

Abridged

Environmental Statement 2024

For the organizations Fraport AG
(Fraport parent company), NICE, FCS,
FGS GmbH and FraCareS at Frankfurt Airport



Update of the
Environmental
Statement 2023



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Environmental Management at Frankfurt Airport

Since 1999, Fraport AG at Frankfurt Airport has been regularly validated by government accredited and inspected environmental auditors. The basis for this audit is the European regulation “Eco-Management and Audit Scheme” (EMAS). Since 2002, the verification has also been carried out in accordance with the international standard ISO 14001. The environmental management

system of Fraport AG, as well as the audits in conformity with EMAS and ISO 14001 also included FCS Frankfurt Cargo Services GmbH (FCS), NICE Aircraft Services & Support GmbH (NICE) and the subsidiaries Fraport Ground Services GmbH (FGS GmbH) und Fraport Cares Services GmbH (FraCares).

Additional Environmental Figures

The environmental figures have been presented in the Environmental Statement in accordance with the Global Reporting Initiative (GRI) Performance Indicators Series 300 “Environment”, supplemented by some specific indicators for the airport. The present Environmental Statement also includes

indicators in accordance with the expanded GRI performance indicators for airports, “Airport Operators Sector Supplement” (AOSS). The current key figures can be seen from page 2 onwards.

Status of the Environmental Program 2023 to 2026

The Environmental Program describes the most important goals and measures that the Fraport parent company and the NICE, FCS, FGS GmbH and FraCareS subsidiaries have defined for Frankfurt Airport up until 2026 and beyond for the issues of climate protection, noise abatement, intermodality, air quality, nature conservation and protection of resources.

The measures of Fraport AG are not particularly marked.

The measures of FCS Frankfurt Cargo Services GmbH are marked with FCS, those of NICE Aircraft Services & Support GmbH are marked

with NICE, those of Fraport Ground Services GmbH are marked with FGS GmbH and those of FraCareServices GmbH are marked with FraCareS.

The environmental program of the Fraport parent company is shown in abbreviated form in the sustainability program.

As part of the adjustment of reporting in accordance with the EU's Corporate Sustainability Reporting Directive (CSRD) and the associated transition from CO₂ to CO₂e, the climate protection target for the companies within the EMAS alliance has also been updated and changed from "CO₂ neutrality" to "Net Zero 2045".

Key for status:



Measure fulfilled >90% to 100% or established as a continuous process



Measure continues to apply in the Environmental Program 2023 to 2026 and/or Measure partly fulfilled



Measure could not be implemented

Climate protection

Target	Measure	Date	Status June 2025
Net Zero 2045: By 2045, the CO ₂ e emissions (Scope 1 and 2 of the GHG Protocol, baseline year 2023) of the companies participating in the EMAS alliance are to be reduced to zero.	Decarbonization plans of the companies participating in the EMAS alliance.	2045	
Reduction of annual absolute CO ₂ e emissions to 51,000 tonnes (Scopes 1 and 2 of the GHG Protocol) in the companies participating in the EMAS alliance.	Implementation of the measures identified from the decarbonization plans of the companies participating in the EMAS alliance by 2030.	2030	

Climate protection (continuation)

Target	Measure	Date	Status June 2025
	Measures of the companies participating in the EMAS alliance	2023 – 2026	
Reduction of absolute CO ₂ emissions to 50,000 tonnes by 2030 (Fraport parent company, Scopes 1 and 2 GHG Protocol, baseline year 2023). Reduction of specific CO ₂ emissions by 84%, to 0.9 kg/traffic unit by 2030 (Fraport parent company, Scopes 1 and 2 GHG Protocol, baseline year 1990).	Energy optimization of existing buildings of the Fraport parent company – In the terminals – In office and service buildings – Parking.	2026	Measures carried out at the terminals: Upgrading ventilation control centers, optimizing air throughputs, switching off pumps and lighting controls as well as the transition to LED lighting. Potential achieved at the end of 2024: 23,600 t CO ₂ e. Measures carried out in service and office buildings, as well as in parking garages: optimization of hydraulics and controls for controlling circuits, optimization of air-conditioning systems, regulation of air-control systems based on weather fore-casts, lighting retrofitted to LED. Potential achieved at the end of 2024: 3,500 t CO ₂ e.
	Conversion to LED lighting on aprons and roads.	2026	Conversion of the operational and apron areas to LED lighting. Realized potential in 2024: 550 t CO ₂ e.
	Planning and construction-integrated implementation of an energy-optimized new terminal (T3).	accompanying construction	Measures in phase of implementation: Planned technical systems have been optimized by complex building simulations and will provide sustainable operation of the new terminal building by means of a building envelope with a high level of thermal insulation, needs-based sun protection, optimized daylight use, free cooling, highly efficient heat recovery, efficient energy distribution, comprehensive use of LEDs, utilization of the building's own dissipated heat, etc.
	Implementation of measures to achieve energy savings in the baggage conveyor system.	2026	Implemented Measures: Reduction of drive power in early baggage stores, distributors, and feeders, modification of the controls for improved shutdown of the baggage conveyor system during off-peak periods, and reduction of gliding friction by replacing belts at heighteners. Potential achieved by the end of 2024: 1,100 t CO ₂ e.
	Conversion of the fleet to alternative drives and establishment of a suitable charging infrastructure airside and landside for Fraport organizational units and third parties.	2026	A total of 46 new electric vehicles were put into operation in 2024. The realized potential for the electric fleet as of December 31, 2024: 3,000 t CO ₂ e. Total number of electric vehicles in the Fraport fleet as of December 31, 2024: 786. A preparatory measure was commenced for equipping the operational area and the apron with AC chargers and DC fast charging stations for the electric vehicles operated by Fraport and third parties. Fraport received support from the State of Hesse and the German federal government in the form of investment grants.
Reduction of the annual direct and indirect CO ₂ e emissions by 16% CO ₂ e. (NICE)	Full electrification of all pool vehicles (not including emergency command vehicles, deicing vehicles, and personally allocated company vehicles).	2026	Total fleet size: 20, electrified vehicles: 6 = Target achievement 30%.
	Reduction of training courses on deicing vehicles by at least 10% per operator for each winter season through the use of simulators.	2026	In the last winter season, training hours were only needed to a limited extent due to the timing of winter conditions, so all training hours could be conducted on simulators. The goal has thus been achieved.

Climate protection (continuation)

Target	Measure	Date	Status June 2025
Reduction of annual direct CO ₂ e emissions by 18% CO ₂ e. (FCS)	Replacement procurement of vehicles with lower or zero CO ₂ e emissions.	2026	Use of renewable energy sources generated from hydropower, wind, biomass, and solar energy (since January 2022). A total of 122 industrial trucks have already been electrified, 11 vehicles are still powered by diesel, and 2 have hybrid drives. This means that 91% of the operational fleet is electrified. In addition, company cars are now only procured as battery-electric or plug-in hybrid versions. The replacement of conventional diesel fuel with HVO 100 (hydrotreated vegetable oil) is planned for the second half of 2025. LED lighting replacement program: the warehouses have already been converted, and the office areas are currently being upgraded.
Reduction of annual direct CO ₂ e emissions by 25% CO ₂ e. (FGS GmbH)	Replacement procurement of vehicles with lower or zero CO ₂ e emissions.	2026	Since the installation of the charging stations has been delayed, combustion engine vehicles were initially used again for replacement procurement. The transition will continue to be pursued. In addition, the use of HVO100 fuel (hydrotreated vegetable oil) for refueling our diesel vehicles is currently under review.
Reduction of annual direct CO ₂ e emissions by 3% CO ₂ e. (FraCareS)	Purchase green electricity wherever possible.	2026	Certified green electricity is already being used in the rented offices.

