

CO₂ REDUCTION PLAN 2021

VenhoevenCS
architecture+urbanism

Table of content

1 INTRODUCTION.....	3
2.1 READING GUIDE.....	4
2 DESCRIPTION OF THE ORGANISATION	5
2.1 STATEMENT COMPANY SIZE.....	6
2.2 TENDERS WITH AWARD ADVANTAGE	7
3 EMISSION INVENTORY REPORT.....	7
3.1 RESPONSIBLE ACTOR.....	7
3.2 REFERENCE YEAR	7
3.3 ORGANIZATIONAL BOUNDARY	7
3.4 DIRECT AND INDIRECT GHG-EMISSIONS	8
3.5 QUANTIFICATION METHODS.....	10
3.6 EMISSION FACTORS.....	10
3.7 UNCERTAINTIES.....	10
3.8 EXCLUSIONS	11
3.9 VERIFICATION	11
3.10 STATEMENT IN ACCORDANCE WITH ISO 14064-1	11
4 ENERGY ASSESSMENT	12
4.1 IDENTIFICATION OF THE LARGEST CONSUMPTION SOURCES	12
4.2 ANALYSIS	12
4.3 TRENDS IN ENERGY USE AND PROGRESS IN CO ₂ REDUCTION	13
4.4 PREVIOUS ENERGY ASSESSMENT.....	13
4.5 POTENTIAL IMPROVEMENTS.....	14
5 STRATEGIC PLAN SCOPE 3.....	15
5.1 QUALITATIVE SCOPE 3 ANALYSIS	15
5.2 REDUCTION STRATEGY SCOPE 3	15
6 OBJECTIVES	18
6.1 AMBITION STATEMENT	18
6.2 MAIN OBJECTIVE	19
7 PROGRESS CO₂ REDUCTION	21
7.1 SUB-OBJECTIVE GAS CONSUMPTION	22
7.2 SUB-OBJECTIVE ELECTRICITY CONSUMPTION	22
7.3 SUB-OBJECTIVE BUSINESS TRAVEL.....	23

1 Introduction

Sustainability has been in VenhoevenCS' DNA since the foundation in 1998. In 2009 we started with making our ambitions quantifiable and measurable by calculating our carbon footprint. In 2016 VenhoevenCS received the CO₂ Performance Ladder certificate level 3 and in 2017 we upgraded to level 5.

Today we still make our clients and project partners aware of a wide range of sustainable solutions, such as re-use, bio-based materials, low-energy buildings, adaptive and nature-inclusive design. We provide products and services (directly or indirectly) to commissioning parties who occasionally use award advantage in their tenders, based on the principles of the CO₂ Performance Ladder.

VenhoevenCS has a wide variety of clients, including national and international, local governments and semi-governments. The CO₂ Performance Ladder challenges and stimulates all project partners to map and reduce their own CO₂ emissions. The more attention an organisation pays to reducing their CO₂ emissions, the higher the chance of receiving fictional advantage in a tender.

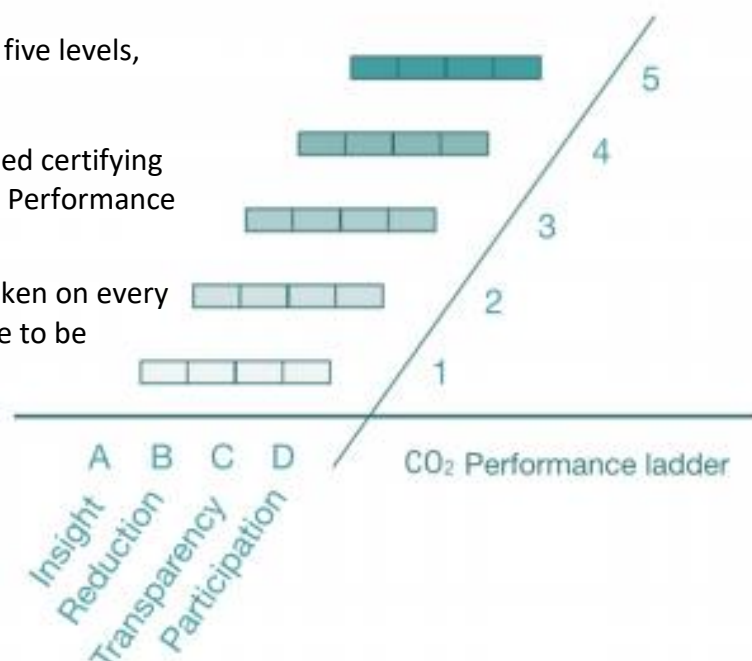
The CO₂ Performance Ladder is based on four pillars:

- A. **Insight**
Drawing up an undisputable CO₂ footprint in accordance with the ISO 14064-1 norm to provide insight in the CO₂ emissions of the company.
- B. **CO₂ reduction**
The ambition of the company to reduce the CO₂ emissions.
- C. **Transparency**
The way a company communicates about their CO₂ footprint and reduction measures, both internally and externally.
- D. **Participation**
(in sector and/or value chain initiatives) to reduce CO₂ emissions.

Every pillar of the CO₂ Performance Ladder has five levels, ascending from 1 to 5.

The activities are being assessed by an authorised certifying organization to determine the level on the CO₂ Performance Ladder.

To achieve a certain level, actions have to be taken on every pillar of the ladder. In order to do so, steps have to be made on every pillar of the ladder.



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 ‘CO₂ reduction measures and measures calculation’. 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.

2.1 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.

Vision

VenhoevenCS believes that our planet provides ample space for all living things to co-exist peacefully and sustainably. But as the world population and global prosperity increase rapidly, we need to fundamentally adjust the way we shape and structure our use of the planet.

Mission

VenhoevenCS also believes that design can make help revitalize the world for all life forms. Nature works with ecosystems that are self-sufficient and sustainable, a concept we use as a starting point for our research, design, and consultancy practice.

We believe in the power of architecture and planning as tools to create a better and more sustainable world. Our compact team offers the solutions needed to a wide range of pressing challenges that societies face today. In architecture, we design projects for sports & leisure, culture & education, health, mixed use, residential, office & utility, transformation, interior, and products. In infrastructure, we design stations, bridges, tunnels, and bicycle parks. On a larger scale, we design plans for urban development, station areas, and spatial strategies. We work together with our partners to research a wide range of topics regarding the circularity in urban areas and the planning culture of the future.

