



ESET, spol. s r.o.

GLOBAL CARBON FOOTPRINT REPORT 2022



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Disclosures to the ESET Carbon Footprint Report

ESET, spol. s r. o. (further referred to as “ESET”, “Company” or “we”) has undertaken a global carbon footprint calculation at ESET and its subsidiaries and prepared this Global Carbon Footprint Report for the year ended 31 December 2022 (further referred to as “Report”) in accordance with the Greenhouse Gas Protocol (further referred to as “GHG Protocol”) in cooperation with PricewaterhouseCoopers Slovensko, s.r.o. (further referred to as “PwC” or “you”) as described below.

PwC’s responsibilities

The scope of PwC’s work included the calculation of the carbon footprint in scope 1, scope 2 and scope 3 (indirect emissions category: purchased goods and services, fuel and energy-related activities (not covered in scopes 1 or 2), waste generated in operations, business travel, employee commuting, upstream leased assets) for ESET in accordance with the GHG Protocol and the application of the GHG methodology based on the input data provided by ESET and decisions made by ESET.

PwC has not made any verification procedures for the collected data provided by ESET.

ESET responsibilities

ESET is solely responsible for the accuracy and completeness of the input data and information provided, and for internal control and processes ESET determines are necessary for the preparation of input data and sustainability reporting free from material misstatement, whether due to fraud or error.

PwC has not carried out anything in the nature of an audit, nor has it subjected financial or other information contained in this report to verification procedures. Accordingly, PwC has no responsibility and makes no representations with respect to the accuracy or completeness of the information in this report.

Due to the limited scope of work performed by PwC and due to the fact the procedures were not intended to constitute either an audit, review, or any other form of assurance engagement performed in accordance with applicable auditing, review or other assurance standards, PwC does not express any form of assurance as regards the carbon footprint calculation, or this report in the form of an opinion or overall conclusion.

GLOSSARY OF TERMS

AIB	Association of Issuing Bodies
APAC	Asia Pacific
AR	Argentina
AUS	Australia
BR	Brazil
BEVs	Battery Electric Vehicles
CA	Canada
CH ₄	Methane
CNG	Compressed natural gas
CO ₂	Carbon dioxide
CO ₂ e	Carbon dioxide equivalent
CZ	Czech Republic
DACH	Germany (D), Austria (A), and Switzerland (CH)
DDR	Double Data Rate
DE	Germany
DEFRA	Department for Environment Food & Rural Affairs
DESNZ	Department for Energy Security and Net Zero
EF	Emission Factor
eGRID	Emissions & Generation Resource Integrated Database
EIB	European Investment Bank
EPA	Environmental Protection Agency
EU	European Union
EU taxonomy	Regulation (EU) 2020/852 of the European Parliament and of the Council on the establishment of a framework to facilitate sustainable investment, and amending Regulation (EU) 2019/2088
GHG emissions	Greenhouse Gas emissions
GHG Protocol	Greenhouse Gas Protocol
GRI	Global Reporting Initiative
HDD	Hard Disk Drive
HDF	High Density Fibreboard
HDPE	High-density polyethylene
HCFCs	Hydrofluorocarbons

HVAC	Heating, ventilation, and air conditioning
IT	Information technology
IT	Italy
JP	Japan
LATAM	Latin America
LDT	Low-density timber
MFP	Multi-Function Panel
MX	Mexico
n/a	Not applicable
N ₂ O	Nitrous oxide
NORAM	North America
OSB	Oriented Strand Board
PE	Polyethylene
PE_RT	Polyethylene of raised temperature resistance
PET	Polyethylene terephthalate
PFCs	Perfluorocarbons
PL	Poland
PMMA	Polymethyl methacrylate
PPR	Polypropylene Random Copolymer
PVC	Polyvinyl chloride
PwC	PricewaterhouseCoopers
R&D	Research and Development
RE-DISS II	Reliable Disclosure Systems for Europe – Phase II.
RO	Romania
S&M	Sales and Marketing
SF ₆	Sulphur hexafluoride
SG	Singapore
SK	Slovak Republic
t	Tonne
T&D	Transmission and distribution
UK	United Kingdom
US	United States
WRI	World Resources Institute
WTT	Well-to-tank

EXECUTIVE SUMMARY

Stakeholders are becoming ever more aware that companies must also be accountable for their value chains, as well as their own operations. In this context, the carbon footprint serves as a quantitative basis for action. It is also a requirement for compliance with reporting frameworks such as the Global Reporting Initiative (GRI), the EU Taxonomy, and expanding reporting standards on corporate sustainability.

This report on the carbon footprint calculation by the ESET Group presents an overview of the greenhouse gases emitted across the value chain and identifies the primary contributors to the emissions.

ESET Group collected data on direct and indirect greenhouse gas emissions in scopes 1, 2, and 3 in accordance with the Greenhouse Gas Protocol, a pivotal carbon accounting standard. The carbon footprint calculation includes relevant greenhouse gases specified by the Kyoto Protocol, which are converted to CO₂ equivalents, ensuring comparability of values among data inputs. Therefore, an intensive data collection was conducted with the involvement of the 21 ESET offices in the Slovak Republic, Czech Republic, Poland, Italy, Romania, Germany, United Kingdom, United States, Canada, Australia, Singapore, Brazil, Argentina, and Mexico.

Based on the origin of the emissions, they are divided into three scopes:

- Scope 1: Direct emissions: emissions from the company's combustion or refrigerants (e.g. for heating, cooling, and use of fuel by the company's fleet)
- Scope 2: Indirect emissions: emissions from purchased electricity, steam, heating, and cooling for own use
- Scope 3: Indirect emissions: all emissions not covered in scopes 1 and 2 created by the company's value chain

According to the specifications, the electricity consumption (scopes 2 and 3) is divided into two approaches: market-based and location-based (table below). The market-based method takes into consideration the specific electricity mix of the contracted supplier. The location-based method considers the average electrical mix of the country. In countries with no available information on the electrical mix, calculations use the residual mix, which represents the remaining energy mix after the sale of green electricity certificates. The general results from the carbon footprint calculation in scopes 1, 2, and 3 are presented below.

Emissions by GHG Scope (in tonnes CO ₂ e)		
GHG Scope	Location-based	Market-based
Scope 1	897,65	897,65
Scope 2	738,28	794,22
Scope 3	4 847,9	4 597,99
Grand Total	6 483,85	6 289,86
Total per employee	3,00	2,91

Scope 3 contributes the most to the overall carbon footprint of ESET Group with about 75% GHG emissions arising from it. In comparison, scope 1 makes up ca. 14% of the overall emissions and scope 2 about 11%. Emissions per employee in the location-based approach are 3 tonnes of CO₂e and in the market-based approach 2.91 tonnes of CO₂e.

In scope 1, heating contributes the most towards the overall emissions, emitting 412.46 tonnes of CO₂e, representing 46% of total scope 1 emissions.

Emissions in scope 2 are dominated by purchased electricity, with 633.82 tonnes of CO₂e emissions, which represent 86% of total location-based emissions in scope 2 and 693.86 tonnes of CO₂e emissions, which represent 87% of total market-based emissions. The difference is explained by non-renewable energy impacting the climate in the market-based approach, as the emission factor does not take into consideration green electricity certificates.

The largest contribution to scope 3 emissions is employee commuting, with 1 698.38 tonnes of CO₂e emitted, including homeworking emissions, that are dominant in the category (52%), followed by employees commuting to the office by car (43%). The purchased goods emit 1 033.54 tonnes of CO₂e as the second driver of emission in scope 3.

When it comes to results by entities, ESET Slovakia contributes the most to total ESET Group carbon footprint, making up 49% (in the location-based approach) of ESET Group's emissions and 46% (in the market-based approach) of total ESET Group's emissions. ESET NORAM is the second largest driver of emissions of ESET Group contributing 18% and 19% to total ESET Group's emissions in the location- and market-based approach respectively. Third largest proportion of emissions of ESET Group comes from ESET Research Czech Republic and represents about 7% of total carbon footprint of ESET Group. In all three entities scope 3 is responsible for the most emissions. Furthermore, an important factor for the size of carbon footprint of the entities is also the number of employees. For example, even though ESET Slovakia produces the largest proportion of total Groups' emissions, the emissions per employee are among the lowest with 2.5 tonnes CO₂e per employee. In these regards, ESET NORAM and ESET Italy have the highest emissions per employee with 5.5 tonnes CO₂e and 5.24 tonnes CO₂e respectively.

In general, data collection processes need to be unified at the global level and guidelines for estimation methods need to be created in order to support accurate and harmonised reporting of emissions in the future.

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1. INTRODUCTION

Objective

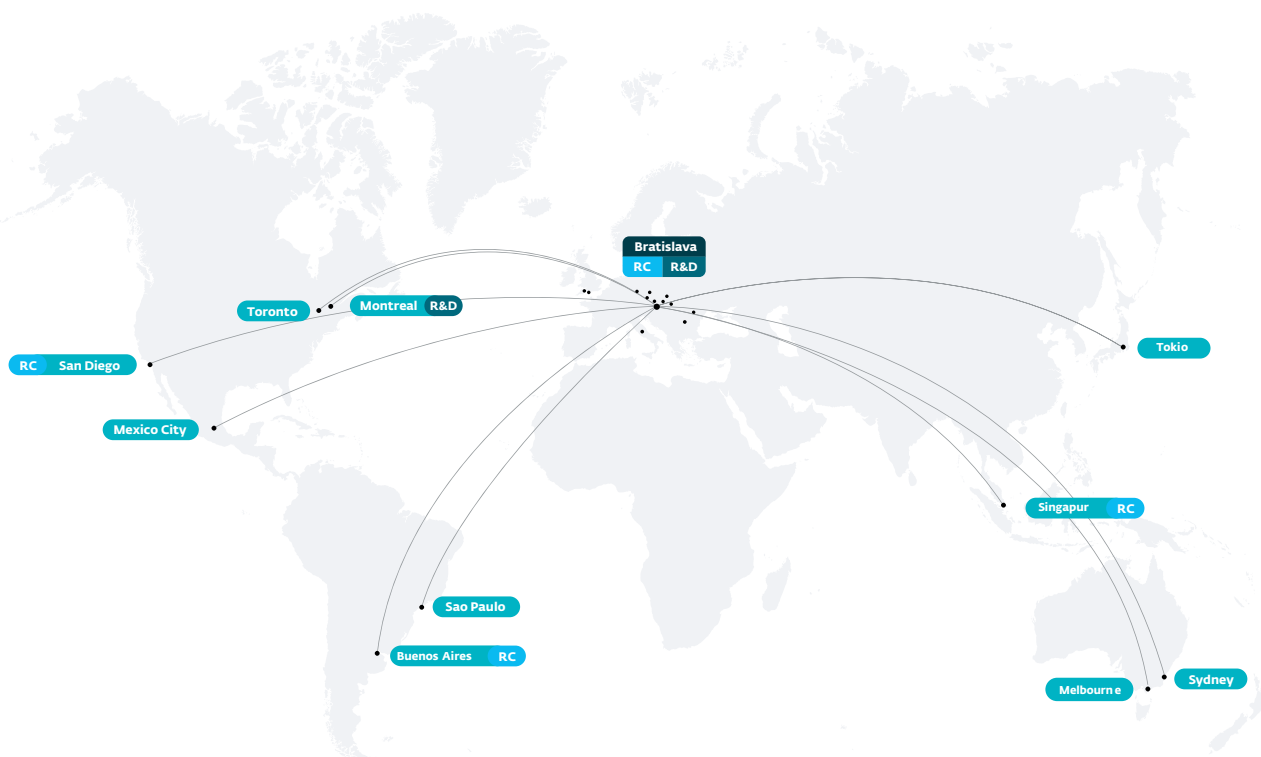
The objective of the project was to calculate the global corporate carbon footprint of ESET, spol. s r.o. (further referred to as “ESET” or “Company” or “we”) and our subsidiaries (further referred to as “ESET Group”, “ESET entities”, or “ESET offices”). To simplify the process of the global carbon footprint calculation and reporting, 11 reporting entities were formed for this purpose to represent all the subsidiaries. Table 3 below lists the 11 reporting entities with corresponding locations and ESET offices. Throughout this report, we will be using the names of these 11 reporting entities as they are defined in Table 3. The carbon footprint was calculated for the period 1 January 2022 – 31 December 2022 (further referred to as “the year 2022”) and covers 21 offices in 14 countries¹. The carbon footprint calculation of ESET Group was carried out for the first time; therefore, the year 2022 will be used as the base year for future calculations.

Company profile and structure

ESET is a Slovak IT security company founded in 1992. It is headquartered in Bratislava, Slovak Republic. Its main business is the development of software to protect computers, computer networks, and other devices from malware, and the sale of licenses for this software. Globally, ESET employs 2 181 people in 24 offices in 15 countries, of which 10 are research and development centres. Figure 1 shows the group structure.

¹ The offices in Munich, Melbourne and Tokyo were not included in the calculations as their data was not available at the time of the calculation.