Noise abatement

Target	Measure	Date	Status June 2025
Maintaining the area affected by aircraft noise during the day below the noise cap (noise-cap area: an area of ≤ 22,193 ha impacted by L _{eq} 55 dB(A) a day).*	Measures for active noise abatement such as: – Promotion of fleet exchange to lower-noise aircraft by means of airport charges – Raising the approach glide angle to 3.2 degrees at the Runway Northwest – GBAS** -based noise-reduction approach procedure, in particular raising the approach glide angle at the South and Center Runway to 3.2 degrees – Incentivization of GBAS** as a component of the charge application.	indefinite	The area affected by aircraft noise in 2024 was 14,216 ha.
	Continuation of the dialog with stakeholders from the region in the "Airport and Region Forum" on development of further measures.	indefinite	

* In November 2017, the Hessian State Government reached an agreement with Fraport, the airlines, the German Air Navigation Services (DFS), and the Airport and Regional Forum for a voluntary noise upper limit at Frankfurt Airport.
** "Ground Based Augmentation System"

Traffic

Target	Measure	Date	Status June 2025
Improvement in intermodal service packages and services for passengers.	Optimized link from Terminal 3 to the north area of the airport and the long-distance railway station on an automated, electric, rail-based passenger transport system, and on shuttle buses for passengers and employees.	2026	On schedule. If necessary, the automatic people mover system may already be put into operation by the end of 2025, to replace both the current bus services between Terminal 1 and Terminal 2 as well as the parking garage shuttle between the Terminal 3 parking garage and the north side.
Improvement in the conditions for cycling in the area of the airport.	New construction and modernization of bicycle parking facilities close to buildings in new or completely refurbished buildings as an alternative to constructing more space-intensive parking areas for passenger cars.	2026	Ongoing. In 2025, around 80 new bicycle parking facilities were installed in the Terminal 1/FAC area.
	Improvement in the cycle-path network around the airport, for example by constructing a cycle bridge at the transport hub opposite Terminal 2, but also by small measures (curb lowering, markings, road widening, ...).	2026	The bicycle bridge has been commissioned and is scheduled to be completed by winter 2026/2027. Other minor measures are being implemented on an ongoing basis, such as fence openings for cyclists in CargoCity South.

Air quality

Target	Measure	Date	Status June 2025
Recording the air pollutant emissions of all relevant emitters from airport operation.	<p>Quality assurance for the inventory and operational data (reallocation of SAP data to calendar years, plausibility audits)</p> <ul style="list-style-type: none"> – Optimization of methodology for use of operational data for the emission model – Specialist advice for further development of the model LASPORT (emission and dissemination model for de-termining airport-related emissions), testing and start-up of the LASPORT version 2.4 – Cooperation with HLNUG (Hessian State Agency for Nature Conservation, Environment and Geology) and UHN (Environmental and Neighborhood House/ Umwelt- und Nachbarschaftshaus) on research into ultrafine particles (UFP). 	ongoing	<ul style="list-style-type: none"> – The development of a comprehensive emissions inventory is an ongoing process. Since the last environmental audit in 2023, Fraport, with the support of CENA Hessen (Center of Excellence for Climate and Noise Protection in Aviation), has created a new data inventory based on the years 2019 and 2023 for airport-related emission sources. These data are made available as part of the ultrafine-particle study SOURCE FFR (see last point below). Additionally, Fraport is in exchange with airlines to include future emission reduction measures in the emission calculations, such as Single Engine Taxiing. In 2025, Fraport will conduct a survey on the use of reduced engine taxiing during inbound and outbound operations. – Further model development is planned for LASPORT in 2025/2026. In the future, it should be possible to determine concentrations of volatile UFPs and to calculate total UFP levels. In addition, the calculation of CO_{2e} emissions during LTO (Landing/Take-Off) as well as at cruising altitude is to be made feasible in LASPORT. Fraport is currently in discussions with the developer, Ingenieurbüro Janicke, and other German airports regarding this. For 2024, CO_{2e} emissions at cruising altitude have so far been determined using Eurocontrol's Small Emitters Tool. – Since April 2023, the first part of the ultrafine-particle study SOURCE FFR has been conducted. Fraport supports the study by providing a variety of operational and activity data from Fraport AG for the emissions modeling of airport-related sources and enabling UFP measurements on the airport premises. The results of the airport-related emissions will be available in 2026.

Air quality (continuation)

Target	Measure	Date	Status June 2025
Reduction of air pollutant emissions from airport operations.	<p>Further increase in the share of electrically powered ground handling equipment (see under Climate Protection: Use of alternative propulsion technologies)</p> <ul style="list-style-type: none"> - Increased use of Reduced Engine Taxi Inbound (RETI) by DLH - RETO procedure (Reduced Engine Taxi Out/Operations) for the A320 fleet family of DLH - Reduction in the use of auxiliary power units (APU) through Pre-Conditioned Air (PCA) systems. 	2026	<ul style="list-style-type: none"> - By the end of 2024, 26% of Fraport's fleet was electrified (see also Climate Protection). - See the first point under the recording of air pollutant emissions from all relevant airport operation emitters. - As part of a test phase, the so-called RETO procedure was trialed in late 2024 by Lufthansa in cooperation with Fraport AG and FraAlliance. This procedure allows aircraft from the A320 fleet family to begin taxiing with only one engine running, with the second engine being started during the taxi process. The procedure has since been integrated into regular operations. - DLH is our pilot customer for the use of new test facilities for supplying aircraft with pre-conditioned air. The first test facility was commissioned at position A34 in April 2024. Another facility followed at position A54 in early May 2025.

Environmental Figures

Frankfurt Airport, Fraport parent company, FCS, NICE, FGS GmbH, FraCareS

Aspects in accordance with the Global Reporting Initiative (GRI) performance indicators “Environment” and “Airport Operators Sector Supplement (AOSS)”, subset “environment”.

Values partially rounded; minor deviations may occur.

Employees ¹	Unit	2021	2022	2023	2024
Fraport parent company	Number	8,326	8,051	8,070	8,124
FCS	Number	526	498	508	524
NICE	Number	42	40	48	50
FGS GmbH	Number	2,656	3,278	3,988	4,617
FraCareS	Number	-	684	723	723

¹ Employees = Permanent employees + temporary staff (school children, students, interns, marginally employed and trainees) + apprentices, exempted employees.
Status December of every year.

AO1 – Passengers					
Traffic volume	Unit	2021	2022	2023	2024
Passengers, total	Passengers in millions	24,778,685	48,918,482	59,359,539	61,561,247

AO2 – Traffic volume					
Traffic volume	Unit	2021	2022	2023	2024
Frankfurt Airport (FRA)					
Traffic Unit (with transit) ^{1, 2}	TU	47,528,380	68,496,102	77,981,359	82,062,067
Aircraft movements (landing + take-off)	Number of movements	261,927	382,211	430,436	440,853
Of those in nights ³	Number of movements	16,405	28,693	32,616	33,193

¹ TU = Traffic Unit; a traffic unit is equivalent to one passenger with baggage or 100 kg of airfreight or airmail.

² Commercial and non-commercial traffic.

³ Nighttime: 10 p.m. to 6 a.m..

