

Abridged

Environmental Statement 2021

Including the Environmental Program until 2023
For the organizations Fraport AG
(Fraport parent company), NICE, FCS, GCS
and FraGround at Frankfurt Airport



Update of the
Environmental
Statement 2019



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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. These audits in conformity with EMAS and ISO 14001 also included Fraport Cargo Services GmbH (FCS) and NICE Aircraft Services

& Support GmbH (NICE). New additions to the EMAS network in 2017 include the subsidiary companies FraGround Fraport Ground Services GmbH (FraGround) and GCS Gesellschaft für Cleaning Service mbH & Co. Airport Frankfurt/Main KG (GCS). The total amount of cleaning products containing hazardous substances employed in the cleaning process amounted to 42,331 liters in 2021. This represented a decrease of 20%.

Update

The GCS Gesellschaft für Cleaning Service mbH & Co. Airport Frankfurt/Main KG (GCS) subsidiary was renamed Fraport Facility Services GmbH on

March 31, 2022. Fraport Facility Services GmbH is to take over further activities of other Fraport subsidiaries in the future.

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.

Environmental Figures

Frankfurt Airport, Fraport parent company, FCS, NICE, GCS, FraGround

Aspects in accordance with the Global Reporting Initiative (GRI) performance indicators “Environment” and “Airport Operators Sector Supplement (AOSS)”, subset “environment”. As a result of the pandemic, the numbers in 2020 and 2021 are not comparable with previous developments.

Values partially rounded; minor deviations may occur.

Employees	Unit	Comment	2018	2019	2020	2021
Fraport parent company	Number	1	10,595	10,480	10,018	8,326
FCS	Number	1	515	535	538	526
NICE	Number	1	44	45	43	42
FraGround	Number	1	3,744	3,983	2,618	2,656
Fraport Facility Services GmbH	Number	1	729	714	636	640

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	Comment	2018	2019	2020	2021
Passengers	Number of passengers		69,510,269	70,556,072	18,770,998	24,778,685

AO2 – Aircraft movements						
Traffic volume	Unit	Comment	2018	2019	2020	2021
Frankfurt Airport (FRA)						
Traffic unit (without transit)	TU	1, 2	91,179,071	91,372,384	37,862,509	47,528,380
Aircraft movements (landing + take-off)	Number of movements		512,115	513,912	212,235	261,927
Therein at night	Number of movements	3	35,648	35,814	12,925	16,405

¹ TU = 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: 22:00 to 06:00

AO3 – Cargovolume						
Traffic volume	Unit	Comment	2018	2019	2020	2021
Airfreight	t		2,176,387	2,041,775	1,895,074	2,271,542
Airmail	t		89,795	86,701	57,554	46,340
Therein FCS						
Cargo-Volumen						
Airfreight	t		678,094	633,599	665,813	796,448
Traffic units	TU	1	6,780,940	6,335,990	6,658,130	7,964,480

¹ TU = A traffic unit is equivalent to one passenger with baggage or 100 kg of airfreight or airmail.

GRI 302: Energy						
GRI 302-1	Unit	Comment	2018	2019	2020	2021
Direct energy consumption						
Frankfurt Airport						
1, 2, 3						
Purchased direct non-renewable energy sources	TJ		816.02	812.85	499.27	542.70
Natural gas	TJ		81.09	85.75	80.12	88.86
Natural gas	million kWh	3	22.525	23.820	22.255	24.684
Liquefied petroleum gas (LPG)	TJ		7.17	8.75	7.07	2.82
Liquefied petroleum gas (LPG)	m ³	3	301	368	297	118
Heating oil	TJ		93.7	96.1	80.7	71.2
Heating oil	million liters	3	2.595	2.662	2.236	1.972
Diesel	TJ		569.63	558.9	297.4	345.7
Diesel	million liters		16.001	15.701	8.353	9.710
Gasoline	TJ		59.36	60.1	32.6	32.7
Gasoline	million liters		1.83	1.85	1.01	1.01
Kerosene (Jet A1)	TJ	6	5.07	3.23	1.36	1.47
Kerosene (Jet A1)	million liters	6	0.146	0.093	0.039	0.042
Electricity (production)	TJ	7	0.00	0.00	0.00	4.98
Electricity (production)	million kWh	7	0.000	0.000	0.000	1.383
Therein Fraport parent company						
Purchased direct non-renewable energy source	TJ	2	505.6	504.59	297.87	314.47
Natural gas	TJ		4.5	4.7	4.38	4.4
Natural gas	million kWh		1.255	1.305	1.218	1.229
Liquefied petroleum gas (LPG)	TJ		7.2	8.8	7.07	2.8
Liquefied petroleum gas (LPG)	m ³		301	368	297	118
Heating oil	TJ		87.7	90.9	76.2	65.0
Heating oil	million liters		2.430	2.518	2.111	1.800
Diesel	TJ		361.6	356.9	187.9	219.2
Diesel	million liters	4	10.157	10.026	5.278	6.157
Gasoline	TJ		42.1	41.8	21.8	22.6
Gasoline	million liters	4	1.299	1.292	0.67	0.70
Kerosene (Jet A1)	TJ	6	2.5	1.4	0.52	0.48
Kerosene (Jet A1)	million liters	6	0.072	0.041	0.015	0.014
Electricity (production)	TJ	7	0.00	0.00	0.00	4.98
Electricity (production)	million kWh	7	0.000	0.000	0.000	1.383
Total energy consumption						
Renewable energy sources	%		<1	<1	<1	<1
Non-renewable energy sources	%		100	100	100	100
Therein FCS						
Purchased direct non-renewable energy source	TJ		5.00	4.95	5.75	6.80
Diesel	TJ		4.60	4.59	5.41	6.43
Diesel	million liters		0.129	0.129	0.152	0.181
Gasoline	TJ		0.40	0.37	0.35	0.37
Gasoline	million liters		0.012	0.011	0.011	0.011
Total energy consumption						
Renewable energy sources	%		0	0	0	0
Non-renewable energy sources	%		100	100	100	100