Figure 1: ESET Group structure



HQ	RC	Office	Global	R&D
Headquarter	Regional Center	Europe	Global	Research & Development
Bratislava (SK)	Bratislava (SK)	Bratislava (SK)	San Diego (US)	Bratislava (SK)
	San Diego (US)	Košice (SK)	Buenos Aires (AR)	Košice (SK)
	Buenos Aires (AR)	Žilina (SK)	Singapur (SG)	Žilina (SK)
	Singapur (SG)	Brno (CZ)	Toronto (CA)	Krakow (PL)
		Jablonec nad Nisou (CZ)	Montreal (CA)	Brno (CZ)
		Prague (CZ), 2 offices	Melbourne (AUS)	Jablonec nad Nisou (CZ)
		Jena (DE)	Sydney (AUS)	Prague (CZ)
		Munich (DE)	Mexico City (MX)	Taunton (GB)
		Krakow (PL)	Sao Paulo (BR)	Montreal (CA)
		Bournemouth (GB)	Tokio (JP)	Iași (RO)
		Taunton (GB)		
		Milan (IT)		
		Iași (RO)		

ESET Group comprises ESET, spol. s. r. o. — the parent company, regional and research and development center headquartered in the Slovak Republic — and all its subsidiaries, which are involved in the distribution of antivirus software, service provision, and research and development activities (further referred to as “R&D” centres).

Table 1: ESET Group subsidiaries and equity participation²

NAME	CATEGORY	EQUITY PARTICIPATION%	
		2021	2022
ESET, LLC (US)	Regional centre (RC)	100	100
ESET Canada Recherche Inc. (CA)	Research and development centre (R&D)	100	100
ESET Canada Inc. (CA)		100	100
ESET Deutschland GmbH (DE)		100	100
ESET software, spol. s r. o. (CZ)		100	100
ESET Research Czech Republic, s. r. o. (CZ)	Research and development centre (R&D)	100	100
ESET Polska Sp. z o. o. (PL)	Research and development centre (R&D)	100	100
ESET SOFTWARE UK Limited (UK)		100	100
PGNB Limited (UK) ⁽¹⁾		100	-
ESET RESEARCH UK Limited (UK)	Research and development centre (R&D)	100	100
ESET Romania S.R.L. (RO) ⁽²⁾	Research and development centre (R&D)	100	100
ESET ITALIA S.R.L. (IT)		100	100
Nadácia ESET (SK)		100	100
ESET ASIA PTE. LTD. (SG)	Regional centre (RC)	100	100
ESET Software Australia, PTY, LTD. (AUS)		100	100
ESET Japan Inc. (JP) ⁽³⁾			
ESET LATINOAMERICA SRL (AR) ⁽⁴⁾	Regional centre (RC)	100	100
ESET DO BRAZIL MARKETING LIMITADA (BR) ⁽⁵⁾		100	100
ESET MÉXICO S. de R.L. de C.V. (MX) ⁽⁶⁾		100	100

- (1) An application was submitted for the voluntary deletion of PGNB Limited from the commercial register in November 2021. Company PGNB Limited was deleted from the commercial register on April 19, 2022. PGNB Limited did not conduct any business in 2020.
- (2) ESET, spol. s r.o., owns 99.9963% while the subsidiary ESET Research Czech Republic s.r.o. owns 0.0037%
- (3) The parent company owns 90% of the shares and Canon Marketing Japan Inc. owns the remaining 10%.
- (4) The subsidiary ESET, LLC owns 90% of the shares and the parent company owns the remaining 10%.
- (5) The parent company owns 90% of the shares and the subsidiary ESET, LLC owns the remaining 10%.
- (6) The parent company owns 90% of the shares and the subsidiary ESET, LLC owns the remaining 10%.

2. METHODOLOGY

2.1 GHG Protocol

This report on the carbon footprint of ESET Group was prepared in line with the Corporate Accounting and Reporting Standard (revised edition), Scope 2 Guidance Amendment to the GHG Protocol Corporate Standard³, and Corporate Value Chain (scope 3)⁴ Accounting and Reporting Standard - a supplement to the GHG Protocol Corporate Accounting and Reporting Standard⁵ issued by the Greenhouse Gas Protocol (further referred to as “GHG Protocol”)⁵

The GHG Protocol is the outcome of a partnership between the World Resources Institute (further referred to as “WRI”) and the World Business Council for Sustainable Development. It is a set of voluntary standards for the accounting, reporting, and management of greenhouse gas emissions (further referred to as “GHG emissions”) for product and corporate carbon footprints, and is the most widely used framework for these purposes.

The GHG Protocol provides guidelines and standards for companies preparing an inventory of GHG emissions. It covers the accounting and reporting of the six greenhouse gases covered by the Kyoto Protocol: carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulphur hexafluoride (SF₆).

To help delineate direct and indirect emission sources and improve transparency, three “scopes” (scope 1, scope 2, and scope 3) are defined for GHG accounting and reporting purposes in order to avoid double counting. According to the GHG Protocol, companies must separately account for and report on scopes 1 and 2 at a minimum. Reporting on categories within scope 3 depends on the availability and quality of the data needed, and the relevance and the importance of the categories for the company.

Organisational boundaries

Initially, a carbon footprint calculation requires a company to set organisational boundaries. The GHG Protocol sets out two approaches to be used to determine organisational boundaries: the equity and the control approach.

Under the equity share approach, a company accounts for GHG emissions from operations according to its share of equity in the operation. Typically, the share of economic risks and rewards in an operation is aligned with the company’s percentage ownership of that operation, and the equity share will normally be the same as the ownership percentage.⁶

³ GHG Protocol Scope 2 guidance (2015) ghgprotocol.org. Available at: https://ghgprotocol.org/sites/default/files/ghgp/standards/Scope%20%20Guidance_Final_0.pdf (Accessed: 09 October 2023).

⁴ Corporate value chain (scope 3) standard: GHG protocol (2011) Corporate Value Chain (Scope 3) Standard | GHG Protocol. Available at: <https://ghgprotocol.org/corporate-value-chain-scope-3-standard> (Accessed: 09 October 2023).

⁵ GHG Protocol (2004) A Corporate Accounting and Reporting Standard – Revised Edition. Available at: <http://www.ghgprotocol.org/sites/default/files/ghgp/standards/ghg-protocol-revised.pdf> (Accessed 05 October 2023).

⁶ Ibid, p. 19.

Under the control approach, a company accounts for 100% of the GHG emissions from operations over which it has control. It does not account for GHG emissions from operations in which it owns an interest but has no control. Control may be defined in either financial or operational terms. When using the control approach to consolidate GHG emissions, companies shall choose between operational control or financial control criteria.⁷ ESET elected to consolidate its emissions according to the operational control approach, which means that ESET Group accounted for 100% of emissions from operations over which it has operational control (i.e. it has the full authority to introduce and implement its operating policies at the operation).

The selection of the approach to determine organisational boundaries has implications for the reporting of certain data under individual scopes. As we decided on reporting according to the operational control approach, emissions from leased assets are reported under scopes 1 and 2 accordingly. Where ESET did not have any operational control over assets, such as external data centres operated by a third party, emissions were reported under scope 3.

Operational boundaries

Operational boundaries represent the scopes and categories that the company chose to report on. Under the GHG Protocol, companies must report on scopes 1 and 2; however, the selection of categories to report on within scope 3 is up to the company, depending on the availability of data, relevance, and their importance for the subject of the company's business.

In Table 2 below, we present the categories we included in our carbon footprint calculation for the year 2022 and a description of these categories.

Table 2: Overview of scopes and categories included in the ESET Group's carbon footprint calculation for the year 2022

Scope	Category	Description	Inclusion in Carbon Footprint
1	Energy consumption from combustion of vehicles (owned or controlled)	Emissions from fuel used by vehicles owned or controlled by the reporting company (e.g., leased vehicles)	Included
	Energy consumption from stationary combustion within a facility (owned or controlled)	Emissions from fuel combustion (for heating, cooling, power generation, or other applications) in facilities owned or controlled (e.g., leased) by the reporting company	Included
	Fugitive emissions	Emissions resulting from releases, e.g., equipment leaks; hydrofluorocarbon (HFC) emissions during the use of refrigeration and air conditioning equipment; methane leakages from gas transport	Included
2	Purchased electricity	Emissions associated with the production of electricity the reporting company purchased or acquired from an external supplier	Included
	Purchased steam	Emissions associated with the production of steam the reporting company purchased or acquired from an external supplier	Not applicable. No purchased steam
	Purchased heat	Emissions associated with the production of heat the reporting company purchased or acquired from an external supplier	Included
	Purchased cooling	Emissions associated with the production of cooling the reporting company purchased or acquired from an external supplier	Not applicable. No purchased cooling

⁷ Ibid, p. 19.

3 upstream	Purchased goods and services	Extraction, production, and transportation of goods and services purchased	Included (limited to IT and other electronic devices, paper products, furniture and (re)construction materials) ⁸
	Capital goods	Extraction, production, and transportation of capital goods purchased or acquired by the reporting company	Not included
	Fuel and energy-related activities (not covered in scopes 1 or 2)	Extraction, production, and transportation of fuels and energy not already accounted for in scope 1 or scope 2. In this report these emissions are also termed as WTT and T&D emissions (further referred to as "T&D")	Included
	Upstream transportation and distribution	Transportation and distribution of purchased products between tier 1 suppliers and the reporting company, T&D services purchased by the reporting company (e.g., of sold products), and T&D between own facilities (always in vehicles and facilities not owned or controlled by the company)	Not included
	Waste generation in operations	Disposal and treatment of waste generated in the company's operations (in facilities not owned or controlled by the reporting company)	Included
	Business travel	Transportation of employees for business-related activities (in vehicles not owned or operated by the reporting company) Hotel stays	Included
	Employee commuting	Transportation of employees between their homes and their worksites (in vehicles not owned or operated by the reporting company) Homeworking	Included
	Upstream leased assets	Operation of assets leased by the reporting company (lessee) and not included in scopes 1 and 2	Included
3 downstream	Downstream transportation and distribution	T&D of products sold by the reporting company between the reporting company and the end consumer (if not paid by the reporting company), including retail and storage (in vehicles and facilities not owned or controlled by the reporting company)	Not included
	Processing of sold products	Processing of intermediate products sold by downstream companies (e.g., manufacturers)	Not included
	Use of sold products	End use of goods and services sold by the reporting company in the reporting year	Not included
	End-of-life treatment of sold products	Waste disposal and treatment of products sold by the reporting company (in the reporting year) at the end of their life	Not included
	Downstream leased assets	Operation of assets owned by the reporting company (lessor) and leased to other entities, not included in scopes 1 and 2	Not included
	Franchises	Operation of franchises in the reporting year, not included in scopes 1 and 2 - reported by franchisor	Not included
	Investments	Operation of investments (including equity and debt investments and project finance) in the reporting year, not included in scopes 1 and 2	Not included

Table 3 below lists all ESET offices, their location, the size of the rented space where these offices operate, and the number of employees working in these offices. ESET Deutschland in Munich, ESET Software Australia in Melbourne and ESET Japan in Tokyo are not included in the calculations as their data were not available at the time of the calculation.

⁸ This categorisation does not follow the financial accounting of ESET Group, therefore all acquired purchased goods within the year 2022 were reported under this category and were not divided into purchased and capital goods.

Table 3: Overview of ESET entities, their location, size of rented space where these entities reside, and number of employees working for these entities

Entity	Location / Office	Reporting entity	Country	Rented area (m ²)	# of employees (31 December 2022)
ESET, spol. s r. o.	Bratislava (SK)	ESET Slovakia	Slovak Republic	19 321,92	1 195
	Košice (SK)			837,81	67
	Žilina (SK)			340,80	15
ESET Research Czech Republic s. r. o.	Prague (CZ)	ESET Research Czech Republic	Czech Republic	730,00	37
	Brno (CZ)			1 333,00	57
	Jablonec (CZ)			622,00	21
ESET software, spol. s r. o.	Prague S&M (CZ)	ESET Software Czech Republic		1 334,53	68
ESET Deutschland GmbH	Jena (DE)	ESET DACH	Germany	1 450,00	96
ESET RESEARCH UK Limited	Taunton (UK)	ESET UK	UK	239,00	14
ESET SOFTWARE UK Limited	Bournemouth (UK)			912,59	70
ESET ITALIA S.R.L.	Milan (IT)	ESET Italy	Italy	507,00	32
ESET Romania S.R.L.	Iasi (RO)	ESET Romania	Romania	253,00	14
ESET Polska Sp. z o. o.	Krakow (PL)	ESET Poland	Poland	1 638,56	82
ESET MÉXICO S. de R.L. de C.V.	Mexico City (MX)	ESET LATAM	Mexico	125,00	20
ESET DO BRASIL MARKETING LTDA	Sao Paulo (BR)		Brazil	220,00	20
ESET LATINOAMERICA S.R.L.	Buenos Aires (AR)		Argentina	570,00	90
ESET ASIA PTE. LTD	Singapore (SG)	ESET APAC	Singapore	418,05	30
ESET Software Australia, PTY, LTD.	Sydney (AUS)		Australia	433,50	19
ESET, LLC	San Diego (US)	ESET NORAM	USA	6 094,40	184
ESET Canada Inc.	Toronto (CA)		Canada	419,0	22
ESET Canada Recherche Inc.	Montreal (CA)			592,90	10
Total				37 214,39	2 163

Entities not included in the calculation					
Entity	Location / Office	Reporting entity	Country	Rented area (m ²)	# of employees (31 December 2022)
ESET Software Australia, PTY, LTD	Melbourne (AUS)	n/a	Australia		2
ESET Japan Inc.	Tokio (JP)	n/a	Japan	79	10
ESET Deutschland GmbH	Munich (DE)	n/a	Germany	co-working space	6
Total				79	18

2.2 Activity data and emission factors

Introduction to activity data collection

In order to calculate emissions for a specific process (activity), an adequate conversion factor, i.e. the emission factor (further referred to as “EF”), must be used. This describes the amount of CO₂ or CO₂ equivalent (CO₂e) released when performing a certain activity. To calculate the total emissions for a process, the EF is multiplied by the respective activity data value (e.g., amounts of fuel consumed, weight of materials purchased, etc.).

