

Sustainability indicators 2020¹

Think long-term, communicate transparently,
act responsibly: Munich Airport prepares a report on its efforts in the
field of sustainability in accordance with the highest standards.

¹ From 2020, MAI's wholly owned subsidiaries (amd.sigma, MAI US Holding and EWRT1) are included in all workforce metrics.

VALUE GENERATED / GRI 201-1

Group in € million	2020	2019	2018
Revenue	579.7	1,568.0	1,508.8
+ Other income	44.5	43.2	44.9
Total revenue	624.2	1,611.1	1,553.7
+ Income from investments	-1.8	1.4	1.8
./. Non-personnel expenses	-377.4	-519.6	-507.9
./. Depreciation and amortization	-242.0	-208.8	-214.6
= Value generated	3.0	884.1	833.0

VALUE DISTRIBUTED / GRI 201-1

Group in € million	2020	2019	2018
Employees	408.6	537.2	507.7
Lenders (netted)	27.8	90.0	102.7
Public sector	-112.0	79.0	72.9
Munich Airport Group	-321.4	177.8	149.6
= Value generated	3.0	884.1	833.0

The value generated calculation represents the difference between the service provided by the company and the value of the advance services required.

The distribution statement shows the proportions distributed to those involved in the value creation process – employees, the public sector, and lenders. Payments provided by FMG to the public sector include taxes. The interest on the loans to shareholders is included under the «Lenders» recipient group. Income from investments includes the result from companies valued at equity. The non-personnel expenses include the cost of materials and other expenses.

AIR TRAFFIC INDICATORS / GRI A01, GRI A02, GRI A03 ✓

munich-airport.de/statistik

	2020	2019	2018
Total passenger volume	11,120,224	47,959,885	46,271,504
Total commercial traffic ¹	11,112,773	47,941,348	46,253,623
Scheduled and charter traffic	11,094,096	47,915,966	46,231,009
Other commercial traffic ¹	18,677	25,382	22,614
Non-commercial traffic ¹	7,451	18,537	17,881
Total aircraft movements	146,833	417,138	413,469
Total commercial traffic ¹	140,480	407,612	403,691
Scheduled and charter traffic	130,622	395,951	392,238
Other commercial traffic ¹	9,858	11,661	11,453
General air traffic (non-commercial traffic) ¹	6,353	9,526	9,778
Seating capacity utilization in %	59.6	77.2	77.5
Cargo handling (cargo and airmail carried in t)	150,928	350,058	368,377
Traffic units (TU) of commercial traffic	12,610,084	51,406,376	49,906,283

¹ For term definitions see the Annual Statistics Report 2020, p. 18/19

PASSENGER INDICATORS [COMMERCIAL TRAFFIC ONLY] / GRI A01 ✓

	2020			2019			2018		
	Total	Domestic	International	Total	Domestic	International	Total	Domestic	International
Total commercial traffic	11,112,773	2,562,495	8,550,278	47,941,348	9,620,427	38,320,921	46,253,623	9,707,044	36,546,579
Arrivals	5,619,856	1,279,520	4,340,336	24,039,970	4,797,621	19,242,349	23,183,728	4,844,837	18,338,891
Departures	5,480,948	1,278,159	4,202,789	23,865,826	4,814,088	19,051,738	23,038,785	4,850,214	18,188,571
Transit passengers ¹	11,969	4,816	7,153	35,552	8,718	26,834	31,110	11,993	19,117
O&D passengers ² in millions	7.3			29.3			28.8		
Transfer passengers in millions	3.8			18.5			17.4		
Transfer passengers ³ in %	34			39			37		

¹ Transit passengers are passengers who fly into the airport and continue their trip on the same aircraft. Transit passengers are only counted when landing.

² Origin & destination passengers are passengers who start or end their trip at the airport.

³ The proportion of transfer passengers is based on departure passenger surveys.

AIRCRAFT MOVEMENTS¹ / GRI A02 ✓

	2020			2019			2018		
	Total	Arrivals	Departures	Total	Arrivals	Departures	Total	Arrivals	Departures
Passenger flights, scheduled/charter	126,013	63,067	62,946	392,328	196,019	196,309	388,431	194,073	194,358
Domestic	35,202	17,595	17,607	95,209	47,572	47,637	91,024	45,503	45,521
International	90,811	45,472	45,339	297,119	148,447	148,672	297,407	148,570	148,837
Cargo flights, scheduled/charter	4,398	2,185	2,213	3,441	1,716	1,725	3,576	1,758	1,818
Domestic	1,463	758	705	1,482	796	686	1,471	769	702
International	2,935	1,427	1,508	1,959	920	1,039	2,105	989	1,116
Airmail flights, scheduled/charter	211	106	105	182	91	91	231	114	117
Domestic	211	106	105	182	91	91	231	114	117
International	0	0	0	0	0	0	0	0	0
General air traffic	16,211	8,029	8,182	21,187	10,748	10,439	21,231	10,788	10,443
Domestic	7,251	3,655	3,596	8,869	4,583	4,286	8,833	4,589	4,244
International	8,960	4,374	4,586	12,318	6,165	6,153	12,398	6,199	6,199
Total	146,833	73,387	73,446	417,138	208,574	208,564	413,469	206,733	206,736

¹ Military flights are not included.

➔ Detailed information on night-time aircraft movements can be found in the monthly immissions reports: munich-airport.com/impacts

➔ Detailed information on the night-flight curfew: munich-airport.de/en/company/umwelt/laerm/nachtflug/

CARGO TONNAGE [COMMERCIAL HANDLING] / GRI A03 ✓

In t	2020			2019			2018		
	Cargo handled	Incoming cargo	Outgoing cargo	Cargo handled	Incoming cargo	Outgoing cargo	Cargo handled	Incoming cargo	Outgoing cargo
Cargo-only flights	50,253	22,813	27,440	46,024	16,750	29,274	57,889	21,421	36,468
Bellyhold cargo on passenger flights	94,860	41,471	53,389	285,590	122,900	162,690	293,658	129,618	164,040
Total comprehensive income	145,113	64,284	80,829	331,614	139,650	191,964	351,547	151,039	200,508

**DIALOG MANAGEMENT:
DEALING WITH FEEDBACK PROFESSIONALLY**
GRI 102-43, GRI 102-44

The central dialog management team quickly responds to, categorizes, and analyzes all customer feedback on a case-by-case basis. This office deals with constructive criticism and positive feedback, in addition to complaints. In order to elaborate optimal process solutions for passengers and, if required, to develop improvements, the divisions, authorities, and system partners active all along the passenger experience chain are closely networked with one another.

