

Sustainability indicators 2021¹⁾

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⁾ Since 2020, MAI's wholly owned subsidiaries (amd.sigma, MAI US Holding and Munich Airport NJ LLC) have been included in all workforce metrics.

VALUE GENERATED / GRI 201-1

| Group in € million | 2021 | 2020 | 2019 |
|----------------------------|--------------|------------|--------------|
| Revenue | 601.3 | 579.7 | 1,568.0 |
| + Other income | 79.2 | 44.5 | 43.2 |
| Total revenue | 680.5 | 624.2 | 1,611.1 |
| + Income from investments | -2.6 | -1.8 | 1.4 |
| ./. Non-personnel expenses | -307.2 | -377.4 | -519.6 |
| ./. Depreciation | -239.9 | -242.0 | -208.8 |
| = Value generated | 130.8 | 3.0 | 884.1 |

VALUE DISTRIBUTED / GRI 201-1

| Group in € million | 2021 | 2020 | 2019 |
|--------------------------|--------------|------------|--------------|
| Employees | 419.1 | 408.6 | 537.2 |
| Lenders (netted) | 48.0 | 27.8 | 90.0 |
| Public sector | -75.0 | -112.0 | 79.0 |
| Munich Airport Group | -261.3 | -321.4 | 177.8 |
| = Value generated | 130.8 | 3.0 | 884.1 |

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 ✓

| | 2021 | 2020 | 2019 |
|--|-------------------|-------------------|-------------------|
| Total passenger volume | 12,502,913 | 11,120,224 | 47,959,885 |
| Total commercial traffic ¹⁾ | 12,496,432 | 11,112,773 | 47,941,348 |
| Scheduled and charter traffic | 12,474,794 | 11,094,096 | 47,915,966 |
| Other commercial traffic ¹⁾ | 21,638 | 18,677 | 25,382 |
| Non-commercial traffic ¹⁾ | 6,481 | 7,451 | 18,537 |
| Total aircraft movements | 153,097 | 146,833 | 417,138 |
| Total commercial traffic ¹⁾ | 146,675 | 140,480 | 407,612 |
| Scheduled and charter traffic | 134,193 | 130,622 | 395,951 |
| Other commercial traffic ¹⁾ | 12,482 | 9,858 | 11,661 |
| General air traffic (non-commercial traffic) ¹⁾ | 6,422 | 6,353 | 9,526 |
| Seating capacity utilization in % | 65.2 | 59.6 | 77.2 |
| Cargo handling (cargo and airmail carried in t) | 173,307 | 150,928 | 350,058 |
| Traffic units (TU) of commercial traffic | 14,211,819 | 12,610,084 | 51,406,376 |

¹⁾ For term definitions see the Annual Statistics Report 2021, p. 19/20

munich-airport.com/statistics

PASSENGER INDICATORS [COMMERCIAL TRAFFIC ONLY] / GRI A01 ✓

| | 2021 | | | 2020 | | | 2019 | | |
|--|-------------------|------------------|-------------------|-------------------|------------------|------------------|-------------------|------------------|-------------------|
| | Total | Domestic | International | Total | Domestic | International | Total | Domestic | International |
| Total commercial traffic | 12,496,432 | 2,295,855 | 10,200,577 | 11,112,773 | 2,562,495 | 8,550,278 | 47,941,348 | 9,620,427 | 38,320,921 |
| Arrivals | 6,231,524 | 1,154,455 | 5,077,069 | 5,619,856 | 1,279,520 | 4,340,336 | 24,039,970 | 4,797,621 | 19,242,349 |
| Departures | 6,247,229 | 1,133,472 | 5,113,757 | 5,480,948 | 1,278,159 | 4,202,789 | 23,865,826 | 4,814,088 | 19,051,738 |
| Transit passengers ¹⁾ | 17,679 | 7,928 | 9,751 | 11,969 | 4,816 | 7,153 | 35,552 | 8,718 | 26,834 |
| O&D passengers ²⁾ in millions | 8.0 | | | 7.3 | | | 29.3 | | |
| Transfer passengers in millions | 4.5 | | | 3.8 | | | 18.5 | | |
| Transfer passengers ³⁾ in % | 36 | | | 34 | | | 38 ⁴⁾ | | |

¹⁾ Transit passengers arrive at the airport and continue their journey on the same aircraft. Transit passengers are only counted when landing.

²⁾ Origin & Destination passengers begin or end their journey at the airport.

³⁾ The data collection method for the proportion of transfer passengers was changed in 2020. The value is now determined by a statistical analysis.

⁴⁾ Errors identified while our data was being audited have been corrected.

AIRCRAFT MOVEMENTS¹⁾ / GRI A02 ✓

| | 2021 | | | 2020 | | | 2019 | | |
|---|----------------|---------------|---------------|----------------|---------------|---------------|----------------|----------------|----------------|
| | Total | Arrivals | Departures | Total | Arrivals | Departures | Total | Arrivals | Departures |
| Passenger flights, scheduled/charter | 129,737 | 64,801 | 64,936 | 126,013 | 63,067 | 62,946 | 392,328 | 196,019 | 196,309 |
| Domestic | 28,537 | 14,253 | 14,284 | 35,202 | 17,595 | 17,607 | 95,209 | 47,572 | 47,637 |
| International | 101,200 | 50,548 | 50,652 | 90,811 | 45,472 | 45,339 | 297,119 | 148,447 | 148,672 |
| Cargo flights, scheduled/charter | 4,038 | 1,962 | 2,076 | 4,398 | 2,185 | 2,213 | 3,441 | 1,716 | 1,725 |
| Domestic | 1,301 | 748 | 553 | 1,463 | 758 | 705 | 1,482 | 796 | 686 |
| International | 2,737 | 1,214 | 1,523 | 2,935 | 1,427 | 1,508 | 1,959 | 920 | 1,039 |
| Airmail flights, scheduled/charter | 418 | 209 | 209 | 211 | 106 | 105 | 182 | 91 | 91 |
| Domestic | 418 | 209 | 209 | 211 | 106 | 105 | 182 | 91 | 91 |
| International | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| General air traffic | 18,904 | 9,572 | 9,332 | 16,211 | 8,029 | 8,182 | 21,187 | 10,748 | 10,439 |
| Domestic | 7,845 | 3,999 | 3,846 | 7,251 | 3,655 | 3,596 | 8,869 | 4,583 | 4,286 |
| International | 11,059 | 5,573 | 5,486 | 8,960 | 4,374 | 4,586 | 12,318 | 6,165 | 6,153 |
| Total | 153,097 | 76,544 | 76,553 | 146,833 | 73,387 | 73,446 | 417,138 | 208,574 | 208,564 |