Activity data for ESET Group was collected into Excel templates from all ESET offices in scope. Each emission category included in the calculation within each scope had a separate template for data collection. Not all templates were relevant for all offices, as, for example, some offices may not have passenger cars and therefore will not generate emissions from mobile combustion. An overview of the data supplied by each office is presented in Table 4 below. If the data to be collected was not relevant for a specific office, it was marked by n/a (not applicable). If the data was relevant for the specific office but it was not provided it was marked by “x”. In cases where data was relevant and provided it was marked by “v”.

Table 4: Overview of data supplied by each office according to scopes, categories and completed templates

Categories defined in Table 2:		Scope 1			Scope 2			Scope 3							
		Energy consumption (mobile sources)	Energy consumption (stationary sources)	Fugitive emissions	Purchased electricity and Purchased heat			Purchased goods and services	Waste generation	Business travel				Employee commuting	Upstream leased assets
Country	Location	Fleet-passenger	Fuel except fleet	Refrigerants	Fleet-electric	Purchased electricity	Purchased heat	Purchased goods and services	Waste	Business trips - car	Business trips- air	Business trips -train and bus	Hotel stays		External data centers
Slovakia	Bratislava (SK)	√	√	√	√	√	n/a	√	√	√	√	√	√	√	√
	Košice (SK)	√	n/a	x	n/a	√	√	√*	√	√*	√*	√*	√*	√	n/a
	Žilina (SK)	n/a	n/a	√	n/a	√	√	√*	√	√*	√*	√*	√*	√	n/a
Czech Republic	Prague R&D (CZ)	n/a	√	√	n/a	√	n/a	√	√	√	√	√	√	√	n/a
	Brno (CZ)	√	√	√	n/a	√	n/a	√	√	√	√	√	√	√	n/a
	Jablonec (CZ)	√	√	√	n/a	√	n/a	√	√	√	√	n/a	√	√	n/a
	Prague S&M (CZ)	√	n/a	x	n/a	√	√	√	x	x	x	x	x	x	n/a
Germany	Jena (DE)	√	n/a	x	√	√	√	√	x	n/a	√	√	√	√	n/a
UK	Taunton (UK)	n/a	√	√	n/a	√	n/a	√	√	√	√	√	√	√	n/a
	Bournemouth (UK)	√	√	√	√	√	n/a	√	√	√	√	√	√	√	n/a
Italy	Milan (IT)	√	n/a	√	n/a	√	n/a	√	√	n/a	√	√	√	√	n/a
Romania	Iasi (RO)	n/a	n/a	√	n/a	√	√	√	√	n/a	√	n/a	√	√	n/a
Poland	Krakow (PL)	√	n/a	x	n/a	√	√	√	√	√	√	√	√	√	n/a
Mexico	Mexico City (MX)	n/a	n/a	x	n/a	x	n/a	√	√	√	√	n/a	√	√	n/a
Brazil	Sao Paulo (BR)	n/a	n/a	x	n/a	√	n/a	√	√	n/a	√	n/a	√	√	n/a
Argentina	Buenos Aires (AR)	n/a	n/a	x	n/a	√	n/a	√	√	√	√	n/a	√	√	n/a
Singapore	Singapore (SG)	√	n/a	x	n/a	√	n/a	√	√	n/a	√	n/a	x	√	n/a
Australia	Sydney (AUS)	√	n/a	x	n/a	√	n/a	√	√	n/a	√	n/a	√	√	n/a
USA	San Diego (US)	n/a	n/a	x	n/a	√	√	√	√	√	√	n/a	√	√	n/a
Canada	Toronto (CA)	n/a	n/a	x	n/a	√	√	√	x	n/a	√	n/a	√	√	n/a
	Montreal (CA)	n/a	n/a	x	n/a	√	n/a	√	x	√	√	√	√	√	n/a

Legend:

n/a – not applicable as the category is not relevant for the ESET office at the specific location

√ – data provided by the ESET office at the specific location

x – data not available at the ESET office at the specific location

√* – data was collected under Bratislava location and could not be proportionally assigned to Košice and Žilina locations

2.2.1. Scope 1

Emission sources

Within scope 1, direct emission sources are taken into account. For the ESET Group, this includes the fuel consumption of company vehicles (petrol, diesel) for mobile combustion. For stationary combustion, this is the consumption of natural gas and compressed natural gas in boilers at ESET offices. Leakage of refrigerants from air conditioning is also reported in this scope. Electricity consumption for electric cars belongs to scope 2 and is calculated in this scope.

As ESET reports its emissions according to operational control, the consumption of heating from rented space was allocated to scope 1 if the landlord provides information on the fuel used for heating on the invoice to the tenant.

Data origin

The fuel consumption for passenger company cars is taken from fuel cost statements and consumption data reported by the leasing provider. The data reported for heating consumption is from utility bills provided by the landlord of the buildings ESET rents. The figures reported for leakages of refrigerants were measured and reported in the service books of the air conditioning devices.

Data gaps

Where the consumption of fuels was not known, it was extrapolated. If the costs were known, the consumption was calculated using the average fuel consumption per cost. Where the distance travelled by cars was measured, but the fuel consumption was unknown, it was calculated by multiplying the distance travelled by the average fuel consumption of the car in question.

In order to calculate the consumption of heating in premises where ESET does not rent the whole building, the consumption was estimated proportionally based on the rented space in the building (see Table 3 above)

Country-specific features

The UK had an unknown type of fuel, in this case the average of diesel and petrol emissions factors was used for calculation.

Emission factors

Type of emission factor	Source
For the calculation of distance travelled (km) for the electric cars in ESET Slovakia, average fuel consumption EU-28 (l/100km) was used - 5,3 l/100 km	European Vehicle Market Statistics 2020/211 ⁹
Refrigerants - R410A	Department for Energy Security & Net Zero (further referred to as "DESNZ") (2022) (formerly known as Department for Environment Food & Rural Affairs - DEFRA) ¹⁰
Refrigerants - R407C	
Fleet - passenger vehicles - petrol	
Fleet - passenger vehicles - diesel	
Fleet - passenger vehicles - plug-in hybrid electric vehicles (PHEVs) - petrol	
Fleet - passenger vehicles - well-to-tank (WTT) - petrol, diesel	
Fleet - passenger vehicles - petrol - conversion factor	DESNZ (2022) (formerly known as DEFRA) - Fuel properties
Fleet - passenger vehicles - diesel - conversion factor	
Fuel - except of fleet - compressed natural gas (CNG), natural gas	DESNZ (2022) (formerly known as DEFRA)
Fuel - except of fleet - WTT - CNG, natural gas	
Fuel - except of fleet - natural gas	DESNZ (2022) (formerly known as DEFRA) Fuel properties

⁹ European Vehicle Market Statistics 2020/21 - International Council on Clean Transportation (2020) theicct.org. Available at: https://theicct.org/sites/default/files/publications/ICCT_EU_Pocketbook_2020_Web_Dec2020.pdf?ref=icopilots.com (Accessed: 10 October 2023).
¹⁰ Department for Energy Security and Net Zero (2022) Greenhouse gas reporting: Conversion factors 2022, GOV.UK. Available at: <https://www.gov.uk/government/publications/greenhouse-gas-reporting-conversion-factors-2022> (Accessed: 09 October 2023).

2.2.2 Scope 2

Emission sources

Scope 2 includes all emissions from purchased energy needed to run the company. For ESET, this encompasses the purchased electricity needed to run the companies' offices and facilities, as well as the company's electric cars and purchased heat.

As ESET reports its emissions according to operational control, the consumption of heating from rented space was allocated to scope 2 if the landlord only provides information on the amount of heat consumed on the invoice to the tenant, but does not specify which fuel was used for heating.

The purchase of electricity is accounted for using two approaches within scope 2. A distinction is made between market-based and location-based methods. The market-based approach looks at the emissions of the individually purchased electricity mix. For ESET, this is only purchased renewable electricity. When purchasing renewable electricity, there are lower emissions (GHG Protocol assumes this to be zero-emission energy) in the market-based approach compared to the location-based approach. If the individually purchased electricity mix is not known, the emissions are calculated on the basis of the residual mix, which represents the remaining energy source mix that remains after the sale of certificates. For the location-based approach, emissions from electricity consumption are calculated using the emission factor of the average electricity mix of the respective country. In this case, the purchase of renewable electricity is not taken into account.

At the locations where ESET purchases renewable electricity, this electricity consumption was calculated to have zero emissions. In addition, for the offices where the exact percentage of renewable electricity was supplied, this proportion of their respective electricity consumption was calculated to have zero emissions, and the remaining consumption was multiplied by the emission factor depending on the location- or market-based approach.

Data origin

As regards the consumption of electricity by electric cars, the data was measured and provided by the leasing provider. For electricity and heating consumption of facilities and offices, in some countries it was measured in real time by meter readings; in other countries, consumption data was collected from utility bills.

Data gaps

Where the consumption of electricity for electric cars was not known, it was extrapolated based on mileage claims and expense reports.

In order to calculate the consumption of electricity and heating in premises where ESET does not rent the whole building, consumption was estimated proportionally based on the rented space in the building. Where consumption data was only available for a few months of the year 2022, the remaining months of the year 2022 were estimated based on the consumption patterns from the previous months

Country-specific features

At the Bratislava and Kosice offices, the percentage of renewable energy used at the premises was based on energy certificates supplied by the landlord of the buildings.

ESET Italy buys its electricity from renewable sources and has a certificate to document this; therefore, their electricity consumption has a zero emission factor.

ESET UK Taunton office provided the percentage of sources of energy from their electricity bills, as follows: renewable 80.3%, natural gas 15%, coal 1.8%, nuclear 1.4% and other 1.5%.

Emission factors

Type of emission factor	Source
Purchased electricity - electricity - location based specific factor: Singapore, Australia, Germany, Italy, Argentina, Brazil, Canada, United States, Poland, Czech Republic, Romania, Slovak Republic, United Kingdom	European Investment Bank (further referred to as "EIB") (2023) Carbon Footprint Methodologies ¹¹
Purchased electricity - electricity - market based specific factor: Germany, Italy, Poland, Czech Republic, Romania, Slovak Republic	Association of Issuing Bodies (further referred to as "AIB") (2022) European residual mix ¹²
Purchased electricity - electricity - location based specific factor: Canada (Quebec, Toronto)	National Inventory Report 1990-2020: Greenhouse Gas Sources and Sinks in Canada, Table A13-61 ¹³
Purchased electricity - electricity - location based specific factor: United States (California)	Emissions & Generation Resource Integrated Database (further referred to as "eGRID") (2023) ¹⁴
Purchased heat - location based specific factor: Germany, United States, Canada, Poland, Romania, Slovak Republic, Czech Republic	DESNZ (2022) (formerly known as DEFRA) ¹⁵
Purchased heat - market based specific factor: Germany, United States, Canada, Poland, Romania, Slovak Republic, Czech Republic	
Purchased heat - location based specific factor: United States	US Environmental Protection Agency (further referred to as "EPA's") (2023) Emission Factors for GHG Inventories ¹⁶
Purchased heat - location based specific factor: NORAM region	
Purchased heat - location based specific factor: Canada	Energy Star Emission Factors (2023) ¹⁷
Purchased heat - steam - location based specific factor: NORAM region	US EPA's (2023) Emission Factors for GHG Inventories
Purchased heat - steam	DESNZ (2022) (formerly known as DEFRA)
Fleet - electric vehicles - location based specific factor: Germany, Slovak Republic, United Kingdom	EIB (2023), Carbon Footprint Methodologies ¹⁸
Fleet - electric vehicles - residual mix specific factor: Germany, Slovak Republic	AIB (2022) European residual mix ¹⁹

¹¹ EIB (2023) Eib_project_carbon_footprint_methodologies_2023_en-V2, European Investment Bank. Available at: <https://www.eib.org/en/publications/20220215-eib-project-carbon-footprint-methodologies> (Accessed: 10 October 2023).

¹² European residual mix (2022) AIB. Available at: <https://www.aib-net.org/facts/european-residual-mix> (Accessed: 10 October 2023).

¹³ Government of Canada, P.S. and P.C. (2013) National Inventory Report : Greenhouse gas sources and sinks in Canada.: EN81-4E-pdf - government of canada publications - canada.ca, National inventory report : greenhouse gas sources and sinks in Canada.: EN81-4E-PDF - Government of Canada Publications - Canada.ca. Available at: <https://publications.gc.ca/site/eng/9.506002/publication.html> (Accessed: 10 October 2023).

¹⁴ Emissions & Generation Resource Integrated Database (eGRID) | US EPA (2023) epa.gov/eGRID. Available at: <https://www.epa.gov/eGRID> (Accessed: 10 October 2023).

¹⁵ Department for Energy Security and Net Zero (2022) Greenhouse gas reporting: Conversion factors 2022, GOV.UK. Available at: <https://www.gov.uk/government/publications/greenhouse-gas-reporting-conversion-factors-2022> (Accessed: 09 October 2023).

¹⁶ GHG Emission Factors Hub | US EPA (2023) epa.gov. Available at: <https://www.epa.gov/climateleadership/ghg-emission-factors-hub> (Accessed: 10 October 2023).

¹⁷ Energy Star Emission Factors (2023) Greenhouse Gas Inventory and tracking in portfolio manager – energy star. Dostupné na: <https://portfoliomanager.energystar.gov/pdf/reference/Emissions.pdf> (Pozreté: 10. október 2023).

