



HIZKIA

# CO2 Performance Ladder Reporting.



# Report for ambition level 3 on the CO<sub>2</sub> Performance Ladder for 2021

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Client

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## Management Statement

HIZKIA always intends to move with the times and to stay ahead of the competition. The customer is always at the centre of HIZKIA and that has contributed to the fact that they are undisputed market leader in the Netherlands. From customers we increasingly hear that sustainability is an important part of their collaborations.

This is one of the reasons for certification on the CO<sub>2</sub> Performance Ladder. Other reasons are social interest and our wish to contribute to a better world.

Before this report was drawn up, many measures have already been examined to see how consumption can be reduced.

These and other measures can be found in this report. In addition, the various energy flows that result in CO<sub>2</sub> emissions have been identified and quantified. For this purpose, only Scope 1 and 2 were taken into account in accordance with the Green House Protocol. This report also shows how we involve our employees in reducing our footprint.

Annually, this report will be reviewed and it will be reviewed if HEZKIA is on track to achieve its goals. All these future reports will also be available on our website.

The Hague, April 2022

HIZKIA  
General Manager

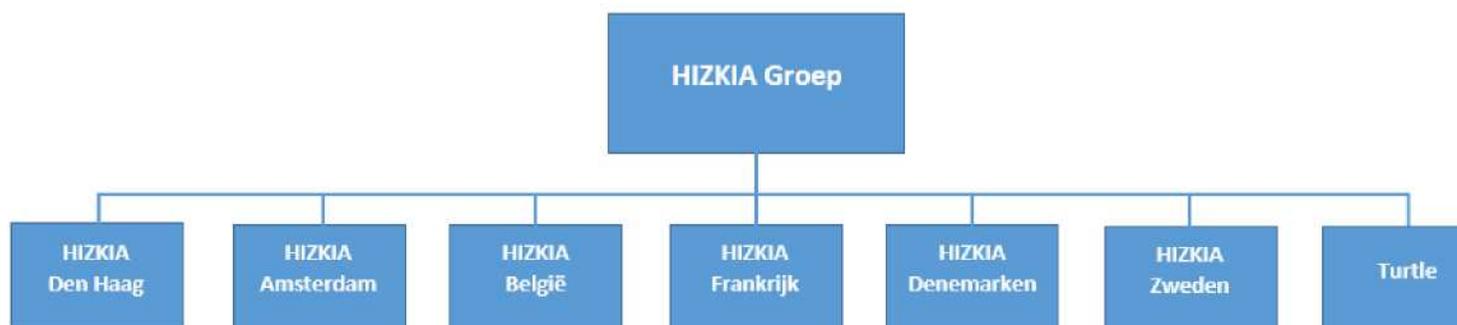


# 1. Operating and reporting limits

## 1.1 Description of the company

HIZKIA globally serves museums and private collectors in the fields of logistics, art transport, and collection management. In addition, the packaging and installation of works of art is a speciality of HIZKIA. The client is at the heart of HIZKIA and therefore it has become the market leader in the Netherlands when art transport and storage is concerned. For example, much attention and effort are invested into ensuring that the climate in the depots is optimally managed to store art. HIZKIA has two Dutch branches, these are located in the Hague and Amsterdam. In addition, HIZKIA has a branch in Belgium, France, Denmark, and Sweden.

HIZKIA has also developed the Turtle. This is a durable crate in which art can be transported safely. The crate works insulating, allowing the work of art to be transported under the right climate. In addition, it can be used flexibly, because different sizes fit in the same crate. The Turtle lasts on average for 20 years and is completely recyclable.



## 1.2 Responsible people

The report was prepared by S.J.J. van der Geest, Project Controller at HIZKIA. Furthermore, from HIZKIA Nederland, Mr M. Van Nuland, Financial Director, responsible for the measures, reduction targets, and management system.

## 1.3 Reporting period

The report was drawn up for the period from 1 January to 31 December 2021. The data is compared to the 2019 report.



## 1.4 Organisational boundaries

HIZKIA Nederland is determined as a boundary via the GHG Protocol method. For this, the control method has been used. The profit and loss account for 2021 was reviewed in order to find out which activities HIZKIA Nederland controls and can therefore influence emissions and their reduction. HIZKIA Belgium falls outside these limits, just like Turtle B.V.