¹⁾ Military flights are not included.

➔ Detailed information on night-time aircraft movements can be found in the monthly immissions reports: [munich-airport.com/environmental-protection-264103](https://www.munich-airport.com/environmental-protection-264103)

➔ Detailed information on the night-flight curfew: [munich-airport.com/night-flight-264466](https://www.munich-airport.com/night-flight-264466)

CARGO TONNAGE [COMMERCIAL HANDLING] / GRI A03 ✓

| In t | 2021 | | | 2020 | | | 2019 | | |
|--------------------------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| | Cargo handled | Incoming cargo | Outgoing cargo | Cargo handled | Incoming cargo | Outgoing cargo | Cargo handled | Incoming cargo | Outgoing cargo |
| Cargo-only flights | 72,194 | 33,282 | 38,912 | 50,253 | 22,813 | 27,440 | 46,024 | 16,750 | 29,274 |
| Bellyhold cargo on passenger flights | 94,519 | 39,255 | 55,264 | 94,860 | 41,471 | 53,389 | 285,590 | 122,900 | 162,690 |
| Total comprehensive income | 166,713 | 72,537 | 94,176 | 145,113 | 64,284 | 80,829 | 331,614 | 139,650 | 191,964 |

**DIALOGUE MANAGEMENT:
DEALING PROFESSIONALLY WITH FEEDBACK / GRI 2-29**

➔ [munich-airport.com/
sustainability-263986](https://munich-airport.com/sustainability-263986)

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 829 complaints in 2021. This is approximately 74% less than in 2019 and 11% less than in 2020. This decline continues to be due to the sharp drop in air traffic caused by the Corona pandemic. In 2021, Munich Airport recorded a relative complaint rate of 66 complaints per million passengers handled. A large proportion of the complaints were related to compliance with Corona rules and hygiene measures, particularly in passenger transport.

DIALOGUE MANAGEMENT / GRI 2-29 ✓

| Number of entries | 2021 | 2020 | 2019 |
|---|------------|------------|--------------|
| Total complaints | 829 | 932 | 3,137 |
| Number of complaints on key issues | | | |
| Airline | 116 | 98 | 177 |
| Airport facility | 186 | 171 | 640 |
| Baggage collection | 40 | 64 | 449 |
| Parking | 49 | 59 | 156 |
| Passport control | 29 | 59 | 298 |
| Security checks | 106 | 112 | 497 |
| Passenger transport ¹⁾ | 96 | 65 | - |
| Airport Service ¹⁾ | 62 | 134 | - |
| Other | 145 | 170 | 920 |

¹⁾ First recorded in 2020

FIREFIGHTING SERVICE DEPLOYMENTS / GRI 417-1

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.

DONATIONS AND SPONSORSHIP¹⁾ / GRI 413-1

| Proportion of total budget in % | 2021 | 2020 | 2019 |
|---------------------------------|------|------|------|
| Sport | 60 | 55 | 46 |
| Social welfare | 18 | 21 | 21 |
| Education | 13 | 10 | 11 |
| Culture | 7 | 13 | 18 |
| Environment | 2 | 1 | 4 |

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

FIREFIGHTING SERVICE DEPLOYMENTS / GRI 417-1

| | 2021 | 2020 | 2019 |
|---|--------------|--------------|--------------|
| Total alarms | 5,028 | 4,915 | 3,391 |
| False alarms | 419 | 387 | 676 |
| Number of deployments | 1,511 | 1,985 | 2,715 |
| Technical support jobs | 1,140 | 1,262 | 1,891 |
| Of which are security monitoring jobs ¹⁾ | 296 | 629 | 561 |
| Firefighting jobs | 75 | 94 | 263 |
| Other firefighting operations ²⁾ | 2,587 | 0 | 0 |
| Rescue service deployments, total | 511 | 473 | 1,706 |
| First responder deployments ³⁾ | - | - | 94 |
| Rescue vehicle deployments | 511 | 473 | 1,612 |

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⁾ Other activities and operations of the fire department [«other» Alarm labels/assessments]

³⁾ First aid until the arrival of the public rescue service is no longer recorded.

**EMPLOYEES COVERED BY COLLECTIVE BARGAINING AGREEMENTS /
GRI 2-30, GRI 202-01, GRI 405-2** ✓

| | 2021 | | 2020 | | 2019 | |
|---|---------------------|-------|------------------------|-------|--------|-------|
| | Group ²⁾ | FMG | Group ^{2),3)} | FMG | Group | FMG |
| Total number of employees covered by collective bargaining agreements | 8,562 | 4,336 | 9,270 | 4,554 | 10,152 | 4,601 |
| Proportion of total employees in % ¹⁾ | 93.06 | 99.72 | 94.46 | 99.61 | 96.24 | 99.55 |

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

³⁾ Errors identified while the data was being audited have been corrected.

