

# **Carbon Footprint Report 2019**

GHG emissions resulting from internal operations AIM-QHSE-GEN-1.00-01-RP-01



ALFEN THE BATTERY

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# **Document data**

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# Introduction

This report provides an overview of the CO<sub>2</sub> emission inventory for Alfen's activities in the Netherlands, Belgium and Finland in 2019. It has been prepared in accordance with the CO<sub>2</sub> Performance Ladder (version 3.0), the GHG protocol (a corporate accounting and reporting standard) and the international standard ISO 14064-1 for greenhouse gases. This report contains all subjects prescribed in § 7.3 of the ISO 14064-1.

Periodic reporting in context of the CO<sub>2</sub> Performance Ladder is part of the PDCA steering cycle. The PDCA cycle is described in Alfen Integrated Management system (AIM).

The emitting activities covered by the report include all direct (Scope 1) and indirect (Scope 2) emissions, none excluded.

Direct emissions (Scope 1) are emissions emitted by installations that are owed or controlled by Alfen, such as emissions from own gas heating systems, air-conditioning equipment and vehicle fleet.

Indirect emissions (Scope 2) are a consequence of the activities of the company, but originate from sources that are not owned by the company and that are also not managed by the company. Within Alfen indirect emissions are associated with electricity consumption by company facilities and vehicles as well as emissions resulting from business travel<sup>1</sup>.

Additionally, this report provides in chapter 7 a brief update on the progress of the reduction plan for both direct and indirect emissions, including emissions in the corporate supply chain (Scope 3).

Figure 1 shows the CO<sub>2</sub> scope emissions related to the company.

An overview of methodology and data quality is provided in chapter 9.



<sup>&</sup>lt;sup>1</sup> The CO<sub>2</sub> Performance Ladder includes "Business travel" in scope 2.



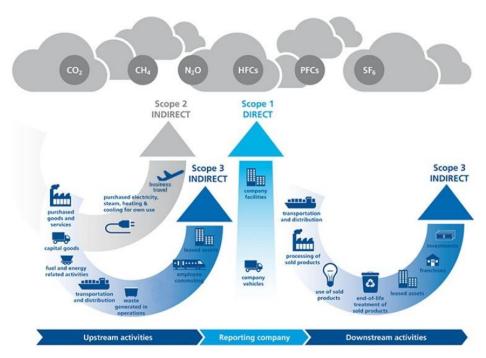


Figure 1 – Scopes Carbon Footprint-analysis

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# **Executive summary -Environmental performance and key highlights**

Alfen's vision is to build a connected, smart and sustainable energy system for future generations. Being directly involved with the ongoing energy transition, Alfen wants to set a good example with regard to environmental performance management.

We have been reporting on the environmental impact of our activities for a decade now. A period in which several measures were taken to reduce the environmental impact, such as switching to renewable energy sources and the introduction of electric vehicles.

As already reported in the first semester report, all our office buildings in the Netherlands have received the energy label 'A'. In addition, we can report that currently 33% of our fleet consists of plug-in hybrid or fully electric vehicles. This is a new increase compared to the first semester.

The continuous growth and internationalization of our company affects our mobility and energy-related emissions. This has contributed to a 31% increase in total net CO<sub>2</sub> emissions in the year 2019 compared to 2018. This increase is, seen relatively, mainly related to public transport and electricity consumption.

A number of measures have been taken for 2019. However, due to the growth of the company, these measures were insufficient to achieve the reduction targets, which were derived from historical figures. Nevertheless, Alfen succeeded in reducing the environmental impact with regard to the number of employees and the turnover.

For the first time, the CO<sub>2</sub> footprint report is generated from a CO<sub>2</sub> management application. With this software we are able to improve our data quality and to strength our systematic assessment processes. In addition, the recently launched new expense declaration application also helps us to obtain more detailed and higher quality information on mobility.

These improvements will lead to a better determination of our environmental impact from the year 2020.

As a result of the expected continuation in growth, we have decided to set a new target to achieve at least an equivalent CO<sub>2</sub> emission per FTE in 2020, despite the growth. To achieve this, new measures are defined within the framework of the CO<sub>2</sub> Performance Ladder.

