

# Climate report 2023

Artelia Denmark



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## 1 Main results

### Key figures 2023

 **632 ton**  
CO<sub>2</sub> emitted in  
2023

 **0,63**  
ton CO<sub>2</sub> emitted  
per FTE in 2023

 **50.7%**  
reduction in CO<sub>2</sub>-  
emission per FTE  
compared to basis  
year

Artelia has taken on the responsibility to reduce greenhouse gas emission from our own activities as part of our CSR strategy. Our goal is ambitious: A 50% reduction compared to 2017 with a goal to reach net zero CO<sub>2</sub> emission by 2035.

With 2017 as reference year, Artelia reached a CO<sub>2</sub> reduction of **50.7%** per full-time employee (FTE), and with that we achieved our reduction goal in the reporting year 2023.

The climate accounts cover Artelia’s Danish offices and report sources to greenhouse gas emission from scopes 1, 2 and 3. Scope 1 covers petrol consumption from our company cars while scope 2 includes energy purchased for our buildings and electric cars. In scope 3, we have measured transmission and distribution losses, purchased transportation and driving in the employees’ own cars.

We have achieved significant reduction in our CO<sub>2</sub> emission, primarily caused by the decrease in emission from scope 2. This reduction is ascribed to greener energy production which is based more and more on renewable energy sources. Emission from transportation comprises a significant part of our total emission, and it also represents the largest potential for improvement. Implementing a green company policy that focuses on limiting the need for transportation and promoting more sustainable transportation habits will create a potential for reducing our CO<sub>2</sub> emission significantly. Further initiatives, such as including our employees even more in the green transition and help them adopt more eco-friendly consumption and transportation habits may also contribute to our goal to reduce our CO<sub>2</sub> footprint.

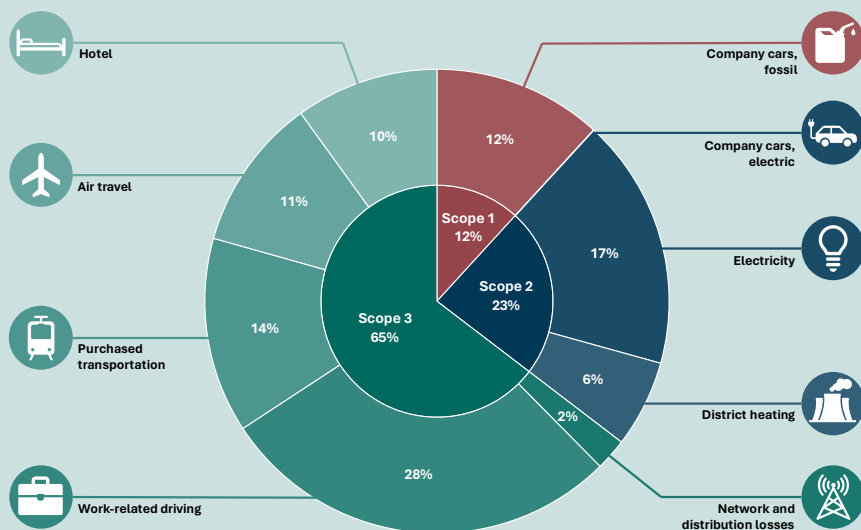


Figure 1: Distribution of CO<sub>2</sub> emission from Artelia’s activities distributed between scopes 1, 2 and 3.

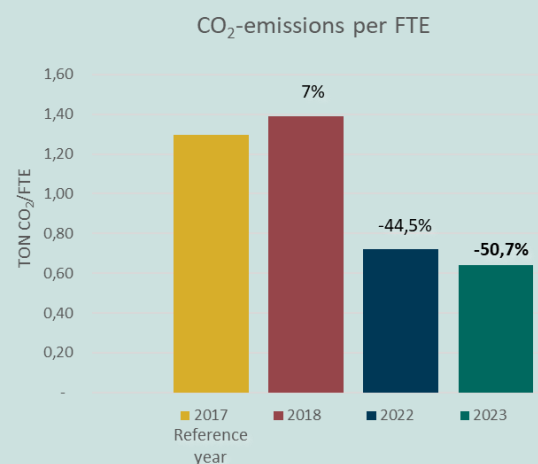


Figure 2: Development in CO<sub>2</sub> emission per FTE from 2017-2023

## 2 Introduction

Artelia Denmark is the Danish part of Artelia Group, which is one of Europe's largest consulting multi-disciplinary engineering groups specialising in buildings construction, infrastructure, water, energy, industry and environment. Artelia Group employs 8,900 employees in more than 40 countries of which 1,200 employees work from the Danish offices.

In Artelia, we work continuously to promote sustainability – both in cooperation with our clients and by taking on a corporate social responsibility in our own operation. With ambitious goals, we continue our work for the green transition. We have therefore committed to comply with the goals in the Paris Agreement regarding a maximum of 1.5°C for scopes 1 and 2 and a maximum of 2°C for scope 3 through Science Based Targets initiative (SBTi).

