

Company Carbon Footprint 2018



Act for tomorrow.

Message to the Colleagues

Dear colleagues,

More than ever, climate change is threatening the global ecosystem and thus the livelihoods of animals and humans. At the same time, there are rising expectations towards companies to act in a more reflected, determined and proactive manner in order to protect the environment. As a company group, we are committed to taking responsibility for the environmental impacts of our business activities. For 2017 our first Company Carbon Footprint (CCF) has been calculated and accordingly all greenhouse gas emissions resulting from our activities have been considered. With the renewed collection of the CCF data for the year 2018, we can now compare figures for the first time.

The calculated greenhouse gas emissions serve as performance indicators that reflect the environmental impact of our activities. Greenhouse gases are responsible for climate change and associated environmental disasters such as droughts, forest fires and floods. This report provides an insight into the sources of emissions in our Group and their impact on the environment. The values recorded in the CCF serve as the basis for deriving measures to reduce emissions.

Our aim to reduce our climate-relevant emissions requires regular reflection on our business activities. For that reason, we would like to invite you, dear colleagues, to view this goal as a shared one. We encourage you to take up this challenge and look for creative solutions in order to bring about a positive change for the benefit of our environment. Each of us can contribute.

Enjoy reading this report.



Thomas Wünsche



Björn Peters



FOOD

WÜNSCHE
Food

FASHION

CONterra

NATH

hubermasche

promtex

JANSEN
fashion group

DUO

CRONERT

ELECTRONICS

Globaltronics

LINUX

MÜLLER
LICHT

MAX
POWER
PRODUCTS

NON-FOOD

DARIO

Monz

sportplus

flexxtrade

TRADIX

KARPATI

COMPANY

E-COMMERCE

LATUPO

SERVICES

WÜNSCHE
SERVICES

WÜNSCHE
ASIA

eurocentra
ASIA

eurocentra
AUSTRALIA

WÜNSCHE
Brands

WÜNSCHE
UK

eurocentra
USA

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Methodology

The basis for calculating the Company Carbon Footprint is the Greenhouse Gas (GHG) Protocol. It distinguishes three categories, called Scopes. Scope 1 includes all direct greenhouse gas emissions generated at the sites or by the vehicles owned by the company. Scope 2 includes all indirect emissions caused by the generation of purchased energy. All other emissions that occur along the value chain are summarised under Scope 3. Scope 3 ranges from the production of raw materials for the respective products, to their distribution and their use by consumers, and to disposal or recycling.

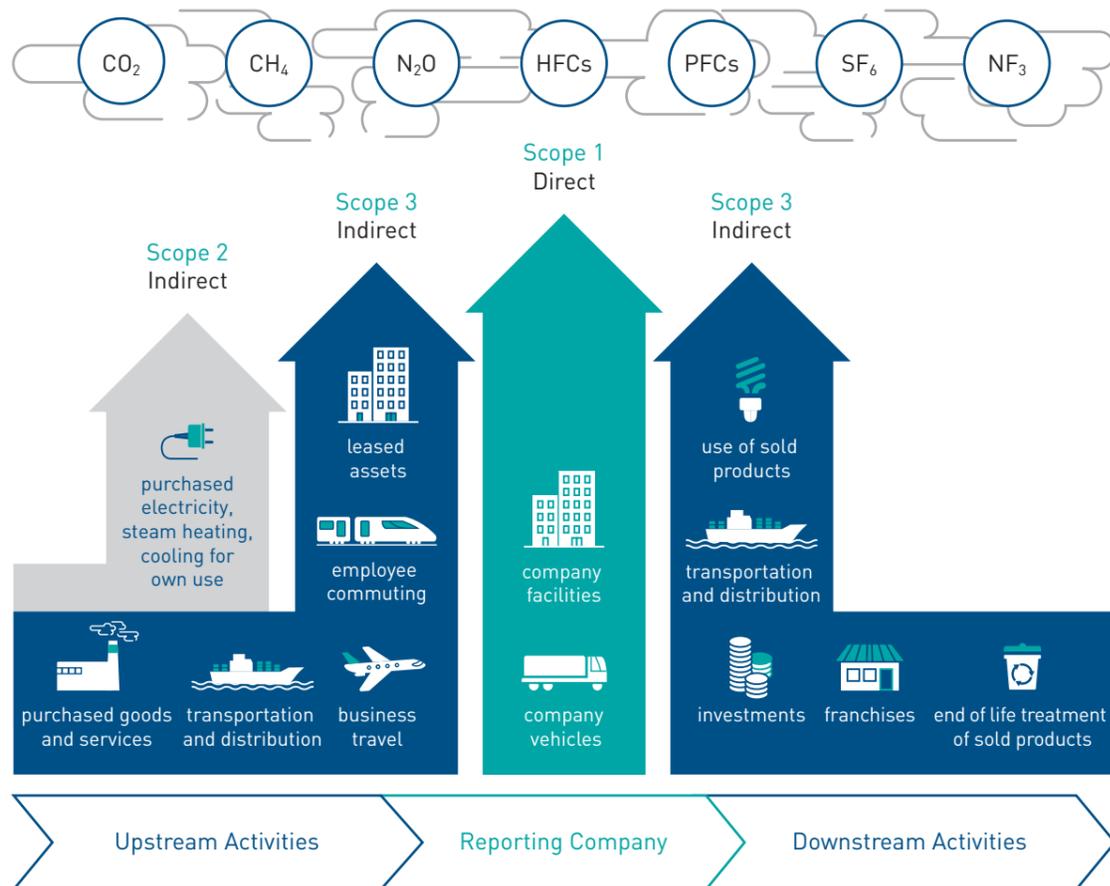
The following report covers Scope 1 as well as Scope 2 for all sites of the Wünsche Group. In this regard, electricity and heating consumption as well as consumption data of company cars were collected. These values were then multiplied by the respective emission factor. The emission factor indicates the number of emissions per consumed unit of a certain raw material. Not only CO₂ has a harmful effect on the climate, but also other gases. These are taken into account in so-called CO₂ equivalents. This enables us to present and compare all greenhouse gas emissions uniformly. Since emission factors depend on differing sub-

stances and processes, they can change over time. We have used updated emission factors for 2018. For example, the emission factor for the German electricity mix was 0.489 kg CO₂/kWh in 2017 and 0.474 kg CO₂/kWh in 2018.¹ Concerning heating, at some of our locations, district heating (Scope 2) is used instead of natural gas or heating oil (Scope 1). District heating plants are mostly powered by fossil fuels such as coal or oil. Current measurements show that emissions from district heating are higher compared to those from natural gas and heating oil, given the same consumption of kWh. The following updated emission factors show how the three energy sources mentioned perform in terms of their environmental impact: district heating 0.280 kg CO₂/kWh, heating oil 0.266 kg CO₂/kWh, natural gas 0.202 kg CO₂/kWh.²

In cases where no specific data were available, consumption values from the previous year or projections were used. For those business flights for which only approximate information on the distance flown was available, the emissions were extrapolated as in the previous year using the following dummies: short-haul flights 200 kg CO₂, medium-haul flights 800 kg CO₂, long-haul flights 3,000 kg CO₂.

