



**LUFTHANSA GROUP**

# Lufthansa Group TCFD Report 2020

Lufthansa Group has committed to aligning its climate-related disclosures with the **Taskforce on Climate-related Financial Disclosures (TCFD)** recommendations in early 2021. This table summarizes its current efforts. Following TCFD recommendations Lufthansa Group has begun the process of analyzing scenarios to further identify and analyze potential impacts from climate-change related risks and opportunities on its business model. Lufthansa Group also developed a TCFD roadmap that will guide the Group’s efforts to further expand its climate-related disclosures over the course of the coming years.

TCFD Recommendation	Lufthansa Group Approach	Further Disclosure	
GOVERNANCE	<p><b>Describe the board’s oversight of climate-related risks and opportunities</b></p>	<p>The Executive Board has ultimate oversight of climate-related issues and has been responsible for reviewing the Group’s climate-related strategy, measures and target setting. On 1 January 2020, the Executive Board was expanded to include the function Customer, IT &amp; Corporate Responsibility (Chief Customer Officer). This established responsibility for the Company’s environmental, climate and social impact directly at the Executive Board level. In 2020, the Group Executive Committee (GEC), chaired by the Group’s CEO, determined the focus and further development of sustainability-related activities, including climate-related issues, within the Lufthansa Group. The GEC essentially consists of the members of the Executive Board of Deutsche Lufthansa AG and the CEOs of the main subsidiaries. Climate-related strategy is integrated in overall strategy decisions by the Executive Board. Climate-related issues are also scheduled on the agenda of the GEC at meetings with relevance on strategy or political decisions, risk management or major capital expenditures like fleet renewal or sustainable aviation fuel (SAF).</p>	<p>Annual Report 2020 (Combined non-financial declaration), p.86ff.</p> <p>Annual Report 2020, p.15</p> <p>CDP Report 2020 C1.1- C1.1b</p>

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		<p>The Executive Board has the final oversight of the Combined Non-financial declaration which includes the climate / environmental strategy, climate-related risk assessment, organization, management, measures and targets. The highest monitoring body in the area of sustainable management is the Supervisory Board. The Supervisory Board commissions a limited audit review of the Combined Non-financial declaration.</p>	
<p>GOVERNANCE</p>	<p><b>Describe management’s role in assessing and managing climate-related risks and opportunities</b></p>	<p>The <b>department “Corporate Responsibility”</b> reports to the board member accountable for Customer, IT &amp; Corporate Responsibility, and is responsible for the Lufthansa Group’s definition, coordination and implementation of Group-wide goals and measures with regard to environmental management, including climate-related issues such as assessing climate-related risks and opportunities. In addition, all larger subsidiaries have their own environmental departments as well as an environmental commissioner or coordinator. The environmental commissioners and coordinators meet at least once a year at the Group-wide Environmental Forum to coordinate strategies, measures and processes and discuss new or planned legal requirements and their effect on the Lufthansa Group.</p> <p>On management level, the coordination and further development of activities and initiatives relevant for sustainability including climate-related issues within the Lufthansa Group has been the task of the <b>Corporate Responsibility Council (CRC)</b>, which consists of the heads of Group Strategy, Policy, Corporate Responsibility, Investor Relations, Controlling, Legal, Human Resources, Communications and Corporate</p>	<p>Annual Report 2020 (Combined non-financial declaration), p.86ff.</p> <p>Annual Report 2020, p.251ff.</p> <p>CDP Report 2020, C1.2</p>

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Sourcing. Individual managers are responsible for implementing concrete activities and projects. They bundle and organize the topics within their respective areas of responsibility.

The Head of Corporate Responsibility is the Risk Owner of climate-related risks. Climate-related risks are reported and monitored within the Lufthansa Group's Risk Management System as are other sustainability risks. The risk assessment is done quarterly. The top risks are reported to the Executive Board on a regular basis and discussed annually with a subgroup of the Supervisory Board, the Audit Committee.

