

# SHOWING CLASS

**Munich Airport**  
Integrated Report 2017



Living ideas – Connecting lives





60 percent green areas  
on the airport campus

SOUTH TAKE-OFF AND  
LANDING RUNWAY  
4 kilometers long...

TERMINAL 2 SATELLITE  
Germany's first mid-field  
terminal

EAST APRON

TERMINAL 2  
Best airport terminal  
in the world [World Airport  
Awards 2017]

MAC FORUM  
Europe's largest roofed-  
over open-air space

HILTON  
MUNICH AIRPORT  
551 rooms

TOWER  
78 meters high

TERMINAL 1  
1,081 meters long

WEST APRON

FREIGHT AREA

VISITORS PARK  
28 meter-high  
viewing hill

NORTH TAKE-OFF AND LANDING RUNWAY  
... 60 meters wide




# / The airport – an overview

PAST AND PRESENT: 25 YEARS OF MUNICH AIRPORT

1992

2017

Passengers in millions

12.0  +272% → 44.6

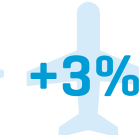
Take-off and landing procedures

192,000  +111% → 405,000

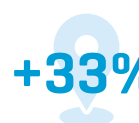
Airfreight in tonnes

57,000  +565% → 379,000

Airlines

99  +3% → 102

Destinations


200  +33% → 266

Countries

66  +12% → 74







Best airport in Europe. Best terminal in the world. Record traffic figures once again, not to mention record profits. The outlook for Munich Airport has never been better since its move from Riem to Erdinger Moos 25 years ago. In this integrated report, therefore, there are many opportunities for us to show that class.

But «showing class» means a great deal more than just accolades and balance sheet figures. It also involves dealing fairly with one another and accepting responsibility for employees, neighbors and the environment. Munich Airport is setting standards here too: best employer in the transport sector, a climate protection pioneer, all while being actively dedicated to meeting the needs of the region. By showing class not just as an airport but also as a company that works in partnership with the region, we proudly proclaim our commitment to sustainability and responsibility.



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Backed by experience

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Why small bytes make big history





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The online report and a PDF are available to read or download from: [report2017.munich-airport.com](http://report2017.munich-airport.com)

Follow these symbols to find out more:

Additional content in the online report:

- Notes to the consolidated financial statements
- Independent auditor's report
- Sustainability indicators
- Sustainability program
- Report profile
- GRI content index
- Material topics
- Independent assurance report

- Reference within the text
- ↗ [Link to a website](#)

📎 Group management report at a glance



# /Key figures

## Key economic figures

### Results of operations, net assets, and financial position

In € million	2017	2016	2015 <sup>1)</sup>	Change in % 2017/16
Group revenue	1,468.7	1,364.1	1,249.3	7.7
Of which is Aviation in %	54	53	52	
Of which is Non-Aviation in %	46	47	48	
EBITDA	520.0	529.0	494.2	-1.7
EBIT	302.4	289.9	280.0	4.3
Consolidated earnings after taxes (EAT)	158.8	151.6	143.3	4.7
EBITDA margin in %	35.4	38.8	39.6	
EBITDA/Pax in €	11.7	12.5	12.1	-6.4
EBIT margin in %	20.6	21.3	22.4	
ROCE <sup>2)</sup> in %	6.9	6.6	6.4	
Cash flow from operating activities	381.9	528.8	464.4	-27.8
Investments	136.3	274.9	272.1	-50.4
Free cash flow	265.2	257.0	195.6	3.2
Equity	2,086.3	1,942.9	1,813.0	7.4
Equity ratio in %	39.3	37.1	33.5	
Net debt	2,221.5	2,393.0	2,542.7	-7.2
Net debt/EBITDA	4.3	4.5	5.1	
Net gearing (net debt/equity) in %	106	123	140	

<sup>1)</sup> Values adjusted in accordance with IAS 8

<sup>2)</sup> ROCE = EBIT/(equity + net debt + long-term employee benefits)

## Key environmental figures

### CO<sub>2</sub> emissions

In tonnes	2017	2016	2015	Change in % 2017/16
Direct emissions Scope 1	88,668	85,262	84,826	4.0
Indirect emissions Scope 2	17,237	16,329	16,811	5.6
Other indirect emissions Scope 3	46,154	49,024	51,565	-5.9
<b>Total annual CO<sub>2</sub> emissions open to influence</b>	<b>152,059</b>	<b>150,614</b>	<b>153,202</b>	<b>1.0</b>

### Drinking water and wastewater

In cubic meters	2017	2016	2015	Change in % 2017/16
Volume of purchased drinking water	1,016,708	1,050,791	1,042,166	-3.2
Drinking water consumption per 1,000 TU <sup>1)</sup>	21.0	23.0	23.6	-8.7
Total wastewater discharged	2,336,313	2,278,602	2,344,085	2.5
Wastewater per 1,000 TU <sup>1)</sup>	48.3	49.8	53.0	-3.0

<sup>1)</sup> Traffic units

## Key social figures

### Employee structure<sup>1)</sup>

Number	2017	2016	2015	Change in % 2017/16
Total	9,413	8,502	8,016	10.7
Women in %	33.47	33.39	33.72	
Men in %	66.53	66.61	66.28	
Full-time in %	76.07	80.30	80.08	
Part-time in %	23.93	19.70	19.92	
< 30 years	1,516	1,401	1,259	8.2
30-50 years	5,013	4,510	4,422	11.2
> 50 years	2,884	2,591	2,335	11.3

<sup>1)</sup> Reporting date: December 31: Figures exclude apprentices, workers in minor employment, temporary workers, interns, but include AeroGround Berlin GmbH

### Apprentices

Number	2017	2016	2015	Change in % 2017/16
Group	275	274	269	0.4

### Occupational protection

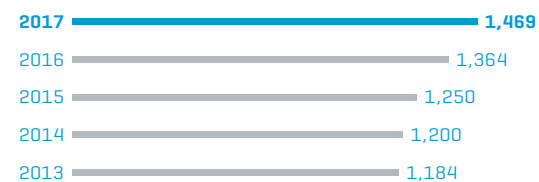
Number	2017	2016	2015	Change in % 2017/16
Reportable occupational accidents	225	195	243	15.4
Resulting days of absence	5,761	4,331	4,873	33.0
Rate per 1,000 workers	26.42	24.50	32.51	7.8



## Key operating figures

### Revenue

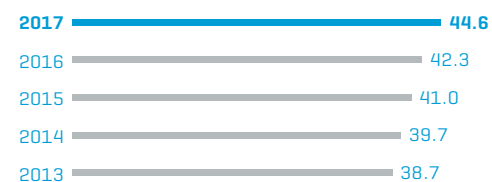
In € million



- In 2017, Munich Airport increased its revenue by 7.7 percent to around 1.47 billion euros.
- The largest, pro rata growth in revenue, at 75.4 percent, was attributable as in the previous years to the Aviation business unit [including ground handling]. [→ page 96](#)

### Passengers

In millions



- The dynamic growth trend at Munich Airport continued at a new record rate in 2017.
- The passenger figures rose by 2.3 million passengers or 5.5 percent to a new peak of 44.6 million.

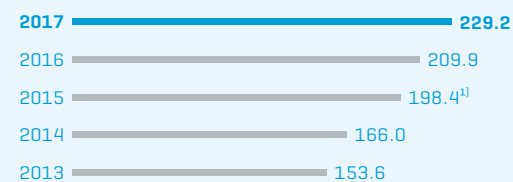
[→ page 55](#)

## Key management figures

Munich Airport has defined four key performance indicators to measure economic, environmental and social development. These key performance indicators are a measure of doing business in a sustainable and integrated manner and influence the variable remuneration components for managers.

### Consolidated earnings before taxes (EBT)

In € million



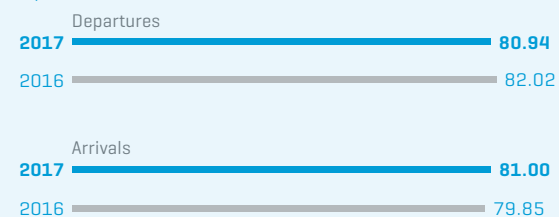
- In 2017, the consolidated earnings before taxes (EBT) rose by 9.2 percent.
- The growth in EBT was much stronger than predicted.

[→ page 96](#)

<sup>1)</sup> Value adjusted in accordance with IAS 8

### Passenger experience index (PEI)

In percent

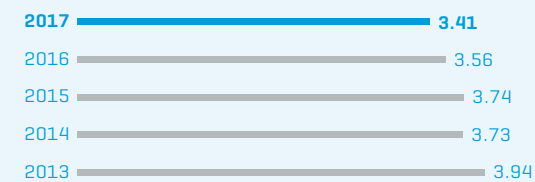


- Since 2017, the passenger experience index (PEI) has replaced the Airport Service Quality value as a non-financial key performance indicator.
- The PEI describes the overall satisfaction score of all departing and arriving passengers. Earlier in 2017, separated data have been applied.

[→ page 90](#)

### Specific CO<sub>2</sub> emissions

In kg CO<sub>2</sub> per passenger

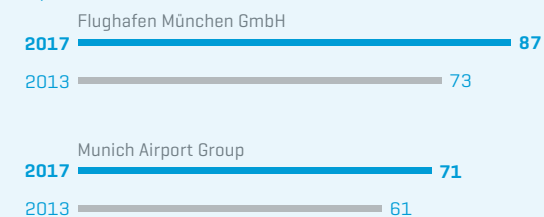


- Munich Airport wants to be the first CO<sub>2</sub>-neutral airport in Germany by 2030.
- The specific CO<sub>2</sub> emissions per passenger have dropped by 40 percent since 2005.

[→ page 75](#)

### Employee retention index

In percent



- The employee retention index is an indicator for employee satisfaction.
- The measures introduced following the employee survey of 2013 have had a positive impact on the index value for 2017.

[→ page 68](#)



THE EXECUTIVE BOARD

**IT TAKES CLASS  
TO BE WORLD-CLASS**





From left to right

**ANDREA GEBBEKEN**  
Chief Commercial and Security Officer

**DR. MICHAEL KERKLOH**  
President and Chief Executive Officer,  
Personnel Industrial Relations Director

**THOMAS WEYER**  
Chief Financial Officer  
and Chief Infrastructure Officer



# /Letter from the Executive Board

*Dear Reader,*

2017 was a special year for Munich Airport. 25 years after the move from Munich-Riem to Erdinger Moos, we celebrated the airport's birthday and its success story with our employees, our partners and neighbors at the airport, and more than 50,000 guests. 1992 saw the start of a climb for Munich Airport that was continued in style during its anniversary year: With revenue of 1.47 billion euros, we generated almost eight percent more in 2017 than in the previous year. The earnings before tax (EBT) rose by more than nine percent to a record high of over 229 million euros. This economic success corresponded with renewed strong growth in traffic at our airport: 44.6 million passengers flew from and to Munich last year, 5.5 percent more than in the previous year, which was another new record. The number of aircraft movements likewise rose strongly by more than 10,000 or 2.6 percent to just under 405,000. This increase would have been higher were it not for the insolvency of Air Berlin. Given these excellent results, I would like to thank sincerely all those who made this past year's success possible: our customers, the airlines, passengers, business partners and of course our employees.

Munich Airport has never been more successful. Our standing in the group of large European hub airports received a significant boost in 2017 thanks to the new additions to Lufthansa's long-haul fleet stationed in Munich. By basing these new Airbus A350s here, aircraft that are significantly economically and environmentally enhanced, Lufthansa has demonstrated a strong commitment to our airport. With these, we are now a major European air transport hub. We want to show a little of this class that we have achieved after a quarter century in our new location in this integrated report.

For the future, we see three major challenges in particular:

- The infrastructure at the airport must be expanded to match the growing demand for mobility both among private and business customers. This naturally includes the construction of the third runway. This expansion of our capacity remains the most important future project for us. Through the renovation of Terminal 1, we aim to raise standards significantly in the older passenger handling building in the coming years. The LabCampus too is included in the investments, with which we intend to meet the demand from companies – from start-ups to DAX-listed groups – for innovative, flexible office environments and create an entirely new form of urban life at the airport. The landside access and traffic development at Munich Airport is to be significantly improved in the coming years and parking facilities will also grow to meet demand.



*«Munich Airport has never been more successful.»*

**DR. MICHAEL KERKLOH**





*«In the years to come, LabCampus will have a lasting effect on Munich Airport and therefore make it even more attractive.»*

### **THOMAS WEYER**

- A second key challenge for our company is the imminent generational change. Over the next few years, many of our employees will retire. We must focus now on attracting suitable young talent for the airport and on ensuring the required transfer of knowledge. One thing that is hugely pleasing in this context is the fact that according to our employee survey for 2017, loyalty to the airport as an employer has increased significantly.
- The third challenge is the megatrend that is digitalization, which impacts on the most varied of areas within an airport. We have developed a clear strategy for this and have defined the key fields and processes where we will see some considerable changes in the years to come. We want to optimally utilize the opportunities that digitalization will offer us as an airport.

