplier-specific emission factor is used in GHG emissions calculation. Source of emissions factor should be provided in the comment. Fill in only if available!
	5	Brown-black coal	MWh		In case of conversion to energy units, please, indicated type of calorific value used (GCV/NCV) and value in the comment box.
	6	Supplier-specific emission factor	CO2e/MWh		Location-specific or Supplier-specific emission factor is used in GHG emissions calculation. Source of emissions factor should be provided in the comment. Fill in only if available!
	7	Bituminous coal	MWh		In case of conversion to energy units, please, indicated type of calorific value used (GCV/NCV) and value in the comment box.
	8	Supplier-specific emission factor	CO2e/MWh		Location-specific or Supplier-specific emission factor is used in GHG emissions calculation. Source of emissions factor should be provided in the comment. Fill in only if available!
	9	Anthracite	MWh		In case of conversion to energy units, please, indicated type of calorific value used (GCV/NCV) and value in the comment box.
	10	Supplier-specific emission factor	CO2e/MWh		Location-specific or Supplier-specific emission factor is used in GHG emissions calculation. Source of emissions factor should be provided in the comment. Fill in only if available!
13-6, 18-16	A2	Fuel consumption of crude oil and petroleum products	MWh		Sum of petroleum products below
	1	Propan-butane	MWh		Liquefied or gaseous mixture of propane and butane. In case of conversion to energy units, please, indicated type of calorific value used (GCV/NCV) and value in the comment box.
	2	Supplier-specific emission factor	CO2e/MWh		Location-specific or Supplier-specific emission factor is used in GHG emissions calculation. Source of emissions factor should be provided in the comment. Fill in only if available!
	3	Propane	MWh		Colorless, odorless, flammable gas, heavier than air. In case of conversion to energy units, please, indicated type of calorific value used (GCV/NCV) and value in the comment box.
	4	Supplier-specific emission factor	CO2e/MWh		Location-specific or Supplier-specific emission factor is used in GHG emissions calculation. Source of emissions factor should be provided in the comment. Fill in only if available!
	5	Light heating oils	MWh		Flammable liquid chemically and physically similar to diesel fuel. In case of conversion to energy units, please, indicated type of calorific value used (GCV/NCV) and value in the comment box.
	6	Supplier-specific emission factor	CO2e/MWh		Location-specific or Supplier-specific emission factor is used in GHG emissions calculation. Source of emissions factor should be provided in the comment. Fill in only if available!
	7	Heavy heating oils	MWh		Black heavy liquid containing sulfur (also known as fuel oil). In case of conversion to energy units, please, indicated type of calorific value used (GCV/NCV) and value in the comment box.
	8	Supplier-specific emission factor	CO2e/MWh		Location-specific or Supplier-specific emission factor is used in GHG emissions calculation. Source of emissions factor should be provided in the comment. Fill in only if available!

# Carbon footprint calculation methodology

## Step-by-step

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### Identification of valid emission factors

- Requirement for Appropriate, Consistent and Best Available (ESRS)
- Commonly used general ones from databases such as EPA (USA), DEFRA (UK), UNFCC, Environmentally-Extended Input-Output 2024 (DBEIS) or other relevant sources
- Selected annually updated, source data of emission factors of energy carriers and fuels from the UNFCCC inventory by country - NID and annexes in CRT
- The source data of emission factors for the production of electricity and heat can be specified from information from state authorities in selected countries or from calculations (MPO, IEA, AIB...)



The Ministry of Industry and Trade publishes the emission factor of electricity production for the Czech Republic.



U.S. Environmental Protection Agency operates GHG Emission Factors Hub, which provides default emission factors for various sectors and activities.



Department for Environment, Food & Rural Affairs provides emission factors that can be used to report on GHG emissions by UK organisations and international organisations reporting on UK operations



The GHG Inventory contains a pre-defined format emissions inventory that all EU member states are required to submit based on the UN Framework Convention on Climate Change (UNFCCC). The inventory includes NID (National Inventory Document) and CRT (Common Reporting Tables).



