



Corporate Carbon Footprint

2023

I am pleased to present our ESG Corporate Carbon Footprint Baseline Report for 2023. This comprehensive document represents a critical step in our ongoing commitment to environmental stewardship, social responsibility, and robust governance practices.

With a strong focus on sustainability and Environment, Social, and Governance principles, we are setting new standards in client-focused design and delivery.

Transparency is core to the culture and leadership ethos of MDC2.

Sustainability is integral to our operations. We are committed to building for the good of the environment, community, investors, tenants, and our team. We are very proud that, through our efforts, we have managed to achieve the following:

In our MDC2 Park Łódź South, we have successfully reduced our embedded carbon footprint to 163 kg CO₂e/m², which is significantly below the Polish average of 319 kg CO₂e/m² and the global average of 413 kg CO₂e/m².

MDC2 Park Gliwice ranks among the top 20 highest-rated industrial buildings in Europe. Opened in November 2023, it meets BREEAM New Construction standards and has attracted major corporate tenants such as ROHLIG SUUS Logistics and AFL.

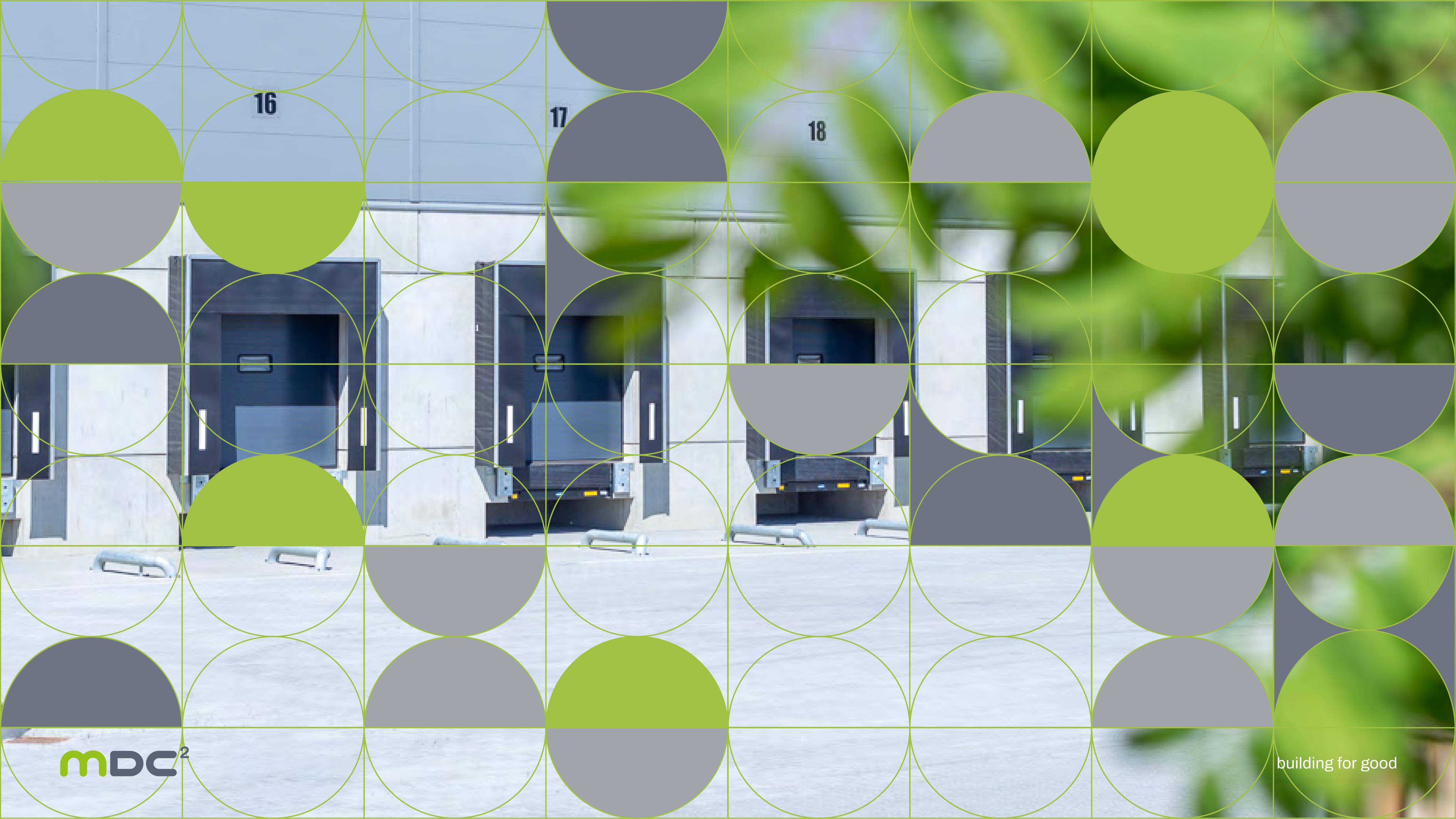
Since 2021, we have been the pioneering Polish developer ensuring that all projects achieve BREEAM New Construction standards at the Excellent level. Our partnership with Fundacja Las Na Zawsze underscores our dedication to forest conservation and reforestation efforts.