And here we have the chance to show our class in the sense of being a class act. For us this means the obligation to take into consideration as best possible the interests of all the stakeholder groups. We feel responsible for our passengers, employees, neighbors, society and the environment. Munich Airport is setting standards in this too: as the best and only 5-star airport in Europe. It is Germany's top employer in the transport sector and won an award last year for having the best climate protection of all airports worldwide. Munich Airport is a committed supporter of the region and the state capital, and demonstrates this in many ways. In our opinion, showing class, and not just on quantitative criteria, is indispensable for the sustainable further development of Munich Airport.

Dr. Michael Kerkloh



*«The non-aviation sector is currently a significant economic factor.»*

### **ANDREA GEBBEKEN**

# /Integrated reporting

## Integrated reporting – comprehensive communication

Munich Airport pursues the approach of «Integrated Thinking» and for the eighth time is publishing an integrated report as an annual balance sheet of its sustainable activity. The Group consequently reports equally on economic, environmental and social aspects in one publication, describing the business activities in the reporting period and their direction for the future. Munich Airport publishes the integrated report as a full online version and an abridged printed version. In terms of its integrated reporting, Munich Airport is guided by the framework concept of the International Integrated Reporting Council (IIRC) and shows the key activities with which it is creating its short-, medium- and long-term financial and non-financial value.

## Creating value, expanding resources

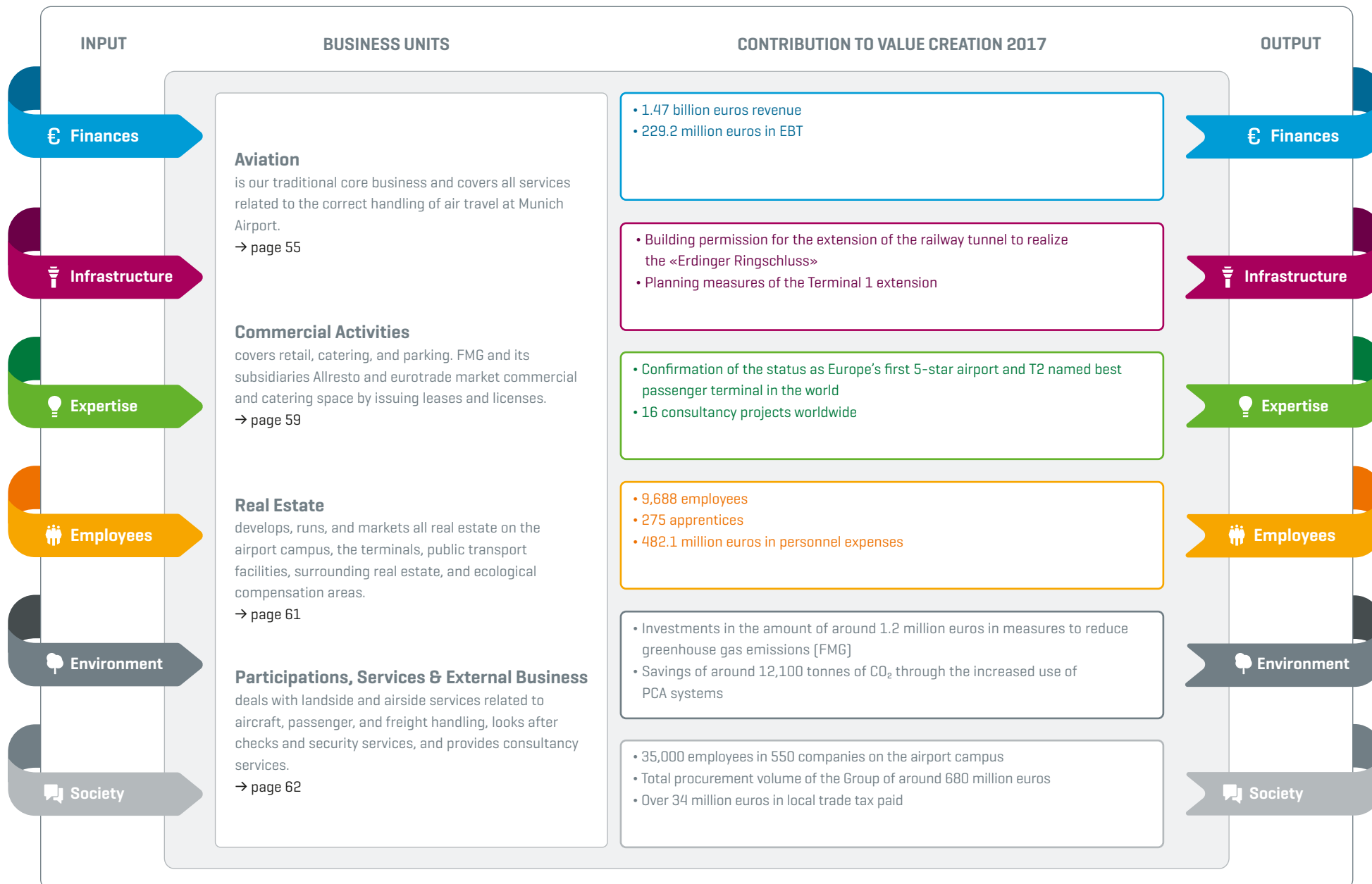
As part of its day-to-day business, every company has an impact on a wide array of stakeholders, and internal and external factors. In order to present these qualitative and quantitative interactions of the business model, Munich Airport has defined for itself the six types of capital of the IIRC. On the basis of changes in the capitals, the airport can demonstrate key cause-and-effect relationships. Compact tables explain how important projects and key topics of fiscal year 2017 impact on the capitals.





# /Business model

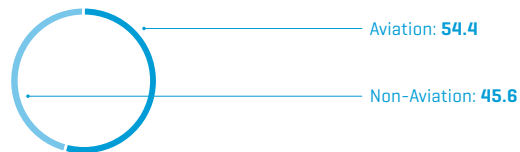
The six capitals (input) are used as key starting values in the four business units, in order to generate new values (contribution to value creation). This is the basis for the next fiscal year (output).



# Finances €

## Breakdown of revenue

In percent



## Consolidated earnings after taxes

In € million



«This outstanding traffic trend with record passenger figures is one of the factors that led to Munich Airport achieving a very good financial result across all divisions in 2017. At around 229 million euros, the consolidated earnings before taxes (EBT) was considerably above the forecast value and also significantly higher than the previous year's figure.»

## CORPORATE DIVISION FINANCE AND PROCUREMENT

## Significance

Solid funding forms the basis for a company's long-term earnings power, profitability, and financial stability. Munich Airport obtains financial capital from operating cash flows from its business activities and from loans.

## Input

At the start of the fiscal year, Munich Airport held:

- Cash and cash equivalents: 18.0 million euros [of which 6.0 million euros was freely available funds and 12.0 million euros was short-term deposits in banks]
- Loan portfolio: 2,059.8 million euros
- Equity: 1,942.9 million euros

## Measures 2017

- Distribution of 30 million euros to shareholders from the 2016 net income in accordance with their shares; remaining amount of 121.6 million euros carried forward → [see page 97](#)
- The net income for 2017 amounting to 158.8 million euros will be credited to equity; the shareholders will decide how to use the net operating profit at the Annual General Meeting → [see page 97](#)
- Operating cash flow from operating activities: 381.9 million euros; of which a total of 136.3 million euros was investment in maintaining and expanding the airport infrastructure and 146.0 million euros was short-term deposits in banks → [see page 99](#)
- Low repayment of bank loans in 2017: 69.2 million euros total; to that end, utilization of the credit lines of 33.2 million euros. → [see page 98](#)

## Output

- Group revenue for 2017: 1,469 million euros
- By the end of the fiscal year, the amount of cash and cash equivalents had increased by 146.6 million euros to a total of 164.6 million euros [6.6 million euros of which was freely available funds and 158.0 million euros was short-term deposits with banks]
- Loan portfolio reduced by 35.7 million euros to 2,024 million euros
- Equity increased by 143.3 million euros to 2,086 million euros



# Infrastructure

## Significance

The wide range of services offered by Munich Airport is reliant on building and transport infrastructure that works and that taps into and makes the most of existing space. Servicing, maintenance, and needs-based expansions are the key parameters required to ensure that the airport campus remains attractive.

## Input

- Buildings: Terminals, commercial space, offices, technical facilities, supply buildings, car parks, halls, MAC, AirSites, the Tower, hotels, the block heat and power plant
- Transport links: Roads on the airport premises, highway links, two suburban railway lines, regional and long-distance bus links
- Open spaces: Green areas, aprons, taxiways, runways

## Measures 2017

- Buildings: Refurbishment of the arrivals level in Terminal 2, structural changes in T2 due to the stationing of Lufthansa A380s there, planned expansion of Terminal 1 to include a new gate area, completion of the new wing for the Hilton Munich Airport, construction of new apartments for airport employees in Munich → see pages 30 et seqq., 45 et seqq., 61, 96 et seqq.
- Transport links: Extension of the railway tunnel eastward (first earthworks and clearing works at the end of 2017), construction of Freising's west bypass and northeast bypass (funded by FMG) → see pages 47 et seq.
- Open spaces: Ground biofiltration system in the western part of the southern runway currently under construction, start of excavation works in the area of the Nordallee to develop AirSite West → see pages 61, 80, 83

## Output

- Buildings: Improved passenger flow plus easier navigation within T2, seamless departure processes for the A380 in T2, adjustment to official requirements and quality optimization in T1, 162 additional rooms and a new conference center at the Hilton Munich Airport, expansion of the municon conference center
- Transport links: Medium-term improvements in railway transport at the airport, links to East Bavaria on regional transport with the Neufahrner Kurve in late 2018, more car-sharing offers
- Open spaces: Ground biofiltration system to the east of the southern runway was completed in 2017, opening of the AirSite West

## Top 3 planned infrastructure projects

- 1 Construction of new office buildings and continuing development at AirSite West
- 2 Suburban railway tunnel for the Erdinger Ringschluss
- 3 Structural expansion of Terminal 1 with the addition of a new gate

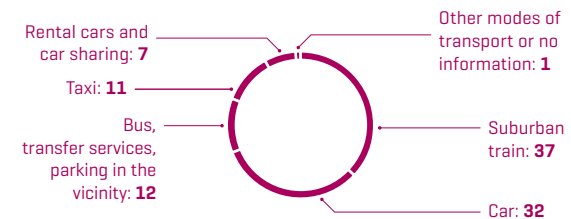
## Leased area/area used by the Group itself

In hectares



## Modal split to access the airport

Originating passengers only, in percent



# Expertise

## Top 3 consultancy projects

<b>1</b>	Istanbul
<b>2</b>	Singapore-Changi
<b>3</b>	Muscat, Oman

## Consultancy business



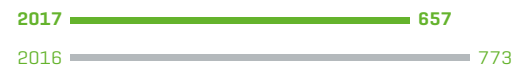
# 16

ongoing consultancy projects<sup>1)</sup>

<sup>1)</sup> In fiscal year 2017

## Ideas submitted

Number



## Significance

With over 60 years in the business, an airport relocation behind it, a colorful array of career opportunities and qualification levels on site, and because it provides a large proportion of airport services itself, FMG has acquired a great deal of expertise – covering areas such as the value of a brand; the technical, process-based, and organizational knowledge called upon in consultancy projects worldwide; and copyrights for airport software and in-house developments. And Munich Airport will continue to enhance its business further in the future. Innovations are an essential part of this.

## Input

- Careers/qualifications: Careers for all levels of education, in-house professional development center, the Airport Academy
- Off-campus/consultancy business: Expertise in the area of ORAT (Operational Readiness and Airport Transfer), establishment of Munich Airport International GmbH (MAI)
- Quality/innovation management: Strategic customer orientation, ideas pool, open innovation labs, partnerships with universities, higher education centers, start-up companies and representatives of new media, and innovation mentorships

## Measures 2017

- Careers/qualifications: Enhanced continuous professional development program, European mobility program «Erasmus+» with partner airports in Athens, Istanbul, Malta and Vienna → see pages 67 et seqq.
- Off-campus/consultancy business: Continuation of the International Consulting trainee program, cooperation with Turkish Airlines to prepare for the commissioning of and relocation to the new international airport in Istanbul, applications for calls for tenders, participation in trade fairs, acquisition appointments → see pages 20 et seqq.

- Quality/innovation management: Opening of the Information Security Hub (ISH), InnovationPilot for airport staff and external partners, customers and passengers, quality campaigns, continuous trend and market monitoring → see pages 52, 90 et seq.

## Output

- Careers/qualifications: Seal from the TÜV (German Technical Inspection Authority) for the Airport Academy as a «certified training provider», over 37,000 training days at the Airport Academy
- Off-campus/consultancy business: More than 50 major international projects in over 30 countries to date, 16 active international projects in 2017, including the preparation for commissioning of the new Terminal 4 at Changi Airport, Singapore and support for the Oman Airports Management Company in their relocation and opening of the new airport in Muscat
- Quality/innovation management: Since the launch of InnovationPilot, more than 1,000 ideas have been submitted by employees and around 800 external participants, recognition once again as a 5-star airport with Terminal 2 being named the best passenger terminal in the world, new digital offers for passengers



# Employees

## Significance

Employees are responsible for the success of a company. With this in mind, the airport is well aware of its special responsibility as an employer. In order to live up to its obligations in this respect, Munich Airport also places a lot of emphasis on having a modern and effective human resources policy devised with people and business needs in mind. The airport offers its employees an array of opportunities and a diverse range of tasks in an exciting environment.

