



LUFTHANSA GROUP



Sustainability Fact Sheet

2020



Dear Readers,

In 2020, the impact of the Corona pandemic brought our operations to an almost complete standstill. A large part of our Group fleet had to be grounded, we were dependent on stabilization funds from all the home countries of our airlines, and one in five employees already left our company last year. It is now already clear that the consequences of this pandemic will continue to have a negative impact on our business for years to come.

Despite these particularly challenging times, sustainability remains our guiding principle. Our corporate business activities have been closely aligned to the ten principles of the UN Global Compact since 2002, and since 2015 also to the Sustainable Development Goals of the United Nations. We continue to stand by our responsibility to minimize the impact of flying on the environment. We have continued our fleet modernization, as new aircraft are significantly more fuel-efficient and correspondingly more environmentally friendly. At the same time, we are expanding our commitment to Sustainable Aviation Fuels. After all, in the medium term, they are the key to making the future of flying climate-friendly. We are actively involving our customers in this transformation process: Via our digital compensation platform "Compensaid", they can already fly almost CO₂-neutral with Sustainable Aviation Fuel.

We have set ourselves ambitious climate protection targets: By 2030, we want to halve our CO₂ emissions of our flights compared to 2019 and achieve a neutral CO₂ balance by 2050. We are doing everything in our power to emerge stronger from this crisis and actively shape the decarbonization of aviation.

In addition, we are maintaining our social commitment even in the Corona pandemic: For example, we supported more than 40,000 disadvantaged people with our aid organization help alliance in the reporting year. In this context, the wide-ranging voluntary work of our employees, whether at help alliance or in medical facilities, is also impressive.

Despite this global crisis and its consequences for our company, our goal is to secure sustainable jobs for 100,000 people in the Group. Because as a service company, our employees are our capital.

It is therefore important to us to provide all employment groups with the best possible protection against the Corona virus through hygiene and protection concepts and to make it as easy and safe as possible for them to work on board and from home.

For our passengers, too, we have established extensive protective measures along the travel chain that meet the highest standards. The Lufthansa Group is also a pioneer in this respect and sets standards for the industry.

I thank you for your interest in our commitment with regard to sustainability and wish you an informative read.

A handwritten signature in black ink, appearing to read "C. Spohr".

Carsten Spohr

Chief Executive Officer
Deutsche Lufthansa AG

INTRO

Living responsibility together

Sustainable and responsible business conduct is an integral part of the corporate strategy of Lufthansa Group. We believe that it is our duty to create more value for customers, employees and investors and to live up to our responsibility towards the environment, people and society. We are constantly improving climate and environmental protection, treat our employees responsibly and fairly, and are involved in numerous social issues as a company.

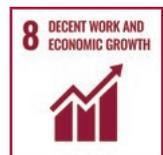
The core aim of our business model is to connect people, cultures and economies. In doing so, we also provide major social benefits. Lufthansa Group pursues the strategic goal of using appropriate measures and concepts to strengthen positive impacts of its business activities and reduce negative effects in order to further consolidate its leading position in the airline industry, also with regard to its corporate responsibility.

Therefore, the company supports the Sustainable Development Goals (**SDGs**) of the 2030 Agenda adopted by the United Nations member states in 2015. Due to the impact of its business model, Lufthansa Group puts particular emphasis on the seven SDGs 4, 5, 8, 9, 12, 13 and 17.

The continuous development of the reporting system of Lufthansa Group ensures transparency in matters of sustainability – this **sustainability fact sheet**, which presents facts and figures on key sustainability topics for the 2020 reporting year, also contributes to this. Lufthansa Group has been reporting on its commitment to sustainability regularly since 1995, and the reporting is continuously developed in accordance with internationally recognized reporting standards such as the **GRI Standards 2016**. In addition to the documentation in the **non-financial declaration** of the annual report, Lufthansa Group has also followed the recommendations of the Task Force on Climate-related Financial Disclosures (**TCFD**) for transparent reporting on climate risks and opportunities since 2020 and has been listed as a **TCFD supporter** since 2021. At the same time, **ESG Reporting** (Environmental, Social, and Governance) was expanded to include the **SASB standard** (Sustainability Accounting Standards Board). Since 2006, Lufthansa Group has disclosed its CO₂ emissions in detail in accordance with the greenhouse gas (GHG) protocol as part of the **CDP rating**.

As a company that has participated in the **UN Global Compact** since 2002, Lufthansa Group also reports annually via the communication on progress (CoP) in the area of sustainable corporate governance in accordance with the ten principles of the UN Global Compact in the form of a progress report.

All reports are available at [➤ lufthansagroup.com/en/responsibility](https://www.lufthansagroup.com/en/responsibility)



At a glance

PERSONNEL DATA		2020	2019	Change
Number of employees (on December 31, respectively)		110,065	138,353	-20.4%
of these, in Germany		64,058	73,552	-12.9%
of these, outside Germany		46,007	64,801	-29.0%
Staff costs	million €	6,436	9,121	-29.4%
Revenue/employee	€	108,532	264,356	-58.9%
Staff costs/revenue	percent	47.4	25.0	+22.4 PP
Average age	years	42.4	41.6	+0.8 years
Part-time ratio ¹	percent	34.0	28.5	+5.5 PP
Part-time ratio, men	percent	18.2	14.8	+3.7 PP
Part-time ratio, women	percent	53.0	45.1	+7.9 PP
Share of women in management positions (worldwide)	percent	17.7	16.9	+0.8 PP
Share of women in management positions (Germany)	percent	19.4	18.2	+1.2 PP

ENVIRONMENTAL DATA ^{2,3}		2020	2019	Change
Resource consumption				
Fuel consumption	tonnes	3,507,461	10,435,324	-66.4%
Fuel consumption, specific, passenger transportation	l/100 pkm	4.18	3.67	+14.0%
Fuel consumption, specific, freight transportation	g/tkm	214	213	+0.5%
Emissions				
CO ₂ ⁸	tonnes	11,048,504	32,871,272	-66.4%
CO ₂ , specific, passenger transportation	kg/100 pkm	10.52	9.22	+14.1%
Nitrogen oxide emissions	tonnes	54,873	165,668	-66.9%
Nitrogen oxide emissions, specific, passenger transportation	g/100 pkm	51.6	46.0	+12.2%
Carbon monoxide emissions	tonnes	8,342	23,925	-65.1%
Carbon monoxide emissions, specific, passenger transportation	g/100 pkm	8.9	7.1	+25.4%
Unburned hydrocarbons	tonnes	805.4	2,326.5	-65.4%
Unburned hydrocarbons, specific, passenger transportation	g/100 pkm	0.831	0.686	+21.1%

TRAFFIC DATA 2020		Fact Sheet ^{2,3}	Change vs. 2019	Annual Report ^{6,7}	Change vs. 2019 ⁶
Flights ⁴		377,120	-65.9%	390,900	-67.1%
Passengers carried ⁵	thousand	34,131	-74.9%	36,354	-75.0%
Seat kilometer offered, SKO	million pkm	108,834	-68.4%	109,828	-69.4%
Freight tonne kilometers offered, FTKO	million tkm	8,869	-45.9%	10,591	-39.1%
Passenger kilometers transported, PKT ⁵	million pkm	67,597	-76.5%	69,462	-76.6%
Freight tonne kilometers transported (including third-party performance), FTKT	million tkm	5,852	-38.3%	7,373	-30.9%

1 Scope = Group consolidation without exclusions **2** The following companies are included for the 2020 reporting year: Lufthansa (including Lufthansa CityLine and Air Dolomiti), SWISS (including Edelweiss Air), Austrian Airlines, Eurowings (including Germanwings), Brussels Airlines, Lufthansa Cargo. This does not include other flights (see footnote 4, p. 5) and services provided by third parties, as their performance can only be influenced to a limited degree (see table "Third Party Share", p. 5). **3** Types of flights considered: all scheduled and charter flights (excluding ground services). **4** Segments (operational perspective); annual report: route (customer perspective). A route can contain several segments, for

example stopovers. **5** Based on all passengers on board. **6** Included companies as in 2, but also including services provided by third parties that contribute to the group's earnings. **7** Figures of the previous year adjusted in keeping with the 2019 annual report. **8** Actual fuel consumption / carbon dioxide emissions in tonnes from flight operations based on all flight events under the respective operating flight number. Figures given are consumption / carbon dioxide emissions from gate to gate, i.e. including taxiing on the ground as well as holding patterns and flight detours.