¹⁸ EIB (2023) Eib_project_carbon_footprint_methodologies_2023_en-V2, European Investment Bank. Available at: <https://www.eib.org/en/publications/20220215-eib-project-carbon-footprint-methodologies> (Accessed: 10 October 2023).

¹⁹ European residual mix (2022) AIB. Available at: <https://www.aib-net.org/facts/european-residual-mix> (Accessed: 10 October 2023).

2.2.3 Scope 3

Category 1: Purchased goods and services

Emission sources

This category includes all cradle-to-gate emissions (i.e. emissions from raw material extraction up to the point where the product leaves the manufacturing company) from the production of products purchased, or acquired by ESET in the year. These products included IT equipment and electronic devices, paper products and materials, and furniture used or acquired in the construction or reconstruction of ESET facilities. Information on recycled content and/or reuse of the goods was also collected. Where more than 50% of the weight of an item of goods consisted of recycled content, it was considered as fully made of recycled materials, and emission factors factoring this in were applied. Reused goods were given a zero emission factor, as the goods were not manufactured and were only reused.

Data origin

The data used for calculating the carbon footprint of purchased goods is taken from the ESET internal invoice database and stock databases. The amount of purchased goods was calculated in kg based on the technical specifications of the devices. Where available, specific emission factors of purchased goods acquired from suppliers were used for carbon footprint calculation.

Data gaps

Where no specific emission factors for IT equipment were available, the equipment was first classified into small and large devices, and industry average emission factors were applied accordingly based on the classifications (see Table 5 below for the classifications).

Table 5: Classification of IT equipment purchased in the year 2022 into small or large devices

Type of IT equipment	Classification
Kitchen equipment: Fridge, Dishwasher, Electric water heater	Large device
Kitchen equipment: Microwave oven, Coffee machine, Milk frother, Electric oven	Small device
Data centre hardware: Servers, Storage, Firewall, Server rack unit, Backup source	Large device
Office IT equipment: Monitors, Desktops, Toner, Printer, Web camera, Connector, Set keyboard + mouse, Reduction, Mouse, Converter, Cables, Headset, Phone foil, Docking station, DDR, Adapter, HDD server, USB, Mobile phone, Laptops, Other IT	Small device
Other: Pumping station	Large device
Other: Luminaires	Small device

Where no specific emission factors for other purchased goods were available, assumptions were made about the highest proportion of a material in a given product. Based on this assumption, the emission factor of the selected material was used for the carbon footprint calculation. Where there was a large variation between emission factors of a certain material or product, the average value was used as an emission factor.

Table 6: Classification of paper products, (re)construction materials, furniture and other materials purchased in the year 2022

Type of purchased goods	Classification
Beverages in returnable glass	Glass (close-loop)
Glass	Glass
Beverages in PET bottles	Plastics: PET
Insulation (sound insulation)	Insulation
Beverages in cans	Metals: aluminium cans and foils
Metals: HVAC + cooling	Metals
Metals: profiles for SDK partitions	
Metals: other (specify) frames, aluminium glazed partitions	
Metals: convectors	
Office desk chair adjustable	
Chair simple non-adjustable upholstered	
Plasterboard	Plasterboard
Plastic: PVC pipes	Plastics: PVC
Beverages in tetra packs	
Other material: vinyl flooring	
Plastic: PPR pipes	Plastics: PP
Plastic: PPTH pipes	Plastics: average plastic rigid
Plastic: pipes PE_RT + aluminium	
Plasty: PE rúrky	Plastics: HDPE
Other material: paintings/plaster/rubbings	Average of three different materials
Other material: ceramic tiles	Ceramics
Other material: toilet bowl	
Other material: urinal	
Other material: washbasins and sinks	
Other material: Corning FutureCom Cat.6A S-STP550/23,4P cable	Copper Wire
Other material: other cabling	
Kitchen island - corian 60%	60% Aluminium Hydroxide 40% Poly methyl methacrylate (PMMA)
Built-in furniture - wood	Wood
Office desk 1600x800mm (worktop=LDT laminated chipboard, metal base)	
Container for office desk	
Dining and meeting table for 4 persons	
Bar stool	
Simple non-adjustable wooden chair	
Wooden rack	
Kitchen cabinet	
Other material: double Linder floor	
Wood (partitions and wall cladding)	
Other boards (OSB, MFP, HDF, other...)	
Paravan for office desk 1600x400mm	Clothing
Armchair upholstered	
Other material: carpets	
Paper towels	Napkins
Toilet paper	Toilet paper

Paper block, normal standard paper	Paper
Stickers on box	
Datasheets B2B normal standard paper	
Licence cards normal standard paper	
Canon Printing Paper	
Notebooks - Welcome Kit	
Office Paper	
Paper A4	
Paper bags standard paper	
Vouchers A3 thicker paper	
Brochure EMS	Mixed (25% paper, 75% board)
Retro box , brochure	

Country-specific features

None.

Emission factors

Type of emission factor	Source
Materials: glass, metals, plastics, insulation, plasterboard, wood, clothing, paper	DESNZ (2022) (formerly known as DEFRA) ²⁰
Emission factors for specific laptops, mobile phones, desktops, monitors	Specific suppliers directly
Kitchen island - corian 60% aluminium hydroxide	Industry associations ²¹
Kitchen island - corian 40% polymethyl methacrylate (PMMA)	Industry associations ²²
Other material: Corning FutureCom Cat.6A S-STP550/23,4P cable and other material: other cabling - copper wire	Industry associations ²³
Other materials: ceramic tiles and toilet bowl, urinal, washbasins, sinks	Industry associations (average of two studies) ²⁴
Other material: paintings, plaster, rubbings	Industry associations ²⁵
Napkins	Industry associations ²⁶
Toilet Paper	Industry associations ²⁷

²⁰ Department for Energy Security and Net Zero (2022) Greenhouse gas reporting: Conversion factors 2022, GOV.UK. Available at: <https://www.gov.uk/government/publications/greenhouse-gas-reporting-conversion-factors-2022> (Accessed: 09 October 2023).

²¹ Liu, W. and Chalasani, S. (2023) Aluminum emissions reporting guidance. Available at: https://rmi.org/wp-content/uploads/dlm_uploads/2023/05/aluminum_guidance_public_consultation.pdf (Accessed: 09 October 2023).

²² Poly methyl methacrylate (PMMA) - petrochemicals Europe (2015) www.plasticseurope.org. Available at: <https://www.petrochemistry.eu/wp-content/uploads/2018/01/PMMA-Eco-profile-EPD-1-15-1.pdf> (Accessed: 09 October 2023).

²³ CPM LCA database (2013) CPM LCA Database. Available at: <http://cpmdatabase.cpm.chalmers.se/> (Accessed: 09 October 2023).

²⁴ Riyakad, P.R. and Chiarakorn, S. (2015) Energy consumption and greenhouse gas emission from ceramic tableware production: A case study in Lampang, Thailand, CORE. Available at: <https://core.ac.uk/reader/82281930> (Accessed: 09 October 2023). & Ecofys (2009) Methodology for the free allocation of emission allowances in the EU ..., climate.ec.europa.eu. Available at: https://climate.ec.europa.eu/system/files/2016-11/bm_study-ceramics_en.pdf (Accessed: 09 October 2023).

²⁵ Calculation and estimation of the carbon footprint of paint industry (2015) Neptjournal. Available at: [http://www.neptjournal.com/upload-images/NL-53-27-\(25\)D-250.pdf](http://www.neptjournal.com/upload-images/NL-53-27-(25)D-250.pdf) (Accessed: 09 October 2023).

²⁶ Henderson, S. (2019) What's better for the environment, using a hand dryer or paper towels?, New Scientist. Available at: <https://www.newscientist.com/lastword/mg24232330-900-whats-better-for-the-environment-using-a-hand-dryer-or-paper-towels/> (Accessed: 25 October 2023).

²⁷ Metsä tissue investigated the carbon footprint of toilet paper: High-quality and soft tissue paper is also environmentally friendly (2021) News Powered by Cision. Available at: <https://news.cision.com/metsa-tissue/r/metsa-tissue-investigated-the-carbon-footprint-of-toilet-paper--high-quality-and-soft-tissue-paper-i.c3525807#:~:text=The%20average%20European%20consumes%20around,European%27s%20overall%20annual%20carbon%20footprint.> (Accessed: 25 October 2023).

Category 3: Fuel and energy-related activities (not covered in scopes 1 or 2)

Emission sources

This category includes emissions related to the production of fuels and energy purchased (i.e. upstream or also called well-to-tank (WTT) emissions of fuel and energy production) and consumed by the reporting company in the reporting year that are not included in scope 1 or scope 2. This includes extraction, production, and transportation of fuels consumed by ESET and fuels consumed in the generation of electricity, steam, heating or cooling. This category also covers generation (upstream activities and combustion) of electricity, steam, heating, and cooling that is consumed (i.e. lost) in a transmission and distribution system. For the ease of understanding, this category is named in the Results section as WTT and T&D . Examples of the upstream activities include mining of coal, refining of gasoline, transmission and distribution of natural gas, production of biofuels, etc.

Data origin

The data for the calculation of the fuel and energy upstream chains corresponds to the data used for the calculation of fuel and energy consumed in scopes 1, 2 and 3. In other words, depending on the consumption of the specific fuel or energy in scopes 1, 2 and 3 corresponding amounts of upstream emissions were calculated for this emission category. The calculation is based on specific emission factors found in databases. For the databases used for the calculation refer to the table Emission Factors below.

Data gaps

None.

Country-specific features

None.

Emission factors

Type of emission factor	Source
Purchased electricity - electricity - WTT renewable: Singapore, Australia, Germany, Italy, Argentina, Brazil, Canada, United States, Poland, Czech Republic, Romania, Slovak Republic, United Kingdom	DESNZ (2022) (formerly known as DEFRA)
Purchased electricity - electricity - WTT renewable	RE-DISS II (2022) ²⁸
Purchased heat - WTT heat	DESNZ (2022) (formerly known as DEFRA)
Fuel – except of fleet - WTT – CNG, natural gas	
Fleet - electric vehicles - WTT PHEVs, Battery Electric Vehicles (BEVs), petrol	
Fleet – passenger vehicles –WTT – petrol, diesel	
Business trip - WTT - short-, medium-, long-haul flights (business, economy, unknown)	
Business trips - WTT - bus and train - national train, international train, coach, local coach	
Business trips - WTT - cars - petrol, diesel	

²⁸ RE-DISS (2022). Reliable disclosure systems for Europe – Phase 2: European residual mixes.

Category 5: Waste generation in operations

Emission sources

This category includes emissions from third-party disposal and treatment of waste generated at ESET offices in the year 2022. The waste generated was categorised into hazardous and non-hazardous categories. Within hazardous waste, only batteries were reported by ESET offices. As regards non-hazardous waste, the reported waste type included construction waste, plastics, glass, paper and paperboard, and organic, metal, and residual household waste. Each office provided information on the type of disposal for each waste type.

Data origin

Data for waste disposal and treatment was only measured by the contracted waste management company at ESET's UK and Argentina subsidiaries.

Data gaps

As waste management systems vary across the globe, different methods were applied to calculate the amount of waste generated in ESET offices. Where waste generation was not measured, it was estimated based on information supplied by landlords on the waste generation of the whole building. The waste generation of ESET offices in these buildings was then calculated proportionally based on the rented space in the buildings. In some offices, waste generated was estimated based on daily observations, which then served as a proxy to extrapolate the data for the whole year. In other offices, the maximum capacity of bins multiplied by the frequency of waste collection per week was also used to derive the amount of waste generated by the offices per year. Where the type of disposal was unknown, it was assumed waste went to a landfill.

Country-specific features

Our Polish office only provided data on waste generation in m³. Therefore, in order to convert the volume into tonnes, the density of the waste types was searched for and subsequently used to calculate the tonnes of the waste type generated. If there was a range for the density factor, the middle range was applied for the calculation. The sources of the density factors are presented in the Table 7 below:

Table 7: Sources of density factors of certain waste types

Waste type	Source of density factor
Glass	Physical properties of glass (2020) ²⁹
Organic waste	Food waste quantification (2020) ³⁰
Paper and board	Density of Paper and Paperboard ³¹
Metal	Densities of metals and elements table ³²
Plastics	Density of plastics: Technical Properties ³³

29 Physical properties of glass (2020) Physical properties of glass | Saint Gobain Building Glass UK. Available at: <https://www.saint-gobain-glass.co.uk/en-gb/architects/physical-properties#:~:text=The%20density%20of%20glass%20is,or%202500%20kg%20per%20m3.&text=The%20compressive%20strength%20of%20glass,load%20of%20some%2010%20tonnes>. (Accessed: 10 October 2023).

30 Kamaruddin A., et al. (2020) Food waste quantification and characterization as a ... - iopscience. Available at: <https://iopscience.iop.org/article/10.1088/1757-899X/743/1/012041> (Accessed: 10 October 2023).

31 Typical density and bulk of some papers (no date) Density of Paper and Paperboard. Available at: <https://www.paperonweb.com/density.htm> (Accessed: 10 October 2023).

32 Edge, E. (no date) Densities of metals and elements table, Engineers Edge - Engineering, Design and Manufacturing Solutions. Available at: https://www.engineersedge.com/materials/densities_of_metals_and_elements_table_13976.htm (Accessed: 10 October 2023).

33 Density of plastics: Technical properties (no date) Density of Plastics Material: Technical Properties Table. Available at: <https://omnexus.specialchem.com/polymer-properties/properties/density> (Accessed: 10 October 2023).