AO3 – Cargo volume					
Traffic volume	Unit	2021	2022	2023	2024
Airfreight	t	2,271,542	1,967,450	1,890,253	2,013,013
Airmail	t	46,340	43,316	41,043	37,069
therein FCS					
Cargo volume					
Airfreight	t	796,448	644,711	576,059	581,473
Traffic Unit ¹	TU	7,964,480	6,447,110	5,760,590	5,814,730

¹ TU = Traffic Unit; a traffic unit is equivalent to one passenger with baggage or 100 kg of airfreight or airmail.

GRI 302: Energy					
GRI 302-1	Unit	2021	2022	2023	2024
Direct energy use					
Frankfurt Airport^{1, 2, 3}					
Direct energy sources	TJ	542.700	616.940	597.503	611.926
	million kWh	151.659	172.486	165.973	169.979
Natural gas ³	million kWh	24.684	21.796	19.087	18.560
Liquefied petroleum gas (LPG)	million kWh	0.798	0.649	0.064	0.008
Liquefied petroleum gas (LPG) ³	(m ³) from 2023 in million liters	118.000	96.000	0.009	0.001
Heating oil	million kWh	19.284	19.910	14.600	14.033
Heating oil ³	million liters	1.972	2.036	1.493	1.435
Diesel	million kWh	96.042	118.227	120.037	125.250
Diesel	million liters	9.710	11.953	12.136	12.663
Gasoline	million kWh	9.059	9.642	9.552	9.669
Gasoline	million liters	1.010	1.075	1.065	1.078
Kerosene (Jet A1) ⁶	million kWh	0.410	0.663	1.171	1.116
Kerosene (Jet A1) ⁶	million liters	0.042	0.068	0.120	0.114
Electricity (Production) ⁸	million kWh	1.383	1.599	1.462	1.344
therein Fraport parent company					
Direct energy sources ²	TJ	319.200	370.800	377.140	384.933
	million kWh	86.852	100.830	102.995	106.926
Natural gas	million kWh	1.229	0.836	0.412	0.435
Liquefied petroleum gas (LPG)	million kWh	0.798	0.649	0.064	0.008
Liquefied petroleum gas (LPG)	(m ³) from 2023 in million liters	118.000	96.000	0.009	0.001
Heating oil	million kWh	17.602	17.602	12.498	12.693
Heating oil	million liters	1.800	1.800	1.278	1.298
Diesel	million kWh	60.889	75.043	83.213	85.639
Diesel ⁴	million liters	6.156	7.587	8.413	8.658
Gasoline	million kWh	6.198	6.476	6.458	6.216
Gasoline ⁴	million liters	0.691	0.722	0.720	0.693
Kerosene (Jet A1) ⁶	million kWh	0.137	0.224	0.351	0.591
Kerosene (Jet A1) ⁶	million liters	0.014	0.023	0.036	0.061
Electricity (Production) ⁸	million kWh	1.383	1.599	1.462	1.344
Total energy consumption					
Renewable energy sources	%	<1	<1	<1	9
Non-renewable energy sources	%	100	100	100	91
therein FCS					
Purchased direct non-renewable energy sources	TJ	6.830	5.490	4.810	5.692
	million kWh	1.889	1.515	1.337	1.581
Heating oil ⁹	million kWh			0.127	0.514
Heating oil ⁹	million liters			0.013	0.053
Diesel	million kWh	1.790	1.434	1.207	1.063
Diesel	million liters	0.181	0.145	0.122	0.108
Gasoline	million kWh	0.099	0.081	0.004	0.003
Gasoline	million liters	0.011	0.009	0.0004	0.0004
Total energy consumption					
Renewable energy sources	%	0	0	0	5
Non-renewable energy sources	%	100	100	100	95
therein NICE					
Purchased direct non-renewable energy sources	TJ	10.800	10.350	10.700	11.155
	million kWh	2.989	2.901	2.970	3.099
Natural gas	million kWh	0.083	0.093	0.053	0.053
Diesel	million kWh	2.888	2.799	2.908	3.035
Diesel ⁵	million liters	0.292	0.283	0.294	0.307
Gasoline	million kWh	0.018	0.009	0.009	0.006
Gasoline	million liters	0.002	0.001	0.001	0.001
Total energy consumption					
Renewable energy sources	%	0	0	0	7
Non-renewable energy sources	%	100	100	100	93

GRI 302: Energy					
GRI 302-1	Unit	2021	2022	2023	2024
Direct energy use					
<i>therein FGS GmbH</i>					
Purchased direct non-renewable energy sources	TJ	0.140	0.330	0.410	0.580
	million kWh	0.040	0.094	0.112	0.161
Diesel	million kWh	0.029	0.049	0.069	0.079
Diesel ⁴	million liters	0.003	0.005	0.007	0.008
Gasoline	million kWh	0.009	0.036	0.036	0.076
Gasoline ⁴	million liters	0.001	0.004	0.004	0.009
Natural gas ⁷	million kWh	0.001	0.009	0.007	0.005
Natural gas ⁷	m ³	101.600	707.100	827.500	
Natural gas ⁷	kg		478.600	560.130	387.870
Total energy consumption					
Renewable energy sources	%	0	0	0	6
Non-renewable energy sources	%	100	100	100	94
<i>therein FraCareS</i>					
Purchased direct non-renewable energy sources	TJ				
	million kWh				
Diesel	million kWh				
Diesel	million liters				
Gasoline	million kWh				
Gasoline	million liters				
Total energy consumption					
Renewable energy sources	%				
Non-renewable energy sources	%				

¹ All companies on the composite owned land of Frankfurt Airport (Fraport parent company, subsidiaries of Fraport AG, more than 500 third parties) to the extent data are available.

² All data including technical losses, as far as known.

³ Consumption of natural gas by third parties based on information that cannot be verified.

⁴ The fuel consumption for private use of company cars is not taken into account.

⁵ The level of consumption depends on the number of deicing operations (see indicator "Number of deiced aircraft" in the category traffic volume).

⁶ Kerosene consumption of air start units.

⁷ Since 2024, no more fuel cell vehicles have been in operation, and since April 2021, two natural gas vehicles have been in use.

⁸ Start-up of a solar plant in 2021.

⁹ As supplementary heating for a section with medical products.

¹⁰ Starting in 2023, utilization of an additional property.

TJ = Terajoule

GRI 302: Energy					
GRI 302-1	Unit	2021	2022	2023	2024
Indirect energy use					
<i>Frankfurt Airport^{1, 2}</i>					
Purchased energy	TJ	3,491.150	3,480.260	3,556.560	3,632.328
	million kWh	969.763	966.738	987.932	1,008.980
Electricity	million kWh	486.485	500.656	506.624	513.456
District heating	million kWh	378.505	331.611	348.982	366.712
District cooling	million kWh	104.773	134.471	132.326	128.812
Indirect energy consumption					
Renewable energy sources ⁵	%	63.3	67.7	66.3	47.0
Non-renewable energy sources ⁵	%	36.7	32.3	33.7	53.0
<i>therein Fraport parent company</i>					
Purchased energy	TJ	1,930.210	1,985.040	2,075.070	1,994.094
	million kWh	536.170	551.400	576.407	553.915
Electricity ³	million kWh	260.679	281.785	277.703	278.833
District heating	million kWh	183.116	151.022	179.243	150.142
District cooling	million kWh	92.375	118.593	119.461	124.940
Indirect energy consumption					
Renewable energy sources ⁵	%	64.9	70.0	71.8	53.0
Non-renewable energy sources ⁵	%	35.1	30.0	28.2	47.0