## 1.5 Reporting limits

For the preparation of this report, the Dutch Business Unit and its activities and fleet were examined.

For the ambition level 3 of the CO<sub>2</sub> performance ladder, scope 1 and 2 should be considered as defined by the Green House Gas Protocol. This means that direct and indirect emissions have been reviewed in this report. These are divided into the own fleet, electricity and gas consumption, and commercial train and air travel. The international transport, and the accompanying couriers, by third parties falls into scope 3 and is therefore not included. For all activities, only CO<sub>2</sub> emissions have been considered.

## 1.6 Declaration of Conformity to ISO 14064-1

HIZKIA herewith declares that it has prepared this report according to the requirements laid down in NEN-ISO 14064-1:2019. The table below shows where the various requirements of this standard can be found in this report.

Requi	Description	Section
<b>A</b>	Description of the company	1.1
<b>B</b>	Responsibilities	1.2
<b>C</b>	Reporting period	1.3
<b>D</b>	Organisational boundaries	1.4
<b>E</b>	Reporting limits	1.5
<b>F</b>	Direct emissions	2.2
<b>G</b>	Biogenic CO <sub>2</sub> emissions and removals	n/a
<b>H</b>	Direct CO <sub>2</sub> removals	n/a
<b>I</b>	Explanation of exclusions of CO <sub>2</sub> emissions and removals	2.4
<b>J</b>	Indirect emissions	2.3
<b>K</b>	Selection of reference year	2.5
<b>L</b>	Explanation of changes of reference year and historical data	n/a
<b>M</b>	Quantification methods	2.6
<b>N</b>	Explanation of changes compared to previous approaches to the CO <sub>2</sub> inventory	n/a
<b>O</b>	Emission factors and removal factors	2.6
<b>P</b>	Description of uncertainties regarding accuracy of emission and removal factors	2.7
<b>Q</b>	Uncertainty study and results	2.7
<b>R</b>	Declaration of Conformity to ISO 14064-1	1.6
<b>S</b>	Statement regarding verification of the emission inventory	2.8
<b>T</b>	GWP values used and origin	n/a

*NOTE: If sections do not apply to HIZKIA Nederland, they will not be named in this report.*



# Emission inventory 2021

## 1.7 Overview

The total CO<sub>2</sub> emissions of HIZKIA Nederland in 2021 amount to 527 tons of CO<sub>2</sub>, equivalent to the annual emissions of about 26 households in the Netherlands. 42% of this is due to miles driven by own vans and trucks. This is mainly caused by purchased gas and electricity activities for the depot and office (57%) and to a limited extent by air travel of personnel.

The totals of scope 1, 2 and 3 are shown in the blue bars. Below, a list of emissions per component and the percentage of total emissions is shown.

TOTAL	Quantity	CO2 emission factor	CO2 emission in tons	Percentage
<b>SCOPE 1 Direct emissions</b>			<b>222</b>	<b>42.0%</b>
<i>Fleet</i>			222	42.0%
Diesel	65,581.850 litres	3,262 kg CO2 per litre	214	40.5%
Petrol	2,525.450 litres	2.784 Kg CO2 per litre	7	1.3%
LPG	517.190 litres	1.798 kg CO2 per litre	0.930	0.2%
<b>SCOPE 2 Indirect emissions</b>			<b>302</b>	<b>57.3%</b>
<i>Electricity</i>			302	57.3%
Netherlands	578,283 KWh	0.523 kg CO2 per kWh	302	57.3%
<i>Natural gas</i>			145	27.5%
Netherlands	77,063 Nm3	2.085 kg CO2 per Nm3	145	27.5%
<b>SCOPE 3 Indirect emissions</b>			<b>3</b>	<b>1%</b>
<i>Business use private cars</i>			2	0.4%
Unknown fuel	11,067 km	0.193 kg CO2 per km	2.136	0.4%
Taxi use	971 km	0.193 kg CO2 per km	0	0.0%
<i>Air travel</i>			1	0.2%
Air travel < 700 km	5,044 km	0.234 kg CO2 per km	1.18	0.2%
Air travel 700- 2,500 km	0 km	0.172 kg CO2 per km	0	0.0%
Air travel > 2,500 km	0 km	0.157 kg CO2 per km	0	0.0%
<i>International rail travel</i>			0	0.0%
Total travel	5,822 km	0.026 kg CO2 per km	0.15	0.0%
<b>TOTAL</b>			<b>525</b>	<b>100%</b>

Figure 1: CO<sub>2</sub> emissions of HIZKIA in 2021



## **1.8 Direct emissions**

Direct emissions are all due to the use of the own fleet. The fleet consists of a number of lease cars, vans and trucks. The majority of the emissions from this group are due to the consumption of diesel. This amounts to 214 tons of CO<sub>2</sub>, which is about 42% of the total emissions.