Dialog management recorded a total of 932 complaints in 2020. That is approx. 70 percent less than in 2019. This decline is due to the sharp drop in air traffic caused by the Corona pandemic. In 2020, Munich Airport recorded a relative complaint rate of 84 complaints per million passengers handled. The majority of complaints were related to Corona testing, which is not FMG's responsibility, and hygiene measures.

DIALOG MANAGEMENT / GRI 102-43, GRI 102-44 ✓

Number of entries	2020	2019	2018
Total complaints	932	3,137	3,660
Number of complaints on key issues			
Airline	98	177	181
Airport facility	171	640	533
Baggage collection	64	449	678
Parking	59	156	113
Passport control	59	298	279
Security checks	112	497	1,092
Passagiertransport ¹	65		
Airport-Service ¹	134		
Other	170	920	784

¹ First recorded in 2020

DONATIONS AND SPONSORSHIP¹ / GRI 413-1

Proportion of total budget in %	2020	2019	2018
Sport	55	46	42
Social welfare	21	21	29
Education	10	11	9
Culture	13	18	19
Environment	1	4	1

¹ The annual sponsorship budget is linked to FMG's external sales.

FIREFIGHTING SERVICE DEPLOYMENTS / GRI 417-1

	2020	2019	2018
Total alarms	4,915	3,391	3,717
False alarms	387	676	670
Number of deployments	1,985	2,715	3,047
Technical support jobs	1,262	1,891	1,903
Security monitoring jobs ¹	629	561	864
Firefighting jobs	94	263	280
Rescue service deployments, total	473	1,706	1,701
First responder deployments ²	0	94	123
Rescue vehicle deployments	473	1,612	1,578

¹ On-call service where the Airport Rescue and Firefighting service attends certain situations with particularly high risk levels in order to provide immediate support should a risk occur

² First aid until the arrival of the public rescue service

As part of Corporate Security, the Airport Rescue and Firefighting service on the premises of the airport in Munich is responsible for fire safety and for technical assistance in the area of fire safety in aircraft and buildings. With qualified rescue service personnel and its own rescue vehicles, it provides 24-hour emergency assistance for passengers, visitors, and employees, and performs safety monitoring for work and events involving a fire hazard. With its two fire stations, the emergency personnel can reach any part of the flight operation areas within 180 seconds and therefore meets the prescribed rescue periods for aircraft fire protection. The extinguishing capacity for aircraft fire protection also meets the strictest requirements [category 10] set out by the International Civil Aviation Organization (ICAO) for every runway.

[munich-airport.de/sponsoring](https://www.munich-airport.de/sponsoring)

TOTAL WORKFORCE / GRI 102-7, GRI 102-8, GRI 405-1 ✓

Group	2020						2019		2018	
	Women	Proportion in % ³	Men	Proportion in % ³	Total	Proportion in % ³	Total	Proportion in % ³	Total	Proportion in % ³
Total number of employees¹	2,981	31.92	6,357	68.08	9,338	100.00	9,806	100.00	9,626	100.00
Full- and part-time employees¹										
Full-time	1,797	19.24	5,510	59.01	7,307	78.25	7,432	75.79	7,677	79.75
Part-time	1,184	12.68	847	9.07	2,031	21.75	2,374	24.21	1,949	20.25
Employment contracts¹										
Temporary	126	1.35	201	2.15	327	3.50	916	9.34	895	9.30
Permanent	2,855	30.57	6,156	65.92	9,011	96.50	8,890	90.66	8,731	90.70
Other employees	197		279		476		743		782	
Apprentices	140		147		287		303		277	
Interns	4		5		9		34		40	
Workers in minor employment	53		127		180		311		289	
Temporary workers	0		0		0		95		176	
Total employees including other employees of the Group	3,178		6,636		9,814		10,549		10,408	
Employees on the airport campus²					38,090		38,090		38,090	
FMG										
Total number of employees¹	1,079	24.73	3,285	75.27	4,364	100.00	4,389	100.00	4,345	100.00
Full- and part-time employees¹										
Full-time	693	15.88	2,978	68.24	3,671	84.12	3,671	83.64	3,675	84.58
Part-time	386	8.85	307	7.03	693	15.88	718	16.36	670	15.42
Employment contracts¹										
Temporary	13	0.30	32	0.73	45	1.03	77	1.75	84	1.93
Permanent	1,066	24.43	3,253	74.54	4,319	98.97	4,312	98.25	4,261	98.07
Other employees	66		142		208		233		214	
Apprentices	58		112		170		175		154	
Interns	4		4		8		26		29	
Workers in minor employment	4		26		30		31		31	
Temporary workers	0		0		0		1		0	
Total employees including other employees of FMG	1,145		3,427		4,572		4,622		4,559	

¹ Reporting date: December 31: Figures exclude apprentices, workers in minor employment, temporary workers, and interns² Includes all companies based at Munich Airport. The employee survey at Munich Airport is carried out every three years. The figures were last compiled in 2018. Further information on the survey is available at: <https://www.munich-airport.de/b/0000000000000000006873663bb5d245ab4/beschaefigtenerhebung-flughafen-muenchen-2018.pdf>.³ All percentages are based on the total number of employees as per ¹.