Environmental Data

FUEL CONSUMPTION^{1,2}

in tonnes

3,507,461

2020		
2019		10,435,324
2018		10,254,365
2017		9,618,095
2016		9,055,550

SPECIFIC FUEL CONSUMPTION OF PASSENGER TRANSPORTATION IN COMPARISON^{1,2} 2020

in liter/100 pkm

	2020	2019	Change in %
Group fleet	4.18	3.67	+14.0
Lufthansa	4.21	3.74	+12.7
Swiss	3.70	3.26	+13.4
Austrian Airlines	4.73	3.80	+24.6
Eurowings	4.97	4.11	+20.9
Brussels Airlines	3.86	3.48	+11.0

FUEL DUMPS³ 2020

	2020	Change vs. 2019
Total events	10	-14
thereof medical reasons	2	-9
technical reasons	8	-3
other reasons	0	-2
Quantity³	383.9t	-47.3%

FUEL CONSUMPTION¹ 2020

in tonnes

	Passengers	Freight	Total	Share
Scheduled flights²				
Lufthansa	1,315,465	908,450	2,223,915	60.9%
Swiss	384,976	279,183	664,159	18.2%
Austrian Airlines	163,807	30,062	193,869	5.3%
Eurowings	230,366	1,979	232,345	6.4%
Brussels Airlines	164,010	29,164	193,174	5.3%
			3,507,461	96.0%
Other flights ⁴			76,945	2.1%
Reg. + other flights⁵			3,584,407	98.1%
Third parties ⁶	64,638	4,703	69,341	1.9%
Total flights			3,653,748	100%

EMISSIONS^{2,9} 2020

in tonnes

	Passengers	PY	Freight ⁸	PY	Total ⁵	PY
CO ₂	7,114,667	-72.1%	3,933,837	-38.2%	11,048,504	-66.4%
NO _x	34,950	-73.6%	19,923	-40.2%	54,873	-66.9%
CO	6,017	-70.5%	2,325	-34.1%	8,342	-65.1%
UHC	563	-71.5%	243	-31.3%	805	-65.4%

THIRD PARTY SHARE^{6,7} 2020

Flights	4.1%
Passengers	3.2%
Tonne kilometers transported, TKT (tkm)	0.2%
Fuel consumption (tonnes)	1.9%
CO ₂ (tonnes)	1.9%

1 Actual fuel consumption / carbon dioxide emissions from flight operations in tonnes based on all flight events under the respective operational flight number. Figures given are consumption / carbon dioxide emissions from gate to gate, i.e. including taxiing on the ground as well as holding patterns and flight detours. **2** The following companies are included for the 2020 reporting year: Lufthansa (including Lufthansa CityLine and Air Dolomiti), SWISS (including Edelweiss Air), Austrian Airlines, Eurowings (including Germanwings), Brussels Airlines, Lufthansa Cargo. This does not include other flights (see footnote 4) and services provided by third parties, as their performance can only be influenced to a limited degree (see table "Third Party Share", p. 5). **3** Projections used in some cases. **4** Ferry flights, special flights, test flights, training flights, aborted flights. **5** The CO₂ emissions resulting from this fuel consumption (times 3.15) differ slightly from the value of 11.4 million tonnes

reported in the 2020 non-financial declaration. This is due to system adjustments at Brussels Airlines, the addition of further data systems for calculating the specific data in the fact sheet, and the associated rounding differences. **6** Airlines that are outside the scope of this fact sheet but provide services for Lufthansa, e.g. in the event of capacity bottlenecks. **7** Excluding Road Feeder Service and chartered-in partial capacities of Lufthansa Cargo, as information on fuel consumption and emissions is not available for these services. **8** Based on freight tonne kilometers (FTKT), transported in both cargo and passenger aircraft. **9** Absolute emissions in tonnes from flight operations (all scheduled and charter flights). Emissions are recorded from gate to gate, i.e. including taxiing on the ground as well as holding patterns and flight detours.

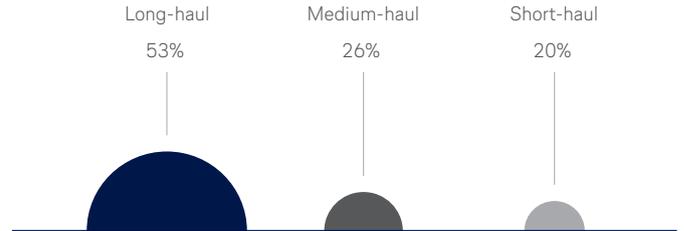
Environmental Data

SPECIFIC FUEL CONSUMPTION AND SPECIFIC CO₂ EMISSIONS OF THE LUFTHANSA GROUP¹ 2020

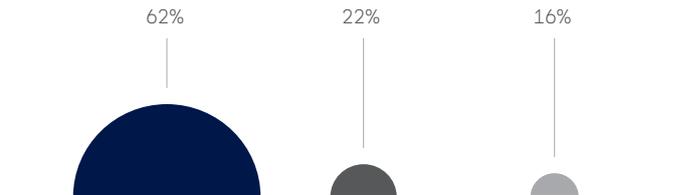
- 🔹 Values for specific fuel consumption in liters per 100 passenger kilometers (l/100 pkm)
- ☁️ Values for specific CO₂ emissions in kilograms per 100 passenger kilometers (kg/100 pkm)

	Total	Long-	Medium-	Short-haul
🔹	4.18	3.64	4.12	7.10
☁️	10.52	9.15	10.38	17.90

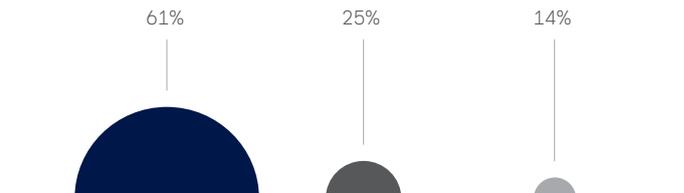
SHARE OF FUEL CONSUMPTION BY TRAFFIC AREAS¹ 2020



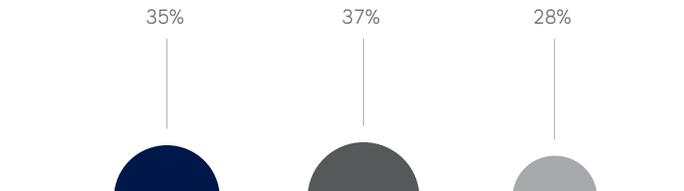
	Total	Long-	Medium-	Short-haul
🔹	4.21	3.80	3.99	7.26
☁️	10.60	9.54	10.06	18.32