Lufthansa Group provides incentives for the achievement of climate-related targets on board-level. The Supervisory Board defined specific CO<sub>2</sub> reduction as focus topic for the strategic and sustainability target for **long-term variable remuneration (LTI)** for the 2020 financial year. The non-financial performance criteria thus take the interests of key stakeholders into account and provide long-term incentives for the environmental goal of reducing specific carbon emissions. For the LTI, the possible range of the target achievement for the financial and non-financial targets is between 0% and 200%. For the non-financial target "Environment", the targets set by IATA (International Air Transport Association) for fuel efficiency are used, i.e. the average amount of kerosene consumed to carry a passenger 100 kilometres. The aim is to reduce specific fuel consumption by 1.5% p.a. and so to improve specific CO<sub>2</sub> emissions. The LTI for 2020 includes emissions from Lufthansa's own fleet as well as those from wet lease flights. To calculate performance, the improvement in specific CO<sub>2</sub> emissions is measured annually over the four-year performance period. This was the

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		<p>only non-financial target for LTI in 2019 and 2020 and accounted for 25% of the LTI. Specific CO<sub>2</sub> efficiency (including wet-lease flights) came to 10.52 kg/100 passenger-kilometres in 2020 (2019: 9.22 kg/100 passenger-kilometres), so that performance in the 2020 financial year for the environmental parameter for the LTI 2020 was 0%. The development of this KPI in 2020 was due to the corona pandemic and mainly driven by comprehensive travel restrictions which resulted in lower passenger load factor and a higher share of short-haul flights which emit relatively more CO<sub>2</sub> than long-haul flights.</p>	
<p>STRATEGY</p>	<p><b>Describe the climate-related risks and opportunities the organization has identified over the short, medium, and long term</b></p>	<p><b>Transition risks</b>                  Early in 2021, in a qualitative analysis of transition risks based on the IEA ETP 2020 Sustainable Development Scenario, Lufthansa Group has analyzed climate-related risks with a timeframe of up to 10 years. Climate-related risks to the company could be market, reputation, policy &amp; legal and technology related.</p> <p>High <b>market risk</b> impact could result from modal shift to (high speed) rail and lower than expected passenger growth in certain regions (e.g. within Europe). Furthermore, competitive pressure and higher fuel costs impose a material risk that older and less efficient airplanes will have to be retired earlier than originally planned, resulting in an impairment of their residual value.</p> <p>There may also be a <b>reputational risk</b> as “flight shame” may increase.</p>	<p>Annual Report 2020, p.72ff.</p> <p>CDP Report 2020, C2.1 - C2.4</p> <p>Annual Report 2020 (Combined non-financial declaration), p.90</p>

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High **policy risk** impact might come from carbon pricing, aviation taxes, energy efficiency standards and a stronger policy focus on rail, making aviation less cost competitive.

Risks could increase significantly with heterogeneous CO<sub>2</sub> price and sustainability support schemes across countries/regions.

**Technology risks** and **opportunities** include new aircraft technologies and retrofits as well as sustainable aviation fuels (SAF). In consequence, capital expenditures and expenses may increase. Today's certified sustainable aviation fuels can be used without modification in existing aircraft and supply infrastructure.

Most of the material risks unfold impact in the long-term range (>6 years), whereas policy risks may already materialize in the nearer future.

Lufthansa's Group-wide risk management system ranks "regulatory risks resulting from climate change" as a top risk for Lufthansa Group in the 2020 Lufthansa Group's Opportunities and Risk Report. It is classified as a qualitative risk with a substantial significance and a high magnitude. In more detail, this refers to the risk that emission-related costs will increase. Since 2012 air traffic within the EU has been part of the EU Emissions Trading Scheme (EU ETS), and there is a risk of rising costs or additional requirements in the course of the revision of the European Emissions Trading Directive. The harmonization of EU-ETS and CORSIA also has not yet been clarified, and the risk that emissions related to the same flight need to be offset under both schemes persists. The EU ETS has already led to a distortion of competition due

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to higher cost related to EU regulation, which would be exacerbated by the aforementioned measures.

The planned introduction of a sustainable aviation fuel (SAF) quota could also lead to further distortion of competition depending on its design, as competitors could circumvent this by tankering, i.e. carrying fuel on outward flights in excess of their requirements, or by operating multi-sector flights or transfers at non-European hubs.

### Physical risks

In a preliminary analysis, Lufthansa Group has identified both potential chronic and acute physical risks. **Chronic physical risk**, such as a higher average temperature, can potentially lead to lower passenger and cargo loads due to aircraft performance restrictions. For example, temperature-related take-off weight limitations and /or the need for increased fuel up-lift to cope with unexpected weather-related rerouting due to more frequent and severe thunderstorms might reduce the available payload on those flights.

A shift of large-scale circulation patterns, such as jet stream, could lead to changes of flight time and flight routings. Especially combined with enhanced atmospheric turbulences longer flight times are induced.

**Acute physical risk** can potentially impact aircraft during take-off and landing as well as en-route. An increased number of local thunderstorms, stronger surface winds, more frequent fog conditions and heatwaves, more frequent cyclones and atmospheric turbulences could affect passenger comfort and safety as well as induce large-scale re-routings or flight cancellations.

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Overall, physical climate risk could affect aircraft performance, cause re-routings and temporary closure of airspaces and airports as well as damage / destruction of infrastructure and aircraft with negative effects on cost and earnings for Lufthansa Group.

### Opportunities

As **short** and **medium-term opportunities**, Lufthansa Group identified more efficient production processes, e.g. using more efficient, cleaner aircraft (airframes and engines), improved air traffic management based on international agreements and taking part in upcoming national research projects and EU projects linked to the EU Green Deal, such as the EU ETS innovation fund. Intelligent routing and smart technologies could reduce energy intensity and operational expenses and support climate-optimized flying. Driven by the current climate change discussions, further opportunities may also arise from accelerated railroad infrastructure projects at hub airports, having the potential to increasingly substitute cost- and CO<sub>2</sub> intense short-range feeder flights by train connections. Lufthansa Group is seizing this opportunity through an enhanced cooperation not only with Deutsche Bahn but also with Austrian Railways and various bus operators.

**Long-term opportunities** include the use of lower-emission sources of energy, i.e. sustainable aviation fuels and the reduction of the use of fuel by investing in a modern and efficient fleet and working together with Lufthansa Group's upstream supply chain, i.e. contributing practical know-how to developing new types of aircraft.



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STRATEGY

**Describe the impact of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning**

Lufthansa Group has chosen the **Sustainable Development Scenario from the IEA ETP 2020** report to run a qualitative assessment of the transition risks for Lufthansa Group. The company has chosen the scenario as it is in line with the goal of the Paris Agreement of limiting global warming to well below 2°C compared to pre-industrial levels – a goal the Lufthansa Group and the European aviation industry have also subscribed to. Increasing climate regulation like carbon pricing, energy efficiency standards as well as aviation (and fuel) taxes may lead to increasing expenditures for new airplanes and higher operational costs. Higher operational cost and lower margins could also result from mandatory sustainable aviation fuel quotas which is more expensive than conventional fuels. Policy constraints (e.g. regarding the energy efficiency of the fleet, ban of short flights) may lead to early write-offs of equipment and an expansion of Lufthansa Group's research and development investment. As risks are likely to affect the entire aviation sector, the impact on competitiveness is expected to be limited. Though, risks could increase significantly with geographically constrained or heterogeneous regulation across countries/regions. Lufthansa Group plans to conduct a quantitative analysis of at least two scenarios in the near future, looking into transition and physical risks and opportunities and quantifying financial implications.

Lufthansa Group's current strategy already reflects many of these findings with climate-related issues impacting its products and services, its value chain, investments in R&D and its operations. Some of its key strategic initiatives are the following:

Annual Report 2020, p.19 and p.78

Annual Report 2020 (Combined non-financial declaration), p.90ff.

CDP Report 2020, C2.3a – C3.1f.

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**Investing** in fuel-efficient aircraft: Fleet renewal is currently the key driver for reducing CO<sub>2</sub> emissions from flight operations. Lufthansa Group is investing continuously in modern, particularly fuel-efficient aircraft and engine technologies. Alongside four used aircraft, 18 new aircraft went into service with the Lufthansa Group airlines in 2020, including more Airbus A320neos, A321neos, A350s and Boeing 777Fs, which are powered by modern engines. The A350-900 aircraft is one of the latest and most environmentally friendly long-haul aircraft in the world. A total of 28 older aircraft were removed from the Group fleet.

**Using partnerships** to drive research on sustainable aviation fuels: Lufthansa Group uses partnerships to drive research projects on sustainable aviation fuel. In the past decade, the Lufthansa Group has been closely involved with the research, testing and use of sustainable aviation fuel (SAF). The focus is on synthetic kerosene based on waste materials, ligneous biomass and renewable electrical energy (power-to-liquid – PtL). In 2019, Lufthansa Group signed a letter of intent with Raffinerie Heide on future supplies of PtL fuel to Hamburg Airport. Furthermore, Lufthansa Group supports the Lausitz power-to-X centre of excellence and partners with ETH Zurich and its two spin-offs Synhelion and Climeworks. The experts at ETH Zurich have developed innovative methods for removing CO<sub>2</sub> from the atmosphere and, together with water and concentrated sunlight, convert it into a synthesis gas that can be used to generate fuel.

**Expansion of intermodal traffic:** Since the 1980s, the Lufthansa Group has been developing ways of combining the various means of transport (air, rail and road) intelligently, a concept known as intermodality, to also

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		<p>reduce the environmental impact of flights. To encourage intermodal transport, a partnership was established with rail operator Deutsche Bahn in 2001 and has since been deepened, with significant progress made in 2020. Joint capacity on existing routes was expanded, and Leipzig, Hanover and Basel were added. Further opportunities for cooperation are currently being developed with Deutsche Bahn.</p> <p>In addition to the wide-ranging measures to limit CO<sub>2</sub> emissions, the Lufthansa Group participates in the public debate – sometimes together with other European airlines and industry associations – and endeavours to prevent any regulations that could distort competition.</p>	
STRATEGY	<p><b>Describe the resilience of the organization’s strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario</b></p>	<p>As sustainability including climate issues is of high importance for Lufthansa Group, over the course of last year’s strategy process Lufthansa Group analyzed industry- as well as “macro” trends to compile different possible future states for the aviation industry. One key trend considered in all future states is sustainability, largely driven by climate-related market and policy risks (e.g. changing customer behavior, emissions-based taxes/ fees, potential ban of ultra-short-haul flights). The base case assumes a gradual evolution of all relevant trends, whereas the “sustainability and social responsibility” case is used on an accelerated relevance and potentially even dominance of such trends (e.g. ban of domestic flights). Based on this effort, success factors and key skills have been identified. Due to intense cost competition and as of today a limited willingness of customers to pay for environmentally friendly flying, it will be crucial to turn sustainability measures into value contributing business cases as a sound foundation</p>	<p>Annual Report 2020, p.19</p> <p>Annual Report 2020 (Combined non-financial declaration), p.90ff.</p> <p>CDP Report 2020, C2.3a – C3.1f.</p>

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		<p>to meet Lufthansa Group’s targets of being CO<sub>2</sub>-neutral by 2050 and reducing net CO<sub>2</sub> emissions by half by 2030.</p> <p>In addition, the qualitative scenario analysis Lufthansa Group conducted based on the IEA ETP 2020 Sustainable Development Scenario revealed that aviation is a growth sector even in a well below 2°C world. Adapting to changing requirements, Lufthansa Group is committed to investing in the transition to a CO<sub>2</sub> net zero economy. A sustained increase of the fleet energy efficiency, technology expertise in development of fuel saving retrofits (“shark skin”) and technologies and a proactive support and integration of sustainable aviation fuels are key steps in this regard. Lufthansa Group closely monitors regulatory developments to be able to adapt to changing policy and market conditions. Lufthansa Group also participates in the public debate and endeavours to prevent any regulations that could distort competition.</p>	
<p>RISK MANAGEMENT</p>	<p><b>Describe the organization’s processes for identifying and assessing climate-related risks</b></p>	<p>The Lufthansa Group has implemented a systematic Enterprise Risk Management process at Group level. It aims to fully identify material risks, to present and compare them transparently and to assess and manage them. Risk owners are obliged to monitor risks proactively and to include relevant information in the planning, steering and control processes. The Group guidelines on risk management approved by the Executive Board define all the binding methodological and organizational standards for dealing with opportunities and risks.</p> <p>Risks are assessed by the respective risk owners and aggregated in a risk map by the risk management function. This process takes into</p>	<p>Annual Report 2020, p.71ff.</p> <p>Sustainability Report 2019, p.29</p> <p>CDP Report 2020, C2.1 -C2.2a</p>

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account all kind of risks, i.e. also risks related to climate change – including physical and transitional risks. The risk map is updated quarterly in close cooperation with different committees/departments throughout the Lufthansa Group. Thereby it is ensured that various professionals and environmental experts evaluate the climate-related risks/ opportunities . Based on their assessment the financial and strategic impact on the Group from climate-related risks is made transparent. Asset specific risks/opportunities from climate change are assessed in the respective departments.

The methodological evaluation of risks within the Enterprise Risk Management at Lufthansa Group distinguishes between qualitative and quantitative risks. Financial impacts of climate-related risks are quantified if possible; otherwise they are described as qualitative/ strategic risks. Qualitative risks are long-term developments and challenges with potentially adverse consequences for the Lufthansa Group.

Lufthansa Group has a dedicated department that regularly monitors environmental policy and regulatory developments including those related to climate change (e.g. through regular dialogue with relevant authorities and policymakers) and analyses these developments for potential implications for the Lufthansa Group.

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<p>RISK MANAGEMENT</p>	<p><b>Describe the organization's processes for managing climate-related risks</b></p>	<p>Key business units and climate risk owners cooperate in managing climate-related risks and opportunities as part of Lufthansa Group's integrated approach.</p> <p>Additionally, specialists from the Corporate Responsibility department coordinate climate-related research activities and support and facilitate climate risk and climate opportunity management activities across the Group.</p> <p>As and when required, the GEC handles climate-related issues on board level.</p>	<p>Annual Report 2020, p.71ff.</p> <p>Annual Report 2020 (Combined non-financial declaration), p.89ff.</p>
<p>RISK MANAGEMENT</p>	<p><b>Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the organization's overall risk management</b></p>	<p>The systematic Enterprise Risk Management of the Lufthansa Group as described above, takes into account all relevant risks, i.e. also risks related to climate change – including physical and transitional risks and opportunities.</p>	<p>Annual Report 2020, p.71ff.</p> <p>CDP Report 2020, C2.2</p>

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### METRICS AND TARGETS

**Disclose the metrics used by the organization to assess climate-related risks and opportunities in line with its strategy and risk management process**

In order to measure and manage climate-related risks and in line with its strategic target to reduce the net carbon footprint by half in 2030 and reach carbon-neutrality in 2050, Lufthansa Group monitors its CO<sub>2</sub> emissions, (specific) fuel consumption and specific carbon emissions.

The Lufthansa Group factors specific carbon emissions into its management system in order to enable sustainable value creation that does not come at the expense of a higher environmental impact. In fact, the aim is also to reduce specific carbon emissions continuously.

Absolute CO<sub>2</sub> emissions of Lufthansa Group aircraft in 2020 amounted to 11.4 million tonnes (previous year: 33.1 million tonnes). Due to the corona pandemic, carbon emissions per transported tonne-kilometre increased to 880 grammes (previous year: 870 grammes). Specific CO<sub>2</sub> emissions per passenger-kilometre were higher than the previous year at 105.2 grammes (previous year: 92.2 grammes). The main drivers of this development were the lower passenger load factor, which declined to 60.8% on average (previous year: 82.0%) relative to the Lufthansa Group's own fleet (without wet leases), and the changes to the route network. Wide-ranging travel restrictions resulting from the corona pandemic caused short-haul flights to go up as a percentage of total capacity at the Group airlines. In relation to the distance, short-haul flights emit more CO<sub>2</sub> than long-haul flights.

Annual Report 2020 (Combined non-financial declaration), p.90ff.

Annual Report 2020, p.21f.