Transparency is crucial to our sustainability efforts. We report extensively on our corporate carbon footprint and conduct comprehensive LCAs to evaluate the environmental impacts throughout a building's lifecycle. By partnering with like-minded suppliers, we foster a supply chain that reflects our environmental values.

Thank you for your continued support and partnership as we strive to create a more sustainable future.

Sincerely,

Jeremy Cordery, COO



mDC²

building for good

About this report

Prepared by JWA Sp. z o. o.

Prepared for MDC2

Date June 2024

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Summary

Summary

1.1 Key findings

On the basis of the data collected and the Scope 1, 2 and Scope 3 (limited coverage) emissions calculations carried out for MDC2, the following conclusions are drawn:

1. According to the GHG Protocol methodology, Scope 1+2+3 emissions for the

MDC2 in 2023 were:

GHG emissions 2023 [tCO2e]	
Scope 1	0,00
Scope 2 Location based method	15,74
Scope 2 Market based method	15,77
Scope 3	76,18

2. The location-based method reveals what the company is physically putting into the air, and the market-based method shows emissions the company is responsible for through its purchasing decisions. Both pieces of information tell an important story about the company's carbon footprint and carbon reduction strategy. In the case of the company analysed, the average location-based and decarbonised energy supplier emission factors were very close to each other, hence the small differences in location-based and market-based emissions.

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Basis of the analysis

Basis of the analysis

The analysis is based on:

1. The Greenhouse Gas Protocol, a Corporate Accounting and Reporting Standard
2. GHG Emissions Calculation Tool
3. GHG Emissions - Data sheet “ESG 2023 (003)”
4. OneClickLCA 2024

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Scope of the analysis

Scope of the analysis

3.1 About GHG Protocol

Carbon emissions are a key element emphasised by the legal changes being introduced to deal with climate change.

Determining carbon emissions for buildings, a portfolio or for a company's entire operations based on the internationally recognised GHG Protocol standard is one way to effectively monitor CO₂ emissions. For the CO₂ analysis to be complete, activities such as:

- an in-depth analysis of the carbon emissions of a building, a group of buildings or an entire company activity based on the guidelines of the GHG Protocol standard,
- Identification of the most carbon-intensive areas of activity,

A comprehensive analysis of carbon emissions makes it possible to locate the areas of activity in which a potential change could result in a significant reduction in total CO₂ emissions.

3.2 Setting organisational boundaries

GHG emissions calculations were carried out for the MDC2, MDC2 company is managed by an external supervisory board. For the purpose of determining the calculation methodology and performing the calculations themselves, it was decided to analyse only the MDC2 company without the activities associated with the supervisory board.

3.3 Setting control approach

When using the GHG Protocol, it is necessary to decide on one of the three approaches to control the activities responsible for the generation of individual emissions.

Equity share approach

Under the equity share approach, a company accounts for GHG emissions from operations according to its share of equity in the operation. The equity share reflects economic interest, which is the extent of rights a company has to the risks and rewards flowing from an operation.

Operational control approach

Most CRE companies will report Scope 1 and 2 emissions using the ‘operational control’ approach. This is defined as “having the ability to introduce and implement operating and/or environmental policies and measures”. Where this approach is used, it should be extended to Scope 3 reporting as well to maintain consistency. Using this approach, emissions from any asset a company controls are included in its direct emissions (i.e. Scope 1), but emissions from any asset a company wholly or partially owns but does not control (e.g. investments) are excluded from its direct emissions and should be included in its Scope 3 inventory. For the calculation of emissions included in Scope 1+2 and part of the Scope 3, the use of an **operational control approach was adopted**.