	Total	Long-	Medium-	Short-haul
🔹	3.70	3.33	4.02	5.55
☁️	9.28	8.37	10.11	13.98



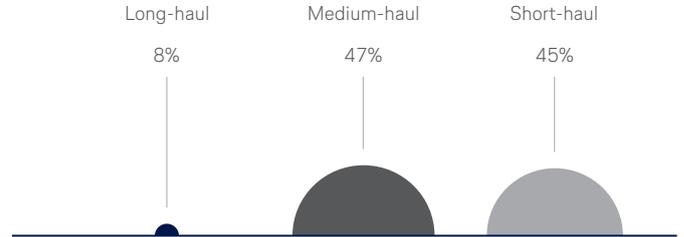
	Total	Long-	Medium-	Short-haul
🔹	4.73	3.74	4.82	6.88
☁️	11.85	9.33	12.08	17.27



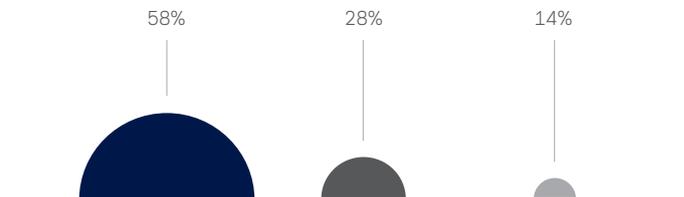
¹ Definitions of route categories: long-haul over 3,000 km; medium-haul 800 to 3,000 km; short-haul under 800 km.

Environmental Data

EUROWINGS				
	Total	Long-	Medium-	Short-haul
	4.97	3.02	4.07	7.56
	12.55	7.62	10.26	19.11

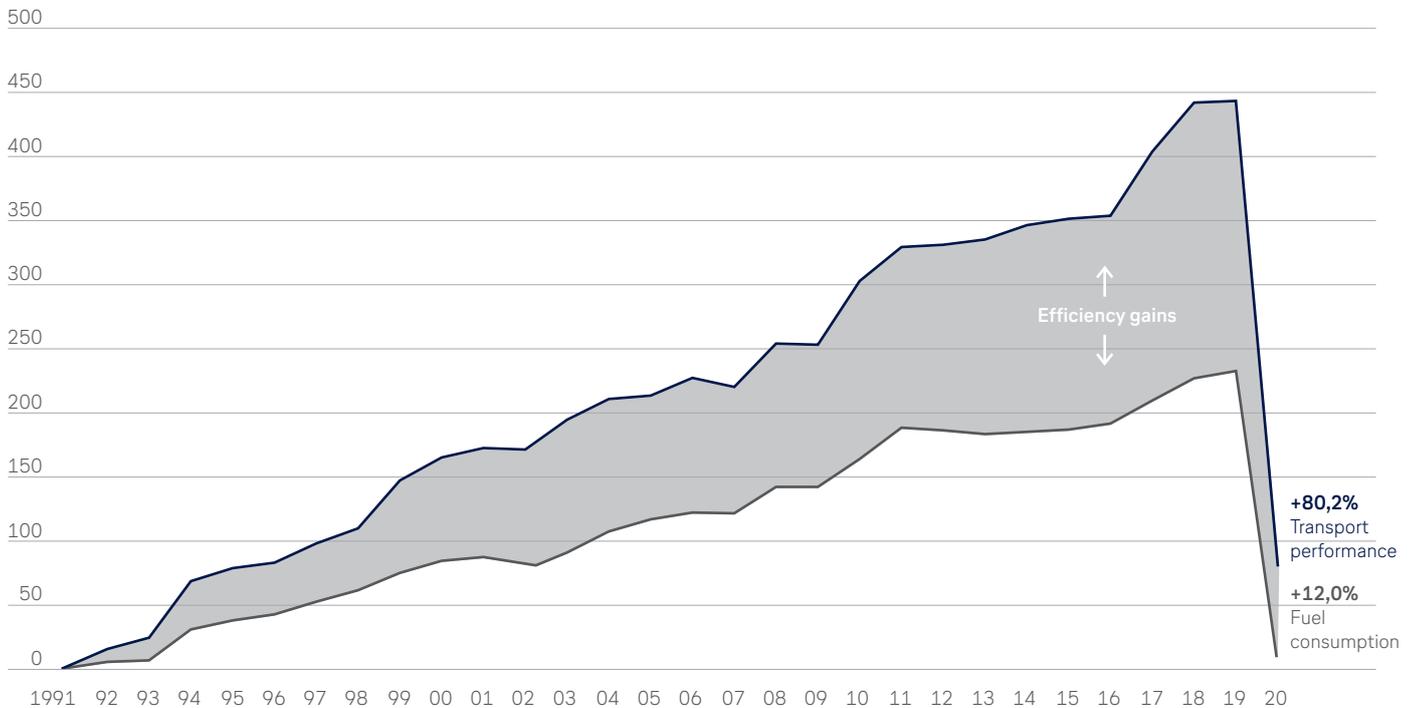


BRUSSELS AIRLINES				
	Total	Long-	Medium-	Short-haul
	3.86	3.35	4.28	6.79
	9.75	8.45	10.80	17.15



DECOUPLING OF TRANSPORT PERFORMANCE AND FUEL CONSUMPTION^{2,3,4} SINCE 1991

The transport performance of Lufthansa Group in tonne kilometers (TKT) increased continuously from 1991 to 2019, by up to 450%. Fuel consumption, however, only rose by about 230% over the same time period – a clear increase in efficiency. In spite of the sharp decline in transport volume in 2020 to only +80.2% above 1991 levels, the associated fuel consumption is only +12.0% above the level of 1991. This means that Lufthansa Group was able to stabilize fuel efficiency at 2016 levels in spite of the crisis.



¹ Definition of route categories: long-haul over 3,000 km; medium-haul 800 to 3,000 km; short-haul under 800 km. ² For the 2020 reporting year, the following applies: all routes and charter flights operated by Lufthansa (including Lufthansa CityLine and Air Dolomiti), SWISS (including Edelweiss Air), Austrian Airlines, Eurowings (including Germanwings),

Brussels Airlines, and Lufthansa Cargo. Services provided by third parties are excluded, as their performance can only be influenced to a limited degree (see table "Third Party Share", p. 5). ³ Transport performance in TKT. ⁴ 2019 transport performance corrected due to system adjustments.

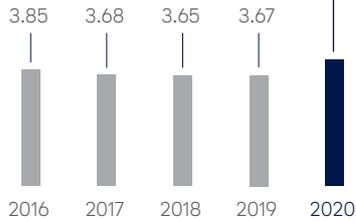
Environmental Data



SPECIFIC FUEL CONSUMPTION PASSENGER TRANSPORTATION **LUFTHANSA GROUP**

in liters/100 passenger kilometers (l/100 pkm)

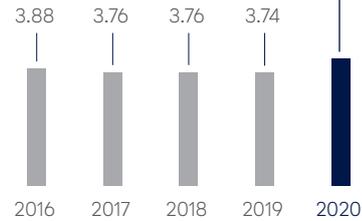
4.18



SPECIFIC FUEL CONSUMPTION PASSENGER TRANSPORTATION **LUFTHANSA**

in liters/100 passenger kilometers (l/100 pkm)

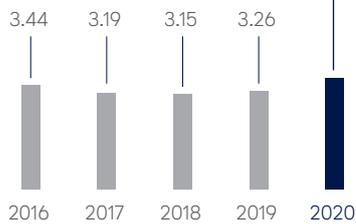
4.21



SPECIFIC FUEL CONSUMPTION PASSENGER TRANSPORTATION **SWISS**

in liters/100 passenger kilometers (l/100 pkm)