## **1.9 Indirect emissions**

The indirect emissions are due to activities of HIZKIA Nederland, but they originate from sources owned by others. These emissions can be divided into the generation of electricity and gas and business air travel by own personnel. The total of indirect emissions is 305 tons of CO<sub>2</sub>, i.e., 58 % of the total CO<sub>2</sub> emissions. The breakdown of indirect emissions is explained more in detail below.

### ***Electricity***

HIZKIA has an energy contract at Eneco. This energy contract contains 5.1% green electricity from the Netherlands, according to Hier.nu.

### ***Gas***

Currently, HIZKIA does not use sustainable gas, only natural gas.

### ***Business use private cars***

In the first half of 2020, employees drove about 11,067 kilometres with private cars, which result in about two tons of CO<sub>2</sub>, less than 1 % of the total. The mileage is not recorded in the administration, only the amount declared. This amount is divided by the mileage allowance that employees receive. In this way, the quantity of miles driven has been approximated. The type of vehicle and fuel is also not recorded. Therefore, the CO<sub>2</sub> factor of unknown fuel with an unknown vehicle has been chosen.

### ***Business air travel***

A number of flights were made during 2021. The total mileage is approximately 5044 kilometres, resulting in emissions of 1 ton of CO<sub>2</sub>. This is 0.2% of the total.

### ***International rail travel***

Since the beginning of 2020, we are checking whether short flights can be replaced by train trips. In 2021, around 5822 kilometres were travelled to international destinations, resulting in CO<sub>2</sub> emissions of 151 kilograms. This is less than 1% of the total.

## **1.10 Selection of reference year**

The year 2019 has been used as the reference year.

## **1.11 Quantification methods and conversion methods**

This report was drawn up using ISO 14064-1, as well as the CO<sub>2</sub> Manual Performance Ladder 3.0 of SKAO (Foundation for Climate-Friendly Procurement and Business). In addition, the conversion values have adopted



from CO2emissiefactoren.nl. This site has been chosen because it is co-written by the SKAO, which is responsible for the CO<sub>2</sub> Performance Ladder.

## **1.12 Description of uncertainties regarding accuracy of emission and removal factors**

The emission factors have been adopted from co2emissiefactoren.nl, which has been set up by, among others, the Dutch government and the SKAO. It can be assumed that the values have been taken over correctly and no errors have been made. If the factors change in the future, the new values will be used in future reports.

## **1.13 Uncertainty study and results**

While calculating CO<sub>2</sub> emissions, an attempt was made to minimise uncertainty. Assumptions had to be made, however, because the current system cannot provide pure data.

The following assumptions and uncertainties are contained in the data:

- The determination of the kilometres driven with private cars. The costs declared are divided by the mileage allowance in order to obtain an approximate number of kilometres driven.
- In the past, the flights made by employees have not been clearly identified in the ledger accounts, therefore it could occur that a flight was omitted.
- The distance of the flights is calculated via nl.route.to. The distance given may differ from the distance actually flown.
- Rail travel and other public transport trips are difficult to derive from the general ledger accounts. One reason for this is that the employees themselves charge and subsequently declare their public transport card at HIZKIA. Since the Dutch NS trains have a CO<sub>2</sub> factor of 0 kg/CO<sub>2</sub>, the lack of insight into the train travel will have a minimal impact on the total emissions of HIZKIA Nederland.
- Taxi rides in the Netherlands and abroad are declared by employees. However, it is not possible to determine the relationship between the costs and the distance travelled. In some cases, the distance travelled is shown on the receipt. If this was not the case, the Dutch legislation on the maximum fare has been taken back to make the calculation and then the result was compared with the journeys where the number of kilometres was known. The relative difference between the calculated and actual kilometres was booked as a surcharge on top of the calculated kilometres.

In view of these assumptions, an accurate quantitative determination of the uncertainty is impossible. Since these are assumptions on energy flows that do not contribute significantly to the total emissions of HIZKIA, the maximum inaccuracy is estimated at 3%. If assumptions are made based on sources, they are named in the report.