GRI 302: Energy					
GRI 302-1	Unit	2021	2022	2023	2024
Indirect energy use					
<i>therein FCS</i>					
Purchased energy	TJ	44.530	40.100	30.860	30.258
	million kWh	12.368	11.138	8.572	8.405
Electricity	million kWh	5.394	5.298	4.976	4.935
District heating ⁴	million kWh	6.974	5.840	3.596	3.470
Indirect energy consumption					
Renewable energy sources ⁵	%	62.5	100	100	61.0
Non-renewable energy sources ⁵	%	37.5	0	0	39.0
<i>therein NICE</i>					
Purchased energy	TJ	2.890	2.890	2.960	2.689
	million kWh	0.802	0.804	0.776	0.747
Electricity	million kWh	0.627	0.605	0.623	0.607
District heating	million kWh	0.175	0.199	0.153	0.140
Indirect energy consumption					
Renewable energy sources ⁵	%	62.5	65.0	58.9	54.0
Non-renewable energy sources ⁵	%	37.5	35.0	41.1	46.0
<i>therein FCS GmbH</i>					
Purchased energy	TJ	2.380	2.650	2.950	3.589
	million kWh	0.660	0.736	0.820	0.997
Electricity	million kWh	0.409	0.423	0.483	0.590
District heating	million kWh	0.247	0.302	0.325	0.384
District cooling	million kWh	0.004	0.011	0.012	0.023
Indirect energy consumption					
Renewable energy sources ⁵	%	100	100	100	62.0
Non-renewable energy sources ⁵	%	0	0	0	38.0
<i>therein FraCareS</i>					
Purchased energy	TJ	2.790	3.020	2.790	2.945
	million kWh	0.774	0.838	0.774	0.818
Electricity	million kWh	0.292	0.354	0.295	0.321
District heating	million kWh	0.397	0.375	0.369	0.378
District cooling	million kWh	0.085	0.109	0.110	0.119
Indirect energy consumption					
Renewable energy sources ⁵	%	62.5	65.0	84.1	46.0
Non-renewable energy sources ⁵	%	37.5	35.0	15.9	54.0

¹ All companies on the composite owned land of Frankfurt Airport: Fraport parent company, subsidiaries of Fraport AG, more than 500 third parties.

² All data including technical losses, as far as known.

³ Value on the date of the audit. As a result of the continuous testing usual in the energy industry, the amount may change after printing.

⁴ A number of pharmaceutical charters in January and February 2020, during which the hall had to be heated to a constant temperature of 15 °C.

⁵ Until 2023, only electricity was considered as energy source. From 2024 onwards, all energy sources are included in Scope 2.

TJ = Terajoule

GRI 302: Energy					
GRI 302-3 Energy intensity	Unit	2021	2022	2023	2024
<i>Frankfurt Airport^{1, 2, 3}</i>					
Total specific consumption	kWh per TU	23.575	16.617	15.081	14.367
Purchased direct non-renewable energy sources ⁴	kWh per TU	3.172	2.503	2.411	2.071
Purchased energy ⁴	kWh per TU	20.403	14.114	12.669	12.295
<i>therein Fraport parent company</i>					
Total specific consumption	kWh per TU	12.694	9.519	9.364	8.563
Purchased direct non-renewable energy sources ⁴	kWh per TU	1.836	1.481	1.325	1.341
Purchased energy ⁴	kWh per TU	10.856	8.039	8.039	7.221

¹ All companies on the composite owned land of Frankfurt Airport (Fraport parent company, subsidiaries of Fraport AG, more than 500 third parties) to the extent data are available.

² All data including technical losses, as far as known.

³ Consumption of natural gas by third parties based on information that cannot be verified.

⁴ TU = Traffic Unit; a traffic unit is equivalent to one passenger with baggage or 100 kg of airfreight or airmail.

GRI 303: Water and effluents					
GRI 303-3	Unit	2021	2022	2023	2024
Water consumption					
<i>Frankfurt Airport</i> ¹					
Total water consumption	million m ³	1.269	1.595	1.947	2.114
Total water consumption ²	liters per TU	26.7	23.3	25.0	25.8
Drinking water ⁴	million m ³	0.927	1.177	1.345	1.474
Service water ^{3, 5}	million m ³	0.342	0.417	0.602	0.639
<i>therein Fraport parent company</i>					
Total water consumption ^{7, 8}	million m ³	0.884	0.921	1.343	1.496
Total water consumption ^{2, 8}	liters per TU	18.1	13.4	17.2	18.2
Drinking water ⁴	million m ³	0.521	0.658	0.809	0.923
Service water ^{5, 8}	million m ³	0.363	0.263	0.534	0.573
<i>therein FCS</i>					
Total water consumption	million m ³	0.005	0.004	0.011	0.010
Drinking water ⁴	million m ³	0.005	0.004	0.010	0.009
Service water	million m ³	0	0	0.001	0.001
<i>therein NICE</i>					
Total water consumption ⁶	million m ³	0.008	0.012	0.010	0.010
Drinking water ^{4, 6}	million m ³	0.006	0.009	0.008	0.008
Service water ⁵	million m ³	0.002	0.002	0.002	0.002

¹ All companies on the composite owned land of Frankfurt Airport: Fraport parent company, subsidiaries of Fraport AG, more than 500 third parties.

² TU = Traffic Unit; a traffic unit is equivalent to one passenger with baggage or 100 kg of airfreight or airmail.

³ Less share of drinking water at service water treatment in Terminal 2.

⁴ From the local authority water supply.

⁵ The service water is treated from surface water, rainwater and ground water. Contains subsets, which are estimated.

⁶ Water is used to dilute the aircraft deicing agent. When winters are cold and there is a lot of snow, larger quantities of deicing agent are required. Water consumption therefore increases as a result.

⁷ Total consumption for the airport minus consumption by third parties at the Frankfurt Airport site.

AO4 – Quality of precipitation water					
Frankfurt Airport	Unit	2021	2022	2023	2024
Hydrocarbons ¹	mg/l	<1	<1	0.14	0.13
Materials capable of being deposited ¹	ml/l	0.38	0.21	0.49	0.43

¹ A 2 h mixed sample is collected each month from the precipitation water channel at a sampling test station located shortly before the discharge point into the River Main. The value for hydrocarbons was calculated from twelve individual samples, the value for "substances capable of being deposited" from eleven individual samples.

Effluents					
Frankfurt Airport	Unit	2021	2022	2023	2024
Sewage water ^{1, 2}	million m ³	1.600	1.820	1.518	1.581
Sewage water ³	liters per TU	33.7	26.5	19.3	19.3

¹ Wastewater from Fraport parent company and more than 500 other companies at Frankfurt Airport. The disposal of sewage water from Frankfurt Airport is carried out by Fraport AG, allocation to individual companies is not possible.

² Wastewater is treated in the fully biological water-treatment plant at the Fraport parent company, as well as at fully biological water-treatment plants in Frankfurt Niederrad and Frankfurt Sindlingen. Since 2013, the separation of the precipitation water contaminated with deicing agents has brought about an increased dependence of the amount of sewage water on the nature of the weather conditions in the relevant winter.

³ TU = Traffic Unit; a traffic unit is equivalent to one passenger with baggage or 100 kg of airfreight or airmail.

Groundwater remediation					
Frankfurt Airport	Unit	2021	2022	2023	2024
Nitrate content at reference measuring station well FBS ¹	mg/l	21	19	20	21

¹ Yearly average value.