The companies Saphir and SHG stopped their operations in 2018. Nevertheless, we have information on these companies on logistics and business flights that is relevant for the total emissions of the Wünsche Group. We have included this information in our calculations. With an amount of 110 tons of CO₂ at SHG and 746 tons of CO₂ at Saphir, the companies together account for around 2.3% of total emissions in 2018. Besides that, Starlite has now become part of Müller-Licht. The Starlite office in France was closed in January 2019. Relevant data from 2018 on the French location were not available, which is why Starlite is not included in this report. Some of the sites mentioned in the following chapters have been renamed "Wünsche" from "Euro Centra" (and some textile companies are now divisions of the newly created Wünsche Fashion). In this report, names of companies that were valid in 2018 are used.

In Scope 3 it is difficult to collect all emissions due to the limited availability of data. We have decided to include logistics and air travel in this category. Both logistics and business flights play a key role in the Wünsche Group's business model, which is also reflected in the amount of emissions generated. Compared to the previous year, the information on logistics could be expanded: adding to the data records on sea freight, data on air freight and international rail freight were available and considered in the calculations. However, this does not include distribution within the destination country. Emissions from sea and air freight logistics were calculated with help of the DB Schenker³ emissions calculator using the start and destination ports and either the number of TEU or the transport weight. The EcoTransIT⁴ emissions calculator was used to account for emissions from rail freight logistics. Furthermore, the emission calculator from atmosfair⁵ was used to record the CO₂ emitted by business flights.



Source: Adaptation based on the GHG Protocol

The Wünsche Group as a Whole

The Group's total emissions in 2018 amount to 37,756 tons of CO₂. Excluding the emissions from air and rail freight, which were recorded for the first time, emissions still increased by 3,148 tons of CO₂ or 13% compared with the previous year.

The main source of the higher emissions can be found in sea freight logistics. If only Scope 1 and Scope 2 (excluding logistics and flights) are considered, emissions increased by 15 tons of CO₂, which corresponds to an increase of less than 1%. 646 tons of CO₂ were generated by company cars and 345 tons of CO₂ by gas and heating oil

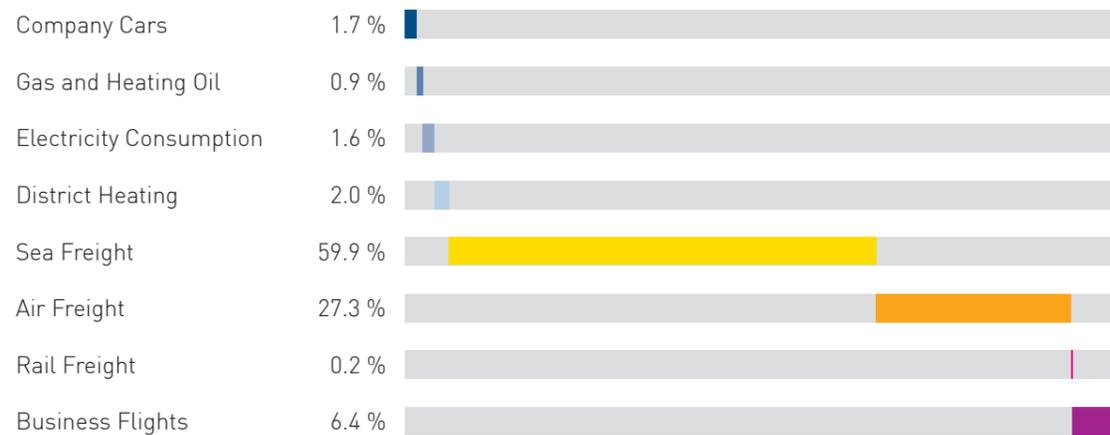
consumption in Scope 1. These emission sources show a reduction in CO₂ emissions. However, emissions from district heating (Scope 2) have risen significantly and, excluding Scope 3, account for the largest share of total emissions. The decisive factors for the change are updated emission factors and the inclusion of more companies with this heating source. With 22,619 tons of CO₂, the largest share of total emissions was caused by sea freight logistics (Scope 3). Sea freight emissions increased by 15.4% compared with the previous year. This is due to additional data available on more companies as well as a general increase in the number of

containers shipped. Also significant are emissions from air freight, which amount to 10,325 tons of CO₂. Rail freight accounts for 70 tons of CO₂. In Scope 3, emissions from air travel also rose by 4.7%, from 2,291 tons of CO₂ in 2017 to 2,399 tons of CO₂ in 2018.

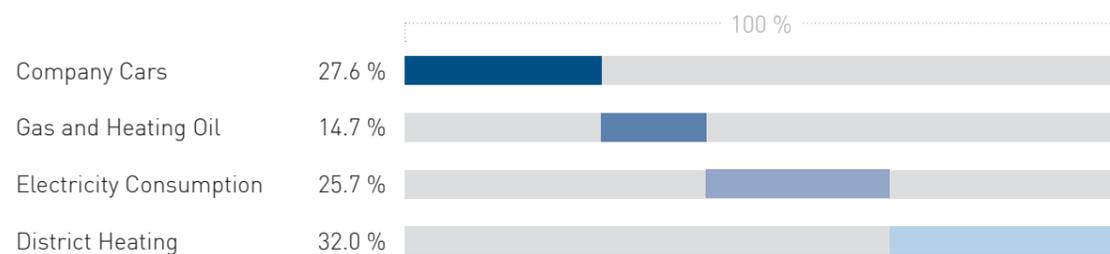
In addition, information on the consumption of printing paper was captured in the course of the Company Carbon Footprint data collection. Data quality has improved compared to the previous year, especially as more detailed information on paper consumption has been provided.