In the UK and Argentina, waste was sorted only into recyclables and non-recyclables. Recyclables were then treated as “Other waste” and type of disposal was closed-loop recycling. In case of non-recyclables the waste was treated as going to landfill.

Emission factors

Type of emission factor	Source
Waste disposal - batteries, commercial and industrial waste, construction waste, glass, household residual waste, metal, organic waste, paper and board, plastics, wood, other waste	DDESNZ (2022) (formerly known as DEFRA) ³⁴
Waste disposal - household residual waste, paper and board - location based specific factor: NORAM region	US EPA's (2023) Emission Factors for GHG Inventories ³⁵

Category 6: Business travel

Emission sources

This category includes emissions from the transportation of employees for business-related activities in employees’ private vehicles, rental cars, taxis, or other means of transport operated by third parties, such as aircraft, trains, or buses. Flights were divided into short-, medium-, and long-haul flights. Train and bus rides were categorised into coach, local bus, international train, or national train. ESET also opted to report hotel stays, which is optional under the GHG Protocol in this category.

Data origin

In some offices, the distance travelled by means of transport on business trips was measured and reported by travel agents. As regards hotel stays, the number of nights spent in a particular country was recorded.

Data gaps

Where data was not measured, it was estimated based on expense reports made by employees for the particular business trips, company bookings and invoices. In addition, when the distance was not known, Google Maps or equivalent map applications were used to estimate the distance travelled.

Country-specific features

In Singapore³⁶, Montreal³⁷ and Toronto³⁸, air miles calculators were used to estimate the distance travelled from airport to airport.

Emission factors

Type of emission factor	Source
Business trip - short-, medium-, long-haul flights (business, economy, unknown)	DESNZ (2022) (formerly known as DEFRA)
Business trips - hotel stays - water supply	
Business trips - bus and train - national train, international train, coach, local coach	
Business trips - cars - petrol, diesel	

³⁴ Department for Energy Security and Net Zero (2022) Greenhouse gas reporting: Conversion factors 2022, GOV.UK. Available at: <https://www.gov.uk/government/publications/greenhouse-gas-reporting-conversion-factors-2022> (Accessed: 09 October 2023).

³⁵ GHG Emission Factors Hub | US EPA (2023) epa.gov. Available at: <https://www.epa.gov/climateleadership/ghg-emission-factors-hub> (Accessed: 10 October 2023).

³⁶ Air miles calculator, Available at: <https://www.airmilescalculator.com/> (Accessed: 04 October 2023).

³⁷ Distance Calculator, Available at: <https://www.distancecalculator.net/> (Accessed: 04 October 2023).

³⁸ Travel math, Available at: <https://www.travelmath.com/distance/from/YYZ/to/YYC> (Accessed: 04 October 2023).

Category 7: Employee commuting

Emission sources

This category includes emissions from the transportation of employees between their homes and their worksite. These emissions arise from automobile, bus, rail and other modes of transport. ESET employees drove, walked, cycled, and took the bus and train to work. Within this category, emissions from home work were also calculated.

Data origin

All data was estimated within this category. See section Data gaps below for estimation methodology.

Data gaps

Each office included in the carbon footprint calculation was required to report on their employees' commuting patterns. Some offices prepared a survey for their employees in which they asked about the modes of transport used to commute, the number of days per week they usually commuted to the office, and the distance travelled to work. Some offices observed employees' habits and organised interviews with them. In general, when employees stated the number of days they commuted to work per week, the rest of the days of the week were assumed to be home-working. Number of vacation days were also taken into account. At offices where no surveys or interviews were held, various methods were used to estimate the data needed. For example, the distance travelled to work was estimated using Google Maps and the places of residence of the employees. Vacation and home office days were based on attendance reports. Transport by car by employees was estimated based on parking place reservations. Where no transport modes were known, official databases for the respective countries were used to estimate commuting patterns.

For calculating the emissions from homeworking, the methodology from the Homeworking Emission Whitepaper was applied.³⁹

Country-specific features

None.

Emission factors

Type of emission factor	Source
Employee commuting - bus, car, homeworking, motorbike, train	DESNZ (2022) (formerly known as DEFRA)

³⁹ Skillet, L. and Ventress, L. (2020), Homeworking emissions whitepaper | 2020. Available at: <https://info.eco-act.com/hubfs/0%20-%20Downloads/Homeworking%20emissions%20whitepaper/Homeworking%20Emissions%20Whitepaper%202020.pdf> (Accessed: 04 October 2023).

Category 8: Upstream leased assets

Emission sources

Since we applied operational control for setting organisational boundaries, only the facilities over which ESET Group does not have operational control are reported within this category. i.e. external data centres and their electricity consumption. ESET Group only leases data centres in the Slovak Republic.

Data origin

Electricity consumption generated by the external data centres was measured and supplied by the landlord. Since all the electricity consumed in these facilities is from renewable sources, the emission factor for this electricity is zero. This is based on certificates and a purchased power agreement between the utility provider and the landlord, provided by the landlord.

Data gaps

None.

Country-specific features

None.

Emission factors

Type of emission factor	Source
Purchased electricity - electricity - location based specific factor: Slovak Republic	EIB (2023) Carbon Footprint Methodologies ⁴⁰

⁴⁰ EIB (2023) Eib_project_carbon_footprint_methodologies_2023_en-V2, European Investment Bank. Available at: <https://www.eib.org/en/publications/20220215-eib-project-carbon-footprint-methodologies> (Accessed: 10 October 2023).

3. RESULTS

In this section, we present the results of the carbon footprint calculation for ESET Group for the year 2022. In the first part, we present the consolidated results for the ESET Group as a whole, divided into individual scopes and stating the largest contributors to the overall carbon footprint of the ESET Group. In the second part, we analyse the results on an entity basis, and identify the largest contributors to the carbon footprint within each entity.

3.1 Consolidated results

Figure 2 shows the overall results of ESET Group by scopes and differentiates between market-based and location-based methods in accordance with the scope 2 approach explained in chapter 2.2.2. Since this approach is not relevant in scope 1, both market-based and location-based scope 1 emissions are identical. Scope 3 contributes the most to the overall carbon footprint of ESET Group and is responsible for approx. 75% of greenhouse gas emissions. Scope 3 includes indirect emissions from ESET’s value chain, which are not under the Company’s direct control. In comparison, scope 1 makes up approx. 14% of overall emissions and scope 2 about 11%. The detailed overview of the emissions in numeric values is presented in Table 8.

Figure 2: Graph of GHG emissions (t CO₂e) by scopes and location- and market-based methods

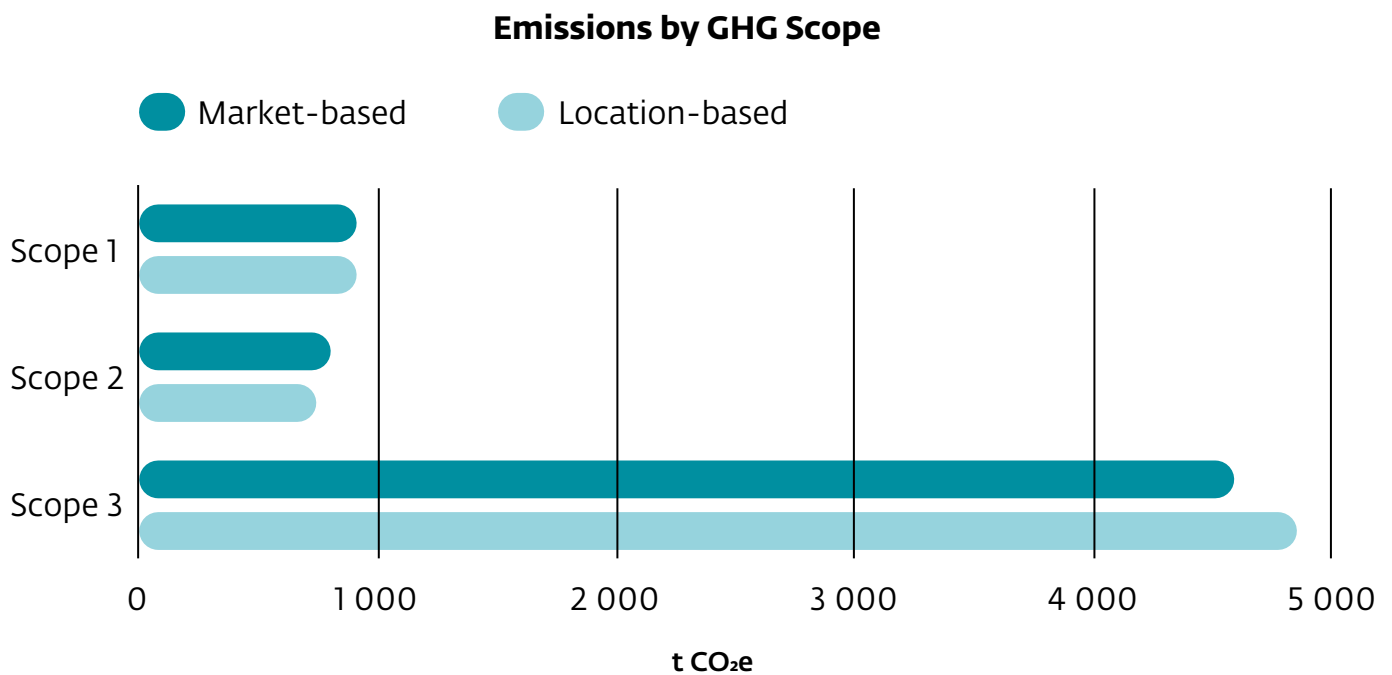


Table 8: Detailed overview of GHG emissions (t CO₂e) by scopes and location- and market-based methods

Emissions by GHG Scope (in tonnes CO ₂ e)		
GHG Scope	Location-based	Market-based
Scope 1	897,65	897,6
Scope 2	738,28	794,22
Scope 3	4 847,92	4 597,99
Grand Total	6 483,8	6 289,86
Total per employee	3,00	2,91

In table 9 below, we present an overview of the individual gases emitted and their released amount converted into CO₂ equivalent.

Table 9: Emission data for GHGs in metric tonnes and in tonnes of CO2 equivalent for both approaches

Gas type	Location-based		Market-based	
	Released amount (in tonnes)	Released amount (in tonnes CO ₂ e)	Released amount (in tonnes)	Released amount (in tonnes CO ₂ e)
Carbon dioxide	1 210,98	1 210,98	1 148,58	1 148,58
CO ₂ e - unknown GHG gasses structure	5 140,19	5 140,19	5 009,17	5 009,17
Kyoto protocol blends	0,06	124,65	0,06	124,65
Methane	0,05	1,31	0,04	0,93
Nitrous oxide	0,02	6,72	0,02	6,53
Other	0,45	0,00	0,45	0,00
Grand Total	6 351,75	6 483,85	6 158,32	6 289,86

Below, we present the consolidated results of each scope in more detail.

3.1.1 Scope 1

Table 10 presents the consolidated results for scope 1. The activity which contributes the most to overall emissions from this scope is heating (46%) from the use of natural gas and compressed natural gas. 40% of scope 1 emissions are from company cars which are owned or controlled by ESET Group and the remaining 14% are from leakages from air conditioning units at ESET offices. As regards refrigerant leakages, only a minority of ESET offices recorded leakages. As refrigerants have a powerful global warming potential, emissions from this category would markedly change if more locations recorded leakages.

Table 10: Detailed overview of GHG emissions (t CO₂e) within scope 1 by emission category

GHG Scope 1 Emissions by Category (in tonnes CO ₂ e)	
Fugitive emissions	124,65
Refrigerants and other GHG emissions (Kyoto Protocol)	124,65
Stationary combustion	412,46
Heating	412,46
Vehicles combustion	360,54
Passenger fleet	351,83
Plug-in hybrids	8,71
Grand Total	897,65

3.1.2 Scope 2

Emissions from this scope were calculated by both market-based and location-based methods in line with the GHG Protocol. Within market-based calculations 87% of emissions are from purchased electricity used at ESET offices, and 12% are from purchased heat. The remaining, negligible amount of emissions was from the use of electric vehicles. In comparison, according to the location-based method, 86% of emissions are from purchased electricity followed by 14% of emissions from purchased heat and the rest from electric vehicles.⁴¹ Purchased electricity is the primary driver of ESET Group's scope 2 emissions. The difference between the two approaches is due to the different use of emission factors as regards non-renewable energy (see chapter 2.2.2.). The share of electricity that does not fall under renewable electricity has a greater impact on the climate under the market-based approach, as its emission factor does not account for electricity with certificates. Therefore, the location-based emission factors may have a lower value than market-based emission factors in some countries. Nevertheless, a reduction in emissions within the market-based approach was clearly recognizable at the locations where renewable energy certificates were purchased.

⁴¹ The percentage value for electric vehicles does not show in the location-based method due to its negligible amount and rounding of numbers.