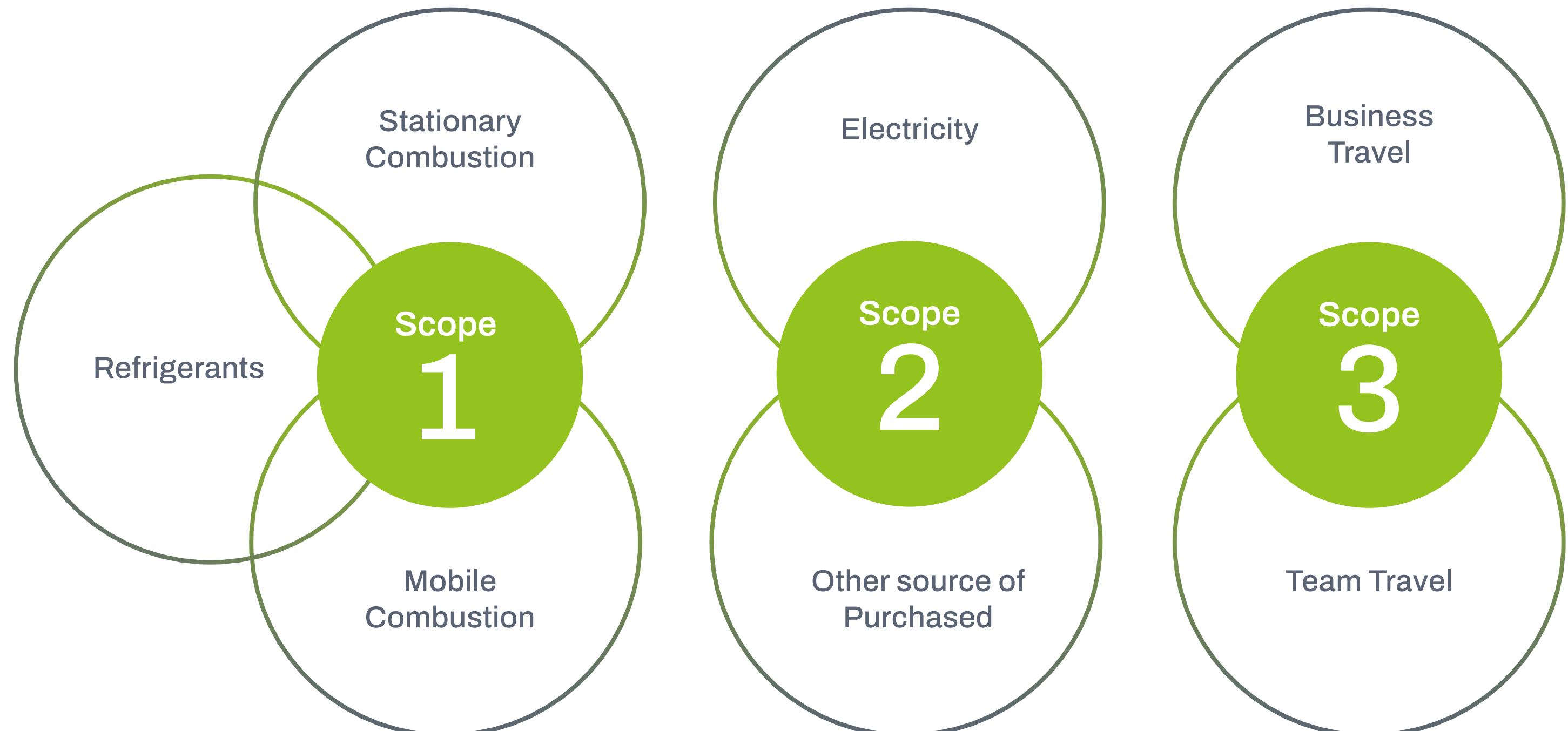


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GHG emissions calculations

GHG emissions calculations

The client provided an internally completed emissions data sheet, on the basis of the information contained within it and the discussions held, a validation check was carried out and appropriate emission factors were selected. For a summary of the MDC2's reported activities, see [Appendix 1](#) in the section **6. Appendices**. The current study analyses the Scope 1+2+3 emissions of the above entities for data collected in 2023. The data made available was allocated to the following Scope 1, 2 and 3 categories:



4.1 Scope 1

Scope 1 – Stationary Combustion

→ Not applicable for MDC2

Includes fuel consumption at a facility to produce electricity, steam, heat or power. The combustion of fossil fuels by natural gas boilers, diesel generators and other equipment emits carbon dioxide, methane, and nitrous oxide into the atmosphere. Emission factors have been taken on the basis of the declared fuel types.

Scope 1 – Mobile Combustion

→ Not applicable for MDC2

Includes fuel consumption by vehicles that are owned or leased by the company. Combustion of fossil fuels in vehicles (including cars, trucks, planes, and boats) emits carbon dioxide, methane, and nitrous oxide into the atmosphere. The emission factors were selected based on the type of vehicle and the type of fuel used.

Scope 1 – Refrigerants

→ Not applicable for MDC2

Includes leaks in your company's HVAC system, chillers, refrigerators, etc., through which refrigerant gas escapes. Most refrigerant gases contribute to global warming when leaked into the atmosphere. The quantity of leaked gas is assumed to equal the amount of gas replaced in these systems by your HVAC or chiller maintenance company. The emission factors were selected based on the type of the refrigerant declared by the Client.