We believe that the calculations and assumptions used lead to a realistic picture. System improvements will be investigated to reduce assumptions and obtain more pure data for subsequent years.



## **1.14 Statement regarding verification of the emission inventory**

The emission inventory has not been verified by a verifying institution.



## 2. Reduction

After mapping the CO<sub>2</sub> emissions in scope 1 and 2 by HIZKIA, it is possible to set targets and an action plan for CO<sub>2</sub> reduction. To do this, NEN-ISO 50001 was followed, in particular the paragraphs § 4.4.3, § 4.4.6, § 4.6.1 and § 4.6.4. Based on these standards, this section is divided into the sub-objectives Objectives, Reduction Measures, Control and Adjustment.

### 2.1 Objectives

HIZKIA tracks her energy consumption with an online tool. This provides insight into the consumption data of every quarter of an hour. In this way, HIZKIA can analyse its consumption.

In addition, an energy audit was carried out at the beginning of 2020, combined with the completion of the Approved Measure List, in which all facilities in the building have been checked to see how the consumption can be minimised. Two of the five measures were already implemented in 2020. For example, the pipes and fittings of the CV have been isolated and all lighting in the building was switched to LED. The main proposed measures pending since 2020 are:

- o Renewal of the CH and changing the arrangement from single to cascade;
- o Adjustment of the recirculation of the air treatment cabinets;
- o Insulation of the outer shell of the building;
- o Installation of solar panels.

Partly based on the energy audit, the Approved Measure List, and the research into solar panels, the following short and long-term objectives have been set:

*Short term (to be achieved in 2022):*

Total CO<sub>2</sub> reduction of 30 % compared to 2019

*Long term (to be achieved before 2024):*

Total CO<sub>2</sub> reduction of 50 % compared to 2019

#### ***Ambition Level***

HIZKIA wants to halve its CO<sub>2</sub> emissions in 5 years. A number of measures have already been implemented to achieve this. In addition, clear reduction possibilities have been identified. Given the height of the reduction target, HIZKIA is progressive in the field of CO<sub>2</sub> reduction.

### 3.3 Reduction measures

To determine how and where CO<sub>2</sub> emissions can be reduced, we first looked at which areas of control can take place. This is shown in the table below:



		C02 emissions 2019 (kg)	Efficiency driver	Volume driver	Short-term measures	Savings (kg)	Long-term measures	Total savings (kg)
Scope 1	Trucks	182,594	Kilometres, weight, driving behaviour, route	Number of projects, location	Economical driving		Research on alternative fuels	165,248
	Cars and buses	117,085	Kilometres, weight, driving behaviour, route	Number of projects, location	Economical driving, switch to electric driving	6,000		
Scope 2	Electricity	277,282	Lighting, climate control	Number of visitors	Purchase green energy	277,000		
	Gas	102,736	Heating, climate control	Number of visitors			Insulation	38,000
	Business use of private car	2,856	Kilometres, weight, driving behaviour, means of transport, fuel, digital	Number of physical visits, location	Economical driving	<1,000	Electric driving	
	Business air travel	32,030	Number of people, means of transport,	Number of physical visits, location	Use alternative	2,000	Use alternative	
	International rail travel	0	Number of people, means of transport,	Number of physical visits, location				
<b>Total</b>		<b>714,583</b>				<b>285,000</b>		<b>203,248</b>

Figure 2: Areas where HIZKIA can reduce her CO2 emissions and indication of savings

The efficiency drivers are areas where can controlled to reduce CO<sub>2</sub> emissions. The volume drivers are determined by the customer's demand, the number of transports, and their distance, respectively.

In addition, a number of measures have been specified that HIZKIA can implement in the short and long term. This includes an indication of the savings in tons that can be achieved by the measures taken.

The measures mentioned are explained more in detail below.