MANAGERS / GRI 405-1 ✓

| Group | 2021 | | 2020 | | 2019 | |
|------------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|
| | Proportion in % ²⁾ | Proportion in % ²⁾ | Proportion in % ²⁾ | Proportion in % ²⁾ | Proportion in % ²⁾ | Proportion in % ²⁾ |
| Total managers¹⁾ | 703 | 8.09 | 688 | 7.37 | 690 | 7.01 |
| Women | 168 | 23.90 | 151 | 1.62 | 156 | 1.58 |
| Men | 535 | 76.10 | 537 | 5.76 | 534 | 5.43 |
| Age structure of managers | | | | | | |
| Under 30 years | 9 | 1.28 | 14 | 2.03 | 15 | 2.17 |
| 30 to 50 years | 364 | 51.78 | 357 | 51.89 | 364 | 52.75 |
| Over 50 years | 330 | 46.94 | 317 | 46.08 | 311 | 45.07 |
| FMG | | | | | | |
| | | | | | | |
| Total managers¹⁾ | 401 | 9.60 | 421 | 9.65 | 420 | 9.57 |
| Women | 62 | 15.46 | 64 | 1.47 | 66 | 1.50 |
| Men | 339 | 84.54 | 357 | 8.18 | 354 | 8.07 |
| Age structure of managers | | | | | | |
| Under 30 years | 4 | 1.00 | 7 | 1.66 | 7 | 1.67 |
| 30 to 50 years | 153 | 38.15 | 169 | 40.14 | 175 | 41.67 |
| Over 50 years | 244 | 60.85 | 245 | 58.19 | 238 | 56.67 |

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 | 2021 | | | | | | 2020 | | 2019 | |
|--|--------------|-------------------------------|--------------|-------------------------------|--------------|-------------------------------|--------------|-------------------------------|--------------|-------------------------------|
| | 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 | 390 | 4.49 | 562 | 6.46 | 952 | 10.95 | 1,222 | 13.09 | 1,538 | 15.68 |
| 30 to 50 years | 1,511 | 17.38 | 2,929 | 33.69 | 4,440 | 51.08 | 4,800 | 51.40 | 5,056 | 51.56 |
| Over 50 years | 899 | 10.34 | 2,402 | 27.64 | 3,301 | 37.97 | 3,316 | 35.51 | 3,212 | 32.76 |
| Total | 2,800 | 32.21 | 5,893 | 67.79 | 8,693 | 100.00 | 9,338 | 100.00 | 9,806 | 100.00 |
| FMG | | | | | | | | | | |
| | | | | | | | | | | |
| Age structure of employees¹⁾ | | | | | | | | | | |
| Under 30 years | 181 | 4.33 | 226 | 5.41 | 407 | 9.75 | 442 | 10.13 | 482 | 10.98 |
| 30 to 50 years | 564 | 13.51 | 1,245 | 29.81 | 1,809 | 43.32 | 1,948 | 44.64 | 1,994 | 45.43 |
| Over 50 years | 304 | 7.28 | 1,656 | 39.66 | 1,960 | 46.93 | 1,974 | 45.23 | 1,913 | 43.59 |
| Total | 1,049 | 25.12 | 3,127 | 74.88 | 4,176 | 100.00 | 4,364 | 100.00 | 4,389 | 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 | 2021 | | | 2020 | 2019 | FMG | 2021 | | | 2020 | 2019 |
|--------------------------------|-------|-----|-------|------|------|--------------------------------|-------|-------|-------|------|------|
| | Women | Men | Total | | | | Total | Total | Women | | |
| Parental leave taken | 138 | 138 | 276 | 297 | 332 | Parental leave taken | 63 | 73 | 136 | 144 | 151 |
| Part-time parental leave taken | 4 | 3 | 7 | 12 | 15 | Part-time parental leave taken | 1 | 1 | 2 | 8 | 7 |

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 | 2021 | | | | 2020 | | 2019 | | FMG | 2021 | | | | 2020 | | 2019 | |
|--|------------|--------------------------------|--------------|--------------------------------|------------|------------|--------------|--------------|--|-----------|--------------------------------|------------|--------------------------------|------------|------------|------------|------------|
| | 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 | 120 | 51.95 | 261 | 25.69 | 271 | 345 | 707 | 458 | Under 30 years | 51 | 61.45 | 60 | 17.09 | 94 | 40 | 147 | 52 |
| 30 to 50 years | 82 | 35.50 | 378 | 37.20 | 221 | 403 | 626 | 491 | 30 to 50 years | 22 | 26.51 | 87 | 24.79 | 68 | 40 | 117 | 38 |
| Over 50 years | 29 | 12.55 | 377 | 37.11 | 62 | 234 | 149 | 250 | Over 50 years | 10 | 12.05 | 204 | 58.12 | 15 | 81 | 22 | 83 |
| Total | 231 | 100.00 | 1,016 | 100.00 | 554 | 982 | 1,482 | 1,199 | Total | 83 | 100.00 | 351 | 100.00 | 177 | 161 | 286 | 173 |
| Starters and leavers by gender | | | | | | | | | Starters and leavers by gender | | | | | | | | |
| Male | 142 | 61.47 | 690 | 67.91 | 350 | 571 | 982 | 723 | Male | 56 | 67.47 | 275 | 78.35 | 122 | 111 | 191 | 127 |
| Female | 89 | 38.53 | 326 | 32.09 | 204 | 411 | 500 | 476 | Female | 27 | 32.53 | 76 | 21.65 | 55 | 50 | 95 | 46 |

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 per¹⁾.