Our CSR policy sets the frames for contributing to achieving our goals via three areas:

- Employees
- Environment and sustainability
- Independence and ethics.

We are conscious that our company – as part of the Danish business community – plays an important role in relation to the green transition in Denmark. We have therefore set ourselves a goal to reduce CO<sub>2</sub> emission, and we work towards running a CO<sub>2</sub> neutral business by 2035.

In order to achieve our climate goals, each year we set sharper sub-goals to reduce our CO<sub>2</sub> emission per FTE. The goal for 2023 was to reduce greenhouse gas emission from our own activities by 50% per FTE compared to 2017.

Since 2017, we have calculated our annual carbon footprint to measure the development and progress towards running a CO<sub>2</sub>-neutral business. With the climate accounts, we map how our emission of greenhouse gasses is distributed between the company's various activities, and with that we put focus on how we – as a company – can reduce our carbon footprint. The climate accounts therefore form the basis for setting strategic reduction goals for greenhouse gas emission and with that work systematically with ongoing improvements and initiatives to reduce CO<sub>2</sub> emissions.

### 3 Method

Artelia's climate accounts 2023 were in accordance with the accounting method in the internationally acknowledged standard for climate accounts the Greenhouse Gas (GHG) Protocol – Corporate Accounting and Reporting Standard published by World Resources Institute and World Business Council on Sustainable Development in 2017. This chapter contains an account for the delimitation, calculation method and emission factors used.

#### 3.1 Delimitation

**Basis year and frame of reference:** 2017 was selected as basis year for the company's annual climate accounts. The basis year is the frame of reference for Artelia's future reduction goals. Reporting on emission between the basis year and the reporting year is based on comparable categories. In 2023, more reporting items were added, but the data used for comparing with 2017 were insufficient, and the new categories are therefore not included in the total CO<sub>2</sub> statement.

**Accounting period:** The financial year is 2023, and the accounting period is 1 January to 31 December.

**Geography:** The climate accounts cover activities at Artelia's Danish offices in Buddinge, Aarhus, Aalborg, Fredericia, Næstved, Vordingborg and Odense as well as a holiday home in Ebeltoft and a storage facility in Rødovre.

**Control limit:** The climate accounts use operational control limit which means that all greenhouse gas emission from activities that Artelia has operational control over are reported.

**Sources to greenhouse gas emission:** The GHG protocol distributes greenhouse gas emission into three categories: scope 1, scope 2 and scope 3.

<b>Scope 1</b>	<ul style="list-style-type: none"> <li>• Company cars, fossil</li> </ul>
<b>Scope 2</b>	<ul style="list-style-type: none"> <li>• Company cars, electric</li> <li>• Electricity</li> <li>• District heating</li> </ul>
<b>Scope 3</b>	<ul style="list-style-type: none"> <li>• Network and distribution losses</li> <li>• Work-related driving</li> <li>• Purchased transportation</li> <li>• Air travel</li> <li>• Hotel stays</li> </ul>

Table 1: Overview of the extent and categories reported in the climate accounts 2023

**Greenhouse gasses:** The climate accounts primarily include the greenhouse gas CO<sub>2</sub>, as the contribution of other greenhouse gasses (i.e. CH<sub>4</sub>, N<sub>2</sub>O, HFCs, PFCs, SF<sub>6</sub> and NF<sub>3</sub>) for the mapped sources is limited. However, for purchased electricity and business trips, the CO<sub>2</sub> equivalent emission factor that

includes other greenhouse gasses was used. Since most of the greenhouse gasses are CO<sub>2</sub>, the term equivalents has not been used.

### 3.2 Calculation method

Greenhouse gas emission was calculated based on a simple formula, where *consumption* is multiplied by *emission factors*, see *Figure*.



Figure 3: Calculation principles for greenhouse gas emission

Consumption covers both petrol, energy and purchase and is shown with different units (e.g. km, MWh or DKK). Emission factors indicate greenhouse gas emission per unit used. The latest available factors from the official national data sources are used in the accounts. This also applies to other conversion factors used. The factors and data sources used are shown in *appendix 1*.

**Scope 1 – Emission from combustion of fossil fuels for company cars:** In 2023, Artelia had 31 company cars – 16 petrol, 11 diesel and 4 electric cars which include 2 diesel-driven lorries located at the office in Næstved. The electric cars have charging stations which is why emission from these cars is included in scope 2. The company also has a number of diesel-driven and hybrid personal company cars for which work-related driving is included in the climate accounts. Kilometres driven in own car are collected from an automatic vehicle mileage log book suitable for work-related driving. The transport is converted from kilometres driven to greenhouse gas emission (ton CO<sub>2</sub>) by using the energy consumption stated by the manufacturer (kWh/km) as well as emission factors (g CO<sub>2</sub>/km). The energy consumption and emission stated by the manufacturer is measured in a laboratory where the measuring method is based on international standards. Up until around 2018, NEDC was used in Europe which is deemed to underestimate energy consumption by up to approx. 40%. After 2018, the improved method WLTP has been used which is deemed to underestimate energy consumption by up to 20%. 20% have been added to the stated emission used in the accounts in order to take into account inefficient driving, idle running and external conditions that have not been included in the manufacturer's measuring.