## Input

- Employee satisfaction: Flexible working models, balance between family and career, bonus to reward the income generated in the previous year
- Training/HR development: 20 different apprenticeship and dual study programs, 275 apprentices in the Munich Airport Group, in-house Airport Academy, external FMG onward training budget of 3.234 million euros
- Employer: Total personnel expenses of 288.95 million euros in FMG, 9,688 employees<sup>1)</sup> in the Group, 35,000 employees at over 550 companies on the airport campus

## Measures 2017

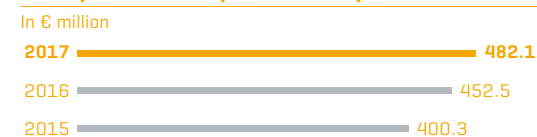
- Employee satisfaction: Employee survey 2017, motivation for active codetermination [e.g., through the ideas pool], reduction in the percentage of temporary workers, performance reviews, onboarding concept  
→ see pages 68 et seq., 90
- Training/HR development: Focusing the apprenticeship portfolio, training monitoring, numerous events, e.g., «Girls' Day/ Boys' Day», national/international exchange programs, leadership excellence program with new training modules  
→ see pages 69 et seqq.

- Employer: Social services, e.g., in-house child care service, occupational safety management system, improved company health and social management [for example, Group Health Day], support for women in management positions [e.g. Cross Mentoring Program] → see pages 65 et seqq.

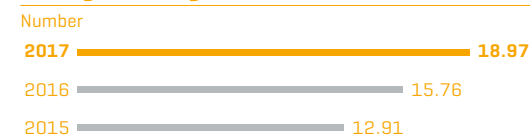
## Output

- Employee satisfaction: Results of the employee survey 2017: 70 percent of Group employees considered themselves very satisfied with their respective employer company and up to 82 percent felt very connected to Munich Airport; low turnover rate of 5.01 percent at FMG
- Training/HR development: 93 new apprentices in 2017, average of 19 training hours per employee
- Employer: Increased proportion of women in management roles within the Group, 2,197 of the total of 9,688 Group employees come from more than 70 different countries, proportion of disabled staff in the Group is 7.18 percent [statutory rate is 5 percent], best «Transport and Logistics» employer in the 2015, 2016 and 2017 rankings by Focus magazine; one of the biggest employers in Bavaria

## Total personnel expenses Group



## Average training hours



«It is particularly pleasing to hear that most of our colleagues feel very connected to their employer and the airport.»

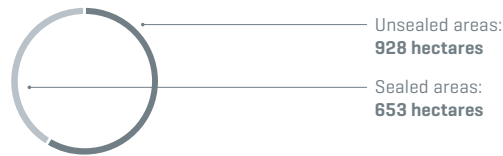
**DR. ROBERT SCHARPF**  
**AUTHORIZED REPRESENTATIVE AND**  
**SENIOR VICE PRESIDENT HR**

<sup>1)</sup> Including apprentices, AeroGround Berlin GmbH and HSD, and excluding workers in minor employment, temporary workers and interns

# Environment

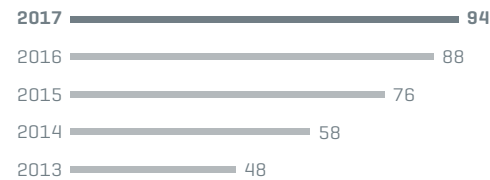
## Airport area

Total: 1,581 hectares



## Breeding pairs of the Eurasian curlew on the airport meadows

Number



«Munich Airport is conscious of its responsibility to rare and endangered bird species and is bringing airport operations into harmony with bird protection.»

**HERMANN BLOMEYER,**  
HEAD OF THE ENVIRONMENTAL DEPARTMENT

## Significance

As the operator of a major piece of infrastructure, Munich Airport is aware of its responsibility to the environment. The aim is to keep our impact on nature and the environment to a minimum, for the sake of future generations as much as for own. Key issues include aircraft noise, air pollutants, climate protection, water and waste management, and the protection of nature and species.

## Input

- Climate protection: Long-term climate protection strategy: CO<sub>2</sub>-neutral airport by 2030 (investment of 150 million euros), stationary and mobile measurements of air quality, electricity and heat from a block heat and power plant
- Resources: Well-thought out waste management concept, water and flood protection, efficient use of drinking water, de-icer treatment
- Noise protection: Strict night-flight curfew, aircraft noise monitoring at 16 fixed stations, additional voluntary mobile measurements, noise-based take-off and landing charges
- Biodiversity: Species and land protection, biotope management for preventing bird strikes and supporting the protection of birds, ecological compensation areas outside of the airport fence

## Measures 2017

- Climate protection: Increased use of renewable energies (construction of a photovoltaic system with an output of around 750 kilowatt), increased use of pre-conditioned air systems, acquisition of electric vehicles  
→ see pages 75 et seqq.
- Resources: Process water wells to protect drinking water, avoiding waste, construction of ground biofiltration systems to protect groundwater → see pages 79 et seq.

- Noise protection: Transparent communication of measured values, optimized descent profile on the northern runway, nine mobile measurements on 280 days  
→ see pages 81 et seq.
- Biodiversity: Proper maintenance of green areas, planning and construction of compensation areas around the airport, planning and construction of habitats for butterflies, protection measures for meadow breeders → see page 83

## Output

- Climate protection: Reduction of CO<sub>2</sub> emissions to 150,000 tonnes despite the growth of the airport, in contrast to 162,000 tonnes in base year 2005, 40 percent fewer CO<sub>2</sub> emissions per passenger since 2005, legal thresholds for contaminant measurements maintained
- Resources: High recycling rate for waste, 3.2 percent drop in drinking water consumption, around 53 percent recycling rate for de-icer
- Noise protection: Noise reduction through CDO (Continuous Descent Operations) by up to 6 dB(A), only 65 percent of the permitted noise level at night was used, online aircraft noise monitoring
- Biodiversity: Ensuring the survival of endangered bird species, increase in environmental value of the vegetation in the ecological compensation area, an additional hectare of valuable, species-rich meadow, 2.5 hectare refuge for butterflies in Freisinger Moos



# Society

## Significance

Good cooperation with the region is essential if Munich Airport is to succeed, with open and honest dialog with the surrounding communities playing a key role. As well as being a major employer, an engine for the economy, and a gateway to the world, FMG's daily challenge is to be a responsible neighbor – in an open dialog and with commitment to the region. The Group cultivates long-term, mutual relationships with key stakeholders in its bid to generate a feeling of trust and acceptance in the society around the airport.

## Input

- Stakeholder dialog: Transparent corporate communication and dialog through a wide range of channels
- Dialog with politicians: Presence, information, and active participation on a European, national, and regional level, and in the City of Munich, membership in relevant associations
- Value creation/region: Positive value-added effects for the region, the airport as a business partner and neighbor
- Community engagement: Willingness to support countless charitable projects in the region, aid campaigns by the Flughafenverein München e.V.

## Measures 2017

- Stakeholder dialog: Publications, public relations, visitors' program, regional trade fairs and receptions, social media → see pages 50 et seqq.
- Dialog with politicians: Interests represented by the «Political Affairs» support office, regional work by the «Regional Liaison Office», regular publication of the «Policy Newsletter» → see page 51

- Value creation/region: Optimization of the location (needs-based expansion, improved transport links, infrastructure), regional funding, boosting tourism → see page 65
- Community engagement: Wide array of sponsorship and corporate citizenship activities, social commitment of the airport association → see pages 73 et seq.

## Output

- Stakeholder dialog: Positive public reputation of the airport overall, Facebook page for the company had over 144,000 followers at the end of 2017 in addition to several thousand followers on Twitter and Instagram, airport recognized as a company committed to sustainability (result of a stakeholder survey), airport press work crowned «Best business communications» by Dr. Doebelin Gesellschaft für Wirtschaftsforschung mbH for an impressive sixth time in a row
- Dialog with politicians: Representation of interests, dialog, and contact
- Value creation/region: Large income tax, local trade tax, and social insurance payments, property, plant, and personnel expenditure, in 2017 total Group procurement stood at around 680 million euros, just under 20 million euros of food for Allresto – almost all from Bavaria and a good half from the area directly around the airport
- Community engagement: Increased acceptance in the region, sustainable and permanent partnerships

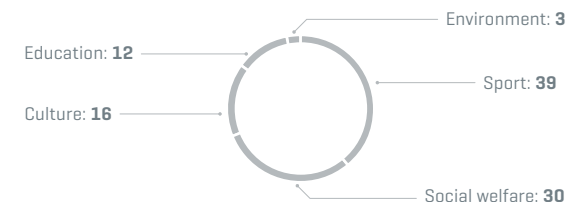
## One in 4 jobs in the region is provided by the airport

The airport provides **25 percent** of all employment relationships liable for social security contributions in the districts of Freising and Erding.



## Donations and sponsorship<sup>1)</sup>

Proportion of total budget in percent



<sup>1)</sup> The annual sponsorship budget is linked to FMG's external sales.

25th anniversary of Munich Airport – to celebrate this birthday, the logo on the feeder road was lit up in all four company colors.



EXPERTISE

**BACKED BY  
EXPERIENCE**







**The 700 trucks that trundled their way through Riem during the night of May 16 to 17, 1992, strikingly marked the start of the success story of the new Munich Airport in Erdinger Moos. That was 25 years ago and this anniversary was fittingly celebrated in 2017. Public awareness of this smooth relocation made Munich Airport known the world over. The airport is today a sought-after partner for airport projects from Honduras to Singapore and thanks to its vast expertise is tapping into new business areas that go far beyond straightforward relocation projects.**

The entire «premises» were relocated the some 30 kilometer stretch from Riem to the new location in just 16 hours.

## HOW MUNICH AIRPORT IS DOING BUSINESS WORLD-WIDE THANKS TO ITS WEALTH OF EXPERTISE

### Start-up assistance in Egypt

Before Patrick Muller sits down on the small couch in the meeting area of his office and sips his heavily sweetened mocha, he has already traveled quite a distance. He even managed to negotiate the Cairo traffic reasonably well today. Police checks in recent days had repeatedly resulted in long delays – the security situation in Egypt, which brought tourism virtually to a standstill, remains tense. Before the 57-year-old arrives at his office in the Airport Master Control Center of the brand new Terminal 2, he makes the same rounds every morning: first along the passenger route, past check-in, then through the security area, passport control, and customs. Mr Muller looks at the shops and casts a glance at the toilets. He greets the cleaning staff and chats to the handling staff. One might call this «management by walking around» since the expert from Munich Airport is the official operations manager for the new terminal in the Egyptian capital.

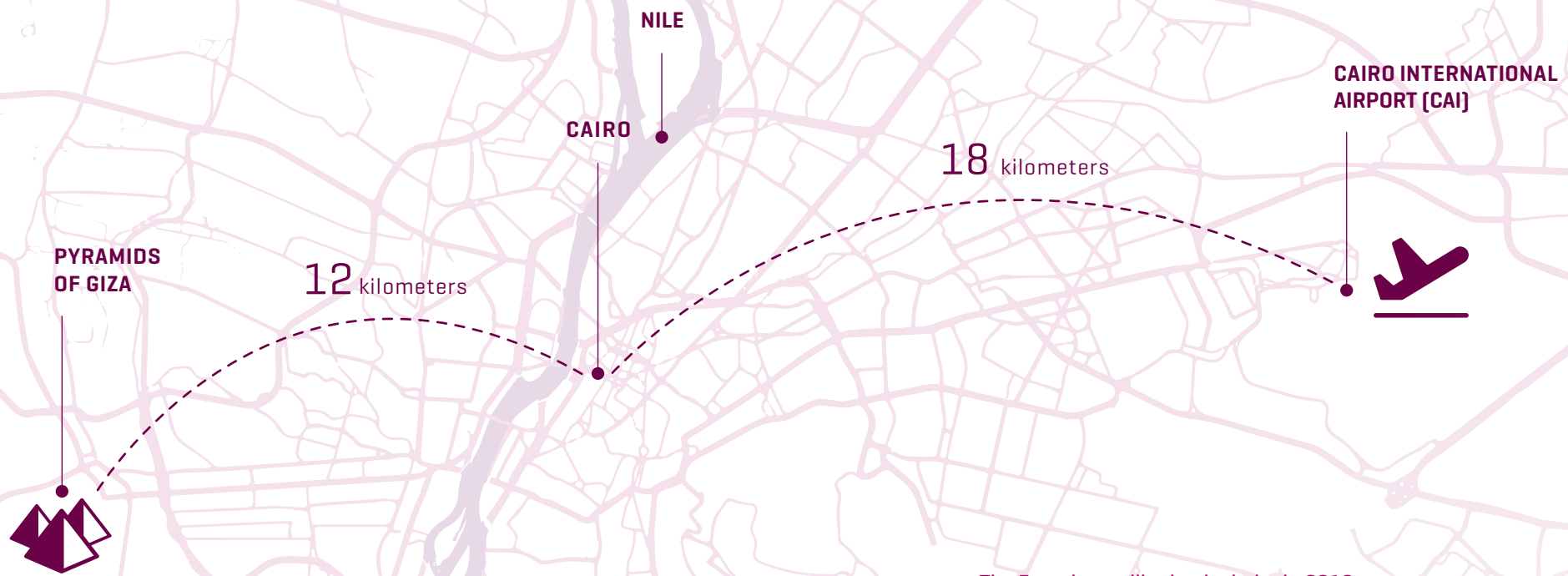
Flughafen München GmbH was awarded the contract for a two-stage project in 2016. Once the old terminal from the fifties had been torn down and completely reconstructed, consultants from Munich took over preparations for the start-up: Mr Muller and his team of up to 23 employees in total designed all processes – from security, police, customs, check-in, baggage handling, loading and unloading logistics through to concepts for the commercial use of the space. Their first task prior to starting was to train the more than 1,000 employees. When the terminal commenced regular operations in September 2016, the Munich colleagues even joined management forces and took over management of the terminal operation on a temporary basis. The Cairo Airport Company wanted to ensure in this way that all operations processes in the new terminal were functioning as efficiently as possible and that know-how could be passed on gradually to the Egyptian managers.