GRI 304: Biodiversity**GRI 304-1****Land consumption**

Frankfurt Airport	Unit	2021	2022	2023	2024
Owned land by Fraport AG ¹	ha	2,283.45	2,283.45	2,283.45	2,283.45
of which paved area	ha	1,118.58	1,133.53	1,142.11	1,130.78

¹ Continuous owned land.

GRI 305: Emissions**GRI 305-1 direct (Scope 1) and****GRI 305-2 indirect (Scope 2)****Greenhouse gas emissions**

Fraport parent company	Unit	2021	2022	2023	2024
CO ₂ emissions	1,000 t CO ₂	117.78	113.20	117.48	
	1,000 t CO ₂ e			151.39	126.11
direct CO ₂ emissions ^{1, 5}	1,000 t CO ₂	23.15	26.94	27.49	
	1,000 t CO ₂ e			26.59	27.79
indirect CO ₂ emissions ²	1,000 t CO ₂	94.64	86.25	89.99	
	1,000 t CO ₂ e			124.79	98.32
Compensated CO ₂ emissions (certificates)	1,000 t CO ₂	0	0	0	0
Other relevant greenhouse gas emissions ^{3, 4}	1,000 t CO ₂ equivalent	1.268	1.03	0.473	
FCS					
CO ₂ emissions	1,000 t CO ₂	3.61	1.43	0.84	
	1,000 t CO ₂ e			1.11	1.15
direct CO ₂ emissions ^{1, 5}	1,000 t CO ₂	0.50	0.40	0.36	
	1,000 t CO ₂ e			0.34	0.40
indirect CO ₂ emissions ²	1,000 t CO ₂	3.11	1.02	0.48	
	1,000 t CO ₂ e			0.77	0.74
NICE					
CO ₂ emissions	1,000 t CO ₂	0.96	0.91	0.97	
	1,000 t CO ₂ e			0.96	0.98
direct CO ₂ emissions ^{1, 5}	1,000 t CO ₂	0.78	0.75	0.79	
	1,000 t CO ₂ e			0.74	0.77
indirect CO ₂ emissions ²	1,000 t CO ₂	0.18	0.16	0.18	
	1,000 t CO ₂ e			0.22	0.21
FGS GmbH					
CO ₂ emissions	1,000 t CO ₂	0.05	0.08	0.08	
	1,000 t CO ₂ e			0.11	0.12
direct CO ₂ emissions ^{1, 5}	1,000 t CO ₂	0.01	0.02	0.03	
	1,000 t CO ₂ e			0.04	0.04
indirect CO ₂ emissions ²	1,000 t CO ₂	0.04	0.05	0.05	
	1,000 t CO ₂ e			0.07	0.09
FraCareS					
CO ₂ emissions	1,000 t CO ₂	0.14	0.16	0.09	
	1,000 t CO ₂ e			0.12	0.12
direct CO ₂ emissions ^{1, 5}	1,000 t CO ₂	0	0	0	
	1,000 t CO ₂ e			0	0
indirect CO ₂ emissions ²	1,000 t CO ₂	0.14	0.16	0.09	
	1,000 t CO ₂ e			0.12	0.12

¹ Direct emission in conformity with Scope 1 GHG Protocol Standard: fuels, fuels for combustion plants, here heating oil, natural gas, propane gas,

² Indirect emissions in conformity with Scope 2 GHG Protocol Standard: purchasing of electricity, district heating, district cooling,

³ CO₂ equivalent refrigerant consumption of Fraport AG (emissions of other greenhouse gases at the airport are negligible according to investigations from the year 2005),

⁴ Since 2024, refrigerant consumption of Fraport AG has been included as a CO₂ equivalent in the Scope 1 figures,

⁵ For the first time, organic components were also considered in the CO₂e calculation,

GRI 305: Emissions							
GRI 305-3 Greenhouse gas emissions			Unit	2021	2022	2023	2024
Scope 3 in accordance with GHG							
Air traffic ¹	LTO emissions ²	Take-Off	1,000 t CO ₂ (from 2024 in CO ₂ e)	64.6	91.5	102.2	105.8
		Climb Out	1,000 t CO ₂ (from 2024 in CO ₂ e)	119.7	170.0	189.4	196.9
		Idle	1,000 t CO ₂ (from 2024 in CO ₂ e)	168.7	248.5	291.5	309.3
		Approach	1,000 t CO ₂ (from 2024 in CO ₂ e)	97.4	137.7	153.7	158.6
	Non-LTO emissions	Additional thrust ³	1,000 t CO ₂ (from 2024 in CO ₂ e)	2.67	7.23	7.81	8.03
		APU ⁴	1,000 t CO ₂ (from 2024 in CO ₂ e)	50.2	73.8	79.6	80.9
		Ground run-ups ⁵	1,000 t CO ₂ (from 2024 in CO ₂ e)	2.83	3.46	3.74	3.95
Category 3.6: Business travel of employees of the Fraport parent company ^{6,7}			1,000 t CO ₂ (from 2024 in CO ₂ e)	0.15	0.35	0.47	-
Employee commuting: Fraport parent company and third parties at the airport ¹⁰			1,000 t CO ₂ (from 2024 in CO ₂ e)	105.1	114.9	92.6	
Category 3.7: Commuting of employees of the Fraport parent company ⁸			1,000 t CO ₂ (from 2024 in CO ₂ e)				18.8
Category 3.11b: Commuting of third-party employees at the airport ⁹			1,000 t CO ₂ (from 2024 in CO ₂ e)				145.8
Category 3.11a: Arrival and departure traffic of passengers (originating passengers)			1,000 t CO ₂ (from 2024 in CO ₂ e)	151.7	225.5	249.5	319.4
Category 3.11c: Scope 1 of third parties (until 2024: energy consumption of third parties (infrastructure and vehicles)) ^{10, 11}			1,000 t CO ₂ (from 2024 in CO ₂ e)	121.2	116.3	126.3	7.3

¹ In previous reports, emissions from taxiing, take-off, climb out, descent including roll-out, engine start-up, and APU were reported as a single metric. The landing approach continues to be listed under Air Traffic → LTO emissions. Engine test runs have been newly added under Air Traffic.

Emissions from the DLH engine test stand are no longer reported under Air Traffic as before but are now included in third-party energy consumption.

² Aircraft emissions from the Landing/Take-Off (LTO) cycle in tons per calendar year up to an altitude of 914 meters.

³ Aircraft emissions from additional thrust for taxiway ascents in the area of Runway Northwest.

⁴ Use of Auxiliary Power Units to start the main engines, for ground stationary power supply and air-conditioning for the aircraft.

⁵ Emissions from ground run-ups of the aircraft at Frankfurt Airport.

⁶ The business trips were partly offset in 2021.

⁷ Due to the Scope 3 materiality analysis, this category will no longer be reported annually starting in 2024. For further details, see the Fraport CSRD Report 2024.

⁸ Until 2024, reported jointly with commuting of third-party employees.

⁹ Until 2024, reported jointly with commuting of employees of the Fraport parent company.

¹⁰ As a result of applying the CSRD, "third-party energy consumption" is now composed of various Scope 3 categories (3.8/3.11c/3.13). However, based on the Scope 3 materiality analysis, only category 3.11c (Scope 1 consumption by third parties) is collected annually.

¹¹ Emissions from engine test runs of removed aircraft engines at the DLH engine test facility.

