

CO₂ REDUCTION PLAN 2024

(INCLUDING ENERGY ASSESSMENT)

Based on 2023 data

VenhoevenCS
architecture+urbanism

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1 Introduction

This Reduction Plan is a partner document to the Energy Management Plan. This report deals with the emissions-inventory of VenhoevenCS. This document focusses on aspect A (insight) and aspect B (CO₂ reduction) of the CO₂ Performance Ladder.

The CO₂ footprint provides an overview of the total greenhouse gas emissions: the GHG-emissions. This also provides insights to the origin of these emissions with a distinction of direct and indirect GHG-emissions (respectively scope 1 and scope 2).

The overview is a justification of requirement 3.A.1 van de CO₂ Performance Ladder and has been conducted in accordance with ISO 14064-1: 2018 (E) "*Quantification and reporting of greenhouse gas emissions and removals*." This document provides the CO₂ footprint according to § 7.3.1 of this norm. The last chapter provides a cross table to confirm this.

In reporting for the CO₂ Performance Ladder a distinction is made between scope 1, 2 and 3. This distinction originates from the GHG-protocol. The SKAO positions '*business travel*' and '*personal cars for business travel*' in scope 2 instead of scope 3. As this report on the CO₂ Performance Ladder is from the SKAO, their scope 1 and scope 2 categories will be adhered to.

Moreover, this document presents scope 1 and 2 of the CO₂ reduction measures of VenhoevenCS, alongside this, the progress of the CO₂ reduction is being looked at. Preceding this is the CO₂ footprint for scope 1 and 2 in line with the ISO-14064-1 norms and the GHG-protocol.

To determine the CO₂ reducing measures that can be implemented for VenhoevenCS, an assessment is made of possible measures. This assessment is included as a separate tab in the Excel document 'QHSE actielijst. Based on the measures that are relevant for VenhoevenCS, the CO₂ reduction plan is being drawn up. This document describes the reduction goals and the corresponding measures.

Chapter 4 of this document describes the energy assessment for which an analysis is made about the progress of the CO₂ reduction and possible improvement points. Chapter 5 then describes the objectives. The progress is depicted in chapter 6.

This reduction plan was drawn up in accordance with and under approval of management.

1.1 Reading guide

This document serves as foundation of the requirements for the CO₂ Performance Ladder. Every chapter deals with a specific requirement which is outlined below.

Chapter in this document	Requirement of the CO ₂ Performance Ladder
Chapter 2: Description of the organisation	3.A.1
Chapter 3: Emissions inventory report	3.A.1
Chapter 4: Energy assessment	2.A.3
Chapter 5: Objectives	3.B.1
Chapter 6: Progress CO ₂ reduction	3.B.1

2 Description of the organisation

VenhoevenCS is an innovative practice for sustainable architecture, urban development, and infrastructure, attuned to meeting the challenges of our time. Founded by Ton Venhoeven in Amsterdam in 1995, VenhoevenCS has since grown into a renowned design and consultancy practice, with five partners and an international team of architects, urban planners, and technical engineers.

Core Values

- ✓ Forward Thinking
- ✓ Collaborative
- ✓ Engaged
- ✓ Positive

Vision

There's only one planet.

We believe that it provides ample space for all living things to thrive.

And because world population and global consumption increase rapidly,

we need to develop new design principles to adjust the way humans shape and structure their use of the planet.

Mission

We believe that design can revitalize the world for all life forms.

Nature works with ecosystems that are self-sufficient and sustainable.

we use this holistic concept as starting point for our research and design practice.

Operating field:	Sustainable architecture, urban development, infrastructure, research and consultancy in the field of spatial planning
Company foundation:	2004 (Ton Venhoeven Holding B.V. in 1998)
Legal form:	Private Limited Liability Company (<i>Besloten Vennootschap</i>)
QM-System:	ISO 9001:2015 and ISO 14001:2015 since 2017 CO ₂ -performance ladder since 2016 Safety Culture Ladder since 2022
Employees per 31-12-2023:	42, excl. board, interns and freelances
Employees average in 2023:	50, excl. board, interns and freelances (47 FTE)
Board, interns and freelance	8,5 (8,2 FTE)
Customers in 2023:	72, combined VenhoevenCS, VCS-FR, VCS-BE and VCS-DE

2.1 Statement company size

All emissions mentioned in this document are the sum of the emissions of VenhoevenCS, VCS-FR, VCS-BE and VCS-DE.

Total scope 1 emissions in 2023: 4.516 kg CO₂

Total scope 2 emissions*) in 2023: 16.471 kg CO₂

*) including business travel

Total 20.987 kg CO₂ (21 ton)

VenhoevenCS thereby classifies as a **small** company in terms of CO₂ emissions (*Handboek CO₂ Performance Ladder* 3.1., page 27).

2.2 Tenders with award advantage

In 2023 there were no architectural design or urban planning tenders published that included a CO₂ performance criterium. VenhoevenCS did not obtain any projects with award advantage through the CO₂ Performance Ladder since 2015.

3 Emission inventory report

3.1 Responsible actor

The person responsible for the continuous improvement cycle, CO₂ reduction as well as all related activities, such as accomplishing objectives, is Helga Lasschuijt (General / QHSE Manager). She reports directly to the board of directors.

3.2 Reference year

This report provides data from the fiscal year of 2023.

For the period 2016-2022 the reference year is 2015 for the purpose of reference for the CO₂ reduction measures.

For all calculations of data from 2023 on, the year 2022 will be the new reference year.

3.3 Organizational boundary

This paragraph refers to the boundary of VenhoevenCS architecture+urbanism, including its subsidiaries. The organizational boundary consists of Ton Venhoeven c.s. Architecten B.V. (= VenhoevenCS), VCS-FR B.V., VCS-BE B.V. and VCS-DE B.V.