TURNOVER RATE¹⁾ / GRI 401-1 ✓

| In % | 2021 | | 2020 | | 2019 | |
|---------------|-------|------|-------|------|-------|------|
| | Group | FMG | Group | FMG | Group | FMG |
| Turnover rate | 11.00 | 7.94 | 9.93 | 3.55 | 11.93 | 3.86 |

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 | 2021 | | 2020 | | 2019 | |
|--|---------------------|------------|---------------------|------------|---------------------|-------------|
| | Group ²⁾ | FMG | Group ³⁾ | FMG | Group ⁴⁾ | FMG |
| Average hours of training per employee | 7.6 | 3.5 | 11.9 | 5.2 | 20.3 | 10.1 |
| Per male employee | 8.2 | 3.9 | 12.9 | 5.8 | 20.8 | 10.7 |
| Per female employee | 6.4 | 2.2 | 9.8 | 3.3 | 19.2 | 8.2 |
| Per manager ⁵⁾ | 5.4 | 3.0 | 6.6 | 4.8 | 16.2 | 10.5 |
| Per employee (without managerial responsibilities) | 7.8 | 3.5 | 12.3 | 5.2 | 20.6 | 10.1 |

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, amd.sigma, Munich Airport NJ LLC, Infogate

³⁾ Without MUCReal, LabCampus, amd.sigma, Munich Airport NJ LLC

⁴⁾ Without MAI US, MAI Munich Airport NJ LLC, MUCreal, LabCampus, and InfoGate

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

OCCUPATIONAL HEALTH AND SAFETY / GRI 403-9 ✓

| Group ^{1),2)} | 2021 ^{1),2)} | 2020 ^{1),2)} | 2019 |
|---|--------------------------|--------------------------|-------------|
| Accident statistics³⁾ | | | |
| Reportable occupational accidents | 107 | 94 | 236 |
| Number of resulting days of absence ⁴⁾ | 2,264 | 2,508 | 6,539 |
| Fatal occupational accidents | 0 | 0 | 0 |
| Rate per 1,000 workers ⁵⁾ | 13.38 | 10.85 | 27 |
| FMG¹⁾ | 2021⁷⁾ | 2020⁷⁾ | 2019 |
| Accident statistics³⁾ | | | |
| Reportable occupational accidents | 20 | 16 | 62 |
| Number of resulting days of absence ⁴⁾ | 446 | 298 | 1,732 |
| Fatal occupational accidents | 0 | 0 | 0 |
| Rate per 1,000 workers ⁵⁾ | 6.44 | 5 | 15.36 |

| Workers in ground handling Munich ³⁾ | 2021 | 2020 | 2019 |
|---|-------------|-------------|-------------|
| Accident statistics³⁾ | | | |
| Reportable occupational accidents | 24 | 33 | 111 |
| Number of resulting days of absence ⁴⁾ | 583 | 816 | 1,734 |
| Fatal occupational accidents | 0 | 0 | 0 |
| Rate per 1,000 workers ⁵⁾ | 12.02 | 15.30 | 68.27 |
| Workers in ground handling Berlin | 2021 | 2020 | 2019 |
| Accident statistics³⁾ | | | |
| Reportable occupational accidents | 34 | 21 | 23 |
| Number of resulting days of absence ⁴⁾ | 493 | 838 | 1,679 |
| Fatal occupational accidents | 0 | 0 | 0 |
| Rate per 1,000 workers ⁵⁾ | 88.31 | 48.24 | 52.16 |

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.

Only days of absence that are in the same calendar year as the accident event are reported.

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

⁶⁾ Ground handling employees working for FMG, employees and temporary workers employed by AeroGround

⁷⁾ 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 ✓

| | 2021 | 2020 | 2019 |
|--|--------------|--------------|--------------|
| Total [FMG + AeroGround]²⁾ | 11.09 | 11.45 | 21.96 |
| FMG | 7.10 | 4.60 | 8.03 |
| AeroGround ²⁾ | 22.62 | 30.54 | 43.41 |

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

²⁾ Including ground handling employees at the Munich site working for FMG, employees and temporary workers employed by AeroGround

SICK LEAVE¹⁾ / GRI 403-10 ✓

| Group | 2021 | | | 2020 | 2019 |
|--------------------------------|-------|------|---------------------|---------------------|---------------------|
| | Women | Men | Total ³⁾ | | |
| In % | | | | Total ³⁾ | Total ³⁾ |
| Sickness rate ^{2),3)} | 5.15 | 6.23 | 5.98 | 6 | 8.91 |
| FMG | 2021 | | | 2020 | 2019 |
| In % | Women | Men | Total | Total | Total |
| Sickness rate ²⁾ | 4.48 | 6 | 5.67 | 6.39 | 8.59 |

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, amd.sigma, MUCReal, LabCampus, MAI US Holding, Munich Airport NJ LLC, InfoGate

⁴⁾ Without Infogate, LabCampus, and MUCReal

EMPLOYMENT OF STAFF WITH DISABILITIES / GRI 405-1 ✓

| Group | 2021 | 2020 | 2019 | FMG | 2021 | 2020 | 2019 |
|--|------|------|------|--|-------|-------|-------|
| | | | | | | | |
| Employees with severe disabilities in % ^{2),3)} | 7.67 | 7.06 | 6.82 | Employees with severe disabilities in % ^{2),3)} | 11.15 | 11.60 | 10.56 |

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

OCCUPATIONAL ILLNESSES¹⁾ / GRI 403-10 ✓

| In % | 2021 | | 2020 | | 2019 | |
|---------------------------------|---------------------|-----|---------------------|-----|-------|-----|
| | Group ²⁾ | FMG | Group ²⁾ | FMG | Group | FMG |
| Reported occupational illnesses | 6 | 1 | 3 | 3 | 7 | 7 |

