

CO2 emissions inventory 2022



CO2 emissions inventory (2022)

Client: Eraneos Netherlands B.V.

This report refers to the following location: De Passage 126, 1101 AX Amsterdam

Eraneos contact partners: Norbert van Oosterhout Hannah Franssen

Nieuwhuis Consult contact partner: Fleur Scharenborg

Inventory performed on: September 29, 2023

Eraneos Netherlands B.V. CO2 Emissions Inventory (2022) > Last updated December 19, 2023



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Introduction and accountability

Eraneos Netherlands B.V. ("Eraneos") contracted Nieuwhuis Consult to conduct this CO2 emissions inventory.

The purpose of this inventory is to determine Eraneos' total greenhouse gas emissions and calculate its carbon footprint. A CO2 footprint offers an organization insight into its total greenhouse gas emissions. This may involve the entire organization or a specific process. A widely used definition of the term "CO2 footprint" is:

"A measure of the total amount of carbon dioxide (CO2) and methane (CH4) emissions of a defined population, system or activity, considering all relevant sources, sinks and storage within the spatial and temporal boundary of the population, system or activity of interest. Calculated as carbon dioxide equivalent (CO2e) using the relevant 100-year global warming potential (GWP100)."

Establishing a carbon footprint is important when it comes to reducing any organization's greenhouse gas emissions. First of all, it enables the organization to identify a baseline, so that it can then initiate improvements and measure its greenhouse gas reduction in kilograms. This provides insight into a company's performance, which is a relevant factor, especially when it comes to key environmental protection topics such as emissions trading.

Nieuwhuis Consult has prepared this carbon footprint for Eraneos in accordance with the CO2 Performance Ladder (version 3.1, June 22, 2020; see www.skao.nl) and ISO 14064-1, among other standards.

This report examines Eraneos' emissions inventory for the year 2022. The company's carbon footprint consists of an inventory of its total greenhouse gas (GHG) emissions.

It also provides insight into where the emissions come from (which parts of the business) and breaks GHG volumes down into direct and indirect emissions.

The inventory is carried out in fulfillment of section 3.A.1 of the CO2 Performance Ladder and in accordance with ISO 14064-1; 2018 (E) "quantification and reporting of greenhouse gas emissions and removals." In this report, the footprint is reported in accordance with section 9.3.1 of ISO 14064-1, which is why it contains a cross-reference table in the final chapter.



Chapter 5.1 is split into a CO2 calculation based on both SKAO CO2 Performance Ladder classifications and GHG Protocol classifications.

Eraneos' carbon footprint is based on the company's consumption of natural gas, electricity and vehicle fuels.

This includes the CO2 footprint from three locations in the Netherlands (Amsterdam, Amstelveen and Groningen), as well as the CO2 footprint of the organization's entire vehicle fleet.



1. Description of the organization

Property data

Company	name
Contact	
Address	
Location	
Phone	
Email	
Industry	

: Eraneos Netherlands B.V.
: N. van Oosterhout
: De Passage 126, 1101 AX
: Amsterdam, the Netherlands
: +31 20 305 3700
: info.nl@eraneos.com
: Consultancy

2. Responsible parties

Leadership responsibility	: Board of directors
Operational responsibility	: Consultant

CO Footprint conducted by:

Consultant	: Fleur Scharenborg
Employed by	: Nieuwhuis Consult
Address	: Zoekeweg 7, 7591 NZ
Postal code and city	: Denekamp, the Netherlands
Phone	: +31641549729
Date of examination	: September 29, 2023
Reporting date	: September 29, 2023

3. Base year and reporting period

This is the first year that Eraneos is conducting an inventory of its GHG emissions, which means that 2022 will serve as the historical base year.

The reporting period covers the consumption of the various fuels, gas and electricity from January 1 through December 31, 2022.

This also includes any consumption which has been administratively allocated to the reporting period.



4. Organizational boundaries

4.1 Defining the organizational boundaries

Nieuwhuis Consult used the GHG protocol method to determine the organizational boundaries at Eraneos. This is based on the following factors:

Vehicle fleet

- Legal entity (Eraneos Netherlands is a Dutch limited liability company; Dutch: "B.V.")
- Eraneos Netherlands B.V. operates under the following trade names:
 - Eraneos Netherlands B.V.
 - Quint
 - Quint Holding
 - Quint Group
 - Eraneos Netherlands
 - Eraneos

This report does not include Eraneos Netherlands B.V.'s location in Spain.