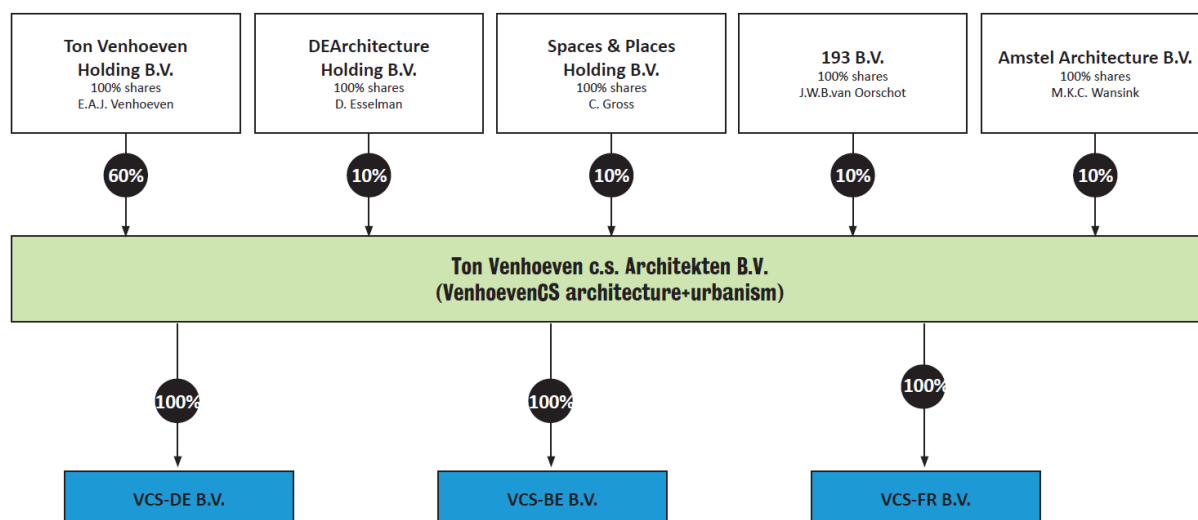
The organizational boundary is determined through the lateral method (Handbook 3.1, chapter 4.1).

VCS-FR B.V. was founded in March 2020 for the administrative and financial operations on behalf of the French projects of VenhoevenCS. VCS-FR does not employ staff, does not have its own office and does not have its own business operations. VCS-FR is a fiscal unity with VenhoevenCS. The costs and activities incurred for the French projects are included in this plan within the legal entity VenhoevenCS.

VCS-BE B.V. was founded in May 2021, set up for the administrative and financial operations on behalf of the Belgian projects of VenhoevenCS. VCS-BE does not employ staff, does not have its own office and does not have its own business operations. VCS-BE is a fiscal unity with VenhoevenCS. The costs and activities incurred for the Belgian projects are included in this plan within the legal entity VenhoevenCS.

VCS-DE B.V. was founded in December 2022, set up for the administrative and financial operations on behalf of the German projects of VenhoevenCS. VCS-DE does not employ staff, does not have its own office and does not have its own business operations. VCS-DE is a fiscal unity with VenhoevenCS. The costs and activities incurred for the Belgian projects are included in this plan within the legal entity VenhoevenCS.

All emissions and calculations mentioned in this document are the sum of the emissions of VenhoevenCS, VCS-FR, VCS-BE and VCS-DE.



3.4 Direct and indirect GHG-emissions

Elaboration on the calculated GHG-emissions.

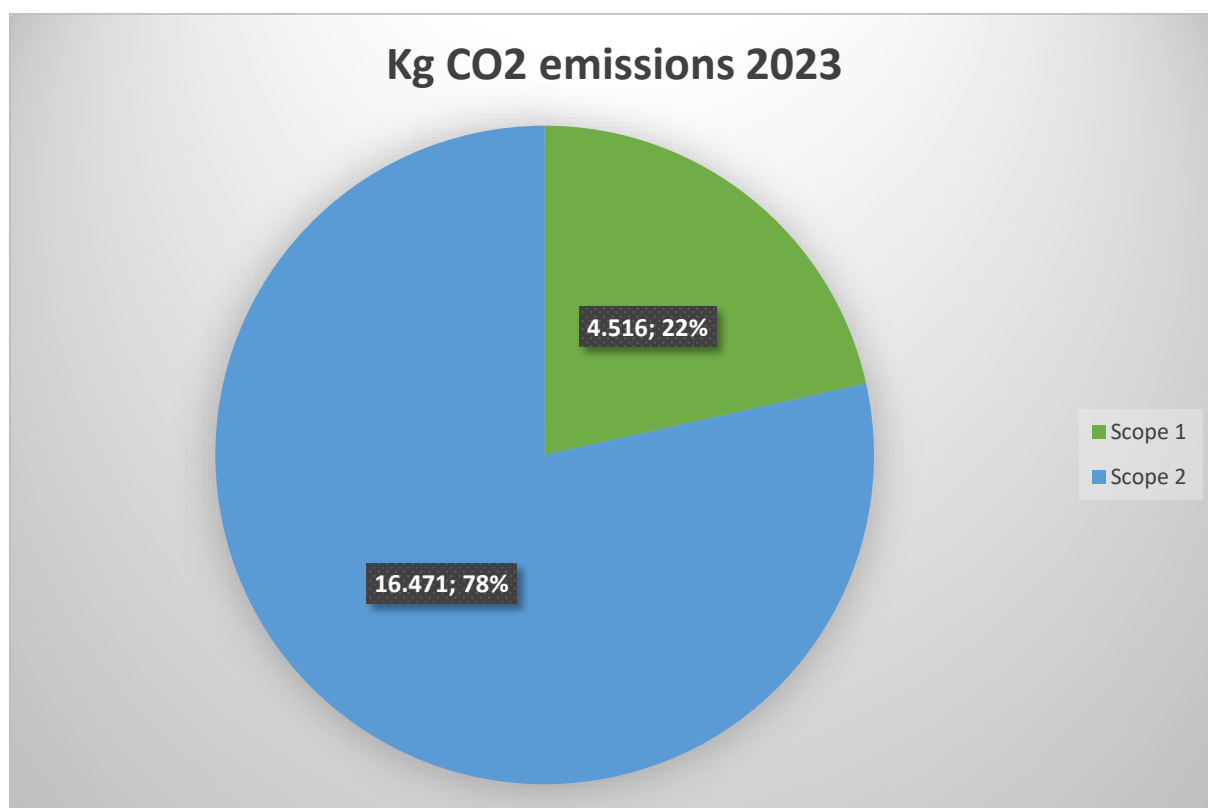
Calculated GHG-emissions

All emissions mentioned in this document are the sum of the emissions of VenhoevenCS, VCS-FR, VCS-BE and VCS-DE.