GRI 302: Energy						
GRI 302-1	Unit	Comment	2018	2019	2020	2021
Direct energy consumption						
<i>Therein NICE</i>						
Purchased direct non-renewable energy sources	TJ		13.82	14.47	7.86	10.46
Diesel	TJ		13.74	14.39	7.82	10.40
Diesel	million liters	5	0.386	0.404	0.220	0.292
Gasoline	TJ		0.07	0.08	0.04	0.06
Gasoline	million liters		0.002	0.001	0.001	0.002
Total energy consumption						
Renewable energy sources	%		0	0	0	0
Non-renewable energy sources	%		100	100	100	100
<i>Therein FraGround</i>						
Purchased direct non-renewable energy sources	TJ		0.37	0.36	0.18	0.14
Diesel	TJ		0.22	0.23	0.13	0.11
Diesel	million liters	4	0.006	0.006	0.004	0.003
Gasoline	TJ		0.14	0.13	0.05	0.03
Gasoline	million liters	4	0.004	0.004	0.001	0.001
Natural gas	TJ	7				0.004
Natural gas	m ³	7				101.6
Total energy consumption						
Renewable energy sources	%		0	0	0	0
Non-renewable energy sources	%		100	100	100	100
<i>Therein Fraport Facility Services GmbH</i>						
Purchased direct non-renewable energy sources	TJ		2.05	1.79	1.69	1.47
Diesel	TJ		1.52	1.28	1.19	1.01
Diesel	million liters	4	0.043	0.036	0.033	0.028
Gasoline	TJ		0.53	0.51	0.49	0.47
Gasoline	million liters	4	0.016	0.016	0.015	0.014
Total energy consumption						
Renewable energy sources	%		0	0	0	0
Non-renewable energy sources	%		100	100	100	100

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 Commissioning of a solar plant in 2021.

TJ = Terajoule

GRI 302: Energy						
GRI 302-1	Unit	Comment	2018	2019	2020	2021
Indirect energy consumption						
Frankfurt Airport		1, 2				
Purchased energy	TJ		3,954.7	3,749.3	3,177.2	3,411.9
Electricity	TJ		2,083.0	2,026.8	1,656.7	1,668.2
Electricity	million kWh		578.603	563.003	460.201	463.383
District heating	TJ		1,329.7	1,246.8	1,149.8	1,366.5
District heating	million kWh		369.358	346.345	319.397	379.590
District cooling	TJ		542.0	475.6	370.6	377.2
District cooling	million kWh		150.565	132.123	102.946	104.773
Indirect energy consumption						
Renewable energy sources	%		47.90	55.40	57.2	63.7
Non-renewable energy sources	%		52.10	44.60	42.8	36.3
Therein Fraport parent company						
Purchased energy	TJ		2,180.8	2,128.0	1,728.5	1,857.6
Electricity	TJ	3	1,129.3	1,106.8	900.4	924.2
Electricity	million kWh	3	313.695	307.438	250.118	256.709
District heating	TJ		596.2	608.2	507.1	620.0
District heating	million kWh		165.604	168.945	140.863	172.232
District cooling	TJ		455.3	413.0	320.9	313.4
District cooling	million kWh		126.465	114.716	89.146	87.066
Indirect energy consumption						
Renewable energy sources	%		45.9	55.2	57.3	65.3
Non-renewable energy sources	%		54.1	44.8	42.7	34.7
Therein FCS						
Purchased energy	TJ		40.81	30.98	45.12	44.53
Electricity	TJ		19.93	17.62	17.83	19.42
Electricity	million kWh		5.535	4.895	4.952	5.394
District heating	TJ	4	20.89	13.36	27.29	25.11
District heating	million kWh	4	5.802	3.711	7.582	6.974
Indirect energy consumption						
Renewable energy sources	%		45.9	55.2	57.3	62.5
Non-renewable energy sources	%		54.1	44.8	42.7	37.5
Therein NICE						
Purchased energy	TJ		4.52	4.51	2.57	2.94
Electricity	TJ		3.72	3.54	1.98	2.26
Electricity	million kWh		1.032	0.984	0.549	0.627
District heating	TJ		0.80	0.97	0.60	0.68
District heating	million kWh		0.222	0.268	0.166	0.189
Indirect energy consumption						
Renewable energy sources	%		45.9	55.2	57.3	62.5
Non-renewable energy sources	%		54.1	44.8	42.7	37.5

GRI 302: Energy						
GRI 302-1	Unit	Comment	2018	2019	2020	2021
Indirect energy consumption						
<i>Therein FraGround</i>						
Purchased energy	TJ		2.07	2.69	2.34	2.38
Electricity	TJ		1.24	1.54	1.40	1.47
Electricity	million kWh		0.346	0.428	0.389	0.409
District heating	TJ		0.78	1.05	0.87	0.89
District heating	million kWh		0.217	0.293	0.241	0.247
District cooling	TJ		0.05	0.10	0.07	0.02
District cooling	million kWh		0.013	0.026	0.020	0.004
Indirect energy consumption						
Renewable energy sources	%		100	100	100	100
Non-renewable energy sources	%		0	0	0	0
<i>Therein Fraport Facility Services GmbH</i>						
Purchased energy	TJ		2.19	1.08	0.67	1.58
Electricity	TJ		2.09	0.93	0.56	1.44
Electricity	million kWh		0.581	0.259	0.155	0.399
District heating	TJ		0.10	0.15	0.11	0.14
District heating	million kWh		0.027	0.041	0.032	0.040
Indirect energy consumption						
Renewable energy sources	%		100	100	100	100
Non-renewable energy sources	%		0	0	0	0

¹ All companies on the contiguous property area 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 at the time of the review. As a result of the continuous checks customary in the energy industry, the value may still change after printing.

⁴ Several pharma charter flights in January and February 2020, during which the hall had to be heated up to a constant temperature of 15 °C.

TJ = Terajoule

GRI 302: Energy						
GRI 302-3 Energy intensity	Unit	Comment	2018	2019	2020	2021
Frankfurt Airport						
1, 2, 3						
Specific total consumption	TJ per million TU		52.32	49.93	97.10	81.68
Purchased direct non-renewable energy sources	TJ per million TU	4	8.95	8.90	13.19	11.42
Purchased energy	TJ per million TU	4	43.37	41.03	83.91	70.26
Therein Fraport parent company						
Specific total consumption	TJ per million TU		29.46	28.81	53.52	45.70
Purchased direct non-renewable energy sources	TJ per million TU	4	5.55	5.52	7.87	6.62
Purchased energy	TJ per million TU	4	23.92	23.29	45.65	39.08

¹ All companies on the contiguous property area 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 Consumption of third parties partly due to information that cannot be verified.

⁴ TU = A traffic unit is equivalent to one passenger with baggage or 100 kg of airfreight or airmail.