Marco Roeleveld,

CEO of Alfen N.V.





# **1** Abbreviations & Definitions

# 1.1 Abbreviations

Abbreviation	Description
AIM	Alfen Integrated Management system
CO <sub>2</sub>	Carbon dioxide
GHG	Green House Gas
PDCA	Plan-Do-Check-Act

Table 1 - Abbreviations

# 1.2 Definitions

Definition	Description
PDCA steering cycle	An iterative four-step management method used in business for the control and continuous improvement of processes and products.
Smart Trackers	Software application for $CO_2$ emission measurements and assessments.

Table 2 - Definitions



# 2 References

### 2.1 AIM Documents

Ref.	Document Title	AIM Document Number	Extern Document Number
[101]	CO2 Materiality Analysis	AIM-QHSE-GEN-1.00-01-MA-01	
[102]	Environmental Policy Statement	AIM-QHSE-GEN-2.01-01-POL-08	
[103]	QHSE Policy Statement	AIM-QHSE-GEN-2.02-02-POL-01	

Table 3 - AIM Documents

## 2.2 External Documents

Ref.	Document Title	Alfen Document Number	Extern Document Number
[201]	Handbook CO2 Performance Ladder		Versie 3.0
[202]	GHG Protocol		2011
[203]	Greenhouse gases — Part 1: Specification with guidance at the organization level for quantification and reporting of greenhouse gas emissions and removals		ISO 14064-1: 2018

Table 4 - External Documents





# 3 The organisation

Alfen is a fast-growing company in the energy sector, whose main activity is to develop, produce and sell products, systems and services related to the electricity grid, including smart grid solutions, charging equipment for electric vehicles and energy storage systems. Alfen's main geographic focus is the Netherlands, followed by Finland, Belgium, Germany, the United Kingdom and the rest of Europe. The production facilities are located in the Netherlands, Belgium and Finland. Over 500 employees are working within Alfen.

In 2018 Alfen Elkamo in Finland was acquired. Elkamo is based in Jacobstad (Pietarsaari) in four buildings and employs 68 people. In this year report Elkamo's CO<sub>2</sub> emissions were added to the carbon footprint report.

Based on the CO<sub>2</sub> emissions in the year 2019, Alfen is categorised as a medium-size company under the CO<sub>2</sub> Performance Ladder [201].

### 3.1 Organisational boundaries

Alfen's organisational boundary has been determined according to the principle of Operational Control, as specified in the GHG protocol [202]. This means that the company reports the emissions from operations over which it has financial or operational control.

Using this approach, this Carbon Footprint Report includes emissions from the following operations in the Netherlands, Belgium and Finland:

- Alfen N.V., Almere
- Alfen B.V., Almere
- Alfen ICU B.V., Almere
- Alfen Projects B.V., Almere
- Alfen BV BA, Gent
- Alfen International B.V.
- Alfen Elkamo Oy

There are no projects with award advantage, therefore no information about projects is included in this carbon footprint report.





## 3.2 Reporting organisation

Alfen N.V. Hefbrugweg 28 1332 AP Almere

Tel.: ++31 36 54 93 400 E-mail: qhse@alfen.com

### 3.3 Responsible person

The responsible person for the Carbon Footprint Report 2019 is Mr. M. Roeleveld, CEO of Alfen N.V.

### 3.4 Reporting period

The reporting period covers January 01, 2019 until December 31, 2019, with base year 2018.

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# 4 Carbon footprint 2019

The carbon footprint of Alfen includes both Scope 1 and Scope 2 emissions. Alfen's total emissions in 2019 are equivalent to 1.465 tCO<sub>2</sub>e. A breakdown by function is given in Figure 2.

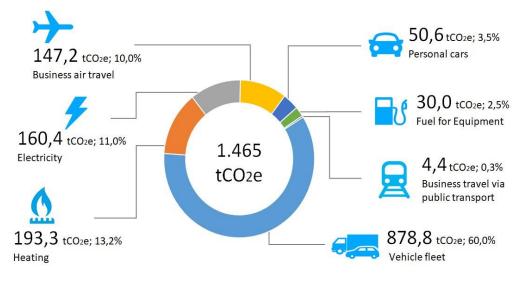


Figure 2 - Alfen Carbon Footprint 2019

As a consequence of the continued growth of the business and the number of employees, total emissions increased by 31% in comparison with the year 2018. Despite these factors, a reduction of the emission intensity per FTE by 16% to 3,2 kg CO<sub>2</sub>e/ FTE can be reported.