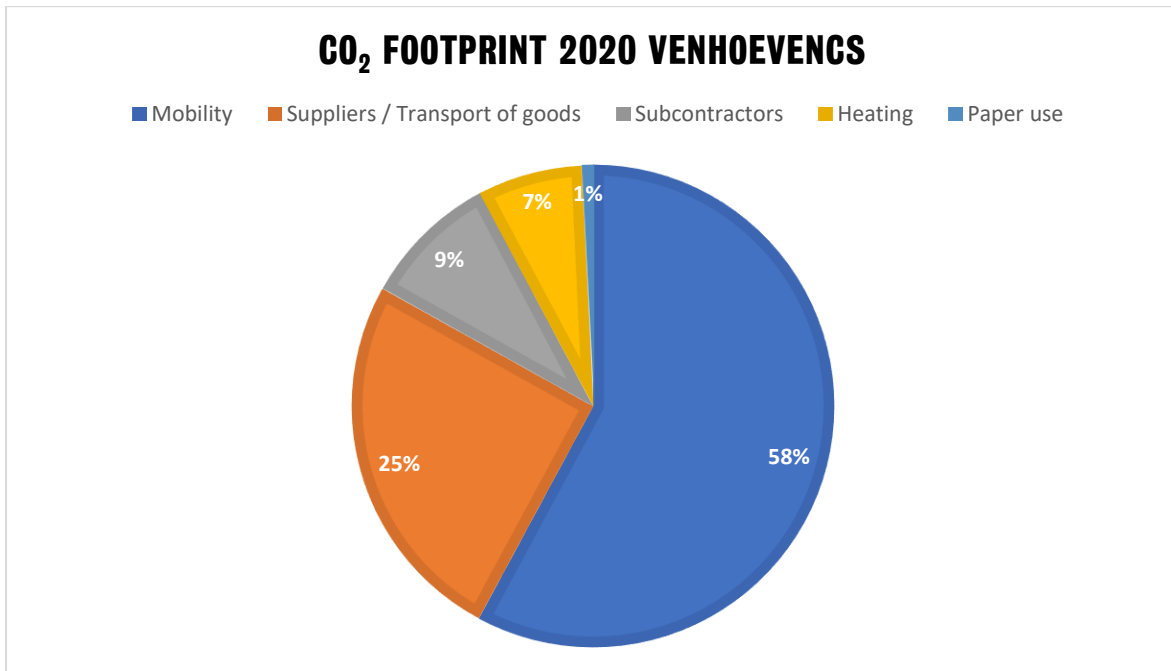
We specialize in finding integral, spatial solutions for societal and environmental issues at every possible scale. And although we are sometimes involved in rural and landscape projects, our main focus is on the larger metropolis with all its components: self-supporting neighbourhoods and emission-free buildings, micro-networks that support recycling and a healthy lifestyle, nature-inclusive cities, transformation and revitalization, mixed land use, metropolitan agriculture, densification, compact buildings, and innovative facades.

It is not just a matter of engineering and design, though. Cultural and social aspects are of vital importance too. That is what the CS stands for in our name.

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 since 2017 ISO 14001:2015 since 2017 CO2-performance ladder N5 since 2017
Employees per 31-12-2020	45, excl. board, interns and freelances (39,1 FTE)
Customers per 31-12-2020:	53

2.1 Statement company size

The total CO₂ emissions of VenhoevenCS amount to 44 tons CO₂ in 2020.



Of these emissions,

- ✓ 29 ton originates from projects and
- ✓ 15 tons from company operations.

VenhoevenCS thereby classifies as a small company in terms of CO₂ emissions.

	Services	Projects
Small company	Total CO ₂ emissions amount to a maximum of (≤) 500 ton per year.	Total CO ₂ emissions of the offices and other business facilities amount to a maximum of (≤) 500 ton per year, and the total CO ₂ emissions of all construction and production facilities amount to a total of (≤) 2.000 ton per year.
Medium-sized company	Total CO ₂ emissions amount to a maximum of (≤) 2.500 ton per year.	Total CO ₂ emissions of the offices and other business facilities amount to a maximum of (≤) 2.500 ton per year, and the total CO ₂ emissions of all construction and production facilities amount to a total of (≤) 10.000 ton per year.
Big company	Total CO ₂ emissions amount to more than (>) 2.500 ton per year.	Total CO ₂ emissions of the offices and other business facilities amount to a maximum of (>) 2.500 ton per year, and the total CO ₂ emissions of all construction and production facilities amount to a total of (>) 10.000 ton per year.

Table 1 | Categorisation of small, medium-sized or big company according to the CO₂ Performance Ladder 3.1.

2.2 Tenders with award advantage

In 2020 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.

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 deals with the fiscal year of 2020. The year 2015 serves the purpose of reference for the CO₂ reduction measures.