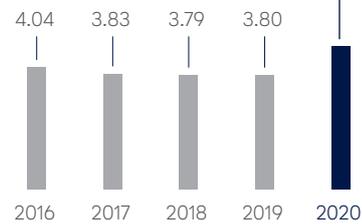
3.70



SPECIFIC FUEL CONSUMPTION PASSENGER TRANSPORTATION **AUSTRIAN AIRLINES**

in liters/100 passenger kilometers (l/100 pkm)

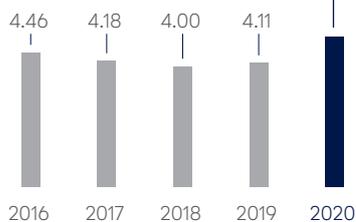
4.73



SPECIFIC FUEL CONSUMPTION PASSENGER TRANSPORTATION **EUROWINGS**

in liters/100 passenger kilometers (l/100 pkm)

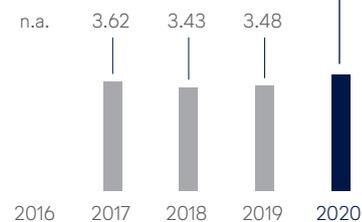
4.97



SPECIFIC FUEL CONSUMPTION PASSENGER TRANSPORTATION **BRUSSELS AIRLINES**

in liters/100 passenger kilometers (l/100 pkm)

3.86

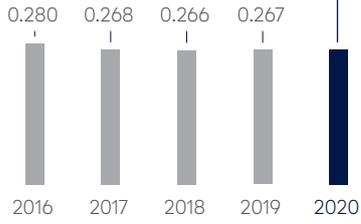


Environmental Data

SPECIFIC FUEL CONSUMPTION FREIGHT TRANSPORTATION¹

in liters/tonne kilometers (l/tkm)

0.268



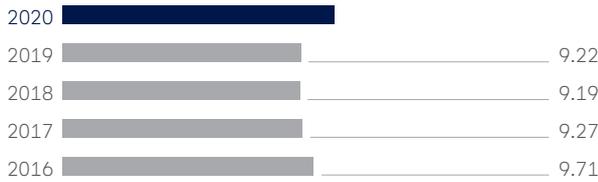
¹ Based on freight tonne kilometers (FTKT), transported in both cargo and passenger aircraft.

Environmental Data

Specific CO₂ emissions separated by passenger and freight traffic as well as by direct and indirect CO₂ emissions (Scope 1, 2 and 3) according to GHG protocol

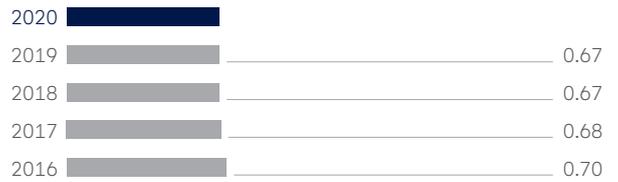
PASSENGER TRANSPORTATION² 2020

CO₂ emissions
in kilogram/100 Passenger kilometers (kg/100 pkm) **10.52**



FREIGHT TRANSPORTATION^{2,3} 2020

CO₂ emissions
in kilogram/freight tonne kilometers (kg/tkm) **0.67**

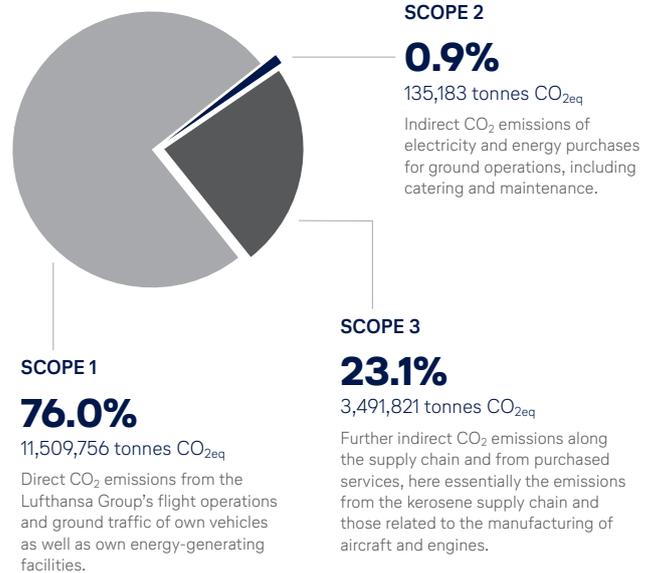


DIRECT AND INDIRECT CO₂ EMISSIONS OF THE LUFTHANSA GROUP IN COMPARISON¹

in tonnes CO_{2eq}

	2020	2019	2018
Scope 1	11,509,756 76.0%	33,349,293 75.6%	32,790,778 74.4%
Scope 2	135,183 0.9%	199,817 0.4%	194,059 0.4%
Scope 3	3,491,821 23.1%	10,588,707 24.0%	11,089,327 25.2%

DIRECT AND INDIRECT CO₂ EMISSIONS OF THE LUFTHANSA GROUP 2020



¹ Scope 1 audited with high assurance for the 2020 reporting year. Scope 2 and 3 audited with limited assurance (see Page 13). ² The following companies are included for the 2020 reporting year: Lufthansa (including Lufthansa CityLine and Air Dolomiti), SWISS (including Edelweiss Air), Austrian Airlines, Eurowings (including Germanwings), Brussels Airlines, Lufthansa Cargo. ³ Based on freight tonne kilometers (FTKT), transported in both cargo and passenger aircraft.

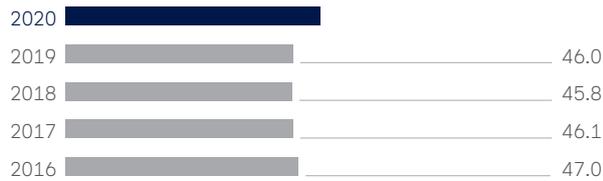
Environmental Data

Specific non-CO₂ emissions separated by passenger and freight traffic

NO_x emissions

in grams/100 Passenger kilometers (g/100 pkm)

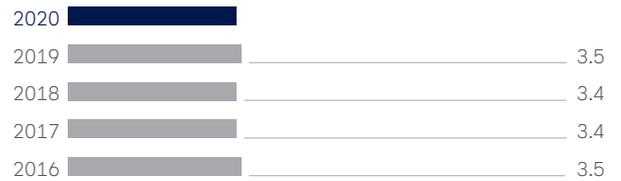
51.6



NO_x emissions

in grams/freight tonne kilometers (g/tkm)

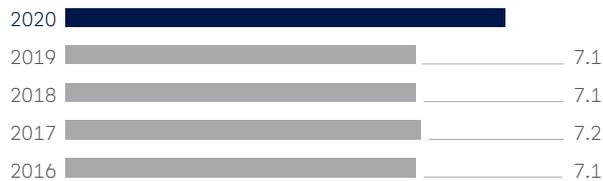
3.4



CO emissions

in grams/100 Passenger kilometers (g/100 pkm)

8.9



CO emissions

in grams/freight tonne kilometers (g/tkm)

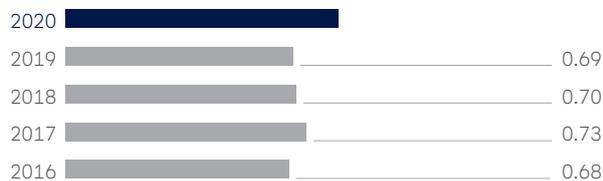
0.40



UHC emissions

in grams/100 Passenger kilometers (g/100 pkm)

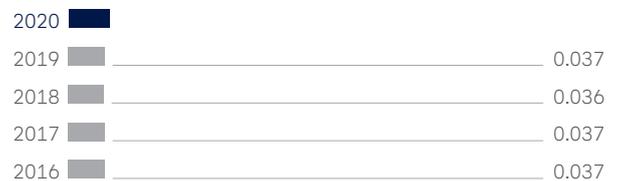
0.83



UHC emissions

in grams/freight tonne kilometers (g/tkm)

0.041



CALCULATION METHOD OF ABSOLUTE AND SPECIFIC CONSUMPTIONS AND EMISSIONS

Kerosene absolute

The kerosene consumption is determined based on actual flight operations, i. e. taking into account the actual load factor and routing according to the gate-to-gate principle. This means that all flight phases are included – from taxiing on the ground to detours and holding patterns in the air.