Greenhouse Gas On its website, the Protocol aggregates information and links to other available databases of emission factors specific to various sectors and territorial units



Intergovernmental Panel on Climate Change (IPCC) regularly publishes scientific reports, the so-called Assessment Reports, where emission factors and other conversion factors are used for emission calculations.



# Carbon footprint calculation methodology

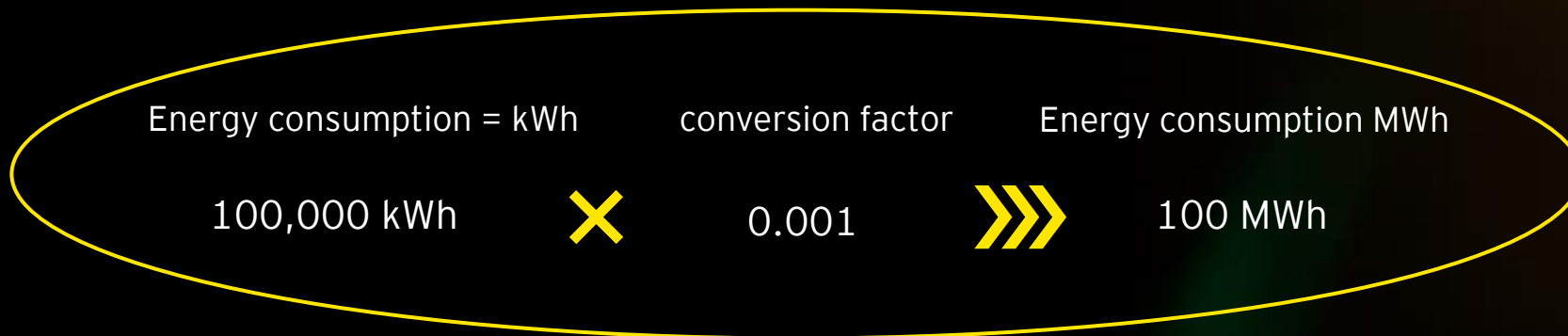
## Step-by-step

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### Using a conversion factor

- If activity data and emission factors have different units, conversions and conversion factors must be applied to match the units
- A conversion factor is a defined value used to change one set of units to another (e.g. kWh to MWh , MWh to TJ)
- Conversion factors are generally widely accepted and never change, they must come from a trusted and verified source (in this case from Annex II of the IPCC Sixth Assessment Report)





# Carbon footprint calculation methodology

## Step-by-step

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AR6 Synthesis Report  
Climate Change 2023


ipcc

Chlorofluorocarbons				
CFC-11	CCl <sub>3</sub> F	4,750	4,660	6,230
CFC-12	CCl <sub>2</sub> F <sub>2</sub>	10,900	10,200	12,500
CFC-13	CClF <sub>3</sub>	14,400	13,900	16,200
CFC-112	CCl <sub>2</sub> FCCl <sub>2</sub> F			4,620
CFC-112a	CCl <sub>3</sub> CClF <sub>2</sub>			3,550
CFC-113	CCl <sub>2</sub> FCClF <sub>2</sub>	6,130	5,820	6,520
CFC-113a	CCl <sub>3</sub> CF <sub>3</sub>			3,930
CFC-114	CClF <sub>2</sub> CClF <sub>2</sub>	10,000	8,590	9,430
CFC-114a	CCl <sub>2</sub> FCF <sub>3</sub>			7,420
CFC-115	CClF <sub>2</sub> CF <sub>3</sub>	7,370	7,670	9,600
E-R316c	trans cyc (-CClFCF <sub>2</sub> CF <sub>2</sub> CClF-)			4,230
Z-R316c	cis cyc (-CClFCF <sub>2</sub> CF <sub>2</sub> CClF-)			5,660

Source: <https://www.ipcc.ch/assessment-report/ar6/>

### Assessment of the type of greenhouse gases and, if necessary, the use of GWP (Global Warming potential)

- GWP is an indicator of the effect of a given substance on global warming, describing the radiative effect (degree of damage to the atmosphere) of one unit of a given greenhouse gas relative to one unit of CO<sub>2</sub>.
- GWP uses a 100-year time horizon where CO<sub>2</sub> is the reference gas with a specified 100-year GWP 1
- GWP values are published by the GHG protocol for common greenhouse gases and are based on the Sixth Assessment Report of the Intergovernmental Panel on Climate Change (IPCC).