Number of employees

Eraneos Netherlands B.V. consists of 223.87 FTE at the time of writing.

Resources

Eraneos Netherlands B.V. manages its own fleet of passenger vehicles.

It operates from three locations. These branches and assets fall within the boundaries of Eraneos Netherlands B.V. and are therefore included in the CO2 calculation.



4.2 Scopes of the CO2 footprint

The CO2 footprint analysis identifies the various sources of an organization's greenhouse gas emissions. These various forms of emissions are also converted into CO2 equivalents. The GHG method distinguishes between direct and indirect emissions and emissions by third parties. This distinction translates into three scopes:

- Scope 1: Direct emissions
 For example, natural gas consumption or fuel consumption of lease and company cars.
- Scope 2: Indirect emissions For example, offsite electricity consumption and heating generated elsewhere.
- Scope 3: Third-party emissions
 For example, mobility, emissions from waste and emissions from outsourced work.



Figuur 1 Scopediagram Greenhouse Gas Protocol

To determine the footprint of Eraneos, we looked at scope 1 and 2 emissions + additional business travel from scope 3, as described in the CO2 Performance Ladder 3.1.



5 Direct and indirect GHG emissions

5.1 Calculated direct and indirect CO2 emissions (GHG Protocol classification)

Fleet	Supplier	Product type	Number	Unit
	Athlon	Euro 95	48,385.96	[liters]
	Brightlease	Euro 95	64,786.17	[liters]
Gasoline	Leaseplan	Euro 95	8,536.00	[liters]
consumption	Leaseplan	Gasoline - hybrid	849.30	[liters]
Total gasoline			122,557.43	[liters]
	Athlon	Diesel	931.31	[liters]
Diesel	Brightlease	Diesel	4,397.31	[liters]
consumption	Leaseplan	Diesel	411.80	[liters]
Total diesel			5.740,42	[liters]
	Athlon	Electrically charged	48,605.03	[kWh]
l PG	Brightlease	Electrically charged	125,873.28	[kWh]
consumption	Leaseplan	Electrically charged	20,997.60	[kWh]
Total LPG			195,475.91	[kWh]

CO2 emissions from the vehicle fleet (January 1 to December 31, 2022)

Train trips	Supplier	Product type	Number	Unit
	Dutch	NS Businesscard		[km]
	Railways			
	(NS)		9,408	
International		Hamburg & Frankfurt	1,456	
Total train				[km]
miles			10,864	

Valid for NS, Intercity Direct and regional electric trains. Public transport companies use 100% green electricity, which means no emissions are released per passenger kilometer.



	Number of flights	Number of	
Air travel		km	Unit
Madrid	55	97,240	[km]
Zurich	67	40,401	[km]
Rhodes	360	1,207,800	[km]
USA	4	24,756	[km]
Prague	2	2,824	[km]
London	1	670	[km]
Stockholm	2	4,612	[km]
Stavanger	1	1,466	[km]
Total mileage		1,370,197	[km]

2022

				Emission		Tons	
Vehicle fleet	Scope	Number	Unit	factor	Unit	of CO2	%
Gasoline							50%
consumption	1	122,557.43	[liters]	2.784	[kg CO2/liter]	341.20	
Diesel							
consumption	1	5,740.42	[liters]	3.262	[kg CO2/liter]	18.73	2.5%
Electric							
consumption	2	195,475.91	[kWh]	0.427	[kg CO2/liter]	83.47	12%
Business							
mileage private							3%
cars	3	125,324.26	[km]	0.193	[kg CO2/km]	24.19	
Air travel <700					[kg CO2/km]		
km	2	41,071	[km]	0.234		9.61	1%
Air travel 700-					[kg CO2/km]		
2500 km	2	106,142	[km]	0.172		18.26	2.5%
Air travel					[kg CO2/km]		
>2500 km	2	1,232,556	[km]	0.157		193.51	29%
					[kg CO1/km]		
Train travel					Corrected by		0%
international	2	1,456	[km]	0.015	57%	0.02	
					Total fleet	688.99	100%



CO2 emissions from offices and production sites (January 1 to December 31, 2022)

Sites assessed:

Pedro de Medina Avenue 11	Rozenburglaan 3	De Oude Molen 1 - 4
1086 XK Amsterdam	9727 DL Groningen	1184 VW Amstelveen

All three locations use gray electricity. The electricity and gas consumption for the Groningen location cannot be traced. For this reason, it has been excluded and can be included as a major uncertainty factor.

Offices and production sites	Unit	Total consumption	Unit
Amsterdam location	Gray power	3,945	[kWh]
Groningen location	Gray power		[kWh]
Amstelveen location	Gray power	107,558	[kWh]
Total consumption of electricity		111,503	[kWh]
Location Amsterdam	District heating	738	[GJ]
Location Groningen	Natural gas		
Location Amstelveen	Natural gas	19,893	[m ³]

Offices and				Emission		Tons	
production sites	Scope	Number	Unit	factor	Unit	of CO2	%
					[kg		
Gray power	2	111,503	[kWh]	0.523	CO2/kWh]	58.31	49%
					[kg		
Natural Gas	1	19,893	[m³]	2.085	CO2/m ³]	41.48	35%
					[kg		
District heating	1	738	[GJ]	26.84	CO2/GJ]	19.81	16%
						119.6	100%

Total direct and indirect CO2 emissions with a breakdown by scope 1 or 2 (2022)

Carbon footprint:	832.78	tons of CO2	
Scope 1:	421.22	tons of CO2	50.6%
Scope 2:	411.56	tons of CO2	49.4%
Scope 3:	0	tons of CO2	0%



5.2 Combustion of biomass

No combustion of biomass occurred within scope 1 and 2.

5.3 Greenhouse gas removals

No binding of CO2 (greenhouse gas removal) occurred.

5.4 Exceptions

All identified sources and sinks of CO2 are accounted for in the report with the exception of:

- Refrigerants
- Lubricants
- Business travel
 - Cab rides (do not occur)

5.5 CO2 emissions per employee and per million euros of revenue

Because the figures in section 5.1 may present a distorted picture in the event of growth, contraction, acquisition or disposal of activities, Nieuwhuis Consult has also calculated the following key figures for Eraneos.

	2022	CO2 emissions from vehicle fleet	CO2 emissions from offices and production sites	Total CO2 emissions	CO2 emissions per employee	CO2 per million euros of revenue
Number of employees	223.87	688.99	119.60	832.78	3.72	-
Annual revenue	€50,000,000	688.99	119.60	832.78	-	16.65



6 Quantification methods

Nieuwhuis Consult used a self-developed Excel tool to quantify CO2 emissions.

CO2 emissions can be determined on three levels for each (sub)system:

6.1 Direct imports of CO2 emissions

Not applicable.

6.2 Entering data on energy use

Energy consumption data is known for many components. If this is the case, this energy use data can be entered into the Excel sheet to automatically calculate CO2 emissions using the appropriate emission factors.

6.3 Entering data on activities

In some cases, no data on energy use is known.

6.4 Data sources by scope

GHG	SKAO	Topics	Scope	Resources
-	1	Refrigerator and air conditioner leakage losses	1	Service reports
-	1	CO2 emissions from use of own vehicle fleet	1	Vehicle fleet invoices from Athlon, Brightlease and Leaseplan
-	1	Natural gas	1	Energy bills
2	2	Electricity use	2	Energy bills
3	3	Use of private cars for business travel	3	km declarations to payroll administration



7 Emission factors

Emission factors from the CO2 Performance Ladder were used to take inventory of CO2 emissions.

- www.skao.nl (version 3.1, June 22, 2020)
- https://co2emissiefactoren.nl/lijst-emissiefactoren/ (Last updated: January 20, 2023)

Removal factors are not applicable for Eraneos because no greenhouse gas removal occurred (see section 5.3).



8 Conversion factors

The calculations in each Periodic Report are based on the conversion factors contained in the most recent CO2 Performance Ladder Handbook. For a list of conversion factors used within this Periodic Report, please refer to the current list at www.co2emissiefactoren.nl (Latest updated: January 20, 2023).



9 Uncertainties

The results presented must always be interpreted with a certain margin of uncertainty. However, based on the data presented, we can determine that this margin is reasonably small. Minor differences in measuring the liters of fuel consumed are mainly due to the method of rounding.

Regarding air travel, there is also some degree of uncertainty. Air travel cannot be traced exactly based on the number of kilometers flown. The organization has created an estimate based on the destinations of the flights. The number of flights is certain, but the exact number of kilometers flown must be read with some degree of uncertainty. For next year, it is recommended that the number of flight kilometers be tracked in a structured manner.

Gas/electricity consumption at the Groningen site is also a major uncertainty factor. This data cannot be traced. The organization paid an advance on heating costs and has not received a statement of actual consumption. This consumption accounts for less than 5% of the entire footprint. A more detailed report is available internally.



10 Reporting in accordance with ISO 14064:2018

This report was prepared in accordance with the requirements of ISO 14064-1:2018, sections 9.3.1.a-t.



11 Report verification

An external competent body will verify this report and test it in accordance with ISO 14064 as described in requirement 3.4.9 of the CO2 Performance Ladder.



12 Cross reference for ISO 14064-1 and GHG report content from chapter 7

ISO	Requirement	Section from	Reporting requirement	
14064-	no. from	emissions	IS	
1:2018	section	inventorv		
	9.3.1	/		
	Α.	1	Description of the reporting organization	
	В.	2	Person or entity responsible for the report	
	С.	3	Reporting period covered	
	D.	4	Documentation of organizational	
			boundaries	
	E.	4	Documentation of reporting boundaries,	
			including criteria determined by the	
			organization to define significant	
			emissions	
	F.	5.1	Direct GHG emissions, quantified	
			separately for CO2, CH4, N2O, NF3, SF6	
			and other appropriate GHG groups (HFCs,	
			PFCs, etc.) in tons of CO2e	
	G.	5.2	A description of how biogenic CO2	
			emissions and removals are treated in the	
			GHG inventory and the relevant biogenic	
			CO2 emissions and removals quantified	
			separately in tons of CO2e	
	Н.	5.3	If quantified, direct GHG removals, in tons	
			of CO2e	
	I.	5.4	Explanation of the exclusion of any	
			significant GHG sources or sinks from the	
			quantification	
	J.	5.1	Indirect GHG emissions separated in tons	
			of CO ₂	
	К.	3	The historical base year selected and the	
			base-year GHG inventory	
	L.	6.4	Explanation of any change to the base	
			year or other historical GHG data or	
			categorization and any recalculation of the	
			base year or other historical GHG	
			Inventory, and documentation of any	
			imitations to comparability resulting from	
	M.	6	Reference to, or description of,	
			quantification approaches, including	
			reasons for their selection	

A cross reference is included in the table below.



	Ν.	7	Explanation of any change to
			quantification approaches previously used
	0.	8	Reference to, or documentation of, GHG
			emission or removal factors used
	Ρ.	9	Description of the impact of uncertainties
			on the accuracy of the GHG emissions and
			removals data per category
	Q.	9	Uncertainty assessment description and
			results
	R.	Introduction	statement that the GHG report has been
		and	prepared in accordance with ISO
		justification /	14064-1:2018
		10	
	S.	11	A disclosure describing whether the GHG
			inventory, report or statement has been
			verified, including the type of verification
			and level of assurance achieved
	Т.		the GWP values used in the calculation, as
			well as their source

Table 11: ISO 14064-1 cross reference

13 Conclusion

This CO2 Footprint provides an outline of CO2 emissions for Eraneos Netherlands B.V. from the year 2022.

The Energy Management Plan provides further information and discusses reduction measures/targets.

13.1 Measures taken

Newsletters and toolbox meetings are used to communicate with employees about energy consumption, fuel consumption and environmental impact.

13.2 Measures to be taken

A new CO2 Footprint can be prepared at a later date to identify the effectiveness of energy-saving measures.

For the current reporting year (2023-24), Eraneos will make additional investments to make its locations more sustainable while also switching to electric vehicles as much as possible, which can contribute to CO2 reduction.

Measures include:

Vehicle fleet

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- Only using vehicles with an energy efficiency label of A, B or C
- Using cars according to a plan
- Introducing <u>www.hetnieuwerijden.nl</u>
- Electric transportation

Office

- Installing motion sensors with a timer function
- Installing energy-efficient lighting
- Measures to improve building insulation
- Maintenance of installations



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