**EMPLOYEES COVERED BY COLLECTIVE BARGAINING AGREEMENTS /
GRI 102-41, GRI 202-01, GRI 405-2** ✓

	2020		2019		2018	
	Konzern ²	FMG	Group	FMG	Group	FMG
Total number of employees covered by collective bargaining agreements	9,387	4,554	10,152	4,601	9,986	4,407
Proportion of total employees in % ¹	95.65	99.61	96.24	99.55	95.95	96.67

¹ All percentages are based on the total number of employees including apprentices, workers in minor employment, temporary workers, and interns

² without amd.sigma

MANAGERS / GRI 405-1 ✓

Group	2020		2019		2018	
	Proportion in %	Proportion in %	Proportion in %	Proportion in %	Proportion in %	Proportion in %
Total managers¹	688	7.37	690	7.01	732	7.60
Women	151	1.62	156	1.58	174	1.81
Men	537	5.76	534	5.43	558	5.80
Age structure of managers						
Under 30 years	14	2.03 ²	15	2.17 ²	31	4.23 ²
30 to 50 years	357	51.89 ²	364	52.75 ²	373	50.96 ²
Over 50 years	317	46.08 ²	311	45.07 ²	328	44.81 ²
FMG						
	Proportion in %	Proportion in %	Proportion in %	Proportion in %	Proportion in %	Proportion in %
Total managers¹	421	9.65	420	9.57	412	9.48
Women	64	1.47	66	1.50	61	1.40
Men	357	8.18	354	8.07	351	8.08
Age structure of managers						
Under 30 years	7	1.66 ²	7	1.67 ²	5	1.21 ²
30 to 50 years	169	40.14 ²	175	41.67 ²	161	39.08 ²
Over 50 years	245	58.19 ²	238	56.67 ²	246	59.71 ²

¹ Reporting date: December 31: Proportion of managers relative to the total number of employees

² Proportion of managers relative to the total number of managers

AGE STRUCTURE OF EMPLOYEES / GRI 405-1 ✓

Group	2020						2019		2018	
	Women	Proportion in % ²	Men	Proportion in % ²	Total	Proportion in % ²	Total	Proportion in % ²	Total	Proportion in % ²
Age structure of employees¹										
Under 30 years	486	5.20	736	7.88	1,222	13.09	1,538	15.68	1,532	15.92
30 to 50 years	1,622	17.37	3,178	34.03	4,800	51.40	5,056	51.56	5,022	52.17
Over 50 years	873	9.35	2,443	26.16	3,316	35.51	3,212	32.76	3,072	31.91
Total	2,981	31.92	6,357	68.08	9,338	100.00	9,806	100.00	9,626	100.00
FMG										
	Proportion in %	Proportion in %	Proportion in %	Proportion in %	Proportion in %	Proportion in %	Proportion in %	Proportion in %	Proportion in %	Proportion in %
Age structure of employees¹										
Under 30 years	203	4.65	239	5.48	442	10.13	482	10.98	471	10.84
30 to 50 years	592	13.57	1,356	31.07	1,948	44.64	1,994	45.43	2,041	46.97
Over 50 years	284	6.51	1,690	38.73	1,974	45.23	1,913	43.59	1,833	42.19
Total	1,079	24.73	3,285	75.27	4,364	100.00	4,389	100.00	4,345	100.00

¹ Reporting date: December 31: Figures exclude apprentices, workers in minor employment, temporary workers, and interns

² All percentages are based on the total number of employees as per ¹.

PARENTAL LEAVE TAKEN¹ / GRI 401-2, GRI 401-3 ✓

Group	2020			2019 Total	2018 Total	FMG	2020			2019 Total	2018 Total
	Women	Men	Total				Women	Men	Total		
Parental leave taken	140	157	297	332	288	Parental leave taken	71	73	144	151	123
Part-time parental leave taken	11	1	12	15	30	Part-time parental leave taken	7	1	8	7	20

¹ Number of employees who have taken parental leave in the year under review. Figures exclude apprentices, workers in minor employment, temporary workers, and interns

Due to the significant expense of evaluating the various parental leave models manually (duration of parental leave, split of parental leave), the number of individuals returning from parental leave, along with the number of resignations following parental leave, have not been recorded.

EMPLOYEE TURNOVER: STARTERS AND LEAVERS¹ / GRI 401-1 ✓

Group	2020				2019		2018		FMG	2020				2019		2018	
	Starters	Pro-portion in % ²	Leavers	Pro-portion in % ²	Starters	Leavers	Starters	Leavers		Starters	Pro-portion in % ²	Leavers	Pro-portion in % ²	Starters	Leavers	Starters	Leavers
Starters and leavers by age group									Starters and leavers by age group								
Under 30 years	271	48.92	345	35.13	707	458	664	473	Under 30 years	94	53.11	40	24.84	147	52	129	36
30 to 50 years	221	39.89	403	41.04	626	491	673	494	30 to 50 years	68	38.42	40	24.84	117	38	96	53
Over 50 years	62	11.19	234	23.83	149	250	184	228	Over 50 years	15	8.47	81	50.31	22	83	28	78
Total	554	100.00	982	100.00	1,482	1,199	1,521	1,195	Total	177	100.00	161	100.00	286	173	253	167
Starters and leavers by gender									Starters and leavers by gender								
Male	350	63.18	571	58.15	982	723	1,020	729	Male	122	68.93	111	68.94	191	127	163	123
Female	204	36.82	411	41.85	500	476	501	466	Female	55	31.07	50	31.06	95	46	90	44

¹ Including apprentices, excluding workers in minor employment, temporary workers, and interns

² All percentages are based on the total number of starters/leavers among the employees as per ¹.

TURNOVER RATE¹ / GRI 401-1 ✓

In %	2020		2019		2018	
	Group	FMG	Group	FMG	Group	FMG
Turnover rate	9.93	3.55	11.93	3.86	12.32	3.77

¹ The turnover rate reflects the ratio of leavers to the number of employees (as an annual average including apprentices and excluding workers in minor employment, temporary workers, and interns).

AVERAGE HOURS OF TRAINING¹ / GRI 404-1 ✓

Average hours of training per employee	2020		2019		2018	
	Group ²	FMG	Group ³	FMG	Group ⁴	FMG
Average hours of training per employee	11.9	5.2	20.3	10.1	15.9	9.2
Per male employee	12.9	5.8	20.8	10.7	16.6	9.6
Per female employee	9.8	3.3	19.2	8.2	14.3	7.9
Per manager ⁵	6.6	4.8	16.2	10.5	16.1	12.6
Per employee (without managerial responsibilities)	12.3	5.2	20.6	10.1	15.9	8.9

¹ Average number of hours spent on professional development, training, and seminars that are recorded in a time management system (excluding aviation security courses) per employee (excluding apprentices, employees in minor employment, temporary workers, and interns) as of the reporting date, December 31.