**Scope 2 – Emission from purchased electricity and district heating supply:** Artelia's offices are supplied with purchased electricity and district heating from local utility companies. Electricity consumption was read on the electricity companies' self-service portals. Heating consumption and electricity production from solar cells in Buddinge were calculated via meter reading, including electricity consumption for electric cars registered with bi-meter. Heat consumption for rented premises in Aarhus, Aalborg, Fredericia, Næstved, Vordingborg and Odense was calculated by using final invoices from the owners.

For calculating greenhouse gas emission from electricity consumption, including transport in electric-power company cars, Energinet's environmental declaration for consumption of 1 kWh was used.

From here, the CO<sub>2</sub> equivalent emission factors were used calculated with the 200% method without loss in the transmission and distribution network as accounted for in scope 3. From 2017-2021, a national average was used, and in 2022 and 2023, emission factors were calculated at location level, divided into Denmark East and Denmark West. For calculating greenhouse gas emission from district heating consumption, the district heating declarations for each utility company were used. From here, the CO<sub>2</sub> equivalent emission factors were used calculated with the 200% method with a deduction in the distribution network losses as accounted for in scope 3.

**Scope 3 – Emission from business trips as well as network and distribution losses from purchased transportation:** Artelia's emission from business trips include all work-related driving in the employees' own cars and purchased transportation such as taxi, bus, ferry and plane. From the climate accounts 2022, the item business trips was expanded to also cover overnight stays at hotels.

Data on kilometres driven in the employees' own cars in connection with work was collected via an automatic vehicle mileage log book system suitable for work-related driving from which data can be collected from the specific cars used based on license plate information. Transport was converted from kilometres driven to energy consumption (MWh) and greenhouse gas emission (ton CO<sub>2</sub>) by using the manufacturer's stated energy consumption (kWh/km) as well as emission factors (g CO<sub>2</sub>/km). Transport in electric cars was converted to greenhouse gas emission with an emission factor for Danish average electricity from Energinet.dk's environmental declaration. An additional 20% of fuel and energy consumption and emission was added in order to take into account inefficient driving.

Data on transport with public transportation modes (bus, train, metro and light rail) paid with Artelia's travel card was collected from Rejsekort. Rejsekort could not deliver statements of travels made before 1 December 2018 which is why transport with public transportation in 2017 and 2018 was calculated under the assumption that transport per FTE was unchanged in 2019. Driving distance was calculated for each trip distributed on transportation mode and office. Climate impact from transportation by train was calculated with DSB's CO<sub>2</sub> emission factors for InterCity Trains, regional trains and S-trains per travelled passenger-kilometre while transportation by metro and bus was calculated with CO<sub>2</sub> emission factors per passenger-kilometre from the Metro Company and Movia, respectively. The CO<sub>2</sub> emission factor for light rail was assumed to correspond to transportation by metro.

Data on expenses for hotels and other purchased transportation by train, bus, taxi, ferry and plane was collected from Artelia's central accounting system. As for train, bus and ferry, expenses were converted to CO<sub>2</sub> emission by means of emission factors from the Danish Business Authority's CO<sub>2</sub> calculator *Klimakompasset* (the climate compass) and then converted to kilometres. As for transportation by taxi, a presumed driving cost of 24.2 DKK/km was used based on Dantaxi's price calculator. In addition, for calculation of CO<sub>2</sub> emission per kilometre, a distribution between electric cars and petrol/diesel cars of 22% and 78%, respectively, was assumed, corresponding to the distribution at Dantaxi. Air travel was calculated based on registrations regarding to/from destinations. The transport distance was divided into domestic and international travel before calculation of greenhouse gas emission. Climate impact from air travel in 2017-2018 was calculated with the GHG Protocol's emission factors for short distance and long distance flights. From 2019-2023, *Klimakompasset's* emission factors for flights were used. The emission factors used do not include the so-called Radiative Forcing Index (RFI) that take into consideration that greenhouse gasses emitted higher up in the atmosphere has a larger



greenhouse gas effect than corresponding volumes emitted by the surface of the earth. Similarly, climate impact from hotel stays was calculated with *Klimakompassets* emission factors in kg CO<sub>2</sub>/DKK.

Greenhouse gas emission from transmission and distribution losses in the Danish electricity network calculated from Energinet's environmental declaration for use of 1 kWh were used where the CO<sub>2</sub> equivalent emission factors calculated with the 200% method were used. Loss in the network from 2021 to 2023 is stated in the environmental declaration where the loss from 2023 was based on the preliminary environmental declaration which is a 4% distribution loss. From 2017 to 2020, standard losses of 2.5% and 5% were used for transmission and distribution, respectively.