Table 5 shows the  $CO_2$  emissions by scope. This is explained in more detail in the following chapters. Details are provided in Appendix A.

CO₂ emission (tonne)	2019		2018	increase/ decrease
Scope 1	1.048	(28%)	962	+9%
Scope 2	416	(72%)	157	+65%
Total	1.465		1.119	+31%

Table 5 - CO<sub>2</sub>-emissions per Scope



# 5 Scope 1 - Direct CO<sub>2</sub> Emissions

In 2019, direct emissions accounted for 1.049 tons of the CO<sub>2</sub> emitted by Alfen, a quantity of 72% of the total CO<sub>2</sub> emissions. This is an increase of 9% compared to the year 2018.

These direct emissions are a product of lease cars (company-owned vehicles), stationary equipment and from heating (natural gas and fuel oil). The use of self-generated electricity is also counted under scope 1, but this emission contributes zero tonnes CO<sub>2</sub>e.

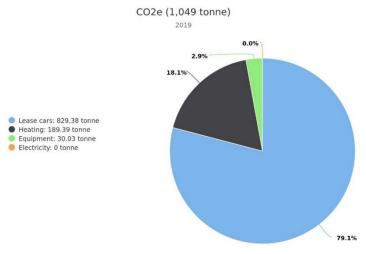


Figure 3 - Breakdown of Scope 1 CO<sub>2</sub>-emissions

## 5.1 Equipment

Diesel fuel consumption by equipment, like stationary vehicles and forklifts, contributed 3% of the Carbon footprint in Scope 1 and constitutes of 30 tons of total CO<sub>2</sub> emissions.

Diesel consumption is lower than in 2018 due to a decrease in test activities. The lower CO<sub>2</sub> emission is also related to the switch to 20% Hydrotreated Vegetable Oil (HVO 20) in the last quarter of 2019. This is a mixture of vegetable diesel and regular diesel. This reduces carbon dioxide emissions of diesel consumption by 18%.

# 5.2 Heating

Building-related emissions have also been impacted by higher employee numbers and the commissioning of new locations in the Netherlands (Hefbrugweg 6 and 22) and the four buildings in Finland.

Hefbrugweg 6 and 22 were in use for a part of 2018. Per 2019 Finland was included in the CO<sub>2</sub> calculation.

The use of these building accounts for the increase to 189,4 tons of carbon dioxide emissions in 2019, caused by 97.672 Nm3 of natural gas and 1.448 liter of fuel oil, used in Finland during cold winters. This is an increase of 24% compared tot 2018.





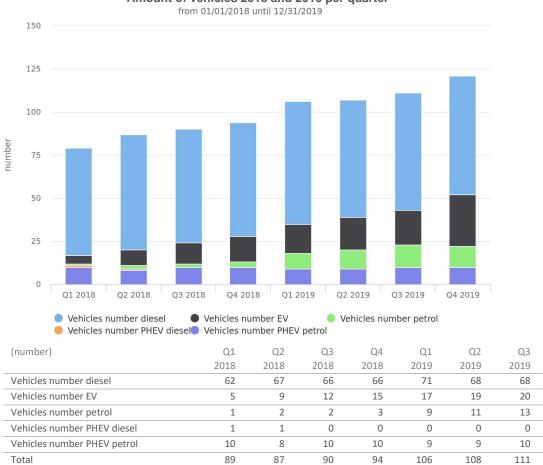
# 5.3 Lease cars (vehicle fleet)

The vehicle fleet, consisting of lease cars and vans, accounts for the majority (79%) of all Alfen net emissions, contributing 829,4 tCO<sub>2</sub>e. in Scope 1. Electricity usage for lease cars is part of Scope 2. The total contribution for lease cars, fuel (scope 1) and electric vehicles (scope 2) is 878,8 tCO<sub>2</sub>e and 60%.