² Without MUCreal, LabCampus, without amd.sigma, without EWRT1

³ Without MAI US, MAI EWR, MUCreal, LabCampus and InfoGate

⁴ Without LabCampus, MUCreal, FM-Bau and InfoGate

⁵ First- to fourth-tier managers excluding the Executive Board of FMG

OCCUPATIONAL HEALTH AND SAFETY / GRI 403-9 ✓

Group ^{1,2}	2020	2019	2018 ⁹
Accident statistics³			
Reportable occupational accidents	94	236	231
Number of resulting days of absence ⁴	2,508	6,539	7,272
Fatal occupational accidents	0	0	0 ⁷
Rate per 1,000 workers ⁵	10.9	27.00	26.55
FMG¹	2020⁸	2019	2018
Accident statistics³			
Reportable occupational accidents	16	62	84
Number of resulting days of absence ⁴	298	1,732	2,464
Fatal occupational accidents	0	0	0
Rate per 1,000 workers ⁵	5	15.36	20.95

Workers in ground handling Munich ⁶	2020	2019	2018
Accident statistics³			
Reportable occupational accidents	33	111	101
Number of resulting days of absence ⁴	816	1,734	2,900
Fatal occupational accidents	0	0	0
Rate per 1,000 workers ⁵	15.30	68.27	49.49
Workers in ground handling Berlin	2020	2019	2018⁹
Accident statistics³			
Reportable occupational accidents	21	23	26
Number of resulting days of absence ⁴	838	1,679	2,193
Fatal occupational accidents	0	0	0
Rate per 1,000 workers ⁵	48.24	52.16	55.13

¹ Including apprentices, workers in minor employment, temporary workers, and interns

² without amd.sigma

³ Injuries requiring first aid are recorded when employees attend Munich Airport's medical center.

⁴ These are calendar days and are counted from the day following the work accident.

⁵ Reportable occupational accidents x 1,000 / annual average actual employee capacity [EC]

⁶ Ground handling employees working for FMG and employees and temporary workers at AeroGround

⁷ In 2018, a fatal work accident occurred at Munich Airport. As the person in question was an employee of a third company, the accident is not included in these statistics.

⁸ Errors identified while our data was being audited have been corrected.

⁹ Figures exclude workers of ground handling services with staff membership of FMG. Those workers are reported as employees of Munich ground handling.

Aircraft handling on the ground is a critical area for occupational health and safety measures at Munich Airport. This is why FMG publishes additional accident statistics for employees who work in aircraft handling.

LOST-TIME INCIDENT FREQUENCY¹ / GRI 403-9 ✓

	2020	2019	2018
Total (FMG + AeroGround)²	11.45	21.96	25.53
FMG	4.60	8.03	12.39
AeroGround ²	30.54	43.41	46.13

¹ Occupational accidents (with lost time ≥ 1 day) x 1,000,000 / hours worked

² Including ground handling staff at the Munich site with FMG tenure, AeroGround employees and temporary workers employed by AeroGround

SICK LEAVE¹ / GRI 403-10 ✓

Group	2020			2019	2018
	Women	Men	Total ³		
In %				Total ⁴	Total ⁴
Sickness rate ^{2,3}	5.09	6.29	6	8.91	7.98
FMG	2020			2019	2019
	Women	Men	Total		
In %				Total	Total
Sickness rate ²	4.84	6.84	6.39	8.59	7.3

¹ Including apprentices, excluding workers in minor employment, temporary workers, and interns

² Sick hours in relation to the target hours to be worked, including rehabilitation, sanatorium, curative procedures, etc.; related to the number of total employees as per ¹

³ Without Eurotrade, without amd.sigma, without MUCreal, without LabCampus, without MAI US Holding, without EWRT1, without InfoGate

⁴ Without InfoGate, LabCampus and MUCreal

OCCUPATIONAL ILLNESSES¹ / GRI 403-10 ✓

In %	2020		2019		2018	
	Group ²	FMG	Group	FMG	Group ²	FMG
Reported occupational illnesses	3	3	7	7	4	4

¹ Including apprentices, excluding workers in minor employment, temporary workers, and interns

² Without eurotrade, without amd.sigma

EMPLOYEES WITH DISABILITIES / GRI 405-1 ✓

Group	2020	2019	2018	FMG	2020	2019	2018
Employees with severe disabilities in % ^{2,3}	7.06	6.82	6.99	Employees with severe disabilities in % ^{2,3}	10.6	10.56	10.94

¹ Degree of disability of at least 30 within the meaning of equality under Book IX of the Social Security Code

² Proportion of employees with disabilities as per ¹ based on the average total employees, including apprentices and workers in minor employment and excluding temporary workers and interns

³ Until 2019 exclusive MAI, InfoGate, LabCampus and MUCreal

NATIONALITIES¹ / GRI 405-1 ✓

Group	2020				2019		2018		FMG	2020				2019		2018	
	Women	Men	Total	Proportion in % ²	Total	Proportion in % ²	Total	Proportion in % ²		Women	Men	Total	Proportion in % ²	Total	Proportion in % ²	Total	Proportion in % ²
Employee nationalities, overall picture	3,121	6,504	9,625		10,109		9,903		Employee nationalities, overall picture	1,137	3,397	4,534		4,564		4,499	
German nationals	2,525	4,781	7,306	75.91	7,595	75.13	7,513	75.87	German nationals	1,084	3,019	4,103	90.49	4,129	90.47	4,030	89.58
Foreign nationals	596	1,723	2,319	24.09	2,514	24.87	2,390	24.13	Foreign nationals	53	378	431	9.51	435	9.53	469	10.42
Most represented groups of foreign nationals									Most represented groups of foreign nationals								
Turkey	55	470	525	5.45	541	5.35	547	5.52	Turkey	2	241	243	5.36	245	5.37	268	5.96
Croatia	27	224	251	2.61	255	2.52	206	2.08	Austria	10	21	31	0.68	34	0.74	35	0.78
Hungary	12	158	170	1.77	190	1.88	198	2.00	Italy	5	19	24	0.53	23	0.50	26	0.58
Romania	64	92	156	1.62	186	1.84	170	1.72	Greece	3	16	19	0.42	19	0.42	20	0.44
Italy	27	102	129	1.34	144	1.42	139	1.40	Kosovo	1	21	22	0.49	18	0.39	17	0.38

¹ Reporting date: December 31: Total workforce including apprentices, excluding workers in minor employment, temporary workers, and interns

² All percentages are based on the total number of employees as per ¹.