As mentioned in the objectives, an energy audit was conducted at the beginning of 2020. Some of the conclusions from the energy audit mentioned were implemented during 2021:

- The current CH boiler was replaced on 5 July 2021. After a period of regulation, which led to higher consumption in the first 3 months, a downward trend has been set since September 2021. In the months February and March 2022, the measure has led to an average reduction in power consumption of 30.5%. The average gas consumption decreased by 61.8% over the same period. The current picture is that the expected savings of 4,000 m<sup>3</sup> will be amply achieved.
- If the outside air humidity is too high, the air treatment cabinet can now shut off the external air supply. This reduces the energy required to achieve the desired humidity. If the outside humidity is sufficient, the air treatment cabinet absorbs more air from outside, which also reduces the need for the system to operate.
- Physical adjustment of the air treatment cabinet valves was not possible because the current installation offers no possibilities for it. If the cabinet has been written-off, durability will also be taken into account when purchasing a new cabinet.
- HIZKIA will actively manage reducing air travel. For short flights, to places such as Frankfurt, Paris, or London, we will check if the train is an alternative. Travelling to Frankfurt by train saves almost 200 kg of CO<sub>2</sub> on a return trip. Replacing all flights under 700 kilometres by train travel results in a saving of 2 tons. In the meantime, the figures show that international train journeys are happening more frequently. The number of miles flown also shows a decrease.

At the moment, a number of savings are still in progress. These are:



- Investigate possibilities to switch off equipment, such as coffee machines, extraction, and compressed air installations, in the nights and weekends using time clocks. The necessary equipment has been purchased and still has to be fit. This is expected to be carried out in 2022.
- Examine whether opportunities exist to motivate employees to drive more fuel-efficiently is a continuous process, it applies both for truck drivers and employees in their business or private cars. Employees are informed about economical driving. In addition, truck drivers will take the economical driving course every five years. It is difficult to ascertain whether the measures taken are effective. This is because the cars are operating with diesel-consuming cooling engines. This makes it impossible to find out whether the driving is economical. In addition, no information can be extracted from private cars.
- The management has decided that passenger vehicles with an internal combustion engine will no longer be purchased. This means that any new passenger car purchased will be electric.

Unfortunately, it has also appeared that a number of measures are not feasible. These measures are described in this paragraph with the reason for rejection.

- The investigation of cavity insulation in the office building has been carried out. The landlord does not want to cooperate in insulating the office building, because the building meets the requirements of the Energy label C and does not yield the desired return for the landlord. However, it has been found that the storage depot has been properly isolated.
- The introduction of a card system at the charging points to identify who is using it, and whether this consumption is attributable to HIZKIA Nederland, is not accepted by the board of directors. The board of directors believes that anyone who has an electric car should be able to use the charging points at the site of HIZKIA. This makes the accessibility of the purchase of an electric vehicle easier and allows HEZKIA to offer a better service level.
- It is not possible for HIZKIA to purchase solar panels and place them on its premises. This is because the risk of fire increases when solar panels are installed. After checking with the insurance companies, the conclusion was that it is not possible to place solar panels on the roof of the depot because of the valuable objects present in the depot.

#### Open Issues

In addition to the measures already taken, more energy-saving measures will be taken in the near future.

- In 2023, the energy contract will be adjusted, which means that all purchased electricity will be generated green in the Netherlands. This would save 277 tons of CO<sub>2</sub>, when the starting point is the annual consumption in 2019.
- Regarding the trucks, it is examined whether they can already be driven completely or partially on an alternative fuel. One of those alternatives is HVO Diesel.

The potential annual savings mentioned above could achieve a reduction of 596 tons of CO<sub>2</sub>. This is a reduction of 76 % compared to 2019.

In addition, the administration of the various energy flows will also be examined. The



desired outcome is to improve visibility to enable a more focused control. Examples of measures that can be taken are the more detailed specification of travel expenses. This can be done by, for example, recording the number of kilometres, or specifying the departure and arrival points. In the event that the information at the time of booking is not complete, the relevant persons must be contacted to find out the missing information.



### 3.4 Check

In the first quarter of 2022, 2021 was compared to 2019. This comparison does not give an accurate picture of progress and savings, partly because of corona - leading to a significant decrease in the activities from April 2020.