4.2 Scope 2

Scope 2 - Purchased Energy

Electricity and other sources of energy purchased from local utilities (that are not combusted on-site). Examples include electricity, steam, and chilled or hot water. To generate this energy, utilities combust coal, natural gas, and other fossil fuels, emitting carbon dioxide, methane, and nitrous oxide in the process. The emission factors were selected on the basis of the locations in which the companies concerned operate.

For comparison purposes, calculations were carried out for the two methods: Market-Based Method and Location-Based Method. A brief overview of the two methods is given in the table below.

Table 2. Market-Based and Location-Based Method comparison

	Market-Based Method	Location-Based Method
Definition	A method to quantify the scope 2 GHG emissions of a reporter based on GHG emissions emitted by the generators from which the reporter contractually purchases electricity bundled with contractual instruments, or contractual instruments on their own	A method to quantify scope 2 GHG emissions based on average energy generation emission factors for defined geographic locations, including local, subnational, or national boundaries
How method allocates emissions:	Emission factors derived from the GHG emission rate represented in the contractual instruments that meet Scope 2 Quality Criteria	Emission factors representing average emissions from energy generation occurring within a defined geographic area and a defined time period
Where method applies:	To any operations in markets providing consumer choice of differentiated electricity products or supplier-specific data, in the form of contractual instruments	To all electricity grids
Most useful for showing:	<ul style="list-style-type: none">Individual corporate procurement actionsOpportunities to influence electricity suppliers and supplyRisks/opportunities conveyed by contractual relationships, including sometimes legally enforceable claims rules	<ul style="list-style-type: none">GHG intensity of grids where operations occur regardless of market typeThe aggregate GHG performance of energy-intensive sectors for example, comparing electric train transportation with gasoline or diesel vehicle transitRisks/opportunities aligned with local grid resources and emissions
What the method's results omit:	<ul style="list-style-type: none">Average emissions in the location where electricity use occurs	<ul style="list-style-type: none">Emissions from differentiated electricity purchases or supplier offerings, or other contracts.

4.3 Scope 3

For the purposes of the following analysis, due to:

- the availability of the Client's emission data,
- the specifics of the business,

it was decided to analyse selected categories of Scope 3 (see Table 2. below), in subsequent years it is not excluded to include a wider range of activities located in the value chain

Table 3. Scope 3 - Selected categories MDC2.

Category	Reported activities
Business Travel	Air Travel / Rail Travel
Team Travel	Car transport / Rail transport

Scope 3 Category 6 - Business travel

This category includes emissions from the transportation of employees for business-related activities in vehicles owned or operated by third parties, such as aircraft, trains, buses, and passenger cars. Emissions from business travel may arise from:

- Air travel
- Rail travel
- Bus travel
- Automobile travel
(e.g., business travel in rental cars or employee-owned vehicles other than employee commuting to and from work)
- Other modes of travel

Scope 3 Category 7 - Team Travel

This category includes emissions from the transportation of employees between their homes and their worksites.

Emissions from team travel may arise from:

- Automobile travel
- Bus travel
- Rail travel
- Air travel
- Other modes of travel

4.4 Input data & calculation quality

Input data quality

The data provided by the Client was verified for the correctness of orders of magnitude, units, compliance with facts and compliance with general good practices used in the calculation of greenhouse gas emissions.

Calculation quality

The previously verified input data was used in the next step to properly perform the GHG emission calculations. The individual data had to be averaged or appropriate conversion factors had to be selected in order to achieve compliance with the data format of the emission factors.

Emission factors

To calculate emissions for this study, the most up-to-date emission factors available, published by internationally recognized institutions, were used, as well as the accurate emission factors declared by the providers of each service.

The specific assumptions used in each area are summarised in the → Appendix 3 - Data quality - MDC2.

4.5 Calculation results

The data provided by the client was processed and checked. The result of the analysis is the calculated total of green-house gas emissions for Scope 1, 2 and part of the Scope 3. An overall summary of the total MDC2 emissions is provided in the table below.