Emissions absolute

The calculation of absolute emissions from flight operations is based on the actual transport service provided and thus on the actual load factor and the actual absolute consumption of kerosene in the reporting year. The transport performance is measured in tonne kilometers. For passengers and their baggage, the standard is set to an average of 100 kilograms whereas, for cargo, the actual weight is used.

CO₂ emissions do not require any special aircraft-specific measures as the fuel consumption is calculated at a fixed ratio to the amount of kerosene burned. One ton of kerosene used produces 3.15 tonnes of CO₂.

Specific consumption and emissions

The calculation of specific consumption and emissions puts the absolute values in relation to the transport performance. For example, the key figure liters per 100 passenger kilometers (l/100 pkm) is calculated on the basis of the actual kilometers flown and the actual amount of kerosene consumed. The distances used as a basis refer to the Great Circle Distance. For combined operations of freight and passenger transport on an aircraft, the allocation of fuel consumption to determine passenger- or freight-specific values is based on their share of the total payload. The DIN EN 16258 standard has provided guidelines for the standardized calculation of greenhouse gas emissions for transport processes since 2013. The Lufthansa Group adheres to this guideline with regard to the allocation of payloads. At the same time, the International Air Transport Association (IATA) has developed its own calculation proposal, which deals with the division of fuel consumption between cargo and passengers and allocates a higher proportion of fuel consumption to passengers due to the passenger-specific infrastructure. Although this method does not affect the overall efficiency of a flight, it does change the allocation between passenger and cargo. We would welcome a unified, internationally harmonized and accepted allocation method.

Verification Statement Scope 1–3

verification statement

MÜLLER-BBM CERT GMBH

Müller-BBM Cert GmbH, accredited verification body DAkkS D-VS-18709-01-01, accredited and approved for the field of aviation activities, confirms that data in the Figure "direct and indirect CO₂ emissions of the Lufthansa Group 2020" on page 10 of the Factsheet Sustainability 2020, the

LUFTHANSA GROUP

Deutsche Lufthansa AG and affiliates*

under the verification standards

- *EU Emissions Trading Scheme (EU ETS) Directive and EU ETS related national implementation laws*
- *Airport Carbon Accreditation programme (ACA) of Airport Council International*

are verified with following uncertainties.

Scope 1	11.509.756 t CO _{2eq} (high assurance)
Scope 2 (market based)	135.183 t CO _{2eq} (limited assurance)
Scope 3	3.491.821 t CO _{2eq} (limited assurance)

Planegg, April 26th, 2021



Müller-BBM Cert GmbH

* Scope of application from organizations at CDP-report 2020:

Deutsche Lufthansa AG, Lufthansa Cargo AG, Lufthansa Technik AG, Lufthansa CityLine GmbH, Swiss International Air Lines AG, Edelweiss Air AG, Brussels Airlines SA/NV, Austrian Airlines AG, Air Dolomiti S.p.A. Linee Aeree Regionali Europee, Germanwings GmbH, Eurowings Aviation GmbH, Eurowings Europe GmbH, LSG Lufthansa Service Holding AG, Lufthansa AirPlus Servicekarten GmbH, Lufthansa Global Business Services GmbH, Lufthansa Seeheim GmbH, Miles & More GmbH, Lufthansa Process Management GmbH, Lufthansa Systems GmbH & Co.KG, Lufthansa Industry Solutions GmbH & Co.KG, Lufthansa Aviation Training GmbH, LZ-Catering GmbH, Lufthansa Global Tele Sales GmbH, EFM-Gesellschaft für Enteisen und Flugzeugschleppen am Flughafen München GmbH.

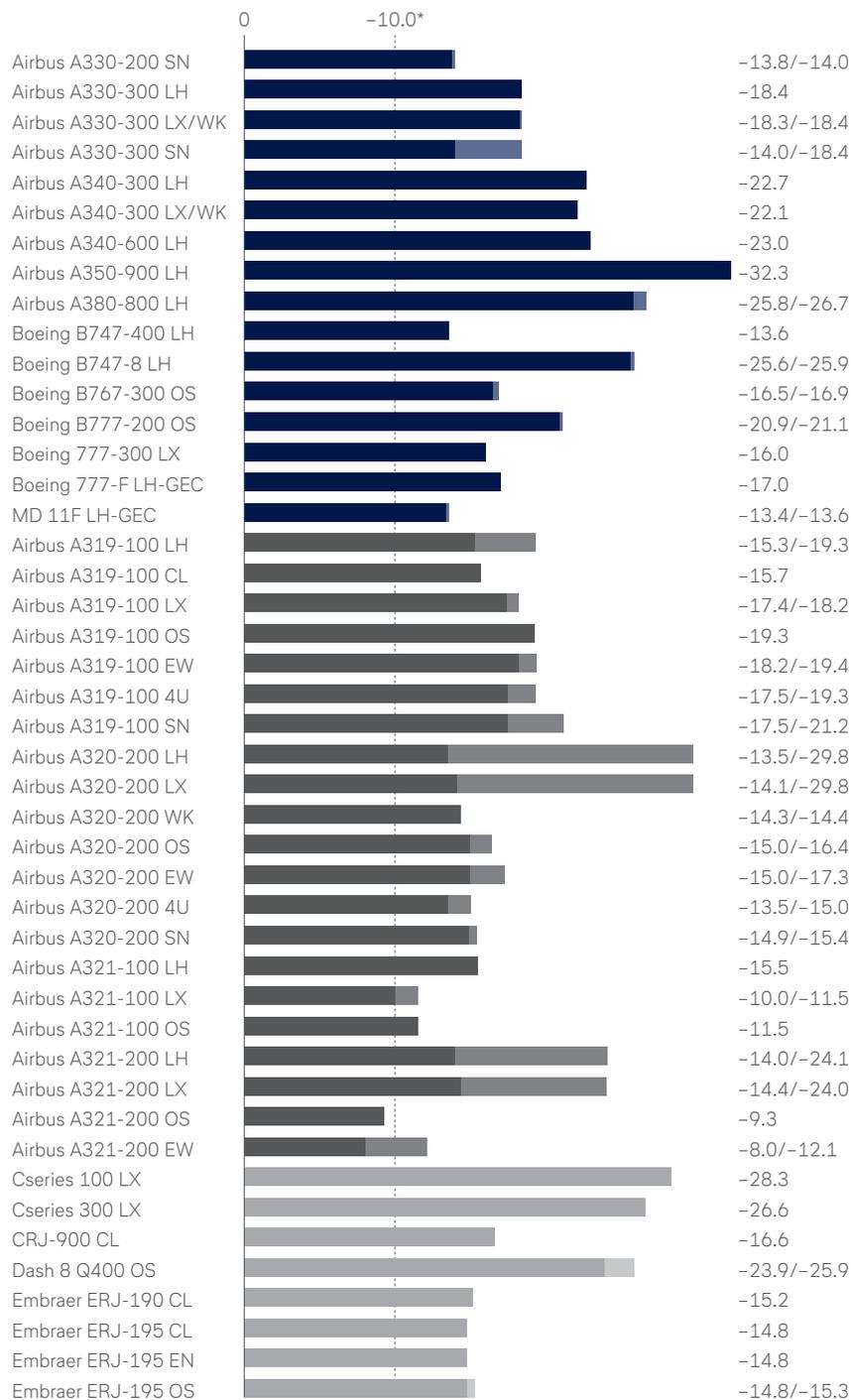
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MBBM
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MOST STRINGENT NOISE STANDARDS FOR THE LUFTHANSA GROUP'S FLEET