TJ = Terajoule

GRI 302: Energy						
GRI 302-4	Unit	Comment	2018	2019	2020	2021
Reduction of energy consumption						
<i>Fraport parent company</i>						
Reduction of energy consumption	million kWh	1, 2, 3	94.92	111.45	130.08	146.66

¹ Based on the year 2008, accumulated effects from the year 2008, to the extent effective in subsequent years.

² Calculation of energy which has been saved for reasons of improved procedures, replacement and upgrading of systems and equipment, and modified employee behavior.

³ Includes calculated savings from completed projects.

GRI 303: Water						
GRI 303-1	Unit	Comment	2018	2019	2020	2021
Total water consumption						
<i>Frankfurt Airport</i>						
Total water consumption	million m ³	1	2.164	2.209	1.417	1.337
Total water consumption	liters per TU	2	23.73	24.17	37.44	28.13
Drinking water	million m ³	4	1.346	1.448	0.996	0.927
Service water	million m ³	3, 5	0.818	0.760	0.421	0.409
<i>Therein Fraport parent company</i>						
Total water consumption	million m ³	7, 8	1.416	1.436	0.905	0.884
Total water consumption	liters per TU	2, 8	15.5	15.7	23.9	18.6
Drinking water	million m ³	4	0.689	0.760	0.546	0.521
Service water	million m ³	5, 8	0.727	0.675	0.359	0.363
<i>Therein FCS</i>						
Total water consumption	million m ³		0.008	0.007	0.007	0.005
Drinking water	million m ³	4	0.008	0.007	0.007	0.005
Service water	m ³		-	-	-	-
<i>Therein NICE</i>						
Total water consumption	million m ³	6	0.011	0.010	0.007	0.008
Drinking water	million m ³	4, 6	0.008	0.009	0.005	0.006
Service water	million. m ³	5	0.003	0.002	0.002	0.002
<i>Therein Fraport Facility Services GmbH</i>						
Total water consumption	million m ³		0.005	0.005	0.006	0.003
Drinking water	million m ³	4	0.005	0.005	0.006	0.003
Service water	m ³		-	-	-	-

¹ All companies on the contiguous property area of Frankfurt Airport: Fraport parent company, subsidiaries of Fraport AG, more than 500 third parties.

² TU = 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 agents. In cold and snowy winters larger amounts are needed for de-icing. The water consumption therefore rises accordingly.

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

⁸ Temporarily rising usage because of the construction of Terminal 3

GRI 303: Water						
AO4 Quality of precipitation water	Unit	Comment	2018	2019	2020	2021
<i>Frankfurt Airport</i>						
Hydrocarbons	mg/l	1	<0.1	0.2	<0.1	<0.1
Materials capable of being deposited	ml/l	1	<0.1	<0.1	0.27	0.38

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.

GRI 304: Biodiversity						
GRI 304-1 Land use	Unit	Comment	2018	2019	2020	2021
Frankfurt Airport						
Owned land by Fraport AG	ha	1	2,284.84	2,287.19	2,286.61	2,283.45
of which paved area	ha		1,103.90	1,103.60	1,116.48	1,118.58

¹ Continuous owned land.

GRI 305: Emissions						
GRI 305-1 Direct (Scope 1) and GRI 305-2 indirect (Scope 2) Greenhouse gas emissions	Unit	Comment	2018	2019	2020	2021
Fraport parent company						
CO ₂ emissions	1000 t CO ₂	1	188.6	170.3	129.3	114.0
Direct CO ₂ emissions	1000 t CO ₂	1	37.2	37.1	21.9	23.2
Indirect CO ₂ emissions	1000 t CO ₂	2	151.4	133.2	107.4	90.9
Compensated CO ₂ emissions (certificates)	1000 t CO ₂		0	0	0	0
Other relevant greenhouse gas emissions	t CO ₂ equivalent	3	1.61	1.437	0.801	1.268
FCS						
CO ₂ emissions	1000 t CO ₂	1	3.37	2.54	3.49	3.61
Direct CO ₂ emissions	1000 t CO ₂	1	0.37	0.37	0.43	0.50
Indirect CO ₂ emissions	1000 t CO ₂	2	3.00	2.18	3.06	3.11
NICE						
CO ₂ emissions	1000 t CO ₂	1	1.43	1.43	0.80	0.96
Direct CO ₂ emissions	1000 t CO ₂	1	1.02	1.07	0.58	0.78
Indirect CO ₂ emissions	1000 t CO ₂	2	0.41	0.35	0.22	0.18
FraGround						
CO ₂ emissions	1000 t CO ₂	1	0.07	0.08	0.06	0.05
Direct CO ₂ emissions	1000 t CO ₂	1	0.03	0.03	0.01	0.01
Indirect CO ₂ emissions	1000 t CO ₂	2	0.04	0.05	0.04	0.04
Fraport Facility Services GmbH						
CO ₂ emissions	1000 t CO ₂	1	0.16	0.14	0.13	0.12
Direct CO ₂ emissions	1000 t CO ₂	1	0.15	0.13	0.12	0.11
Indirect CO ₂ emissions	1000 t CO ₂	2	0.00	0.01	0.01	0.01

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 (Fraport Group), district heating, district cooling (Fraport at the Frankfurt site).

³ CO₂ equivalent of refrigerant consumption at Fraport AG (emissions of other greenhouse gases at the airport are negligible according to studies conducted in 2005).

GRI 305: Emissions						
GRI 305-3	Unit	Comment	2018	2019	2020	2021
Other indirect (Scope 3) GHG emissions						
Fraport parent company						
Air traffic	1000 t CO ₂	1	1009.7	1007.5	420.1	500.6
Employee traffic at Fraport parent company and third parties at Frankfurt Airport	1000 t CO ₂	2	106.6	127.8	93.9	97.0
Passenger traffic (passengers originated here)	1000 t CO ₂	3, 7	198.9	273.9	96.9	139.2
Business trips of employees at Fraport parent company	1000 t CO ₂	4	0.80	0.75	0.00	0.13
Energy consumption of third parties (infrastructure and vehicles)	1000 t CO ₂	5	183.5	164.7	133.9	121.2
Other relevant greenhouse gas emissions	t CO ₂ equivalent	6	<2	<2	<2	<2

¹ Air traffic up to 914 m (LTO cycle) of all aircraft landing and taking off at Frankfurt Airport, use of APU.

² Travel by employees to and from the workplace.

³ Travel to and from the airport by passengers, travel in private vehicles and public transport.