GREENHOUSE  
GAS PROTOCOL

IPCC Global Warming Potential (GWP) values relative to CO<sub>2</sub>

Common chemical name or industrial designation	Chemical formula	GWP values for 100-year time horizon		
		Fourth Assessment Report (AR4)	Fifth Assessment Report (AR5)	Sixth Assessment Report (AR6)
Major Greenhouse Gases				
Carbon dioxide	CO <sub>2</sub>	1	1	1
Methane – non-fossil	CH <sub>4</sub>	25	28	27.0
Methane – fossil	CH <sub>4</sub>	N/A	30	29.8
Nitrous oxide	N <sub>2</sub> O	298	265	273
Nitrogen trifluoride	NF <sub>3</sub>	17,200	16,100	17,400

Source: GHG Protocol; <https://ghgprotocol.org/sites/default/files/2024-08/Global-Warming-Potential-Values%20%28August%202024%29.pdf>

# Carbon footprint calculation methodology

## Step-by-step

### Single steps:

1. Choosing company boundaries
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6. **Calculation of emissions**

### Calculation of emissions

- The last step in the whole process
- Application of the calculation procedure using activity data and appropriate emission factors
- The final calculation of emissions presents the amount of GHG emissions emitted in the given year and expressed in **tons of CO<sub>2</sub> equivalent** (tCO<sub>2</sub>e)







# CCF Results



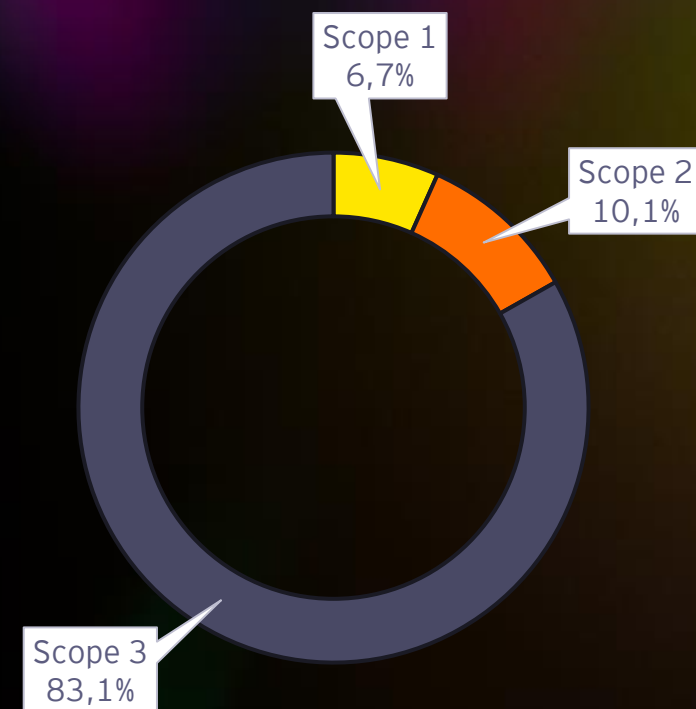
# CCF Results

## Sellier & Bellot Scope 1, 2 and 3 results in 2024

- ▶ Sellier & Bellot has emitted total of 75 578 tCO<sub>2</sub>e
- ▶ That is 46,4 tCO<sub>2</sub>e per employee
- ▶ The overall GHG intensity:
  - ▶ LB: 15,29 tCO<sub>2</sub>e/mil. Kč
  - ▶ MB: 16,5 tCO<sub>2</sub>e/mil. Kč
- ▶ The majority of Sellier & Bellot's emissions come from indirect emissions - Scope 3, representing 83,1% of the total GHG emitted
- ▶ The results are based on data collected for period 01-12/2024

	tCO <sub>2</sub> e	%
Scope 1	5 051	6,7
Scope 2 LB	7 656	10,1
Scope 2 MB	13 628	-
Scope 3	62 871	83,1
Total	75 578	100