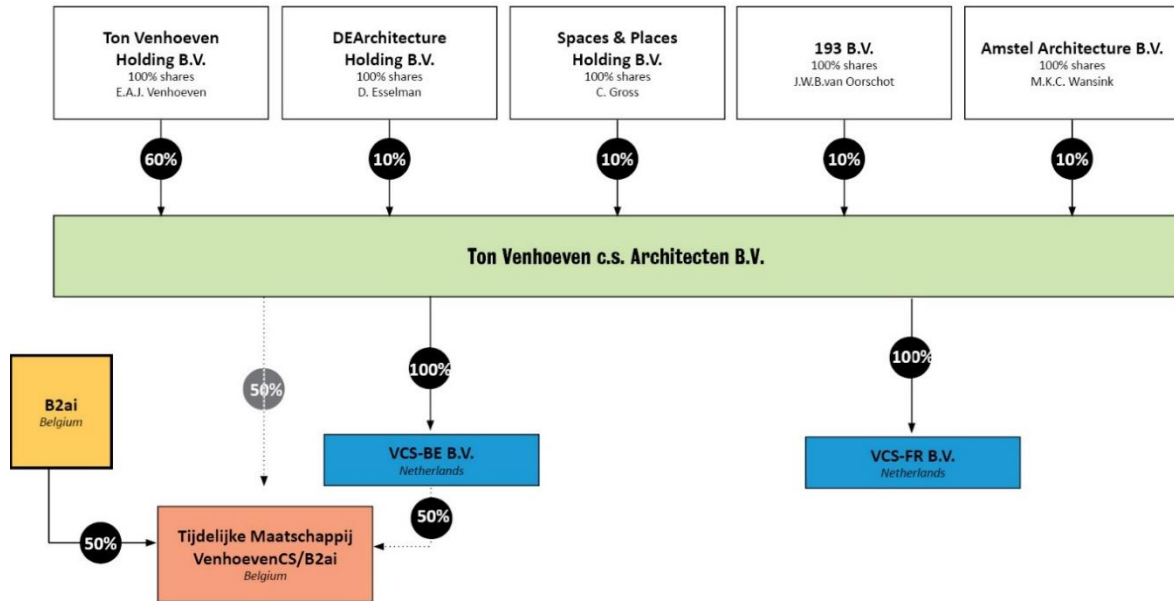
3.3 Organizational boundary

This paragraphs 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. and VCS-BE B.V.

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. is currently in formation, set up 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.

The “Temporary Company VenhoevenCS / B2ai” is no legal entity. It is an administrative entity on behalf of the Belgian projects of VenhoevenCS. All costs and activities that are made for the Belgian projects are made within the legal entity of VenhoevenCS.



3.4 Direct and indirect GHG-emissions

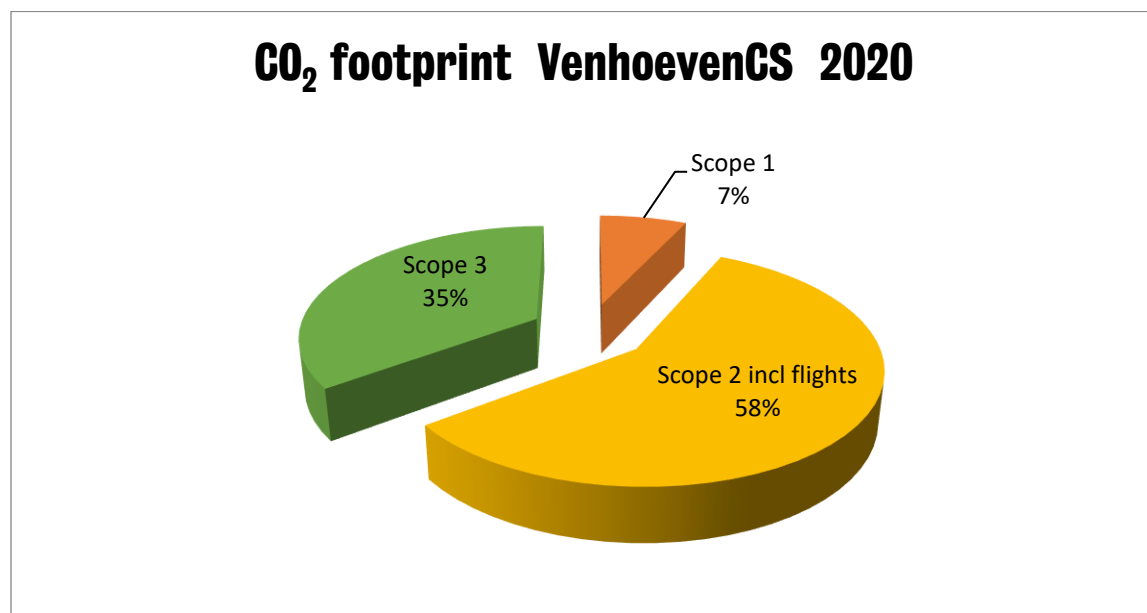
Elaboration on the calculated GHG-emissions.

Calculated GHG-emissions

The direct and indirect GHG-emissions of VenhoevenCS amounted to 44 ton CO₂ in 2020.

Of this amount,

- ✓ 3 ton CO₂ was caused by direct GHG-emissions (scope 1)
- ✓ 25 ton CO₂ by scope 2, and
- ✓ 16 ton CO₂ business travel.



Overview CO2 emissions 2020				Full year
Type emission flow scope 1	Amount	Unit	Emission factor (g CO2 per unit)	Emission (ton CO ₂)
Gas consumption - office		m ³	1.884	3
Total scope 1				3
Type emission flow scope 2	Amount	Unit	Emission factor (g CO2 per unit)	Emission (ton CO ₂)
Electricity - green	26400	kWh	0	0
Total scope 2				0
Type emission flow business travel	Amount	Unit	Emission factor (g CO2 per unit)	Emission (ton CO ₂)
Business km (car)	85.260	km	195	17
Business km (carsharing)	14.275	km	180	3
Business km (public transport - NL)	45.053	km	0	0
Business km (public transport - INT)	1227	km	26	1
Air travel <700 km	1.344	km	297	0
Air travel 700-2500 km	10.643	km	200	2
Air travel >2500 km	21.911	km	147	3
Total business travel				25
Total emission scope 1, 2 & business travel				28

Table 2 | CO₂ emissions 2020 (in tons of CO₂)

Combustion of biomass

No combustion of biogas took place at VenhoevenCS in 2020.

GHG-removal

There was 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

The emissions in the paragraphs above are established for the fiscal year 2019. The expectation is that these emissions will not be subject to any major changes in the coming year. However, given the CO₂ reduction targets of VenhoevenCS, the CO₂ emissions will decrease with a total of 20% in 2025.

Significant changes

As mentioned in paragraph 3.2, 2015 is used as reference year. The progress in reducing the CO₂ emissions will be described in chapter 6 of this document.

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. 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 2020. 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 2020 the emission factors of april 2021 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.

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.