⁴ Includes car, rail, and air travel.

⁵ Electricity, heat, cooling, fuels.

⁶ According to investigations carried out in 2005, the emissions of other greenhouse gases at the airport were negligible.

⁷ Increase of aircraft movements and passengers in 2019.

⁸ Business trips of employees were partially compensated in 2021.

GRI 305: Emissions						
GRI 305-4	Unit	Comment	2018	2019	2020	2021
Climate intensity according to GHG						
<i>Fraport parent company</i>						
Climate intensity of traffic performance	kg CO ₂ per TU	3	2.07	1.86	3.41	2.40
Direct CO ₂ emissions	kg CO ₂ per TU	1, 3	0.41	0.41	0.58	0.49
Indirect CO ₂ emissions	kg CO ₂ per TU	2, 3	1.66	1.46	2.84	1.91

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 TU = A traffic unit is equivalent to one passenger with baggage or 100 kg of airfreight or airmail.

GRI 305: Emissions						
GRI 305-7 Air polluting emissions	Unit	Comment	2018	2019	2020	2021
<i>Air traffic at Frankfurt Airport</i>						
		1				
NOx	t	2	2,711			
NOx	t	2, 5	2,733	2,694	1,197	1,417
HC	t	2	417			
HC	t	2, 5	421	415	177	202
PM10	t	2	25			
PM10	t	2, 5	26	25	10	13
SO ₂	t	2	177			
SO ₂	t	2, 5	180	177	73	87
NOx	g per TU	2, 3, 6	29.97	29.49	31.61	29.82
HC	g per TU	2, 3, 6	4.61	4.54	4.67	4.26
PM10	g per TU	2, 3, 6	0.29	0.27	0.26	0.27
SO ₂	g per TU	2, 3, 6	1.97	1.94	1.93	1.82
<i>Fraport parent company</i>						
NOx	t	4	-	-	-	-
Benzene	t	4	-	-	-	-
PM10 (Fine dust <10 µm)	t	4	-	-	-	-

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

² Air traffic: emissions in tons per calendar year up to an altitude of 300 meter (taxiing, starting, climb, descent incl. rollout, engine ignition, APU). Up to an altitude of 300 meters the emissions have a regional effect.

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

⁴ Fraport parent company emits per year approximately 264 t NOx, 0.4 t benzene and 9.3 t PM10. These data are derived from the zoning plan documents.

An annual update is not yet possible because determining the data is very complex. In future, the data are to be calculated on a continuous basis, the necessary processes are currently being prepared.

⁵ The movement logs were recreated to include up-to-date aircraft information, so that individual engine information was available for many more aircraft.

The calculation procedure for APU emissions was fundamentally revised and now takes each aircraft into account individually, instead of using a blanket approach as before.

⁶ Consideration per TU now only related to recalculation (for old consideration, see abridged Environmental Statement 2019).

GRI 306: Wastewater and waste						
GRI 306-1 Discharge of wastewater	Unit	Comment	2018	2019	2020	2021
<i>Frankfurt Airport</i>						
Sewage water	million m ³	1, 2	2.156	2.142	1.496	1.600
Sewage water	Liters per TU	3	23.6	23.4	39.5	33.7

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 = A traffic unit is equivalent to one passenger with baggage or 100 kg of airfreight or airmail.

GRI 306: Wastewater and waste						
GRI 306-2	Unit	Comment	2018	2019	2020	2021
Waste by type and disposal method						
<i>Fraport parent company</i>						
Amount of waste	1000 t	1, 2	20.94	20.31	9.45	10.10
Amount of waste	kg per TU	3	0.23	0.22	0.25	0.21
Hazardous waste	1000 t	1, 2	1.77	1.80	1.34	1.52
Non-hazardous waste	1000 t	1, 2	19.17	18.51	8.13	8.58
Total recoverability	1000 t	1, 2	18.94	18.04	7.99	8.14
Total disposal	1000 t	1, 2	2.00	2.28	1.47	1.96
Total recoverability rate	%	1, 2	90.5	88.8	84.5	80.6
Waste from international flights	1000 t		4.65	4.81	2.09	1.93
<i>FCS</i>						
Amount of waste	1000 t	1	1.667	1.525	1.603	2.185
Hazardous waste	t	1	0	0	0	0
Non-hazardous waste	1000 t	1	1.67	1.53	1.60	2.19
Total recoverability	1000 t	1	1.61	1.53	1.60	1.56
Total disposal	t	1	58.0	0.0	0.0	629.7
Total recoverability rate	%	1	96.5	100.0	100.0	71.2
<i>NICE</i>						
Amount of waste	1000 t	1, 5	0.10	0.11	0.08	0.05
Hazardous waste	1000 t	1	0	0	0	0
Non-hazardous waste	1000 t	1, 5	0.10	0.11	0.08	0.05
Total recoverability	1000 t	1, 4	0.10	0.11	0.08	0.05
Total disposal	1000 t	1	0	0	0	0
Total recoverability rate	%	1	100	100	100	100
<i>FraGround</i>						
Amount of waste	1000 t	7				
Hazardous waste	1000 t	7				
Non-hazardous waste	1000 t	7				
Total recoverability	1000 t	7				
Total disposal	1000 t	7				
Total recoverability rate	%	7				
<i>Fraport Facility Services GmbH</i>						
Amount of waste	1000 t	6			0.0004	0
Hazardous waste	1000 t	6			0	0
Non-hazardous waste	1000 t	6			0.0004	0
Total recoverability	1000 t	6			0.0004	0
Total disposal	1000 t	6				0
Total recoverability rate	%	6			100	0

¹ Without soil and building rubble.

² Including waste from third parties, primarily residual waste out of aircraft (no catering waste) and without soil and building rubble.

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

⁴ Aircraft deicing agents.

⁵ The total amount is a mixture of water and Type I/Type IV fluids.

⁶ Since 2020, waste has been generated that is not disposed of and accounted for by Fraport parent company.

⁷ Starting in 2018, waste will be disposed of via Fraport and will therefore be included in Fraport's statistical balance sheet.

GRI 306: Wastewater and waste						
GRI 306-3 Significant spills	Unit	Comment	2018	2019	2020	2021
<i>Fraport parent company</i>						
Total number and volume of significant spills		1				
Number of spills	Number		532	430	225	276
Volume of spills	m ³		9.00	9.04	3.38	2.46
Frequency of spills	Number per 1.000 aircraft movements		1.04	0.84	1.06	1.05
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.