25 years

1992

MAY 17, MUNICH AIRPORT IS ON THE MOVE





Patrick Muller (fourth from right), Operations Manager of Terminal 2 at Cairo International Airport, and his team shortly before the new terminal opened for business.

### The Egyptians will take the helm in 2018

«It has all worked out very well to date,» says Patrick Muller. «We will conclude this phase to plan in 2018 and be able to hand over responsibility to expert Egyptian hands.» Mr Muller is particularly proud in this respect since management positions in Egypt are sometimes filled based on loyalty and not just professional merit. «It was therefore essential with such a system to identify, coach, and develop the right people.»

### Munich impresses on world stage

The consultant already has a vast wealth of experience in the aviation sector under his belt, having formerly worked for Air France, in Heathrow, Frankfurt-Hahn, Doha, and Dubai. He therefore knows exactly why more and more airports around the world are bringing the experts from Munich on board for large-scale and sensitive projects, not least the operators of the airports in Singapore and Kuala Lumpur: «Germans are disciplined, matter-of-fact, and content-driven, essentially characteristics that customers need for demanding projects and are quite willing to buy in.» The second reason for the increasing success of the international business is the excellent reputation Munich Airport enjoys in the aviation sector. «One of the best airports in the world, the best terminal in the world, constructed fully with own funds, persistently on time and on budget – these factors are impressive,» says Mr Muller.



Ivonne Kuger put together a team of around 60 consultants so that as many airports as possible can benefit from the wealth of experience available in Munich.

The operations manager for international business at Munich Airport, which was spun off into a separate limited company (GmbH) last year, hardly ever gets to see most of her colleagues. «They are based for months, sometimes even years, with our customers all over the world,» says Ms Kuger, who herself worked for almost ten years in Thailand, India, and Oman. In Bangkok in 2005 she organized the relocation of the airport to its new premises some 45 kilometers away, involving more than 3,000 truckloads and 800 loads in Doha in a tight timeframe of just one night.

The portfolio of the Munich experts extends far beyond relocations, however, and covers complete planning of complex airport projects through to management of airport facilities and changes in operational concepts, which become necessary over the course of time owing to increased security requirements. «Other than actually flying, we have done it all,» says Ms Kuger proudly: «Shopping concepts, traffic flows, or designing baggage systems.» More than 50 projects in total in recent years, primarily in the rapidly growing aviation markets in Southeast Asia, in the Arab world, in Africa and Latin America, but also in Eastern Europe.

### A night to remember

In terms of acquiring new projects, Munich Airport's international business is still feeding off the spectacular relocation of Munich Airport from Riem to Erding 25 years ago. Hans-Joachim Bues was responsible for the campaign at the time as a young press spokesman. Now Senior Vice President Corporate Communications at Munich Airport, he opens a cabinet in his office with its far-flung view of the northern runway and takes out his press badge from back then. He kept the badge, since the night of May 16 to 17, 1992, was an acid test for the then 33-year-old journalist. In his first job at a company – his previous professional positions were with Bavaria's public broadcasting service and the Federal Press Office – he had to look after 700 media representatives, 150 of whom came from abroad. They followed the logistical feat throughout the entire night from the press center at the new airport. Minibuses brought the journalists to all flashpoints of a move the likes of which the world had never seen before: an entire airport was to be relocated within a period of just 16 hours. 5,000 helpers and 700 trucks were on hand, years had gone into planning and preparing the campaign.

### Planning versus reality

All eyes were on Munich and the pressure on Mr Bues and his team was immense. «Of course some things went wrong,» reports Mr Bues. For example, it was planned that the first official arrival would be two Lufthansa aircraft called Erding and Freising – on two runways at the same time. But on the night of the move, two other aircraft beat them to it. On one hand a small emergency aircraft and also an Aero Lloyd airliner, which had already requested clearance for landing from the air traffic controllers in Austrian airspace. The prepared press release was thus obsolete and the then airport boss Willi Hermsen was more than a little frustrated at a press conference that night. Also because the first S-Bahn suburban train, which entered the terminal early in the morning, was not painted in the airport's blue color as had been elaborately agreed with the rail company. And to compound matters, it was a short train thronged with the first passengers.

### «Simply world class!»

Yet apart from these few small details, the move went smoothly and Germany's Bild tabloid newspaper ran the headline the next day: «Das war Weltklasse!» [«Simply world class!«]. This high-profile launch of flight operations also marked the beginning of much more active corporate communications for Munich Airport at the Erdinger Moos site. «This event brought us into the public eye and we have stayed there ever since. In other words, we have to deliver.»



«The move from Riem to Erdinger Moos was an organizational masterpiece – and the 25 years since then have been a story of long-term, sustained success.»

**HANS-JOACHIM BUES**  
SENIOR VICE PRESIDENT  
CORPORATE COMMUNICATIONS


# 1999

SEPTEMBER 14, THE MUNICH AIRPORT CENTER OPENS ITS DOORS

# 2003

JUNE 27, TERMINAL 2:  
READY FOR TAKE-OFF

MORE THAN  
**50**  
LARGE-SCALE  
PROJECTS GLOBALLY



### Airports are places of yearning

For Mr Bues, aviation is something that is close to his heart. As a young man he wanted to be an air force pilot, but failed at the time owing to a red-green color weakness. An ANA Dreamliner from Tokyo is just landing behind him on the northern runway. There is a strong easterly wind blowing this afternoon, but the long-haul Boeing aircraft vibrates barely noticeably and glides gently to the ground. Even if the cockpit was not for Mr Bues: «Airports are places of yearning, both for myself and for journalists. That is what makes PR work for an airport so attractive – especially if it is an airport of such high standard and with such a beautiful and spacious architecture as Munich.»

Yet enthusiasm for flying and a great airport are not enough on their own to ensure convincing corporate communications in the long run. As the operator of a large transport infrastructure, Munich Airport has to justify itself time and again to the outside world and face up to critique. This is particularly true of expansion projects like the third takeoff and landing runway. «There are obviously going to be clashes of interest that cannot ultimately be overcome and it's difficult to combat emotions with hard facts,» says Mr Bues. But with open and comprehensive communication, the airport can at least create transparency. He does not try to conceal the fact that in an age of digitalization, of Facebook and Twitter, as well as changing media usage it is increasingly difficult to even reach a public that is fragmented into many components and spheres of interest.

### Tens of thousands attend anniversary celebrations

The goal of the anniversary celebrations in 2017 was therefore to address as many target groups as possible. Thus a number of attractive festivities took place at the airport itself in addition to a state reception in the Munich Residenz. 7,000 employees of the more than 500 companies based at the airport celebrated the airport's anniversary, while the music and family days organized in conjunction with the Bayern 3 radio station were attended by more than 50,000 visitors, primarily young people and families.

### Infrastructure projects come in for criticism

The message that Munich Airport wanted to convey was clear: the airport and its excellent facilities and connections offer a crucial advantage for everyone in the region. «It is great when people in and around Munich can enjoy the benefits of their airport, but this is not simply a given,» says Mr Bues. He thinks back to the time the airport was opened 25 years ago. «People at the time were critical of the allegedly mammoth proportions. It is pretty much beyond dispute now however that the decision in favor of the new construction was a windfall for Munich and the entire region.» And he adds that a comparable decision now has to be made as regards the third takeoff and landing runway.

### Terminal 2 bonanza

A further bonanza for the airport came in 2003 with the opening of Terminal 2. This was the first time an airport operator got together with an airline to plan, finance, construct, and operate a terminal building. It is only thanks to the cooperation between Munich Airport and Lufthansa that the present hub was created and also only thanks to the coupling of regional demand and transfer traffic that the many attractive connections from Munich to destinations all over the world are now possible. After Frankfurt, the Bavarian capital now offers by far the best flight connections of all German airports.

At the same time, the success of Terminal 2 is a strong driver for the airport's international business. «The joint venture with Lufthansa impresses worldwide,» says Ivonne Kuger. The 44-year-old enjoys taking potential new customers on tours through the brightly lit terminal with its beautiful, spacious, clearly defined architecture and also describing the processes which – among others – are responsible for the airport's 5-star rating in international rankings. «Our airport is the best showcase for our services,» she says and also counts lunch in one of the airport's restaurants, which typically rounds off the tour, in this assessment: «Bavarian charm contributes to the authentic character in Munich too.»

### Munich is one of the ten most profitable airports in the world

What impresses Ivonne Kuger's potential customers perhaps even more than the local specialties is the profitability of Munich Airport – counting among the top ten in the world in this respect. «Guests are also impressed by the fact that all investments since the new construction have been funded from own resources. In terms of global comparison, this is not something that can be taken for granted,» says Ms Kuger. This is an argument she uses for her presentations too when it comes to new consulting, management, and training services.

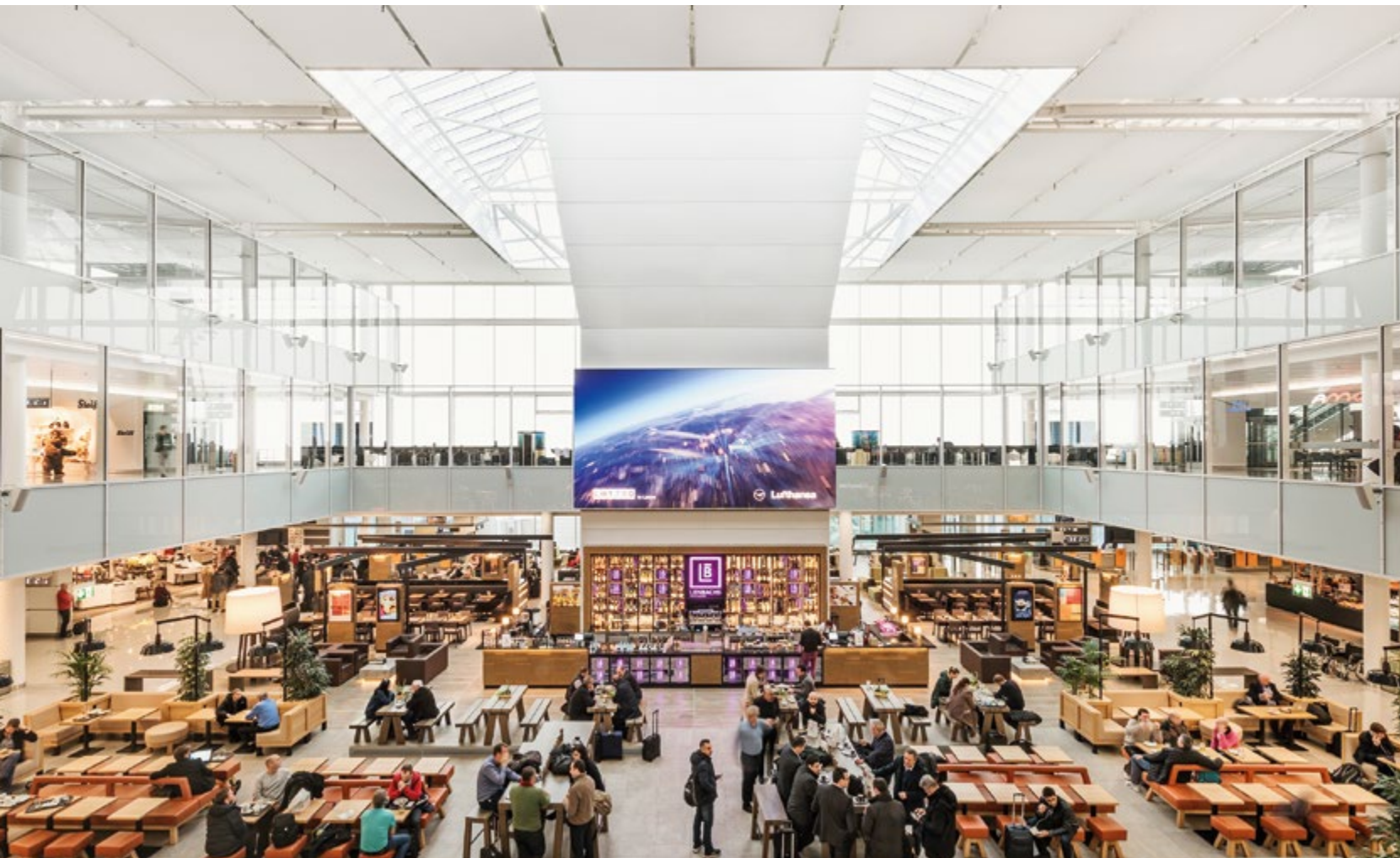
### Projects from Honduras to Singapore

Ms Kuger and her team are currently working on 15 projects which, in addition to Cairo, are taking place in the Ecuadorian capital Quito, in the new airport in the capital city of Honduras, in Singapore, Saudi Arabia, and Bahrain. The Munich experts will organize the move by Turkish Airlines to the new mega airport in Istanbul, thus supporting the largest start-up and relocation in aviation history. Business is booming and Ms Kuger is constantly on the lookout for new employees. Experience with airport operations is a key requirement in this respect, «a little kerosene addiction» also could not harm. Above all, however, candidates must be prepared to spend longer periods abroad.