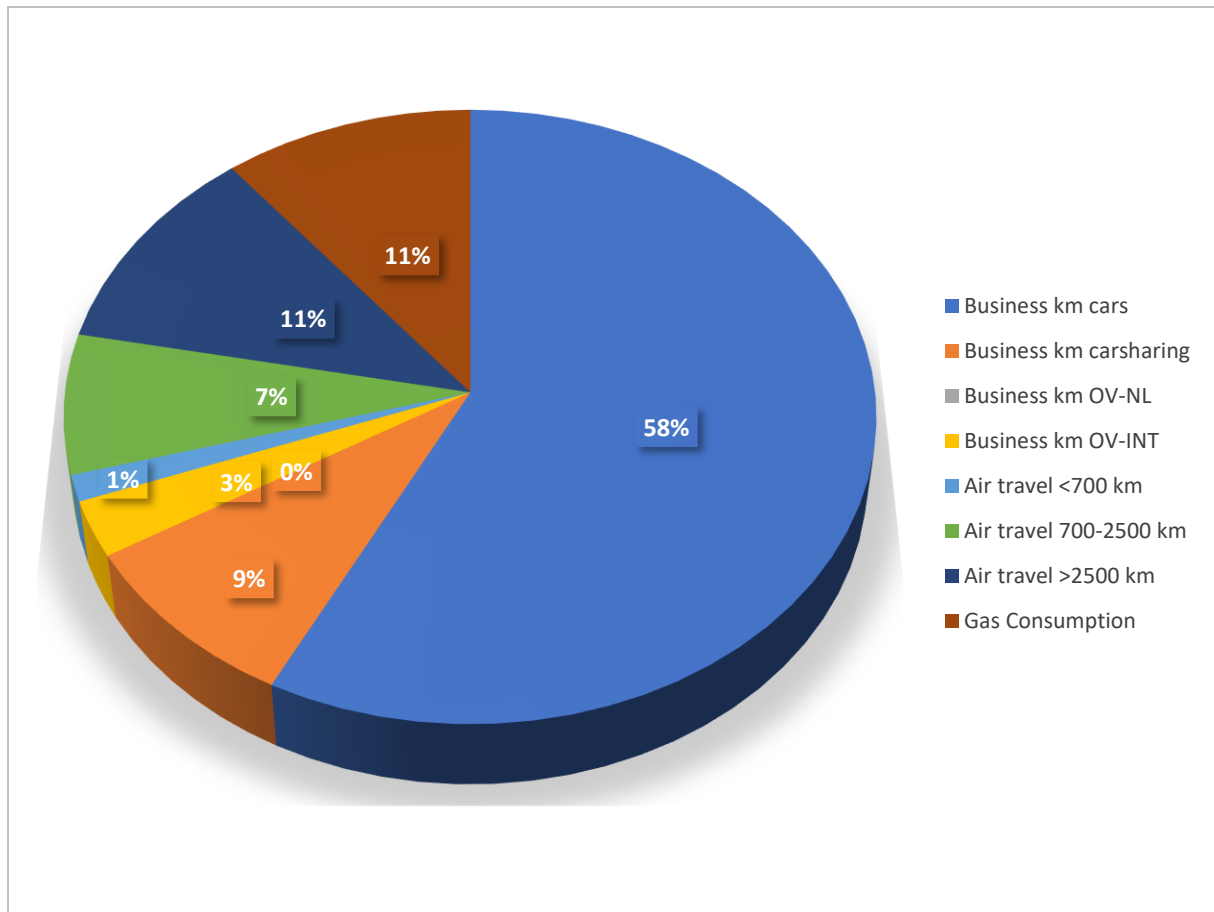
ISO 14064-1 §9.3.1	§ 7.3 GHG-report content	Description	Chapter report
A	A	Reporting organization	2
B	B	Person responsible	3.1
C	C	Reporting period	3.2
D, E	D	Organizational boundaries	3.3
F	E	Direct GHG emissions	3.4
G	F	Combustion of biomass	3.4
H	G	GHG removals	3.4
I	H	Exclusion of sources or sinks	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

Table 3 | 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



The 80% largest emission sources of VenhoevenCS in 2020:

- Travel by private car 58%
- Travel by shared car 11%
- European flights (>700 km) 11%

4.2 Analysis

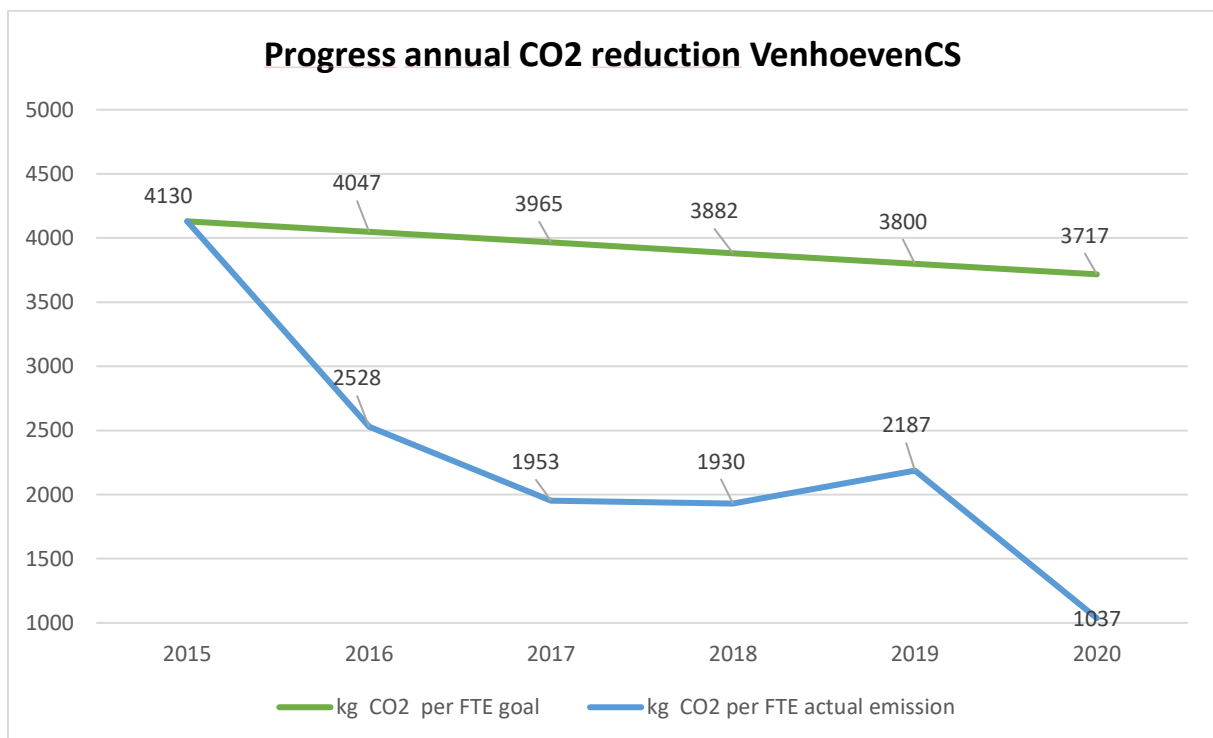
The outcome of 2020 is very different from other years. In 2017, 2018 and 2019, air travel was responsible for the most emissions by far. Due to the Covid-19 crisis, long haul air travel – particularly to China – came to a complete stop in 2020. This had a direct result in the number of Chinese projects in our portfolio.