GRI 306: Wastewater and waste						
Groundwater improvement	Unit	Comment	2018	2019	2020	2021
Frankfurt Airport						
Nitrate content at reference measuring station well FBS	mg/l	1	27	24	22	21

¹ Yearly average value.

AOS – Air quality						
	Unit	Comment	2018	2019	2020	2021
Frankfurt Airport						
		1, 2				
NO ₂	µg/m ³	3	43	40	31	30
SO ₂	µg/m ³	4	2	1	1	1
Feinstäube, PM 2,5	µg/m ³	7	18	16	9	9
PM10 (fine dust < 10 µm)	µg/m ³	5	18	16	15	14
Benzene	µg/m ³	6	0,6	0,7	0,6	0,7

¹ Annual average of the measured values at the SOMMI1 Station. These values presented the aggregated result of all emissions from different source groups, i.e. apart from pollutants contributed by the airport they also include emissions from third parties (road traffic, trade and industry, house fires, large-scale background pollution). The proportion of the airport depends on the location, and model calculations indicate that the proportion here is between approx. 10% and 30%.

² Limit values/annual average (not applicable at the airport, since no whole-year exposure).

³ NO₂ assessment value according to EU Directive 2008/50/EC, 39. Federal Emission Control Act (BlmSchV): 40 µg/m³.

⁴ SO₂ assessment according to Technical Instructions on Air Quality Control (TA Luft) 2002 (otherwise no annual average defined): 50 µg/m³.

⁵ Fine dust, PM10 in accordance with EU Directive 2008/50/EC, 39. Federal Emission Control Act (BlmSchV): 40 µg/m³.

⁶ Benzene assessment value in accordance with EU Directive 2008/50/EC, 39. Federal Emission Control Act (BlmSchV): 5 µg/m³.

⁷ Das Flughafen-Messprogramm wurde Ende 2019 um die Partikelkonzentration in der Größenklasse 2,5 µm (PM2,5) erweitert. Feinstaub-Beurteilungswert, PM 2,5 nach EU-Richtlinie 2008/50/EC, 39. BlmSchV: 25 µg/m³.

AO6 – Airfield surfaces and aircraft deicing agents						
	Unit	Comment	2018	2019	2020	2021
Fraport parent company						
Airfield surfaces deicing agent: potassium formate (fluid – approx. 50% agent), applied on the aircraft movement areas	m ³	1	1,324	1,500	867	2,009
Airfield surfaces deicing agent: sodium formate (granulate – approx. 100% agent)	m ³	1	250	182	12	120
Road salt (NaCl)	m ³	1, 2	1,291	464	283	106
NICE						
Deiced aircraft	Number	1	5,517	6,348	2,487	3,422
Aircraft deicing agent: propylene glycol (NICE)	m ³ active ingredient		1,318	1,473	679	1,085
Aircraft deicing agents: propylene glycol; per de-iced aircraft (NICE)	m ³ substance per aircraft		0.239	0.232	0.273	0.317

¹ Values fluctuate strongly depending on the characteristics of the winter months.

² As of 2019, values refer to the calendar year 2019 and not to the winter season 2018/2019.

Intermodality						
	Unit	Comment	2018	2019	2020	2021
Fraport parent company						
Employee traffic						
Travel to and from work by public transport	Share of employees in %	1	30.3	28.6	18	17.5
Travel to and from work by carpooling	Share of employees in %	1	12.8	13.2	5.0	5.0
Passenger traffic at Frankfurt Airport (FRA)						
Travel of originating passengers to and from the airport by public transport	Share of passengers in %	1	34.5	33.5	30.0	31.6
therein arrival/departure by ICE (Intercity Express)	Share of passengers in %	1	12.1	11.0	10.5	11.9

¹ The values are based on a survey.

AO7 – Aircraft noise

AO7 Number and percentage of people* residing in areas affected by noise	Unit	Comment	2018	2019	2020	2021
Frankfurt Airport						
Number of people residing in the contour Leq, day = 60 dB(A) (Criterion provided for in the Act for Protection against Aircraft Noise)**	Number	1, 2	1,989	2,379	606	229
Relative change compared with the previous year	Percent		24	20	-75	-62
Number of people residing in the contour Leq, day = 55 dB(A) (Criterion similar Act for Protection against Aircraft Noise)**	Number	1, 3, 4	82,374	81,345	27,857	27,635
Relative change compared with the previous year	Percent		12	-1	-66	-1
Number of people residing in the contour of the envelope from NAT, night = 6 x 68 dB(A) and Leq, night = 50 dB(A) (Criterion similar Act for Protection against Aircraft Noise)**	Number	1, 5	75,036	64,860	15,380	28,634
Relative change compared with the previous year	Percent		2	-14	-76	86

*

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¹ The aircraft noise contours were calculated on the basis of two national regulations: “Introduction to Calculation of Noise Abatement Areas (AzB)” and “Introduction to data collection on Flight Operations (AzD, 2008)”. All scenarios were standardized on the basis of the long-term average operating direction distribution for the ten years 2000 to 2009. The Sigma supplement developed for the projected protection zone calculation in accordance with the Noise Abatement Act and described in AzB and AzD was not applied. From the year 2017, aircraft noise calculation takes account of the fact that new aircraft types – particularly on takeoff – generate significantly lower noise emissions than older aircraft types with similar capacities. The first of these new aircraft types was the Airbus A380, followed by the Boeing B787, A320neo, A350 and other aircraft. From 2017, these new, quieter aircraft types will be removed from the relevant AzB aircraft groups in the data recording system and provided with modified approaches for calculating noise emission during takeoff and landing compared with the “classic” AzB aircraft groups. These changes correspond to those that have been agreed for the relevant aircraft types in the context of the agreements on the “noise upper limit” between the players involved. Starting with the A380 in 2010, the new aircraft types are increasingly being used in Frankfurt. This means that the aircraft noise contours calculated between 2010 and 2016 and the relevant resident numbers determined in this regard were increasingly overestimated.

² The criterion Leq, 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 Leq, 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 Leq, day = 55 dB(A) is the total number within this contour, the number specified under Leq, day = 60 dB(A) is therefore a subquantity.

⁵ The criterion envelope from NAT, night = 6 x 68 dB(A) and Leq, night = 50 dB(A) is based on the definition of night protection zone according to the Aircraft Noise Abatement Act.