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

²⁾ Without amd.sigma

NATIONALITIES¹⁾ / GRI 405-1 ✓

| Group | 2021 | | | | 2020 | | 2019 | | FMG | 2021 | | | | 2020 | | 2019 | |
|---|--------------|--------------|--------------|-------------------------------|--------------|-------------------------------|---------------|-------------------------------|---|--------------|--------------|--------------|-------------------------------|--------------|-------------------------------|--------------|-------------------------------|
| | 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 | 2,913 | 6,027 | 8,940 | | 9,625 | | 10,109 | | Employee nationalities, overall picture | 1,097 | 3,228 | 4,325 | | 4,534 | | 4,564 | |
| German nationals | 2,355 | 4,524 | 6,879 | 76.95 | 7,306 | 75.91 | 7,595 | 75.13 | German nationals | 1,049 | 2,887 | 3,936 | 91.01 | 4,103 | 90.49 | 4,129 | 90.47 |
| Foreign nationals | 558 | 1,503 | 2,061 | 23.05 | 2,319 | 24.09 | 2,514 | 24.87 | Foreign nationals | 48 | 341 | 389 | 8.99 | 431 | 9.51 | 435 | 9.53 |
| Most represented groups of foreign nationals | | | | | | | | | Most represented groups of foreign nationals | | | | | | | | |
| Turkey | 52 | 434 | 486 | 5.44 | 525 | 5.45 | 541 | 5.35 | Turkey | 1 | 220 | 221 | 5.11 | 243 | 5.36 | 245 | 5.37 |
| Croatia | 26 | 175 | 201 | 2.25 | 251 | 2.61 | 255 | 2.52 | Austria | 8 | 20 | 28 | 0.65 | 31 | 0.68 | 34 | 0.74 |
| Romania | 58 | 83 | 141 | 1.58 | 156 | 1.62 | 186 | 1.84 | Kosovo | 1 | 21 | 22 | 0.51 | 22 | 0.49 | 18 | 0.39 |
| Hungary | 11 | 119 | 130 | 1.45 | 170 | 1.77 | 190 | 1.88 | Italy | 5 | 15 | 20 | 0.46 | 24 | 0.53 | 23 | 0.50 |
| Italy | 27 | 92 | 119 | 1.33 | 129 | 1.34 | 144 | 1.42 | Greece | 3 | 15 | 18 | 0.42 | 19 | 0.42 | 19 | 0.42 |

¹⁾ Reporting date: December 31: Total employees 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 2-7, 401-1 ✓

| Administrative districts | Group | | | | FMG | | | |
|-----------------------------|--------------|-------------------------------|--------------|---------------|--------------|-------------------------------|--------------|--------------|
| | 2021 | Proportion in % ²⁾ | 2020 | 2019 | 2021 | Proportion in % ²⁾ | 2020 | 2019 |
| Freising | 2,197 | 24.57 | 2,395 | 2,598 | 854 | 19.75 | 906 | 918 |
| Erding | 1,740 | 19.46 | 1,874 | 1,915 | 1,030 | 23.82 | 1,076 | 1,076 |
| Munich | 1,669 | 18.67 | 1,796 | 1,939 | 759 | 17.55 | 802 | 820 |
| Landshut | 1,246 | 13.94 | 1,315 | 1,349 | 692 | 16.00 | 720 | 722 |
| Pfaffenhofen | 154 | 1.72 | 146 | 170 | 91 | 2.10 | 95 | 96 |
| Ebersberg | 159 | 1.78 | 184 | 193 | 97 | 2.24 | 113 | 114 |
| Berlin and surrounding area | 177 | 1.98 | 184 | 180 | 1 | 0.02 | 2 | 1 |
| Other districts | 1,598 | 17.88 | 1,731 | 1,765 | 801 | 18.52 | 820 | 817 |
| Total | 8,940 | 100.00 | 9,625 | 10,109 | 4,325 | 100.00 | 4,534 | 4,564 |

¹⁾ Number of total employees, including apprentices, excluding workers in minor employment, temporary workers and interns who resided in the respective county on the reporting date of December 31st.