Sellier & Bellot total GHG emissions per Scope ratio



# Carbon footprint calculation results

## Sellier & Bellot Scope 1 & 2

- Identified sources of emissions associated with GHG emitted were caused by consumption of:

			Input data	tCO <sub>2</sub> e
Non-RES	Natural Gas	MWh	23 016	4 628
	Gasoline	l	2 036	5
	Diesel	l	144 504	387
	Propane	kg	968	3
	Electricity	MWh	20 693	7 656
F-gases	R404a	kg	5,9	28

- It was taken into account whether the purchased energy (electricity) comes from renewable sources (RES) or non-renewable sources (Non-Res).
- In 2024 there was **0 MWh** consumed from RES

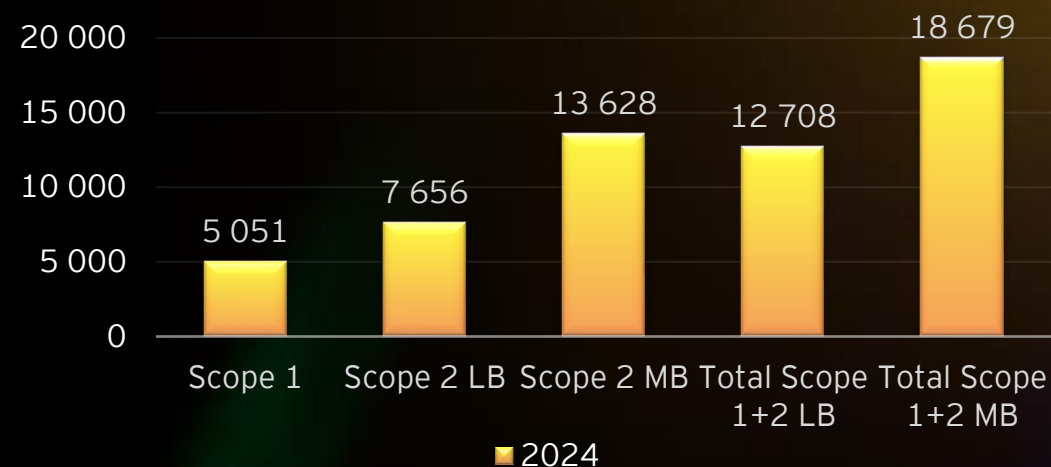
- Scope 2 emissions results were calculated using both the Location-based method (LB) and the Market-based (MB) method

**Location-based method** reflects the grid average intensity in given location, where energy consumption occurs

X

**Market-based method** reflects used market instruments purposefully chosen by the company, e.g. PPA, Guarantees of origin etc. GOs

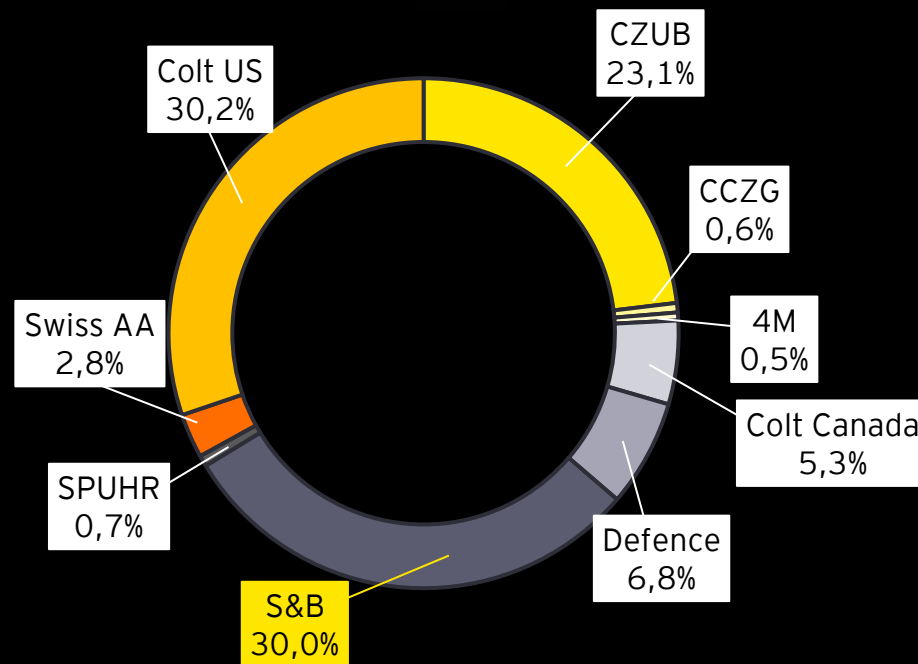
Scope 1 & 2 LB and MB results (in tCO<sub>2</sub>e)



