ESET AND ITS JOURNEY TO **CARBON NEUTRALITY 2021**

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CONTENT

INTRODUCTION

About the organization

ESET is an IT global digital security company established in Slovakia in 1992. Its main business activities include the selling and development of computer protection software and computer networks against malware and other malicious codes. ESET is one of the best-known companies for internet security solutions in the world. As an innovative Slovak company and social change initiative, it operates in more than 200 countries worldwide. The official headquarters of ESET is located in Bratislava (in Aupark Tower and Digital Park), with two other regional branches in Žilina and Košice. These branches together employ approximately 1100 employees. Apart from this, ESET has tens of other branches around the world of differing size, which employ around an extra 830 employees.

Goals of the project

- A survey assessment of the environmental activity in the Slovak branches for 2021 (qualitative assessment)
- Calculation of the carbon footprint in the Slovak branches for 2021 (quantitative assessment)
- Assessment of the collected data as preparation for the company's global carbon footprint calculation.

A SURVEY ASSESSMENT OF THE ENVIRONMENTAL ACTIVITY IN THE SLOVAK BRANCHES

The main objective of the qualitative assessment when working with the survey, was to obtain an overview of the circular economy, carbon footprint and the company's position towards environmental and climate sustainability. The questions were based on the current situation of the company, focused on steps that were taken primarily in 2021 and steps that are planned for the following years.

The company's strategic goals in the field of CSR

Environmental and climate sustainability are one of the key CSR activities of the company. CSR is also based on the 17 Sustainable Development Goals (SDGs). In the Report of Responsible Business in Slovakia[1], published in 2018, ESET implemented four pillars of responsible business as: Ethics as the Basis of Business, Safer Technologies, Satisfied Employees and Better Slovakia. Later, they added another pillar called A Green World that sets up measurements of the environmental impact of their activities (measuring CO_2e emissions, energy consumption, waste production). At this moment, the most significant activity related to this area is planning the construction of a new ESET headquarters building in Bratislava, which will meet the highest environmental standards.

In 2021, the company started working on a CSR strategic goals revision.

Principle use and activity performance

In 2021 and the beginning of 2022, in terms of environmental and climate sustainability and circular economy, ESET used the following principles and carried out the following activities:

Environmental materials/resources management:

- Electric energy used in the offices is purchased as Green Energy.
- Some purchased paper products contained recycled material.
- Use of recyclable and compostable dishes and cutlery at company events.
- When purchasing advertising items, environmentally friendly and recycled materials are the priority.

Use of innovative techniques and approaches of minimizing consumption of water/energy/ raw materials and amount of waste:

- Aupark Tower (company's headquarters in Bratislava) classified as a green building, holds the"BREEAM EXCELLENT" certificate.
- The company preferably selects modern and energy-efficient data centers. It happens with consolidating of data centers and servers. They are using virtualization, IT technology with low energy consumption and thin clients as workstations for employees (computers with very low energy consumption), which significantly reduces electricity consumption. ESET is also using a passive cooling of server rooms and effective space cooling (warm and cold corridors.)

1 https://www.eset.com/fileadmin/ESET/SK/Docs/ESET-CSR-Report-2018.pdf

- During the absence of employees at the workplace, cooling and heating are put into reduced regime in each office.
- As a contact between the branches, the company prefers using virtual videocalls to business trips.
- The company has implemented several action plans of digitization and electronification. Among other things, it has an established contract for signing system via the DocuSign platform.
- ESET is currently preparing the realization of an innovative and technological hub called "ESET Campus" in Bratislava – Patrónka that will meet the latest technological standards and the use of intelligent and efficient solutions in order to achieve carbon-neutral operation. ESET presented the conceptual design framework of this project in 2021.

Reuse of products/materials/resources:

- Technology (laptops and mobile phones) can be purchased by employees and reused again. At the beginning of 2022 the company donated discarded, but still usable 68 servers to Faculty of Management of the Comenius University. Employees occasionally have the opportunity to participate in the purchasing or electronic auction of discarded cars, coffee machines, etc. Together with the ESET Foundation these finances can be used as grants for the employee grant program. Backing up PET bottles is still in process with the lessor.

Shared services:

- The company is using shared company cars for business trips (3 cars in BA and 1 car in KE).
- Employees can borrow bicycles available in the company. The company regularly participates in the "Bike to work" campaign.
- As part of the mandatory home office, employees were allowed to borrow computer monitors and chairs.