GRI 305: Emissions							
GRI 305-4			Unit	2021	2022	2023	2024
GHG emissions intensity							
Fraport parent company							
Climate gas intensity of transport performance ³			kg CO ₂ per TU (from 2024 in CO ₂ e)	2.41	1.65	1.51	1.54
direct CO ₂ emissions ^{1, 3}			kg CO ₂ per TU (from 2024 in CO ₂ e)	0.47	0.39	0.35	0.34
indirect CO ₂ emissions ^{2, 3}			kg CO ₂ per TU (from 2024 in CO ₂ e)	1.94	1.26	1.15	1.20

¹ Direct emissions in accordance with Scope 1 of the GHG Protocol Standard: fuels, combustion fuels of the fossil-fired facilities, here heating oil, natural gas, propane gas.

² Indirect emissions in accordance with Scope 2 of the GHG Protocol Standard: sourcing of electricity, district heating, district cooling.

³ TU = Traffic Unit; a traffic unit is equivalent to one passenger with baggage or 100 kg of airfreight or airmail.

GRI 305: Emissions									
GRI 305-7 Air pollution emissions		Unit	2021	2022	2023	2024			
<i>Air traffic at Frankfurt Airport ¹</i>									
Absolute emissions									
NOx	LTO emissions ²	Take-off	t	700.04	968.38	1,096.64	1,143.19		
		Climb out	t	210.46	292.76	328.27	342.51		
		Idle	t	256.54	377.69	445.61	472.64		
		Approach	t	114.90	158.90	177.66	182.57		
	Non-LTO emissions ^{3, 4, 5, 6, 9}	Engine ignition	t	0	0	0	0		
		Additional thrust	t	12.05	33.11	36.03	36.90		
			t	11.99	32.72				
		APU	t	140.01	205.23	220.33	222.62		
		Ground run-ups	t	15.69	18.57	24.05	22.23		
		HC	LTO emissions ²	Take-off	t	0.79	1.10	1.30	1.35
Climb out	t			0.35	0.50	0.56	0.57		
Idle	t			124.95	165.93	187.15	183.39		
Approach	t			1.00	1.33	1.51	1.59		
Non-LTO emissions ^{3, 4, 5, 6}	Engine ignition		t	47.97	67.97	76.00	77.96		
	Additional thrust		t	0	0	0	0		
	APU		t	27.43	44.03	49.61	50.33		
	Ground run-ups		t	0.87	1.40	1.16	1.13		
	PM10		LTO emissions ²	Take-off	t	2.53	3.90	4.22	4.33
				Climb out	t	1.04	1.63	1.80	1.84
Idle		t		4.16	6.58	8.01	8.37		
Approach		t		0.89	1.52	1.73	1.76		
Non-LTO emissions ^{3, 4, 5, 6, 9}		Engine ignition	t	0	0	0	0		
		Additional thrust	t	0.10	0.30	0.33	0.34		
			t	0.07	0.28				
		APU	t	4.14	6.26	6.81	6.84		
		Ground run-ups	t	0.12	0.15	0.15	0.14		
		SO ₂	LTO emissions ²	Take-off	t	16.39	23.19	25.92	26.58
Climb out	t			6.94	9.8	10.88	11.20		
Idle	t			42.78	63.02	73.92	77.72		
Approach	t			8.11	11.46	12.79	13.08		
Non-LTO emissions ^{3, 4, 5, 6, 9}	Engine ignition		t	0	0	0	0		
	Additional thrust		t	0.68	1.83	1.98	2.02		
			t	0.68	1.84				
	APU		t	12.73	18.71	20.17	20.34		
	Ground run-ups		t	0.72	0.88	0.95	0.99		
	Specific emissions								
NOx ⁷		g per TU	29.92	29.24	29.09	29.25			
HC ⁷		g per TU	4.26	4.10	4.05	3.85			
PM10 ⁷		g per TU	0.27	0.29	0.29	0.29			
SO ₂ ⁷		g per TU	1.83	1.84	1.84	1.85			
Emissions from third-party energy consumption (infrastructure and vehicles)									
NOx ⁸		t	8.51	10.91	9.24	9.59			
HC ⁸		t	0.06	0.10	0.09	0.08			
PM10 ^{8, 9}		t	0.07	0.09	0.07	0.08			
		t	0.06	0.09					
SO ₂ ⁸		t	0.35	0.40	0.37	0.36			

¹ Caused by 110 to 114 different airlines depending on timetable (winter, summer), only capable of being indirectly influenced by Fraport AG.

² Aircraft emissions of different load levels from the Landing/Take-Off (LTO) cycle in tonnes per calendar year up to an altitude of 300 meters (take-off, climb out, descent including coasting, taxiing). Up to an altitude of 300 meters the emissions still have a local effect.

³ Aircraft emissions from engine ignition.

⁴ Aircraft emissions from additional thrust for taxiway ascents in the area of Runway Northwest.

⁵ Use of Auxiliary Power Units to start the main engines, for ground stationary power supply and air-conditioning for the aircraft.

⁶ Emissions from ground run-ups of the aircraft at Frankfurt Airport.

⁷ TU = Traffic Unit; a traffic unit is equivalent to one passenger without transit or 100 kg airfreight or airmail.

⁸ Emissions from ground run-ups of removed aircraft engines at the DLH engine test stand.

⁹ The emissions from additional thrust, the engine test stand, and engine test runs were retrospectively recalculated for the years 2019 to 2023.

GRI 306: Waste					
GRI 306-3 Generated waste, including GRI 306-4	Unit	2021	2022	2023	2024
Waste diverted from disposal and GRI 306-5					
Waste directed to disposal					
Fraport parent company					
Amount of waste ^{1, 2}	1,000 t	10.07	12.74	14.89	15.07
Amount of waste ³	kg per TU	0.21	0.19	0.19	0.18
hazardous waste ^{1, 2}	1,000 t	1.52	1.2	1.34	1.25
non-hazardous waste ^{1, 2}	1,000 t	8.55	11.54	13.55	13.81
Total recoverability ^{1, 2}	1,000 t	8.67	11.44	13.17	14.16
Total disposal ^{1, 2}	1,000 t	1.40	1.30	1.71	0.91
Total recoverability rate ^{1, 2}	%	86.1	89.8	88.5	94.0
FCS					
Amount of waste ¹	1,000 t	2.19	1.95	1.74	1.84
hazardous waste ¹	1,000 t	0	0	0.001	0.002
non-hazardous waste ¹	1,000 t	2.19	1.95	1.74	1.84
Total recoverability ¹	1,000 t	1.56	1.23	1.68	1.84
Total disposal ¹	1,000 t	0.63	0.72	0.05	0
Total recoverability rate ¹	%	71.2	63.1	96.9	100
NICE					
Amount of waste ^{1, 5}	1,000 t	0.05	0.06	0.05	0.10
hazardous waste ¹	1,000 t	0	0	0	0
non-hazardous waste ^{1, 5}	1,000 t	0.05	0.06	0.05	0.10
Total recoverability ^{1, 4}	1,000 t	0.05	0.06	0.05	0.10
Total disposal ¹	1,000 t	0	0	0	0
Total recoverability rate ¹	%	100	100	100	100
FGS GmbH					
Amount of waste ⁶	1,000 t		0.0002	0.0022	0.0064
hazardous waste ⁶	1,000 t				0.00003
non-hazardous waste ⁶	1,000 t		0.0002	0.0022	0.0064
Total recoverability ⁶	1,000 t		0.0002	0.0022	0.0064
Total disposal ⁶	1,000 t				0
Total recoverability rate ⁶	%		100	100	100

¹ Without soil and building rubble.

² Including waste from third parties (e.g., waste from aircraft excluding catering waste), excluding soil and building rubble.