Annual Report 2020, p.95

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### ENVIRONMENTAL DATA<sup>1,2</sup>

2020

2019

Change

#### Resource Consumption

Fuel consumption <sup>3</sup>	Million tonnes	3.6	10.4	-66%
Fuel consumption, specific, passenger transportation	l/100 pkm	4.18	3.67	+14%
Fuel consumption, specific, freight transportation	g/tkm	214	213	+0.5%

#### Emissions

CO <sub>2</sub> <sup>3,4</sup>	Million tonnes	11.4	33.1	-66%
CO <sub>2</sub> , specific, passenger transportation	kg/100 pkm	10.52	9.22	+ 14%

**1** For the reporting year 2020 and 2019, the following companies have been included: Lufthansa (including Lufthansa CityLine and Air Dolomiti), SWISS (including Edelweiss Air), Austrian Airlines, Eurowings (including Germanwings and Luftfahrtgesellschaft Walter for Q1 2019 only as sold on April 1, 2019), Brussels Airlines and Lufthansa Cargo. Excluding the service of third parties, as the Company only has a limited influence on their performance. **2** Types of flights taken into account: all scheduled and charter flights (without ground traffic). **3** Actual fuel consumption/carbon dioxide emissions in tonnes from flight operations, based on all flight events under the respective operational flight number. Recorded are consumption/carbon dioxide emission values from gate-to-gate, i.e. including taxiing on the ground, holding patterns and detours in the air. **4** Minor deviations from the Sustainability Factsheet 2019 due to a system adaptation at Brussels Airlines.

Sustainability Fact Sheet 2020 will be available on 04.05.2021.



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Lufthansa also monitors the split of CO<sub>2</sub> by passenger and freight as well as other emissions (NO<sub>x</sub>, CO and UHC).

### CO<sub>2</sub>-EMISSIONS 2019<sup>1,2,3</sup>

in tonnes

	Passengers	± 2018	Freight	± 2018	Total	± 2018
CO <sub>2</sub>	26,506,143	+3.9%	6,365,129	-6.3%	32,871,272	+1.8%

### NON-CO<sub>2</sub> EMISSIONS<sup>1</sup> 2019

in tonnes

	Passengers	± 2018	Freight	± 2018	Total	± 2018
NO <sub>x</sub>	132,335	+4.2%	33,333	-3.2%	165,668	+2.6%
CO	20,397	+3.9%	3,528	-1.3%	23,925	+3.1%
UHC	1,973	+1.5%	353	-3.8%	2,326	+0.7%

**1** For the reporting year 2019, the following companies have been included: Lufthansa (including Lufthansa CityLine and Air Dolomiti), SWISS (including Edelweiss Air), Austrian Airlines, Eurowings (including Germanwings and Luftfahrtgesellschaft Walter for Q1 only as sold on April 1, 2019), Brussels Airlines and Lufthansa Cargo. Excluding the service of third parties, as the Company only has a limited influence on their performance. Types of flights taken into account: all scheduled and charter flights (without ground traffic). **2** Absolute carbon dioxide emissions in tonnes from flight operations (all scheduled and charter flights). Recorded are carbon dioxide emissions values from gate-to-gate, i.e. including taxiing on the ground, holding patterns and detours in the air. **3** Data as of Sustainability Factsheet 2019 defer minimally due to a system change at Brussels Airlines.

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METRICS AND TARGETS

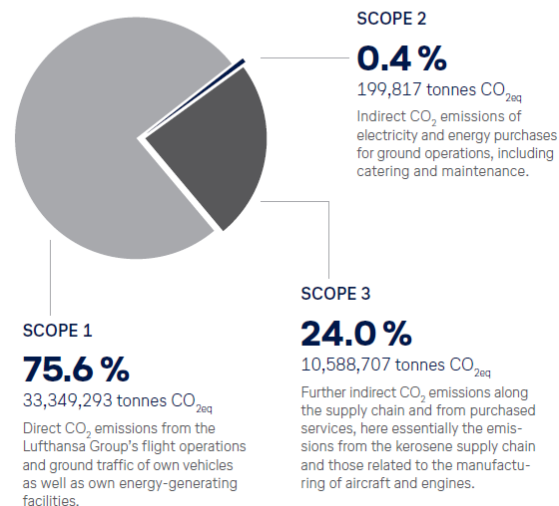
**Disclose Scope 1, Scope 2, and, if appropriate, Scope 3 greenhouse gas (GHG) emissions, and the related risks**

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Most of Lufthansa Group's CO<sub>2</sub> emissions are direct emissions (Scope 1) from its own operations. But greenhouse gas emissions are also generated in other parts of the value chain and the Group takes all CO<sub>2</sub> emissions into account and accordingly discloses Scope 1-3 emissions.