### **3.3 Expanded categories**

In 2023, we expanded our reporting basis by adding more reporting items under scope 3. These new categories include purchase of food and beverages, IT equipment, water consumption, office furniture and cleaning as well as statement of waste and waste management distributed into sorting for combustion, reutilisation and biogassing.

However, it was a challenge to collect sufficient data from all of our offices regarding the categories purchase of products, services as well as waste and waste management. The missing data resulted in the new categories not being included in the final CO<sub>2</sub> statement for 2023. Due to that, it has not yet been relevant to seek data from the basis year since a comparison of the emission will not reach optimal conditions for comparison. We strive to collect sufficient data for the climate report 2024 for the new categories to be included in our total CO<sub>2</sub> statement from now on.

### **3.4 Consumption figures**

During the preparation of the climate accounts, the heating and water consumption figures for the offices in Buddinge, Aarhus and Fredericia were not available at the reporting date, and it was there assumed that these figures correspond to data based on the 2022 consumption. The consumption figures will be updated in the 2024 climate report, which is the same practice as previous years. We are in dialogue with the utility companies regarding getting access to the consumption figures earlier.

### **3.5 Emission factors**

Not all district heating companies publish a district heating declaration each year. For previous climate accounts, the same emission factors were therefore assumed for the missing years as those stated for the preceding or subsequent years. The climate accounts 2023 used Energistyrelsen's emission factors for heat delivered based on data from the district heating companies.

In *appendix 1*, an overview is presented of the emission factors used distributed between categories within scopes 1, 2 and 3.

#### 4 Basic information

Artelia is a consulting engineering company within buildings and civil works with more than 1,200 employees spread across offices in Buddinge, Aarhus, Aalborg, Næstved, Vordingborg, Fredericia, Vipperød and Odense. The number of FTE at the Danish offices was in average 1007 in 2023 which is an increase of approx. 85% or 462 FTE since 2017. The total heated office area was 17,382 m<sup>2</sup> in 2023. That is an increase of 4,934 m<sup>2</sup> since 2017, which is due to an expansion of the domicile in Buddinge in 2018 as well as the establishment of offices in Næstved in 2018, Odense in 2021 and the expansion of the office in Vordingborg in 2023. The figures below show the distribution of area and FTE at the Danish offices in 2023. In addition to offices, Artelia has a storage facility in Rødovre and a holiday home in Ebeltoft.



Location	Office	Rented premises (m <sup>2</sup> )	Rented premises heated (m <sup>2</sup> )	FTE	FTE/m <sup>2</sup> (rented property)
KBH	Buddinge	17,017	11,332	662	18
VIP	Vipperød	-	-	20	-
AAR	Aarhus	12,406	1,764	125	14
AAL	Aalborg	3,330	1,010	73	14
SYD	Fredericia	3,069	620	35	18
SYD	Odense	1,272	109	4	27
SJÆ	Vordingborg	1,215	1,215	56	22
SJÆ	Næstved	1,047	1,004	32	33
<b>Artelia</b>		<b>39,356</b>	<b>17,382</b>	<b>1,007</b>	<b>18</b>
<b>Rødovre</b>	Storage facility	660	660	-	-
<b>Ebeltoft</b>	Holiday home	63	63	-	-

Table 2: Basic information for Artelia offices as well as storage facility and holiday home

## 5 Consumption

### 5.1 Electricity and heat consumption

Artelia's offices are supplied with purchased electricity and district heating from the local utility companies. In addition, the offices in Buddinge and Aarhus have their own production of power from solar cells. It was, however, not possible to account for the volume of power from solar cells for the office in Aarhus as the solar power plant is a common system for the entire building. No energy-saving initiatives or extraordinary operation optimisations of the Danish offices were implemented in 2023.

In 2023, a total of 1,634 MWh electricity and 886 MWh district heating were used at the offices, corresponding to 41.6 kWh electricity/m<sup>2</sup> and 49.8 kWh district heating/m<sup>2</sup>. The distribution of energy consumption from 2017-2023 at office level is seen in the figures below. Consumption of electricity and heat has increased significantly since 2017 due to the above-mentioned expansion in Buddinge and the establishment of new offices in Næstved in 2018 and Odense in 2021 as well as a constant increase in number of employees each year. Nevertheless, the heat consumption per m<sup>2</sup> was 23% lower than in 2017.