³ TU = Traffic Unit; a traffic unit is equivalent to a passenger with baggage or 100 kg of airfreight or airmail.

⁴ Aircraft deicing agents.

⁵ Total volume is a mixture of water Type I and Type IV fluid.

⁶ Until 2021, all waste was disposed of through Fraport and accounted for there. Since 2022, some waste has been disposed of through our own disposal channels.

GRI 306: Waste					
GRI 306-3	Unit	2021	2022	2023	2024
Significant releases ¹					
Fraport parent company					
Releases of water-hazardous substances					
Number of spills	Number	276	352	376	515
Volume of spills	m ³	2.46	2.11	4.68	6.34
Frequency of spills	Number per 1,000 aircraft movements	0.72	0.92	0.87	1.17
Effects ²		none	none	none	none

¹ Spills primarily by third parties.

² No environmental hazard because releases are generally on surfaced areas with comprehensive safety installations implemented downstream.

Spills on not surfaced areas are very rare exceptions and are cleared up immediately.

AO5 – Air quality					
	Unit	2021	2022	2023	2024
<i>at Frankfurt Airport^{1, 2}</i>					
NO ₂ ³	µg/m ³	29.7	28.8	26.1	25.2
SO ₂ ⁴	µg/m ³	1.2	1.1	1.0	1.0
PM _{2,5} ⁷	µg/m ³	9.2	8.5	7.5	8.1
PM ₁₀ ⁵	µg/m ³	13.9	14.3	12.7	13.0
Benzol ⁶	µg/m ³	0.7	0.5	0.6	0.4

¹ Annual average of the measured values at the station Airport-east (formerly SOMM11). These values are the total result of all emissions from different source groups, in other words, alongside the contribution of the airport to pollutants also from third parties (road traffic, trade and industry, house fire, large-scale background pollution). The airport's share is location-dependent and, according to model calculations, varies by component between approximately 10% and 30%.

² Yearly average limit values (not applicable to the airport, because no human exposure throughout the year).

³ NO₂ assessment value in accordance with EU Directive 2008/50/EC, 39th BImSchV: 40 µg/m³.

⁴ SO₂ assessment value in accordance with Technical Instructions on Air Pollution (TA Luft) 2002 (otherwise no yearly average defined): 50 µg/m³.

⁵ Fine dust (PM₁₀) is particulate matter with an aerodynamic diameter < 10 µm. Fine dust assessment value, PM₁₀ according to EU Directive 2008/50/EC, 39th BImSchV: 40 µg/m³.

⁶ Benzene assessment value in accordance with EUR Directive 2008/50/EC, 39th BImSchV: 5 mg/m³.

⁷ The airport monitoring program was expanded at the end of 2019 to include particle concentration in the size class of 2.5µm (PM_{2.5}). Fine dust assessment value, PM_{2.5} according to EU Directive 2008/50/EC, 39th BImSchV: 25 µg/m³.

AO6 – Airfield surfaces and aircraft deicing agents					
	Unit	2021	2022	2023	2024
<i>Fraport parent company</i>					
Airfield surfaces deicing agent: potassium format (fluid – approx. 50% agent), applied on the aircraft movement areas ¹	m ³	2,009	1,866	808	1,318
Airfield surfaces deicing agent: sodium formate (granulate – approx. 100% agent) ¹	t	120	82	24	151
Road salt (NaCl) ¹	t	106	625	605	681
<i>NICE</i>					
Number of de-iced aircraft ¹	Number	3,422	4,670	3,740	4,562
Aircraft deicing agent: propylene glycol (NICE) ¹	m ³ active ingredient	1,085	1,386	1,287	1,514
Aircraft deicing agents: propylene glycol; per de-iced aircraft ¹	m ³ substance per aircraft	0.317	0.297	0.345	0.332

¹ The value fluctuates significantly depending on the severity of the winter months.

Intermodality					
	Unit	2021	2022	2023	2024
<i>Fraport parent company</i>					
<i>Employee traffic</i>					
Travel to and from work by public transport ¹	Percentage of employees	17.5	17.0	26.0	28.0
Travel to and from work by carpooling ¹	Percentage of employees	5.0	8.0	8.4	20.0
<i>Passenger traffic at Frankfurt Airport (FRA)</i>					
Travel of originating passengers to and from the airport by public transport ¹	Percentage of employees	31.6	31.9	30.5	32.9
therein arrival/departure by ICE (Intercity Express) ¹	Percentage of employees	11.9	10.4	11.3	11.3

¹ The values are based on a survey.

AO7 – Aircraft noise					
AO7 Number and percentage of people* residing in areas affected by noise	Einheit	2021	2022	2023	2024
Frankfurt Airport					
Number of people residing in the contour L_{eq} , day = 60 dB(A) (Criterion similar Act for Protection against Aircraft Noise)** 1, 2	Number	229	609	966	1,031
Relative change compared with the previous year	Percent	-62	166	59	7
Number of people residing in the contour L_{eq} , day = 55 dB(A) (Criterion similar Act for Protection against Aircraft Noise)** 1, 3, 4	Number	27,635	45,273	51,657	50,949
Relative change compared with the previous year	Prozent	-0.8	64	14	-1
Number of people residing in the contour of the L_{eq} envelope from NAT, night = 6 x 68 dB(A) and, night = 50 dB(A) (Criterion similar Act for Protection against Aircraft Noise)** 1, 5	Percent	28,634	29,073	38,992	42,293
Relative change compared with the previous year	Prozent	86	2	34	8

* Population database provided by DDS Digital Data Services. Survey status of these data for all evaluations in 2010. The update of the population database to the status of 2010 leads to minimally changed resident figures in the relevant contours in the years up to 2014 compared with earlier disclosures.

** The values were calculated using the model of the reduction approaches described under 1 for aircraft noise calculation.

¹ The aircraft noise contours were calculated on the basis of two regulations introduced in Germany: the "Instruction on how to calculate noise abatement areas (in short: AzB)" and the "Instruction on data recording on aircraft movements (in short: AzD, 2008)". In all scenarios, the distribution of operations was standardized in accordance with the average operational direction distribution over many years for the ten years between 2000 and 2009. The sigma surcharge developed for the tentative abatement-zone calculation pursuant to the Act for Protection Against Aircraft Noise and described in AzB and AzD was not applied. From 2017, the aircraft noise calculation took into account that new aircraft models – particularly on takeoff – have significantly lower noise emissions than comparable older models with the same capacity. The first of the new type of aircraft model was the Airbus A380, followed by the Boeing B787, A320neo, A350 and others.

² The criterion L_{eq} , day = 60 dB(A) is based on the definition of day protection zone 1 in accordance with the Aircraft Noise Abatement Act.

³ The criterion L_{eq} , day = 55 dB(A) is based on the definition of day protection zone 2 in accordance with the Aircraft Noise Abatement Act.

⁴ The data on L_{eq} , day = 55 dB(A) is the total number within this contour, the number specified under L_{eq} , day = 60 dB(A) is therefore a sub-quantity.

⁵ The criterion envelope from NAT, night = 6 x 68 dB(A) and L_{eq} , night = 50 dB(A) is based on the definition of night protection zone according to the Aircraft Noise Abatement Act. When calculating aircraft noise contours, the emission estimates in accordance with the agreement on monitoring the noise limit (LOG) were taken into account for modern aircraft types.