# Carbon footprint calculation results

## Sellier & Bellot Scope 3 general overview

The contribution of Sellier & Bellot to the overall emissions of Colt CZ Group



\*Colt US represents results for Colt, CZ-USA, and Dan Wesson

### Colt CZ Group

- ▶ The calculation was done for emissions emitted in 2024
- ▶ Group has produced emissions totaling in **209 859 tCO<sub>2</sub>e**

### Sellier & Bellot

- ▶ In 2024 Sellier & Bellot produced **62 871 tCO<sub>2</sub>e** in total
- ▶ Share on Colt CZ Group's total emissions is **29,96 %**

### Methodology

- ▶ The emissions were quantified using the most accurate method possible based on the available input data
- ▶ Following the outlined conditions, the **spend-based (SP)** method was used for 4 categories, the **waste-type-specific (WTS)**, **average data (AD)** and **distance-based (DB)** methods for 2 categories and **fuel-based (FB)** method for 1 category

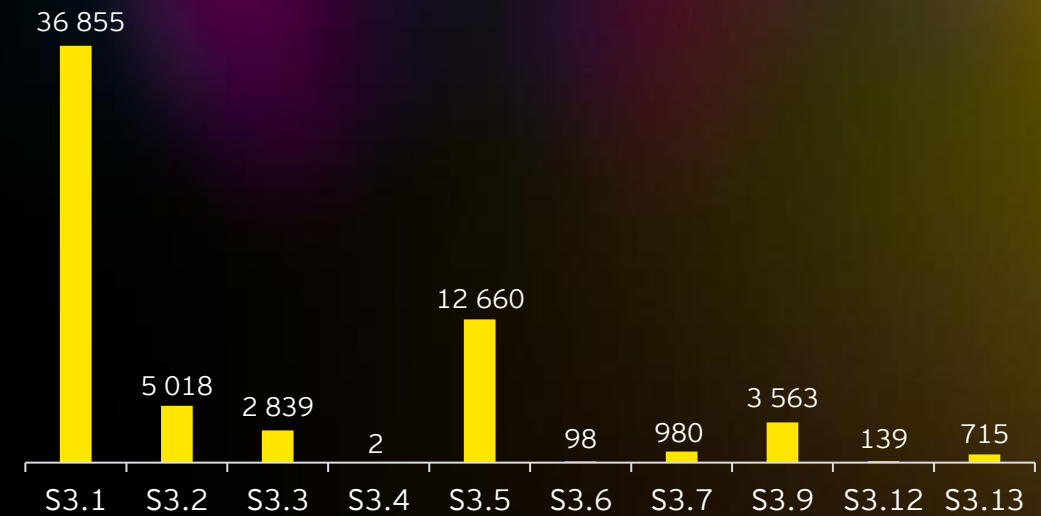