In 2018, employees in the Wünsche Group consumed 3,810 sheets of printing paper per capita, which corresponds to a total of more than 4.7 million sheets. In order to produce this quantity, 236 trees have to be felled, which require about the area of an entire football field. Compared with 2017, there has been a decline of approximately one million sheets. The average per capita consumption has decreased accordingly by 1,190 sheets. The current share of recycled paper is 2.5%. Furthermore, 29.0% of the paper consumed is FSC-Mix-certified and 7.9% PEFC-certified.⁶

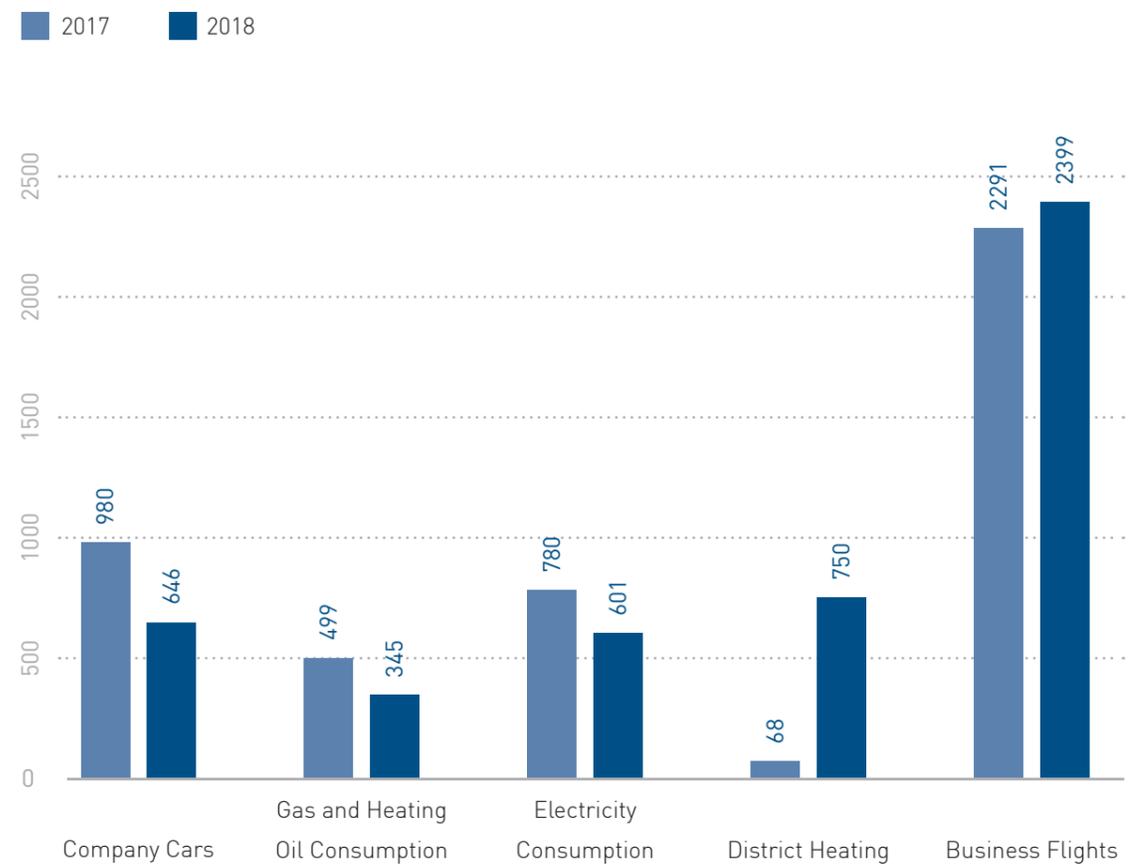
Total Emissions of the Company Group including Scope 3



Total Emissions of the Company Group excluding Scope 3



Comparison of Emissions 2017/18 excluding logistics (tons of CO₂)



	<p>Company Cars</p>	<p>Scope 1</p>
	<p>Gas and Heating Oil Consumption</p>	
	<p>Electricity Consumption</p>	<p>Scope 2</p>
	<p>District Heating</p>	
	<p>Logistics</p>	<p>Scope 3</p>
	<p>Business Flights</p>	

Examination of the Scopes

In the following, the results of the Company Carbon Footprint assessment are presented and examined in exemplary manner. For the presentation of the proportional correlations of the emissions from Scope 1 and 2, the emissions from Scope 3 are initially excluded. Since a large share of the Group's total emissions fall under Scope 3, both comparability and informative value would otherwise be greatly reduced.