The direct and indirect GHG-emissions of VenhoevenCS of scope 1 and 2 amounted to 20.987 kg (21 ton) CO₂ in 2023.

This is 1,3% less than the emissions of 2022: 21.262 kg CO₂

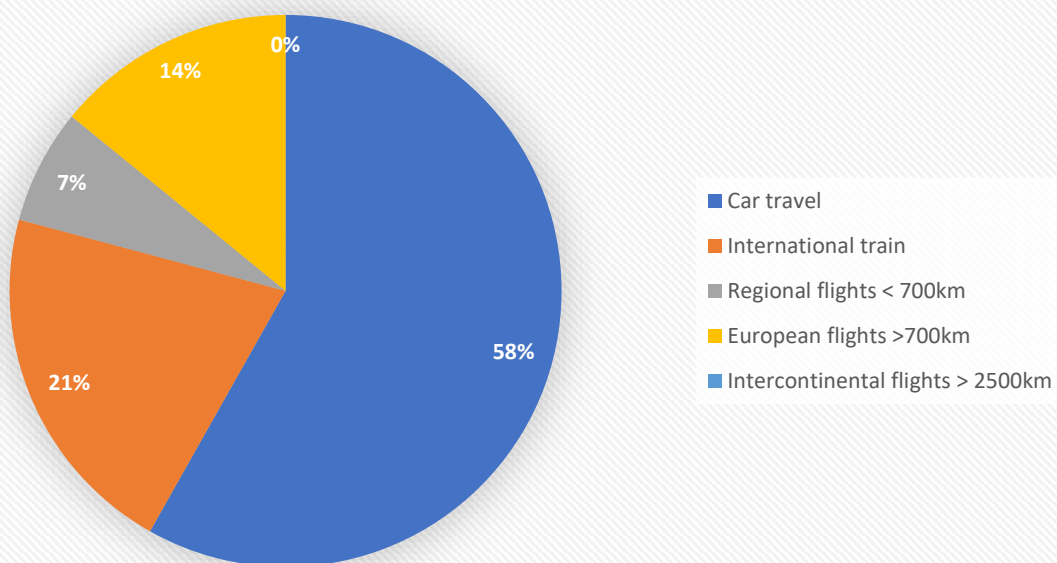
Scope 1	4.516 kg
Scope 2	16.471 kg
Total	20.987 kg



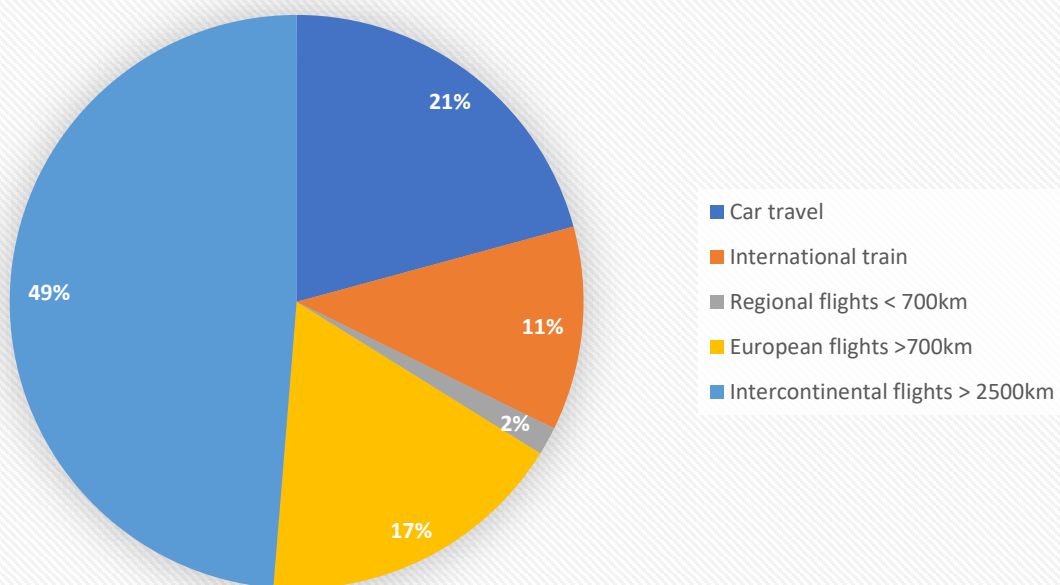
Breakdown of scope 2 (including business travel)

Electricity use	0	kg CO ₂
Business travel operation	4.608	kg CO ₂
Business travel projects	11.863	kg CO ₂
Total	16.471	kg CO₂

Business Travel Operations 2023



Business Travel Projects 2023



Overview CO ₂ emissions 2023 in tons				Full year
Type emission flow scope 1	Quantity	Unit	Emission factor (kg CO ₂ per unit)	Emission (ton CO ₂)
Gas consumption - office	2172	m ³	2,079	4,5
Total scope 1				4,5
Type emission flow scope 2	Quantity	Unit	Emission factor (kg CO ₂ per unit)	Emission (ton CO ₂)
Electricity - green	27897	kWh	0	0
Total scope 2				0
Type emission flow business travel	Quantity	Unit	Emission factor (kg CO ₂ per unit)	Emission (ton CO ₂)
Private car	11.081	km	0,193	2,1
Private electric car (grey)	8.899	km	0,094	0,8
Car sharing (petrol small)	10.434	km	0,174	1,8
Electric car sharing (grey)	3.771	km	0,094	0.4
International train travel	137.137	km	0,017	2,3
Air travel <700 km	2.128	km	0,234	0,5
Air travel 700-2500 km	15.806	km	0,172	2.7
Air travel >2500 km	36.803	km	0,157	5.8
Total business travel				16,5
Total emission scope 1, 2 incl. business travel				21,0

Combustion of biomass

No combustion of biogas takes at VenhoevenCS.

GHG-removal

There is no greenhouse gas removal or compensation at VenhoevenCS.

Exceptions

There are no remarkable exceptions to mention on the GHG protocol.

Key influencers

Within VenhoevenCS there are no individuals who have got such an impact on the CO₂ footprint that a behavioural change of this individual person could ensure a significant change in the CO₂ footprint.