# Carbon footprint calculation results

## Sellier & Bellot Scope 3 insight

Unit	tCO <sub>2</sub> e	%	Method
S3.1 Purchased Goods and Services	36 855	59	SP
S3.2 Capital Goods	5 018	8	SP
S3.3 Fuel- and Energy-Related Activities Not Included	2 839	5	AD
S3.4 Upstream Transportation and Distribution	2	0,003	SP
S3.5 Waste Generated in Operations	12 660	20	WTS
S3.6 Business travel	98	0,16	DB
S3.7 Employee Commuting	980	2	FB+DB
S3.9 Downstream Transportation and Distribution	3 563	6	SP
S3.12 End-of-Life Treatment of Sold Products	139	0,2	WTS
S3.13 Downstream Leased Assets	715	1	AD
<b>Total</b>	<b>62 871</b>		

Sellier & Bellot Scope 3 categories (tCO<sub>2</sub>e)



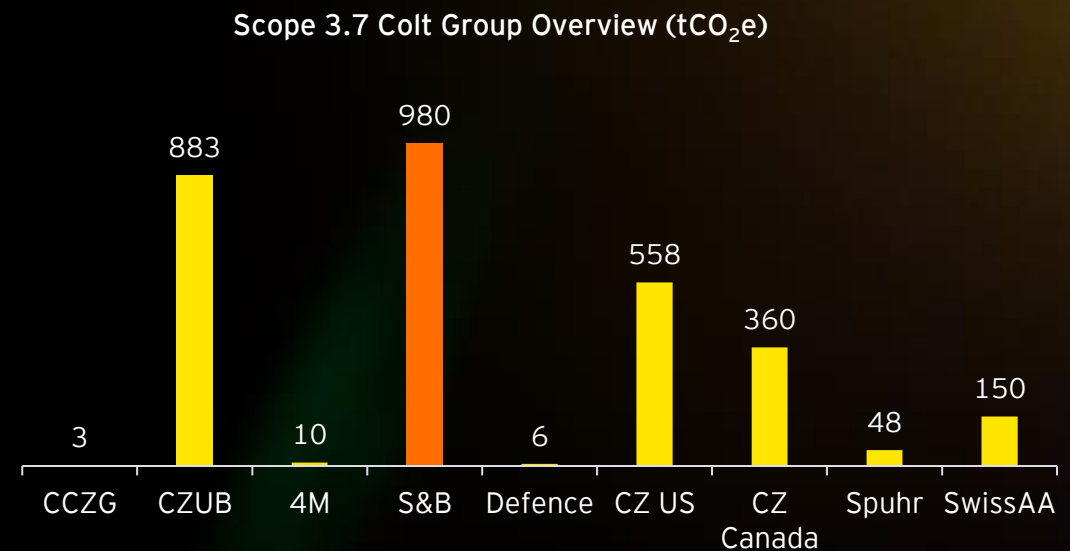
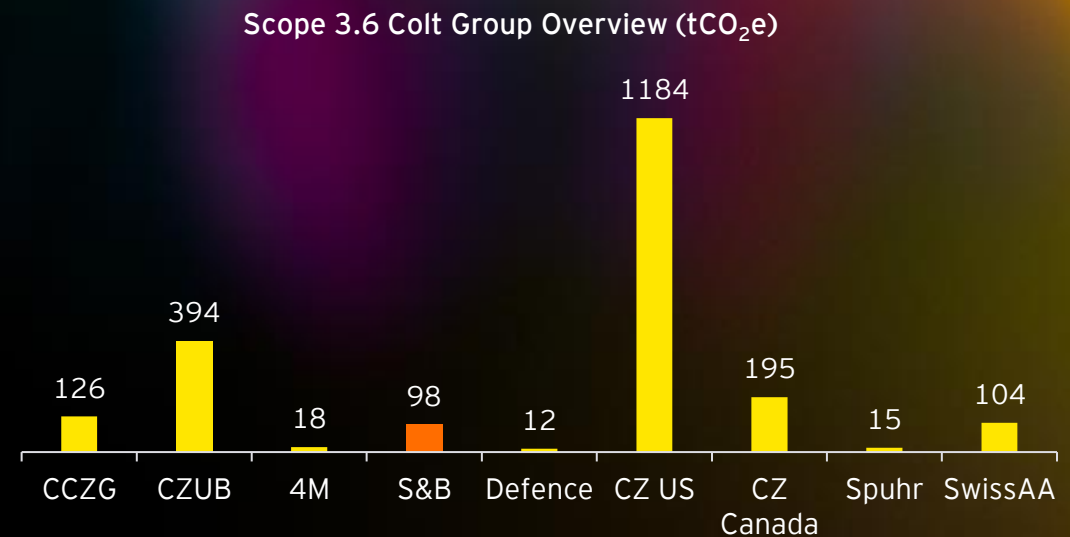
- ▶ The highest share on the GHG represents category **S3.1** (59 %).
- ▶ Categories **S3.8**, **S3.10**, **S3.11** and **S3.14** were not included, category **S3.15** is not relevant for the entity.