Scope 1

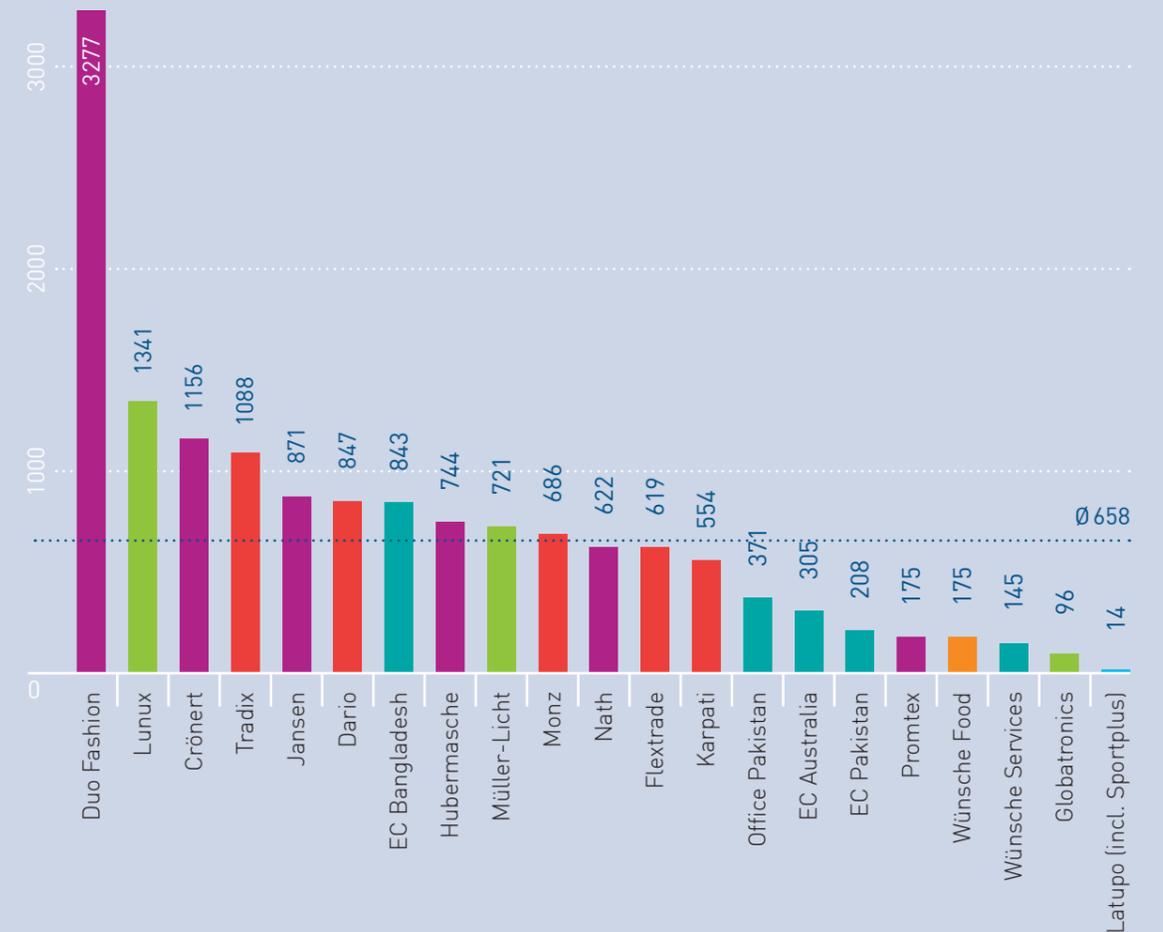
Company Cars

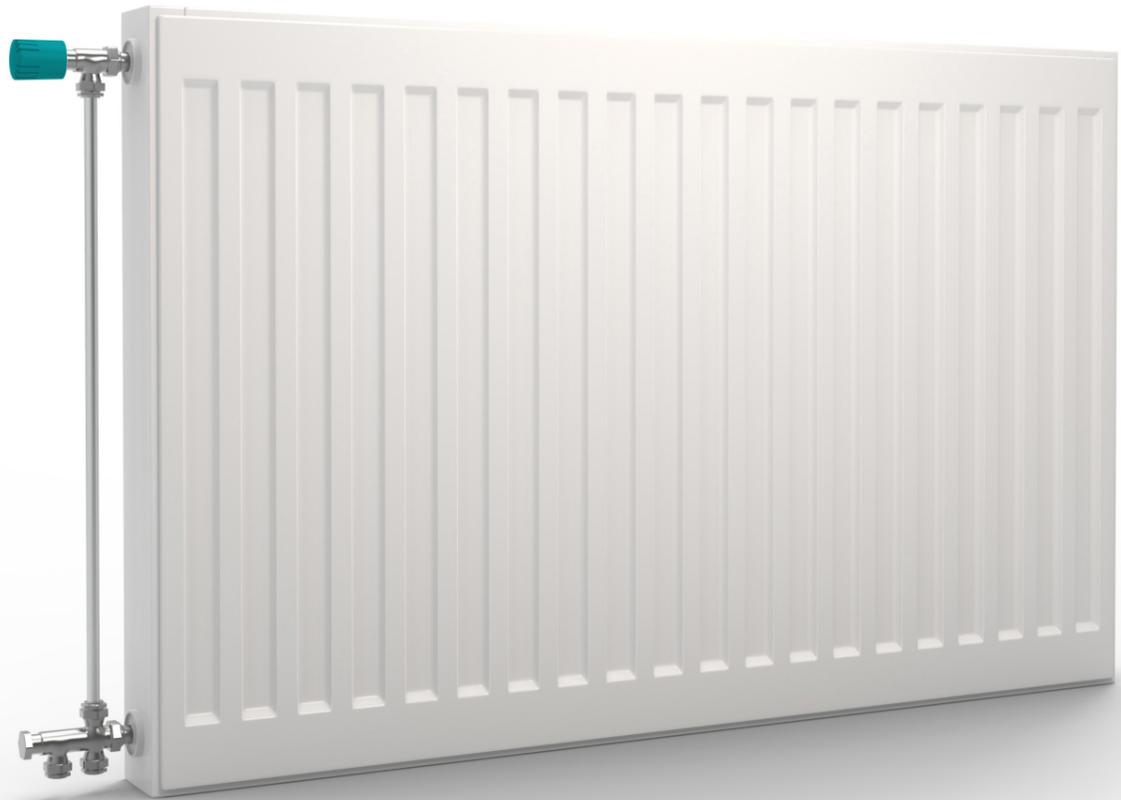
In 2018, the employees of the Wünsche Group drove a distance of 3,374,463 km in their company cars. This corresponds to 8.8 times the distance to the moon. The 115 vehicles that have been recorded consumed around 250,000 litres of fuel as a result. **Emissions from company cars amounted to 646 tons of CO₂, 34.1% less than in the previous year.** This reduction is due to a lower number of company cars in the fleet as well as the improved quality of the underlying data: in 2017, distances according to leasing contracts served as the basis

for the calculation to a large extent, whereas in 2018 the distances actually driven could increasingly be included.

The following distribution of per capita emissions from company cars (in kg CO₂) can be seen for the Group companies in 2018. The reason for the higher per capita emissions at Duo Fashion is the comparatively higher use of two company cars whose emissions are divided among only five people.