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 ✓

| | 2021 | | | 2020 | | | 2019 | | |
|---|------------------|----------------|-----------------------|------------------|----------------|---------------------|------------------|----------------|---------------------|
| | 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 | 1,125,086 | 312,524 | 62,375 | 1,151,294 | 319,804 | 63,863 | 1,303,941 | 362,206 | 72,330 |
| Natural gas boiler plant | 40,619 | 11,283 | 2,252 | 23,494 | 6,526 | 1,303 | 20,531 | 5,703 | 1,139 |
| Fuel oil gas/diesel gensets | 28,393 | 7,887 | 2,104 | 29,488 | 8,191 | 2,185 | 24,514 | 6,810 | 1,817 |
| Fuel oil boiler plant | 32 | 9 | 2 | 89 | 25 | 7 | 509 | 141 | 38 |
| LPG | 1,084 | 301 | 70 | 374 | 104 | 24 | 115 | 32 | 7 |
| Fuel oil emergency gensets | 2,257 | 627 | 167 | 1,382 | 384 | 102 | 1,998 | 555 | 148 |
| Natural gas consumption EFM ²⁾ | 5,612 | 1,559 | 311 | 3,758 | 1,044 | 208 | 11,214 | 3,115 | 622 |
| Diesel and gasoline | 78,325 | 21,757 | 5,794 | 77,220 | 21,450 | 5,715 | 173,016 | 48,060 | 12,775 |
| Total Scope 1 | 1,281,409 | 355,947 | 73,075 | 1,287,100 | 357,528 | 73,407 | 1,535,839 | 426,622 | 88,876 |
| Scope 2: Indirect energy consumption/emissions³⁾ | | | | | | | | | |
| External electricity purchase ⁴⁾ | 110,668 | 30,741 | 11,682 | 119,084 | 33,079 | 14,125 | 177,932 | 49,426 | 25,602 |
| Purchased district heat ⁵⁾ | 123,768 | 34,380 | 1,465 | 99,162 | 27,545 | 1,173 | 108,050 | 30,014 | 3,516 |
| Purchased natural gas ⁶⁾ | 17,147 | 4,763 | 951 | 23,742 | 6,595 | 1,317 | 67,453 | 18,737 | 3,742 |
| Power supplied to outside companies ⁷⁾ | -143,266 | -39,796 | -15,123 | -155,203 | -43,112 | -18,409 | -203,856 | -56,627 | -29,333 |
| Heat supplied to outside companies | -80,147 | -22,263 | -3,773 | -74,833 | -20,787 | -3,640 | -86,863 | -24,129 | -4,621 |
| Cooling supplied to outside companies | -1,987 | -552 | -42 | -1,742 | -484 | -41 | -3,466 | -963 | -100 |
| Natural gas supplied to outside companies | -17,147 | -4,763 | -951 | -23,742 | -6,595 | -1,317 | -67,453 | -18,737 | -3,742 |
| Purchased power transmitted ⁸⁾ | 104,742 | 29,095 | 11,056 | 116,824 | 32,451 | 13,857 | 122,110 | 33,920 | 17,570 |
| Total scope 2^{3,9)} | 9) | 9) | 5,265 | 9) | 9) | 7,065 | 9) | 9) | 12,635 |
| Scope 3: Other indirect energy consumption/emissions (by third parties) | 10) | 10) | | 10) | 10) | | 10) | 10) | |
| Electrical energy purchases of outside companies | - | - | 15,123 | - | - | 18,409 | - | - | 29,333 |
| Heat purchases of outside companies | - | - | 3,773 | - | - | 3,640 | - | - | 4,621 |
| Cooling purchases of outside companies | - | - | 42 | - | - | 41 | - | - | 100 |
| Natural gas purchases of outside companies | - | - | 951 | - | - | 1,317 | - | - | 3,742 |
| Fuel for outside companies | - | - | 4,261 | - | - | 4,080 | - | - | 8,482 |
| Subtotal | 9) | 9) | 24,149 | 9) | 9) | 27,487 | 9) | 9) | 46,277 |
| Total CO₂ emissions that can be influenced annually¹¹⁾ | | | 102,489 | | | 107,959 | | | 147,788 |
| Air traffic (LTO cycle) ¹²⁾ | - | - | | - | - | | - | - | |
| Take-off | - | - | 17,720 | - | - | 18,279 | - | - | 58,338 |
| Climb out | - | - | 30,950 | - | - | 31,747 | - | - | 101,045 |
| Idle (taxiing on the apron) | - | - | 52,622 | - | - | 49,752 | - | - | 172,769 |
| Approach | - | - | 37,713 | - | - | 38,009 | - | - | 119,124 |
| APU (PCA taken into account) ¹⁴⁾ | - | - | 8,033 | - | - | 8,928 | - | - | 24,274 |
| Engine test runs | - | - | 430 | - | - | 502 | - | - | 728 |
| Feeder traffic ¹⁵⁾ | - | - | 27,389 ¹⁶⁾ | - | - | 9,300 | - | - | 32,053 |
| Total Scope 3 | | | 199,006 | | | 184,004 | | | 554,608 |

- ¹⁾ FMG establishes its carbon footprint based on the WRI/WBCSD Greenhouse Gas Protocol Corporate Accounting and Reporting Standard. For Scope 3, FMG reports on - for its business model - relevant sub-sectors. In addition, the principle of operational control is 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 Enteisen und Flugzeugschleppen am Flughafen München mbH [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 0.380 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⁾ 65% Electricity from renewable energies [status 2021 according to section 42 of the German Energy Act (EnWG)]
- ⁵⁾ Estimated value based on previous years: 80% of district heat is purchased from biomass directly from the biomass thermal power plant in Zolling.
- ⁶⁾ Solely natural gas purchased [baseline year 2021], 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 Scope 3a
- 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 841 t CO₂. The basis is the emission factor of 0.182 kg/kWh for the network at Munich Airport. The other emission factors from 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 road traffic caused by air travelers, visitors, and employees in the airport area calculated according to ACA.
- ¹⁶⁾ Since 2021, an enlarged radius has been taken into account in the calculation: CO₂ emissions from the arrival and departure of employees, passengers, and people traveling at the airport. In the case of employees, only the route to the workplace at the airport campus is considered.

**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% 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% 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 tonnes 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% since 2005. Looking at the Munich Airport Group alone, this figure has fallen by almost 50%. 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 | 2021 | 2020 | 2019 |
|-------------------|---------------------|---------------------|------|
| Power consumption | 14.89 ²⁾ | 17.23 ²⁾ | 4.88 |

¹⁾ Electricity consumption is responsible for more than 2/3 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. This 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 | 2021 | 2020 | 2019 |
|---|--------------------|----------------------|------|
| CO ₂ emissions ²⁾ | 8.20 ³⁾ | 9.71 ³⁾⁴⁾ | 3.08 |

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 CO₂ emissions from Scope 1 and 2 are added, as well as power, heat, cooling energy, natural gas, and fuel consumption by external companies (Scope 3a). The figure therefore includes all emissions that must not exceed the targets for CO₂-neutral growth.

³⁾ 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.

⁴⁾ Errors identified during the review of the data were subsequently corrected.

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

| | 2020/2021 | 2019/2020 | 2018/2019 |
|---|-----------|-----------|-----------|
| Apron de-icer in t ²⁾ | 1,829 | 1,287 | 4,424 |
| Aircraft de-icer (Safewing Type I) in m ³ | 1,283 | 1,859 | 5,531 |
| Aircraft de-icer (Safewing Type IV) in m ³ | 187 | 241 | 1,015 |
| Recycling rate of Type I de-icer used in % | 68 | 55 | 63 |
| Number of days of winter operations | 67 | 52 | 62 |

¹⁾ The values refer to the period from October 1, 2020 to September 30, 2021. The data basis is seasonal conditional. Year-on-year fluctuations are associated with the weather conditions in winter.