# Carbon footprint calculation results

Sellier & Bellot Scope 3.6 and 3.7

- ▶ Sellier & Bellot has produced total of **98 tCO<sub>2</sub>e** by bussiness travel emissions (Scope S3.6)
- ▶ Sellier & Bellot has produced total **980 tCO<sub>2</sub>e** by employee commuting (Scope S3.7)
- ▶ That is **0,06 tCO<sub>2</sub>e per employee** for Scope S3.6 and **0,6 tCO<sub>2</sub>e per employee** for Scope S3.7

Entity	No. of employees
CCZG	31
CZUB	1 300
4M	16
Sellier & Bellot	1 630
Defence Solutions	8
CZ US	267
CZ Canada	133
Spuhr i Dalby	18
SwissAA	135







# Summary and next steps



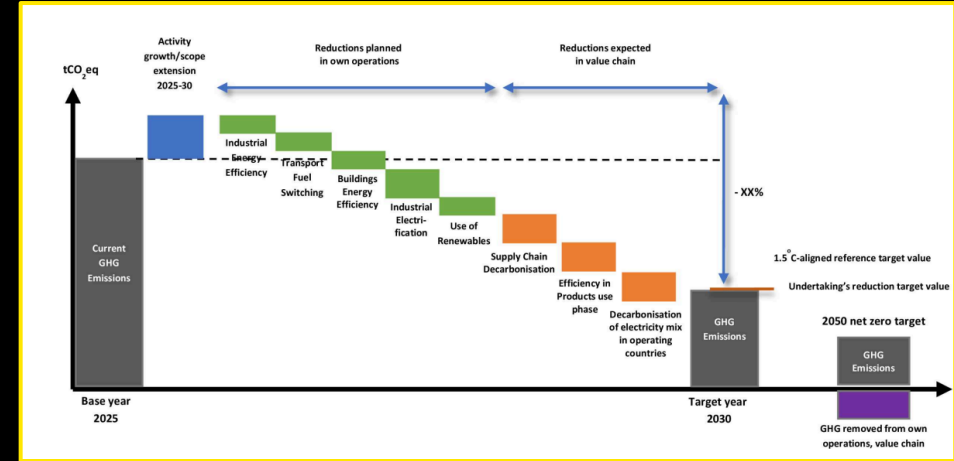
# Summary and next steps

## The path to reducing GHG emissions

- ▶ Based on the CCF results, it is possible to determine the options for reducing GHG emissions and set the corresponding **decarbonization strategy**
  - ▶ Target development - SBTi, CDP, TCDF
  - ▶ Identification of emissions hotspots
  - ▶ Identification of reduction opportunities within a company
  - ▶ Development of stakeholder engagement
  - ▶ Monitoring and measuring progress over time