Table 4. GHG Emissions Summary for MDC2

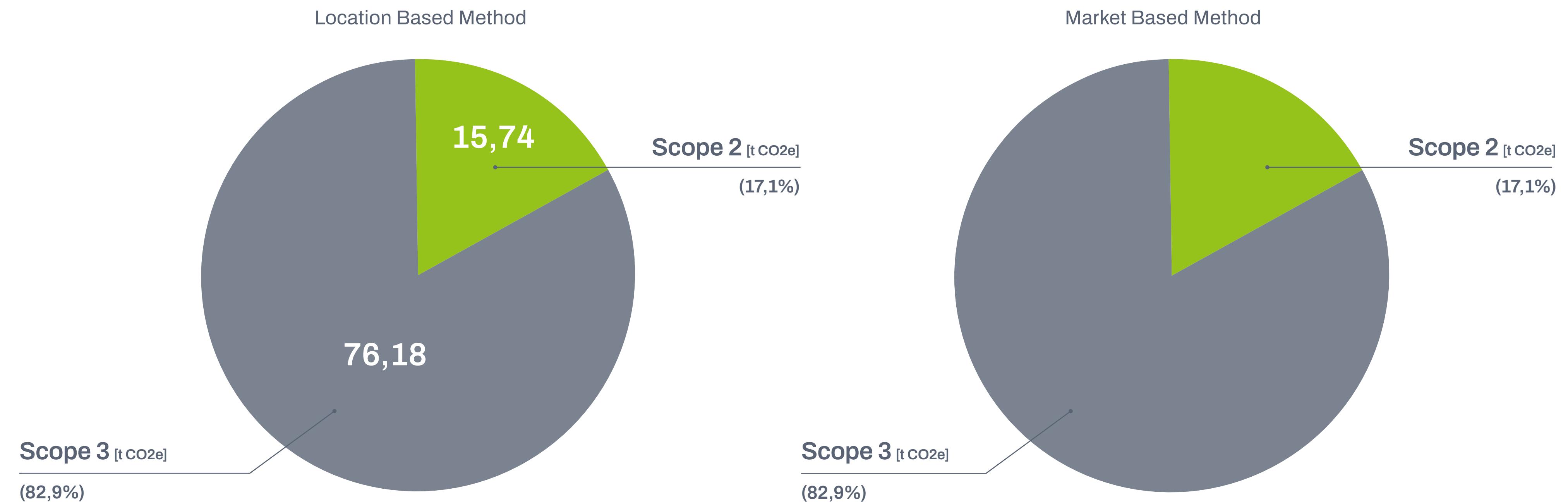
Scope	Activity type	GHG emissions 2023 [tCO2e]
Scope 1	Stationary combustion	0,00
	Mobile combustion	0,00
	Fugitive emission from air-conditioning	0,00
	Other fugitive or process emissions	0,00
	Scope 1 Total:	0,00
Scope 2	Scope 2 Location based + heat and steam	15,74
	Scope 2 Market based + heat and steam	15,77
Scope 3	Business Travel	18,29
	Team Travel	57,89
	Scope 3 Total	76,18