²⁾ Liquid potassium formate and sodium formate granules

The company responsible for de-icing operations at Munich Airport, Gesellschaft für Enteisung 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.com/
efm-3544561](https://munich-airport.com/efm-3544561)

[munich-airport.com/
noise-protection-264207](https://munich-airport.com/noise-protection-264207)

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

| CH ₄ , N ₂ O and fluorinated greenhouse gases in CO ₂ equivalent ¹⁾ (t) | 2021 | 2020 | 2019 |
|---|-------|-------|-------|
| LTO cycle | 1,402 | 1,389 | 4,551 |
| Feeder traffic ²⁾ | 317 | 277 | 427 |
| APU ³⁾ | 127 | 127 | 375 |
| Engine test run ⁴⁾ | 4 | 5 | 7 |
| Small appliances in buildings and central cooling plants | 173 | 346 | 112 |
| Mobile systems (vehicles) | 113 | 140 | 146 |

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

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

| In µg/m ³ | Current legal annual limit value | 2021 | 2020 | 2019 |
|--|----------------------------------|------|------|------|
| NO ₂ concentration (nitrogen dioxide) | 40 | 12 | 14 | 18 |
| SO ₂ concentration (sulfur dioxide) ²⁾ | 20 | 2 | 2 | 2 |
| PM ₁₀ concentration (particulate matter) | 40 | 10 | 11 | 12 |
| PM _{2,5} concentration | 25 | 8 | 8 | 8 |

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 immission 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).

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

| In t | 2021 | 2020 | 2019 |
|--|-------|-------|---------|
| NO _x - air traffic (LTO cycle) | 455.1 | 466.9 | 1,739.0 |
| NO _x - feeder traffic ¹⁾ | 41.4 | 39.9 | 88.0 |
| SO _x - air traffic (LTO cycle) | 35.2 | 34.9 | 114.0 |
| SO _x - feeder traffic ¹⁾ | 0.1 | 0.1 | 0.2 |
| PM ₁₀ - air traffic (LTO cycle) | 4.4 | 4.1 | 13.5 |
| PM _{2,5} - feeder traffic ¹⁾ | 0.5 | 0.5 | 1.0 |

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

[moosrain.de/verband/
daten-fakten](https://www.moosrain.de/verband/daten-fakten)

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

| 1 m ³ corresponds to 0.001 mega liters | 2021 | 2020 | 2019 |
|---|---------|---------|-----------|
| Water purchased from utility in m ³ | 562,510 | 563,789 | 1,032,239 |
| Water consumption per 1,000 traffic units in m ³ | 39.6 | 44.7 | 20.1 |

¹⁾ Includes all companies on the campus.

²⁾ Derivation of values: Water metering in m³ measured at the drinking water feed points (transfer points water metering shafts 1 to 4) from the Moosrain water utility company to Munich Airport

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

| 1 m ³ corresponds to 0.001 mega liters | 2021 | 2020 | 2019 |
|--|---------|---------|---------|
| Quantity of the quaternary groundwater extracted in m ³ | 200,064 | 198,729 | 256,326 |

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

| 1 m ³ corresponds to 0.001 mega liters | 2021 | 2020 | 2019 |
|---|-----------|-----------|-----------|
| Total wastewater discharged from Munich Airport to the sewage plant of the Erdinger Moos wastewater utility company in m ³ | 1,955,165 | 1,610,406 | 2,494,388 |
| Wastewater consumption per 1,000 traffic units in m ³ | 137.6 | 127.7 | 48.5 |

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.

[azv-em.de](https://www.azv-em.de)

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.

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.

**HAZARDOUS GOODS:
CHECKS AND TRAINING COURSES / GRI 306-2, GRI 306-5**

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, 2021, a total of 134 tonnes of waste (previous year: 191 tonnes) declared as hazardous goods were transported away for disposal.

WASTE MANAGEMENT / GRI 306-1, 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. The prerequisite for successful resource conservation is therefore a disposal concept tailored to the individual waste producer – from waste generation 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.

WASTE FROM AIRCRAFT / GRI 306-1, GRI 306-2

The waste quantities [Category 1] material) from aircraft cabin interior cleaning and catering waste are disposed of in accordance with EC Regulation 1069/2009 [Regulation on animal by-products] by a specialist waste management company at the Munich North waste incineration plant/power plant or recycled for energy. The disposal service is not the responsibility of FMG and is conducted by a specialist contractor working on behalf of the Erding animal carcass disposal association.