Future

We anticipate growth in revenue, the number of projects, and the number of employees in 2024. This will increase our footprint in absolute numbers.

Significant changes

See above.

3.5 Quantification methods

For the quantification of the CO₂ emissions, a tailor-made model is used. In the model, all consumption can be filled in. The corresponding CO₂ emissions will be calculated and compared to the reference year. The model uses emission factors from the CO₂ Performance Ladder that can be found on www.co2emissiefactoren.nl and provided by *De Duurzame Adviseurs*. In chapter 2 of the CO₂ Management plan of VenhoevenCS a description is provided of the data sources per energy flow.

3.6 Emission Factors

The emission factors of the CO₂ Performance Ladder 3.1 have been used to assess the CO₂ emissions of VenhoevenCS in 2023. As the emission factors are specifically calculated on both national and international level, the factors that have been used are very reliable for the conversion of the energy consumption into the related CO₂ emissions. The emission factors of VenhoevenCS will adapt to all changes in future certification schemes of the CO₂ Performance Ladder. For the calculation of the CO₂ footprint for 2023 the emission factors of 22-01-2024 have been used.

Removal factors do not apply.

3.7 Uncertainties

The presented results are an estimate of the actual values. Almost all data used for the calculation of the CO₂ footprint is based on invoices or measured quantities. This keeps the uncertainty margin to minimum. However, there are opportunities for improvement. These are outlined below:

- ✓ All emission flows were catalogued using the best available information. However, it is possible that while composing the CO₂ footprint, a typing error was made.
- ✓ Emission calculations for kilometers made by private car and public transport are based on the reimbursement invoices sent in by employees. If (in the unlikely but not impossible case) invoices are not sent in, those kilometers are not included in the emission calculation.

3.8 Exclusions

According to the Handbook 3.1, it is not mandatory to include a report on the CO₂ emission inventory of all greenhouse gasses, expressed in CO₂ equivalents. Thus, it is not mandatory to report on additional gasses, which are not CO₂ (CH₄, N₂O, HFC's, PFC's and SF₆) that were released during organisational activities, to include in the emission inventory. This also applies to refrigerants.

3.9 Verification

The emission inventory of VenhoevenCS has not been verified by an external agency. The emission inventory will be verified during the external audit. There has been an internal audit by an 'independent' colleague to verify the emission calculations with random checks.

3.10 Statement in accordance with ISO 14064-1

This report has been made according to the requirements from ISO 14064-1 paragraph 9.3.1. The cross-reference table below shows that all parts from ISO 14064 and §7.3 of the GHG report are included in this document.

ISO 14064-1 §9.3.1	§ 7.3 GHG-report content	Description	Chapter report
A	A	Reporting organization	2
B	B	Person responsible	3.1
C	C	Reporting period	3.2
D, E	D	Organizational boundaries	3.3
F	E	Direct GHG emissions	3.4
G	F	Combustion of biomass	3.4
H	G	GHG removals	3.4
I	H	Exclusion of sources or sinks	3.4
J	I	Indirect GHG emissions	3.4
K	J	Base year	3.2
L	K	Changes or recalculations	3.4
M, T	L	Methodologies	3.5
N	M	Changes to methodologies	3.6
O	N	Emission or removal factors used	3.6
P, Q	O	Uncertainties	3.7
R	P	Statement in accordance with ISO 14064-1	3.10
S	Q	Verification	3.9

Cross reference table ISO 14064-1

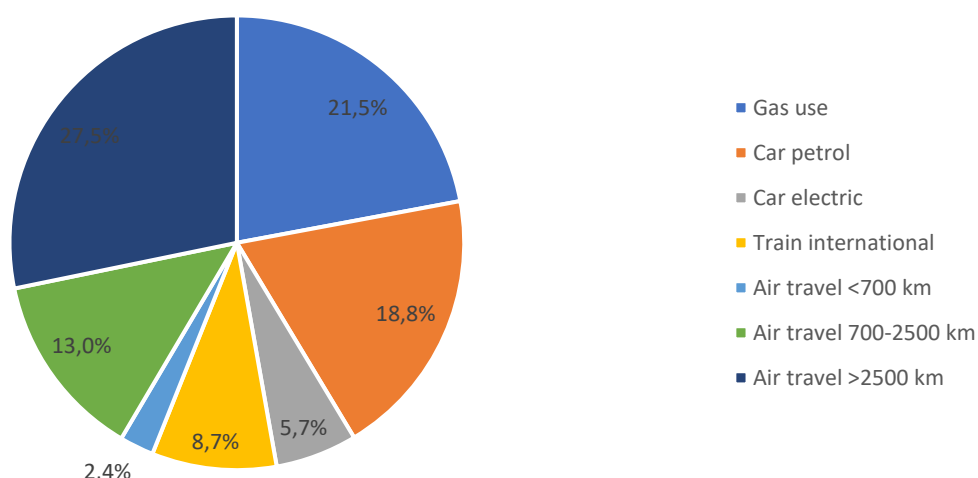
4 Energy assessment

The aim of this energy assessment is to provide an overview of historic and current energy use of VenhoevenCS. This assessment shows at least 80% of the energy flows. Thereby, this document identifies the largest sources of consumption, which can then be targeted individually. This is done so that the processes that contribute to the CO₂ emissions most can be targeted effectively. The underlying data can be found in an Excel documents named

4.1 Identification of the largest consumption sources

As can be seen in 3.4, scope 1 (gas use) accounts for 22% and scope 2 (mobility) for 78% of the total of scope 1 and 2 emissions. In order to get more insight in the largest consumption sources, we differentiate the sources in scope 2.

Energy Assessment 2023



The largest emission sources of VenhoevenCS in 2023:

- ✓ International air travel > 2500km 27,5%
- ✓ Gas consumption 21,5%
- ✓ Travel by car (petrol) 18,8%
- ✓ Air Travel 700-2500km 13,0%

4.2 Analysis

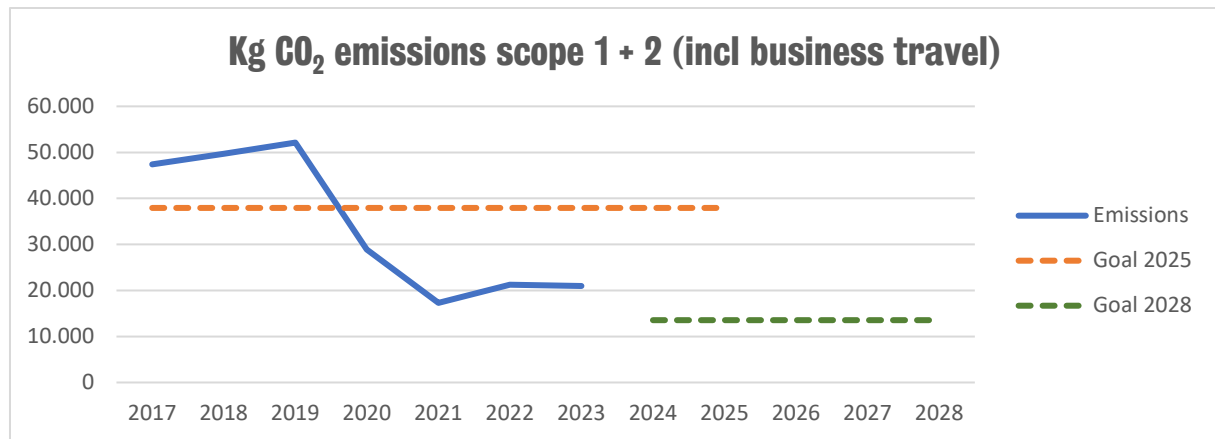
Intercontinental air travel is our largest energy consumption source in 2023. The impact of international flights is clear: only 2 people made 1 trip for a project in China. This one visit accounts for more than a quarter of our missions.

Our gas consumption comes second. There has been a significant reduction in gas use: almost 35% reduction. We installed smart thermostats in several places in the office and the ventilations system has been tweaked. Clearly this has paid off.

Our use of petrol cars for projects has increased in percentage, but the actual number of kilometers driven has decreased: from 24.895 km in 2022 to 21.515 km in 2023.

4.3 Trends in energy use and progress in CO₂ reduction

The footprint in 2023 is practically the same as in 2022. However, we are still on our way to meet our targets.



4.4 Previous energy assessment

Many factors make it impossible to compare the emissions of 2020, 2021 and 2022 with other years:

- ✓ Covid-19 measures from March 2020 – February 2022: a lot of WFH, hardly any 'live' meetings, little business travel
- ✓ Lifting of lockdown in March 2022 in Netherlands did not result in 'business as usual in 2019'
- ✓ China closed for international travellers during 2020, 2021 and 2022
- ✓ We had an unusual peak in revenue in 2020 due to the acquisition of a very large project. In the course of 2020, we started recruiting extra personnel, resulting in
- ✓ A peak in personnel in 2021
- ✓ In December 2020 extra office space was acquired, resulting almost a doubling of available m² floor space
- ✓ In 2021 a renovation started of the whole office, which ended in the Summer of 2022
- ✓ In December 2022 commissioning of the new mechanical ventilation system
- ✓ In 2022 step-by-step use of office units as the renovation progressed
- ✓ Full use of office space as intended in September 2022

4.5 Potential improvements

Scope 1: gas

It is clear that in 2022 we had too little control over our gas consumption. The new units have separate electricity, heating systems and gas meters. We have installed smart thermostats and tweaked our ventilation system. This has clearly helped.

In 2024 we will install smart gas meters. This will give us more insight into our gas use and help us define new measures.

Scope 2: electricity

Due to a certified Dutch wind energy contract, our electricity use is formally set at zero CO₂ emissions.

We expected that the installation of the new mechanical ventilation would result in more energy use and less gas use. However, our energy use has decreased, but this is probably due to a decrease in employees.

We will need to install more sub-meters to get a better understanding of our electricity use.

Scope 2: mobility

China opened up to international travellers in March 2023 and this meant our employees had to fly to China for several Chinese projects. This had direct impact on our business travel emissions. Here is very little we can do about this.

Travelling by car is our most important focus for improvement. Our reduction goals for 2023-2028 geared toward car use. VenhoevenCS has no car fleet and using cars as little as possible has been a policy for ever. Current policy is geared towards using shared electric cars if possible. At the moment that means that only projects within a 100-200 km range of our office can be reached by shared electric car.

5 Strategic plan scope 3

VenhoevenCS considers it important to gain insight into its main scope 3 emissions. To obtain this insight, a qualitative and quantitative dominance analysis was carried out. The results are shown below.

As of 2023 there will be a change in the strategic plan scope 3. See Management Plan 2023 for details.

Significant scope 3 emissions

On the basis of both a qualitative and quantitative scope 3 analysis, the emissions in the chain of VenhoevenCS have been mapped.

Qualitative scope 3 analysis

On the basis of a classification into Product-Market combinations and the size of influence and possibilities that VenhoevenCS has on the various Product-Market combinations the following top 3 emerged:

- ✓ Procurement (Goods & Services)
- ✓ Waste
- ✓ Commuting

5.1 Quantitative scope 3 analysis

Based on the 15 GHG-generating categories for scope 3, a quantitative analysis was prepared. For this quantitative analysis, an inventory was also made for each category of which chain partners are involved.

✓ Procurement – goods and services	106 ton CO ₂	97,89%
✓ Waste – waste	2,11 ton CO ₂	2,11%
✓ Commuting (bicycle, train and bus)	0 ton CO ₂	0%

The [quantitative scope 3 analysis](#) can be found on our website.

5.2 Reduction strategy scope 3

Commuter travel

In 2015 more than 40% of the employees came to work by bicycle. The remaining employees came to work by public transport, in some cases in combination with the bicycle. VenhoevenCS does not use lease cars.

VenhoevenCS encourages its employees to use the bicycle, public transport or a combination of these methods instead of a car. In 2022, almost 76% of the employees came to work by bicycle. Employees cannot park their car in the office parking garage and parking fees on the street are steep in Amsterdam. This is the most important deterrent of using a car for commuting.

All employees receive a commuting allowance based on the number of kilometres from door to door. It does not matter whether you walk, travel by bicycle, public transport or by car; you will be reimbursed anyway, so employees who live in Amsterdam and come by bicycle also receive an allowance.

Because of the dedicated use of the bicycle (and public transport), the emissions through commuting varies between 0 – 1% of the total scope 3 emissions. As of 2023, emissions through commuting will not be calculated anymore: only a check on policy change and changes in ways of commuting of individual colleagues will be done.

See Management Plan 2023 for more details

Waste

The waste produced by VenhoevenCS consists mostly of paper, packaging, and kitchen waste. Paper waste has decreased dramatically over the past years due to an almost paperless administration. All suppliers are evaluated yearly by the facilities officer.

The following measures in place when it comes to our waste:

- ✓ Paper waste is separated from all other waste and is collected weekly by a specialized waste management service for recycling.
- ✓ Items and materials are re-used as much as possible: old banners have been made into laptop sleeves, sketch books out of unused/mis-printed paper. See also under Green IT below.
- ✓ No individual waste bins to reduce the use of plastic bags.
- ✓ Choosing suppliers that do not use environmental unfriendly packaging. E.g. our fruit supplier delivers fruit in wooden crates.
- ✓ Many items we use – such as ink cartridges – are collected by specialized companies and refilled or reused.

VenhoevenCS experiments regularly with reducing or reusing waste, but not always with success. Growing mushrooms from coffee waste was not a success. And a trial with compost worms also did not get a follow up.

The biggest part of the emissions from waste is the waste collecting company we hire.

Type of waste	costs	Conversion factor		CO ₂ (kg)
Milieu Service Nederland	€ 2.141	1,07	kg CO ₂ /€	2,284

Since waste accounts consistently for a low percentage of the total scope 3 emissions, these emissions will not be calculated anymore as of 2024.

- ✓ The supplier of the waste services will be added to the Goods & Services calculation
- ✓ Waste management will be part of the procurement and sustainability policy

See Management Plan 2023 for more details

Procurement (Subcontractors & Suppliers)

If we look at 80% of the purchasing turnover in 2023, we count 30 different suppliers and subcontractors, divided over 11 different emission-flows.

The purchase of goods and services is by far the largest factor in the quantitative scope 3 emissions: 97,89%.

Almost 30% of the emissions are caused by renting the office space. Unfortunately, there is not much we can do about this.

18% of the emissions is a result of contracting partners for our projects: engineers, building physics, installation advisors, etc. This is due to several total engineering projects.

Computer services accounts for 14% of the emissions: software, hardware, and system administration.

There is not much we can do to reduce these numbers. When we choose a super sustainable supplier, the conversion factor will still be the same as for a 'bad' supplier. So it seems the only way to reduce the emissions calculated in this scope is by purchasing less goods & services. However, if we choose a local supplier for our fruit, a supplier that distributes on bicycle, and uses no plastic, it will cost more than buying fruit from a large multinational supermarket. In these calculations, the emissions will go up.

In short: there is no quantitatively way to reduce our emissions. We have therefore decided to move to a qualitative approach as of 2023:

- ✓ Every year we choose a supplier of subcontractor to have a one-on-one conversation about GHG emissions.
- ✓ We will also implement a clear procurement policy that will list qualitative selection criteria, among which GHG emission estimations.
- ✓ We will update our Sustainability policy in 2024, which will include guidelines on how our employees are to conduct their activities: think of using less paper, producing less waste, using less water, etc.

6 Objectives

In this chapter the objectives for the coming years of VenhoevenCS will be presented. This includes:

- ✓ An ambition statement with
 - comparison to peers
 - regards to the SKAO measurements list
- ✓ Main objectives for scope 1, 2 and 3
- ✓ Objective gas consumption
- ✓ Objective energy consumption
- ✓ Objective business travel

Semi-annual the organisation will monitor whether there is enough progress.

These objectives were formulated in 2015. VenhoevenCS has decided to evaluate the objectives and the calculation methods in 2022. A deep analysis of the emissions of the last 5 years will be conducted with an external expert, perhaps resulting in a new reduction and management plan.

6.1 Ambition statement

Comparison to peers

Since 2016 when VenhoevenCS received its first CO₂ performance ladder certificate, it has been very lonely in the list of certificate holders: there were no other architectural or urban planning offices.

Times are finally changing and we see some colleagues entering the CO₂ performance ladder. Usually these organisations have a certificate through their parent company (large multidisciplinary engineering companies).

Peer 1 | ZJA

ZJA is an architecture office. They have a certificate on level 3 on the CO₂ Performance Ladder since February 2024. Their objective is to reduce CO₂ emissions by 35% in scope 1 and 2 by 2030 compared to 2019.

To realise this, they have set the following measures:

- Travelling by electric car instead of regular car
- Reducing electricity use by purchasing energy-efficient equipment and turning off equipment outside working hours
- Reducing air travel

There is no publicly available chain analysis or scope 3 analysis available.

Peer 2 | Buro Stedenbouw

Buro Stedenbouw is an office for urban and spatial planning. It does not have its own certificate, but their group company DAGNL does. DAGNL is a multidisciplinary engineering company. They have a certificate on level 3 on the CO₂ Performance Ladder. Their objective is to reduce CO₂ emissions by 12% in scope 1 and scope 2 by 2022 compared to 2017.

To realise this, they have set the following measures:

- Generate renewable energy
- Create CO₂ awareness among personnel
- Implement a policy regarding purchasing and leasing more fuel-efficient cars
- Introduce electric vehicles

SKAO measure list

The measure list is filled yearly. The measures stated on the list are generic, and not always applicable to the activities of VenhoevenCS. That is why VenhoevenCS translates SKAO measures into concrete actions that are relevant to emission reduction at VenhoevenCS.

The overall conclusion related to this measurement list is that VenhoevenCS is ambitious and progressive.

VenhoevenCS has a combined list of measures, the QHSE action list, consisting of

1. SKAO measure list
2. Measures resulting from the Internet Module of the Activities Decree (AIM)
3. Recognized measures for Energy Saving of the Netherlands Enterprise Agency (RVO Erkende Maatregelenlijsten energiebesparing – EML)
4. Environmental Impact Register (MAR)
5. And all actions and measures arising from external and internal audits, inspections, claims and incidents, management reviews, evaluations, etc.

Conclusion ambition statement

Based on the comparison to peers and the measurement list, VenhoevenCS estimates that the set objectives and measures are very ambitious. The organisation sees itself as progressive (and more experienced) compared to peers. This is based on the active reduction of CO₂ in the daily operations, yet with the knowledge that more innovative technologies could be implemented once they become available and economically viable. Based on how much energy is being saved already, the measures should be equal to those of peers.