Renovations and reconstructions:

- As part of the renovation of the building in BA, the company used low-carbon squared carpets. If there are worn areas they can be locally repaired/replaced with a new square.

Waste separation and recycling:

- To be a part of waste separation, ESET has introduced bins for plastics, glass, paper, mixed waste, and also canvas bins for unpressurized PET bottles and cans that are later used for backing up.
- Discarded IT technology is sent for recycling.

Introduction or optimization of material or product eco-design:

- The company continues to produce paper product packaging and non-laminated boxes for better recycling.

Awareness raising:

- Education and the suggestions or implementation of changes are led by a group of employees, the so-called EKOAmbassadors. In 2021, they organized a company challenge called "ECO Home Office Challenge" that provided employees with tips and tricks on how to reduce the amount of waste in their households. In May 2021, EKOAmbassadors launched a campaign to improve employees' knowledge about waste sorting. They also organized an eco-cleanup in Sad Janka Kráľa. Spread of information has continued through blogs, intranet or the Yammer social networking site.
- In recent years, ESET has organized several lectures and webinars in cooperation with NGOs INCIEN and Živica. There was one webinar organized in 2021. (Eco-friendly cleaning and household products and its advantages or disadvantages).

Other:

- The purchase of new cars included only hybrids (2 cars).
- In cooperation with INCIEN, ESET completed a carbon footprint calculation and a summary of the environmental activities in the BA headquarters for 2019 and 2020. The calculation for 2021 is currently being undertaken, during which the monitored areas have been broadened (within Scope 3) and the carbon footprint calculation of the branches in Košice and Žilina has also started. ESET is planning to assess the carbon footprint in the branches abroad.

Note: In recent years, ESET has introduced and carried out other assessments and activities in this field. The summary can be found in the document entitled ESET's Carbon Footprint for 2019 and 2020 and in the completed qualitative surveys for 2019, 2020 and 2021.

Factors motivating ESET to invest in environmental and climate sustainability and circular economy (from most to least important):

1.

- Building a good name for the company
- Strengthening the brand value
- Part of CSR
- Pressure from customers/changing preferences
- Achieving of the EU's goals and targets in environmental policy
- Long-term cost savings/profit growth
- Competitive advantage/improving market position
- Creating an environmentally conscious corporate culture

2.

- Pressure from business partners

3.

- Part of the organization's marketing

The biggest difficulties in environmental and climate sustainability and circular economy projects realization:

- Lacking of technical and technological know-how
- Missing strategy for green measures implementation

ESET considers this area as important and plans to implement various measures to a greater extent.

ESET's plans for the next 5 years:

- A regular carbon footprint calculation in line with EU policy is an important strategic ESET's priority, also with expanding carbon footprint calculation outside of Slovakia on the global level and with setting measures to reduce the carbon footprint. A carbon footprint report for all of the company's branches is to be published in 2023. The company is planning to gradually include more non-mandatory areas in the carbon footprint calculation in order to get a real image of its global activities.
- ESET's goal as a global company, is to harmonize CSR goals with its own needs and with the upcoming EU legislative changes in the field of climate protection. The company is planning to unify the solutions related to environmental, social and corporate governance (ESG) across all its branches with the use of systematic and scientific approach. Part of the unified global strategy will be an action plan with specific goals and measurable environmental indicators. That includes improving waste management, increasing energy efficiency and reducing the company's carbon footprint.
- The company's long-term objective is to continue raising awareness and educating employees on the environment and climate topics, to support active employees and employee groups (e.g. ECO Ambassadors) and to support environmental volunteering.
- ESET is also planning to create a unified "ESET Code of Ethics and Integrity"that is going to replace the code of conduct of Slovak headquarters and some other ESET's branches. The code of conduct will also include a chapter that is dealing with the behavior of company and its employees towards the environment and climate.
- Construction of ESET Campus (**https://www.esetcampus.com/**) plans to be finished until 2027. Its defining aspect is going to be an environmental design, flexibility and net zero carbon building operation. The carbon neutrality ambition is to be observed in the design and the selection and implementation of construction technologies or materials and in the campus operation. The project is mainly focused on energy efficiency and the possibilities of using different types of renewable energy sources or possibility of energy self-sufficiency.

CARBON FOOTPRINT CALCULATION OF THE SLOVAK BRANCHES FOR 2021

Initial state

ESET had already calculated the carbon footprint in 2019 and 2020, but only for the Slovak headquarters in Bratislava. The year 2021 is the third year of calculation and at the same time the first year when partial data for branches in Žilina and Košice were added to the calculation. The year 2021 has been severely hit by the Covid – 19 pandemic, caused by the spread of the SARS-CoV-2 coronavirus. Due to increased working from home the production of greenhouse gas emissions has increased within this area. Another fact that has to be taken into the consideration is that the calculation range within Scope 3 has significantly broadened. In the following period, it is therefore important to compare the company's carbon footprint status with these facts considered.

Carbon footprint calculation

The greenhouse gas emissions calculation consisted of the activities related to the lease of administrative buildings in Slovakia (in Bratislava, Košice and Žilina), employees' business trips and employees' energy consumption during home office..

Total emissions of ESET's Slovak branches for 2021 represents **2214,22 t CO_2e.**
Mandatory emissions for 2021 represents **645,95 t CO_2e.**

Tabuľka: Emisie skleníkových plynov spoločnosti za rok 2021

Category		**Emissions CO_2e** [tonnes/year]
	Carbon footrprint (total)	**2214,22**
	Carbon footprint per 1 employee (total number of employees 1100)	**2,01**
	Carbon footprint - only mandatory fuel and energy consumption emissions	**645,95**
	Carbon footprint per 1 employee - only mandatory fuel and energy consumption emissions	**0,59**

Classification of emissions

ESET's carbon footprint analysis included Scope 1 and Scope 2 emission sources (so-called mandatory emissions) and selected significant Scope 3 areas in accordance with the requirements of the GHG Protocol.

Scope 1 (direct emissions) – Fuel consumption of company-owned vehicles, Refrigerant consumption

Scope 2 (indirect emissions) – Electricity consumption in the offices, Natural gas consumption (for heating), Purchased heating consumption

Scope 3 (other indirect emissions) – Waste management, Water and bottled beverages consumption, Purchase of selected electrical equipment, appliances, paper products, textiles and clothing, cars and other equipment and goods, Headquarters reconstruction, Accommodation - business trips and team buildings, Energy consumption (employees' houses during working from home), Fuel consumption on business trips (train, taxi, plane, ship, employees' cars), Electricity consumption in external data centers. Scope 3 emissions are so-called non-mandatory emissions and are broken down into 15 different categories based on the GHG Protocol methodology. This Protocol encourages organizations to report only relevant categories. However, Scope 3 emissions often represent the largest source of emissions for companies and the associated opportunities to influence GHG reductions.

Table: Classification of emissions to Scope categories, direct/indirect, mandatory/non-mandatory

Scope	Total emissions [tonnes CO_2e/year]	Share
Scope 1 a 2 – Direct and indirect mandatory emissions	**645,95**	**29,17 %**
Scope 3 – Other indirect non-mandatory emissions	**1568,28**	**70,83 %**
Total carbon footprint	**2214,22 t CO_2e**	**100 %**

Graph: Percentage of emissions distributed into Scopes, direct/indirect and mandatory/non-mandatory emissions

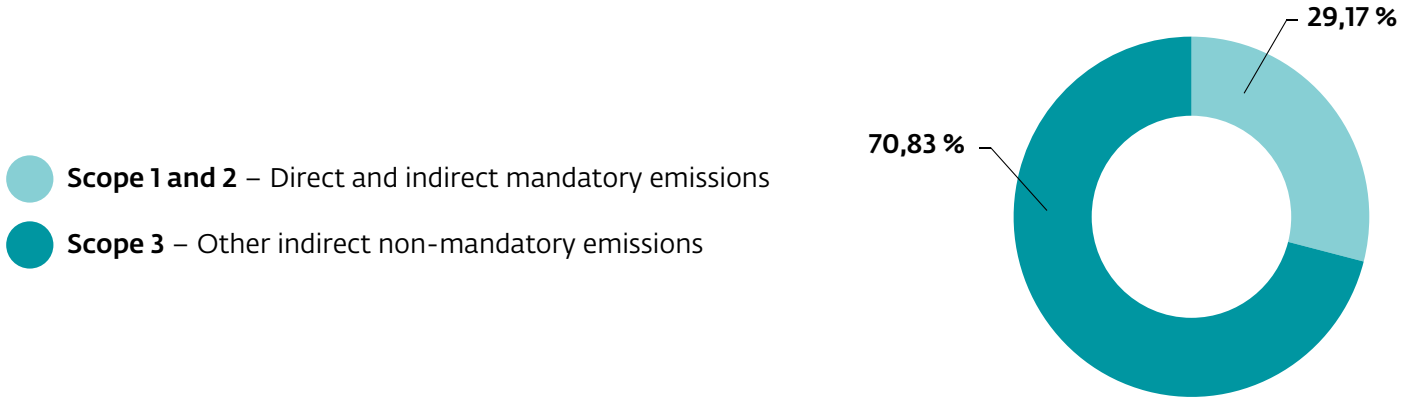
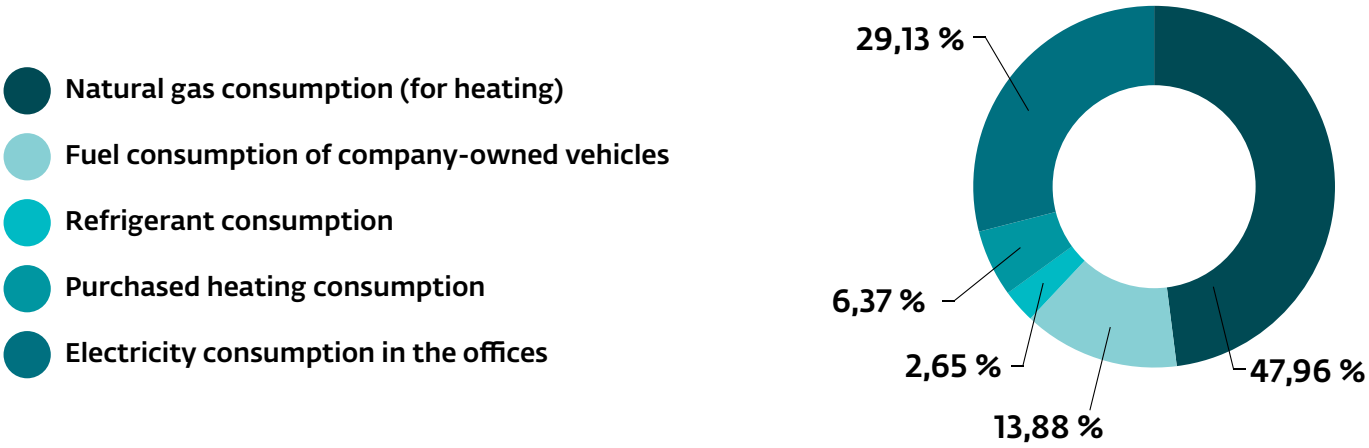


Table: Classification of mandatory emissions (Scope 1 and 2) for 2021 for each category in tonnes CO_2e and percentage

Category	Partial carbon footprint [t CO_2e]	Share on carbon footprint
Fuel consumption of company-owned vehicles	**89,68**	**13,88 %**
Purchased heating consumption	**41,16**	**6,37 %**
Natural gas consumption (for heating)	**309,82**	**47,96 %**
Electricity consumption in the offices	**188,17**	**29,13 %**
Refrigerant consumption	**17,12**	**2,65 %**
Carbon footprint	**645,95 t CO_2e**	**100 %**

Graph: Classification of mandatory emissions (Scope 1 and 2) for 2021 for each category in tonnes CO_2e and percentage

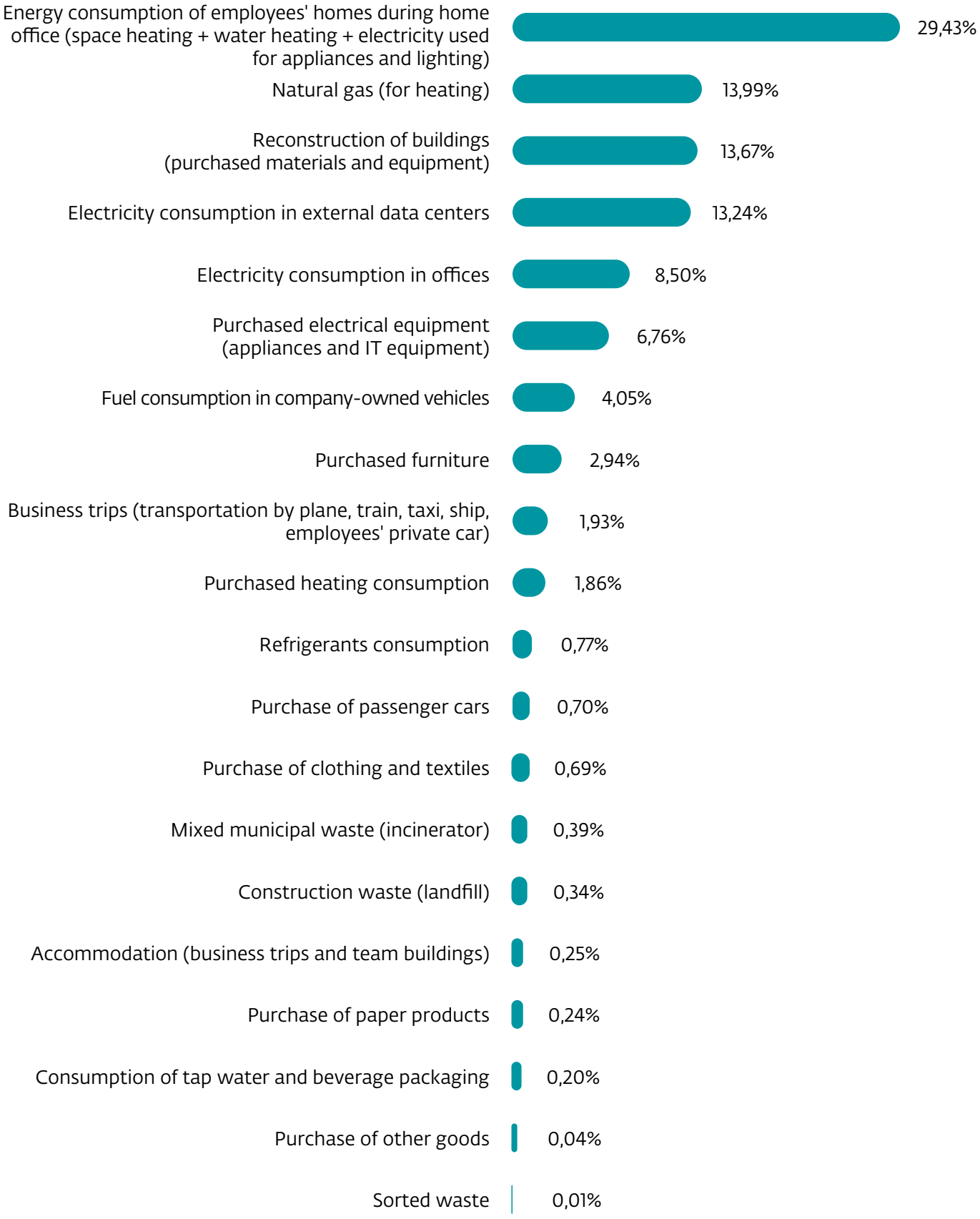


Carbon footprint of selected categories

Table: Emissions production of selected areas categorized according to Scope classification

Type of emissions	Selected category	Partial carbon footprint (t CO_2e)	Share on carbon footprint
Mandatory emissions, direct and indirect (Scope 1 a 2)	Natural gas consumption (for heating)	**309,82**	**13,99%**
	Fuel consumption of company-owned vehicles	**89,68**	**4,05%**
	Refrigerant consumption	**17,12**	**0,77%**
	Electricity consumption in the offices	**188,17**	**8,50%**
	Heat consumption	**41,16**	**1,86%**
Non-mandatory and other indirect emissions (Scope 3)	Electricity consumption in external data centers	**293,06**	**13,24%**
	Water and bottled drinks consumption	**4,51**	**0,20%**
	Fuel consumption on business trips (train, taxi, plane, ship, employees' cars)	**42,66**	**1,93%**
	Accommodation - business trips and teambuildings	**5,61**	**0,25%**
	Purchase of automobiles (for personal use)	**15,53**	**0,70%**
	Purchase of electrical equipment	**149,66**	**6,76%**
	Purchase of paper products	**5,39**	**0,24%**
	Purchase of clothes and textiles	**15,19**	**0,69%**
	Purchase of other equipment	**0,94**	**0,04%**
	Reconstruction of buildings (purchased materials and equipment)	**302,76**	**13,67%**
	Purchase of furniture	**65,12**	**2,94%**
	Mixed municipal waste - incinerator	**8,53**	**0,39%**
	Construction and demolition waste - landfill	**7,55**	**0,34%**
	Sorted waste	**0,17**	**0,01%**
	Energy consumption (employees' houses during the home office – heating, water heating, energy consumption of electrical equipment)	**651,59**	**29,43%**
Total carbon footprint		**2214,22**	**t CO_2e**

Graph: Categories ordered by impact on carbon footprint



Share of branches on total carbon footrpint

Table: Share of branches on total carbon footprint in Slovakia for 2021

Branch	Partial carbon footprint (t CO_2e)	Share on total carbon footprint	Number of employees
Bratislava	**2116,07**	**95,57%**	**1039,00**
Košice	**75,45**	**3,41%**	**50,00**
Žilina	**22,70**	**1,03%**	**11,00**
Total carbon footprint	**2214,22**	**t CO_2e**	**1100**

Graf: Share of branches on total carbon footprint in Slovakia for 2021

Limitation of the calculation

The calculation used a control approach, where the boundaries of the analysis include activities over which the organization has direct control, either financial or operational. Direct control means that the organization has the right to introduce and implement selected operational changes during the monitored year. Data availability, accuracy, consistency and transparency are also important criteria for determining the boundaries of the analysis. The size of the company's calculated carbon footprint for 2021 has been affected by the unavailability or inaccuracy of some data.

For example, the calculation of the carbon footprint for energy consumption (mainly heat consumption) of employees working from home takes into the account the fact that only the employee himself stayed in a regular household (apartment building type), without other family members, which may not reflect the reality. Due to lack of data, we have made several estimates regarding energy consumption during the home office.

Data on how employees regularly commute to work are also not tracked.

In terms of waste, it should be noted that there was a significant increase in working from home versus working from the office in 2021. This implies that the company's building occupancy was quite low. This affected the amount of waste generated on site in addition to energy consumption. The amount reported was relatively low. However, the amount of waste increased in the employees' households. We did not counted this waste in the overall carbon footprint of the company as we did not have any relevant data from this area. Incompleteness of reported data also appears to have occurred in the area of electricity consumption in external data centers. The notes to the reported consumption indicated that it included only the H1 and H2 data centers and that H3 and H5 were subject to a fixed energy charge. To get a more exact carbon footprint calculation in the future, it is necessary to focus on obtaining more detailed data in the selected areas and on more detailed data reporting for Žilina and Košice branches.

Comparison of the carbon footprint calculations of the Bratislava headquarters for 2019, 2020 a 2021

As ESET measured the carbon footprint in 2019 and 2020 only for the Bratislava headquarters, a basic comparison of the previous carbon footprint can only be made for this office. When comparing, the following facts must be considered:

- The total number of employees has grown over time.
- The year 2019 – in this „pre-corona" year the refrigerants in the air conditioning units were replaced on a large scale. These factors significantly affected the size of mandatory emissions (Scope 1 and 2).
- Year 2020 - the pandemic had an impact on the carbon footprint. Emissions for working from home have not been included, refrigerants have not been changed on a large scale, and the buildings have not been renovated.
- Year 2021 – the pandemic continues to have an impact on the carbon footprint. In this year the items in Scope 3 have been significantly broadened. Including the reconstruction of buildings, working from home and other areas of emissions.

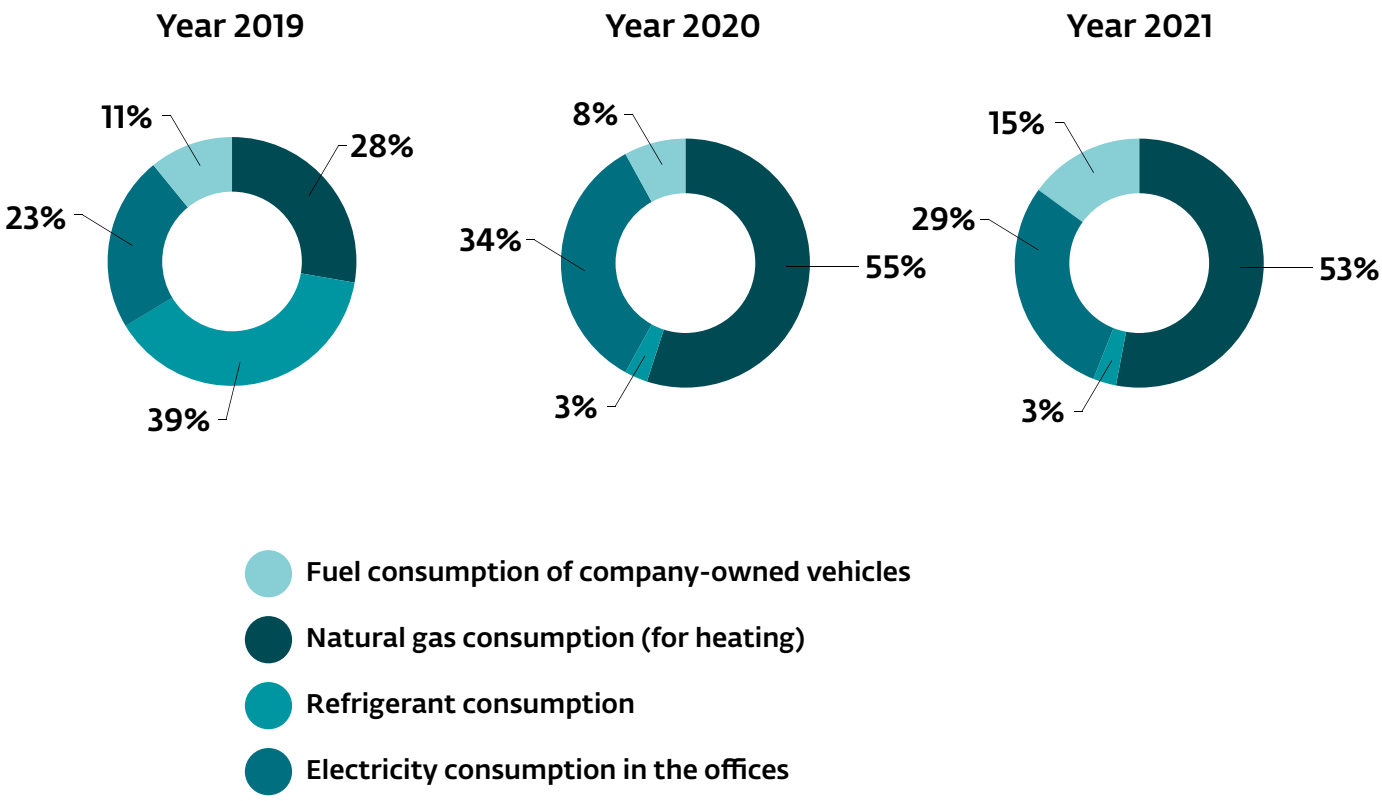
Table: Basic comparison of the carbon footprint calculation for Bratislava headquarters for 2019, 2020 a 2021

	2019	2019	2021	t CO_2e
Total carbon footprint (mandatory and non-mandatory Scope 1, Scope 2 a Scope 3 emissions)	**1338,3**	**801,9**	**2116,1**	
Carbon footprint (only mandatory Scope 1 and Scope 2 emissions)	**1002,8**	**529,3**	**584,3**	
Carbon footprint for 1 employee (total emissions including non-mandatory emissions)	**1,61**	**0,85**	**2,04**	
Carbon footprint for 1 employee (only mandatory emissions)	**1,21**	**0,56**	**0,56**	

Table: Comparison of the Scope 1 and Scope 2 categories – mandatory emissions

Selected category	Year 2019 (t CO_2e)		Year 2020 (t CO_2e)		Year 2021 (t CO_2e)	
Fuel consumption of companyowned vehicles	**108**	11%	**45**	8%	**90**	15%
Natural gas consumption (for heating)	**278**	28%	**293**	55%	**310**	53%
Refrigerant consumption	**390**	39%	**14**	3%	**17**	3%
Electricity consumption in the offices	**226**	23%	**178**	34%	**168**	29%
Carbon footprint Scope 1+2 (t CO_2e)	**1002**		**530**		**585**	

Graph: Share on carbon footprint per category – mandatory emissions (Scope 1 and 2) for 2019, 2020 a 2021



ASESSSMENT OF COLLECTED DATA AS THE PREPARATION FOR THE COMPANY'S GLOBAL CARBON FOOTPRINT CALCULATION

Activity goals

The main objective of the activity was:

- To start the preparation for the ESET's global carbon footprint calculation for 2022,
- To inform all foreign branches of the company about annual carbon footprint calculation,
- To create a database of direct contacts that would be responsible for supplying data and information for all branches,
- To determine what kind of data are easily accessible to branches and whether they will be able to supply the missing data in the future or estimate them,
- To sum up major observations of the collected information from individual branches that will be helpful in setting up ESET's global carbon footprint calculation for the year 2022. In case of automated solution creation, it is also practical for data collection and comparison.

Process

Firstly, at the start of ESET's global carbon footprint calculation for the year 2022, the company had considered a draft data filling by all foreign branches for the year 2021. Secondly, the quality and speed of data collection should have been evaluated. The company reconsidered this plan later and took a simplified approach due to lack of time.

At the beginning, the Slovak ESET headquarters, which manages the project for the global carbon footprint calculation, had to obtain direct contacts that are responsible for supplying data and information for all branches. Since no similar information and data collection had been done recently, this key process required some time.

When defining the direct contacts, they were sent a basic Excel survey with questions about the number of employees of the specific branch, the relationship to the building (lease/ownership) and the availability of data consumption in selected categories (for example, the electricity consumption in offices and data centers, purchased heat, natural gas, refrigerants or water, the amount of waste production and business trips). Next, the contacts were sent extra questions to supplement their answers. The data was collected for 20 foreign branches around the world.

The process of collected information differed in structure based on the branch in each country. In UK's EMEA and CR, ESET has individual Research and Software entities for obtaining the contacts. In countries where ESET has several branches or employees registered as one entity (e.g. Italy or Germany), there is only one contact person who collects the country data. Although the company has two entities in Canada, data for the region is provided by a contact person from the regional center in San Diego. For the APAC and LATAM regions, the company has contact persons who supply data for all countries in the region.

Conclusions based on collected information

Detailed summary of every individual branch is attached in Annex No. 1, an Excel table entitled ESET Global –the evaluation of the collected information.

The company included 20 branches in the process of information collection. All of them are in a leased space that differs in size. For example, some have leased the entire floor, some only one office. The number of branch employees varies between 7 and 188, which together makes approximately 833 in total.

Some questions were not answered by all branches, even after sending extra ones. Some of the branches did not understand all the questions correctly. For example, there were several differences in the responses for the APAC region. Therefore, it is important to contact persons directly, so they correctly understand what kind of data they have to supply. Some branches only need more time to collect and verify information. Part of the data will be estimated and averaged for the whole building. On the other hand, some branches (Romania, Poland) have already provided precise numerical data.

Required data availability for planning ESET's global carbon footprint calculation varies with the branch and by consumption category. In the Excel Annex No.1, branches are divided into three color categories according to the current data availability.

7 branches (marked in green, see Excel Annex) are declaring relatively good data availability at the moment. 8 branches (marked in orange, see Excel Annex) currently have limited data availability. In some categories, the branches are undergoing the verification process and in relation to other categories they declare the ability to calculate the data proportionally for the entire building, or to have it estimated. The remaining 5 branches (marked in red, see Excel Annex) have relatively insufficient data. That also includes a small Munich branch that probably will not be able to obtain/estimate consistent data of its consumption.

We have already proposed to exclude the Munich branch from the carbon footprint calculation for the year 2022. The other 4 "red" branches with insufficient data are recommended to be included in the calculation, but they should continue to work on data obtaining or to work on reliable missing data estimation.
In general, the major problem is with the waste production and refilled refrigerants data in air conditioning units, the minor problem is with the car business trips data consumption. Branches usually use the small internal data centers/rooms with servers when their consumption is normally included in the total electricity consumption.

Only selected consumption categories were included in the survey. It did not include the questions about paper consumption, employees' commuting to work and energy consumption at the home office. We recommend including other consumption categories in the final ESET's global carbon footprint calculation.

General recommendations and suggestions

- If there are no accurate consumption data for the leased part of the building, we recommend to contact the building manager or the building service that can provide the available data (electricity, heat, water, refrigerants in the air conditioning, amount of waste produced...) for the entire building. Then the data can be proportionally redistributed for the leased part of the building.
- If there are no data availability for the entire building, we recommend to focus on creating data estimates and the estimation methodology.
- If there are no waste production data available, we recommend to estimate the data on a physical waste analysis (one-time or repeating analysis, the methodology for the analysis should be provided by the ESET headquarters for all foreign branches).
- If the branch is moving to a new space, we recommend to look for a place with the most detailed consumption data and to communicate this request with the lessor from the start.
- We recommend the creation of a unified electronic data system for all ESET branches.

At the beginning of the project, INCIEN has announced that it would be appropriate to create and to introduce internal data and information system that would speed up the data collection process, improve their transparency and enable to compare the individual branches and years. The same opinion was demonstrated by the ESET headquarters. The company is trying to look into the possibility of automated data collection in the future.

Contents: Inštitút cirkulárnej ekonomiky, o.z.

september 2022