Per Capita Emissions from Company Cars [kg CO₂]





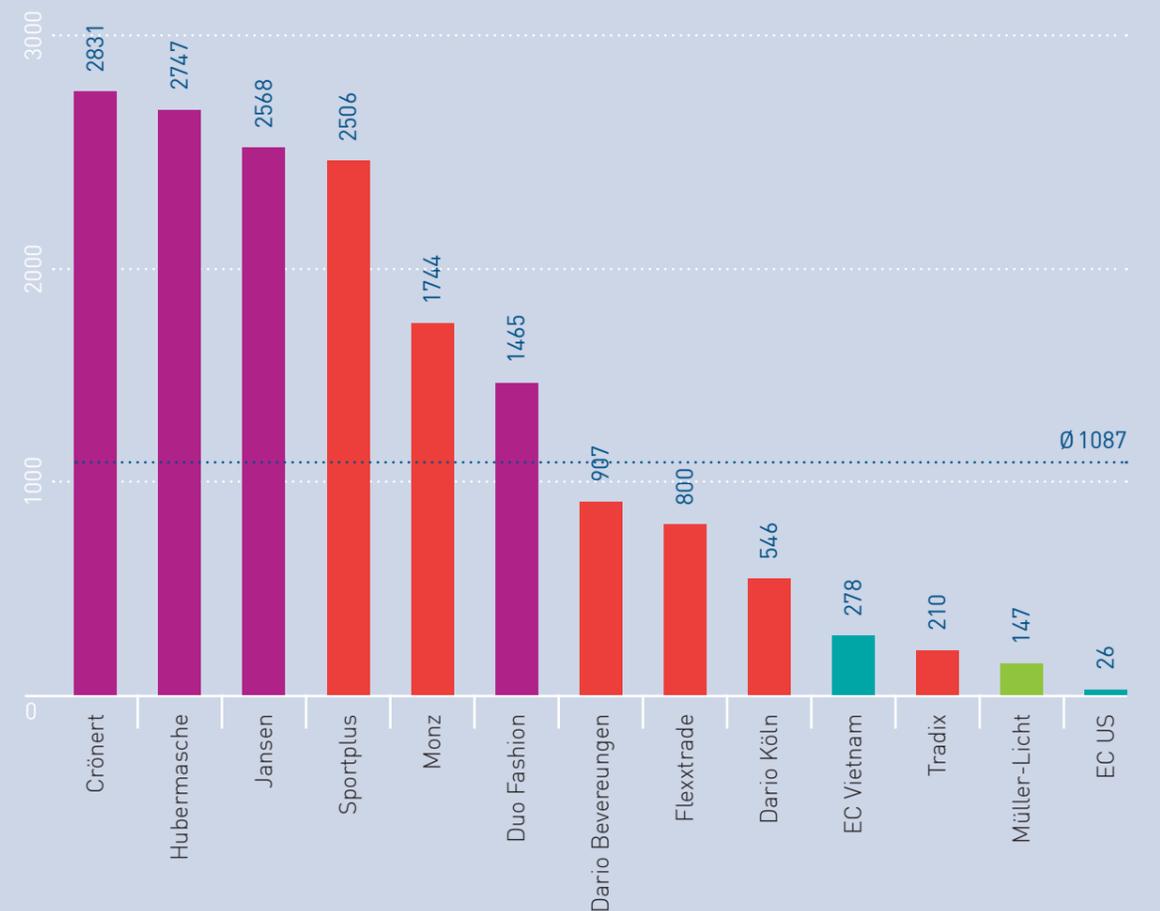
Scope 1

Gas and Heating Oil Consumption

The majority of the energy used to heat the companies' buildings consisted of natural gas, although in some cases district heating (included in Scope 2) and, in the case of Crönert, heating oil was also used. The following graph illustrates the per capita emissions caused by gas and heating oil consumption at the individual locations. On average, these are 1,087 kg CO₂ per person. **Total emissions from gas and heating oil consumption amount to 345 tons of CO₂ in 2018 and have thus fallen by around 30.9% compared to 2017.** This decrease can be explained, among

other things, by the inclusion of more sites under the category for district heating (Scope 2) for 2018, as well as lower, updated emission factors. In addition, the total consumption of gas and heating oil (in kWh) by the companies listed below decreased slightly. The differences between the individual sites are partly due to the geographical location as well as the different ratios of office space to employees. Not to be neglected is also that neither for Hubermasche, Jansen nor Sportplus the heating of the offices could be clearly separated from those of the warehouse.

Per Capita Emissions from Gas and Heating Oil Consumption [kg CO₂]





Scope 2

Electricity Consumption

Total emissions from electricity are 179 tons of CO₂ or 22.9% lower than in the previous year.

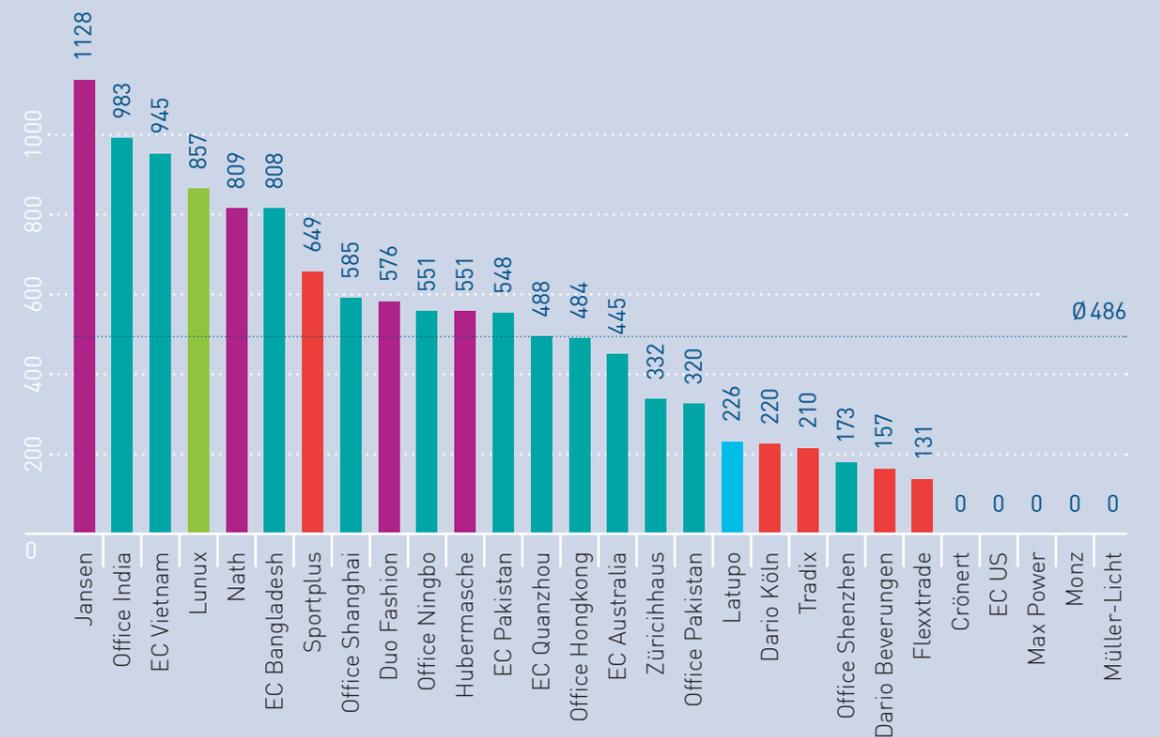
The total electricity consumption in kWh did not change significantly. However, the emission factor for the German electricity mix decreased to 0.474 kg CO₂/kWh as renewable energies were expanded in Germany. The share of renewable energies in the German electricity sector was about 38% in 2018 compared to 36% in 2017.⁷ The reduction in total emissions continues to result from the increased number of companies in the Wünsche

Group with a relatively high proportion of green electricity (electricity from renewable energy sources). Another positive aspect is that 70,851 kWh of solar energy were produced by photovoltaic systems at Hubermasche and 22,734 kWh at Müller-Licht. The conventional production of this amount of electricity would cause 44 tons of CO₂. With regard to the per capita emissions shown below, it should be noted that Nath uses a heat pump to heat the office, which also consumes electricity.