RESIDENCE OF EMPLOYEES¹ / GRI 102-8, GRI 401-1 ✓

Administrative districts	Group				FMG			
	2020	Proportion in % ²	2019	2018	2020	Proportion in % ²	2019	2018
Freising	2,395	24.88	2,598	2,484	906	19.98	918	915
Erding	1,874	19.47	1,915	1,920	1,076	23.73	1,076	1,067
Munich	1,796	18.66	1,939	1,940	802	17.69	820	790
Landshut	1,315	13.66	1,349	1,312	720	15.88	722	715
Pfaffenhofen	146	1.52	170	170	95	2.10	96	97
Ebersberg	184	1.91	193	186	113	2.49	114	109
Berlin and surrounding area	184	1.91	180	106	2	0.04	1	2
Other districts	1,731	17.98	1,765	1,785	820	18.09	817	804
Total	9,625	100.00	10,109	9,903	4,534	100.00	4,564	4,499

¹ Total workforce including apprentices, excluding workers in minor employment, temporary workers, and interns, who lived in each administrative district as at the reporting date of December 31

² All percentages are based on the total number of employees as per ¹.

ENERGY CONSUMPTION AND EMISSIONS¹ / GRI 301-1, GRI 302-1, GRI 302-2, GRI 302-4, GRI 302-5, GRI 305-1, GRI 305-2, GRI 305-3, GRI 305-5 ✓

	2020			2019			2018		
	GJ	MWh	CO ₂ (t)	GJ	MWh	CO ₂ (t)	GJ	MWh	CO ₂ (t)
Scope 1: Direct energy consumption/emissions									
Natural gas gas/diesel generating sets CHPP	0	0	0	0	0	0	0	0	0
Natural gas gas/gasoline generating sets CHPP	1,151,294	319,804	63,863	1,303,941	362,206	72,330	1,289,542	358,206	71,570
Natural gas boiler plant	23,494	6,526	1,303	20,531	5,703	1,139	18,252	5,070	1,013
Fuel oil gas/diesel gensets	29,488	8,191	2,185	24,514	6,810	1,817	24,228	6,730	1,795
Fuel oil boiler plant	89	25	7	509	141	38	1,937	538	144
LPG	374	104	24	115	32	7	1,121	311	73
Fuel oil emergency gensets	1,382	384	102	1,998	555	148	1,721	478	127
Natural gas consumption EFM ²	3,758	1,044	208	11,214	3,115	622	10,037	2,788	557
Diesel and gasoline	77,220	21,450	5,715	173,016	48,060	12,775	164,269	45,630	12,063
Total Scope 1	1,287,100	357,528	73,407	1,535,839	426,622	88,876	1,511,107	419,752	87,341
Scope 2: Indirect energy consumption/emissions³									
External electricity purchase ⁴	119,084	33,079	14,125	177,932	49,426	25,602	223,259	62,016	33,303
Purchased district heat ⁵	99,162	27,545	1,173	108,050	30,014	3,516	100,649	27,958	2,978
Purchased natural gas ⁶	23,742	6,595	1,317	67,453	18,737	3,742	64,238	17,844	3,565
Power supplied to outside companies ⁷	-155,203	-43,112	-18,409	-203,856	-56,627	-29,333	-200,393	-55,665	-29,892
Heat supplied to outside companies	-74,833	-20,787	-3,640	-86,863	-24,129	-4,621	-86,515	-24,032	-4,576
Cooling supplied to outside companies	-1,742	-484	-41	-3,466	-963	-100	-3,870	-1,075	-115
Natural gas supplied to outside companies	-23,742	-6,595	-1,317	-67,453	-18,737	-3,742	-64,238	-17,844	-3,565
Purchased power transmitted ⁸	116,824	32,451	13,857	122,110	33,920	17,570	89,476	24,854	13,347
Total scope 2^{3,9}	9	9	7,065	9	9	12,635	9	9	15,045
Scope 3: Other indirect energy consumption/emissions (by third parties)	10	10		10	10		10	10	
Electrical energy purchases of outside companies	-	-	18,409	-	-	29,333	-	-	29,892
Heat purchases of outside companies	-	-	3,640	-	-	4,621	-	-	4,576
Cooling purchases of outside companies	-	-	41	-	-	100	-	-	115
Natural gas purchases of outside companies	-	-	1,317	-	-	3,742	-	-	3,565
Fuel for outside companies	-	-	4,080	-	-	8,482	-	-	9,571
Subtotal	9	9	27,487	9	9	46,277	9	9	47,719
Total CO₂ emissions that can be influenced annually¹¹			107,959			147,788			150,105
Air traffic [LTO cycle] ¹²	-	-		-	-		-	-	
Take-off	-	-	18,279	-	-	58,338	-	-	56,306
Climb out	-	-	31,747	-	-	101,045	-	-	97,381
Idle (taxiing on the apron)	-	-	49,752	-	-	172,769	-	-	174,565
Approach	-	-	38,009	-	-	119,124	-	-	116,348
APU [PCA taken into account] ¹⁴	-	-	8,928	-	-	24,274	-	-	25,532
Engine test runs	-	-	502	-	-	728	-	-	456
Feeder traffic ¹⁵	-	-	9,300	-	-	32,053	-	-	37,992
Total Scope 3			184,004			554,608			556,299

¹ Data collected and reported according to the GHG protocol WRI/WBCSD Greenhouse Gas Protocol Corporate Accounting and Reporting Standard. Principle of operational control applied. To the extent that they are subject to emissions trading, conversion parameters, such as heat values and emission factors in particular, are determined according to the provisions of the German Emissions Trading Authority (DEHSt). Other conversion parameters are based on the latest publications from the German Federal Environment Agency (UBA).

² EFM: Gesellschaft für Enteisung und Flugzeugschleppen am Flughafen München (company responsible for de-icing and towing aircraft at Munich Airport); associated company

³ Disclosure of Scope 2 emissions taking into account GHG Protocol Scope 2 Guidance [2015] using the «Location based» method based on BRD domestic consumption, electricity mix and district heating mix emission factors. Net Scope 2 emissions with specific emission factors are 0.427 kg/kWh for electricity and 0.213 kg/kWh for district heat from fossil fuels. The total district heating supply consists of fossil district heating and district heating from biomass with the specific emission factor of 0 kg/kWh.

⁴ 60.46% Electricity from renewable energies (status 2020 according to section 42 of the German Energy Act [EnWG]).

⁵ 80% of district heat is purchased from biomass directly from the biomass thermal power plant in Zolling.

⁶ Solely natural gas purchased [baseline year 2019], no renewable energy sources

⁷ Including the quantity transmitted to outside companies

⁸ Total power transmitted to outside companies and subsidiaries. The specific emission factor used for purchased power was also used here.