#### 5.3.1 Amount of lease cars

In the year 2018 a breakdown of company cars by fuel type was introduced. For the year 2019, progress in the growth ratio in electrical vehicles can be reported.

The Alfen vehicle fleet (including Belgium and Finland) consisted of 121 vehicles by the end of 2019. The majority of the fleet is still diesel-powered vehicles (69 vehicles in total), however the total number of fully electrical and petrol powered hybrid vehicles (PHEV) increased to 40 by the end of the year 2019, from 16 cars at the first quarter of 2018. This corresponds with 33% of the total vehicle fleet.



Amount of vehicles 2018 and 2019 per quarter

Figure 4 - Amount of vehicles

014

Q4

2019

69

30

12

0

10

121



### 5.3.1 Fuel usage lease cars

Most of the company vans are diesel-powered vehicles. Due to the expansion of service geography and the increase of service density, diesel consumption cannot currently be reduced. However, Alfen introduced its first fully electrical van in March 2019 in an effort to minimise vehicle fleet emissions.

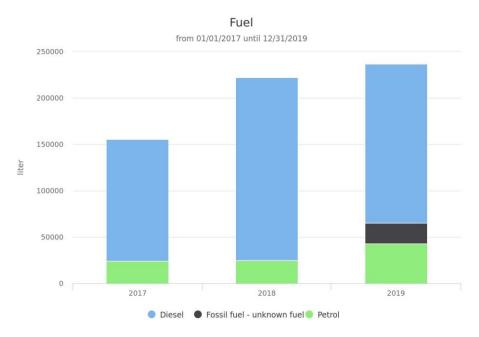


Figure 5 - Breakdown fuel-consumption lease cars

### 5.4 Refrigerants

In the year 2019 no leakage of air conditioning refrigerant has been detected. Refrigerants are not included in graphs.



# 6 Scope 2 - Indirect emissions

Alfen's indirect emissions in Scope 2 are emissions resulting from electricity consumption and business travel. In 2019 these emissions contribute 416 tCO<sub>2</sub>e, a quantity of 28% of the total carbon dioxide emissions. This is an increase of 122% compared to the year 2018.

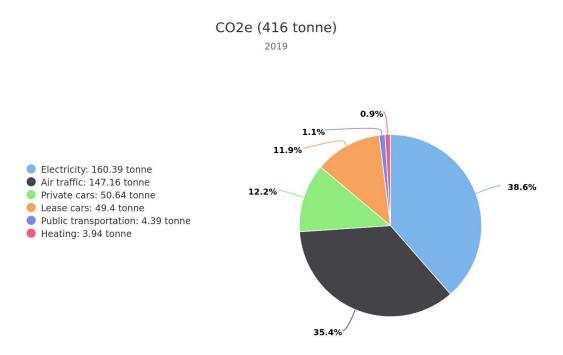


Figure 6 - Breakdown Scope 2 CO2-emissions

### 6.1 Electricity consumption

Electricity consumption in Scope 2 is responsible for 11,0% of total emissions. Alfen's reporting distinguishes renewable sources of energy from non-renewable sources of energy. In 2019 54,1% of the used Scope 2 electricity originates from renewable sources

Energy consumption in the Netherlands and Belgium is reported as emitting zero carbon dioxide as the purchased electricity is covered by green Guarantees of Origin.

In previous years, the energy source in Belgium was reported as non-renewable, due to lack of information on its origin. In 2019, Alfen has successfully collected all the necessary data required by the CO<sub>2</sub> Performance Ladder and can therefore report it as green energy source.





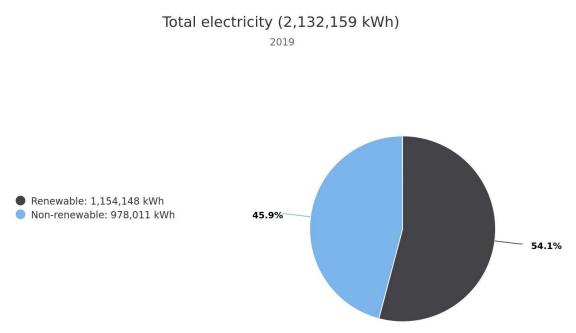


Figure 7 - Breakdown renewable and non-renewable energy Scope 2

Despite the positive developments in Belgium, in 2019 the electricity consumption in Alfen's facilities increased significantly. This can largely be attributed to new locations (Hefbrugweg 22 and Portacabins at Hefbrugweg 28) and energy storage system test activities.