Companies with Green Electricity:

Crönert **100%**, Euro Centra US **100%**, Max Power **100%**, Monz **100%**, Müller-Licht **100%**, Flexxtrade **78.3%**, Lunux **55%**, Latupo **52.9%**, Duo Fashion **51.5%**, Sportplus **46.8%**, Tradix **45.3%**

Per Capita Emissions from Electricity Consumption (kg CO₂)





Scope 2

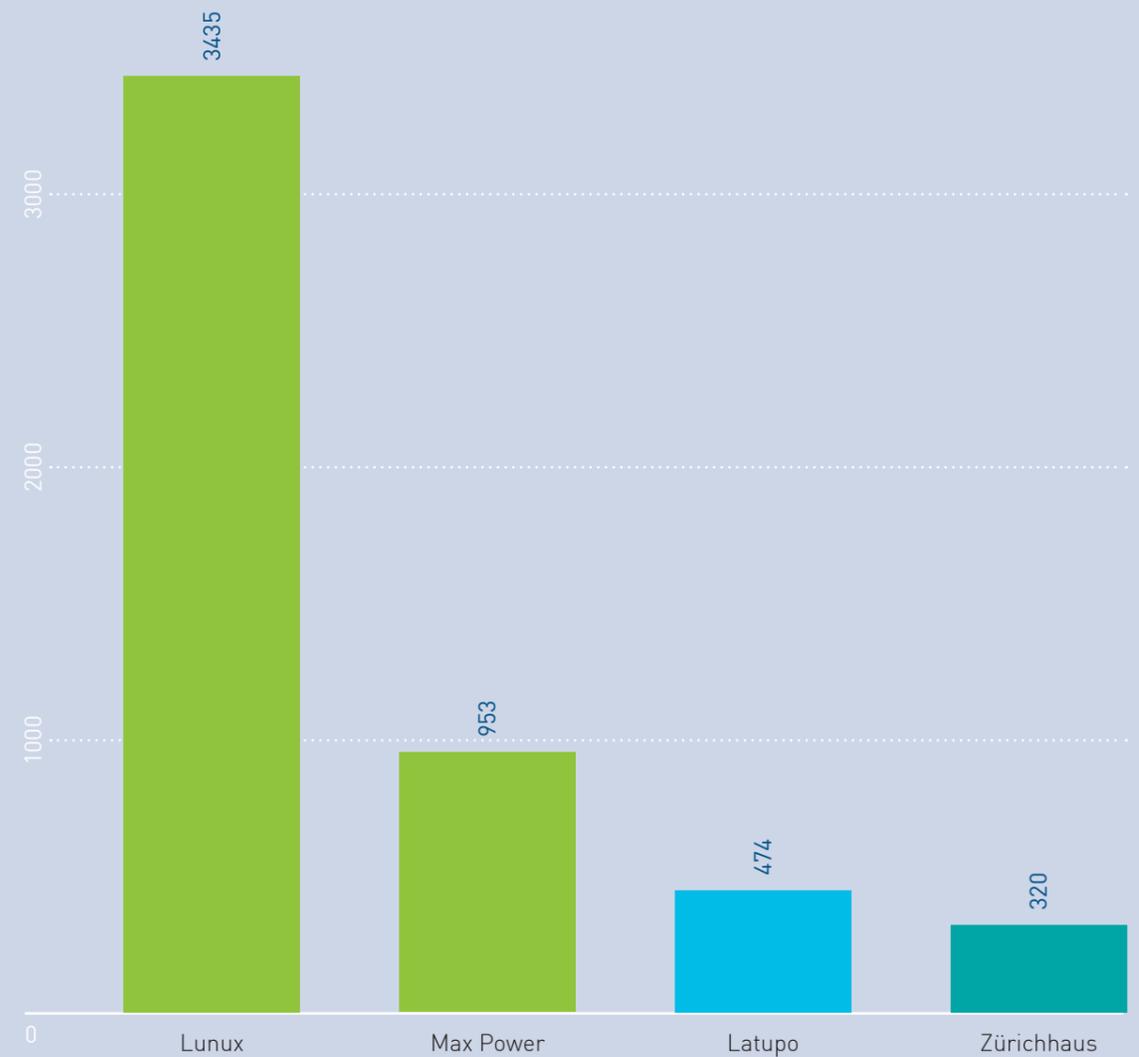
District Heating

At some of the sites of the Wünsche Group, district heating is used instead of natural gas or heating oil. According to the GHG Protocol, the resulting emissions are attributed to Scope 2.

Excluding Scope 3, district heating accounts for 32% and thus the largest share of the Group's emissions. At first, this may seem very high, especially since only four sites are supplied with

district heating. However, it should be noted that the number of employees at Zürichhaus and Lunux also accounts for a large proportion of all employees in the Wünsche Group. The decisive factor for the higher per capita emissions at Lunux is the much larger office space, which includes the attached production and storage area.

Per Capita Emissions from District Heating (kg CO₂)





Scope 3

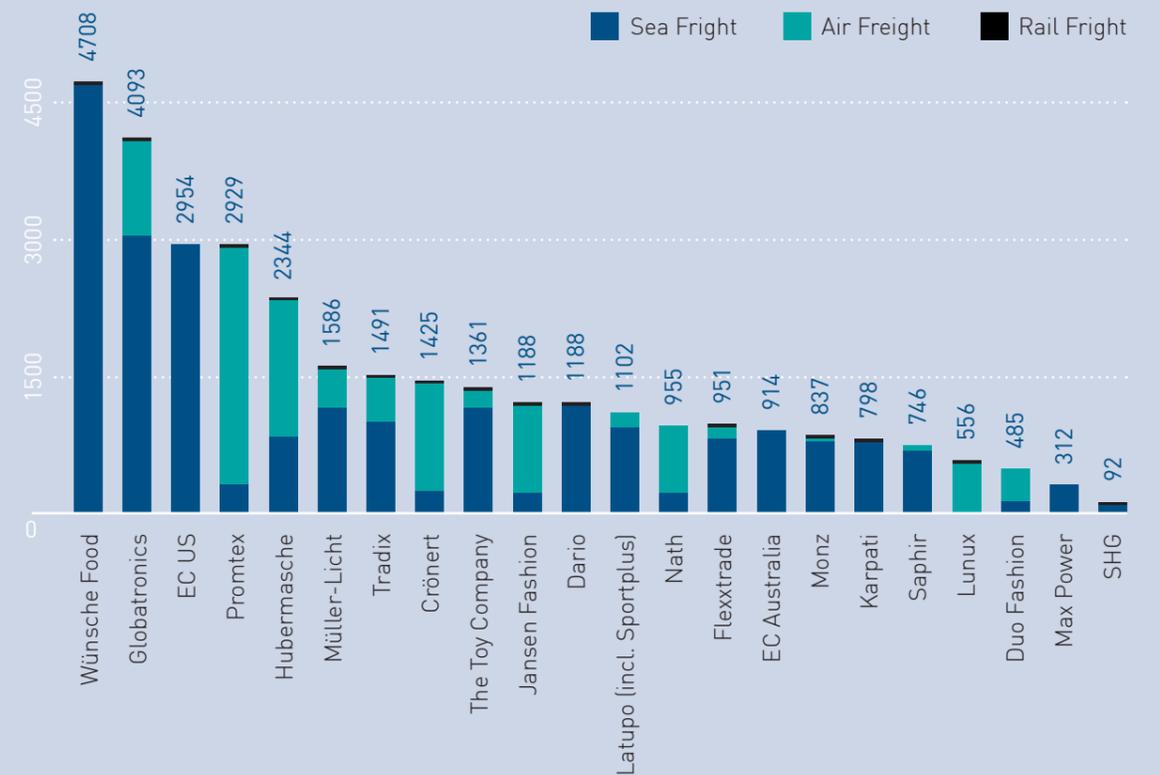
Logistics

Sea freight emissions account for 59.9% of total emissions. The generated emissions increased from 19,594 tons of CO₂ in 2017 to 22,619 tons of CO₂ in 2018. This corresponds to an increase of 15.4%. It should be noted, however, that a more detailed data set was available for the logistics of 2018. FOB⁸ as well as logistics organised by us are taken into account. A total of 19,636 TEU were shipped in the entire Wünsche Group.⁹ Only limited data was available on the shipments from Euro Centra US, which is why in this case the percentage increase in incomes was used to estimate the number of TEU and emissions for 2018. For the first time, air freight and international rail freight could also be included in the

CCF calculations. Air freight generated 10,325 tons of CO₂, which corresponds to 27.3% of total emissions. Goods with a total weight of 2,232 tons were transported by air. Emissions from rail freight totalled 70 tons of CO₂, whereas 692 TEU were moved.

Comparing the three modes of transport mentioned with regard to CO₂ emissions, their effects on the ecosystem become clear: if goods weighing 10 tons are transported by rail from Shanghai to Hamburg, 0.07 tons of CO₂ are produced. As sea freight these goods would cause 1.22 tons of CO₂ and as air freight 67.44 tons of CO₂. The following graph shows the distribution of logistics emissions among our companies.¹⁰

Emissions from Logistics (tons of CO₂)