# 2015

MARCH 27, MUNICH BECOMES  
THE FIRST 5-STAR AIRPORT IN  
EUROPE

★ ★ ★ ★ ★  
5 Star Airport



In-house expertise: the new satellite building successfully commenced operations on time thanks to the support of the consultants.

Like Patrick Muller. He is just back from his second round of the terminal in Cairo and is treating himself to another Mocha. It is half past ten, the first traffic peak of the day was half an hour ago. His «management by walking around» has brought him through his terminal again, this time to the basement to the employees in the baggage handling facility. He can be found then in the check-in area during the second peak time in the afternoon between three and four. «Being on the ground is the best way for me to see if there are any problems,» he says. «Colleagues here also like personal contact, you might just as well forget about e-mails in Egypt. If you want to get something done, direct communication is the only option. And with lots of tea and coffee.»

### **Kerosene is in the blood**

Just when he will leave Cairo is not yet certain since Munich has offered support for an additional phase. Fortunately his wife has now moved to Cairo too and is enjoying the city and country with its historical treasures. Mr Muller himself has not yet seen the Pyramids of Giza however, though they are only around 30 kilometers away from the airport. As the saying goes, «Kerosene is in the blood.»



# 2016

**APRIL 26, TERMINAL 2 GETS  
A SATELLITE BUILDING**



An underground train takes passengers to the Terminal 2 satellite building in just 60 seconds as part of a fully automated service.







INFRASTRUCTURE

# SHORT JOURNEYS FOR LONG-HAUL FLIGHTS?



**One of the main factors in Munich Airport's success is its role as a hub, which provides outstanding connections to every corner of the globe. Lufthansa has now permanently stationed further planes from its long-haul fleet in Munich. As a result, the airport has become one of the four airports in Europe to house the Airbus A380, the world's largest passenger plane. The goal now is to keep passenger journeys as short as possible, even when they are traveling long-haul. This is not a simple task.**



The apron control team directs aircraft on the shortest route to take-off or the terminal.



# 9,639 km



**AFTER ELEVEN HOURS IN THE AIR, THE A380 ARRIVES FROM LOS ANGELES**


It is one of those wonderful late afternoons you get in the Alpine foothills of Bavaria. The sun bathes the landscape in golden light; the warm air from the south means that the Alps appear clear and powerful, even from Erdinger Moos. Heading in from the west, the world's largest passenger plane glides into Andreas von Puttkamer's field of vision. As Senior Vice President of the Business Division Aviation at Munich Airport, he has been working with aircraft for the past 23 years. Nevertheless, he still pauses briefly to watch the imposing aircraft go past. The Airbus A380 is 73 meters long, 24 meters tall, has a wingspan of 80 meters, and is just arriving from Dubai. Emirates currently offers three flights a day between Dubai and Munich. On board there are up to 550 passengers spread out over two levels. The majority of passengers use the airline's network out of the United Arab Emirates for connections to Asia, Africa or Australia.

### **Lufthansa's new long-haul aircraft in Munich**

«For a long time, Emirates was the only airline sending the A380 in and out of Munich,» says Mr von Puttkamer. This all changed with the introduction of the flight plan for summer 2018. Lufthansa now also stations five of its 14 Airbus A380s here, allowing it to offer connections to Beijing, Hong Kong, and Los Angeles. And since February 2017, Munich has also been the home airport for Lufthansa's brand-new Airbus A350 planes, the world's most cutting-edge and environmentally friendly aircraft. It consumes just 2.9 liters of kerosene per passenger per 100 kilometers in the air, which is 25 percent less than comparable aircraft. Thanks to its lightweight construction and state-of-the-art engine, the A350 is also significantly quieter when taking off and landing compared to similar models. As many as 15 of these aircraft could be stationed in Munich by the beginning of next year.

### **European peak reached for long-haul flights too**

«With Lufthansa's two decisions, our airport has finally made it into the circle of major European hubs, putting it on an equal footing with Frankfurt,» says Mr von Puttkamer with a smile. So, just how much of a difference does it make to an airport how far the aircraft stationed there actually fly? It does not take Andreas von Puttkamer long to list all the benefits of long-haul connections. On the one hand, air traffic charges depend on an aircraft's weight and how many passengers it has. As the aircraft increases in size, so too do revenues for loading and unloading service providers as well as earnings in the terminals' shops and restaurants. On top of that, there are economic effects for the region. The five A380 aircraft stationed in Munich provide about 500 jobs. Lufthansa alone already employs around 12,000 people at Munich Airport and is the largest employer on the campus.



**6**  
**THE WORLD'S LARGEST PASSENGER PLANE DOCKS IN ONE OF SIX POSITIONS**

However, Mr von Puttkamer believes that there is another factor more important than these direct effects and that is Munich Airport's limited capacity. «We have a need for transport but we are suffering from shortages and will continue to do so until we can build the third runway. This is where these large aircraft can help as they can provide more capacity.» For instance, Lufthansa's new A380 models will replace older type A340-600 aircraft. This means a 40 percent increase in capacity per flight. However, Mr von Puttkamer is clear that these large aircraft can only be used on routes with very high passenger levels. «Another benefit is that each new long-haul connection makes Munich stronger as a hub airport,» he says. The main beneficiary of this development is the region itself for one simple reason. For connections like the new route to Los Angeles, around 30 percent of passengers come from the Munich region while the remaining 70 percent are transfer passengers. «Without the hub status, around two thirds of the intercontinental connections into and out of Munich simply would not exist.»



### Tough competition

After completing a degree in Business Economics at Munich University of Applied Science, Mr von Puttkamer spent a few years working in sales and marketing at TUI and Airconti. In 1995, he moved to Munich Airport, taking over as the Director of the Marketing and Transport Development Department. He has been the Senior Vice President of the Business Division Aviation there since 2005. So all in all, he has been working to attract airlines to Munich for the past 23 years, making him something of an old hat in this field. Nevertheless, getting two of Lufthansa's new long-haul aircraft models to be stationed at the airport was not a simple task. «For both projects, we were in a tough battle with Frankfurt Airport, which obviously would prefer to keep its position at number 1.»

### A successful partnership for Terminal 2

«We have a highly qualified and exceptionally dedicated team of staff, who give it their all when it comes to a feat like this. At the end of the day, it was a tremendous team effort,» says the boss with a smile. So, how did the Munich team manage to win over Lufthansa? After all, Frankfurt is an established hub for long-haul routes. «We are now reaping the rewards from our successful partnership for the operation of Terminal 2,» explains Mr von Puttkamer. Not only is this the only partnership of its type in the world, it has also generated some incredible results. In 2017, Terminal 2 was named as the world's best airport terminal at the World Airport Awards hosted by the London-based Skytrax Institute.

A new giant in Munich:  
Lufthansa's Airbus A380.



### Top-class product on the ground

At the launch ceremony for the first plane in the new A350 fleet, Lufthansa's CEO Carsten Spohr named Munich as «Europe's best airport» and described the decision as an «accolade for our first-class working relationship». Andreas von Puttkamer was delighted with these compliments as they demonstrate that his team and the colleagues from the Terminal 2 company are able to offer the key customer exactly what it is looking for. «Like all major airlines, Lufthansa increasingly defines itself through what it offers on the ground. For passengers, this has a lot to do with the airport: With the quality of their time in the terminal, what is on offer, the aesthetics and, of course, the processes and routes around the airport.»

### Keeping routes as short as possible

This brings the Aviation boss to an important point: Nowadays, most long-haul traffic runs through hub airports like Munich, Amsterdam, London, and Dubai. However, many passengers find the transit process to be a burden. Every passenger knows what it is like to have to follow long routes round large international airports, which have grown over the decades and expanded gradually. As a relatively young airport,

Munich has a location advantage, particularly because its planners set out to create short routes right from the outset. This is especially true in Terminal 1: «For many departures here, there is no more than 100 meters separating the drop-off zone and departure gate,» says Stefan Fornasier.

### Expansion for Terminal 1

Working together with the architect Katrin Hennig, the 52-year-old engineer is in charge of the project group working on the expansion of the older terminal. The pair are standing on the platform above public departure area B. Mr Fornasier points down to where a handful of passengers are waiting in front of security. The situation here is not always this relaxed. «It is often so crowded down there that we exceed our capacity limits on a regular basis. On busy days, such as the Friday or Saturday before the Easter vacation, the queues can get especially long.» The same applies to baggage claim. When 550 passengers from the Emirates flight from Dubai are all waiting for their luggage, it can get crowded around the belt. «We cannot expect passengers and our customers in Terminal 1 to put up with this anymore,» says Mr Fornasier.

509  
PASSENGERS ON BOARD  
LUFTHANSA'S A380



### Central entrance for all non-Schengen flights

Mr Fornasier and Ms Hennig have passed the identity checkpoint and are now moving against the normal flow of passengers, past the stationary luggage belts and through passport control, where two federal police officers are waiting for the next wave of arrivals. They then climb up to the dividing bridge, where you can look out over the apron. «The new terminal building is being built out there,» says Ms Hennig. The pair are now directly above arrival hall B. This evening, passengers will be arriving here from London, Manchester, and Dublin, but over the next few years it is due to be completely gutted and redesigned from scratch. After that, the public area up to the current edge of the building will move forwards to the apron and become the central entrance to the new departure area for non-Schengen flights [flights to all countries that are not part of the agreement that allows passengers to travel without ID].

### New building on the apron

The new central departure building will be built on the current apron, followed by a long pier with a total of twelve gates for medium-sized aircraft or, alternatively, six A380s. Following the redesign, the entire northern section of the current Terminal 1, including the new pier, will be reserved for non-Schengen flights while the whole southern section, i.e. areas C and D, will be used for Schengen flights. The project group led by Ms Hennig and Mr Fornasier have already been working on this area for almost two years with the help of all departments involved in the project. The toughest challenge faced by the 25 or so experts was deciding where to place the security checkpoints because they also had to leave enough space for more stringent regulations or technical developments over the medium term.

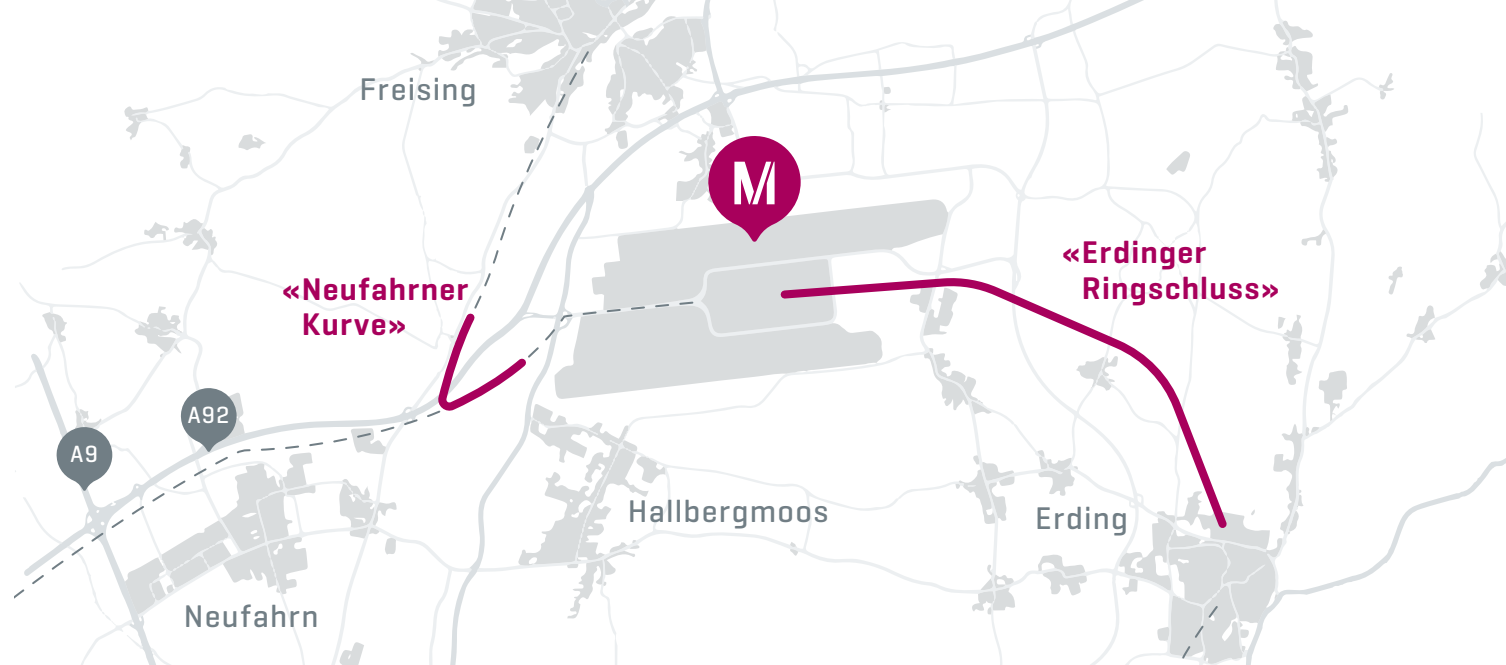


Stefan Fornasier and Katrin Hennig are planning far into the future.