⁹ For physical reasons it is not practical to add heat, cooling energy, and electricity in energy units. The sum can only be used to draw very limited conclusions.

¹⁰ No information, since values cannot be reported for all items.

¹¹ Sum of scope 1, scope 2, and the subtotal of scope 3a; this is the comparative value for the reference value taken from the baseline year of 2005 at 162,046 tonnes. The CO₂ reference value must not be exceeded in spite of expansion plans and the expected growth.

¹² Emission calculation with the LASPORT model for the classification of flight operations according to the LTO cycle

¹³ Scope 2 emissions taking into account GHG Protocol Scope 2 Guidance [2015] according to the «Market based» method result in 1,060 t CO₂. This is based on an emission factor of 0.158 kg/kWh for the Munich Airport network. The other emission factors stated in footnote ³ remain unchanged.

¹⁴ Calculated from aircraft movements using the LASPORT model, subsequently taking into account the APU emissions prevented by using PCA systems

¹⁵ Feeder traffic includes the road traffic originating from passengers, visitors, and employees around the airport.

**GENERATED AND PURCHASED POWER /
GRI 305-1, GRI 305-2, GRI 305-5**

With its block heat and power plant, the airport generates over half of its on-site power demand using natural gas. The waste heat from this alone covers approx. 80 percent of the demand for heating and air-conditioning – without any additional energy input. Aside from a tiny amount that is generated in peak load boilers, the airport meets the remainder of its heating needs by purchasing district heat from a public utility company in Freising. 80 percent of this purchased district heating – i.e. approx. 22 gigawatt hours [GWh] – has been obtained from a biomass co-generation plant at the Zolling site since the beginning of 2011. This procurement is secured by a long-term supply option for the coming years. This district heat obtained from biomass is renewable and climate neutral, and cuts carbon emissions by approx. 4,500 t per year. Compared to the separate generation of electricity and heat in the mix of the Federal Republic of Germany, this saves 40,000 tons of CO₂ per year. The rest of the electricity generated by the CHP flows to companies on the site, so that less than a third of the electricity consumed on the airport campus comes from external network operators. Overall, emissions produced by the external procurement of power and district heat have decreased by approx. 25 percent since 2005. Looking at the Munich Airport Group alone, this figure has fallen by almost 50 percent. This is due partly to the more efficient combined heat and power units, and partly to savings in electricity consumption.

ENERGY INTENSITY COEFFICIENT¹ / GRI 302-3 ✓

In kWh/passenger	2020	2019	2018
Power consumption	17.23 ²	4.88	5.02

- ¹ Electricity consumption is responsible for more than ½ of the total CO₂ emissions caused by energy-induced processes at the airport (excluding airline emissions). Furthermore, it is only very slightly linked to weather conditions. For this reason, the power consumption per passenger is the most meaningful indicator for energy consumption at Munich Airport.
- ² The calculation of the energy intensity coefficient is related to the number of passengers. Due to the sharp drop in passenger numbers in 2020, the figure differs significantly from previous years.

The power consumption is made up of total power consumption of all buildings and installations on the campus, including hosted electricity. It includes power consumption by FMG and its subsidiaries, consumption by external companies, and all losses at the low-voltage level.

GREENHOUSE GAS EMISSIONS INTENSITY¹ / GRI 305-4 ✓

In kg/passenger	2020	2019	2018
CO ₂ emissions	9.73 ²	3.08	3.24

- ¹ The measure of CO₂ emissions per passenger enables the physically meaningful addition of the different forms of primary and secondary energy used at the airport in relation to passenger numbers.
- ² The calculation of the intensity of greenhouse gas emissions is related to the number of passengers. Due to the sharp drop in passenger numbers in 2020, the figure differs significantly from previous years.

The CO₂ emissions from Scope 1 and 2 are added, as well as power, heat, cooling energy, natural gas, and fuel consumption by external companies. The figure therefore includes all emissions that must not exceed the targets for carbon-neutral growth.

DE-ICERS USED¹ / GRI 301-1, GRI 301-2, GRI 301-3, GRI A06 ✓

	2019/2020	2018/2019	2017/2018
Apron de-icer in t ²	1,287	4,424	4,699
Aircraft de-icer [Safewing Type I] in m ³	1,859	5,531	5,139
Aircraft de-icer [Safewing Type IV] in m ³	241	1,015	879
Recycling rate of Type I de-icer used in %	55	63	65
Number of days of winter operations	52	62	58

¹ Seasonal database/ fluctuations in year-on-year comparisons are linked to winter weather conditions.

² Liquid potassium formate and sodium formate granules

The company responsible for de-icing operations at Munich Airport, Gesellschaft für Enteisen und Flugzeugschleppen am Flughafen München mbH (EFM), uses glycol-based de-icer that is sprayed onto aircraft by de-icing vehicles. The low-viscosity Type I de-icer is mixed with water in the ratio 55:45, heated, and applied to the aircraft at a temperature of 85 degrees Celsius. Type IV de-icer contains thickeners, making it viscous. It is sprayed on cold and undiluted.

➔ munich-airport.de/efm

OTHER GREENHOUSE GAS EMISSIONS / GRI 305-3, GRI 305-5, GRI 305-6 ✓

CH ₄ , N ₂ O and greenhouse gases containing fluorine in CO ₂ equivalent ¹ [t]	2020	2019	2018
LTO cycle	1,389	4,551	4,483
Feeder traffic ^{2,5}	277	427	328
APU ³	127	375	370
Engine test run ⁴	5	7	5
Small appliances in buildings and central cooling plants	346	112	685
Mobile systems (vehicles)	140	146	174

¹ Conversion of emissions into CO₂ equivalents in accordance with the IPCC Fourth Assessment Report

² Feeder traffic includes the traffic caused by passengers, visitors, and commuters in the area around the airport.

