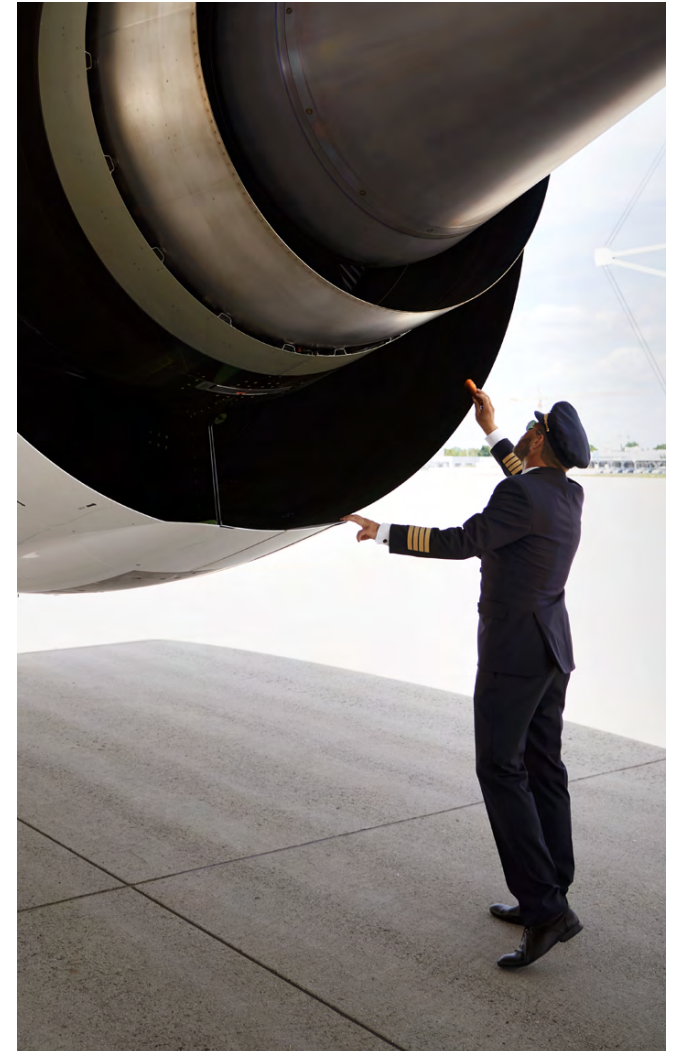




Report 2022

SASB



Sustainability Disclosure Topics & Accounting Metrics

Topic	SASB Code	Accounting Metric	Lufthansa Group Response	Reference
GREENHOUSE GAS EMISSIONS	TR-AL-110a.1	Gross global Scope 1 emissions	<p>Gross global Scope 1 emissions: 23,2 million tonnes, (2021: 13,8 million tonnes), thereof 23,1 million tonnes caused by flights of Lufthansa Group aircraft.</p> <p>Specific CO₂ emissions per tonne-kilometre were reduced by 3,7% to 837 grammes (2021: 869 grammes).</p> <p>Specific CO₂ emissions per passenger-kilometre were 11,4% lower than in the previous year at 90.0 grammes (2021: 101.6 grammes).</p> <p>The calculation of Lufthansa Group's total Scope 1 emissions is based on the Greenhouse Gas Protocol. The emissions factors used for the calculation of Scope 1 emissions (e.g., kerosene, gasoline, diesel, natural gas) are based on the DIN EN 16258.</p> <p>The specific emissions from flight operations are calculated based on actual transport performance and hence on actual load factors and the actual absolute quantity of kerosene consumed in the reporting year. The distances used in the calculations</p>	<p>Sustainability Fact Sheet 2022, p.3, 10, 12, 15, 21, 22</p> <p>Annual Report 2022 (Combined non-financial declaration), p.107</p>

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GREENHOUSE GAS EMISSIONS

are great-circle distances. Transport performance is measured in tonne-kilometre. For passengers and their luggage, an average of 101 kilogrammes on intercontinental flights and 100 kilogrammes for continental flights is the standard estimate; for freight, it is its scale weight. Carbon dioxide (CO₂) emissions do not require special calculation methods, as they are generated in a fixed ratio to the quantity of kerosene burned. The combustion of one tonne of kerosene generates 3.15 tonnes of CO₂. This is the conversion factor which is used by the EU Emissions Trading Scheme (EU-ETS, Regulation (EU) 2018/2066).