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Conclusions

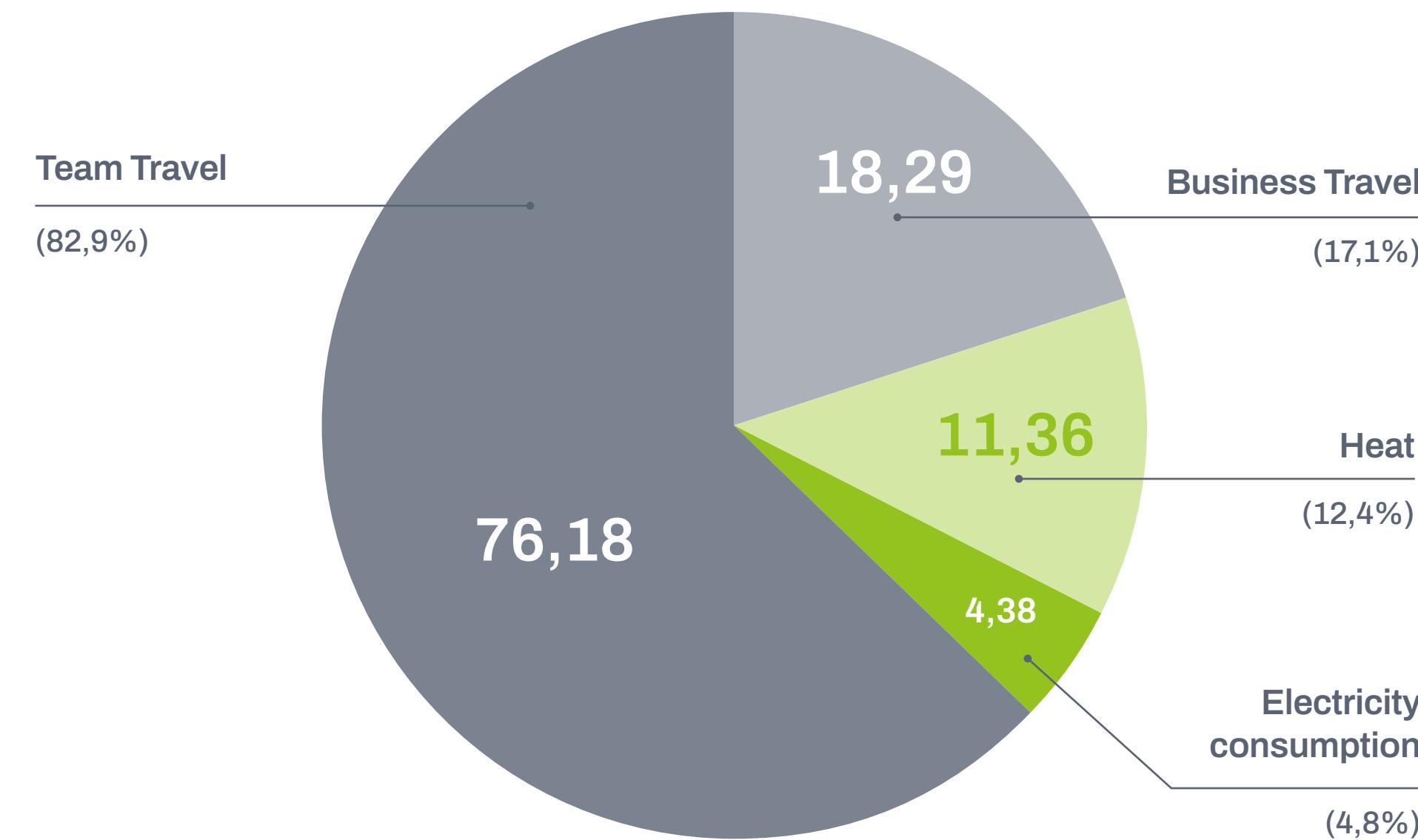
5.1 Result diagrams

Total emissions Scope 1+2+3 – MDC2 2023

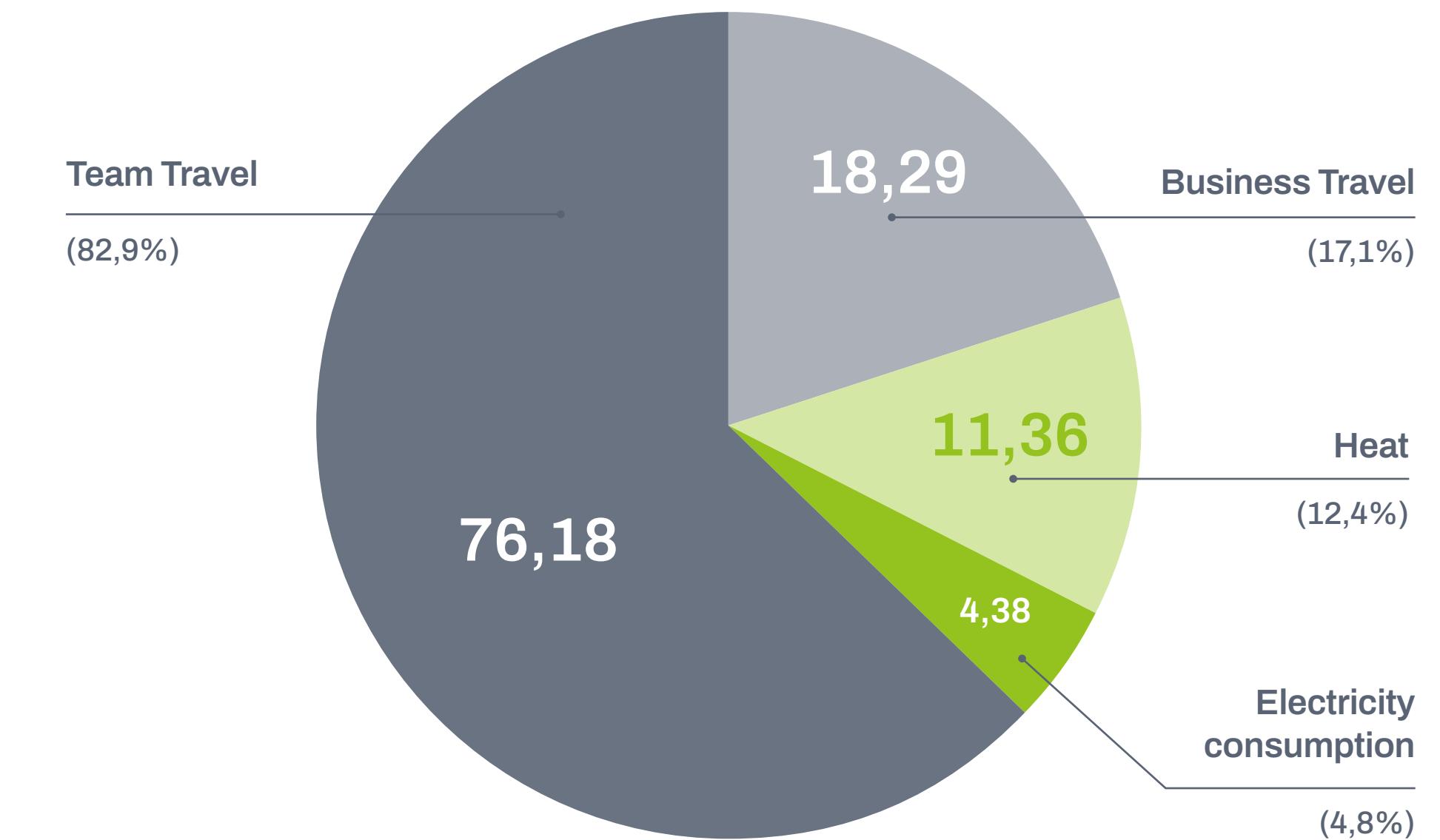


Total emissions Scope 1+2+3 – MDC2 2023 by category

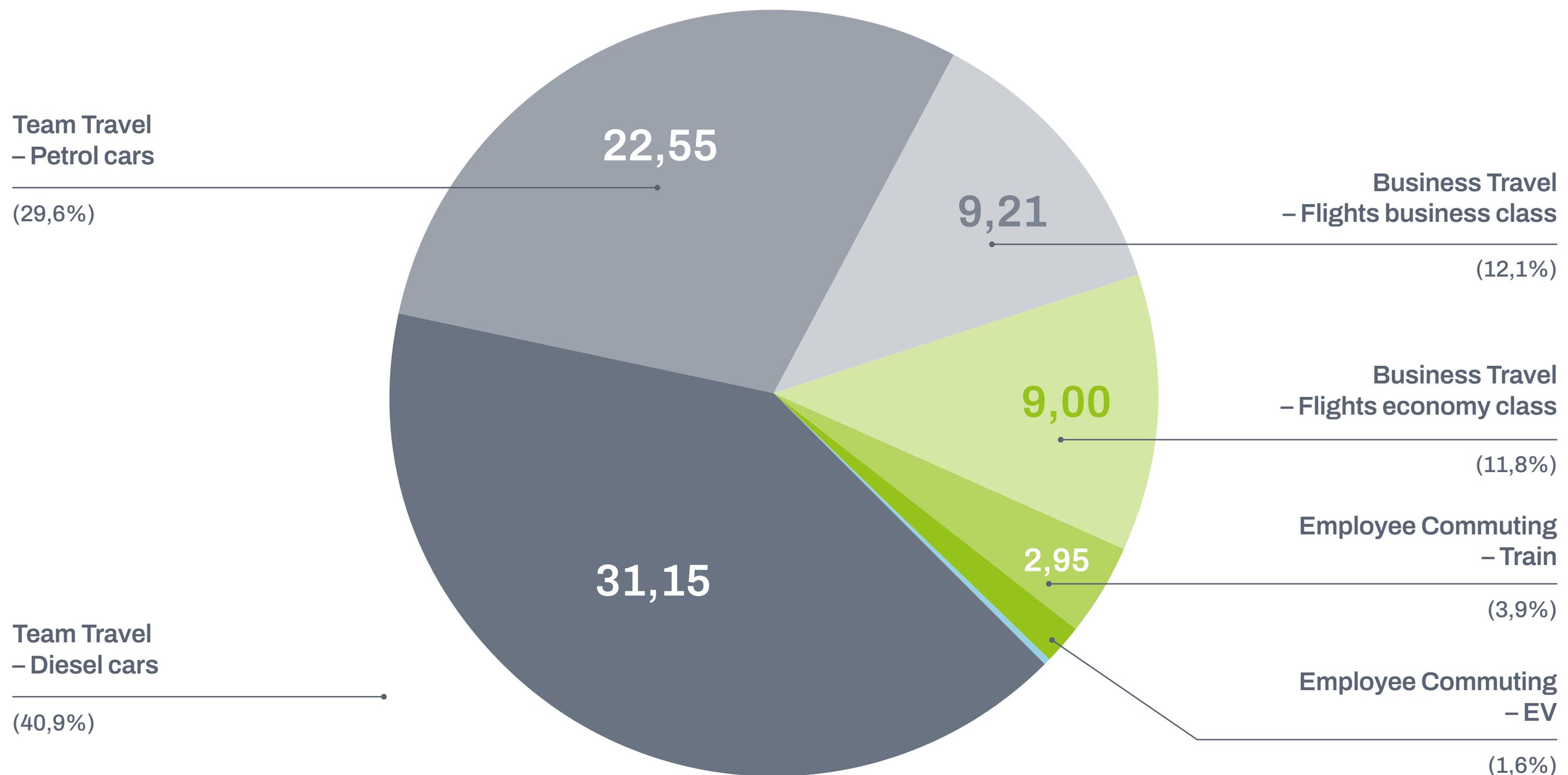
Location Based Method



Market Based Method



Scope 3 - MDC2 2023 by activity



5.2 Key findings

Summarising this study and the calculations made for Scope 1, 2 and limited Scope 3 emissions, the following conclusions are drawn and a course of action is proposed. These conclusions and recommendations should

- contribute to the general awareness of the company's emission situation
- help to take effective reduction measures.