Additionally, for the first time, Alfen is disclosing information on the electricity consumption at Alfen Elkamo (Finland), which is responsible for 77% of energy consumption CO2 emissions.

From the total electricity usage is 3% used for EV-charging. This part is visualised in

Figure 8.





#### Electricity usage Alfen

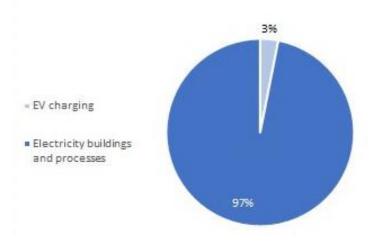


Figure 8 - Share EV-charging of total electricity usage.

### 6.2 Business travel

Business travel is an unavoidable part of Alfen operations, and is responsible for 14% of total emissions and 49% of Scope 2 indirect emissions.

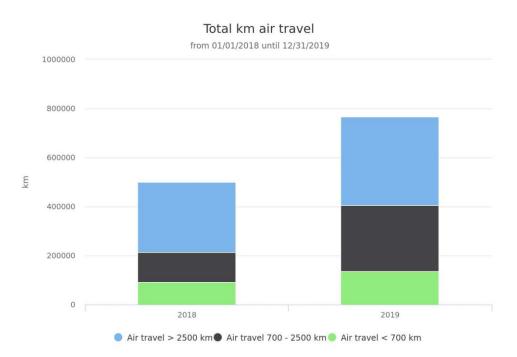
#### 6.2.1 Air traffic

As a result of the continued growth of the business and the number of employees, air travel emissions increased in 2019, from 66,1 tCO<sub>2</sub>e in 2018 to 147,2 tCO<sub>2</sub>e in 2019. Compared to first half report information on air travel by Finland and Belgium is added.

In the report on the first half of 2019 the air travel emissions for Finland were calculated based on the number of flights and the associated costs. In the second half of the year real information on flights was used. For the first time information on flights from Belgium are included. Therefore first semester figures are recalculated.







#### Figure 9 - Travel by air

Air travel	Distance 2018 (passenger km)	Distance 2019 (passenger km)	Tonnes CO <sub>2</sub> e
Intercontinental, > 2500 km	283.839	361.637	53,16
Regional, 700 – 2500 km	122.078	268.615	53,72
Europe, < 700 km	135.607	135.607	40,28
Total	498.651	765.859	147,16

Table 6 - Breakdown of air travel emissions

#### 6.2.2 Lease cars (electric vehicles)

Scope 2 emissions from lease car relate to EV-charging of electric and plug-in hybrid electric vehicles at public and home charging points, where the source of the energy is unknown. These emissions account for 12% of the Scope 2 emissions. This amount is generated from expense declarations.

Part of the public charging points is located at Alfen, but the use of Alfen charging points by own lease cars is not known and is therefore not calculated separately as renewable energy.

#### 6.2.3 Private cars for business travel

Emissions from personal cars for business travel account for 4% of overall emissions and 12% in Scope 2.

Each year, Alfen strives to expand the coverage and transparency of disclosure wherever possible. In the first semester report private car emissions have been calculated by specifying the type of car and fuel type used for business travel. These figures were gathered through manual data collection. This





inclusion enables a more complete disclosure of emissions from personal cars for business travel and therefore the new declaration system was comprehensively added with mandatory fields on used car type and fuel type. This enables to generate this information on vehicles per 2020.

#### 6.2.4 Public transportation

The 4,4 tCO2 emissions resulting from travel via public transport are responsible for just 0,3% of total emissions. During 2019, Alfen employees travelled 121.837 passenger kilometers – a good sign, and an increase from 20.393 passenger kilometers in 2018. This is partly due to the use of public transport in Finland, which is added for the first time.

### 6.3 Trend over the years by category

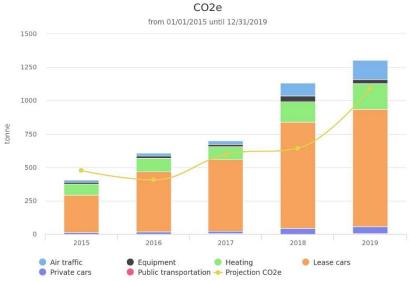


Figure 10 shows the trend since 2014 by category.

# 7 Reduction targets and progress

This chapter provides an update on the progress of the reduction targets in scope 1 and 2 and in scope 3.

## 7.1 Reduction targets and progress - Scope 1 and 2

Alfen aims to sustain and further improve its energy efficiency, in line with its reduction objectives. These objectives are reviewed annually to ensure they remain relevant and challenging.

The current reduction objectives are defined according to the rolling target base year, with a single year commitment period. With a rolling target base year, the base year rolls forward at regular time intervals, usually one year, in order that emissions are always compared against the previous year.

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Figure 10 - Trend CO<sub>2</sub>-emission per function



The performance indicators are expressed as a reduction in the ratio of carbon dioxide emissions relative to FTE and revenue in millions of euros and are based on historical results and planned actions. This is shown in Table 7.

Besides this, Alfen's general aim is to reduce energy consumption and increase the share of electric/ hybrid vehicles.

Parameter/ KPI	CO <sub>2</sub> emission 2018	Target 2019
Total CO <sub>2</sub> (tonne)	1.119	+6%
CO <sub>2</sub> e/ FTE (tonne)	3,8	-9%
CO₂e/ mln € (tonne)	10,9	-24%

Table 7 - Objectives 2019

#### CO2 emissions

For 2019, an increase in total CO<sub>2</sub> emissions of 6% was predicted. This increase appears to be significantly higher at 31%.

In addition, CO<sub>2</sub> emissions were expected to decrease by 9% per FTE and by 24% per million euros. The result per FTE is 16%, which is higher than expected. The result per million euros is 7% and therefore lower than expected.

Two factors that contributed to the negative results towards the reductions targets for 2019 are:

- Increase of the energy consumption by increasing production quantities, production area and personnel; and
- Growth in business travel by public transport and by air due to the increase in personnel and internationalization.

CO <sub>2</sub> emission (tonne)	2019	2018	Target 2019	Realised 2019
Scope 1	1.048	962		+9%
Scope 2	416	157		+65%
Total	1.465	1.119	+6%	+31%
Emission CO <sub>2</sub> / FTE (tonne)	3,2	3,8	-9%	-16%
Emission CO₂/ milj.€ (tonne)	10,2	11,0	-24%	-7%

Table 8 - Realisation 2019



#### Electric vehicles

If the first semester of 2018 is compared with the second semester of 2019, we see an increase in the percentage of electric / hybrid vehicles from 19% in Q1-2018 to 33% in Q4-2019. So this is in line with Alfen's general ambition.

### 7.2 Reduction targets and progress - Scope 3

The CO<sub>2</sub> reduction targets also extend to other indirect emissions in Scope 3. These targets are outlined in the corporate value chain analysis for Alfen Charging Equipment.

Below, a brief overview of the reduction targets set as a result of the corporate value chain analysis of the charging station EVE:

1. 2020: 5% reduction of 2017's 98 kg of CO2 component emissions

#### **Progress update**

The casing of the charging station is currently made of fiber-reinforced polyester (sheet moulding compound - SMC). In accordance with the action plan, we are now investigating alternative materials for the casing, which will not only reduce the CO<sub>2</sub> emissions but also enable better recyclability.

2. 2022: 30% reduction of 2017's 529 kg CO2 of emissions via energy consumption (standby)

#### Progress update

The display of a charging station constitutes a relatively large percentage of its standby consumption. Therefore, our developers are testing different methods to dim or switch off the display to reduce energy consumption. The results cannot yet be officially disclosed.





# 8 Conclusion and new objective

Based on the results presented in chapter 7, the conclusion is that the objectives are not fully met.

A second conclusion is that current objectives are not realistic in relation to the growth of the company in personnel, production quantities and production area.

Since this growth is expected to continue, new objective will be to keep the CO<sub>2</sub> emissions per FTE at least the same, despite this growth.

Based on the calculated emission in 2019, this specifically means a maximum emission of 1.465 tons of CO<sub>2</sub> in the year 2020.

Actions to achieve this objective are presented in Appendix B. This annex also gives an overview of actions completed and the status of current actions.





# **9** Additional information

This chapter provides information on the used methodology, the calculation method, changes in the calculation and quality of data.

## 9.1 Methodology

To calculate the CO<sub>2</sub> emissions inventory, Alfen identified all relevant carbon dioxide emission sources, collected activity data from the relevant business units, and applied the emission factors in order to calculate emissions from each source.

The quantification of CO<sub>2</sub> emissions in Scope 1 is based on the available activity data for fuels consumed (including natural gas and fuel oil). Scope 2 CO<sub>2</sub> emissions are primarily calculated from metered electricity consumption figures.

In case of business travel by private car or public transport, the emissions are calculated from activity data such as fuel use or passenger miles. The emission factors were sourced from the publicly available website www.co2emissiefactoren.nl (version 4-1-2019), which is recommended by Handbook 3.0 of the CO<sub>2</sub> Performance Ladder.

### 9.2 Calculation method

Alfen's carbon footprint analysis for 2019 follows the CO<sub>2</sub> Performance Ladder, and is consistent with the approach adopted in Handbook 3.0.

The CO<sub>2</sub> Performance Ladder is a CO<sub>2</sub> management system; it requires continuous improvement in insight, communication and operational management cooperation, and CO<sub>2</sub> reduction measures. The CO<sub>2</sub> Performance Ladder has five levels, ascending from 1 to 5. Alfen is positioned at level 4.

The reduction targets are defined according to the rolling target base year, with a single year commitment period. With a rolling target base year, the base year rolls forward at regular time intervals, usually one year, in order that emissions are always compared against the previous year.

### 9.2.1 Changes in calculation method

- Taxi kilometers for 2019 changed from 0,19/ km to 2,8/km and have been recalculated. This is based on Dutch maximum tariffs kilometers and driven time.
- For Finland district heating with conversion factor and fuel oil have been added to the calculation.





### 9.2.2 Recalculation of base year and historical data

- For 2018 recalculation amount of FTE based on financial report. •
- Targeted research within the Finnish location has led to the availability of more and more accurate • data regarding the Finnish buildings and mobility. This information is used to update the data of the first semester.
- Also telemetric data on heating Hefbrugweg 28 in Almere turned out to be available. This resulted • in an update of data of 2018 and the first semester of 2019.
- In 2019 unknown energy was transferred to "grey energy" for 2018 figures.
- Home charging has been recalculated for 2018 and the first half of 2019 with declarations as basis. ٠

# 9.3 Data quality and completeness

Scope	Emission source	Activity data	Data source	Remarks
1	Natural gas	Primary data	Telemetric gas meter readings from energy company and visual readings.	From 2018 data on Hefbrugweg 28 is based on gas meter telemetric meter readings. For other buildings the measurement of data does not relate to the entire reporting period. To minimise the uncertainty of actual natural gas consumption, a weighted degree-day method was applied in the allocation of the available measurement data to consumption over the reporting period.
	Fuel for stationary vehicles and forklifts	Primary data	Invoices from diesel supplier	
	Vehicle fleet	Primary data	Reports from lease company	
2	Purchased electricity (renewable and nonrenewable sources)	Primary data	Telemetric electricity meter readings from energy company.	
	Purchased electricity for lease cars (unknown source)	Primary/ secondary data	Reports from suppliers electrical charging (fuel cards) and declared costs for home charging.	In 2019 electricity consumption for home charging is based on the average costs of own lease cars: €0,23/ kWh.
	Business travel - private cars and public transport	Secondary data	Travel expenses	The use of private cars and public transport (taxis excluded) is calculated by dividing the travel costs by the official rate of 0,19 €/km in the Netherlands and 0,43 €/km in Finland. For taxi's an average cost of 2,80 €/km is used, based on national taxi tariffs (www.rijksoverheid.nl).
	Business travel - air	Secondary data	Travel expenses	Flight distances are calculated using http://nl.distance.to/.
	Business travel - rental cars	Secondary data	Travel expenses	For rental cars the average fuel consumption in the Netherlands is used: € 0.11 / km

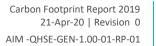
Data source is accurate Data source is satisfactory, but could be improved Data source is poor and its improvement is a priority





# **Appendices**

Number	Title
Appendix A	Carbon Footprint Alfen by Scope
Appendix B	Action plan reduction targets





# Appendix A Carbon Footprint Alfen by Scope

Emissions scope 1						
CO₂e (tonne)	2015	2016	2017	2018	2019	
Equipment	11	16	14	45	30	
Heating	85	103	97	152	189	
Lease cars	277	450	539	765	829	
Total Scope 1	373	569	650	962	1.049	
Target CO2e					1.019	

#### **Emissions scope 2**

CO <sub>2</sub> e (tonne)	2015	2016	2017	2018	2019
Air traffic	18	23	30	94	147
Electricity	8	8	10	17	160
Heating					4
Lease cars		0	0	32	49
Private cars	13	15	19	44	51
Public transportation	1	2	3	1	4
Total Scope 2	41	49	61	187	416
Target CO2e					198



# Appendix B Action plan reduction targets

	Action	Responsible	Realisation date	Priority	Status	Explanation Status
Mobility						
2015.01	Continuous attention to the purchase of "cleaner" cars as replacements.	MR	Continuously	Medium	closed	General goal. To be added to (mobility) policy. By the end of 2019 25% of the fleet is fully electrical.
2019.01	Introduction of Blue diesel	TD	2020	High	ongoing	Blue diesel (B100) or Hydrotreated Vegetable Oil 100% in the Netherlands is not accepted yet by car manufacturers. Therefore, we consider introduction of Blue Diesel 20 (EN590). The implementation is postponed to 2020.
2019.02	Mobility policy	HR	2019Q4	Medium	on hold	h
2019.03	Renting of electric cars (research flex cars or standard available electric cars).	HSE, MR	2019Q3	Medium	on hold	Actions on hold. Continued after receiving results "Mobility benchmark analysis".
2019.04	Research into commuting and flexible travel	HR	2019Q3	Low	on hold	Actions will be combined with the end date 2020.
2019.05	Research into the possibility of introducing The New Driving.	HSE	2019Q3	Low	on hold	-
2019.06	Participation at Mobility Benchmark analysis	HSE	2019Q3	Low	ongoing	Uploaded Nov-2019, waiting for report
2019.07	Tire-pressure monitoring	HSE	2019Q2	Medium	closed	Done spring 2019, saved 826 kg CO <sub>2</sub> e.
2020.01	Research into green electricity for electric driving	BI	2020Q4	High	new	
Buildings						
2018.01	Research on a possibility to extend the solar panel park	TD/MR	2019Q1	Low	ongoing	The subsidy has been requested Q4-2019.
2019.08	Research on the possibility of switching to renewable gas	TD/HSE	2019Q2	High	closed	The price for the renewable gas is not compatible
2019.09	Research on the possibility of switching to renewable electricity in Belgium	HSE/ MS	2019Q3	High	closed	Done. Alfen purchases renewable electricity in Belgium per 2019
2019.10	Receipt of an energy label for offices	SH/ HSE	2019Q2	Low	closed	Done. Offices received the energy label "A".
2020.02	Switch to renewable electricity in Finland.	BI	2020Q2	High	new	
Products						
2019.11	Research on the reduction of the energy consumption of charging stations in standby mode	R&D ACE	2019Q4	High	ongoing	
2019.12	Research on alternative components for charging stations	R&D ACE	2019Q3	High	ongoing	
2019.13	Performance of a new corporate value chain analysis	R&D	2020Q1	Medium	ongoing	
Administra	ation					
2015.08	Simplification of data collection by purchasing software	HSE advisor	2019Q3	Medium	closed	Done. Software in place per Q4-2019
2018.06	Improvement of data relating to business travel by air	Administra- tion	2019Q4	Medium	closed	New declaration system in place per 16- 12-2019
2019.14	Research into a new initiative	QHSE, MR	2019Q4	High	closed	Done. As per 1-9-2019 associated to MVO Nederland.