AO7 – Aircraft noise						
	Unit	Comment	2018	2019	2020	2021
<i>Surrounding area of Frankfurt Airport</i>						
<i>Approach</i>		1				
<i>Monitoring station 01 Offenbach Lauterborn, day</i>	<i>Leq(3) in dB(A)</i>	2, 3	56			
<i>Monitoring station 01 Offenbach Lauterborn, day*</i>	<i>Leq(3) in dB(A)</i>	2, 3	53.9	55.7	55.2	55.0
<i>Monitoring station 01 Offenbach Lauterborn, night</i>	<i>Leq(3) in dB(A)</i>	2, 4	51			
<i>Monitoring station 01 Offenbach Lauterborn, night*</i>	<i>Leq(3) in dB(A)</i>	2, 4	49.1	50.3	49.3	48.1
<i>Monitoring station 06 Raunheim, day</i>	<i>Leq(3) in dB(A)</i>	2, 3	62			
<i>Monitoring station 06 Raunheim, day*</i>	<i>Leq(3) in dB(A)</i>	2, 3	61.6	60.3	56.8	58.9
<i>Monitoring station 06 Raunheim, night</i>	<i>Leq(3) in dB(A)</i>	2, 4	54			
<i>Monitoring station 06 Raunheim, night*</i>	<i>Leq(3) in dB(A)</i>	2, 4	54.2	53.6	49.1	52.4
<i>Monitoring station 14 Hochheim, day</i>	<i>Leq(3) in dB(A)</i>	2, 3	57			
<i>Monitoring station 14 Hochheim, day*</i>	<i>Leq(3) in dB(A)</i>	2, 3	56.9	55.4	49.1	52.5
<i>Monitoring station 14 Hochheim, night</i>	<i>Leq(3) in dB(A)</i>	2, 4	50			
<i>Monitoring station 14 Hochheim, night*</i>	<i>Leq(3) in dB(A)</i>	2, 4	49.5	48.1	38.9	40.9
<i>Monitoring station 44 F-Lerchesberg, day</i>	<i>Leq(3) in dB(A)</i>	2, 3	58			
<i>Monitoring station 44 F-Lerchesberg, day*</i>	<i>Leq(3) in dB(A)</i>	2, 3	56.6	57.3	53.9	54.2
<i>Monitoring station 44 F-Lerchesberg, night</i>	<i>Leq(3) in dB(A)</i>	2, 4	51			
<i>Monitoring station 44 F-Lerchesberg, night*</i>	<i>Leq(3) in dB(A)</i>	2, 4	49.6	48.8	46.8	44.8
<i>Take off</i>		1				
<i>Monitoring station 12 Bad Weilbach, day</i>	<i>Leq(3) in dB(A)</i>	2, 3	53			
<i>Monitoring station 12 Bad Weilbach, day*</i>	<i>Leq(3) in dB(A)</i>	2, 3	52.2	54.1	51.7	52.1
<i>Monitoring station 12 Bad Weilbach, night</i>	<i>Leq(3) in dB(A)</i>	2, 4	47			
<i>Monitoring station 12 Bad Weilbach, night*</i>	<i>Leq(3) in dB(A)</i>	2, 4	46.1	46.6	39.7	41.8
<i>Monitoring station 32 Nauheim, day</i>	<i>Leq(3) in dB(A)</i>	2, 3	54			
<i>Monitoring station 32 Nauheim, day*</i>	<i>Leq(3) in dB(A)</i>	2, 3	52.7	53.9	52.2	51.8
<i>Monitoring station 32 Nauheim, night</i>	<i>Leq(3) in dB(A)</i>	2, 4	43			
<i>Monitoring station 32 Nauheim, night*</i>	<i>Leq(3) in dB(A)</i>	2, 4	42.7	43.9	41.6	44.7
<i>Monitoring station F-Süd, day</i>	<i>Leq(3) in dB(A)</i>	2, 3	58			
<i>Monitoring station F-Süd, day*</i>	<i>Leq(3) in dB(A)</i>	2, 3	56.1	55.3	53.5	53.8
<i>Monitoring station F-Süd, night</i>	<i>Leq(3) in dB(A)</i>	2, 4	52			
<i>Monitoring station F-Süd, night*</i>	<i>Leq(3) in dB(A)</i>	2, 4	51.5	50.0	48.9	46.8
<i>Monitoring station 51 Worfelden, day</i>	<i>Leq(3) in dB(A)</i>	2, 3	58			
<i>Monitoring station 51 Worfelden, day*</i>	<i>Leq(3) in dB(A)</i>	2, 3	56.6	56.0	51.8	54.0
<i>Monitoring station 51 Worfelden, night</i>	<i>Leq(3) in dB(A)</i>	2, 4	52			
<i>Monitoring station 51 Worfelden, night*</i>	<i>Leq(3) in dB(A)</i>	2, 4	52.0	52.4	48.1	49.9
<i>Monitoring station Forsthaus, day</i>	<i>Leq(3) in dB(A)</i>	2, 3	56			
<i>Monitoring station Forsthaus, day*</i>	<i>Leq(3) in dB(A)</i>	2, 3	55.6	56.5	52.9	54.6
<i>Monitoring station Forsthaus, night</i>	<i>Leq(3) in dB(A)</i>	2, 4	50			
<i>Monitoring station Forsthaus, night*</i>	<i>Leq(3) in dB(A)</i>	2, 4	49.9	50.7	46.7	48.0

AO7 – Aircraft noise						
	Unit	Comment	2018	2019	2020	2021
Frequency of the exceedance of the maximum level of 68 dB(A) per night		1, 4				
Monitoring station 01 Offenbach Lauterborn	Number of exceedance cases	5	11.2	13.8	6.1	8.5
Monitoring station 06 Raunheim	Number of exceedance cases	5	15.4	10.5	2.0	8.3
Monitoring station 14 Hochheim	Number of exceedance cases	5	12.0	7.8	0.6	1.2
Monitoring station 44 F-Lerchesberg	Number of exceedance cases	5	10.0	7.5	3.8	2.9
Monitoring station 12 Bad Weilbach	Number of exceedance cases	5	15.4	10.5	0.2	1.3
Monitoring station 32 Nauheim	Number of exceedance cases	5	1.3	1.8	0.3	1.9
Monitoring station 41 F-Süd	Number of exceedance cases	5	16.9	11.2	5.1	4.9
Monitoring station 51 Worfelden	Number of exceedance cases	5	4.2	5.7	3.6	7.6
Monitoring station 71 Forsthaus	Number of exceedance cases	5	13.5	14.6	3.4	8.9
Share of western operations day	Share in %	3, 6, 7	49.7	68.8	72.9	69.8
Share of western operations night	Share in %	4, 6, 7	50.0	66.3	72.0	72.4

* new conformity with DIN 45643:2011

¹ Selected representative noise-monitoring station from a monitoring network with 28 static stations.