WASTE¹⁾ / GRI 301-3; GRI 306-1, 306-2, 306-3, 306-4, 306-5

| In t | 2021 | 2020 | 2019 | Point of disposal and recycling |
|--|--------------|--------------|---------------|---|
| Recycling | | | | |
| Paper, cardboard, and cartons from buildings | 380 | 516 | 1,441 | |
| Mixed reclaimed materials/waste for recycling from buildings | 944 | 1,122 | 3,154 | |
| Top soil [humus-rich excavated material] ²⁾ | 0 | 31 | 2,650 | |
| Mixed glass | 133 | 107 | 228 | |
| Wood | 435 | 369 | 457 | |
| Bulk waste | 302 | 417 | 920 | |
| Scrap metal containing electronic waste | 260 | 378 | 568 | |
| Other recyclables ³⁾ | 98 | 113 | 248 | |
| Total recycling | 2,552 | 3,053 | 9,666 | Sorting facilities, recycling firms in Eitting, Schwaig, Moosburg, and Munich |
| Recycling | | | | |
| Material recycling | 2,115 | 2,277 | 3,529 | |
| Building site waste [waste from dismantling, conversion, renovation, and maintenance measures] | 1,167 | 1,784 | 2,346 | Recycling/disposal firms (material recycling/pit filling) |
| Hazardous waste without ADR ⁴⁾ (only FMG portion, without mineral wool and without hazardous goods) | 48 | 45 | 59 | Recycling/disposal firms (material recycling) or hazardous waste specialists in Munich and Ebenhausen [secondary fuels] |
| ADR [=hazardous goods] ⁴⁾ | 134 | 191 | 196 | |
| Other waste ⁵⁾ | 765 | 257 | 928 | |
| Energy recycling | 1,181 | 1,133 | 2,254 | |
| Food waste ⁶⁾ | 440 | 518 | 1,394 | Biogas plant (energy recovery) |
| Waste for disposal/prohibited liquids (terminal areas) | 40 | 39 | 198 | |
| Waste for disposal / Commercial municipal waste from buildings ⁷⁾ | 700 | 576 | 662 | |
| Total recycling | 3,296 | 3,410 | 5,783 | |
| Landfill waste | | | | |
| Insulators [mineral wool] ⁸⁾ | 116 | 163 | 236 | |
| Total landfill | 116 | 163 | 236 | GSB hazardous waste landfill Schweinfurt |
| Total amount | 5,964 | 6,626 | 15,685 | |

¹⁾ All quantities refer exclusively to the disposal processes organized by FMG waste management. This refers to the total figure shown (2021: 5,964t).

²⁾ The topsoil comes from various construction activities.

³⁾ Foil, lightweight packaging, for example

⁴⁾ ADR [Accord européen relatif au transport international des marchandises dangereuses par route]: European Agreement concerning the International Carriage of Hazardous Goods by Road

⁵⁾ For example runway wear, refuse, old tires, rubber waste

⁶⁾ Food waste disposal from the Allresto catering area only in Terminal 2

⁷⁾ From 2021 including commercial municipal waste

⁸⁾ 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 ✓

➤ Noise measurement points
[munich-airport.com/
noise-protection](https://munich-airport.com/noise-protection)

| In dB(A) Measurement point (nearest municipality) | 2021 | | 2020 | | 2019 | |
|--|---------------------|-----|---------------------|-----|---------------------|-----|
| | Night ²⁾ | Day | Night ²⁾ | Day | Night ²⁾ | Day |
| Brandstadi (municipality of Hallbergmoos) | 42 | 55 | 44 | 55 | 51 | 59 |
| Pallhausen (town of Freising) | 40 | 49 | 42 | 50 | 49 | 55 |
| Reisen (municipality of Eitting) | 42 | 52 | 41 | 49 | 47 | 55 |
| Viehlaßmoos (municipality of Berglern) | 40 | 49 | 40 | 49 | 47 | 55 |

¹⁾ Continuous sound level Leq3 of the six busiest months at four aircraft noise measuring points, each located at the main departure directions, in dB(A)

²⁾ Time period: 10 PM to 6 AM

DISTRIBUTION OF OPERATIONS DIRECTIONS BETWEEN WEST AND EAST

| | Westward | | Eastward | |
|---|-----------|----------|-----------|----------|
| | Take-offs | Landings | Take-offs | Landings |
| Total aircraft movements ¹⁾ , absolute | 96,748 | | 53,577 | |
| Total aircraft movements ¹⁾ , in % | 64 | | 36 | |
| North runway | 21,806 | 24,452 | 12,894 | 11,304 |
| South runway | 26,582 | 23,908 | 13,887 | 15,492 |

¹⁾ Excluding helicopters

Source: Immission reports/Web/reporting January to December 2021

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 COMPLAINTS¹⁾ / GRI 2-26 ✓

| | 2021 | 2020 | 2019 |
|---|------|------|------|
| Noise complaints received via telephone | 58 | 51 | 206 |
| Complainants | 47 | 28 | 99 |
| Complaints received in writing | 78 | 33 | 87 |
| Complainants | 42 | 27 | 52 |

¹⁾ It is assumed that the decreased and in 2021 again increased aircraft movements had an impact on the number of noise complaints. However, direct causality is not demonstrable.

NOISE PROTECTION REGULATIONS

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 is pursuing similar goals: With the «Flightpath 2050», it aims to reduce noise emissions by 65% 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. At night, the regulations 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 2021, only 14% 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 2021.

POPULATION GROWTH IN NEIGHBORING COMMUNITIES¹⁾ / GRI A07 ✓

| Number of residents | 2020 | 2019 | 2018 |
|-------------------------------------|---------------|---------------|---------------|
| Freising (District of Freising) | 48,872 | 49,126 | 48,634 |
| Marzling (District of Freising) | 3,250 | 3,224 | 3,238 |
| Oberding (District of Erding) | 6,455 | 6,392 | 6,505 |
| Hallbergmoos (District of Freising) | 11,148 | 11,094 | 10,953 |
| Total | 69,725 | 69,836 | 69,330 |

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 2021 were not available at the time of going to press.

AIRPORT «GREEN SPACES»¹⁾ OUTSIDE THE AIRPORT FENCE / GRI 304-3 ✓

| In ha | 2021 | 2020 | 2019 |
|---|------------|------------|------------|
| «Green spaces» in total | 872 | 864 | 844 |
| Compensatory mitigation areas, zone III ²⁾ | 519 | 499 | 470 |
| Airport periphery, zone II | 250 | 250 | 250 |
| Ecological land reserve for future expansion measures | 103 | 115 | 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 2020 to 2021, FMG was required to provide approx. 32 additional hectares of compensatory and replacement land. Work has begun on the development of approx. 20 hectares of compensation and replacement land. The remaining approximately 12 hectares were deducted from the eco-account.