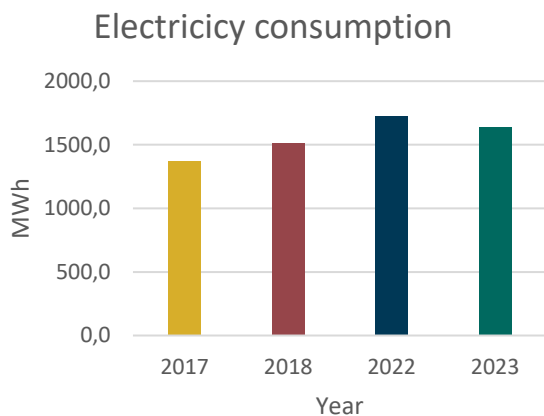


Figure 4: Electricity consumption from Artelia's offices from 2017-2023

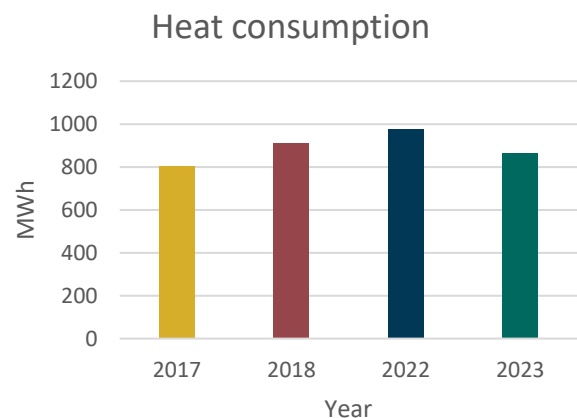


Figure 5: Heat consumption from Artelia's offices from 2017-2023

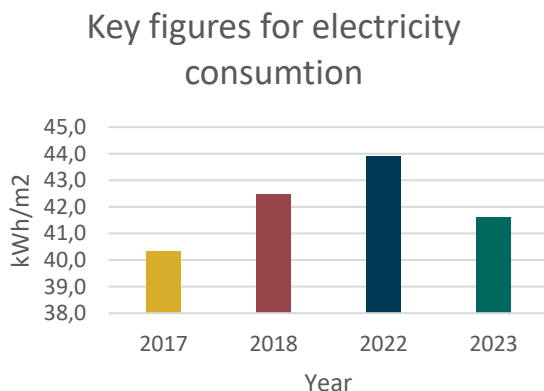


Figure 6: Electricity consumption per area from Artelia's offices

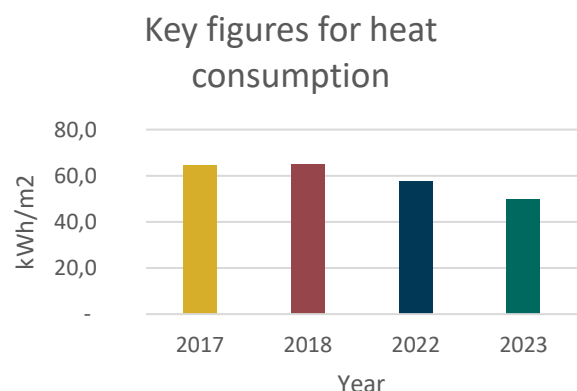


Figure 7: Heat consumption per area from Artelia's offices

## 5.2 Transportation

Artelia have a number of company cars that run on either petrol, diesel or electricity. In addition, work-related transportation is made in the employees' own cars, with public transportation modes – including train, bus, metro and light rail – as well as taxi, ferry and plane. The development in work-related transportation is seen in the below figures distributed between number of kilometres driven and kilometres/FTE in 2017, 2018, 2022 and 2023. In addition, the offices in Buddinge, Aarhus and Alborg have four company bikes which can be borrowed for transport to meetings. There is no registration of number of kilometres ridden by bike, so this was not included in the climate report.

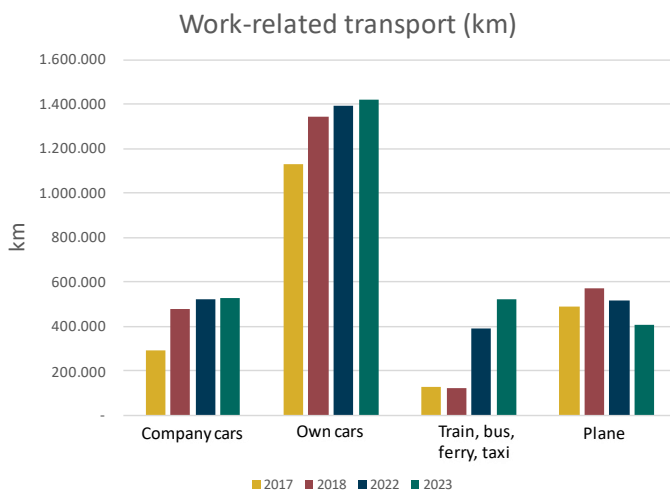


Figure 8: Development in Artelia's work-related transportation in kilometres from 2017-2023 distributed by transportation modes

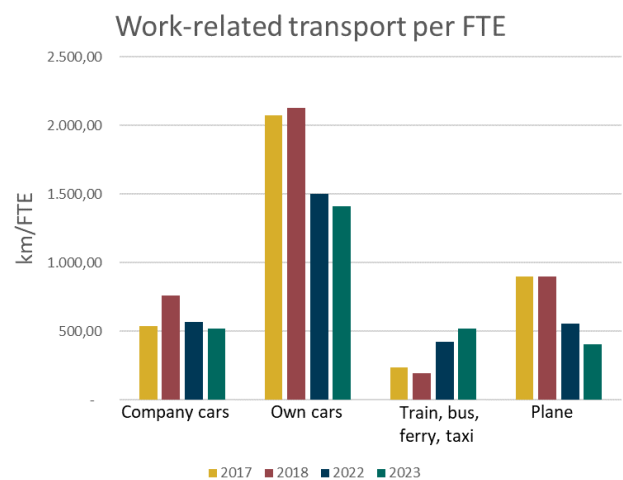


Figure 9: Development in Artelia's average work-related transportation in kilometre /FTE from 2017-2023 distributed by transportation modes

In 2023, a total of 2.88 million kilometres work-related transportation was made in company cars, own cars, taxi, bus, train, ferry and plane by employees, corresponding to approx. 2,858 kilometres per FTE. The total number of kilometres has increased significantly since 2017 due to the increase in number of employees, but the total number of kilometres per FTE, however, has decrease since 2017 when it was 3,758 kilometres/FTE.

The total number of kilometres driven has increased by 40.5% since 2017 as the number of FTE has increased by 85%. Average driving FTE in own cars has decreased by 32% from 2,076 km/FTE in 2017 to 1,410 km/FTE in 2023. The decrease may be because it has become more widespread to have virtual rather than physical meetings. In addition, there is a tendency for more people to use the opportunity to work from home and choose public transportation.

Next to driving in own cars, most transportation was made in company cars. In this category, the total number of kilometres driven has no not increased significantly even though the number of employees has increased. Likewise, the number of business trips by plane has not increased which means that kilometres/FTE for air travel has decreased since 2017.

## 6 Greenhouse gas emission

### 6.1 Emission in 2023

In 2023, Artelia's greenhouse gas emission from the Danish offices was 632 ton CO<sub>2</sub> corresponding to 0.63 ton CO<sub>2</sub> per FTE. The distribution between sources to the greenhouse gas emission is seen in the figure below.

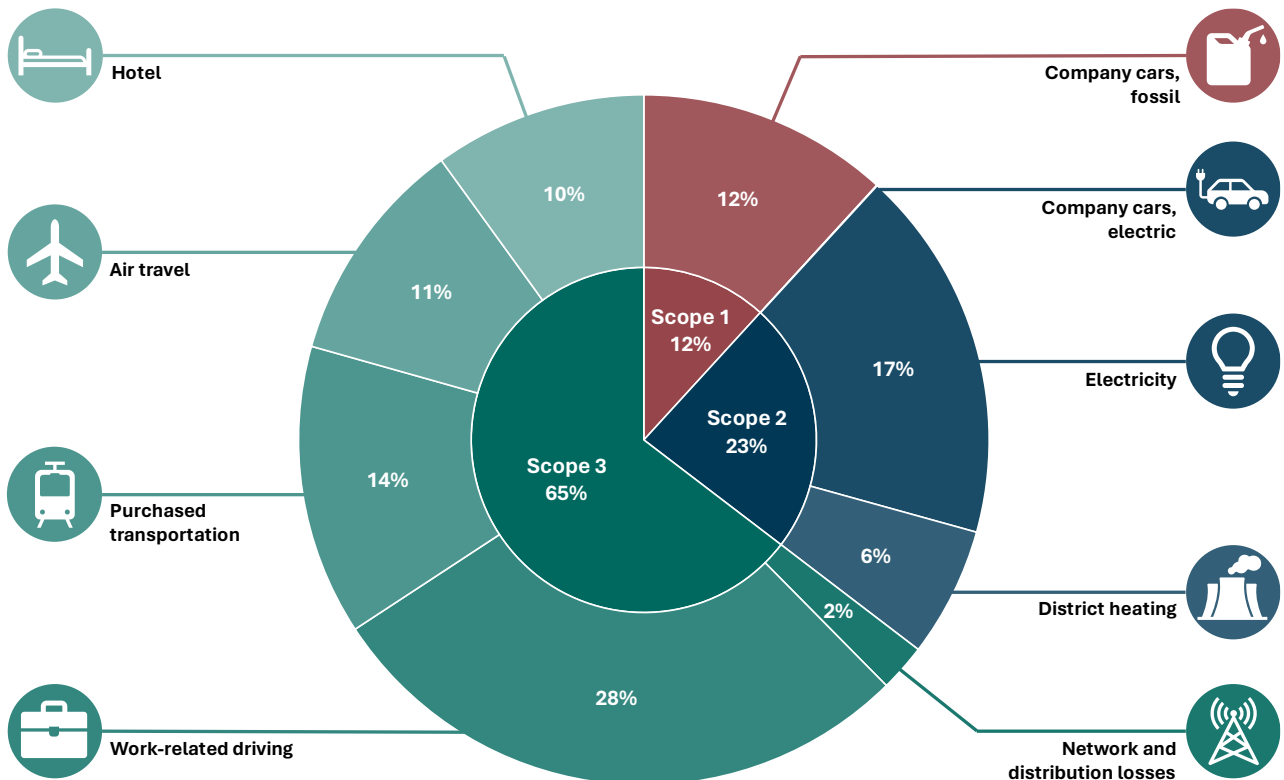


Figure 10: Distribution of CO<sub>2</sub> emission from Artelia's activities distributed between scopes 1, 2 and 3.

#### Scope 1 emission

Scope 1 emission from company cars constituted 12% of the total emission.

#### Scope 2 emission

Scope 2 emission from purchased electricity and district heating constituted 23% of the total emission in 2023. Electricity for building electricity constituted the majority of the scope 2 emission as well as the second largest part of the total greenhouse gas emission.

Artelia buys origin guarantees corresponding to the electricity need from the Danish offices. The investment in certificates from sustainable energy sources contribute indirectly to a greener electricity network as it helps promote the construction of new sustainable energy sources. This possible reduction in CO<sub>2</sub> emission was not deducted in climate report 2023.

### Scope 3 emission

Emission from network and distribution losses and business trips constituted 65% of the total emission in 2023 and was with that the biggest contribution to Artelia's climate footprint. In addition, work-related driving in own cars constituted the majority of the emission in scope 3 and the majority of the total greenhouse gas emission. The other categories, including hotel stays, air travel and other purchased transportation combined constituted 37% of the total greenhouse gas emission.

### Scope 3 emission – new categories

Calculations were made on new scope 3 categories in 2023 which will have a great impact on the total picture of Artelia's CO<sub>2</sub> statement as the new categories account for a significant part of the emission. In connection with the implementation of new categories – including the purchase of products and services as well as waste and waste management – the distribution of CO<sub>2</sub> emission will be as seen below in *figure 11*.

## EMISSION DISTRIBUTED ON SCOPES WITH NEW CATEGORIES

■ Scope 1 ■ Scope 2 ■ Scope 3 ■ Scope 3 (new)

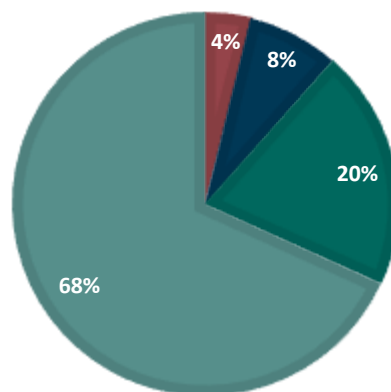


Figure 11: Presumed distribution of emission in scopes 1, 2 and 3 by including new reporting items

The distribution gives a picture of how large emission would be when including the new categories in the accounts, but for the 2023 report, the specific figures were too imprecise and therefore not accurate to include in the total CO<sub>2</sub> statement.

## 6.2 Development compared to basis year

Emission compared to basis year is shown in the table where the total CO<sub>2</sub> emission as well as changes to the emission is calculated in total ton CO<sub>2</sub> and CO<sub>2</sub> per FTE.

	CO <sub>2</sub> emission			Changes compared to basis year	
	ton CO <sub>2</sub>	ton CO <sub>2</sub> /FTE	Distribution	ton CO <sub>2</sub>	ton CO <sub>2</sub> /FTE
<b>Scope 1</b>			12%		
Company cars, fossil	76	0.08	12%	27.7	- 0.01
<b>Scope 2</b>			23%		
Company cars, electric	0.2	0.0002	0%	- 0.8	- 0.002
Electricity	113	0.11	17%	- 169.0	- 0.41
District heating	39	0.04	6%	- 1.0	- 0.03
<b>Scope 3</b>			65%		
Network and distribution losses	14	0.01	2%	- 15.1	- 0.04
Work-related driving	181	0.18	28%	- 2.7	- 0.16
Purchased transportation	75	0.07	14%	39.5	0.01
Air travel	69	0.07	11%	10.2	- 0.04
Hotel stays	64	0.06	10%	35.6	0.01
<b>Total</b>	<b>632</b>	<b>0.63</b>		<b>- 77.6</b>	<b>- 0.7</b>

Table 3: The total CO<sub>2</sub> emission in 2023, CO<sub>2</sub> emission per FTE and the distribution as well as changes compared to the basis year (2017)

In 2023, the greenhouse gas emission was 11.6% lower than in 2017 within the same measurement categories, corresponding to a reduction of 77.6 ton CO<sub>2</sub>. Measured per FTE, greenhouse gas emission was reduced significantly between 2017 and 2023 with a total of 50.7% – from 1.3 ton CO<sub>2</sub> per FTE in 2017 to 0.63 ton CO<sub>2</sub> per FTE in 2023. Since the number of FTE in the period increased by 85%, the development was caused both by an increase in employee density per area but also by the significant decrease in work-related transportation.

## 7 Conclusion

In 2023, the total greenhouse gas emission from Artelia was 632 ton CO<sub>2</sub>, corresponding to 0.63 ton per FTE. The emission primarily came from work-related driving in the employees' own cars, electricity for building purposes, purchased transportation and – to a smaller degree – driving in company cars, air travel, hotel stays, consumption of district heating as well as network and distribution losses.