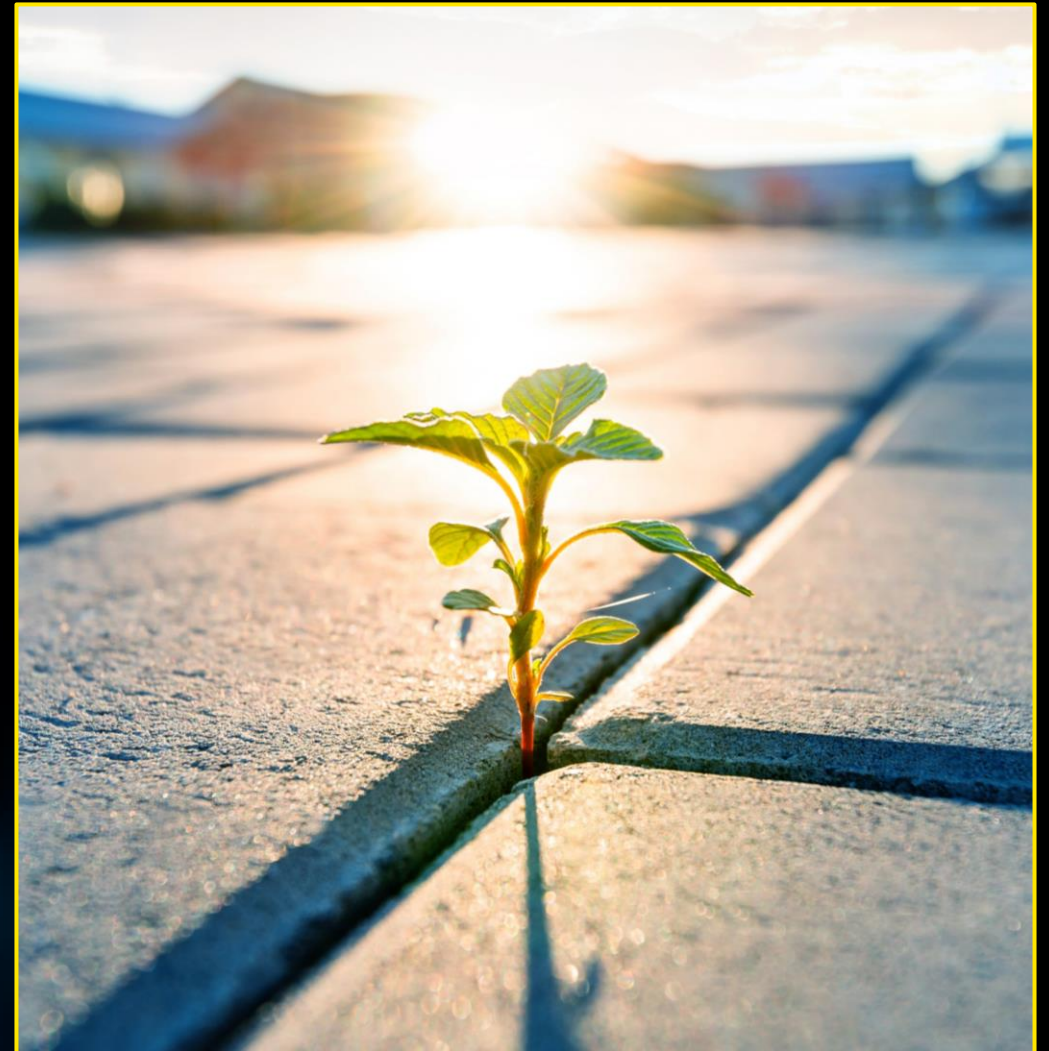
- ▶ Disclosure requirement **ESRS E1-1 Transition plan for climate change mitigation** states - *"The undertaking shall disclose its transition plan for climate change mitigation"*



# Summary and next steps

## Recalculation methodologies

- ▶ The availability of emission factors (EF) varies over time depending on the source publishing the EFs (NID - April, Ecoinvent - July, IEA - October...)
- ▶ The first available EFs to be used are issued by the UN Framework Convention on Climate Change (UNFCCC) - CRT & NID
- ▶ It will be necessary to recalculate methodologies for structural changes - companies are required to recalculate base year emissions when the changes with an impact on the inventory occur (e.g., changes in calculation methodologies)
- ▶ Base year recalculation policy should be developed and if applicable significant threshold (quantitative/qualitative) should be determined



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