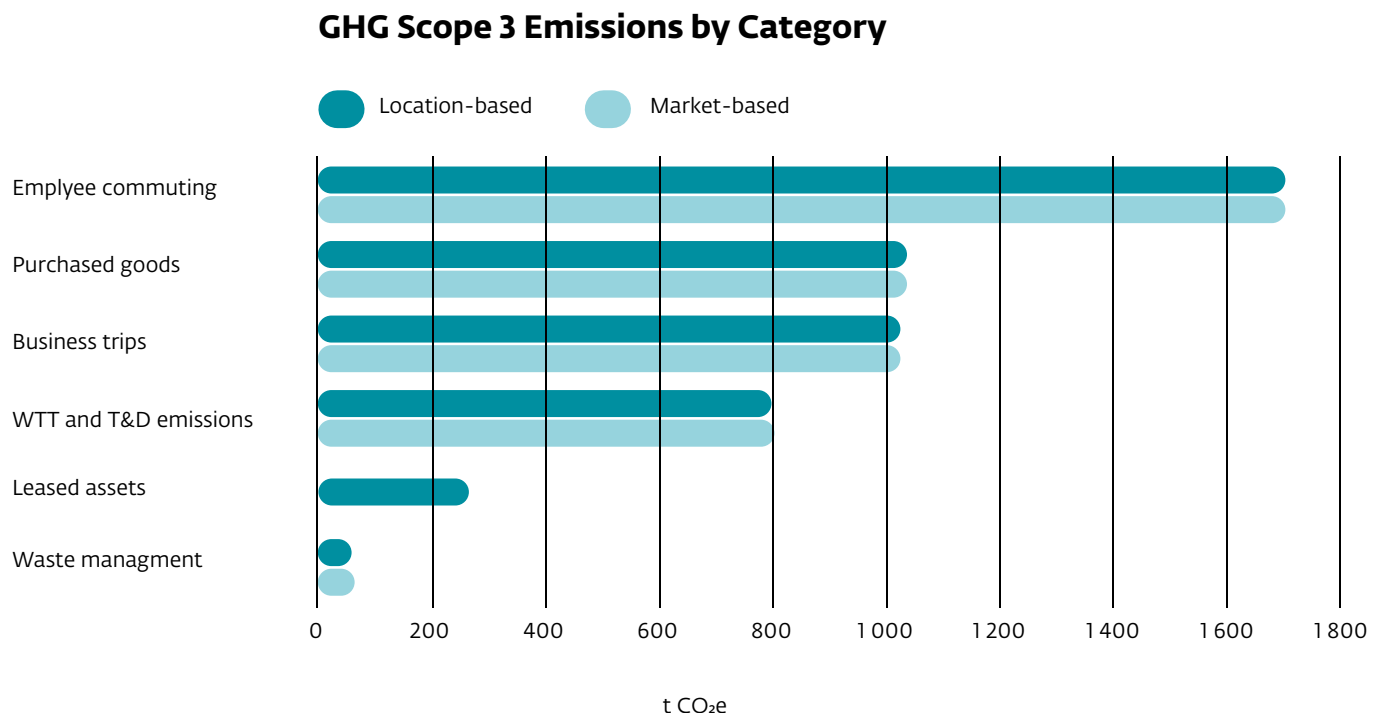
Table 11: Detailed overview of GHG emissions (t CO₂e) within scope 2 by emission category and location- and market-based methods

GHG Scope 2 Emissions by Category (in tonnes CO ₂ e)		
Category	Location-based	Market-based
Electric vehicles	2,49	3,3
Electric vehicles	0,75	0,75
Plug-in hybrids	1,74	1,74
Purchased electricity	633,82	693,86
Electricity consumption	633,82	693,86
Purchased heat	101,97	96,97
Heat consumption	101,97	96,97
Grand Total	738,28	794,22

3.1.2 Scope 3

As regards Scope 3, as Figure 3 illustrates, the largest contribution to total scope 3 emissions were from the category employee commuting, which includes commuting of employees by bus, car, motorbike, train and emissions from homeworking. About 52% of emissions from this category were from employees working from home, and 43% were from employees commuting by car. An average number of days working from home per employee were 3.2 which represents 64 % on a 5-day work basis.

Figure 3: Graph of contributions of each scope 3 category to total emissions from scope 3



The second largest contribution to scope 3 emissions are from the purchased goods in the year 2022. Purchased goods included in the calculation included IT equipment and other electronic devices, paper products and the subcategory (re)construction included purchased furniture, (re) construction materials and purchased beverages in cans, PET bottles or glass. In the category of purchased goods, emissions from IT equipment (51%) were almost equal to emissions from (re) construction materials (49%) (see Table 12 below). The third category which makes up 21% of the total emissions from scope 3 category are business trips. In this category, 76% of emissions derive from air travel of ESET employees. Hotel stays are also part of this category and represent about 19% of emissions from business trips. The fourth biggest driver of emissions are WTT and T&D emissions, which include all upstream emissions from the production of fuels and energy used at ESET Group. This category corresponds to the fuel and energy used reported in scopes 1, 2 and 3 and represents 17% of the total scope 3 emissions. The biggest contributors of these emissions are purchased electricity (29%) and employee commuting (27%). When it comes to leased assets, the emission source here are external data centres whose purchased electricity is renewable, therefore the market-based approach shows zero emissions from this category. Here again, it is evident how purchasing renewable electricity can decrease the overall amount of emissions.

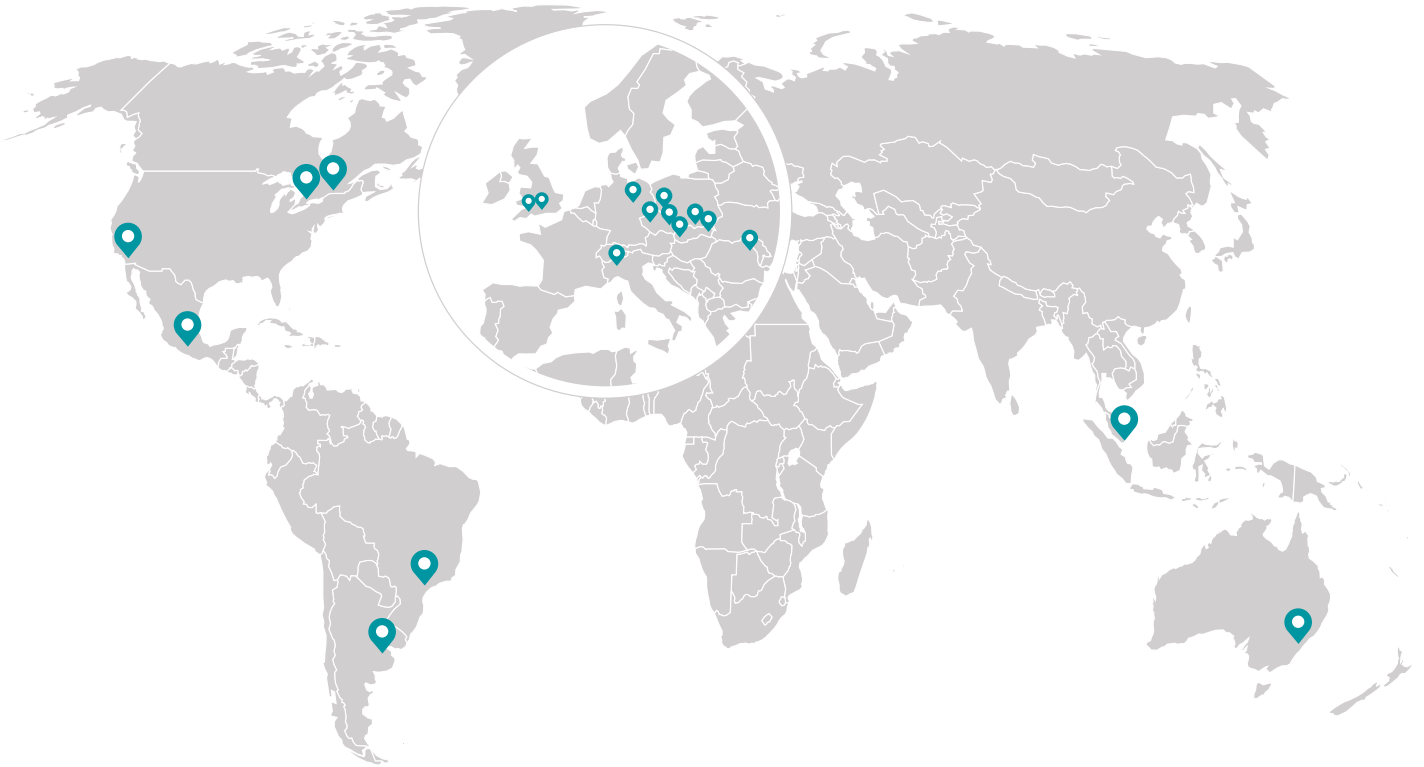
Table 12: Detailed overview of scope 3 categories and their contribution to the total amount of Scope 3 emissions

GHG Scope 3 Emissions by Category (in tonnes CO ₂ e)		
Category	Location-based	Market-based
Business trips	1 023,84	1 023,84
Air	773,50	773,50
Car	47,69	47,69
Train or bus	7,41	7,41
Hotel stays	195,24	195,24
Employee commuting	1 698,38	1 698,38
Bus	56,15	56,15
Car	734,64	734,64
Homeworking	878,00	878,00
Motorbike	0,12	0,12
Train	29,47	29,47
Leased assets	247,01	0,00
Purchased electricity	247,01	0,00
Waste management	45,02	45,02
Hazardous	0,00	0,00
Non-hazardous	45,02	45,02
WTT and T&D emissions	800,13	797,21
Business trips	88,47	88,47
Electric vehicles	0,20	0,20
Employee commuting	215,99	215,99
Leased assets	73,29	50,81
Purchased electricity	221,59	241,42
Purchased heat	24,22	23,95
Stationary combustion	87,21	87,21
Vehicles combustion	89,16	89,16
Purchased goods	1 033,54	1 033,54
(Re)construction	504,44	504,44
IT equipment	522,40	522,40
Paper	6,70	6,70
Grand Total	4 847,92	4 597,99

3.2. Results by entity

Below, the results are broken down by entity and their respective locations. ESET Group operates globally and the following map depicts where the 21 offices which are the subject of the carbon footprint calculation are located

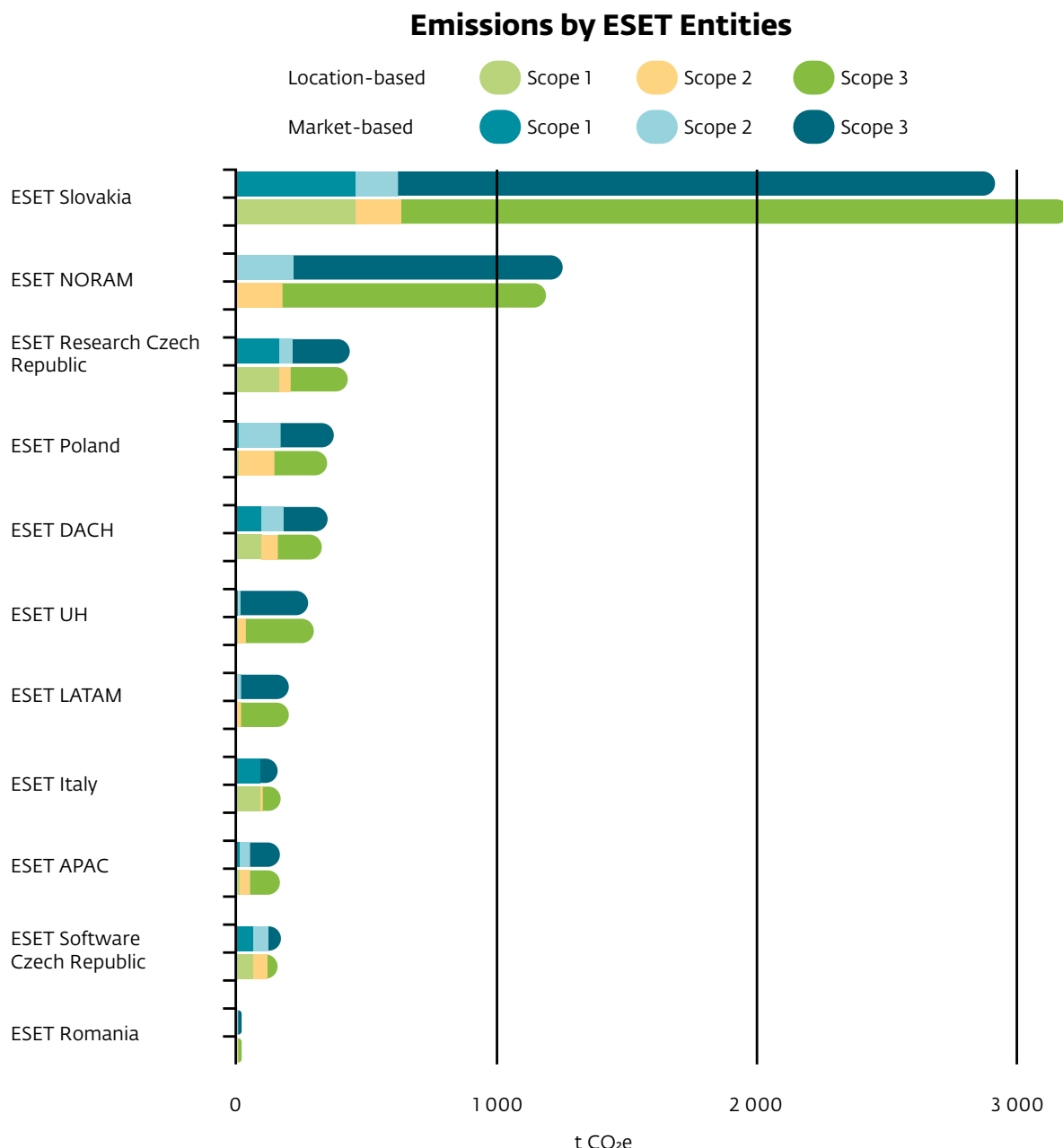
Map 1: Overview of the 21 ESET offices which were subject of the carbon footprint calculation⁴²



As Figure 4 shows, ESET Slovakia contributes the most to the total ESET Group carbon footprint, making up 49% (in the location-based approach) of ESET Group emissions and 46% (in the market-based approach) of the total ESET Group emissions. ESET NORAM is the second largest driver of emissions of ESET Group contributing 18% and 19% to the total ESET Group's emissions in the location- and market-based approach respectively. Third largest proportion of emissions of ESET Group comes from ESET Research Czech Republic and represents about 7% of the total carbon footprint of ESET Group. In all three entities scope 3 is responsible for the most emissions.