VenhoevenCS considers China an important market, so we expect the flights to resume as soon as COVID-19 measures allow it.

The rise in use of private car compared to shared car (Connect Car) and public transport is also due to the Covid-19 crisis: we advised all employees to avoid public transport and car sharing.

4.3 Trends in energy use and progress in CO₂ reduction

In the footprint of 2020 it becomes clear that a considerable reduction took place compared to reference year 2015. The absolute reduction was 75% in 2020 compared to 2015.



The graph clearly shows the anomaly of the 2020 emissions.

4.4 Previous energy assessment

In 2019 VenhoevenCS did not meet its scope 2 target, due to a 170% increase of kilometers driven for Dutch projects. Three projects accounted for 55% of these kilometers.

Five corrective measures were instigated:

- ✓ Propose a remote meeting, e.g. via TEAMS
- ✓ Use less car, more public transport
- ✓ Propose to move meeting to a location that is public transport friendly
- ✓ Location of a project will become part of the selection criteria for commissions
- ✓ MT will research possibility of purchasing an electric car for the office

It is impossible to tell whether these corrective measures were effective, because of the COVID-19 crisis.

It is strange that VenhoevenCS started with TEAMS training for remote meetings in 2019 (a suggestion from the ICT team). But many clients and project partners were not willing or interested. That completely changed in 2020. A bizarre side effect of starting early with TEAMS due to sustainability considerations, was that all employees of VenhoevenCS were already very familiar with TEAMS when the COVID-19 crisis hit in 2020.

4.5 Potential improvements

Because of the anomaly of the 2020 emissions, it is difficult to say what improvements we need to make. The situation is uncertain: will employees work more from home post COVID-19 crisis? Will clients be as accepting of remote meetings in the post COVID-19 situation? If yes, the reduction goals should be reconsidered.

Already ideas for more reduction was becoming a problem in the past year. VenhoevenCS has been reducing its footprint since 2009 and there is a feeling the bottom may have been reached.

The CO₂ reduction objectives were formulated in 2016. Also, the 'own measures' on the SKAO measure list that were included in 2017 feel outdated.

All things considered, VenhoevenCS has decided to evaluate the objectives and SKAO measure list in 2021. A deep analysis of the emissions of the last 5 years will be conducted with an external expert, perhaps inspiring us to formulate a new reduction and management plan.

5 Strategic plan scope 3

VenhoevenCS considers it important to gain insight into its main scope 3 emissions. In order to obtain this insight, a qualitative and quantitative dominance analysis was carried out. The results are shown below. A strategy to reduce these scope 3 emissions is also formulated.

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
- ✓ Waste
- ✓ Travel

5.1 Qualitative 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.

- | | |
|-------------------------------------|-------------------------|
| 1. Procurement – goods and services | 195 ton CO ₂ |
| 2. Waste – waste | 29 ton CO ₂ |
| 3. Travel (train) – commuter travel | 0 ton CO ₂ |

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 and private cars are rarely used.

VenhoevenCS encourages its employees to use the bicycle, public transport or a combination of these methods instead of a car. In 2020, more than 70% 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 an allowance based on the number of kilometers from door to door. It does not matter whether you 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), other measures do not produce significant reductions.

Numbers of employees	Residence	€	Per year	Type of transportation
32	Amsterdam	€ -		Bicycle
4	Haarlem	€ 9,20	€ 2.024,00	Train
6	Rotterdam	€ 33,00	€ 7.260,00	Train
1	Zaandam	€ 5,80	€ 1.276,00	Train
1	Bussum	€ 10,60	€ 2.332,00	Train
1	Heerhugowaard	€ 19,00	€ 4.180,00	Train

Number of employees:	45	
Number of employees with bicycle:	32	71,11%
Number of employees with car:	0	
Average distance:	0	
Total kilometers:	0	
Conversion factor:	0,22	kg CO2/km
Total:	0,00	ton CO2

Number of employees = excluding board, interns, freelancers, and people hired through agencies

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 cleaning company we hire.

Type of waste	costs	Conversion factor		CO2 (ton)
Cleaning Company	€ 22.474	1,21	kg CO2/€	27
Waste Management Service	€ 1.372	1,21	kg CO2/€	2
Total				29 ton CO2

VenhoevenCS have agreements with the cleaning company regarding cleaning practices and products that are evaluated yearly by the facilities officer.

Procurement (Subcontractors & Suppliers)

The procurement of goods and services is by far the largest factor in the quantitative scope 3 emissions. More than 40% of the emissions are caused by procurement of ICT services: software, hardware, and system administration. Unfortunately, there is not much we can do about it.

Another 40% of emissions is caused by the procurement of project partners: (landscape) architects, engineers, visualisation experts, project managers, etc. Again, not much can be done about these emissions.

Generally, VenhoevenCS has implemented the following measures (even though most of the measures do not result in lower emissions, because of the calculation method per euro revenue):

- ✓ Digitalization (paperless communication), such as invoicing, archiving and Communication (email, scanning instead of copying, etc.).
- ✓ Sustainable paper products
- ✓ Sustainable food products (lunch)
- ✓ Sustainable cleaning and waste management

Any investments in equipment are made by choosing sustainable, energy-efficient options.