6.2 Main objective

VenhoevenCS has set out to reach the following objective in the coming years:

Scope 1 and 2 goals VenhoevenCS
VenhoevenCS wants to reduce their CO ₂ emissions by 30% in 2028 compared to 2022

The goal stated above is defined in kg CO₂.

The further specified goals for scope 3 is formulated as follows:

Scope 3 goal VenhoevenCS
By 2025, VenhoevenCS wants to add a paragraph in the design for 90% of the projects* with the embodied energy (shadow costs) of at least 3 primary building elements** and an explanation of the possible reduction.

*) Only for Dutch projects that are constructed (no studies or urban designs)

* *) Structure, floors, walls, roofs, foundation, installations, finishes, etc.

Sub-objective gas consumption

In 2028 our emissions through gas use are 49% lower compared to reference year 2022

2022	2023	2024	2025	2026	2027	2028	
7.26	6.86	6.07	5.37	4.75	4.20	3.71	kg CO ₂ per m ²

For measures, see the *Action plan CO₂ reduction 2023-2028*.

Sub-objective electricity consumption

VenhoevenCS switched to 100% Dutch Wind Energy in 2017 and therefore emits no emissions through electricity consumption.

VenhoevenCS does have a reduction goal in kWh per m²:

43% reduction in 2028 as compared to 2019: from 54,39 kWh per m² to 31 kWh per m²

Sub-objective business travel by car (Operations)

In 2028 our emissions through business travel by car (operations) are 49% lower compared to reference year 2022 (in kg CO₂ per FTE)

2022	2023	2024	2025	2026	2027	2028	
41	39	34	28	25	23	21	kg CO ₂ per FTE

For measures, see the *Action plan CO₂ reduction 2023-2028*.

Sub-objective business travel by car (Projects)

In 2028 our emissions through business travel by car (projects) are 54% lower compared to reference year 2022 (in kg CO₂ per FTE)

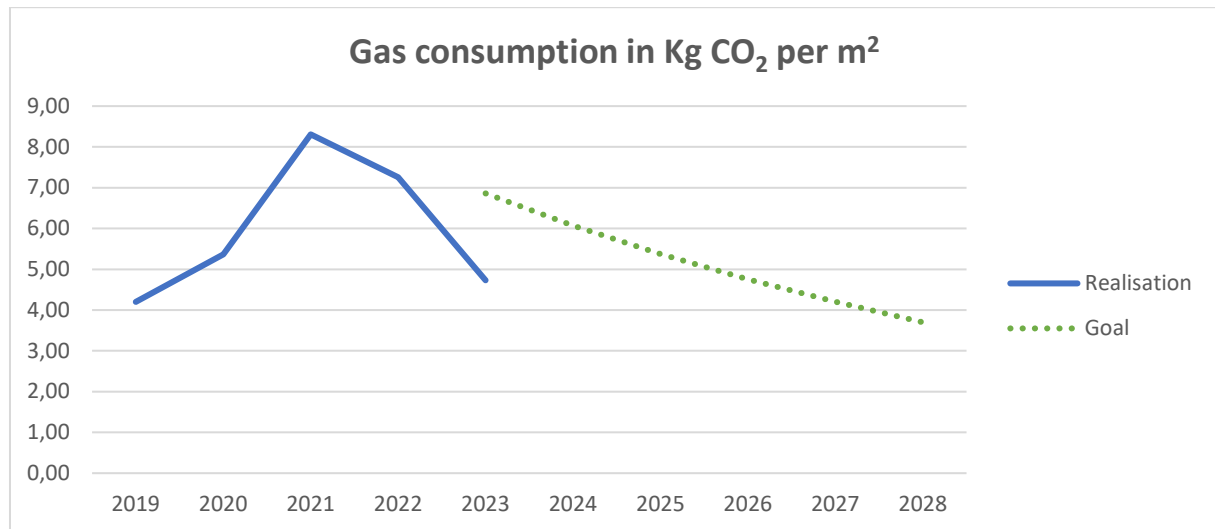
2022	2023	2024	2025	2026	2027	2028	
123	121	115	100	82	67	56	kg CO ₂ per FTE

For measures, see the *Action plan CO₂ reduction 2023-2028*.

7 Progress CO₂ reduction

The charts below show the progress in the actual CO₂ emissions reductions in scope 1 and 2 since 2015.

7.1 Objective scope 1: gas consumption



Our scope 1 consists solely on gas consumption.

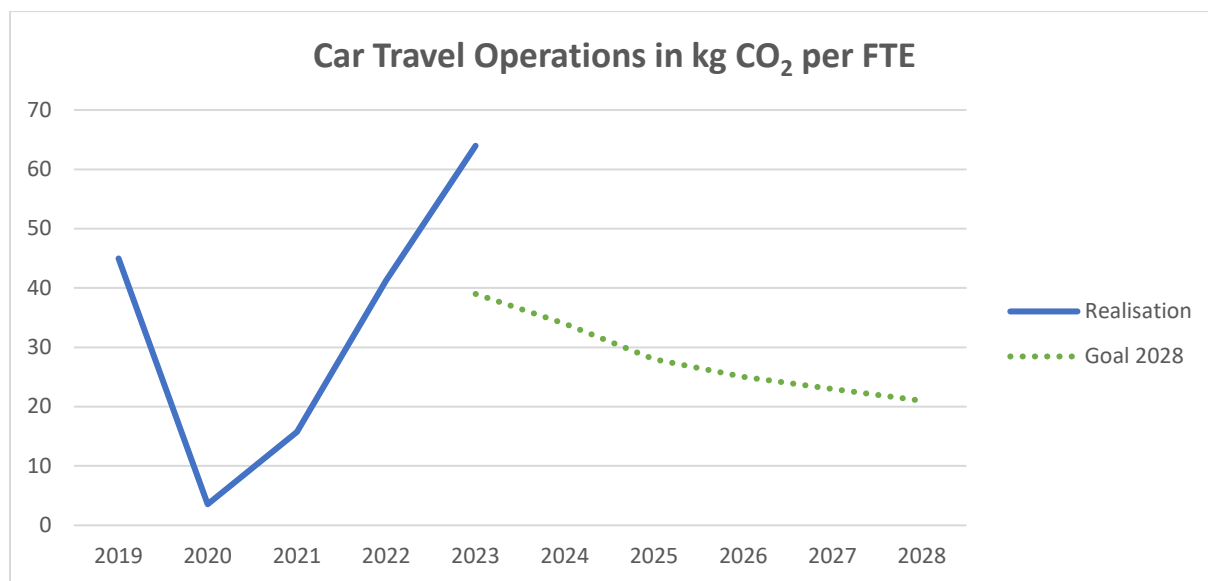
VenhoevenCS is located in an old warehouse built in 1895. The listed status of the building does not allow for anything mounted on the facades. The building has a shed type roof, meaning there is no space on the roof for solar panels. Furthermore, the owners' association of the building is unwilling to invest collectively in sustainable solutions or approve use of communal space for individual purposes.