MARGIN BELOW THE NOISE LIMIT OF ICAO CHAPTER 3 AND CHAPTER 4

Reporting date 24 October 2020, in EPNdB



LH = Lufthansa, Lufthansa Cargo
SN = Brussels Airlines
CL = Lufthansa Cityline

4U = Germanwings
EN = Air Dolomiti
EW = Eurowings

LX = SWISS
OS = Austrian Airlines
WK = Edelweiss Air

The Lufthansa Group determines the effect of modernization concerning noise abatement of the operative fleet by means of the performance indicator "number of aircraft that meet or exceed the so-called 'minus-10dB criterium' set by the ICAO Chapter 4 standard". This standard defines noise limits and stipulates that all aircraft newly licensed from 2006 to the end of 2017 must cumulatively fulfill the Chapter 3 noise limits by a margin of 10 decibels or more. This "minus-10EPNdB criterium" (Effective Perceived Noise dB) is signified by the vertical broken line in the overview to the left. In 2020, 99.5 percent of the aircraft – thus virtually the entire operational Group fleet – met this criterium.

The limits depend on the aircraft's maximum takeoff weight and number of engines. The bar chart indicates the sum of the differences between the measured value and the threshold value at the three measuring points by type of aircraft (cumulative margin). Where necessary, the values are based on the reduced maximum takeoff weight prevailing in flight operations. The individual noise certificate data of all Group aircraft is included in the evaluation methodology. Different versions of an aircraft and its engines by year of construction are thus better taken into account. Accordingly, the value ranges from the lowest to the highest cumulated margin are indicated for many fleets. The analysis also takes into account any modifications to aircraft or engines that have been made in the meantime, thereby leading to modified noise data and cumulative margins in certain cases. Furthermore, additions and withdrawals in individual fleets lead to changes in the value ranges reported.

The data to calculate the indicator is gathered on the qualifying date "end of summer flight schedule". All aircraft in the possession of the individual flight-operating companies at the qualifying date are taken into account for the calculation of the performance indicator.

Grouping of aircraft types according to MTOW (maximum takeoff weight):

• under 50 t • 50 to 150 t • more than 150 t

This division generally corresponds to a grouping of regional, continental, and intercontinental aircraft.

* ICAO Chapter 4 limit, which has been effective for a new aircraft since 2006: -10 EPNdB when compared to chapter 3.

Personnel Data

EMPLOYEES IN TOTAL³

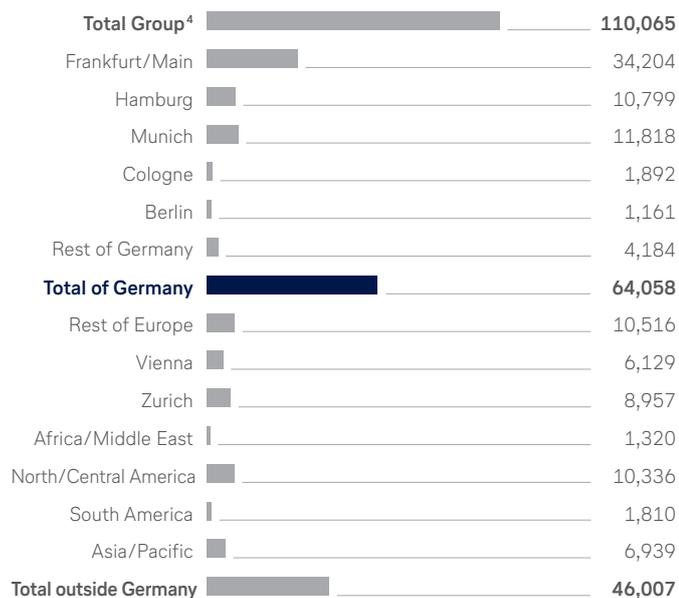
Lufthansa Group, employees
as of December 31, respectively

110,065



JOBS THROUGHOUT THE WORLD³

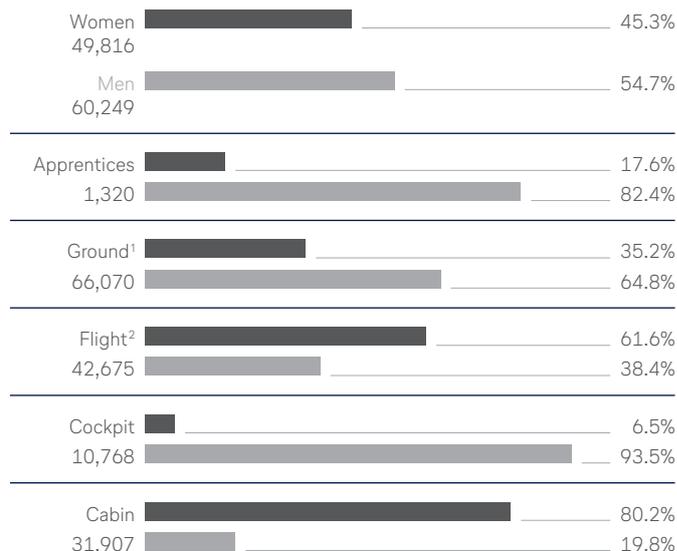
Lufthansa Group, employees as of December 31, 2020



NUMBER OF EMPLOYEES BY PROFESSIONAL GROUP AND GENDER³

Lufthansa Group, employees as of December 31, 2020

■ Women ■ Men



DISTRIBUTION OF EMPLOYEES^{3,4}

Lufthansa Group, employees as of December 31, respectively

	2020	2019	Change
Group employees	110,065	138,353	-20.4%
thereof Network Airlines	57,363	60,913	-5.8%
thereof Eurowings	3,088	3,432	-10.0%
thereof Logistics	4,373	4,539	-3.7%
thereof MRO	22,745	23,855	-4.7%
thereof Catering	13,227	35,636	-62.9%
thereof Additional Business and Group Functions ⁴	9,269	9,978	-7.1%

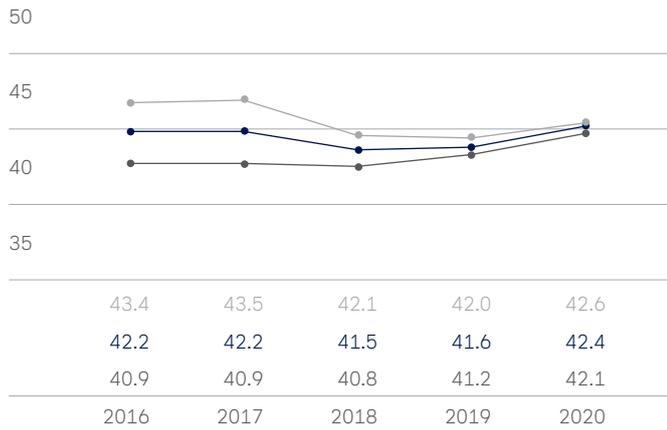
¹ Excluding Apprentices. ² Comprises cockpit and cabin. ³ Scope: Group consolidation.
⁴ Figures for the previous year adapted to 2020 reporting structure.