The Lufthansa Group determines its CO<sub>2</sub> emissions on the basis of the Greenhouse Gas Protocol (GHG Protocol), which divides emissions into three main categories (scopes).

**DIRECT AND INDIRECT CO<sub>2</sub> EMISSIONS OF THE LUFTHANSA GROUP 2019**



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Sustainability Fact Sheet, 2019, p.5ff.

Sustainability Fact Sheet 2020 (direct and indirect CO<sub>2</sub> emissions, Non-CO<sub>2</sub> Emissions) will be available 04.05.2021.

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### METRICS AND TARGETS

**Describe the targets used by the organization to manage climate-related risks and opportunities and performance against targets**

The aviation sector started making voluntary commitments to reduce emissions as early as 2009, via its industry association IATA and the Air Transport Action Group (ATAG). The Lufthansa Group was closely involved in setting the target of continuous efficiency improvements of 1.5% p.a. until 2020, carbon-neutral growth from 2020 and a reduction of 50% in net emissions compared with 2005 by 2050. IATA is currently reviewing its targets for the global aviation industry. Above and beyond the currently agreed targets, it aspires to make global air traffic carbon neutral by the year 2060. The existing climate goals mentioned above will also remain in place.

As befits its pioneering role, the Lufthansa Group has also defined its own carbon reduction targets, which in some cases are more demanding. This means the Lufthansa Group's net carbon footprint should be reduced by half by 2030 compared with 2019, with carbon neutrality the objective for 2050.

Lufthansa Group has closely followed the development of the Science Based Targets initiative (SBTi) guidance and target setting methodologies for the aviation sector and participated in stakeholder consultations in December 2020. When the sector guidance is available in its final version, Lufthansa Group will explore the option of having its targets validated by the SBTi. The large-scale availability of sustainable aviation fuels is critical for reaching the greenhouse gas emission intensity reductions required by the SBTi.

Annual Report 2020 (Combined non-financial declaration), p.90

CDP Report 2020, C4.1a

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### Lufthansa Group has also set these climate-related targets:

- Increase fuel efficiency from 2009 by 1.5% p.a. until 2020 (IATA goal). Target has been achieved: from 2009 until 2019 average fuel efficiency is at 1.6% p.a. per passenger kilometre.
- Reduce specific CO<sub>2</sub> by 25% until 2020 (base year 2006). Target achievement for 2020 pending due to corona pandemic (target achievement was 67% by the end of 2018).
- Reduce 100% of emissions from ground mobility in Germany, Switzerland, Austria and Belgium until 2030. Progress reporting was paused due to the corona pandemic in 2020.
- Reduce 25% of Scope 1 and 2 emissions at Lufthansa Technik production sites until 2025 (base year 2018). Target achievement was at 41.3% at the end of 2019.
- 100% Carbon Offsetting of all employees' duty flights. Target achievement is at 100%.
- Switch to 100% green electricity in buildings in Germany, Switzerland, Austria and Belgium from 2020. Target achievement is almost at 100% (locations where the building is owned by another entity who is responsible for the electricity supply are excluded).

**About this report:** This report primarily contains information that have already been disclosed by Lufthansa Group (e.g. within its Annual Report 2020 or as part of its CDP Climate reporting). Under “Lufthansa Group Approach”, the Group has primarily taken information from these existing disclosures and supplemented them selectively with additional information to provide a more accurate picture of the current state of its efforts. The considerations regarding potential risks identified in the qualitative scenario analysis conducted by Lufthansa Group in early 2021 are based on a time horizon of up to 10 years. Under “Further Disclosure”, Lufthansa Group references the key sources where the interested reader can find information relating to the specific TCFD recommendations within the Group’s disclosures.



## Editorial information

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You will find further information on sustainability  
within the Lufthansa Group at:

➤ [lufthansagroup.com/responsibility](https://lufthansagroup.com/responsibility)

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

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