³ Calculated from aircraft movements using the LASPORT model, taking into account the remaining APU period when using PCA

⁴ Estimates

⁵ From 2019, higher values due to higher emission factors in the «Manual of Emission Factors in Road Transport» [HBEFA 4.1]

MEASURED POLLUTANT CONCENTRATIONS¹ / GRI 305-7, GRI A05 ✓

In µg/m ³	Current legal annual limit value	2020	2019	2018
NO ₂ concentration [nitrogen dioxide]	40	14	18	18
SO ₂ concentration [sulfur dioxide] ²	20	2	2	2
PM ₁₀ concentration [particulate matter]	40	11	12	14
PM _{2.5} concentration	25	8	8	11

¹ During the course of publishing the integrated report, NO₂, SO₂ and PM₁₀ as well as PM_{2.5} are recorded. Other pollutant concentrations can be found in the monthly immissions reports: www.munich-airport.de/immissionsberichte-87441

² Statutory threshold to protect vegetation, only strictly applicable away from urban centers and transport facilities, but complied with here as well as the immission value specified by the administrative regulation TA Luft for protecting human health [50 µg/m³].

TOTAL DRINKING WATER CONSUMPTION^{1,2,3} / GRI 303-3, GRI 303-5

1 m ³ corresponds to 0.001 mega liters	2020	2019	2018
Water purchased from utility in m ³	563,789	1,032,239	986,580
Water consumption per 1,000 traffic units in m ³	44.7	20.1	19.8

¹ Includes all companies on the campus.

² Values are derived as follows: Water metering in m³ measured at the drinking water feed points (transfer points at water metering shafts 1 through 4) from the Moosrain water utility company to Munich Airport

³ Due to the Corona pandemic, traffic units dropped significantly compared to the previous year, however, water consumption, such as that used for construction projects, continued to exist.

TOTAL PROCESS WATER EXTRACTION FOR COOLING IN THE POWER CENTERS, WEST AND EAST¹ / GRI 303-1, GRI 303-3, GRI 303-5

1 m ³ corresponds to 0.001 mega liters	2020	2019	2018
Quantity of the quaternary groundwater extracted in m ³	198,729	256,326	279,881

¹ Due to the Corona pandemic, traffic units dropped significantly compared to the previous year, however, water consumption, such as that used for construction projects, continued to exist.

TOTAL WASTEWATER DISCHARGED^{1,2,3} / GRI 303-2, GRI 303-4, GRI 306-1

1 m ³ corresponds to 0.001 mega liters	2020	2019	2018
Total wastewater discharged from Munich Airport to the sewage plant of the Erdinger Moos wastewater utility company in m ³	1,610,406	2,494,388	2,404,292
Wastewater consumption per 1,000 traffic units in m ³	127.7	48.5	46.8

¹ Includes all companies on the campus.

² The wastewater discharged to the sewage treatment plant of the Abwasserzweckverband Erdinger Moos is composed of domestic wastewater, de-icing water and rainwater.

³ Due to the Corona pandemic, traffic units dropped significantly compared to the previous year, however, water consumption, such as that used for construction projects, continued to exist.

AIR POLLUTANT EMISSIONS / GRI 305-7, GRI A05 ✓

In t	2020	2019	2018
NO _x - air traffic (LTO cycle)	466.9	1,739.0	1,676.8
NO _x - feeder traffic ¹	39.9	88.0	82.4
SO _x - air traffic (LTO cycle)	34.9	114.0	112.7
SO _x - feeder traffic ¹	0.1	0.2	0.2
PM ₁₀ - air traffic (LTO cycle)	4.1	13.5	13.4
PM _{2,5} - feeder traffic ¹	0.5	1.0	1.1

¹ Feeder traffic includes the traffic originating from passengers, visitors, and commuters in the area around the airport.

munich-airport.de/flumo

WATER SOURCES / GRI 303-1, GRI 303-3

Munich Airport sources its drinking water from the Moosrain water utility company, which extracts it from the tertiary strata via seven water wells at depths of between 94 and 160 meters. The water wells are located in water protection areas at «Obere Point» [surface area 33 ha] and «Oberdingermoos» [surface area 36 ha] in the Oberding municipality.

moosrain.de/verband/daten-fakten

WATER SAMPLES / GRI 303-1, GRI 303-2, GRI A04

Under the provisions of the planning approval notice, Munich Airport is required to test the water surrounding the airport. Securing evidence regarding the quantity [water level] and quality [water quality] of groundwater is particularly important. FMG measures the water levels of more than 300 groundwater and 17 surface water measurement points on an ongoing basis. Water quality is determined at 18 groundwater and eleven surface water measurement points. All implemented measures are summarized in a report, evaluated, and presented to the water authorities.

azv-em.de

**HAZARDOUS GOODS: CHECKS AND TRAINING COURSES /
GRI 306-4**

Operations at Munich Airport involve a number of substances that are harmful to the environment and water; these must be declared as hazardous goods and transported off site. The vehicles used for transporting hazardous goods were inspected to verify that they are in proper condition and are roadworthy and safe to operate. Employee training on the handling of hazardous goods is held at regular intervals in accordance with legal regulations. In the year under review, 2020, a total of 191 tonnes of waste [previous year: 196 tonnes] declared as hazardous goods were transported away for disposal.

WASTE MANAGEMENT / GRI 306-2

Flughafen München GmbH is authorized to conduct waste management independently on its site in accordance with the German Waste Management and Product Recycling Act. Avoidance of waste is an absolute priority. However, waste and scrap products are generated from the operation of the airport – across the board – and these are then collected where they occur in various separating systems, handed over to certified specialist businesses close to the airport, prepared in sorting plants, and then recycled. The small proportion of residual waste that cannot be recycled is converted by the Munich North power plant into district heat and power.

The majority of waste and scrap material is generated by affiliated companies as well as the companies and airlines based at the airport. A custom disposal concept tailored specifically to the producer of the waste is therefore essential for successful resource conservation: from the actual generation of the waste through to recycling and disposal. FMG therefore provides regular information on current waste topics, gives tips on environmentally friendly conduct, and is on hand to offer advice.