Personnel Data

AVERAGE EMPLOYEE AGE¹

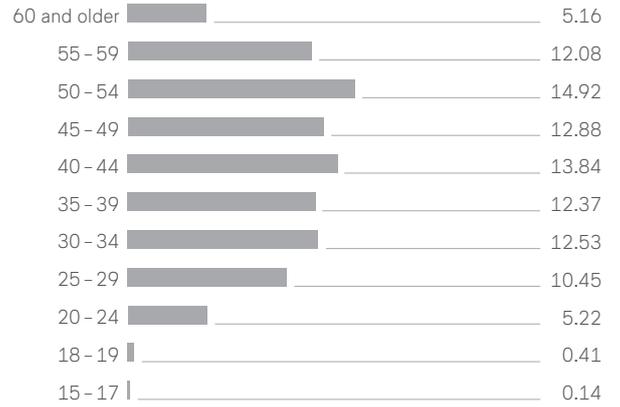
Lufthansa Group, in years as of December 31, respectively

■ Men ■ Total ■ Women



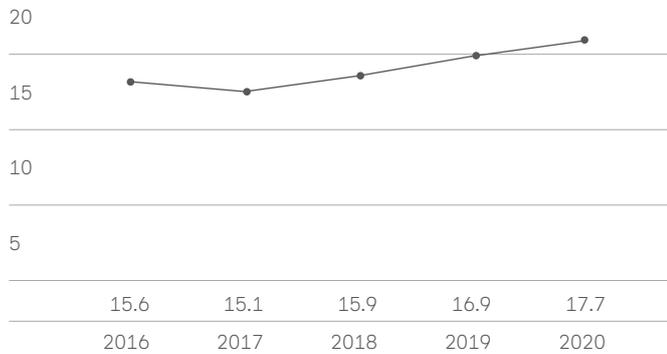
AGE STRUCTURE¹

Lufthansa Group, in percent as of December 31, 2020



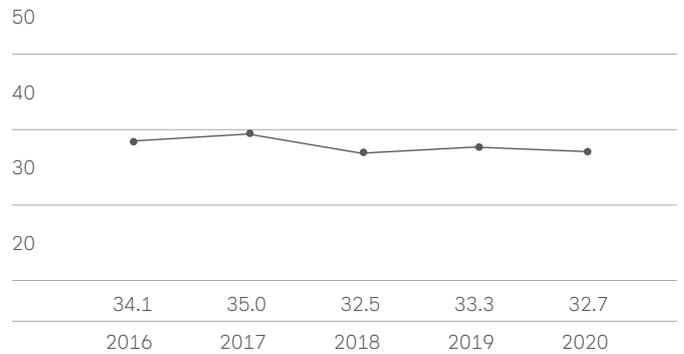
SHARE OF WOMEN IN MANAGEMENT POSITIONS (WORLDWIDE)²

Lufthansa Group, in percent as of December 31, respectively



SHARE OF WOMEN WITH STAFF RESPONSIBILITY (WORLDWIDE)²

Lufthansa Group, in percent as of December 31, respectively



¹ Scope: Group consolidation, excluding LSG Sky Chefs Spain, S.A.; LSG Sky Chefs Supply Chain Solutions, Inc.; Constance Food Group, Inc.; Sky Chefs, Inc.; Western Aire Chef, Inc.; SCIS Air Security Corporation. ² Scope: Group consolidation.

Personnel Data

EMPLOYEES ON PARENTAL LEAVE (GERMANY)¹

Lufthansa Group, employees as of December 31, 2020

■ Women ■ Men



EMPLOYEES ON PARENTAL LEAVE (OUTSIDE GERMANY)²

Lufthansa Group, employees as of December 31, 2020

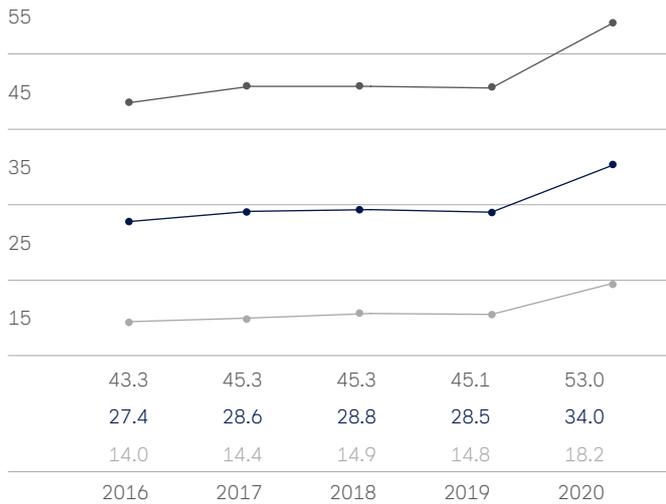
■ Women ■ Men



PART-TIME EMPLOYMENT^{1,2}

Lufthansa Group, in percent as of December 31, respectively

■ Women ■ Total ■ Men



SHARE OF EMPLOYEES IN GERMANY COVERED BY COLLECTIVE BARGAINING AGREEMENTS³

Lufthansa Group, employees as of December 31, 2020

Total ■ 83.0%

¹ Scope: Group consolidation. ² Scope: Group consolidation, excluding LSG Sky Chefs Spain, S.A.; LSG Sky Chefs Supply Chain Solutions, Inc.; Constance Food Group, Inc.; Sky Chefs, Inc.; Western Aire Chef, Inc.; SCIS Air Security Corporation. ³ Part-time with partial retirement (including block model). ⁴ The remainder are mostly executives and management in senior positions.

More Highlights in 2020

For more detailed information, [see Annual Report 2020 as of Page 86.](#)

RATINGS



- Evaluated by **CDP**: Climate-scoring overall result “B”, with the transparent and comprehensive disclosure of Scope 1, 2 and 3 received an “A” rating for each area
- Included in the **MSCI Global Sustainability Index** with “BBB”
- Registered in **Sustainalytics 23.6 Medium Risk**
- “Prime” status in the **ISS ESG Corporate Rating** with “C+”
- **VigeoEiris** above industry average with 43 Of 100 points
- “Silver status” by **EcoVadis**

ENVIRONMENTAL ISSUES



- **CO₂ reduction targets:**
 - Halving the carbon footprint of Lufthansa Group by 2030 compared to 2019 and carbon neutrality by 2050
 - 100% carbon neutrality on the ground in Germany, Austria and Switzerland by 2030

- A **cargo flight** taking off on 29 November 2020 was the first in the history of commercial aviation to have its fossil fuel completely offset through the use of SAF.
- Continuous investment in more modern and especially fuel-efficient aircraft and engine technologies: **18 new aircraft** received (including A350, Boeing 777F, A320neo, A321neo that produce up to **25% fewer emissions** than comparable aircraft types)
- Continuation of cooperations for the research and use of **alternative fuels** (SAF): **Heide Refinery**, PtL Competence Center Lausitz
- **Additional collaborations:** ETH Zurich, Climeworks and Synhelion and participation in the HySupply initiative of BDI and acatech
- **34** (PY 21) fuel-saving **projects pursued**, resulting in an **avoidance of 52.6 thousand tonnes of CO₂ emissions** (PY 24.5 thousand tonnes) and savings of 16.7 thousand tonnes (PY 9.7 thousand tonnes) of kerosene