The decline in the Group fleet’s specific emissions compared with the previous period was mainly due to an increase in the passenger load factor and changes in the route network that resulted in an increase in average flight length. Longer routes typically generate lower specific emissions since emissions are higher during take-offs and landings and become less weighty in the calculation as the flight distance increases.

By using Sustainable Aviation Fuel (SAF), Lufthansa Group was able to reduce climate-impacting emissions by a total of 43,900 tonnes in 2022. Of this amount, 40,400 metric tonnes were saved

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GREENHOUSE GAS EMISSIONS			<p>directly in the combustion of SAF (Scope 1), and 3,500 metric tonnes were saved in the upstream supply chain (production and transport, Scope 3) - both values refer to the comparison with the use of fossil kerosene. Compared with the previous year, the climate-impacting CO₂ savings by SAF were thus increased by 73.5 %.</p> <p>Scope 1 data according to GHG Protocol audited with reasonable assurance by Müller-BBM, Cert GmbH and to the requirements of ISO 14064-3.</p>	
	TR-AL-110a.2	<p>Discussion of long-term and short-term strategy or plan to manage Scope 1 emissions, emissions reduction targets, and an analysis of performance against those targets</p>	<p>Lufthansa Group played a major role in setting ambitious climate-related targets within the national and international airline associations of which the Lufthansa Group is a member.</p> <p>In October 2021, Lufthansa Group supported IATA’s decision to make its existing emission reduction targets more ambitious, setting itself the goal of reducing net CO₂ emissions to zero by 2050 (net zero target). In 2022, all airlines of Lufthansa Group become members of the “Aviation Alliance Fit for 55”, an alliance of European airlines and airports founded in 2022. The partners in the alliance have committed to the goal of carbon-neutral aviation by 2050 and have proposed competition-neutral solutions at the European level to achieve this goal.</p>	<p>Annual Report 2022 (Combined non-financial declaration), p.101</p> <p>Sustainability Fact Sheet 2022 p.15</p> <p>TCFD Report 2022, p.16</p>

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GREENHOUSE GAS EMISSIONS	TR-AL-110a.2		<p>Lufthansa Group also defines its own expanded emission reduction targets</p> <p>As befits its pioneering role in climate protection, the Lufthansa Group defined its own carbon reduction targets, which are more ambitious. Lufthansa Group’s target to reduce CO₂ emissions was validated by the Science Based Targets initiative (SBTi) in the summer of 2022. The SBTi, a joint initiative of CDP, United Nations Global Compact, World Resources Institute (WRI) and World Wide Fund for Nature (WWF), develops criteria for climate protection in companies and validates the corresponding corporate targets. With its SBTi validation, Lufthansa Group was the first airline group in Europe with a scientifically based CO₂ reduction target in line with the goals of the Paris Climate Agreement of 2015.</p> <p>Specifically, the Lufthansa Group has aligned its policies with SBTi criteria and committed to reducing its CO₂ intensity, i.e., its CO₂ emissions per transported tonne-kilometre (passenger and freight), by 30.6% from 2019 to 2030. This target may only be achieved by reducing fuel consumption or by substituting fossil fuel with SAF. Lufthansa Group is also reporting on the status of its CO₂ intensity reduction target, which came to 2.2% below base year 2019.</p>	