The main reason for the reduction in CO<sub>2</sub> emission is primarily due to a significant reduction in emission from electricity as a result of the green transmission in the Danish electricity network and heat production. At the same time, the number of FTE has increased by 85%, and today there is a larger density in employees per area office premises.

The total consumption of electricity and district heating has increased since 2017 due to growth in staff and area expansions. In 2023, a total of 1,637.7 MWh electricity and 866 MWh district heating was used at the Danish offices corresponding to 42 kWh electricity/m<sup>2</sup> and 50 kWh district heating /m<sup>2</sup>. Overall, the offices therefore has a higher electricity consumption per area than the industry average for consulting engineering companies which is at 33.7 kWh electricity/m<sup>2</sup> which means that there is a potential for implementing electricity savings.

In a national and international perspective, it is obvious that if we are going to meet the goals in the Paris Agreement to keep the global temperature rise below 1.5 °C, companies must contribute significantly. One tool to help companies set ambitious climate goals within the frames of the Paris Agreement is the international standard Science Based Targets initiative which is developed in a collaboration between World Resources Institute, UN Global Compact, WWF among others. In Artelia, we have committed to SBTi and with that also the reduction target. According to this tool, Artelia's climate goals should – as a minimum – be to reduce scope 1 and 2 emission by 50% by 2030 and to map and measure all the company's scope 3 emission. This goal should be included in the assessment of the latest years' accounts and the following accounts. This has contributed to Artelia Group being granted the EcoVadis Platinum award in 2023. The award is based on the EcoVadis assessment system which focuses on four main themes: Environment, work and human rights, ethics and sustainable purchase.



SCIENCE  
BASED  
TARGETS





## 8 Reflections and future work

In 2024, our primary focus areas will be based on including the employees to contribute to Artelia's CSR goals.

- Reduce our CO<sub>2</sub> emission from own operation but primarily in the project we are involved in.
- Create incentives to more sustainable behaviour and strengthen the level of qualifications through education.
- Strengthen our knowledge and qualifications within biodiversity.
- To an even larger extent work determinedly towards initiatives to support our social responsibility.

The above goals will be pursued among other things by launching initiatives that involve employees and affect their behaviour in a greener direction and with that promote sustainability in Artelia.

It is recommended to create an action plan for initiatives that can both reduce the transportation need and help the company's employees make greener transportation choices. Examples of initiatives could, for instance, include a greater shift from physical meetings to virtual meeting and the development of a company transportation policy focusing on electric cars, company cars, public transportation, bicycles or similar options. In the larger cities, Artelia could provide electric bicycles in order to move some of the work-related driving from cars to bicycles.

From now on, efforts will be made to incorporate measurements of additional categories from the GHG Protocol in order to map a more precise picture of Artelia's CO<sub>2</sub> emission and reduction. We particularly recommend measuring the following scope 3 categories in 2024:

- Purchased service and products
- Capital goods
- Waste and waste management
- Employee commuting to/from work

The GHG categories will contribute to a more precise estimate of Artelia's total CO<sub>2</sub> emission and form the basis for the adjustment of future performances and priority of the performances and with that reduce the climate impact and promote sustainability.

## Appendix 1 – emission factors

Emission factors			
Scope	Category	Unit	Source
Scope 1	Company cars	kg CO <sub>2</sub> eq/km	Technical information from car manufacturer, Motor register (2017-2022)
Scope 2	Electricity	kg CO <sub>2</sub> eq/MWh	Energinet, Preliminary environmental declaration (2023)
	District heating	kg CO <sub>2</sub> eq/MWh	District heating declarations, location based (2023) Energinet, Preliminary environmental declaration (2023)
Scope 3	Network loss, electricity	kg CO <sub>2</sub> eq/MWh	Energinet, Preliminary environmental declaration (2023)
	Network loss, heat	kg CO <sub>2</sub> eq/MWh	District heating declarations, location based (2023)
	Work-related driving, own cars	kg CO <sub>2</sub> eq/km	Technical information from car manufacturer, Motor register (2017-2022) DCE, Energinet environmental declaration, 2022 (Energinet, 2023) UK Government GHG Conversion Factors for Company Reporting (DEFRA, 2023)
	Purchased transportation	kg CO <sub>2</sub> eq/person.km kg CO <sub>2</sub> eq/DKK	DSB Environmental report 2017-22 Metroselskabet CSR report 2017-20 MOVIA Environmental accounts 2017-2020 and MOVIA CSR 2021 DCE (2020), Person transportation by mode of transportation (DST, 2021) UK Government GHG Conversion Factors for Company Reporting (DEFRA, 2023) EXIOBASE v3.3.16b2 (v. 2020 m. 2011 data)
	Air travel	kg CO <sub>2</sub> eq/person.km	GHG Protocol 2017: Emissions Factors from Cross Sector Tools (2017-18) UK Government GHG Conversion Factors for Company Reporting (DEFRA, 2023)
	Hotel stays	kg CO <sub>2</sub> eq/DKK	EXIOBASE v3.3.16b2 (v. 2020 m. 2011 data)