- **100% offsetting** of CO₂ emissions from **business-related air travel of Lufthansa Group employees** worldwide
- Extended compensation offers for travelers on the **“Compensaid”** platform developed by the Lufthansa Innovation Hub implemented – a voluntary CO₂ compensation either for the replacement of fossil fuel with Sustainable Aviation Fuel or in favor of selected climate protection projects
- A total of **105 thousand tonnes of CO₂** (PY 181 thousand tonnes) were **offset by** Lufthansa Group and its customers
- **99.5%** (PY 99.6%) of the group’s operating fleet **meets or exceeds** the 10-decibel criterion of the ICAO Chapter 4 **noise standards**
- Continuation of the **Smart Plastic Reduction project**, which encompasses an annual volume of approximately **370 million individual items** (consumption in base year 2019). For example, over 50% of plastic items on an intercontinental flight are set to be replaced by more sustainable alternatives by the end of 2021

CUSTOMERS



- The **departure punctuality** of the Lufthansa Group passenger airlines rose from **76% to 88.6%** (annual average)
- A **Net Promoter Score of 62** for the network airlines confirms a high level of customer satisfaction
- A variety of **health protection measures** were established as a result of the coronavirus pandemic:
 - Implementation of the voluntary EASA charter on safe flying under pandemic conditions
 - Flexible and free rebooking options worldwide for all flights
 - Additional fare options with “Bring me home NOW” as well as the Travel Care and Travel Care Plus insurance packages
 - 4 stars awarded by Skytrax in the COVID 19 Airline Safety Rating

EMPLOYEES



- **Engagement Index** improved from **2.2 to 2.0** compared to the previous year despite pandemic
- **Health index** at **2.2**, exceeding the previous year's value of 2.3
- **Transparent information and communication** also ensured during short-time working through webcasts, podcasts and extensive use of Yammer thanks to the **#StrongerTogether** initiative
- **380 cabin employees** passed the "**Service Management Professional**" qualification program of the **German Chamber of Industry and Commerce** in 2020, which was continued despite the crisis
- **Talent** developed despite pandemic through deployment to crisis-relevant projects
- Extended home office possibilities

SOCIAL RESPONSIBILITY



- At the beginning of the pandemic, Lufthansa Group **waived the purchase of over 900,000 masks** to assist health authorities. The company also released employees with a medical background at short notice to **work in medical facilities** on a voluntary basis
- Establishment of a **coronavirus prevention and emergency aid fund**
- Responsibility for **39 aid projects** with a project volume of EUR 2.5 million – with 81% of the donations going to **support education**
- **40,000 disadvantaged people** worldwide received support

Glossary

Carbon dioxide (CO₂)

Gas resulting in nature from the burning or decomposition of organic substances (e.g. plant material). The greenhouse gas CO₂ remains in the atmosphere for about 100 years. Scientists attribute the increase in atmospheric CO₂ over the last 100 years to the burning of fossil fuels (e.g. coal, oil, natural gas) by humans. Per tonne of fuel, 3.15 tonnes of CO₂ result from the combustion process. Currently, 2.8 percent of the CO₂ emissions due to human activities are caused by global air traffic. (Source: International Energy Agency (IEA) 2018, 2016 values)

Carbon monoxide (CO)

Chemical compound consisting of one carbon and one oxygen atom, formed in the incomplete combustion process of substances containing carbon. For aircraft engines, the level of CO emissions depends greatly on the thrust level: The emissions per kilogram of fuel burned are higher at idle settings, while taxiing, and on approach than during the climbing and cruising phases.

Chapter 4 and Chapter 14 aircraft

The ICAO distinguishes between different noise standards, which are defined in related chapters of Annex 16 to the Convention on International Civil Aviation. The Environmental Committee (CAEP) of the ICAO agreed on the Chapter 4 noise standard in September 2001, according to which all aircraft newly certified since 2006 must remain cumulatively below the Chapter 3 noise levels by 10 decibels or more. In 2014, the ICAO agreed on the new Chapter 14 noise standard, which requires that aircraft must cumulatively remain 17 decibels below the Chapter 3 noise levels. This standard is initially applied to new aircraft with a maximum takeoff weight of more than 55 tonnes that are certified after December 31, 2017. For aircraft below this weight the new certification values are applied from December 31, 2020.

Decibel (dB)

Measuring unit for the intensity and pressure of sound. The difference in intensity between the softest sound the human ear can perceive and the pain threshold is 1:10 trillion. To depict this enormous range objectively, acoustics uses the logarithmic decibel scale. On this scale, the value “0” is assigned to the perception threshold (for a sound of 1,000 Hz) and the pain threshold at the value “130”. An increase of 10 dB corresponds to a tenfold increase in sound intensity. For the perceived volume, a difference of 10 dB corresponds to half or double the volume. However, the human ear is not equally sensitive across the entire range of frequencies. Low and high sounds are not perceived as being equally loud even at the same intensity. For measurements, this difference is equalized and noted accordingly. The best known such notation is the A value, marked by the index dB(A). To measure aircraft noise, the EPNdB (Effective Perceived Noise Decibel) unit is used internationally.

Freight tonne kilometers (FTKO/FTKT)

Airlines distinguish between freight performance offered (FTKO, freight tonne kilometers offered) and its sold freight performance (FTKT, freight tonne kilometers transported). See also “Tonne kilometers”.

Fuel Dump

Dumping of fuel in flight due to emergency situations to reduce a long-haul aircraft’s weight to the maximum allowed landing weight before unscheduled landings (e.g. in the event of technical problems or serious passenger illness). Special air space is assigned to the aircraft, if possible above uninhabited or thinly populated areas. Fuel is usually dumped at altitudes of four to eight kilometers. A minimum altitude of 1,800 meters and a minimum speed of 500 km/h are required. The aircraft may not fly a fully closed circle. The dumped kerosene is released from outlet valves and forms a fine mist behind the aircraft. So far, no contamination has been detected in plant or soil samples after fuel dumps.

Great-circle distance

The shortest distance between two points on the Earth's surface, measured in kilometers (great circle kilometers) or nautical miles. The center of a great circle is the center of the Earth.

Nitrogen oxides (NO_x)

Chemical compounds consisting of one nitrogen and several oxygen atoms. NO_x is defined as the sum of NO and NO₂ compounds. Natural sources include lightning and microbes in the soil. Nitrogen oxides are also generated in combustion processes under high pressures and temperatures. However, future combustion chambers of an advanced design could help reduce NO_x emissions by 85 percent. Air traffic contributes two to three percent of man-made NO_x emissions. Climate models show that nitrogen oxides have increased the concentration of ozone at cruising altitudes by a few percentage points.

Passenger kilometer (PKO/PKT)

Measure for transport performance in passenger carriage (number of passengers multiplied by distance flown). A distinction is made between available transport performance (PKO, passenger kilometers offered, or, synonymously, SKO, seat kilometers offered) and actual transport performance (PKT, passenger kilometers transported).

Seat kilometer (SKO)

Measure of the transport capacity available (SKO, seat kilometers offered).

Tonne kilometer (TKT/TKO)

Measure of transport performance (payload multiplied by distance). A distinction is made between available transport performance (TKO, tonne kilometers offered) and the actual transport performance (TKT, tonne kilometers transported). In calculating payloads, passengers are taken into account by means of a statistical average weight.

Unburned hydrocarbons (UHC)

Organic mixture of carbon and hydrogen that results from the incomplete combustion of fuels containing hydrocarbons or from the evaporation of fuel.

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➤ lufthansagroup.com/en/responsibility

View the Annual Report 2020 including the non-financial declaration at:

➤ lufthansagroup.com/investor-relations