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	TR-AL-110a.2		<p>Over and above the reduction required by the SBTi targets, the Group will achieve its self-imposed target of cutting net CO₂ emissions in half by 2030 compared to 2019 which includes also voluntary offsets. The Lufthansa Group aims to be carbon neutral in 2050.</p> <p>From the Lufthansa Group's perspective, these science-based reduction targets are intended to provide a clearly defined path to future-proof growth. Lufthansa Group's reduction path explains the plan to achieve this and how the business will develop accordingly.</p>	

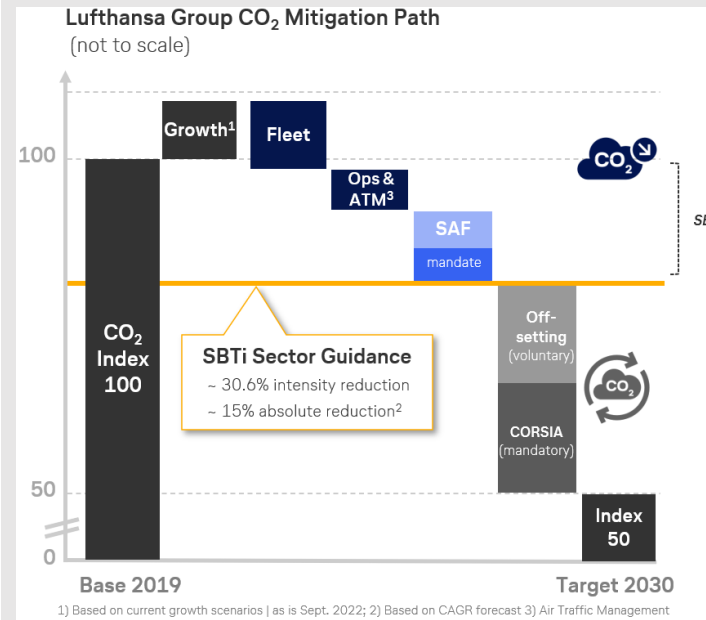
Topic

SASB Code

Accounting Metric

Lufthansa Group Response

Reference



Annual Report 2022
(Remuneration Report), p.280ff.

TCFD-Report 2022,
p.14ff.

Annual Report 2022
(Combined non-financial declaration),
p.102ff.

Of the seven greenhouse gases listed in the Kyoto Protocol, Lufthansa Group airlines emits only CO₂.

Emission reduction targets are part of Executive Board remuneration. Emission reduction targets are an element of the long-term variable remuneration of the Executive Board of Deutsche Lufthansa AG since 2011. Since the remuneration system was changed in 2019, the Supervisory Board has regularly defined an environmental target as one of the strategic and sustainability targets for the long-term variable

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remuneration (LTI) of the Executive Board. The reduction of specific CO₂ emissions was also defined as focus topic of the sustainability targets within the long-term variable remuneration in 2022. For 2022, the targets have been derived from the current corporate strategy, according to which the reduction targets are based on the indicator CO₂ per tonne-kilometre transported, analogous to the target system of the validated SBTi targets.

In December 2022, the Supervisory Board furthermore decided to increase the share of the strategic and sustainability targets within the long-term variable remuneration from 15% to 20% as of 2023.

Further climate-related Scope 1 emissions measures of Lufthansa Group:

- USD 250m invest in SAF procurement over the next three years (2022-2024)
- The Group aims to switch to carbon-neutral mobility on the ground in its home markets by 2030
- 100% carbon offsetting of all employees' duty flights. Target achievement is at 100%.

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			<p>To achieve these targets, Lufthansa Group has been following the four-pillar strategy of actions to reduce CO₂ emissions laid out by IATA already in 2007:</p> <ol style="list-style-type: none"> 1. Technological progress in aircraft and engine technology and Sustainable Aviation Fuel 2. Improved infrastructure via Single European Sky and improved intermodal transport 3. Operational measures such as more efficient flight procedures 4. Economic measures through mandatory EU-ETS and voluntary offsets of CO₂ emissions <p>Measures and achievements for 2022 are detailed in Annual Report p.102ff.</p>	
	TR-AL-110a.3	(1) Total fuel consumed	7,28 million tonnes or 321 million gigajoules	Sustainability Fact Sheet 2022, p.3
		(2) percentage alternative	<p>0,17 %</p> <p>(By using Sustainable Aviation Fuel (SAF) 43,900 tonnes CO₂ were reduced in the year 2022. Of this amount, 40,400 tonnes were accounted for by direct savings in the combustion of SAF (Scope 1) and 3,500 tonnes by savings in the upstream supply chain (production and transport, Scope 3))</p>	Sustainability Fact Sheet 2022, p.15