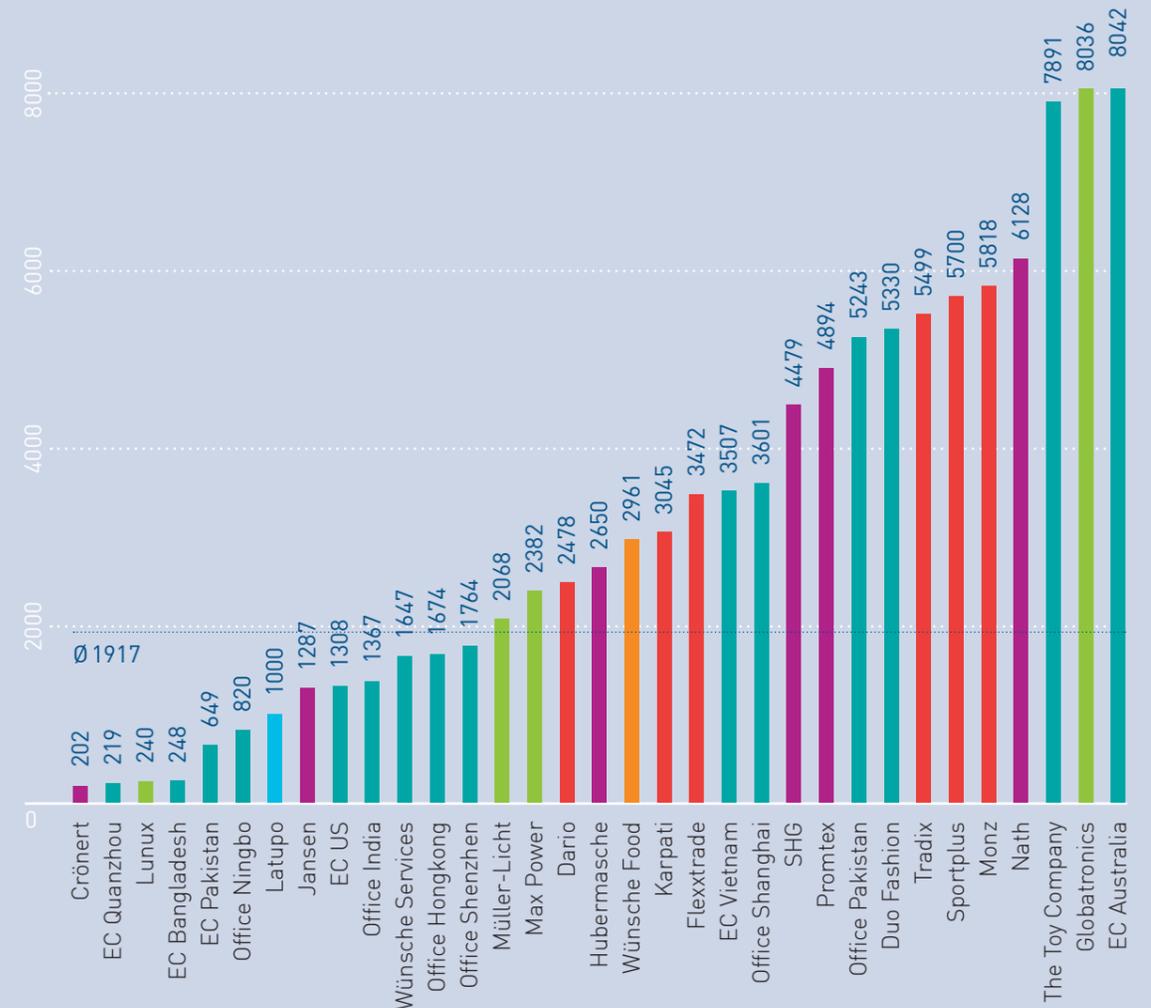
Scope 3

Business Flights

The per capita emissions from business flights of the individual companies are distributed as shown in the graph below. During the evaluation of the data, business flights of the Erdipol Holding were considered as part of Wünsche Services. **Overall, emissions from business flights increased by 108 tons of CO₂ or 4.7% compared to 2017.** Almost 2,900 business flights¹¹ were recorded for 2018, of which 68% were short-haul

flights (less than 1,500 km), 12% medium-haul flights (less than 4,000 km) and 20% long-haul flights (more than 4,000 km). In addition to the distance flown, the transport class also has an impact on emissions. For example, a passenger flight from Hamburg to Hong Kong causes 2,297 kg CO₂ in the economy seat class and 4,306 kg CO₂ in the business class.

Per Capita Emissions from Business Flights (kg CO₂)



Conclusion

The quality of the data provided to us has improved compared to that of the previous year, especially as more specific and detailed information was available. This has made it possible to give a more precise overview, for example on the categories company cars and heating. Nevertheless, assumptions had to be made for some companies in individual cases. This reduces the informative value of the corresponding data.

The adding of air and rail freight to Scope 3 allows a more comprehensive picture of the total emissions of our group of companies. Like sea freight, air freight also has a significant impact on our emissions. Even a small volume of goods causes a large amount of emissions. It should be positively emphasised that some companies also transport goods by rail, which, inter alia, results in a relative reduction of CO₂ emissions. In this context, our intention to use air transport only in exceptional situations is also desirable from a sustainability perspective.

If logistics emissions are excluded, business flights account for the largest share of emissions. Emissions from business flights have also risen from 2017 to 2018. As a measure to offset these emissions, the management decided to compensate all business flights with an annual increase. As a result, 55% of all air travel recorded in 2017 has been compensated; for the years to come, 70% will be compensated for 2018, 85% for 2019 and 100% for 2020 and onwards. Climate protection projects in countries where the business activities of the Wünsche Group generate emissions are supported. The compensation payments are made proportionally according to the generation of emissions by the respective trading companies or sites.

As a further climate protection measure, an additional selection criterion for the purchase of new company cars will be introduced. Accordingly, only vehicles with CO₂ efficiency classes A+ and A are permitted for new purchases; for reasons of availability, class B models are also permitted for buses and utility vehicles. The CO₂ efficiency classification is set on the basis of the measured CO₂ emissions, taking into account the vehicle's weight. Models with a good CO₂ efficiency class cause comparatively lower emissions and have lower fuel consumption.

In addition, Appointees for Resource Protection are to be selected in each of our companies to serve as a contact person for resource protection issues. Employees can contact them with suggestions and impulses. Generally, with regard to the topic of resource protection, a better exchange with the CR department should be achieved.

These measures are a first, important step towards environmental protection. However, further measures are necessary in order to fulfil our aim to operate more sustainably. For example, the extended change to certified paper or recycled paper (e.g. for printing paper, envelopes and hygienic paper) can be considered. The use of renewable energies is also to be further enhanced. However, besides such measures, the behaviour of all of us in our everyday working life is also important, because each of us can make a contribution by acting in a reflective and environmentally conscious manner. For example, a reduced use of paper is generally recommended. To the extent possible, CO₂ can also be reduced by taking business trips by train instead of using short-haul flights or company cars.

Ideas and Feedback

We appreciate all new suggestions and ideas for reducing the Carbon Footprint of the Wünsche Group. Please feel free to contact our Corporate Responsibility Department at any time and help us to further improve the ecological footprint of our company!

We are also at your disposal for any other questions on this topic.

How to reach us:

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We would like to take the opportunity to thank all those involved in this project and look forward to continuing our good cooperation.

References

- 1 https://www.umweltbundesamt.de/sites/default/files/medien/1410/publikationen/2019-04-10_cc_10-2019_strommix_2019.pdf
- 2 https://www.bafa.de/SharedDocs/Downloads/DE/Energie/eew_merkblatt_co2.pdf?__blob=publication-File&v=2
- 3 https://eschenker.dbschenker.com/nges-portal/public/en-US_US/#!/emission-calculator/emission-view
- 4 <https://www.ecotransit.org/calculation.de.html>
- 5 <https://www.atmosfair.de/de/kompensieren/flug/>
- 6 FSC-Mix and PEFC are labels that guarantee that at least 70% of the fibres come from wood from sustainable forest management and/or recycled paper.
- 7 <https://www.umweltbundesamt.de/themen/klima-energie/erneuerbare-energien/erneuerbare-energien-in-zahlen?sprungmarke=statusquo#textpart-1>
- 8 FOB stands for Free on Board, an agreement which ensures that the exporter is responsible for the initial costs, obligations and risks involved in the delivery of goods. However, once the ship is loaded, the importer takes responsibility for the transport to the destination.
- 9 The total number of TEU (17,846) does not include LCL ("Less than container load") cargo. However, LCL was taken into account in the calculation of emissions. TEU stands for "Twenty-foot Equivalent Unit", a standardised unit for counting containers of different sizes.
- 10 The Toy Company is a joint venture of the Wünsche Group and VEDES. The emissions of The Toy Company presented in this report are considered as a whole and not as a proportion.
- 11 For flights with stopovers, all individual flights of the business trip were taken into account and added up.

Impressum

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