In 2021 VenhoevenCS decided to change the installations, which were commissioned by the end of 2022. This drastic renovation has improved the indoor climate (better ventilation and improved air quality), but it seems it also has had a positive effect on our gas consumption.

In 2023 we installed several smart thermometers in meeting rooms. This also has had a positive effect on our gas consumption.

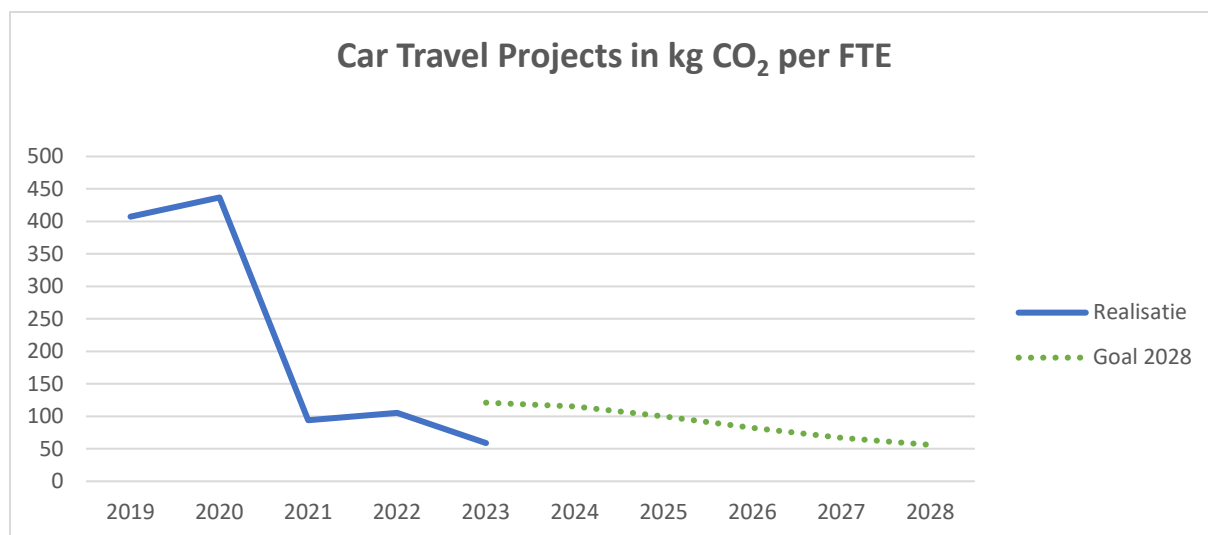
In May 2017 VenhoevenCS switched to forest compensated gas from Green Choice. Green Choice offsets the emissions of our gas consumption by planting and protecting forest within various forest projects.

7.2 Objective scope 2: business travel by car



We expected 3,75% decrease in emissions in 2023 with the measure of having at least 1 electric private car charging by renewal energy only. However, this has only been implemented by August 2024.

In 2023 we had a 24% increase in kilometres driven by car compared to 2022. Due to economic circumstances, we had a decrease of 20% in personnel, while we travelled a lot for business development and PR purposes. This explains the extreme result in kg CO₂ per FTE.



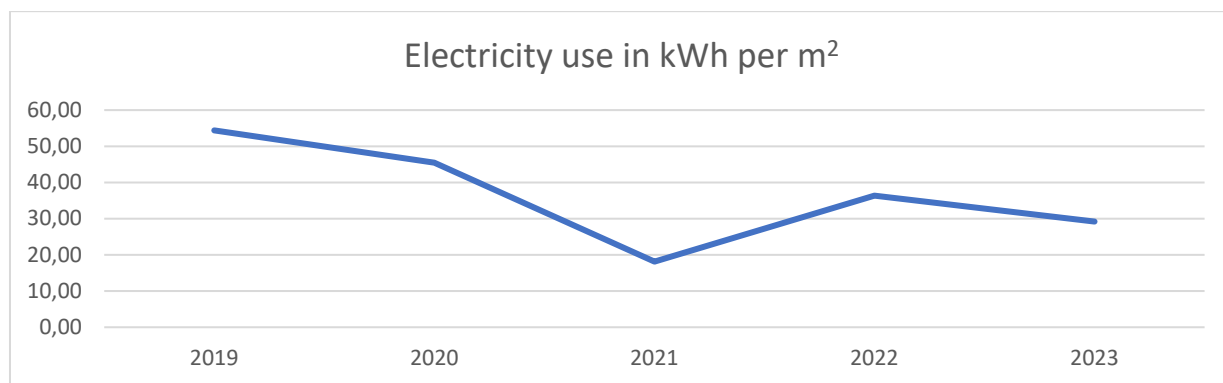
We expected 1,75% decrease in emissions in 2023 with the measure of having at least 1 electric private car charging by renewal energy only. However, this has only been implemented by August 2024.

The decrease in kilometres driven by car for projects is solely due to the decrease in projects.

7.3 Sub-objective electricity consumption

In May 2017 VenhoevenCS switched to 100% certified Dutch wind energy. Since VenhoevenCS has switched to fully green energy, the emission from electricity consumption has been reduced to 0 kg CO₂. Nevertheless, reducing energy consumption will always be the goal.

The facilities officer is continuously looking for sustainable alternatives for all our (electrical) equipment. Research into sustainable alternatives, including conclusions, is documented.



Colophon

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