A07 – Aircraft noise					
	Unit	2021	2022	2023	2024
Surrounding area of Frankfurt Airport					
Approach ¹					
Monitoring station 01 Offenbach Lauterborn, day* ^{2, 3}	L _{eq} (3) in dB(A)	55.0	54.4	55.1	55.6
Monitoring station 01 Offenbach Lauterborn, night* ^{2, 4}	L _{eq} (3) in dB(A)	48.1	48.2	48.2	48.6
Monitoring station 06 Raunheim, day* ^{2, 3}	L _{eq} (3) in dB(A)	58.9	59.7	60.7	60.4
Monitoring station 06 Raunheim, night* ^{2, 4}	L _{eq} (3) in dB(A)	52.4	52.6	52.7	52.6
Monitoring station 14 Hochheim, day* ^{2, 3}	L _{eq} (3) in dB(A)	52.5	54.6	54.3	54.2
Monitoring station 14 Hochheim, night* ^{2, 4}	L _{eq} (3) in dB(A)	40.9	45.9	45.9	45.1
Monitoring station 44 F-Lerchesberg, day* ^{2, 3}	L _{eq} (3) in dB(A)	54.2	55.0	55.4	55.4
Monitoring station 44 F-Lerchesberg, night* ^{2, 4}	L _{eq} (3) in dB(A)	44.8	44.9	45.9	45.4
Take-Off ¹					
Monitoring station 12 Bad Weilbach, day* ^{2, 3}	L _{eq} (3) in dB(A)	52.1	52.0	55.4	53.1
Monitoring station 12 Bad Weilbach, night* ^{2, 4}	L _{eq} (3) in dB(A)	41.8	44.4	46.0	47.1
Monitoring station 32 Nauheim, day* ^{2, 3}	L _{eq} (3) in dB(A)	51.8	51.9	50.8	51.6
Monitoring station 32 Nauheim, night* ^{2, 4}	L _{eq} (3) in dB(A)	44.7	40.0	37.6	39.5
Monitoring station 41 F-Süd, day* ^{2, 3}	L _{eq} (3) in dB(A)	53.8	54.3	54.7	54.9
Monitoring station 41 F-Süd, night* ^{2, 4}	L _{eq} (3) in dB(A)	46.8	48.5	48.2	48.6
Monitoring station 51 Worfelden, day* ^{2, 3}	L _{eq} (3) in dB(A)	54.0	54.9	54.3	55.6
Monitoring station 51 Worfelden, night* ^{2, 4}	L _{eq} (3) in dB(A)	49.9	51.2	50.6	53.0
Monitoring station 71 Forsthaus, day* ^{2, 3}	L _{eq} (3) in dB(A)	54.6	55.8	55.7	56.0
Monitoring station 71 Forsthaus, night* ^{2, 4}	L _{eq} (3) in dB(A)	48.0	49.4	49.5	49.8
Frequency of the exceedance of the maximum level of 68 dB(A) per night ^{1, 4}					
Monitoring station 01 Offenbach Lauterborn ⁵	Number of exceedance cases	8.5	8.3	8.0	9.0
Monitoring station 06 Raunheim ⁵	Number of exceedance cases	8.3	9.1	11.2	9.0
Monitoring station 14 Hochheim ⁵	Number of exceedance cases	1.2	5.5	5.3	4.0
Monitoring station 44 F-Lerchesberg ⁵	Number of exceedance cases	2.9	3.1	3.8	1.8
Monitoring station 12 Bad Weilbach ⁵	Number of exceedance cases	1.3	4.3	6.7	7.6
Monitoring station 32 Nauheim ⁵	Number of exceedance cases	1.9	0.7	0.3	0.4
Monitoring station 41 F-Süd ⁵	Number of exceedance cases	4.9	9.4	9.4	9.8
Monitoring station 51 Worfelden ⁵	Number of exceedance cases	7.6	13.0	12.1	18.5
Monitoring station 71 Forsthaus ⁵	Number of exceedance cases	8.9	12.9	14.1	11.6
Share of western operations					
Share of western operations day ^{3, 6, 7}	Share in %	69.8	62.2	60.4	66.1
Share of western operations night ^{4, 6, 7}	Share in %	72.4	63.8	56.0	66.2

* new according to DIN 45643:2011

¹ Selected representative noise-monitoring station from a monitoring network with 29 static stations.

² Energy-equivalent continuous sound level [L_{eq}(3) in dB(A)] according to the Aircraft Noise Act of 2007 and DIN 45643. L_{eq}(3) is calculated during the six busiest months from May to October, divided into day and night periods. In 2021 the months with the most traffic were from July to December. Changes at the monitoring points on the arrival and departure routes of the parallel runway system are mainly due to fluctuations in the operational direction distribution (East/West) from year to year, caused by varying weather conditions and wind directions. Detailed information can be found at www.fraport.com.

³ Daytime: 6 a.m. until 10 p.m.

⁴ Nighttime 10 p.m. until 6 a.m.

⁵ For the six months with the most traffic (May to October). In 2021 the months with the most traffic were from July to December.

⁶ From the parallel runway system with takeoff toward the west, approach from the east.

⁷ Share of easterly operations: difference from share of westerly operations in % to 100%.

Customer health and safety					
A09 Number of wildlife accidents per 10,000 aircraft movements	Unit	2021	2022	2023	2024
Frankfurt Airport (wildlife strike rate)	Number per 10,000 aircraft movements	8.36	8.55	7.20	9.73
Frankfurt Airport (damage rate) ¹	Number per 10,000 aircraft movements	0.27	0.21	0.11	0.14

¹ The damage rates (number of wildlife accidents per 10,000 aircraft movements) provide a differentiated insight into the actual risk resulting from wildlife, since investigations came to the conclusion that if the number of total reports increases while the damage rate remains the same or even decreases, a change in reporting behavior can be assumed.

Compliance with statutory regulations

There are no violations of legal provisions that have been punished by the authorities with fines or non-monetary penalties, nor are any proceedings pending in this regard.

Environmental Auditor's Declaration on Verification and Validation Activities

The Institut für Umwelttechnik Dr. Kühnemann und Partner GmbH
with registration number DE-V-0133,
represented by Dr. Burckhard Kühnemann with registration number DE-V-0103
and Ulrich Schmidt with registration number DE-V-0366,
accredited or licensed for the scope NACE 52.23,
declares to have verified whether the site or the whole organization as indicated
in the updated environmental statement of the organization Fraport AG
with registration number DE-125-00032
meets all requirements of Regulation (EC) No 1221/2009 of the European Parliament and of the Council
of 25 November 2009 on the voluntary participation by organizations in a Community eco-management
and audit scheme (EMAS), as amended by amending Regulation (EU) 2017/1505 of 28.08.2017.

By signing this declaration, I declare that:

- the verification and validation has been carried out in full compliance with the requirements of Regulation (EC) No 1221/2009,
- the outcome of the verification and validation confirms that there is no evidence of non-compliance with applicable legal requirements relating to the environment,
- the data and information of the updated environmental statement of the organization reflect a reliable, credible and correct image of all the site's activities, within the scope mentioned in the environmental statement.

This document is not equivalent to EMAS registration. EMAS registration can only be granted by a Competent Body under Regulation (EC) No 1221/2009. This document shall not be used as a stand-alone piece of public communication.

Frankfurt, August 22nd, 2025



**Dr. Kühnemann Institut
und Partner für
Umwelt**

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Dates

The next abridged Environmental Statement will be validated by an independent environmental expert in July 2026 and then published.

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All data as of July 2025

* 20 euro cents per call from a German landline, regardless of the duration of the call, maximum of 60 euro cents from a mobile network

** to the issues of aircraft noise, available daily from 5 a.m. to midnight

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