⁴² There are 20 locations on the map due to the fact that Prague has two different offices - sales and marketing (S&M) and research and development (R&D) office.

Figure 4: Graph of the contribution of the ESET entities to the total emissions by scopes and approaches



When analysed in more detail, it can be said that out of the 11 reporting entities only 2 have a different primary driver of emissions than scope 3 (see Table 13 and 14). It is in ESET Italy and ESET Software Czech Republic. Though, it has to be said that ESET Software Czech Republic supplied data only for one category within scope 3 (Purchased goods) and therefore the contribution of this scope is lower than other scopes for this entity. In ESET Italy primary driver of emissions is scope 1 stemming from vehicle combustion and fugitive emissions.

Furthermore, as it can be seen in Table 13 and 14 an important factor for the carbon footprint of the entities is also the number of employees. For example, even though ESET Slovakia produces the largest proportion of the total Groups' emissions when the number of employees working here (1 277) are taken into account the emissions per employee are among the lowest with 2.5 tonnes CO₂e per employee. In these regards ESET NORAM and ESET Italy have the highest emissions per employee with 5.5 tonnes CO₂e and 5.24 tonnes CO₂e respectively. In case of ESET Italy, fugitive emissions (scope 1) are approx. 58 % higher than in ESET Slovakia. When it comes

to ESET NORAM even though ESET NORAM does not have any emissions in scope 1, business trips within scope 3 contribute substantially more emissions to total than do business trips at ESET Slovakia for example. Most of the emissions from business trips of ESET NORAM come from air travel. For comparison, the air kilometres travelled by ESET Slovakia make up only 48 % of all the air kilometres travelled by ESET NORAM. Moreover, purchased electricity within ESET NORAM produces more emissions in both approaches than the purchased electricity of ESET Slovakia owing to the different proportion of carbon intensive electricity and renewable electricity within the national grids.

Table 13: Detailed overview of the emissions by entities, locations, scopes and emissions per employee (location-based)⁴³

Location-based					
Entity	Scope 1	Scope 2	Scope 3	Grand Total	Total per employee
ESET Slovakia	456,43	175,73	2 567,90	3 200,06	2,51
Bratislava (SK)	451,91	143,26	2 503,93	3 099,10	2,59
Košice (SK)	4,52	20,92	50,94	76,38	1,14
Žilina (SK)		11,55	13,03	24,58	1,64
ESET NORAM		175,02	1 013,75	1 188,77	5,50
San Diego (US)		160,24	891,01	1 051,25	5,71
Toronto (CA)		14,62	80,19	94,81	4,31
Montreal (CA)		0,16	42,55	42,71	4,27
ESET Research Czech Republic	162,48	44,08	219,63	426,19	3,71
Brno (CZ)	28,78	22,22	123,61	174,61	3,06
Jablonec (CZ)	66,82	15,03	58,69	140,54	6,69
Prague (CZ)	66,88	6,83	37,33	111,04	3,00
ESET Poland	7,82	136,19	202,61	346,62	4,23
Krakow (PL)	7,82	136,19	202,61	346,62	4,23
ESET DACH	96,50	62,33	168,68	327,50	3,41
Jena (DE)	96,50	62,33	168,68	327,50	3,41
ESET UK	6,27	27,94	261,53	295,74	3,52
Bournemouth (UK)	4,58	23,79	249,63	278,00	3,97
Taunton (UK)	1,69	4,15	11,90	17,74	1,27
ESET LATAM		15,72	183,49	199,21	1,53
Buenos Aires (AR)		14,99	99,82	114,81	1,28
Mexico City (MX)			55,38	55,38	2,77
Sao Paulo (BR)		0,73	28,29	29,02	1,45
ESET Italy	89,81	9,66	68,31	167,78	5,24
Milan (IT)	89,81	9,66	68,31	167,78	5,24
ESET APAC	11,65	38,09	115,36	165,10	3,37
Singapur (SG)	0,70	31,54	60,59	92,83	3,09
Sydney (AUS)	10,95	6,55	54,77	72,27	3,80
ESET Software Czech Republic	64,18	51,83	32,90	148,91	2,19
Praha S&M (CZ)	64,18	51,83	32,90	148,91	2,19
ESET Romania	2,51	1,67	13,80	17,98	1,28
Iasi (RO)	2,51	1,67	13,80	17,98	1,28
Grand Total	897,65	738,28	847,92	17,98	3,00

⁴³ The significant differences between individual entities and offices are caused by the nature of their activities as well as the availability of data for each office. For information on the availability of data for individual offices, refer to Table 4.

If we examine the emissions per employee on a location basis, two locations stand out markedly. Jablonec (ESET Research Czech republic) and Montreal (ESET NORAM) emit 6.78 tonnes CO₂e and 6.51 tonnes CO₂e per employee respectively in the market-based approach (Table 14). In both cases this is due to the consumption of electricity of data centres used here. In addition, in the ESET office in Montreal electricity is also used to provide heating. Thus, the proportion of electricity consumed at these locations was a lot higher than at other locations where there are no data centres or where heating source was other than electricity.

When it comes to the difference between the two approaches (market- vs. local-based), overall it does not have an impact on the proportion of contributions of individual entities to total ESET Group's emissions. No matter if we take a location- or market-based approach into consideration, ESET Slovakia is still the largest contributor and the same is true about ESET NORAM and ESET Research Czech Republic. However, the differences are visible when results are examined in more detail and on an entity basis. For example, the difference in ESET Slovakia's carbon footprint between the two approaches is 284 ton CO₂e which is a difference of 9%. If the total emissions per employee are compared ESET Slovakia has even lower emissions in the market-based approach (2.28 tonnes CO₂e) than in the location-based. ESET NORAM is still the highest contributing entity with even higher value in the market-based approach (5.8 tonnes CO₂e) than in the location-based. Conversely, ESET Italy has a lower value (4.89 tonnes CO₂e) in the market-based approach than in the location-based. The instances where values are lower in the market-based than in the location-based method is evidence of purchasing renewable energy or providing specific factors with a proportion of renewable energy.

Table 14: Detailed overview of the emissions by entities, locations, scopes and emissions per employee (market-based)⁴⁴

Market-based					
Entity	Scope 1	Scope 2	Scope 3	Grand Total	Total per employee
ESET Slovakia	456,44	162,91	2 296,99	2 916,34	2,28
Bratislava (SK)	451,92	130,40	2 233,08	2 815,40	2,36
Košice (SK)	4,52	21,08	50,91	76,51	1,14
Žilina (SK)		11,43	13,00	24,43	1,63
ESET NORAM		217,49	1 035,37	1 252,86	5,80
San Diego (US)		179,18	912,61	1 091,79	5,93
Toronto (CA)		15,94	80,00	95,94	4,36
Montreal (CA)		22,37	42,76	65,13	6,51
ESET Research Czech Republic	162,48	51,56	219,86	433,90	3,77
Brno (CZ)	28,79	26,49	123,80	179,08	3,14
Jablonec (CZ)	66,81	16,92	58,67	142,40	6,78
Prague (CZ)	66,88	8,15	37,39	112,42	3,04
ESET Poland	7,82	160,16	204,24	372,22	4,54
Krakow (PL)	7,82	160,16	204,24	372,22	4,54
ESET DACH	96,50	82,77	169,48	348,75	3,63
Jena (DE)	96,50	82,77	169,48	348,75	3,63
ESET UK	6,27	7,17	260,15	273,59	3,26
Bournemouth (UK)	4,58	3,05	248,25	255,88	3,66
Taunton (UK)	1,69	4,12	11,90	17,71	1,26
ESET LATAM		15,72	183,49	199,21	1,53
Buenos Aires (AR)		14,99	99,82	114,81	1,28
Mexico City (MX)			55,38	55,38	2,77
Sao Paulo (BR)		0,73	28,29	29,02	1,45
ESET Italy	89,81	0,00	66,52	156,33	4,89
Milan (IT)	89,81	0,00	66,52	156,33	4,89
ESET APAC	11,65	38,09	115,36	165,10	3,37
Singapur (SG)	0,70	31,54	60,59	92,83	3,09
Sydney (AUS)	10,95	6,55	54,77	72,27	3,80
ESET Software Czech Republic	64,18	56,74	32,82	153,74	2,26
Prague S&M (CZ)	64,18	56,74	32,82	153,74	2,26
ESET Romania	2,51	1,56	13,76	17,83	1,27
Iasi (RO)	2,51	1,56	13,76	17,83	1,27
Grand Total	897,65	794,22	4 597,99	6 289,86	2,91

⁴⁴ The significant differences between individual entities and offices are caused by the nature of their activities as well as the availability of data for each office. For information on the availability of data for individual offices, refer to Table 4.

3.2.1 ESET Slovakia



ESET Slovakia with its 1 277 employees is the largest office within the ESET Group and its contribution to the Group's carbon footprint is also the largest. Below a breakdown is given for each location within ESET Slovakia and their respective contribution to the overall result (Table 15). It is evident from Table 15 that Bratislava has the highest emissions, which comprise 97% of ESET Slovakia's emissions.

Table 15: Overview of results for each ESET Slovakia location

Emissions by locations (in tonnes CO ₂ e)		
Locations	Location-based	Market-based
Bratislava (SK)	3 099,11	2 815,40
Košice (SK)	76,38	76,51
Žilina (SK)	24,57	24,43
Grand Total	3 200,06	2 916,34

From the detailed break-down of the individual scopes presented in Table 16 it is clear that scope 3 contributes the most to the overall emissions with 80% in the location-based approach and 79% in the market-based approach. This is mostly due to the emissions deriving from purchased goods, which make up 37% and 41% in the respective approaches of the scope 3 emissions. The second biggest driver of emissions in ESET Slovakia is scope 1, where about 70% of emissions come from heating. As regards scope 2, purchased electricity contributes the most to the overall emissions (90%). The difference between market- and location-based values is due to the fact that in the locations where it was known the exact proportion of renewable energy supplied to the offices was supplied for the purposes of the calculations. Hence, the proportion of this consumption of electricity was given a zero emission factor.

Table 16: Detailed breakdown of each scope by category within ESET Slovakia

Emissions by GHG scope (in tonnes CO ₂ e)		
Category	Location-based	Market-based
Scope 1	456,43	456,44
Fugitive emissions	17,73	17,74
Stationary combustion	319,77	319,77
Vehicles combustion	118,93	118,93
Scope 2	175,73	162,91
Purchased electricity	157,63	144,69
Purchased heat	17,17	17,17
Vehicles combustion	0,93	1,05
Scope 3	2 567,90	2 296,99
Business trips	233,99	233,99
Employee commuting	786,07	786,07
Leased assets	247,01	0,00
Waste management	41,21	41,21
Purchased goods	956,55	956,55
WTT and T&D emissions	303,07	279,17
Grand Total	3 200,06	2 916,34



3.2.2. ESET NORAM

The second largest contributing reporting entity is ESET NORAM, comprising 18% and 19% of the total ESET Group’s emissions in the location- and market-based approach respectively. Table 17 shows that approx. 88% of emissions of ESET NORAM are from the San Diego office, which has markedly more employees than Montreal and Toronto.

Table 17: Overview of results for each location within ESET NORAM

Emissions by locations (in tonnes CO ₂ e)		
Locations	Location-based	Market-based
San Diego (US)	1 051,25	1 091,78
Toronto (CA)	94,81	95,94
Montreal (CA)	42,71	65,13
Grand Total	1 188,77	1 252,86

As Table 18 shows ESET NORAM does not have any emissions in scope 1, as these offices do not own or control any vehicles and they did not record any fugitive emissions from air conditioning. Purchased heat was recorded under scope 2 for this entity. 85% and 82% of ESET NORAM emissions in the location- and market-based approach respectively derive from scope 3, where 45% of these emissions are from business trips and 36% come from employee commuting. As regards scope 2, the biggest contribution is from purchased electricity and the difference between the two approaches is due to ESET NORAM not purchasing renewable electricity.

Table 18: Detailed breakdown of each scope by category within ESET NORAM

Emissions by GHG scope (in tonnes CO ₂ e)		
Category	Location-based	Market-based
Scope 2	175,02	217,49
Purchased electricity	161,57	209,05
Purchased heat	13,45	8,44
Scope 3	1 013,75	1 013,75
Business trips	459,07	459,07
Employee commuting	364,57	364,57
Waste management	0,36	0,37
Purchased goods	13,08	13,08
WTT and T&D emissions	176,67	198,28
Grand Total	1 188,77	1 252,86



3.2.3 ESET Research Czech Republic

ESET Research in the Czech Republic emits approx. 7% of the total carbon footprint of ESET Group. The contributions of the different locations is almost evenly distributed between Brno and Jablonec with 41% and 33% of emissions from these locations respectively (Table 19).