² Energy equivalent continuous sound level [Leq(3) in dB(A)] based on the German Aircraft Noise Act in conformity with DIN 45643. Leq(3) is calculated during the six busiest months from May until October in the years 2009, 2010 und 2012 based on the German Aircraft Noise Act, segmented in day and night. Exception was the year 2011, with the six busiest months of March, May, July and October. Changes to the monitoring stations on the approach and takeoff routes of the parallel runway system are mainly based on the fluctuations in the distribution of operations (easterly/westerly) from year to year caused by different weather conditions or wind directions. The website www.fraport.de provides detailed information.

³ Daytime: 06:00 to 22:00.

⁴ Nighttime: 22:00 to 06:00.

⁵ During the six busiest months (2017, 2018, 2019: May until October).

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%.

Health and safety of the customers						
AO9 Total number of wildlife strikes per 10,000 movements	Unit	Comment	2018	2019	2020	2021
Frankfurt Airport (wildlife strikes)	Number per 10,000 aircraft movements		5.34	4.46	7.11	8.36

Compliance with statutory regulations

There are no breaches of statutory regulations which have been subject to fines or non-monetary sanctions imposed by the authorities, and no proceedings in relation to such breaches are pending.

Status of the Environmental Program 2020 to 2023




The Environmental Program for 2020 describes the most important goals and measures that the Fraport parent company and the NICE, FCS, FraGround and GCS subsidiaries have defined for Frankfurt Airport up until 2023 and beyond for the issues of noise abatement, climate protection, intermodality, air quality, nature conservation and protection of resources.

The measures of the Fraport parent company are not particularly marked.



The measures of Fraport Cargo Services GmbH are marked with FCS, those of NICE Aircraft Services & Support GmbH are marked with NICE, those of FraGround Fraport Ground Services GmbH are marked with FraGround and those of GCS Gesellschaft für Cleaning Service mbH & Co. Airport Frankfurt/Main KG are marked with GCS.

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

Key for status:

	Measure fulfilled >90% to 100% or established as a continuous process
	Measure continues to apply in the Environmental Program 2020 – 2023 and/or Measure partly fulfilled
	Measure could not be implemented

Noise abatement

Target	Measure	Deadline	Status June 2022
Ensure that the area affected by aircraft noise during the day is below the noise cap target (Maximum Noise Area). Area affected by a Leq 55 dB(A) day ≤ 22,193 ha.*	Active noise protection measures such as: – Promotion of fleet replacement to quieter aircraft via charging regulations – Raising the approach glide angle for the Northwest Runway to 3.2 degrees – GBAS-based noise-reducing approach procedures, in particular increasing the approach glide angle for the South and Center Runways to 3,2 degrees – Providing incentives for the use of GBAS as part of application process for the charges system.	Unlimited	 – Increase in noise-related landing and takeoff charges – Introduction of the precision flight procedure RNP1 in conjunction with a precisely defined turn radius (RF Leg) on selected routes for greater tracking accuracy during takeoff – Investigation of various take-off procedures with the aim of recommending the most noise-friendly procedure for all departure routes at Frankfurt Airport. Area affected by a Leq 55 dB(A) day: 11,287 ha (2021).
	Continuation of the dialog with stakeholders from the region in the "Airport and Region Forum" on development of further measures.	Unlimited	 Will be continued.

* In November 2017, the Hesse State Government reached an agreement on a voluntary upper limit for noise at Frankfurt Airport with Fraport, the airlines, the German Air Navigation Services (DFS) and the "Airport and Region Forum". The corresponding area-based target replaces the previous population-related target (see Environmental Statement 2017, p. 56).

** Ground Based Augmentation System

Climate protection

Target	Measure	Deadline	Status June 2022
<p>Reduction of absolute CO₂ emissions by 65 percent to 80,000 tons by 2030 (Fraport parent company, Scopes 1 and 2 GHG Protocol, baseline year 1990)</p> <p>Reduction of specific CO₂ emissions by 84 percent, to 0.9 kg/traffic unit by 2030 (Fraport parent company, Scopes 1 and 2 GHG Protocol, baseline year 1990).</p>	<p>Energy optimization in portfolio buildings operated by the Fraport parent company</p> <ul style="list-style-type: none"> – In the terminals – In office and service buildings – Parking. 	2030	<p>Measures carried out at the terminal: upgrading ventilation control centers, optimizing air throughputs, switching off pumps and lighting controls. Potential achieved at the end of 2021: 23.900 t CO₂/year.</p> <p>Measures carried out in service and administrative buildings: optimization of hydraulics and controls for controlling circuits, optimization of air-conditioning systems, regulation of air-control system based on weather forecasts, lighting retrofitted to LED. Potential achieved at the end of 2021: 3,700 t CO₂/year.</p>
	Conversion of apron areas and roads to LED lighting.	2023	Conversion of operational and apron areas to LED. Realized potential in 2021: 1000 t CO ₂ .
	Planning and construction-integrated implementation of an energy-optimized new terminal (T3).	Construction integrated implementation	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.	2023	Implemented measures: Reduction of drive power in "early baggage" stores, distributors, 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 at the end of 2020: 2,000 t CO ₂ .
	Expansion of the electric vehicle fleet (focus on ground handling services).	2030	<p>By the end of 2020 the ground handling services operate a total of 32 electric vehicles. These vehicles include electric and hybrid equipment. Potential achieved thanks to entire e-fleet achieved by the end of 2020: 1,100 t CO₂.</p> <p>Total number of electric vehicles in the Fraport fleet as of December 31, 2021: 570.</p> <p>A funding project for two electric buses was launched in 2018. The buses were put into operation in March 2020. The funding project was terminated in October 2021.</p>
Reduction of energy consumption. (NICE)	Introduction of an electric hybrid test vehicle into the fleet.	2022	There are currently no suitable electric hybrid vehicles available.
	Optimization of the energy requirement for lighting at the deicing agent tank facilities by 5% by switching to energy-saving light sources.	2022	The replacement of light bulbs has resulted in a 9% reduction in energy consumption compared to the previous year.
	Energy consumption (electricity/district heating) for the provision of hot water at the tank facilities is reduced by 5%.	2022	The ratio is not comparable with the previous year due to the exceptional situation. Compared to 2019 as the last year with normal operation, a reduction of 34% was achieved.
Optimization of waste processes, Generating higher yields through optimized separation.	Formation of a project group with the task of analyzing and optimizing the processes and sounding out the market for partners.	2021	Discussions with various suppliers, on-site appointments to inspect the installation areas, Examination of the offers, examination of the conversion. (Delay until 2023 possible).

Climate protection (continuation)

Target	Measure	Deadline	Status June 2022
Avoidance of journeys for transporting containers.	Establishment of a central container storage facility.	2020	2/2020: Launch of container storage.
NEW: Conversion of the fleet of ramp vehicles from fossil fuels to electric drive. For this purpose construction of charging stations at the FCS site. (FCS)	When the leases for current vehicles expire, only electric vehicles will be purchased for document transport.	2022	FCS Central Purchasing conducts a bid evaluation. Procurement commissioned. Provision of infrastructure commissioned.
Reduction of direct CO ₂ emissions of 131,948 kg CO ₂ by a further 10%. (Fraport Facility Services, formerly GCS)	Training courses on resource-saving driving.	2025	Training material is currently being prepared. All drivers of the pool vehicles will be trained. Among other things, the training will take place during the initial instruction of new drivers.
	Further replacement procurement of vehicles with lower CO ₂ emissions.	2025	Our vehicle fleet will be replaced with more energy-efficient models when vehicles are due for replacement.
	Evaluation of potential vehicles that can be purchased with alternative propulsion systems.	2025	The measure will be initiated at the end of 2022. Important prerequisites are the availability of charging or refueling infrastructure at the airport and the availability of suitable vehicles. Furthermore, the market for electric cars and the distribution of charging stations is being observed. In cooperation with the purchasing department, alternatives are being sought and compared. By 2025, it is intended to use or test approx. two CO ₂ -neutral vehicles as pool vehicles on the airport premises.
* TU: one passenger with baggage or 100 kg of airfreight or air mail.			

Intermodality

Target	Measure	Deadline	Status June 2022
Improvement in intermodal services for passengers.	Establishment of information boards with passenger information on public passenger transport connections in Terminal 1 and 2.	2023	Information boards already exist in Terminal 1. Work is currently underway to install additional boards.
	An optimized connection between Terminal 3 and the airport's northern part including the long-distance railway station via an automated, electric rail-based people mover system and shuttle buses for passengers and employees.	2024 or until the opening of Terminal 3	The people mover system is in the construction phase.
Improvement in the conditions for cycling around the airport.	Installation and modernization of conveniently located bicycle parking facilities at newly built or renovated buildings on the Fraport campus as an alternative to the construction of more space-intensive car parking areas.	2023 ongoing	New bicycle parking facilities: Mid-2020 at building 162 End of 2020 at building 123.
	A central register for bicycle parking spaces at the airport is to be compiled as required by the City of Frankfurt to optimize the locations of the parking spaces with the aim of increasing the workplace attractiveness for bicycle commuters.	2020	A parking space register is in progress.

Air quality

Target	Measure	Deadline	Status June 2022
Monitoring of air pollutant emissions from all relevant emitters of airport operations (see sustainability program).	<ul style="list-style-type: none"> - Quality assurance of inventory and operational data (conversion of SAP data to calendar years, plausibility checks). - Optimization of the methodology for the use of operational data for the emission model (commissioning of external support, initial coordination of the procedure) - Professional support for the further development of the LASPORT model (emission and dispersion model for determining airport-related emissions), testing and commissioning of LASPORT version 2.3.10 - Cooperation with the Hessian Environment Agency (HNLUG) and the Environment and Community House (UNH) on research into ultrafine particles (UFP). 	Ongoing*	<p>The development of a comprehensive emissions inventory is a continuous process.</p> <p>In addition to the emissions already recorded from the LTO cycle (taxiing, take-off, climb and descent) and the emissions from engine ignition processes and the APU, emissions from test runs and climb thrust (Runway Northwest taxiway) have been measured and recorded for the "Aircraft" category since 2022 as a continuous process. In addition, for the "Infrastructure" category, the engine test stand emissions are measured and recorded as a continuous process. Furthermore, the emissions for the newly inventoried emission sources were calculated retroactively for the years 2019 and 2020. The current focus is on the backup power systems (NEA).</p> <p>In March 2022, emission measurements were carried out at the NEAs by TÜV-SÜD. The results of these measurements are still pending.</p>
Reduction of emissions and air pollutants from the operation of the airport.	Further increase in the share of electrically driven ground handling equipment (see under Climate protection: Use of alternative drive technologies).	2030	See climate protection.

* As this is a continuous process, a deadline is no longer set in absolute terms.

Nature conservation and resource protection

Target	Measure	Deadline	Status June 2022
Limit paper consumption per employee to 1.51 kg yearly. (FraGround)	Introduction of an information app for employees.	2020	<p>The "FRA OPS" information app for employees was launched in 2020.</p> <p>The 2019 paper consumption of 1.46 kg per employee was reduced by 4% in 2020 to 1.41 kg per employee. Passenger numbers were low until June 2021 due to the Coronavirus pandemic. Short-time work was continued, no recruitments were made. From mid July 2021, recruitment will resume. It cannot yet be estimated what effect it will have on paper consumption. The objective is to maintain the 2020 value.</p>
Avoid plastic waste, improve recycling. (Fraport Facility Services, formerly GCS)	Data collection and evaluation regarding the return of plastic bottles and their recycling by the manufacturer or refilling. Establishment of a system for direct recycling. Evaluation, coordination and testing with Operations for the introduction of this system.	2021	The collection of plastic bottles used for detergents and cleaning agents was started in Terminal 1 in August 2021 (return bags were issued).

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), modified by amendment regulation (EU) 2018/2026 dated 19 December 2018.

By signing this declaration, I declare that:

- the verification and validation have 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.

Carried out at Frankfurt on July 20st, 2022



Dr. Kühnemann Institut
und Partner für
Umwelt

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Registration number: DE-V-0133

Schedule

The next Environmental Statement, scheduled for July 2023, will be subject to validation by an environmental auditor before being released for publication.

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** for questions regarding aircraft noise and airport expansion, toll-free number within Germany

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