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		(3) percentage sustainable	0,17% (By using Sustainable Aviation Fuel (SAF) 43,900 tonnes CO2 were reduced in the year 2022. Of this amount, 40,400 tonnes were accounted for by direct savings in the combustion of SAF (Scope 1) and 3,500 tonnes by savings in the upstream supply chain (production and transport, Scope 3))	
LABOR PRACTICES	TR-AL-310a.1	Percentage of active workforce covered under collective bargaining agreements	Of 59,295 Lufthansa Group employees in Germany (as of 31 December 2022), some 78% benefit directly from collective bargaining arrangements. The remaining 22% are largely senior executives and non-pay-scale employees in senior positions. 98% employees of Austrian Airlines in Europe and 89% employees of SWISS International Airlines benefit from collective bargaining agreements.	Annual Report 2022 (Combined non-financial declaration), p.122 Sustainability Fact Sheet 2022 p.3
	TR-AL-310a.2	(1) Number of work stoppages	German Union ver.di has called a one-day strike at the end of July in Germany.	Annual Report 2022 p.39

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		(2) Total days idle	<p>The pilots have staged a one-day strike on 2 September 2022 which was called by the pilot's union "Vereinigung Cockpit (VC)".</p> <p>The pilots at Eurowings Germany held a one-day strike on 6 October 2022 and a three-day strike from 17 October to 19 October 2022.</p> <p>0 days</p>	
COMPETITIVE BEHAVIOR	TR-AL-520a.1	Total amount of monetary losses as a result of legal proceedings associated with anticompetitive behavior regulations	In 2022, no fines were imposed on Lufthansa Group due to legal proceedings associated with anticompetitive behavior.	

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ACCIDENT & SAFETY MANAGEMENT	TR-AL-540a.1	Description of implementation and outcomes of a Safety Management System	<p>The Lufthansa Group’s success depends primarily on safe and reliable flight operations. The health and safety of passengers, crews and employees have the highest priority for the aviation group. Therefore, all Lufthansa Group airlines operate a comprehensive Safety Management System (SMS). This includes continuous monitoring of flight operations.</p> <p>The Group airlines’ experts track performance ratios, carry out audits and inspections, evaluate risks, analyze flight data, and investigate incidents. All these measures serve the purpose of identifying and steering safety-relevant trends at an early stage and guarding against possible undesirable developments. Beyond the legally required reporting systems, Lufthansa Group operates a low-threshold confidential reporting system that is open to all employees. Regarding their safety management systems, the Lufthansa Group’s airlines take their bearings from legal requirements such as EU guidelines, as well as regulations issued by the European Aviation Safety Agency (EASA) and the U.S. Federal Aviation Administration (FAA). In addition, they fulfill all standards and recommendations of the International Civil Aviation Organization (ICAO).</p>	Annual Report 2022 (Combined non-financial declaration), p.115, p.129ff.

Topic	SASB Code	Accounting Metric	Lufthansa Group Response	Reference
ACCIDENT & SAFETY MANAGEMENT	TR-AL-540a.1		<p>Every two years, independent experts audit the safety standards applied Group-wide in an IATA Operational Safety Audit (IOSA). All Group airlines fully apply the internationally accepted IATA standards for air safety. These external benchmarks are supplemented by Lufthansa Group with internal guidelines, in particular the Executive Board’s Safety Commitment. These guidelines are compiled in the aviation group’s Safety Management Manual (SMM) and are additionally included in handbooks concerning flight operations, training, maintenance, and ground handling services. The Executive Board and all managers and employees affected by operator regulations fulfill their tasks in accordance with the SMM. Within the Lufthansa Group, independent departments monitor compliance with regulations and processes related to flight operations.</p> <p>Occupational health and safety have been central areas of action at the Lufthansa Group for several decades. As an operating company, the health of employees is particularly important for the commercial success of the Lufthansa Group.</p> <p>Close networking between the occupational safety function and Medical Services (including Psychosocial Counselling and Health Management)</p>	<p>Annual Report 2022 (Combined non-financial declaration), p.131</p>

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ACCIDENT & SAFETY MANAGEMENT	TR-AL-540a.1		<p>and all the other business units of the Lufthansa Group is designed to ensure a rapid response and enable the effective development and implementation of preventive approaches for long-term employee health.</p> <p>The occupational safety function consistently implements preventive measures to avoid accidents, health risks and occupational illnesses. In the Group companies in Germany, the Lufthansa Group's occupational safety experts review all professional activities using risk assessments and regular safety inspections. For many years, psychological stress at work has been assessed using a procedure developed by the University of Heidelberg and adapted for the Lufthansa Group. Specific guidelines make managers aware of their responsibility for occupational safety. They are required to deal with this directly when they are appointed to their position.</p> <p>Every part of the Medical Services department, including Psychosocial Counselling and Passenger Medical Care, is certified according to the DIN ISO 9001:2015 quality management system. This certificate was renewed based on an external audit in summer 2022.</p>	

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			<p>Accident figures enable effectiveness audits</p> <p>In 2022, the accident figures included relevant companies that are insured in Germany by the largest employers' liability insurance association (BG-Verkehr) and that employ a total of 50% of the Lufthansa Group's employees worldwide and 93% of its employees in Germany. The reporting was expanded by comparison with 2021, and further companies are being gradually added.</p> <p>A fatal work accident leading to the death of an employee occurred in the reporting year for the first time in many years. The Lufthansa Group is supporting this employee's relatives as well as affected colleagues through psychological counselling provided by Medical Services and is assisting the government investigating authorities with their inquiries into the cause of the accident.</p> <p>For every one million hours worked, the initial incidence of work-related injuries in the reporting year was 6.6. However, the figure calculated for 2022 is provisional since the data will be compared with the employers' liability insurance association at a date after the publication of this report.</p> <p>The adjusted rate of work-related injuries for the year 2021 is 4.9 per one million hours worked (compared</p>	

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			with a rate of 3.7 initially reported in 2021). All events that resulted in downtime of at least one calendar day are included in the calculation of this indicator.	
	TR-AL-540a.2	Number of aviation accidents	0	
	TR-AL-540a.3	Number of governmental enforcement actions of aviation safety regulations	0	

Activity Metrics

SASB CODE	ACTIVITY METRIC	LUFTHANSA GROUP RESPONSE	REFERENCE
TR-AL-000.A	Available seat kilometres (ASK)	259,381 Mio.	Annual Report 2022 p.2
TR-AL-000.B	Passenger load factor	79.8%	Annual Report 2022 p.2
TR-AL-000.C	Revenue passenger kilometres (RPK)	207,035 Mio.	Annual Report 2022 p.2
TR-AL-000.D	Revenue tonne kilometres (RTK) ¹	27,427 Mio.	Sustainability Fact Sheet 2022, p.3
TR-AL-000.E	Number of departures ²	826,379	Annual Report 2022 p.2
TR-AL-000.F	Average age of fleet	13.1 years	Annual Report 2022 p.26

¹ Lufthansa discloses data as “Tonne kilometres (TKT)”.

² Lufthansa discloses number of flights, which is nearly identical with number of departures.



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You will find further information on sustainability
within the Lufthansa Group at:
www.lufthansagroup.com/en/responsibility

View the Annual Report 2022 including the non-
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<https://investor-relations.lufthansagroup.com/en>