Suppliers are evaluated yearly.

Subcontractors are evaluated after the finalizing of the project: their performance on sustainability (such as use of sustainable modes of transport, sustainability ambitions in project etc) is part of the rating. Badly performing subcontractors are blacklisted. Those who stand-out, become a preferred partner.

Green IT

Although the performance of our computer systems are important above all else, sustainability is certainly considered as well. VenhoevenCS only employs and hires sustainability-conscious ICT experts.

VenhoevenCS has implemented the following measures:

- ✓ Reducing emissions and waste are always part of the decision making process.
- ✓ An energy management system is in place on all computers.
- ✓ CAD-work stations are custom made by our system administrators and consist of individual components that can be replaced or upgraded.
- ✓ Any equipment that is outdated for design purposes, but still useful for other (e.g. administrative or educational) purposes, is either handed down to the staff or donated to charity.

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 2021. 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

A requirement of the CO₂ Performance Ladder is to set goals that are ambitious and feasible. Unfortunately, no other architectural offices have currently qualified for the CO₂ performance ladder, making a peer analysis difficult. Therefore, an analysis has been conducted to check the ambition statements of the nearest peers: business services. Some of the peers in this sector with a CO₂ certificate are stated below:

Peer 1 | YaWorks

They have a certificate on level 5 on the CO₂ Performance Ladder. Their objective is to reduce CO₂ emissions by 15% in scope 1 and 2 by 2023 compared to 2015.

To realise this, they have set the following measures:

- Electrifying the fleet
- Encourage economical driving
- Install electric charging stations
- Install motion sensors in the building

Peer 2 | SpeerIT

They have a certificate on level 4 on the CO₂ Performance Ladder. Their objective is to reduce CO₂ emissions by 13,7% in scope 1 and scope 2 by 2021 compared to 2018.

To realise this, they have set the following measures:

- Make the fleet more sustainable
- Stimulate electric driving
- Provide insight into standby consumption of equipment
- Reduce travel
- Facilitating working from home

SKAO measure list

The measure list is filled yearly. The measures stated on the list are generic, but give a fairly clear picture of the measures and objectives VenhoevenCS wants to achieve.

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

There are many 'own measures' on the list that were included in 2017. These need a review / update in 2021.

Conclusion ambition statement

Based on the comparison to peers and the SKAO measurement list, VenhoevenCS estimates that the set objectives and measures are sufficiently ambitious. The organisation sees itself as progressive 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. On the basis of 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 20% in 2025 compared to 2015	

The goal stated above will be linked to the numbers of FTE to monitor the progress in CO₂ reduction.

The objective is that measures aimed at making energy flows more sustainable and increasing energy efficiency, which will be realized by 2025 at the latest, will lead to lower total CO₂ emissions in 2025. The CO₂ emissions will be 20% lower per FTE than the emissions per FTE as shown in the footprint compiled for 2015. The further specified goals for scope 1 and 2 are 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.

VenhoevenCS will reduce their emissions caused by gas consumption with 60% per FTE in 2020 compared to 2015	
Measures	- Installing a new, more sustainable climate installation.

Sub-objective gas consumption

The following performance indicator has been set for this objective: CO2 emissions from gas consumption per FTE from 154 KG in 2015 to 61 KG in 2020.

Sub-objective electricity consumption

VenhoevenCS will reduce their emissions caused by electricity use with 100% per FTE in 2020 compared to 2015	
Measures	- Switching from grey to green electricity

The following performance indicator has been set for this objective: CO2 emissions from electricity consumption per FTE from 659 KG in 2015 to 0 KG in 2020.

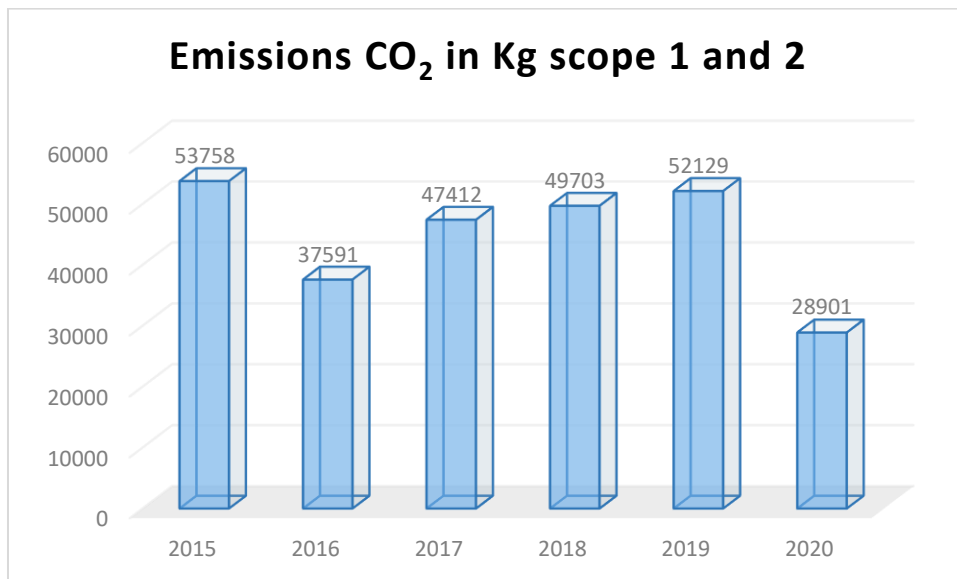
Sub-objective business travel

VenhoevenCS will reduce their business travel with 25% per FTE in 2025 compared to 2015	
Measures	<ul style="list-style-type: none">- Stimulating remote meetings- Stimulating public transport- Stimulating shared car service – preferably electric cars- Stimulating train travel over air travel