According to the GHG Protocol methodology, Scope 1+2+3 emissions for the MDC2 in 2023 were:

Scope	GHG emissions 2023 [tCO2e]
Scope 1	0,00
Scope 2 Location based method	15,74
Scope 2 Market based method	15,77
Scope 3	76,18

As can be seen in the table above and in the graphs in section 5.1, a significant proportion of the total MDC2 emissions in 2023 (almost 83%) were emissions categorised as Scope 3. Of these, the following areas should be singled out which,-

following a prior materiality assessment, could be the field in which to implement effective emissions reduction measures:

- Team travel by cars,
- Business travel - air travel.

Among Scope 2 emissions, the main source of emissions turns out to be the purchase of district heating.

5.3 Potential course of action

In order to reduce total emissions, the company should first analyse the relevance of the given areas of activity and accompanying emissions. If the analysis shows that a reduction of activity in the areas in question, or a change in the operating model in particular sectors, can favourably reduce emissions while maintaining business potential or even increasing it, then it is suggested that reduction measures be taken. The following are suggested example actions based on the general analysis done for this study, the reduction plan should be preceded by a more detailed analysis.

Reduction activities

Scope 3

Team travel by cars - examination of the issue

- is it possible to reduce trips made by car,
- whether some of the trips could be made using trains or shared transportation,
- whether it would be possible to replace individual cars with more fuel-efficient/hybrid or electric cars (after a prior analysis of the reduction potential).

Business travel (Air travel) - examination of the issue

- how many of the current business trips were necessary,
- whether all travel had to be by aeroplane,
- whether there is the potential to reduce business class travel in favour of economy class.

Scope 2

Purchase of heat and electricity

- is there an opportunity to reduce heat consumption in the office?
- checking the possibility of potentially changing the office to a more energy-efficient one, after analysing the reduction potential and learning
- about possible plans to upgrade the current facility.



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Appendices



Appendices

Appendix 1 - MDC2 - Reported Data 2022

**Appendix 2 - Disaggregation of Scope 1&2
emissions by sub-company**

Appendix 3 - Data quality - MDC2

Appendix 1 MDC2 – Reported Data 2023

Scope 1				Scope 2		Scope 3 - Business Travel			Scope 3 - Team Travel		
Stationary combustion	Mobile combustion	Refrigerants	Purchased energy	Air Travel		Rail Travel		Car transport		Rail transport	
Fuel combusted	Travelled-distance	Fuel consumed	Refrigerant Loss	Purchased electricity	Purchased Heat steam	Travelled distance Economy class	Travelled distance Business class	Travelled Distance	Travelled Distance Diesel cars	Travelled Distance Petrol cars	Energy Consumption EV
[kWh]	[]	[]	[kg]	[kWh]	[GJ]	[km]	[km]	[km]	[km]	[kWh]	[km]
–	–	–	–	6390	135,35	66840	23584	2359	160680	97440	1800
											89440

Appendix 2 Scope 1, 2 and 3 emissions

Scope 1			Scope 2			Scope 3	
Stationary combustion	Mobile combustion	Refrigerants	Purchased energy			Business Travel	Team Travel
			Electricity Location-based method	Electricity Market-based method	Heat/Steam		
[tCO2e]	[tCO2e]	[tCO2e]	[tCO2e]	[tCO2e]	[tCO2e]	[tCO2e]	[tCO2e]
-	-	-	4,38	4,41	11,36	18,29	57,89

Appendix 3 - Data quality - MDC2

Scope	Calculation method	Calculation assumptions
Scope 1	Stationary combustion	N/A
	Mobile combustion	N/A
	Refrigerants	Based on actual leakage values Refrigerant loss weight x emission factor depending on refrigerant type Based on the technical assessment of the installations, no leaks were found
Scope 2	Electricity Location-based	Based on actual electricity consumption Amount of electricity purchased [kWh] x conversion factor x average emission factorin [kg/MWh] for electricity end-users in Poland
	Electricity Market-based	Based on actual electricity consumption Amount of electricity purchased [kWh] x conversion factor x the emission factor of the electricity sold by the energy supplier [Mg/MWh]
	Heat	Based on actual heat consumption Amount of heat purchased [GJ] x conversion factor x the emission factor of theheat sold by the heat supplier [kg/MWh]
Scope 3	Business Travel	Based on the business travel records, Travel distances of particular modes of transport [km] x frequency of travel [number per year] x emission factor appropriate to the means of transport [kgCO2/km]
	Team Travel	Based on the employee commuting records, (length, frequency and means of transport of the routes taken) Travel distances of particular modes of transport [km] x frequency of travel [number per year] x emission factor appropriate to the means of transport [kgCO2/km] In the case of kilometre values given as a range of values, an average value was selected, (range from X to Y, average value = $(X+Y) / 2$)



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building for good

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