Energy flow	Unit	CO2 emissions (tons)	CO2 emissions	CO2 reduction
		2019	2021	
<b>Scope 1</b>				
Diesel	litres	280	214	23.57%
Petrol	litres	21	7	66.67%
LPG	litres	0	1	
<b>Scope 2</b>				
Electricity (Netherlands)	KWh	343	302	11.95%
Gas (Netherlands)	m3	105	145	-38.10%
<b>Scope 3</b>				
Business use private cars	km	3	2.1	28.67%
Business air travel	km	32	1.2	96.31%
International rail travel	km	0	0.2	
<b>Total</b>		<b>784</b>	<b>672</b>	<b>14.23%</b>

Figure 3: Comparison between 2019 and 2020 H1 and CO2 reduction progress

From the table above, it can be concluded that the trucks have consumed less fuel and therefore have lower CO<sub>2</sub> emissions. The exact cause is unknown, it could be because less transport has been outsourced to other parties. Currently, no target has been set for this area and no actions are taken against it. On the other hand, there's a significant decrease in the use of private cars and buses. This is possible because many people were working from home.

The overview also shows that the natural gas consumption has increased considerably. This has a number of causes. In early 2021 we had a very cold period. In addition, a new CH installation was purchased that had to be regulated. Besides, recently it was found that the underfloor heating on the second floor of the office was not switched on. This resulted in high gas consumption. It is expected that in 2022 these incidents will not occur (or to a minor extent) and therefore the gas consumption will drop again.

There is also a sharp decline in travel. This applies to the use of private cars for business travel, as well as for air travel. The cause is largely attributable to the corona crisis. New in this report is the mention of international rail travel. Since it did not take place before. When collecting the data, it showed an increase.

### 3.5 Adjustment

In view of the above graph, savings exist in many areas. Only the gas consumption is a lot higher than in 2019. Measures have already been taken in this regard by



the purchase a new CH installation. The gas consumption must continue to be monitored to achieve the target of 30% savings in the short term.

## 4. Communication

To qualify for certification for the CO<sub>2</sub> Performance Ladder, a communication plan must be drawn up. This part will be explained below.

### 4.1 Communication plan

To find out which parties need information and how this can be done, a stakeholder analysis was carried out first.

#### 4.1.1 Stakeholder analysis

In the stakeholder analysis, a distinction has been made between internal and external parties.

The internal stakeholders can be divided into the following groups:

- Management
- UFO (Production and Facility Consultation)
- Employees in the office
- Drivers and art handlers

The internal stakeholders can be divided into the following groups:

- Customers - museums
- Customers - government
- Customers - private
- Subtenants in the premises of HIZKIA Nederland

These parties should be kept informed of the progress of HIZKIA in the field of sustainability and its CO<sub>2</sub> emissions. Below, an explanation follows of how this is done.

#### 4.1.2 Internal communication

Within HEZKIA, we use newsletters. These are sent periodically. In addition, a "townhall" is organised at least four times a year, where all employees are present and are informed about the developments within the company.

The newsletters will be used to provide interim information to the employees. The townhall at the end of the year will be used to provide an update the achievement of the objectives set and the objectives for the subsequent year. During this townhall, employees can also give their input on how they think matters can be improved within the company.

In addition, the energy policy, reduction targets, and measures will be discussed periodically in the MT or UFO consultations. The findings during these consultations will be used as input for the newsletters and the townhall.

#### 4.1.3 External communication

For the external parties, communication will mainly take place through the website and social media.



The reports can be found on the website of HIZKIA Nederland (<https://hizkia.com/nl/>), where necessary aggregated in view of confidential information. In addition, information will be distributed via social media on the objectives (achieved) and measures taken.

In addition, newsletters are also sent to the various customers.



## **5. Participation plan**

This section covers the requirements of section D of the CO<sub>2</sub> performance Ladder: Participation. In

this context, we must actively participate in sector initiatives to learn from others and discuss new developments and innovations in the field of sustainability.

Due to the corona pandemic, there was no opportunity to participate in various sustainability initiatives. However, within HIZKIA a budget of €2,000 is available for participation in sustainable initiatives.



## **Appendix 1: Glossary**

**Green House Protocol:** *International standard since 1998 in the field of the inventory and*

*documentation of greenhouse gasses, including CO<sub>2</sub>. GHG Protocol has subdivided this into several scopes.*

**Scope 1:** *Scope 1 emissions, or direct emissions, are emissions emitted by installations owned by or controlled by the organisation, such as emissions from its own fleet.*

**Scope 2:** *Scope 2, or indirect emissions, are emissions arising from the generation of electricity, heat and cooling, and steam in plants not owned by the company, but used by the organisation, like, for instance, emissions that are released when generating electricity in power plants. Note: The CO<sub>2</sub> Performance Ladder also considers business air travel, private cars for business use, and business rail travel as scope 2.*