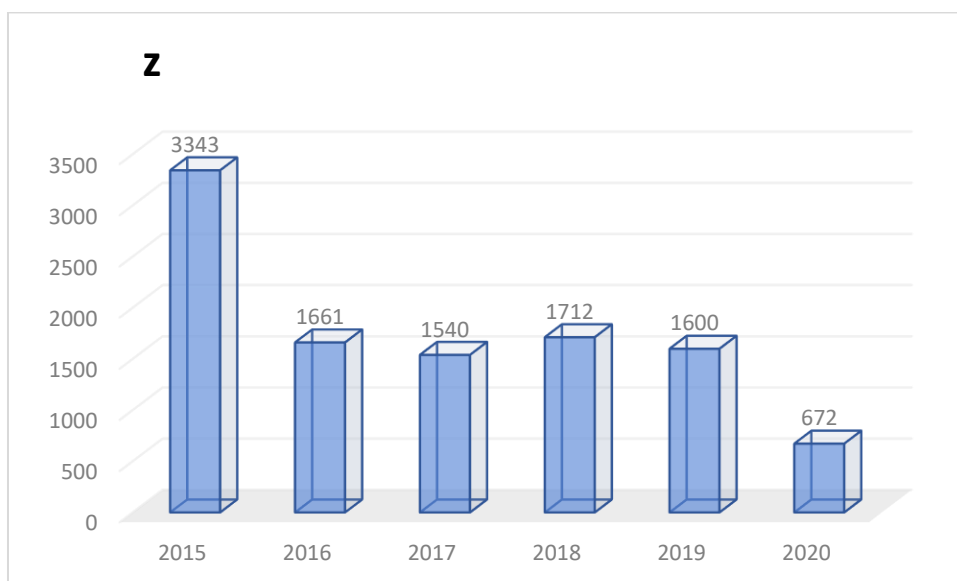
The following performance indicator has been set for this objective: CO2 emissions from business travel per FTE from 561 KG in 2015 to 421 KG in 2025.

7 Progress CO₂ reduction

The chart below shows the progress in the actual CO₂ emissions in scope 1 and 2 for VenhoevenCS since 2015.



As can be seen in the figure above, there was an absolute reduction of CO₂ emissions by 46% in 2020 compared to 2015. We did however not set a goal for the actual CO₂ emission, but for the CO₂ per FTE.



As can be seen in the figure above, there was an reduction of CO₂ emissions per FTE by 80% in 2020 compared to 2015.

No specific goal was set for reduction in total scope 1 and 2 emissions.

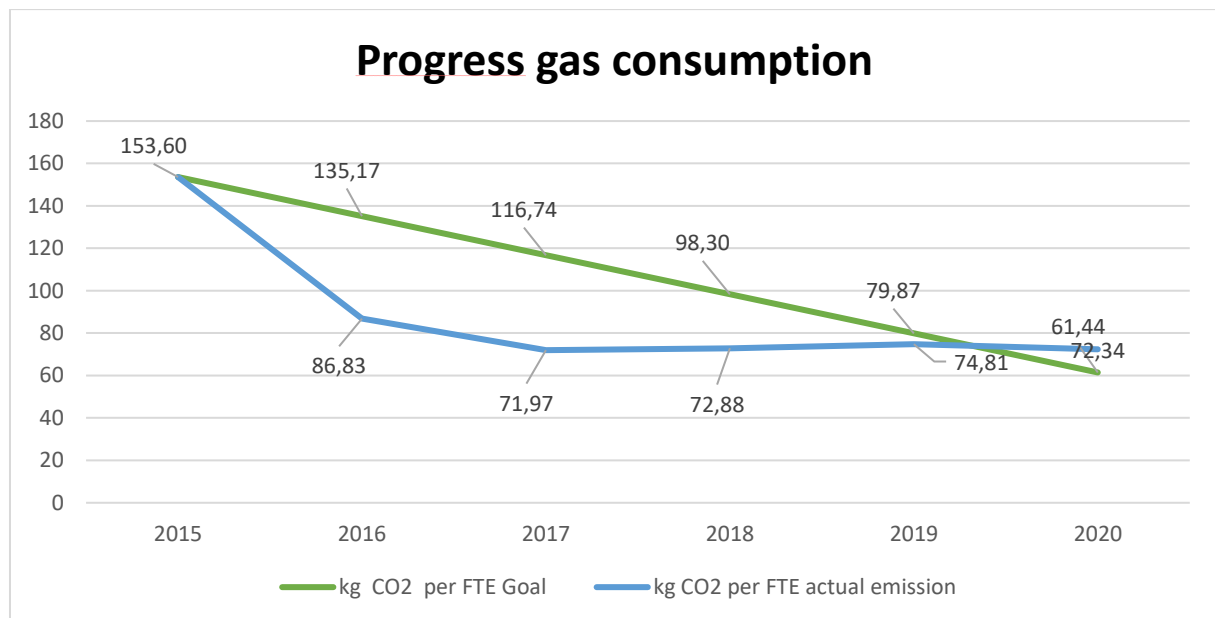
7.1 Sub-objective gas consumption

Over the past years several options for a better climate installations have been explored. Every time, we encountered obstacles:

- ✓ the monumental status of the building, which does not allow for any installations mounted on the facades
- ✓ the very limited space for installations (pipes) in the old building
- ✓ an owners' association of the building, unwilling to invest collectively in sustainable solutions or approve use of communal space such as the roof for individual purposes

In 2017 it was thought that by 2020 suitable installations would be available. Unfortunately, this is not the case. However, in November 2020, an additional unit in the building was purchased to accommodate the growth. In 2021, a new effort will be made to install a new climate system.

In May 2017 VenhoevenCS did switch 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 Sub-objective electricity consumption