Table 19: Overview of results for each location within ESET Research Czech Republic

Emissions by locations (in tonnes CO ₂ e)		
Locations	Location-based	Market-based
Brno (CZ)	174,60	179,08
Jablonec (CZ)	140,54	142,40
Prague (CZ)	111,05	112,42
Grand Total	426,19	433,90

As regards the proportion of the different scopes in the total emissions, scope 3 contributes 52% and 51% to the overall footprint of ESET Research Czech Republic in the location-based and market-based methods respectively. In scope 3, the biggest driver of emissions is employee commuting (39%), followed by business trips (28%). Scope 1 is responsible for 38% and 37% of emissions of ESET Research Czech Republic in the location-based and market-based method respectively. Within scope 1 ca. 55% of emissions come from stationary combustion, i.e. heating, and 39% are from leakages from air conditioning units (fugitive emissions).

Table 20: Detailed breakdown of each scope by category within ESET Research Czech Republic

Emissions by GHG scope (in tonnes CO ₂ e)		
Category	Location-based	Market-based
Scope 1	162,48	162,48
Fugitive emissions	62,64	62,64
Stationary combustion	89,81	89,81
Vehicles combustion	10,03	10,03
Scope 2	44,08	51,56
Purchased electricity	44,08	51,56
Scope 3	219,63	219,86
Business trips	61,27	61,27
Employee commuting	86,68	86,68
Waste management	2,60	2,60
Purchased goods	11,88	11,88
WTT and T&D emissions	57,20	57,43
Grand Total	426,19	433,90



3.2.4 ESET Poland

ESET Poland has only one office in Krakow, which emitted about 5% and 6% (in the location-based and market-based methods respectively) of total ESET Group emissions.

Table 21: Overview of results for ESET Poland

Emissions by locations (in tonnes CO ₂ e)		
Locations	Location-based	Market-based
Krakow (PL)	346,62	372,22
Grand Total	346,62	372,22

The detailed analysis of the scopes show that scope 3 contributes the most to the overall total of ESET Poland with 58% and 55% in the location-based and market-based methods respectively (Table 22). The biggest contributors to the scope 3 emissions are the categories business trips (42%) and employee commuting (29%). The second largest contributor to ESET Poland total emissions is scope 2, making up 40% and 43% in the location-based and market-based methods respectively. As in other offices, purchased electricity makes up the most of the emissions from scope 2.

Table 22: Detailed breakdown of each scope by category within ESET Poland

Emissions by GHG scope (in tonnes CO ₂ e)		
Category	Location-based	Market-based
Scope 1	7,82	7,82
Vehicles combustion	7,82	7,82
Scope 2	136,19	160,16
Purchased electricity	120,56	144,53
Purchased heat	15,63	15,63
Scope 3	202,61	204,24
Business trips	85,25	85,25
Employee commuting	58,16	58,16
Waste management	0,63	0,63
Purchased goods	7,36	7,36
WTT and T&D emissions	51,21	52,84
Grand Total	346,62	372,22



3.2.5 ESET DACH

Similarly to ESET Poland, the calculation of the carbon footprint of ESET DACH included only one location - Jena, which emitted about 5% of total ESET Group's emissions (Table 23).

Table 23: Overview of results for ESET DACH

Emissions by locations (in tonnes CO ₂ e)		
Locations	Location-based	Market-based
Jena (DE)	327,50	348,75
Grand Total	327,50	348,75

The largest contribution of the emissions come from scope 3 with 52% in the location-based approach and 49% in the market-based approach. About 50% of scope 3 emissions are from employee commuting. The second largest contribution to the total emissions of ESET DACH is scope 1 which comprises emissions from vehicle combustion. Scope 1 is responsible for 29% or 28% of ESET DACH emissions in the location-based and market-based approaches respectively.

Table 24: Detailed breakdown of each scope by category within ESET DACH

Emissions by GHG scope (in tonnes CO ₂ e)		
Category	Location-based	Market-based
Scope 1	96,50	96,50
Vehicles combustion	96,50	96,50
Scope 2	62,32	82,77
Purchased electricity	20,20	39,88
Purchased heat	41,32	41,32
Vehicles combustion	0,80	1,59
Scope 3	168,68	169,48
Business trips	15,72	15,72
Employee commuting	84,40	84,40
Purchased goods	15,11	15,11
WTT and T&D emissions	53,45	54,25
Grand Total	327,50	348,75



3.2.6 ESET UK

ESET UK contributes 4% to the total ESET Group carbon footprint. There are two locations in the UK and the Bournemouth office contributes the most to the total ESET UK footprint (94%) (see Table 25).

Table 25: Overview of results for ESET UK

Emissions by locations (in tonnes CO ₂ e)		
Locations	Location-based	Market-based
Bournemouth (UK)	277,99	255,88
Taunton (UK)	17,75	17,71
Grand Total	295.74	273.59

The detailed analysis of each scope as presented in Table 26 shows that scope 3 contributes approx. 88% (in the location-based approach) and 95% (in the market-based approach) to the overall emissions of ESET UK. Within scope 3 more than half of the emissions stem from employee commuting. Scope 2 is the second most important driver of emissions and purchased electricity is responsible for the most emissions. It is evident that the proportion of renewable electricity is relatively high at these offices as the difference between market- and location-based values from this category is substantial.

Table 26: Detailed breakdown of each scope by category within ESET UK

Emissions by GHG scope (in tonnes CO ₂ e)		
Category	Location-based	Market-based
Scope 1	6,27	6,27
Stationary combustion	2,89	2,89
Vehicles combustion	3,38	3,38
Scope 2	27,94	7,17
Vehicles combustion	0,74	0,74
Purchased electricity	27,20	6,43
Scope 3	261,53	260,15
Business trips	58,06	58,06
Employee commuting	150,47	150,47
Waste management	0,10	0,10
Purchased goods	0,84	0,84
WTT and T&D emissions	52,06	50,68
Grand Total	295,74	273,59



3.2.7 ESET LATAM

ESET LATAM contributes approx. 3% to the overall ESET Group's carbon footprint. There are 3 offices within ESET LATAM and emissions from Buenos Aires comprise 57% of the total emissions from this reporting entity (Table 27).

Table 27: Overview of results for each location within ESET LATAM

Emissions by locations (in tonnes CO ₂ e)		
Locations	Location-based	Market-based
Buenos Aires (AR)	114,82	114,82
Mexico City (MX)	55,38	55,38
Sao Paulo (BR)	29,02	29,02
Grand Total	199,21	199,21

Similarly to ESET NORAM, ESET LATAM does not have any scope 1 emissions, as these offices do not own or control any vehicles and did not record any fugitive emissions from air conditioning. Table 28 shows that scope 3 comprises the majority (92%) of ESET LATAM's emissions, of which 52% are from employee commuting, whereas 37% are from business trips.

Table 28: Detailed breakdown of each scope by category within ESET LATAM

Emissions by GHG scope (in tonnes CO ₂ e)		
Category	Location-based	Market-based
Scope 2	15,72	15,72
Purchased electricity	15,72	15,72
Scope 3	183,49	183,49
Business trips	68,12	68,12
Employee commuting	94,73	94,73
Waste management	0,01	0,01
Purchased goods	1,97	1,97
WTT and T&D emissions	18,66	18,66
Grand Total	199,21	199,21



3.2.8 ESET Italy

ESET Italy comprises one office, whose emissions are presented below in Table 29 and they comprise approx. 2.5% of ESET Group's emissions.

Table 29: Overview of results for ESET Italy

Emissions by locations (in tonnes CO ₂ e)		
Locations	Location-based	Market-based
Milan (IT)	167,78	156,33
Grand Total	167,78	156,33

For ESET Italy, 54% of the total emissions from the reporting entity are from scope 1 in location-based approach, whereas in the market-based approach scope 1 represents 57%. The emissions are almost equally divided between fugitive emissions and emissions from vehicles. As ESET Italy purchases 100% of its electricity from renewable sources, scope 2 emissions are zero under the market-based approach. Within scope 3, employee commuting is responsible for most emissions.

Table 30: Detailed breakdown of each scope by category at ESET Italy

Emissions by GHG scope (in tonnes CO ₂ e)		
Category	Location-based	Market-based
Scope 1	89,81	89,81
Fugitive emissions	41,76	41,76
Vehicles combustion	48,05	48,05
Scope 2	9,66	0,00
Purchased electricity	9,66	0,00
Scope 3	68,31	68,31
Business trips	7,71	7,70
Employee commuting	28,00	28,00
Waste management	0,01	0,01
Purchased goods	10,96	10,96
WTT and T&D emissions	21,63	19,85
Grand Total	167,78	156,33



3.2.9. ESET APAC

ESET APAC represents 2.3% of the ESET Group’s total carbon footprint. The carbon footprint calculations encompassed the emissions from the two locations presented below in Table 31. The Singapore office was a slightly higher contributor to the ESET APAC carbon footprint.

Table 31: Overview of results for each location within ESET APAC

Emissions by locations (in tonnes CO ₂ e)		
Locations	Location-based	Market-based
Singapore (SG)	92,83	92,83
Sydney (AUS)	72,27	72,27
Grand Total	165,10	165,10

70% of total emissions from ESET APAC are from scope 3, of which business trips and employee commuting contribute the most to the overall result. Scope 2 is the second largest driver of emissions comprising 23% of ESET APAC’s emissions.

Table 32: Detailed breakdown of each scope by category within ESET APAC

Emissions by GHG scope (in tonnes CO ₂ e)		
Category	Location-based	Market-based
Scope 1	11,65	11,65
Vehicles combustion	11,65	11,65
Scope 2	38,09	38,09
Purchased electricity	38,09	38,09
Scope 3	115,36	115,36
Business trips	32,85	32,85
Employee commuting	36,16	36,16
Waste management	0,12	0,12
Purchased goods	12,55	12,55
WTT and T&D emissions	33,68	33,68
Grand Total	165,10	165,10



3.2.10. ESET Software Czech Republic

ESET Software Czech Republic is responsible for approx. 2% of ESET Group's total emissions. This entity has only one location and its emissions are presented below.

Table 33: Overview of results for ESET Software Czech Republic

Emissions by locations (in tonnes CO ₂ e)		
Locations	Location-based	Market-based
Prague S&M (CZ)	148,91	153,74
Grand Total	148,91	153,74

The Prague S&M (CZ) office only supplied data for scopes 1 and 2 and within scope 3 only data for purchased goods and WTT and T&D emissions. Hence, the contribution of scope 1 and 2 are relatively high when compared to scope 3, which is the reverse as regards information reported for the majority of offices. Scope 1 contributes 43%, and scope 2 contributes 35% and 37% to the overall footprint of ESET Software Czech Republic in the location- and market-based approach respectively.

Table 34: Detailed breakdown of each scope by category within ESET Software Czech Republic

Emissions by GHG scope (in tonnes CO ₂ e)		
Category	Location-based	Market-based
Scope 1	64,18	64,18
Vehicles combustion	64,18	64,18
Scope 2	51,83	56,74
Purchased electricity	38,85	43,76
Purchased heat	12,98	12,98
Scope 3	32,90	32,82
Purchased goods	1,01	1,03
WTT and T&D emissions	31,89	31,79
Grand Total	148,91	153,74



3.2.11. ESET Romania

ESET Romania has the smallest footprint of ESET Group, comprising only 0.3 % of overall emissions. There is only 1 office in Iasi and its emissions are presented below.

Table 35: Overview of results for ESET Romania

Emissions by locations (in tonnes CO ₂ e)		
Locations	Location-based	Market-based
Iasi (RO)	17,98	17,98
Grand Total	17,98	17,98

ESET Romania's largest emissions are from scope 3 and they represent about 77% and the highest proportion of these emissions are from employee commuting category, more specifically home-working. Approx. 14% of emissions are in scope 1 from fugitive emissions.

Table 36: Detailed breakdown of each scope by category within ESET Romania

Emissions by GHG scope (in tonnes CO ₂ e)		
Category	Location-based	Market-based
Scope 1	2,51	2,51
Fugitive emissions	2,51	2,51
Scope 2	1,67	1,56
Purchased electricity	0,24	0,13
Purchased heat	1,42	1,43
Scope 3	13,80	13,76
Business trips	1,81	1,80
Employee commuting	9,16	9,16
Waste management	0,00	0,00
Purchased goods	2,22	2,22
WTT and T&D emissions	0,61	0,58
Grand Total	17,98	17,83

4. CONCLUSION

24 ESET offices were examined in terms of their emission sources in order to calculate ESET Group's carbon footprint. However, only 21 offices provided their data and are subject of the global carbon footprint calculation. The total carbon footprint of the ESET Group in the location-based method is 6 483.85 tonnes CO₂e and 6 289.86 tonnes CO₂e in the market-based method. The largest proportion of the total carbon footprint stems from indirect emissions occurring in the value chain of the ESET Group (scope 3). The biggest contributor to the carbon footprint in absolute terms is ESET Slovakia, making up almost half of total emissions.

When the respective scopes are examined in more detail, in scope 1 the largest source of emissions is heating, closely followed by vehicle combustion. Therefore, the heating source should be in mind when choosing space for ESET offices. More vehicles could be electric or more ecological modes of transport could be encouraged to be used by ESET. This goes hand in hand with employee commuting emissions and business trips emissions which were the largest contributors within scope 3. Furthermore, recording refrigerant leakages is extremely important for carbon footprint and should be realised at each location as these gases have a powerful global warming potential.

Purchasing renewable energy can be beneficial for the Company when it comes to its carbon footprint as it reduces the total emissions of the Group. Thus, more renewable energy should be purchased throughout the ESET Group, especially in offices with a higher number of employees. As mentioned above, scope 3 has the highest contribution to total Group's emissions, out of which homeworking makes up the largest part, followed by commuting by car. As this data was for the most part estimated, for the future calculations it is important that this data will be measured to represent reliable results. In 2023, ESET has been preparing its global ESG strategy and its environmental pillar will also address measures to reduce the carbon footprint of the ESET Group.