WASTE¹ / GRI 301-3, GRI 306-2, GRI 306-4

In t	2020	2019	2018	Point of disposal and recycling
Recycling				
Paper, cardboard, and cartons from aircraft ²	0	0	0	Sorting facilities, paper factory in Munich/Schrobenhausen (wastepaper recycling)
Paper, cardboard, and cartons from buildings	516	1,441	1,508	
Mixed reclaimed materials/waste for recycling from buildings	1,122	3,154	3,037	
Top soil (humus-rich excavation material) ³	31	2,650	2,766	
Mixed glass	107	228	248	Sorting facilities, recycling firms in Eitting, Schwaig, Moosburg, and Munich
Wood	369	457	495	
Bulk waste	417	920	852	
Scrap metal containing electronic waste	378	568	626	
Other recyclables ⁴	113	248	204	
Total recycling	3,053	9,666	9,736	
Recycling				
Material recycling	2,277	3,529	4,560	
Building site waste (waste from dismantling, conversion, renovation, and maintenance measures)	1,784	2,346	3,207	Recycling/disposal firms (material recycling/pit filling)
Hazardous waste without ADR ⁵ (only FMG portion, without mineral wool and without hazardous goods)	45	59	70	Recycling/disposal firms (material recycling) or hazardous waste specialists in Munich and Ebenhausen (secondary fuels)
of which are subject to ADR (=hazardous goods) ⁵	191	196	251	
Other waste ⁶	257	928	1,032	
Energy recycling	1,133	2,254	2,135	
Food waste ⁷	518	1,394	1,228	Biogas plant (energy recovery)
Waste from cleaning of aircraft cabins ⁸	0	0	0	
Waste for disposal/prohibited liquids (terminal areas)	39	198	201	Munich North combined heat and power plant (energy generation)
Waste for disposal from buildings	576	662	706	
Total recycling	3,410	5,783	6,695	
Landfill waste				
Insulators (mineral wool) ⁹	163	236	597	Spitzlberg, Landshut landfill
Total landfill	163	236	597	
Total amount	6,626	15,685	17,028	

¹ All quantities refer exclusively to the disposal processes organized by FMG waste management. This refers to the total figure reported (2020: 6,626 t).

² Disposal is no longer conducted by FMG waste management. Disposal and transport services were outsourced to a disposal company in April 2011.

³ The topsoil comes from various construction activities.

⁴ Foil, lightweight packaging, for example

⁵ ADR [Accord européen relatif au transport international des marchandises dangereuses par route]: European Agreement concerning the International Carriage of Dangerous Goods by Road

⁶ For example runway wear, refuse, old tires, rubber waste

⁷ Food waste disposal from the Allresto catering area only in Terminal 2

⁸ Waste from the cleaning of aircraft cabins and catering waste is processed by a disposal firm at the Munich North waste incineration plant/at the power plant in accordance with EC Regulation 1069/2009. Disposal is no longer FMG's responsibility and has been conducted by a specialist contractor working on behalf of the Erding animal carcass disposal association since January 2011.

⁹ Insulators that are collected by a disposal specialist contracted on behalf of the district of Freising and sent away for proper disposal (landfill)

MEASURED NOISE¹ / GRI A07 ✓

In dB(A)	2020		2019		2018	
	Night ²	Day	Night ²	Day	Night ²	Day
Brandstadi (municipality of Hallbergmoos)	44	55	51	59	50	58
Pallhausen (town of Freising)	42	50	49	55	48	54
Reisen (municipality of Eitting)	41	49	47	55	49	56
Viehlaßmoos (municipality of Berglern)	40	49	47	55	47	54

¹ Leq3 continuous sound level in dB(A) for the six busiest months at four aircraft noise measuring stations situated on each of the main flight paths

² Period: 10 p.m. to 6 a.m.

DISTRIBUTION OF OPERATIONS DIRECTIONS BETWEEN WEST AND EAST

	Westward		Eastward	
	Take-offs	Landings	Take-offs	Landings
Total aircraft movements ¹ , absolute	103,782		40,399	
Total aircraft movements ¹ , in %	72		28	
North runway	18,451	31,846	15,693	6,432
South runway	33,489	19,996	4,486	13,788

¹ Excluding helicopters

Source: Immissions Reports/Web/Reporting January to December 2020

The assignment of the operating direction, in other words the decision as to whether the aircraft take off and land to the east or west, depends on the wind. This is because take-offs and landings usually take place against the prevailing wind direction. In addition, when using the runway system, FMG makes sure that the north and south runways are utilized as equally as possible.

NOISE COMPLAINTS / GRI 102-44 ✓

	2020	2019	2018
Noise complaints received via telephone	51	206	185
Complainants	28	99	116
Complaints received in writing	33	87	161
Complainants	27	52	66

The main regulations for the aviation industry are defined on an international level. Under the umbrella organization that is the United Nations, the ICAO (International Civil Aviation Organization) deals with the issue of reducing aircraft noise. The EU pursues similar targets: With the «Flightpath 2050,» it aims to reduce noise emissions by 65percent by 2050, starting from 2000. But the airport operator can also help to regulate this area. Loud aircraft without certificates to ICAO Annex 16 are not allowed to take off from or land at Munich Airport. And the regulations at night are even stricter: The night-flight curfew at Munich Airport includes a noise quota, which is based on aircraft types and sizes, and the number of aircraft movements. In 2020, only 16percent of the permissible noise volume at Munich Airport was utilized. The mean nighttime continuous sound level at the sanctuary border did not exceed the permitted value of 50 dB (A) in 2020.

➔ Noise measurement points
munich-airport.com/noise-protection

POPULATION GROWTH IN NEIGHBORING COMMUNITIES¹ / GRI A07 ✓

Number of residents	2019	2018	2017
Freising (District of Freising)	49,126	48,634	48,318
Marzling (District of Freising)	3,224	3,238	3,231
Oberding (District of Erding)	6,392	6,505	6,325
Hallbergmoos (District of Freising)	11,094	10,953	10,946
Total residents	69,836	69,330	68,820

¹ The reporting date is December 31 in each case.

Source: Bayerisches Landesamt für Statistik und Datenverarbeitung (Bavarian State Office for Statistics and Data Processing) - Statistikatlas Bayern (statistical atlas of Bavaria). Figures for 2020 were not available at the time of going to press.

AIRPORT «GREEN SPACES»¹ OUTSIDE THE AIRPORT FENCE /
GRI 102-7, GRI 304-3 ✓

In ha	2020	2019	2018
«Green spaces» in total	864	844	824
Compensatory mitigation areas, zone III ²	499	470	450
Airport periphery, zone II	250	250	250
Ecological land reserve for future expansion measures	115	124	124

¹ Zone II and III green spaces that are developed or maintained by Flughafen München GmbH in accordance with nature conservation requirements (as opposed to leased agricultural land or other real estate).

² From 2019 to 2020, FMG was required to provide approx. 29 additional hectares of compensatory and replacement land. Work has begun on the development of approx. 20 hectares of compensation and replacement land. The remaining approx. 9 hectares were deducted from the eco-account.