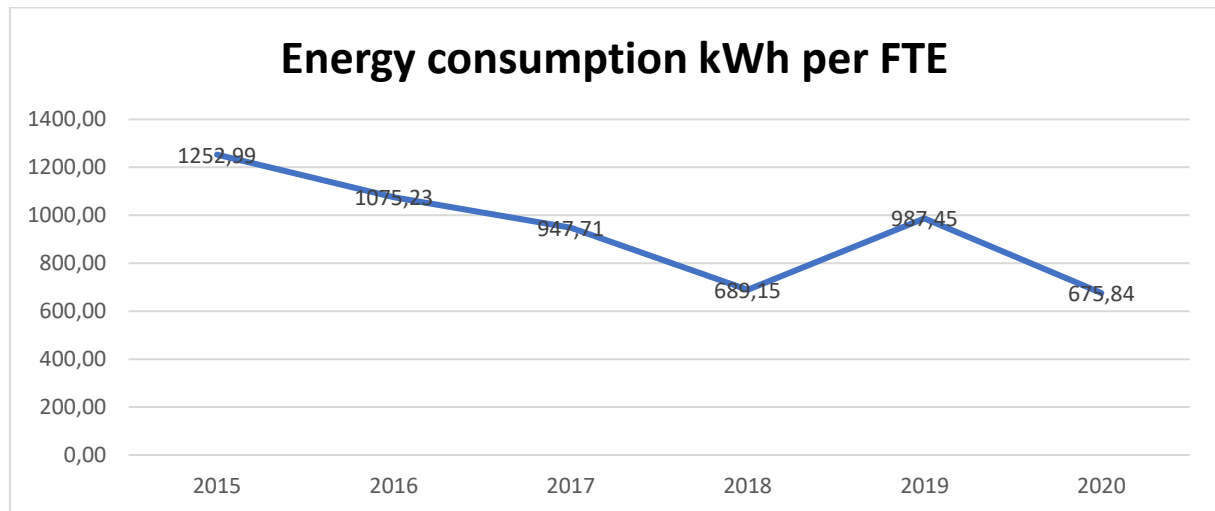
In May 2017 VenhoevenCS switched to 100% certified Dutch wind energy. Since VenhoevenCS has switched to fully green energy, the emission from electricity consumption has been reduced to 0 kg CO₂. Nevertheless, reducing energy consumption will always be the goal.

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

Examples of research and measures undertaken:

- ✓ Research into replacing or transforming current lighting fixtures to LED (2017 and 2019): not implemented
- ✓ Research into energy monitoring system (2017): implemented
- ✓ Research into monitoring energy use climate system (2018): not implemented

In the newly purchased unit, a new effort will be made to install LED lighting fixtures.



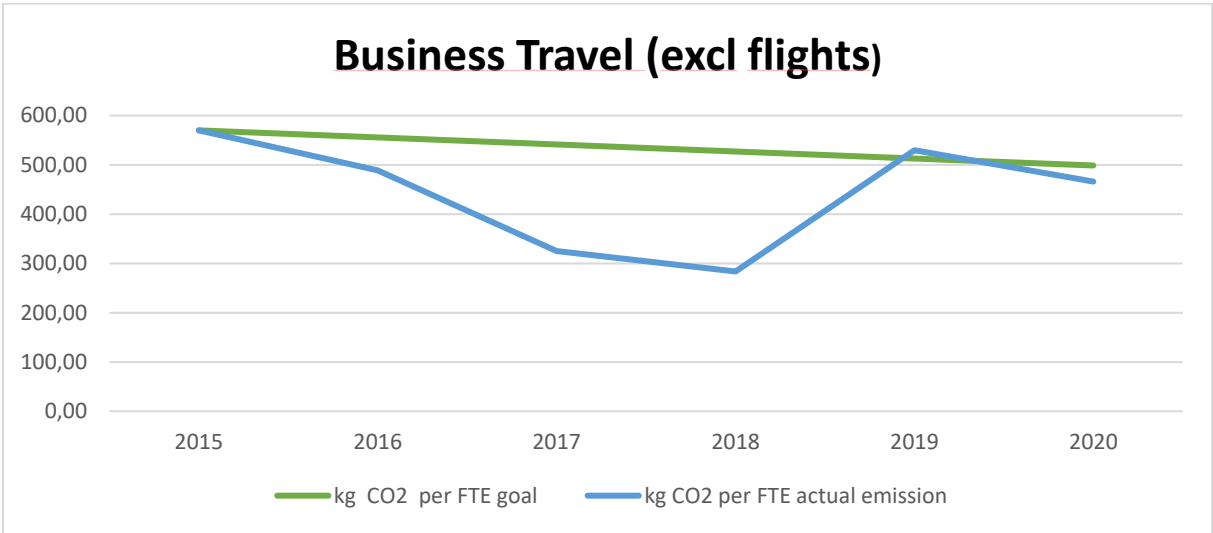
7.3 Sub-objective business travel

The first measure that can be taken is to reduce project-related transportation. This can be achieved by having more appointments and meetings at our office. Optimizing our facilities will make it attractive for clients and partners to agree to this. However, this would be a reduction in emissions for VenhoevenCS, but an increase for our clients and project partners. The VenhoevenCS office is easily reachable by public transport so visitors are always encouraged not to take the car: there is usually no parking space available in the garage and parking on the street is very expensive.

The best way for reducing project-related transportation is to simply not travel. Technological advancements since 2017 (Teams, Zoom, etc) has made it possible to have virtual meetings, remote via computers equipped with microphones and webcams. The COVID-19 crisis in 2020 has made remote meetings totally acceptable and commonplace.

Reductions can also be made when employees choose the most sustainable type of transportation. In 2015, 55% of the cases were chosen to travel by car. 69% of these kilometers were driven with a private car, for the remaining 31% a car sharing service like ConnectCar or Sixt was chosen. The car sharing service should always be preferred to the private car because these cars are more energy efficient. Unfortunately, no car sharing service offers electric cars at the moment. The costs for using a car sharing service is 100% reimbursed, while use of private car is only partially reimbursed (€0,19 per km, including fuel and parking costs).

Walking and the use of the bicycle in combination with public transport is by far the preferred mode of transportation. The costs for using public transport is 100% reimbursed, The number of flights VenhoevenCS made in 2015 were limited, but increased significantly over the years due to the increasing international portfolio. It is clear that even a few flights have a huge negative impact on the carbon footprint. Unfortunately, not much can be done to the number of flights, as more projects are running abroad. If it is possible, employees use the train when attending appointments abroad. In addition, the aim is to have as many online meetings as possible. However, the acceptance of remote meeting by clients varies widely, depending on the local (business) culture.



Signing

Author V1	Marleen Kuyt – de Duurzame Adviseurs
Date	18-02-2021
Author V2	Helga Lasschuijt - VenhoevenCS
Date	30-04-2021
Label	CO ₂ Reduction plan
Responsible manager	Helga Lasschuijt
Responsible director	Jos-Willem van Oorschot

Signature authorised responsible manager:

Signature authorised responsible director: