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# Fagron Carbon Footprint 2019 and 2020

9 April 2021

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As a global company with the purpose to create the future of personalizing medicine, Fagron aims to produce all products ethically and responsibly.

## About Fagron

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Fagron is a global leading player in pharmaceutical compounding and supplies personalized medicine to hospitals, pharmacies, clinics, and patients in over 60 countries in EMEA, North America and Latin America.

### Purpose

Fagron's purpose is: "Together we create the future of personalizing medicine". Together with prescribers and pharmacists, Fagron strives to improve personalized medication and make it (more) accessible to patients. This way, Fagron has a significant impact on people's health and well-being.

### Our areas of work

Fagron is a vertically integrated player that is active throughout the value chain of pharmaceutical compounding. The company delivers, among other things, Essentials, Brands, Compounding Services, and Premium Pharmaceuticals to its customers.

### Our strategy

Fagron focuses on innovative and high-quality products and concepts in the market for personalizing medicine and wants to strengthen its leading position in this market by realizing sustainable and profitable growth. Innovation is an important driver for growth. An important link in the marketing process involves ensuring that prescribers and pharmacists become familiar with the innovations of Fagron through training and education.

## Our commitment

### Our commitment

As a global company with the ambition to create the future of personalizing medicine, Fagron aims to produce all products ethically and responsibly.

We strive to protect our stakeholders by lowering our environmental impact, providing benefits to our people, taking responsibility in our supply chain, and giving back to the communities in which we operate.

### ESG strategy

We see our Environmental, Social, and Governance strategy as a living document because Fagron, our stakeholders, and the world are continuously changing.

Fagron conducts an annual materiality assessment to determine the environmental, social, and governance topics to include in our ESG strategy.

We divide the ESG topics into five categories:

- Low impact on the Environment
- Benefits to Our People
- Responsibility in our Supply Chain
- Giving Back
- Good Governance

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# Our ESG Categories



**Low impact on the Environment**



**Benefits to Our People**



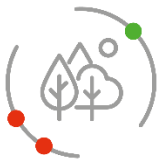
**Responsibility in Supply Chain**



**Giving back**



**Good Governance**



# Fagron Carbon Footprint 2019 and 2020

At Fagron, we continuously try to reduce the impact of our operations on the environment. We actively reduce our impact by setting ambitious targets on the environmental topics that are material for Fagron. We actively work on reducing greenhouse gas emissions and energy use.

## Introduction

Environmental, Social, and Governance topics are becoming increasingly important for Fagron. This includes topics such as carbon footprint, human rights, and waste management. Fagron has strong ambitions regarding climate change impact reduction (carbon footprint reduction). The aim is to reduce the carbon intensity by approximately 30% between 2019 and 2025 (a 5% reduction per year). In August 2019, Fagron concluded a new credit facility where the interest level is linked to Fagron's sustainability objective to substantially reduce greenhouse gas emissions.

The Fagron annual global KPIs (compared to 2019), effective from 1 January 2020, are:

- Energy consumption: 3% reduction in carbon intensity (18% in 2025);
- Business travel (Car): 10% reduction in carbon intensity (60% in 2025);
- Business travel (Plane): 4% reduction in carbon intensity (24% in 2025);
- Installation of solar panels that reduce the carbon intensity by 0.4 tons of CO<sub>2</sub>-eq per million € turnover (same in 2025).

This document describes the first carbon footprint (greenhouse gas emissions inventory) published by Fagron. A carbon footprint analysis was also conducted for the 2017 carbon footprint, this document is only used internally. We will publish the results in the 2020 Annual Report in accordance with GRI 302 (Energy use) and GRI 305 (Emissions).<sup>1</sup> This document contains both the carbon footprint for 2019 and 2020.

The carbon footprint of 2019 will be the reference year for all carbon footprint reports until 2026.

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<sup>1</sup> Global Reporting Initiative.

## Organizational boundaries and scope

### Organizational boundaries

Fagron reports the carbon footprint of the Fagron group companies, in accordance with operational control. We only include companies in the carbon footprint if they have been part of the Fagron group the entire year. For example, we acquired Cedrosa in Mexico in 2019, so we include the carbon footprint and turnover for the first time in the 2020 carbon footprint. Appendix A gives an overview of the companies in the restricted group per year.

### Scope

We include all greenhouse gas emissions in Scope 1 and Scope 2 and the greenhouse gas emissions in Scope 3 related to business travel. The table below gives an overview of the topics included in the Fagron Carbon Footprint. For these topics, we include all greenhouse gas emissions.

Scope			
Scope 1		Scope 2	Scope 3
Business travel – air			Business travel by plane
Business travel – car	Fuel use in owned/leased cars <sup>2</sup>	Electricity use in owned/leased cars <sup>1</sup>	Business travel by employee-owned cars <sup>3 4</sup>
Business travel – train			Business travel by train <sup>3</sup>
Energy use	Fuel use in owned/leased facilities	Purchased electricity and heating used in owned/leased facilities <sup>5</sup>	
Refrigerants	Fugitive emissions from refrigerants in owned/leased facilities		

<sup>2</sup> Excluding short lease during business trips.

<sup>3</sup> Car use paid for by Fagron through reimbursement of fuel use of reimbursement per kilometer/mile.

<sup>4</sup> Excluding business travel paid for via a mobility budget.

<sup>5</sup> Purchased electricity minus electricity used on-site for charging of electric/hybrid-cars.

### **Business travel – air**

Business travel by air includes all greenhouse gas emissions due to business travel by plane. This topic falls under scope 3. We determine the activity data based on three methodologies:

- Method 1: Most flights have been reported by the Fagron group's companies as individual flights by one person on a specific date (e.g., Employee 1 flew on 12 February 2020 from Amsterdam/AMS to New York/JFK). We have determined all flight distances by calculating the distance between the location of the two airports.
- Method 2: In some cases, the airports between which a flight occurred were unknown. In that case, we have assumed a length of 2000 kilometers per single flight.
- Method 3: In some cases, both the exact quantity of single flights and the airports were unknown. This was only the case for some flights in the USA. In this case, we have assumed one single flight of 2000 kilometers per \$200 spend on flight tickets.

We book all single intercontinental flights in business class. All other flights conventionally occur in economy class unless an unexpected upgrade has occurred. We do not monitor the latter.

### **Business travel – car**

Business travel by car includes all greenhouse gas emissions due to travel by car for business purposes. Business travel by car includes:

- Scope 1: Fuel use for cars owned and leased by Fagron. If available, we use the exact fuel use. Otherwise, we estimate the amount of fuel use based on the known distance traveled and the vehicles' fuel efficiency as indicated by the lease company. In a few rare cases, the exact distance traveled is unknown, then an

estimate is made based on the difference between the mileage reported for two services of the car by the servicing company.

- Scope 2: Electricity use for cars owned and leased by Fagron. If available, we use the exact electricity use. Otherwise, we estimate the amount of electricity use based on the known distance traveled and the vehicles' electric efficiency as indicated by the lease company.
- Scope 3: Business travel in cars owned by employees, compensated for by Fagron. This can be either when Fagron pays for the distance traveled (e.g., kilometer or mile compensation) or the exact fuel use, if this is declared via a receipt or a fuel card, is used by the employee paid for by Fagron.

Fagron employees use lease cars both for business travel and for commuting to/from work. We do not distinguish between these two and include all lease car use under scope 1 (fuel use) or scope 2 (electricity use). In some cases, employees may use a fuel card when they are in between lease cars. We do not monitor this, and we assume that all fuel use via a fuel card given to an employee for use with a lease car is used for that purpose.

Some employees receive a budget for mobility, including business travel and commuting to/from work.<sup>6</sup> The employee is free to determine the preferred mobility option, which means neither the mode of transport nor the distance traveled is known. Therefore, the scope 3 business travel by car or business travel by public transportation does not include the budget for mobility. Also excluded from this category is car travel from (long-term) consultants that Fagron indirectly pays for via the consultancy fee.

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<sup>6</sup> This includes 2 people in Belgium in 2020 (one in Fagron Belgium and one in Infinity Pharma) and approximately 20 people in different locations in the Netherlands.



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Most car travel occurs within the country in which the car is leased. In the case of electricity use (for an electric or hybrid car), we assume that all charging occurs in the country where the car is leased or owned. Not all electricity use for our plug-in hybrid/full-electric cars that occurred in 2020 has been billed yet. In some cases, the electricity use is only billed per quarter. We will publish an amendment of the 2020 carbon footprint when also publishing the 2021 carbon footprint results. By then, all invoices over 2020 have been received.

#### ***Business travel – train***

At this moment, train travel for business purposes is limited. We have included business travel by train in the carbon footprint to avoid underreporting travel emissions in the future when we attempt to move our business travel from flying to traveling by car or train. Only train travel is included that is a replacement for flying, which means that we only include long-distance train travel.<sup>7</sup>

#### ***Energy use***

Energy use includes all greenhouse gas emissions due to energy use in the facilities we own or lease. Energy use includes:

- Scope 1: Fuel used in facilities owned and leased by Fagron. This includes fuel used for heating purposes and to generate electricity in case of a power failure. Fuel use per facility is based on invoices of billed energy.
- Scope 2: Purchased electricity and heat used in facilities owned and leased by Fagron. Electricity and heat purchases are based on received invoices.

We do not include facilities that we lease but sub-lease in the carbon footprint. That means that any fuel or electricity used in such a facility is not included.

Not all energy use that occurred in 2020 has been billed yet. In this case, an estimate has been made of the energy use for these months. We will publish an amendment of the 2020 carbon footprint when also publishing the 2021 carbon footprint results. By then, all invoices over 2020 have been received.

#### ***Refrigerants***

Refrigerants include all greenhouse gas emissions due to leakage of refrigerants in the facilities that we lease or own. Facilities that we lease but sub-lease to another tenant are not included in the carbon footprint. That means that any refrigerant used in such a facility is not included.

We determine leakage of refrigerants by the addition of refrigerants during maintenance of refrigerators, cooling, and air conditioning installations.

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<sup>7</sup> We define long-distance train travel as minimum 300 kilometres for a round-trip.

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## Methodology and emissions factors

### Greenhouse gas emissions

We calculate our greenhouse gas emissions in accordance with the Greenhouse Gas Protocol.<sup>8</sup> We deviate on one aspect: we only report our Scope 2 carbon footprint following the location-based methodology. This means that we apply grid average emission factors for purchased electricity use and heat from a district heating grid. We have chosen not to report following the market-based methodology. Not for all markets where we operate supplier-specific data is available or no residual mix emission factor is known. We believe we are introducing more uncertainty than clarity if we would report following the market-based methodology.

We calculate greenhouse gas emissions by multiplying activity data such as liters of diesel use with their respective emission factor. Different sources have been used to determine the emission factors (in kg CO<sub>2</sub>-eq) of the various energy carriers, electricity sources, refrigerants, and business travel modalities. All emission factors used can be found in Appendix B.

### GHG emission intensity

Part of Fagron's strategy is to acquire new companies and to integrate these into the Fagron group. We, therefore, calculate greenhouse gas emission intensity by dividing the total greenhouse gas emissions in metric tons CO<sub>2</sub>-eq by the group turnover in million euro. For the 2020 greenhouse gas emission intensity, we normalize the turnover with the 2019 constant exchange rate to counteract any positive or negative impact of fluctuating exchange rates of, e.g., Brazilian real to euro.

$$\text{GHG emission intensity} = \frac{\text{GHG emissions in metric ton CO}_2\text{-eq}}{\text{million € turnover (2019 exchange rate)}}$$

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<sup>8</sup> Greenhouse Gas Protocol – A Corporate Accounting and Reporting Standard. World Business Council for Sustainable Development.

### Energy use

To determine the total energy use for the Fagron group, we consider the energy consumption within the facilities in scope (electricity and fuel used for heating, cooling, steam) as well as energy consumption in the cars owned and leased (electricity use, diesel, and petrol use). An overview of the conversion factors used can be found in Appendix C.

### Energy use intensity

We calculate the annual energy intensity by dividing the total energy use by the group turnover in million euro. For the 2020 energy use intensity, we normalize the turnover with the 2019 constant exchange rate.

$$\text{Energy use intensity} = \frac{\text{Energy use in GJ}}{\text{million € turnover (2019 exchange rate)}}$$



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## Reporting and control processes

### Reporting process

All companies within scope with a carbon footprint of 50 metric ton CO<sub>2</sub>-eq or more per year report their data every month via the bookkeeping system that Fagron uses. They also submit a background excel file. All integrated companies with a carbon footprint below 50 metric ton CO<sub>2</sub>-eq per year report quarterly.

### Control process

All data submitted is checked for consistency at least quarterly by the Global ESG officer by:

- Comparing data over the years for any significant changes.
- Regular meetings with each company (at least twice a year) to discuss results and data.
- Occasional requesting of invoices.

### Recalculation of carbon footprint and energy use

Fagron is a company with a Buy & Build strategy. This means that acquisitions are conducted each year. We recalculate the carbon footprint and energy use when a threshold of 10% carbon footprint increase due to acquisitions has been surpassed. This threshold was not passed for the 2020 acquisitions but could be reached in 2021.

## Carbon footprint and energy use 2019

### Introduction

The results described under “Greenhouse gas emissions” and “Greenhouse gas emission intensity” are intended to meet the requirements for GRI disclosures 305-1(a,b), 305-2(a), 305-3(a,c), and 305-4(a). The results under “Energy use” and “Energy use intensity” are intended to meet the requirements for GRI disclosure 302-1(except for f). The other parts of GRI disclosures 305-1, 305-2, 305-3, 305-4, and 302-1 have been described in the previous sections or are described in the appendices of this document.

### Greenhouse gas emissions

All greenhouse gas emissions are given in CO<sub>2</sub>-eq. There were no biogenic emissions in Scope 1 and 3.

### Greenhouse gas emission intensity

The total turnover of companies that were part of the Fagron group the entire 2019 was €506,724,074.52.

#### Greenhouse gas emissions 2019 (in metric ton CO<sub>2</sub>-eq)

	Scope 1	Scope 2	Scope 3	Total
Business travel – air	-	-	2306 ton	2306 ton
Business travel – car	1133 ton	4 ton	179 ton	1316 ton
Business travel – train	-	-	2 ton	2 ton
Energy use	1525 ton	7827 ton	-	9352 ton <sup>9</sup>
Refrigerants	159 ton	-	-	159 ton
<b>Total</b>	<b>2818 ton</b>	<b>7831 ton</b>	<b>2486 ton</b>	<b>13135 ton</b>
<i>Solar panels (if electricity were purchased)</i>		30 ton		30 ton

#### Greenhouse gas emission intensity 2019 (in metric ton CO<sub>2</sub>-eq per million € turnover)

	Scope 1	Scope 2	Scope 3	Total
Business travel – air	-	-	-	4.550 ton / million €
Business travel – car	-	-	-	2.597 ton / million €
Business travel – train	-	-	-	0.003 ton / million €
Energy use	-	-	-	18.456 ton / million € <sup>10</sup>
Refrigerants	-	-	-	0.315 ton / million €
<b>Total</b>	<b>5.561</b>	<b>15.453</b>	<b>4.907</b>	<b>25.921 ton / million €</b>
<i>Solar panels (if electricity were purchased)</i>				0.060 ton / million €

<sup>9</sup> Total emissions of energy use if no solar panels would have been installed would have been 9382 ton CO<sub>2</sub>-eq.

<sup>10</sup> Total emissions of energy use if no solar panels would have been installed is 18.516 ton CO<sub>2</sub>-eq per million € turnover.

## Energy use

Total energy use is shown in the table below. There was no fuel consumption from renewable sources in 2019.

## Energy use intensity

The total turnover of companies that were part of the Fagron group the entire 2019 was €506,724,074.52. That makes for a total energy intensity of 235.9 GJ per million € turnover.

### Energy use 2019 (in GJ)

	Quantity	Unit	Conversion factor to MJ <sup>11</sup>	GJ energy use
<b>Used in our facilities</b>				
Electricity purchased	20420196	kWh	3.60	73513
Electricity generated and used	70000	kWh	3.60	252
Natural gas – low caloric	344487	Nm <sup>3</sup>	35.17	12116
Natural gas – high caloric	437169	Nm <sup>3</sup>	39.68	17347
Diesel use in facilities	7634	L	36.21	276
LPG use in facilities	2240	L	23.92	54
Heat purchased	774160	MJ	1.00	774
Electricity purchased	20420196	kWh	3.60	73513
<b>Used for leased/owned cars</b>				
Petrol	141569	L	31.57	4470
Diesel	296092	L	39.68	10722
Electricity	10425	kWh	3.60	38
<b>Total</b>	-		-	<b>119560</b>

<sup>11</sup> See Appendix C.

## Carbon footprint and energy use 2020

### Introduction

The results described under “Greenhouse gas emissions” and “Greenhouse gas emission intensity” are intended to meet the requirements for GRI disclosures 305-1(a,b), 305-2(a), 305-3(a,c), and 305-4(a). The results under “Energy use” and “Energy use intensity” are intended to meet the requirements for GRI disclosure 302-1 (except for f). The other parts of GRI disclosures 305-1, 305-2, 305-3, 305-4, and 302-1 have been described in the previous sections or are described in the appendices of this document.

### Greenhouse gas emissions

All greenhouse gas emissions are given in CO<sub>2</sub>-eq. There were no biogenic emissions in Scope 1 and 3.

### Greenhouse gas emission intensity

The total turnover of companies that were part of the Fagron group the entire 2020 was €592,371,270.57. For the 2020 greenhouse gas emission intensity, we normalize the turnover with the 2019 constant exchange rate for all currencies other than euro.

#### Greenhouse gas emissions 2020 (in metric ton CO<sub>2</sub>-eq)

	Scope 1	Scope 2	Scope 3	Total
Business travel – air	-	-	771 ton	771 ton
Business travel – car	974 ton	9 ton	58 ton	1040 ton
Business travel – train	-	-	1 ton	1 ton
Energy use	1795 ton	8422 ton	-	10217 ton <sup>12</sup>
Refrigerants	175 ton	-	-	175 ton
<b>Total</b>	<b>2944 ton</b>	<b>8431 ton</b>	<b>830 ton</b>	<b>12205 ton</b>
<i>Solar panels (if electricity were purchased)</i>		34 ton		34 ton

#### Greenhouse gas emission intensity 2020 (in metric ton CO<sub>2</sub>-eq per million € turnover)

	Scope 1	Scope 2	Scope 3	Total
Business travel – air	-	-	-	1.302 ton / million €
Business travel – car	-	-	-	1.756 ton / million €
Business travel – train	-	-	-	0.002 ton / million €
Energy use	-	-	-	17.248 ton / million € <sup>13</sup>
Refrigerants	-	-	-	0.296 ton / million €
<b>Total</b>	<b>4.970</b>	<b>14.232</b>	<b>1.402</b>	<b>20.604 ton / million €</b>
<i>Solar panels (if electricity were purchased)</i>				0.058 ton / million €

<sup>12</sup> Total emissions of energy use if no solar panels would have been installed would have been 10251 ton CO<sub>2</sub>-eq.

<sup>13</sup> Total emissions of energy use if no solar panels would have been installed is 17.306 ton CO<sub>2</sub>-eq per million € turnover.

## Energy use

Total energy use is shown in the table below. There was no fuel consumption from renewable sources in 2020.

## Energy use intensity

The total turnover of companies that were part of the Fagron group the entire 2020 was €592,371,270.57. For the 2020 energy use intensity, we normalize the turnover with the 2019 constant exchange rate for all currencies other than euro. That makes for a total energy intensity of 218.1 GJ per million € turnover.

### Energy use 2020 (in GJ)

	Quantity	Unit	Conversion factor to MJ <sup>14</sup>	GJ energy use
<b>Used in our facilities</b>				
Electricity purchased	22545613	kWh	3.60	81164
Electricity generated and used	78277	kWh	3.60	282
Natural gas – low caloric	343208	Nm <sup>3</sup>	35.17	12071
Natural gas – high caloric	461250	Nm <sup>3</sup>	39.68	18302
Diesel use in facilities	85679	L	36.21	3103
LPG use in facilities	10927	L	23.92	261
Heat purchased	874540	MJ	1.00	875
Electricity purchased	22545613	kWh	3.60	81164
<b>Used for leased/owned cars</b>				
Petrol	114255	L	31.57	3607
Diesel	261151	L	39.68	9457
Electricity	25341	kWh	3.60	91
<b>Total</b>	-		-	<b>129212</b>

<sup>14</sup> See Appendix C.

## Change in carbon footprint

### Introduction

The results described under “Change in carbon footprint” and “Change in greenhouse gas emission intensity” are intended to meet the requirements for GRI disclosures 305-5(a). The results under “Change in energy use” and “Change in energy use intensity” are intended to meet the requirements for GRI disclosure 302-4(a).

### Change in carbon footprint

The change in carbon footprint is shown in the first table.

**Change in greenhouse gas emissions between 2019 and 2020 (in metric ton CO<sub>2</sub>-eq)**

	2019	2020	Change	% Change
<b>Scope 1: Direct emissions</b>	<b>2818 ton</b>	<b>2944 ton</b>	<b>126 ton</b>	<b>4%</b>
Emissions from fuel use in operations	1525 ton	1795 ton	270 ton	18%
Emissions from fuel use in owned/leased cars	1133 ton	974 ton	- 159 ton	- 14%
Fugitive emissions from refrigerants	159 ton	175 ton	16 ton	10%
<b>Scope 2: Energy indirect emissions</b>	<b>7831 ton</b>	<b>8431 ton</b>	<b>600 ton</b>	<b>8%</b>
Emissions from purchased electricity	7827 ton	8422 ton	595 ton	8%
Emissions from purchased electricity – car	4 ton	9 ton	5 ton	122%
<b>Scope 3: Other indirect emissions</b>	<b>2486 ton</b>	<b>830 ton</b>	<b>- 1656 ton</b>	<b>- 67%</b>
Employee business travel (excluding owned/leased cars) – car	179 ton	58 ton	- 121 ton	- 68%
Employee business travel – air	2306 ton	771 ton	- 1534 ton	- 67%
Employee business travel – train	2 ton	1 ton	0 ton	- 26%
<b>Total emissions (scope 1/2/3) – location-based</b>	<b>13135 ton</b>	<b>12205 ton</b>	<b>- 930 ton</b>	<b>- 7%</b>

Note: Due to rounding, not all numbers add up.



## Greenhouse gas emission intensity

The change in greenhouse gas emission intensity is shown per Scope in the first table and per topic in the second table.

### Change in greenhouse gas intensity between 2019 and 2020 (in metric ton CO<sub>2</sub>-eq per million € turnover)

	Scope 1	Scope 2	Scope 3	Total
2019	5.561	15.453	4.907	25.921 ton / million € turnover
2020	4.970	14.232	1.402	20.604 ton / million € turnover
Change	- 0.591	- 1.221	- 3.505	- 5.317 ton / million € turnover
% Change	- 10.6%	- 7.9%	- 71.4%	- 20.5%

### Change in greenhouse gas intensity between 2019 and 2020 (in metric ton CO<sub>2</sub>-eq per million € turnover)

	2019	2020	Change	% Change
Business travel – air	4.550 ton / million €	1.302 ton / million €	- 3.248 ton / million €	- 71.4%
Business travel – car	2.597 ton / million €	1.756 ton / million €	- 0.841 ton / million €	- 32.4%
Business travel – train	0.003 ton / million €	0.002 ton / million €	- 0.001 ton / million €	- 36.3%
Energy use <sup>15</sup>	18.516 ton / million €	17.306 ton / million €	- 1.210 ton / million €	- 6.5%
Solar panels (if electricity were purchased)	- 0.060 ton / million €	- 0.058 ton / million €	0.002 ton / million €	2.6%
Refrigerants	0.315 ton / million €	0.296 ton / million €	- 0.019 ton / million €	- 6.0%
<b>Total</b>	<b>25.921 ton / million €</b>	<b>20.604 ton / million €</b>	<b>- 5.317 ton / million €</b>	<b>- 20.5%</b>

<sup>15</sup> Total emissions if no solar panels would have been installed.

## Change in energy use

### Change in energy use

The change in energy use is shown in the first table.

### Change in energy use intensity

The change in energy use intensity is shown in the second table.

#### Change in energy use between 2019 and 2020 (in GJ)

	2019	2020	Change	% Change
<b>Used in our facilities</b>				
Electricity purchased	73513	81164	7652	+ 10%
Electricity generated and used	252	282	30	+ 12%
Natural gas – low caloric	12116	12071	- 45	0%
Natural gas – high caloric	17347	18302	956	+ 6%
Diesel use in facilities	276	3103	2826	+ 1022%
LPG use in facilities	54	261	208	+ 388%
Heat purchased	774	875	100	+ 13%
Electricity purchased	73513	81164	7652	+ 10%
<b>Used for leased/owned cars</b>				
Petrol	4470	3607	- 862	- 19%
Diesel	10722	9457	- 1265	- 12%
Electricity	38	91	54	+ 143%
<b>Total</b>	<b>119560</b>	<b>129212</b>	<b>9652</b>	<b>+ 8%</b>

Change in energy use intensity between 2019 and 2020 (in GJ per million € turnover)

	2019	2020	Change	% Change
<b>Used in our facilities</b>				
Electricity purchased	145.1	137.0	- 8.1	- 6%
Electricity generated and used	0.5	0.5	0.0	- 4%
Natural gas – low caloric	23.9	20.4	- 3.5	- 15%
Natural gas – high caloric	34.2	30.9	- 3.3	- 10%
Diesel use in facilities	0.5	5.2	4.7	+ 860%
LPG use in facilities	0.1	0.4	0.3	+ 317%
Heat purchased	1.5	1.5	- 0.1	- 3%
Electricity purchased	145.1	137.0	- 8.1	- 6%
<b>Used for leased/owned cars</b>				
Petrol	8.8	6.1	- 2.7	- 31%
Diesel	21.2	16.0	- 5.2	- 25%
Electricity	0.1	0.2	0.1	+ 108%
<b>Total</b>	<b>235.9</b>	<b>218.1</b>	<b>- 17.8</b>	<b>- 8%</b>

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## Appendix A – Integrated companies

Appendix A is available at request.

## Appendix B – Emission factors

	EF 2019	Source 2019	EF 2020	Source 2020	Unit
<b>Air travel</b>					
Long distance (business class)	0.424	UK Government 2020 <sup>1</sup>	0.424	UK Government 2020	kg CO <sub>2</sub> -eq / km
Medium distance	0.187	Stream personenvervoer 2014 <sup>2</sup>	0.187	Stream personenvervoer 2014	kg CO <sub>2</sub> -eq / km
Short distance	0.278	Stream personenvervoer 2014	0.278	Stream personenvervoer 2014	kg CO <sub>2</sub> -eq / km
<b>Car travel</b>					
Diesel	2.670	CO2emissiefactoren.nl (data 2019) <sup>3</sup>	2.670	CO2emissiefactoren.nl (data 2019)	kg CO <sub>2</sub> -eq / liter
Petrol	2.420	CO2emissiefactoren.nl (data 2019)	2.420	CO2emissiefactoren.nl (data 2019)	kg CO <sub>2</sub> -eq / liter
Electricity	See electricity use per location				
Car travel compensated	0.130	Stream personenvervoer 2014	0.130	Stream personenvervoer 2014	kg CO <sub>2</sub> -eq / km
<b>Train travel</b>					
All distances	0.026	Stream personenvervoer 2014	0.026	Stream personenvervoer 2014	kg CO <sub>2</sub> -eq / km
<b>Energy use</b>					
Natural gas – low caloric	1.791	CO2emissiefactoren.nl (data 2019)	1.791	CO2emissiefactoren.nl (data 2019)	kg CO <sub>2</sub> -eq / Nm <sup>3</sup>
Natural gas – high caloric	2.023	UK Government 2020	2.023	UK Government 2020	kg CO <sub>2</sub> -eq / Nm <sup>3</sup>
LPG	1.700	CO2emissiefactoren.nl (data 2019)	1.700	CO2emissiefactoren.nl (data 2019)	kg CO <sub>2</sub> -eq / liter
Diesel <sup>4</sup>	2.670	CO2emissiefactoren.nl (data 2019)	2.670	CO2emissiefactoren.nl (data 2019)	kg CO <sub>2</sub> -eq / liter
Electricity Australia	0.810	Australian Government (data 2018) <sup>5</sup>	NA	NA	kg CO <sub>2</sub> -eq / kWh

<sup>1</sup> UK Government 2020. Department for Business, Energy & Industrial Strategy. 2020 Government greenhouse gas conversion factors for company reporting.

<sup>2</sup> STREAM personenvervoer 2014 versie 1.1. CE Delft. 2015.

<sup>3</sup> 2019 Lijst CO<sub>2</sub>-emissiefactoren. CO2emissiefactoren.nl

<sup>4</sup> Assumed to be 100% fossil diesel, because the exact percentage of bio-diesel per country is difficult to determine.

<sup>5</sup> National Greenhouse accounts factors. Australian Government. 2019.

Electricity Belgium	0.167	EEA, data 2019 <sup>6</sup>	0.167	EEA, data 2019	kg CO <sub>2</sub> -eq / kWh
Electricity Brazil	0.075	MCTIC, data 2019 <sup>7</sup>	0.075	MCTIC, data 2019	kg CO <sub>2</sub> -eq / kWh
Electricity Colombia	0.164	Website, published in 2020 <sup>8</sup>	0.164	Website, published in 2020	kg CO <sub>2</sub> -eq / kWh
Electricity Croatia	0.145	EEA, data 2019	0.145	EEA, data 2019	kg CO <sub>2</sub> -eq / kWh
Electricity Czech Republic	0.431	EEA, data 2019	0.431	EEA, data 2019	kg CO <sub>2</sub> -eq / kWh
Electricity Denmark	0.126	EEA, data 2019	0.126	EEA, data 2019	kg CO <sub>2</sub> -eq / kWh
Electricity France	0.052	EEA, data 2019	0.052	EEA, data 2019	kg CO <sub>2</sub> -eq / kWh
Electricity Germany	0.338	EEA, data 2019	0.338	EEA, data 2019	kg CO <sub>2</sub> -eq / kWh
Electricity Greece	0.598	EEA, data 2019	0.598	EEA, data 2019	kg CO <sub>2</sub> -eq / kWh
Electricity Italy	0.233	EEA, data 2019	0.233	EEA, data 2019	kg CO <sub>2</sub> -eq / kWh
Electricity Mexico	NA	NA	0.505	Mexican Government, data 2019 <sup>9</sup>	kg CO <sub>2</sub> -eq / kWh
Electricity Netherlands	0.390	EEA, data 2019	0.390	EEA, data 2019	kg CO <sub>2</sub> -eq / kWh
Electricity Poland	0.719	EEA, data 2019	0.719	EEA, data 2019	kg CO <sub>2</sub> -eq / kWh
Electricity South-Africa	0.970	ESKOM, data 2018 <sup>10</sup>	0.970	ESKOM, data 2018	kg CO <sub>2</sub> -eq / kWh
Electricity Spain	0.207	EEA, data 2019	0.207	EEA, data 2019	kg CO <sub>2</sub> -eq / kWh
Electricity UK	0.228	EEA, data 2019	0.228	EEA, data 2019	kg CO <sub>2</sub> -eq / kWh
Electricity USA ERCT	0.425	EPA, EGrid 2018 <sup>11</sup>	0.425	EPA, EGrid 2018	kg CO <sub>2</sub> -eq / kWh
Electricity USA FRCC	0.425	EPA, EGrid 2018	0.425	EPA, EGrid 2018	kg CO <sub>2</sub> -eq / kWh
Electricity USA MROW	0.567	EPA, EGrid 2018	0.567	EPA, EGrid 2018	kg CO <sub>2</sub> -eq / kWh

<sup>6</sup> Greenhouse gas emission intensity of electricity generation. European Energy Agency. 2020.

<sup>7</sup> Inventários Corporativos. Ministério da Ciência, Tecnologia e Inovações. 2020.

<sup>8</sup> En Colombia el factor de emisión de CO<sub>2</sub> por generación eléctrica es de 164,38 gramos por kWh. Concier. 2020

<sup>9</sup> Factor de Emisión del Sistema Eléctrico Nacional 2019. Gobierno de México. 2020.

<sup>10</sup> Eskom Factor 2.0. Eskom. 2018.

<sup>11</sup> eGrid Power Profiler. EPA. 2020.



Electricity USA NWPP	0.292	EPA, EGrid 2018	0.292	EPA, EGrid 2018	kg CO <sub>2</sub> -eq / kWh
Electricity USA RMPA	0.581	EPA, EGrid 2018	0.581	EPA, EGrid 2018	kg CO <sub>2</sub> -eq / kWh
Electricity USA SPNO	0.531	EPA, EGrid 2018	0.531	EPA, EGrid 2018	kg CO <sub>2</sub> -eq / kWh
Heat Czech Republic	0.174	Czech Republic District Heating <sup>12</sup>	0.174	Czech Republic District Heating	kg CO <sub>2</sub> -eq / MJ
Heat Denmark	0.025	Danish Energy Agency, data 2017 <sup>13</sup>	0.025	Danish Energy Agency, data 2017	kg CO <sub>2</sub> -eq / MJ
Heat Netherlands	0.033	CO2emissiefactoren.nl (data 2019)	0.033	CO2emissiefactoren.nl (data 2019)	kg CO <sub>2</sub> -eq / MJ
<b>Refrigerants</b>					
R134a	1430	California Air Resources Board <sup>14</sup>	-	-	kg CO <sub>2</sub> -eq / kg
R22	1810	California Air Resources Board	1810	California Air Resources Board	kg CO <sub>2</sub> -eq / kg
R290	-	-	4	California Air Resources Board	kg CO <sub>2</sub> -eq / kg
R407c	1774	California Air Resources Board	1774	California Air Resources Board	kg CO <sub>2</sub> -eq / kg
R410a	2088	California Air Resources Board	2088	California Air Resources Board	kg CO <sub>2</sub> -eq / kg
R449a	-	-	1397	California Air Resources Board	kg CO <sub>2</sub> -eq / kg

<sup>12</sup> Sustainability report 2019. EP Infrastructure. 2020.

<sup>13</sup> Key figures. Danish Energy Agency. 2020.

<sup>14</sup> High-GWP Refrigerants. California Air Resources Board. 2020.

## Appendix C – Conversion factors energy use

	Conversion factor	Source	Unit
Electricity	3.6	-	MJ / kWh
Natural gas – low caloric	35.17	Kingdom of the Netherlands 2016 <sup>15</sup>	MJ / Nm <sup>3</sup>
Natural gas – high caloric	39.68	UK Government 2020	MJ / Nm <sup>3</sup>
Diesel	36.21	UK Government 2020	MJ / L
LPG	23.92	UK Government 2020	MJ / L
Heat	1.0	-	MJ / MJ
Petrol	31.57	UK Government 2020	MJ / L

<sup>15</sup> Koninkrijk der Nederlanden. Staatscourant. Nr 21501. 11 May 2016.

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