It was therefore clear from the outset that the security zone would have to be centralized in future. «Admittedly, this now means that we are not completely able to stick to our principle of keeping routes as short as possible,» says Ms Hennig, describing a major dilemma in aviation: The more people who travel, the bigger the aircraft, the stricter the security requirements and the more space you need for checks. The decentralized concept in place at the moment is no longer feasible. «So, the exceptionally short routes that planners had in mind for Munich back in the 1970s are now no longer possible.» This applies to Terminal 2 and the new satellite building as well as the expansion to Terminal 1.

«However, we spent a long time thinking how to make things as pleasant for passengers as possible,» says Mr Fornasier. The dilemma was solved by splitting up the levels. «In principle, the route will therefore stay the same for passengers; all they have to do is change levels twice.» In future, escalators and elevators will take passengers up one level from the current departure level to the new security zone. From there, they will enter the new extension after passport control and then go back downstairs into the shopping and departure area. Passengers arriving at the airport will collect their bags in the new large luggage collection area on apron level. They will then go one level up through customs, back into the public area, where it is just a few minutes to the parking lots or train station.





On the east side of the airport campus, building measures for the Erdinger Ringschluss project have already begun.



### Improved public transport links

Dirk Düsenberg has spent almost 20 years fighting to improve Munich Airport's links to the public transport network. The transport planner experienced the collapse of the Transrapid project in 2008 and knows just how long planning processes can take for transport infrastructure. However, he has some good news. The Neufahrner Kurve route is due to start operations at the end of 2018, allowing for the first ever direct rail links between the airport and eastern Bavaria. Furthermore, the airport began preparations for the Erdinger Ringschluss project in November 2017. The current railway tunnel, which ends roughly at the height of the satellite building at the moment, is due to be extended 1.8 kilometers to the east before the line climbs back up to surface level. For the time being, the plan is to continue the line to the next station. The planning approval process for the second section of the ring – the Erding section – is due to start this year. «The aim of the project is to allow passengers from the east to reach the airport by rail as well. This will greatly improve connections at Munich Airport over the next ten years,» says Mr Düsenberg.

### Much more room for shopping and catering options

We are back in Terminal 1, where a number of passenger improvements are set to take place with the new extension. Project Manager Katrin Hennig points down from the dividing bridge to departure area B. There is currently only a single restaurant for the 16 gates. For the new departure area, on the other hand, there will be a large, modern market area for restaurants and shopping, as well as space for two premium airline lounges. «This project will be a major upgrade for Terminal 1,» says Ms Hennig, «and our passengers and airlines are expecting this, too.»

# 3,000

CASES FIT INTO THE  
BODY OF THE A380

## 5

## THE A380 TAKES OFF FOR ONE OF ITS FIVE LONG-HAUL DESTINATIONS FROM MUNICH

For the architects, it is not easy to implement all of these requirements. Their ultimate goal is to change as little of the current terminal building's look as possible, while still developing a clear design and material concept with the new extension. The two project managers don't want to create a copy of the Terminal 2 satellite building; instead, they want to create something unique for Terminal 1. Planning the construction work itself is almost equally as challenging, if not more so. Mr Fornasier looks out towards the apron. For a period of several years, aircraft will be unable to access the entire northern section of the terminal as this is where the building site is being prepared – heavily protected from airport operations and with its own access point for construction vehicles. «Planning this project is like open heart surgery,» says the project manager. «However, we will be keeping disruptions to airport operations at a minimum.» Work is due to start in early 2019 with completion planned by 2022.

Katrin Hennig has slightly mixed feelings when she thinks so far ahead. «Do we know which countries will be part of the Schengen system in 2022? Will Schengen even exist by then?» There is also the possibility of brand new alliances in the low-cost market, which would quickly put paid to all of the concrete plans. «For this reason, we have to build quickly while still staying as flexible as possible. This is a pretty big challenge for our project,» says Mr Fornasier. However, he would not be at the airport if this was not exactly what motivates him: a continuous flow of new situations to confront. The same goes for his boss, Andreas von Puttkamer. The Senior Vice President of the Business Division Aviation remembers the 9/11 attacks and the 2008 financial crisis, as well as the huge slump in the aviation industry that followed. This led to a number of consolidations on the market, the rise of low-cost carriers, new lines starting in Munich, and others being removed, as well as last year's insolvency proceedings at Air Berlin and Niki. «But that is one of the things I love most about my job. Every day is different; we have the chance to move something every day.»

«Our airport has finally made it into the circle of major European hub airports.»

**ANDREAS VON PUTTKAMER**  
SENIOR VICE PRESIDENT AVIATION



### Five megatrends for the aviation industry

This may not change much over the next few years as the aviation market is set to keep moving. «I see five main megatrends,» says Mr von Puttkamer. «Traffic levels are increasing; safety requirements are rising; the market in Europe will continue to consolidate; digitalization will bring both challenges and opportunities; climate protection will also place demands on aviation.» What does this all mean for an airport like Munich? Since the A380 landed, one plane after another has traveled down the southern runway behind Andreas von Puttkamer's desk. They have all been a lot smaller than the huge beast from Dubai. The Senior Vice President pulls a plastic wallet full of graphs off the shelf behind his desk. The figures reveal how much the airport needs to catch up. While inter-continental traffic currently makes up around 25 percent of flights in Frankfurt, this figure was just 16 percent in Munich before Lufthansa decided to station its new planes there.

### Long-haul routes on the up

Nevertheless, all of this is set to change. Further airlines are planning new connections into and out of Munich. For instance, Etihad Airways is considering adding a third daily flight to Abu Dhabi. Andreas von Puttkamer also predicts significant potential for a range of other connections, such as to South America and Africa. Chinese airlines are also keen to increase their frequency of flights to Munich, but they are currently limited due to a lack of air traffic rights. When it comes to flying himself, however, Mr von Puttkamer is happy that he is no longer such a frequent flyer. In the past, he would board around five to ten inter-continental flights a year, though this has now dropped to around three. Andreas von Puttkamer can also enjoy all the pleasure of long-haul flying from his office in Terminal 1, where he can watch the southern runway and the Bavarian mountains beyond all bathed in the golden evening sun.



«Nice to meet you!» Josie Pepper, a helpful communications robot answers questions from passengers.







DIGITALIZATION

# WHY SMALL BYTES MAKE BIG HISTORY





Information Security Hub: in the new center established to combat cyber crime, IT specialists defend against attacks from the Internet.

**Digitalization has found its way into our everyday lives. Not only is it reinventing business processes, it is also fundamentally changing social communication. Munich Airport is responding to this trend with its digitalization strategy. The goal is to future-proof the business model and at the same time offer passengers a range of innovative services to support and accompany them on their journey. A helpful robot was already used on a trial basis in Terminal 2 for providing information for passengers.**

DIGITAL JOURNEY

## Orientation

VIRTUAL TOUR

Using innovative 360-degree photographic technology, visitors can explore the airport even before they've arrived.

## COMPLETELY NEW POSSIBILITIES

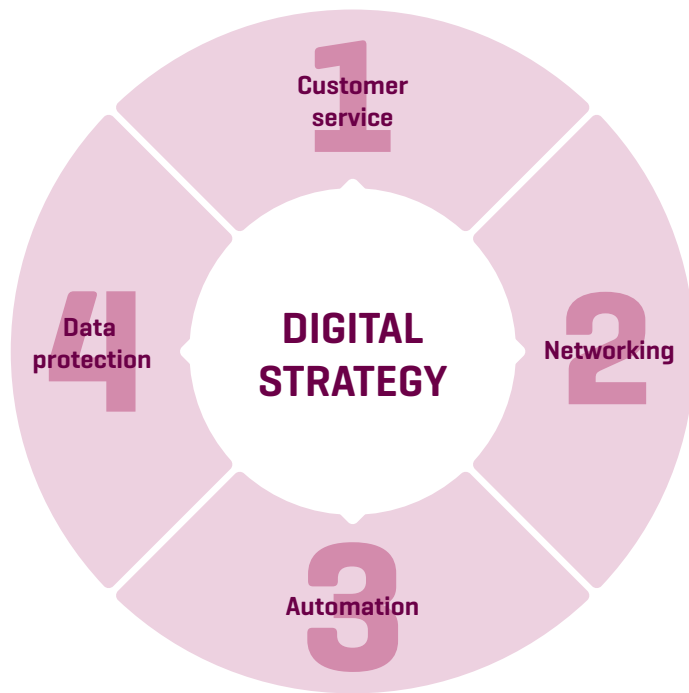
### Trial run in Terminal 2

The man and woman have just arrived by train from the satellite building and are taking the escalator to Terminal 2. They pause briefly, look at each other, smile, and wave. Their greeting is intended for a white, approximately 1.2 meter tall figure made of plastic and modeled on a human form. She lifts her right arm, raises her hand, and returns the greeting? The photographer kneeling down in front of the figure clicks a couple of times and calls out: «Great, Josie Pepper!» This is the product name of the communications robot tested by Munich Airport in February in a pilot project. The humanoid robot was developed by the French robotics experts, SoftBank Robotics. Josie Pepper's «brain» was developed together with IBM and Watson artificial intelligence. Not only can it link information in split seconds, it is also programmed to recognize emotions.

### Educating a robot

«Josie Pepper, how are you?» calls the photographer and the robot turns back to him instantly. The technology behind this is the integrated microphone, two HD cameras, and different sensors. Josie Pepper's job is to interact with people around her. «But she still has a lot to learn,» says Stephan Schmid. Mr Schmid is Innovation Manager for IT at the airport and responsible for programming Josie Pepper. The intention is for the robot to respond in future to questions from passengers, though this is not that easy as Mr Schmid explains using an example: The two questions «How do I get to Gate K12?» and «I have to find my flight to Rome, how do I get there?» appear to deal with two different issues. «The robot has to learn that the same intention is behind both,» explains Mr Schmid. This is precisely what he tested with Josie Pepper for four weeks in February under real-life conditions. They started out with a long list of possible intentions on the part of passengers, questions derived on this basis, and the correct responses to these questions. Josie Pepper became more confident interacting with passengers with every day that passed. The pre-defined responses as well as special knowledge about Munich Airport are accessed for this purpose via a Wi-Fi connection. «Everything has to be working properly first before we can let her loose on our passengers in the long term,» says Mr Schmid.





### Digitalization does not stop even at airports

Konrad Best really likes the Josie Pepper project, it ties in ideally with the airport's digitalization strategy, which he and his team have developed over recent years. «Everyone today is talking about digitalization, but it is not possible to define what this trend actually means in really general terms. Every company has to find out for itself, its processes, and its business model,» says the Head of Digital Development at Munich Airport. He came on board originally some two years ago and has a background in the music industry, where he witnessed the decline in the sector during the nineties. The music industry did not recognize the technological revolution that the music format MP3 and corresponding platforms signified for vinyls and CDs. «At the time, 50 percent of revenue were wiped out within a period of two years,» he recalls. That is why it is so important for an airport too to keep a very close eye on the potential impact of new technologies on business. Though Mr Best is not thinking of a fundamental revolution in air traffic itself: «I do not believe that real interactions will be replaced by virtual ones in the foreseeable future.» But there are definitely trends in the non-aviation sector that impact the airport's business model and for which answers have to be found: for example, apps that organize parking totally independently or online shopping with delivery within just a few hours. Passengers could then have their evening meal delivered directly to their homes after a long journey, rather than shopping themselves at the airport.

### Individualized communications

Mr Best's team of six employees keeps in close contact with experts in all specialist areas. It is important for him that the measures adopted by the airport to tackle and progress the topic of digitalization are developed with the specific business in mind: In other words, where this megatrend offers opportunities for Munich Airport. Mr Best feels that the relationship with the end customer is a primary target in this respect: «Passengers have typically interacted with the airline to date, simply using the airport as an infrastructure. We can make direct contact with passengers thanks to the new technologies and make them attractive offers tailored to their personal needs all along the travel chain.» Up until now, the airport has simply provided the same information for all customers across its media. However, the needs of business travelers differ considerably from those of tourists: «For the manager who regularly flies to and from Munich, he or she is not so much interested in information on where which flight is departing from or how to get from Terminal 2 to the satellite building. But finding out before heading off in the morning that the S-Bahn suburban train is not running or that there is congestion on the A9 would be helpful. And also immediately offering an alternative.» Transfer passengers in Munich in turn are not interested in how to get to the airport, but they may find information in their native language useful. For example, information about lounges, shopping or where to get a typical Bavarian veal sausage [Weißwurst] breakfast at the airport could be sent in Chinese directly to their cellphone.

#### DIGITAL JOURNEY

## Parking space search

### BOOK A PARKING SPACE ONLINE

Reserve the ideal parking space before your journey – either in a roofed-over location close to the terminal, or in a more affordable space in the outdoor parking areas.

#### DIGITAL JOURNEY

## Communication

### INFOGATE

Multi-lingual, video-based customer communication terminals placed at over 50 locations throughout the entire airport campus.

#### DIGITAL JOURNEY

## Waiting times

### THE «PASSNGR» APP

One app for all airports: «Passngr» guides passengers to the gate, offers information on the flight and on the gastronomic services locally as well as exclusive shopping coupons.

Connected airport:  
automation of numerous  
processes enables smooth  
operations.



### Seamless travel

Individual services and personal information tailored to the needs of every individual passenger therefore represent the first obvious field of action in the digitalization strategy of Munich Airport. The critical question is how to make contact with the passenger. «This is comparatively simple in principle today,» says Mr Best: whenever passengers use the airport's free Wi-Fi service. The airport will offer passengers a host of new services in the future. They can therefore be accompanied seamlessly from their door to their arrival location by a mobile travel assistant and receive specially tailored information on traffic events as well as in relation to route alternatives, availability of parking spaces, the expected duration of check-in, and the waiting times at security. The same information will also be available for the arrival airport, including the expected waiting time at baggage retrieval. The airport is working together with Siemens at present on a suitable platform, which is due to launch this year. The mobile travel assistant is intended to

interact with all of the usual route planners and navigation systems and also integrate information from car pooling and taxi services. A partial application already exists for passengers, namely an app that allows passengers to pre-book parking spaces online at the airport. Customers can see at a glance at what price a space can be booked very close to the terminal or where more affordable spaces are available. Moreover, they can add on packages such as car wash and fill-up and repair services during their absence.

### Connecting data streams, abolishing silos

In addition to such ancillary travel services for passengers, Munich Airport has defined three further fields in its digitalization strategy. Namely, data connectivity, automation of certain processes, and data privacy. Connectivity means that information acquired by the airport can also be used for other requirements once it has been evaluated accordingly. Data silos will scarcely exist any more in future. Konrad Best knows what he is talking about since he also worked for a large mobile network operator for a number of years: «Based on our users' data, we could already tell a year in advance which customer would cancel.» Other important information can also be derived from data of passengers visiting the airport. «When we know, for example, how many people will linger where and when, because they are logged in to the Wi-Fi network, this information can be used to plan emergency

escape routes as well as shopping concepts, traffic infrastructure, security checks, and much more. We therefore no longer need theoretical predictions, rather we use real data. This reflects reality much more precisely.» Added to this is the emergence of the Internet of Things, as it is known: «Soon we will have bags fitted with wireless chips and components, which call the technician themselves before they break,» says Mr Best. In a city environment such as an airport, entirely new applications can be developed in this respect.



Pilot project: This driverless minibus is used by Munich Airport as an employee shuttle.



«Every company has to define for itself what digitalization means for their business model.»

**KONRAD BEST**  
HEAD OF DIGITAL DEVELOPMENT

#### DIGITAL JOURNEY

## Shopping

### LOUNGE SHOPPING SERVICE

Lufthansa lounge guests can save money on selected products in Terminal 2 thanks to a range of coupons available online.

#### Automating processes

On the topic of automation, Mr Best recalls the most recent project, among others, dealing with self-drive vehicles: this involved a field test on the apron at Munich Airport in 2017. During the Family Days, more than 1,500 visitors were safely transported past the parked aircraft by electronically operated minibuses from the French start-up Easytrack. Five laser sensors on the bus scan the environment in this model. If an obstacle emerges, the bus responds immediately with a gentle braking action. Fully automatic emergency braking is also possible. Munich Airport meanwhile now uses the driverless buses as shuttles for employees.

#### Data privacy as a top priority

A very high level of data privacy is essential for all applications in the course of digitalization. «Munich Airport captures data very defensively. We only store what we actually need for a particular service and inform customers about this in a very transparent way,» says Mr Best. «For example, if we need the flight number, we do not ask for the date of birth at the same time.» Trust and data privacy are extremely important values in the framework of digitalization and this is the message the airport would like to convey to its customers.



### New center to fight cyber crime

An important role is also played in this respect by the Information Security Hub, which was opened at the end of January in the presence of the President of the Federal Office for IT Security Arne Schönbohm. The center covers a vast field of activity, ranging from warding off simple data theft to strategies for risk scenarios. To combat these risks efficiently, the Hub's experts train Munich Airport's IT experts as well as those employed by other airport operators, airlines, and service providers. Apart from basic training as an aviation security specialist, further relevant advanced training is also offered. This should allow an IT community to develop in the coming years, which specializes in overcoming the challenges posed by air traffic and will also implement projects jointly in the future. What lies behind the concept is the knowledge that all stakeholders in air traffic are facing the same challenges in relation to IT security. «An airport alone can never sufficiently specialize in this respect and recruit the appropriate professionals,» says Marc Lindike, who heads up the Hub. «We are competing against companies like SAP, Apple, or Google for the best experts, which is why we offer them a very special, attractive working environment.»

Mr Lindike's team set up a training airport – at least from an IT perspective – in a former warehouse. The facility contains everything that constitutes an airport in terms of cyber security. A hundred servers were installed over an area of 1,500 square meters, with more than a hundred PCs as well as accessories such as cameras and printers. «We can perform real-life simulations of cyber attacks here as well as ways to defend against them,» says Mr Lindike. He enjoys being part of the teams that are to attack the airport's systems. «We need to understand precisely how cyber attacks operate if we are to develop effective strategies to combat them.» Apart from warding off hacker attacks, the experts in the new center also thoroughly test security concepts of external providers. The experts are also heavily focused on the forthcoming Internet of Things. «The number of computers is set to multiply as a result of digitalization and radically new technologies will find their way to the airport. We have to be prepared for this,» says Mr Lindike.

### «Can I help you?»

To be a trailblazer but at the same time to act in a responsible and reasoned way based on sound experience is an apt description of the airport's digitalization strategy. This also applies for the robot Josie Pepper. The underlying artificial intelligence is actually designed to enable the robot to learn automatically. «We deliberately excluded this however,» says Julia Schmidt, who is responsible for this project on behalf of the Terminal 2 company: «We did not want any jokester teaching the little one nonsense.» That is why she and her colleague got together every evening and analyzed the internal memory with the daily log. Once all of the results of the pilot project are available, Josie Pepper could be used long term at various locations in Terminal 2. «We are focusing primarily on important flash points where passengers frequently need information,» says Ms Schmidt, «where which flight is departing, how long the journey to the satellite building takes, or which restaurants and shopping facilities are available near the gate.» The robot should be able to provide the answers herself in future, and even in different languages. «It was important to us that Josie Pepper is not viewed as a

publicity stunt, rather has a real role to play. This also includes de-stressing passengers in frantic situations. Josie Pepper has even managed to get a smile from stressed passengers and hardened frequent travelers on occasion and willingly allows herself to be photographed for selfies,» explains Ms Schmidt. Passengers had to go to her though in this case, although she would also have happily rolled up to them. Further tests are needed though to establish how well Josie Pepper can move through the passenger streams without constituting an obstacle. «That is why she is not allowed to move initially. But we will also overcome these challenges,» says Julia Schmidt with ease. She knows that the future has just begun.

#### DIGITAL JOURNEY

## Feedback

#### INNOVATIONPILOT

Online platform for sharing reviews, suggestions, and ideas, laying the foundation for new products and innovative services.

#### DIGITAL JOURNEY

## The airport experience

### BUNDLE FOR TRANSFER PASSENGERS

Package of services for transfer passengers, designed specifically for their time at the airport.

Passengers enjoy getting assistance from the friendly and forthcoming female robot.



# STRATEGY AND MANAGEMENT

**45** – Strategy

**48** – Management

For Munich Airport, showing class means that from the very outset its corporate strategy takes all stakeholders into consideration, in order to generate sustainable value creation. It is only by succeeding with this objective that the airport can maintain and expand its position as a global leader that it has achieved over the past 25 years.

## Strategy

### Thinking sustainably, acting responsibly

The airport's business activities have a major impact on various areas and stakeholders: Munich, Bavaria, and Germany as business locations, the region and its inhabitants, the airport staff and passengers, as well as other companies in and around the airport plus further stakeholder groups. The airport's over-arching aim is to make sure its business operations are financially sound and sustainable. However, it is also aware of the negative effects that its business may have, and is making targeted efforts to avoid these, keep them to a minimum and, where required, compensate for them. In this context, for example, Munich Airport aims to be carbon-neutral by the year 2030.

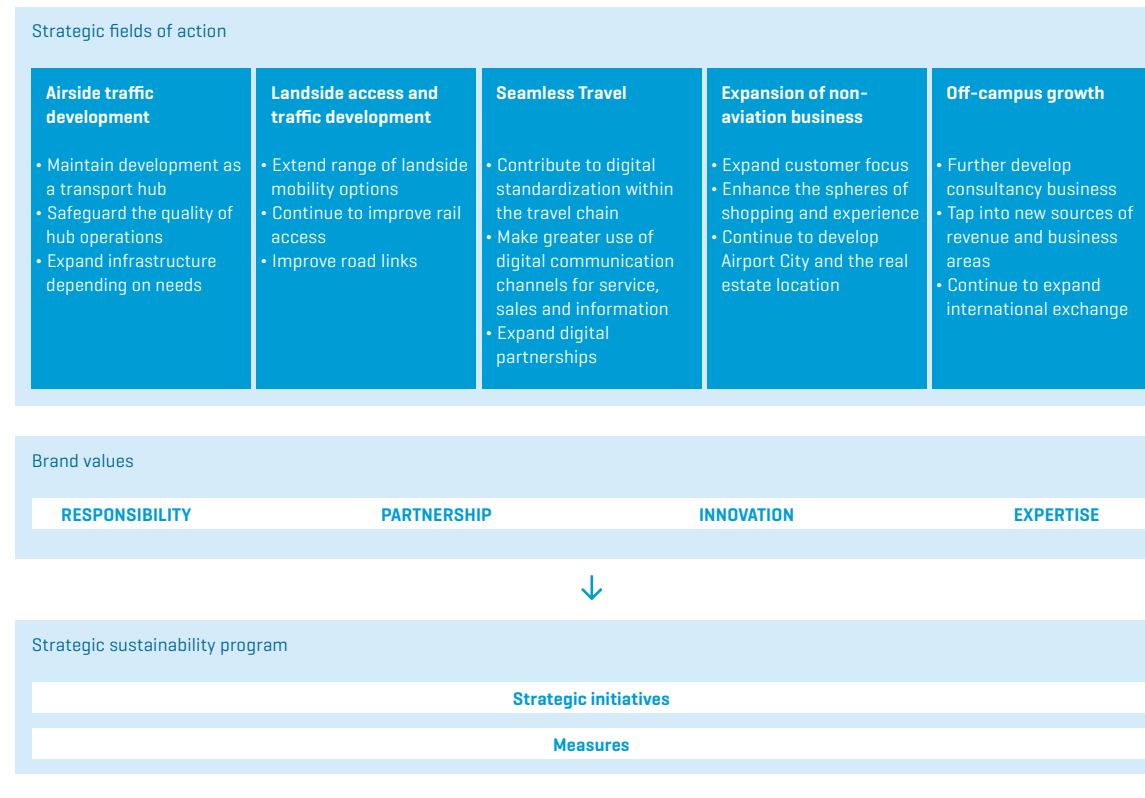
### Facing the challenges of the future today

Munich Airport's Strategy 2025 has laid the foundations for the company's development. The strategy also incorporates economic, environmental and social aspects. With that, the airport aims to create long-term added value. The corporate strategy up to 2025 is made up of five main fields of action, which address the main challenges in operating Munich Airport, an international hub airport:

- Airside traffic development
- Landside access and traffic development
- Seamless travel (contribution to digitalization and customization of the travel chain)
- Expansion of non-aviation business
- Off-campus growth

These fields of action were identified as a result of scenario analyses regarding the future of the aviation industry. The evaluation takes into consideration relevant factors such as the development of mobility worldwide and the global economy. Initiatives and steps that set out the airport's future development are established in order to implement the strategy within the fields of action. Success is measured using defined key performance indicators. The topics that have proven significant in dialog with stakeholders are then also integrated into the

## Overview of Strategy 2025



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

fields of action. Strategic business decisions are implemented on the basis of the four Group-wide brand values: expertise, responsibility, innovation, and partnership.

### Expansion plans Planning and expanding infrastructure in line with requirements

Strategy 2025 highlights key issues for the refinement of the business model, and sets the course for Munich Airport's future growth. Flughafen München GmbH (FMG) is expanding airport infrastructure based on need, networking various

transportation operators, and is actively involved in the expansion of the landside transport services – all while keeping quality and the changing needs of customers brought about by increased digitalization at the heart of its work. Negative effects on the environment and the area around the airport are kept as low as possible, for example by applying extensive compensating and noise protection measures.



## Terminal 1

Capitals	Impact on capitals
€	+ Creation of sufficiently sized areas for high-quality 5-star handling of forecast passenger numbers, thus safeguarding passenger charges and additional commercial revenues - Investment in/costs of construction
👤	+ Increased value of the airport + Improvement in quality [of amenities] for passengers and upgrade for airlines based in T1 + Increased efficiency of processes
💡	+ Improved expertise in infrastructure expansion
👥	+ Creation of new jobs through the establishment of further businesses and catering outlets + Opening of a canteen for employees working in the area of Terminal 1
🌿	+ Consideration of the latest official requirements (Energy Saving Ordinance, Eco design Directive) - Minor burden caused by building measures
🗨️	+ Meeting the demand for improved quality in the travel experience

→ see pages 14–19

## Landside access and traffic development

Capitals	Impact on capitals
€	- Investment by FMG in the planned construction of the railway tunnel eastward on airport land - Financial support of communal infrastructure projects through regional funds + Increase in non-aviation proceeds + Increase in aviation proceeds
👤	+ Improved performance of the infrastructure + Improved [rail] connection to the airport + Quicker realization of infrastructure projects + Increased marketing potential of real estate
💡	+ Improved expertise in infrastructure expansion
👥	+ Better connection to where employees live in eastern Bavaria + Greater employer attractiveness through improved accessibility
🌿	- Impact on the environment due to construction + Creation of valuable compensation areas for nature conservation + Burden on the environment is relieved by optimizing the flow of traffic and shifting traffic into public transport
🗨️	+ Improved connection between the airport's hinterland and the entire southern Bavarian region and the Deutsche Bahn rail network + Burden on road transport is relieved

→ see pages 14–19

## Terminal 1: meeting expectations

In addition to the expectations of passengers regarding the quality of handling and the amenities available to them, the official requirements on control facilities of international airports have also increased. In many respects, Terminal 1 can no longer meet these demands. The building is therefore being expanded to include a new gate area on the West apron with modern passenger handling facilities designed to meet all requirements. These renovations are also creating new retail and catering options and improving the passenger handling processes through centralized security zones; they aim to make the area significantly more appealing to passengers and airlines in the *non-Schengen segment*.

## Third runway remains important future project Munich Airport is at the limits of its capacity

Munich Airport will significantly expand its infrastructure in the coming years and must adapt to the growth in global aviation which all forecasters agree will take place over the next few decades. At the moment, the airport is already working at its limits with its two-runway system: even now airlines can no longer offer new connections at the high-demand peak travel times. Only through the construction of the third runway, which has been officially approved and confirmed by the court of last instance, can the existing bottlenecks be permanently eliminated. Such an expansion of the runway system would increase current capacity of a maximum of 90 scheduled aircraft movements per hour to 120, therefore covering requirements for the next few decades.

## Important hub function

Without the third runway, on the other hand, a question mark would hang over the future of even the current offering of attractive direct connections to and from Munich. If airlines cannot continue to expand to meet demand in Munich, they will move their flights to other airports with available capacity. In the worst-case scenario, Munich could lose its status as a high-performance hub airport in the international aviation industry. It is this role as a hub, which was recently strengthened further by the decision by Lufthansa to base a number

of its long-haul aircraft here, Airbus A380s and A350s, that makes Munich Airport a gateway to the rest of the world and an important factor in the economy and in the lives of local people in Munich, Bavaria and beyond.

## Largest alliance of supporters

Consequently, the largest alliance to have ever supported an infrastructure measure in Germany has formed for the construction of the third runway. More than 230 companies, and business and tourism associations are promoting the quick expansion of the airport. This group is made up of a diverse range of companies, from major corporations such as Audi, Allianz, BMW, Deutsche Bahn, Infineon, Linde and Munich RE, to large SMEs, to regional and local, long-established enterprises. Munich Airport has become a key locational factor for a number of global players in Bavaria, both large and small. It provides them with access to the global markets, thereby improving prosperity and future opportunities for the entire region.

## Applicable construction law

The airport has therefore done everything in its power to implement the construction of the third runway. Following the ruling of the German Federal Administrative Court of July 2015, the planning permission is now legally valid; the decision to build is now in the hands of the three shareholders in the airport: the Free State of Bavaria, the German federal government and the City of Munich.

## Working hard to protect local residents

By issuing this ruling, the judges also confirmed a number of the main arguments for the third runway that play a large role in the public debate on the topic. One important topic in this respect is the ability to reconcile the planned infrastructure measure with noise control and environmental protection requirements. Of course, an airport, as a major form of transport infrastructure, will impact on the environment and the people living nearby. However, Munich has the lowest level of noise pollution of any major airport in Germany with respect to impact on local residents. While over 197,000 people are affected by aircraft noise of over 55 dB(A) in Frankfurt, this

## Expansion of regional infrastructure

FMG's shareholders have set up a regional fund with a volume of 100 million euros to promote municipal transport projects. Payouts are tied specifically to the start of construction of the third runway and are designed to support the expansion of regional infrastructure to balance out any additional burden. Funds will go towards:

- The Erding north bypass and Freising west bypass
- A road link between Berglern and Eitting in the Erding district, and the Moosburg west bypass

Regardless of when construction of the third runway begins, five million euros from the budget has already been made available for each of the Erding north bypass and Freising west bypass projects. The majority of these funds have already been accessed. All of the funding for the Freising project has already been paid out.

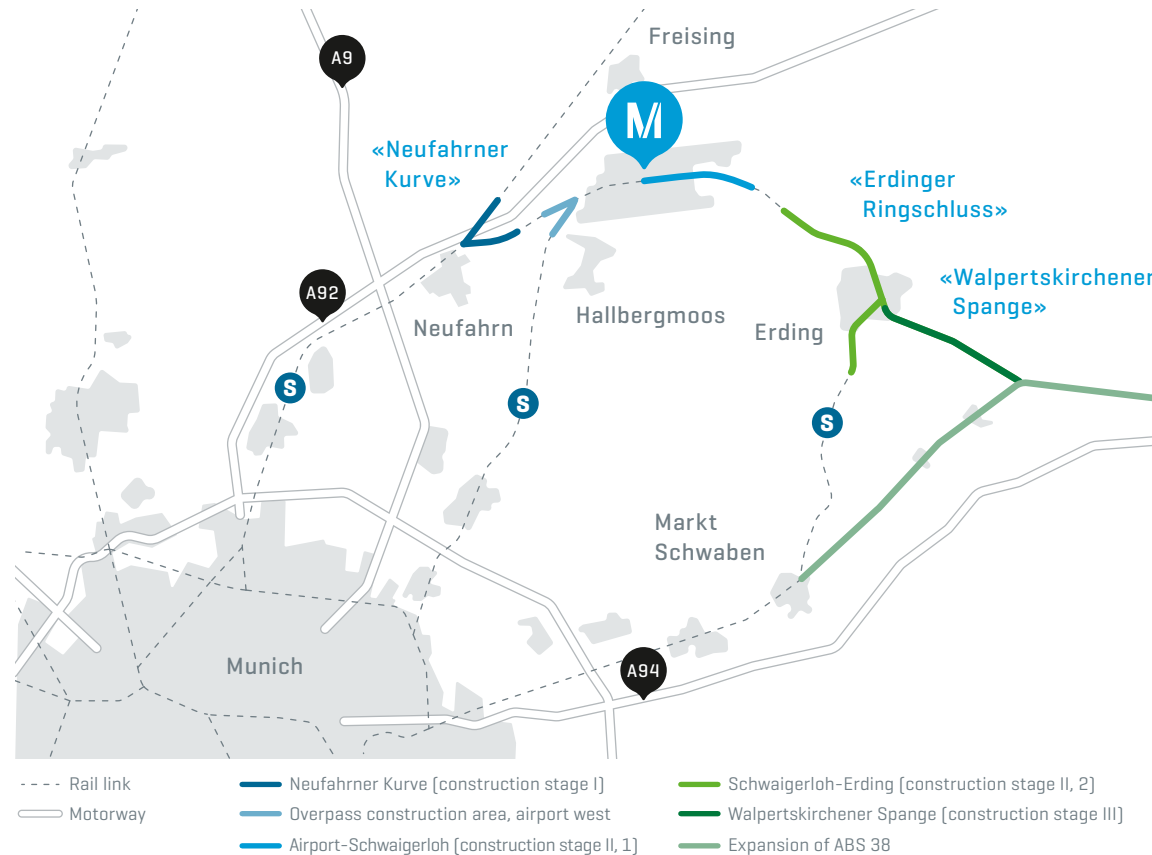
### Regional fund

In € million/Total fund: €100 million



figure is around 11,300 for Munich and its hinterland. This is despite the planning authorities tripling the statutory stipulations governing the size of the area eligible for compensation for the third runway. The airport is working hard to look after local residents and seeking individual solutions that benefit both sides.

## Strategic field of action: landside access and traffic development



→ Glossary

**5.3**  
MILLION

passengers used the subtrain to travel to the airport in 2017

### Compensation areas for conservation, and environmental protection

Thanks to an excellent compensation scheme, the biotopes around Munich Airport will continue to grow over the course of the construction project. For every hectare that the runway requires, the airport is creating almost one hectare of ecologically-valuable compensation area. Whether the issue is biodiversity, noise protection, resource management or climate protection, Munich Airport understands its responsibilities and has, since it first opened, pursued a program that is as ambitious as it is innovative in an effort to keep its operations' impact on local people and the environment to a minimum.

### Greater performance by improving the landside access

In 2017, as part of the «Erdinger Ringschluss» project, Flughafen München GmbH succeeded in obtaining the financing and building permission from the shareholders for the extension of the railway tunnel eastward. In combination with the first stage of the «Erdinger Ringschluss» through to the Schwaigerloh reverser, the railway tunnel forms the basis from which in the medium term the planned service improvements in railway transport at the airport can be achieved. These are simultaneously dependent on the construction of the second trunk route through Munich, the first preparatory measures for

→ Noise protection see page 81

which began in 2017. Construction of the «Neufahrner Kurve», which will enable direct rail access in the direction of Freising and Regensburg, is well advanced. It will be put into operation in December 2018. In terms of the road projects, the construction of the new Freising northeastern bypass as part of the 301 federal highway and the Freising west bypass are on schedule. Both route stages, which are parts of important link roads for passengers and staff, are due to be completed by the end of 2020.

## Management

### Strategic management and corporate governance

FMG has defined targets within its five strategic fields of action, geared toward sustainable corporate development. These targets take the form of specific initiatives and measures within the sustainability program. While the Executive Board and divisions are responsible for achieving these targets, all first and second-tier managers are responsible for implementing them. Manager remuneration then contains a variable element calculated according to the success of the initiatives and measures. FMG monitors target achievement in an internal management report prepared on a quarterly basis. This approach aims to ensure that the strategic targets are incorporated into day-to-day work.

[sustainabledevelopment.un.org](https://sustainabledevelopment.un.org)

### Sustainability management

#### Identifying and integrating key issues

As a «corporate citizen», i.e. a company that consciously acts in a responsible manner towards society, Munich Airport is always looking to pick up on issues of importance to its stakeholder groups. It welcomes dialog as an opportunity to continue developing its corporate policy, focused on sustainability. The company's sustainability management incorporates the concerns of the stakeholders into its own concerns as well as into the strategic planning and operational implementation. Using a materiality process, FMG identifies and prioritizes the issues that are important to external stakeholders and airport employees. Existing in-house processes and methods are linked to the internal strategy process for this purpose. FMG has set itself the goal of continuously improving processes, particularly with respect to the assessment and measurability of internal and external impact.

The Group-wide materiality analysis is based on the principles defined by the Global Reporting Initiative [GRI]. It is an important tool for strategic sustainability management and provides the basis for the Executive Board to set the central parameters for the sustainable development of the Group. In 2017, internal and external stakeholders' top priorities were customer focus, air traffic development, air traffic safety, digitalization, as well as employee training and recruitment. The assessments of internal stakeholders regarding the key issues have changed little compared to the previous year. Deviating priorities assigned by external stakeholders are due to the significantly expanded sample taken.

#### Munich Airport is contributing to the Sustainable Development Goals

In 2015, the United Nations adopted 17 Sustainable Development Goals [SDGs]. Politicians and businesses around the world have been called upon to transfer these SDGs into their fields of action and make a key contribution to achieving them through, for example, innovation, pioneering technology and responsible supply chains by the year 2030. The airport wants

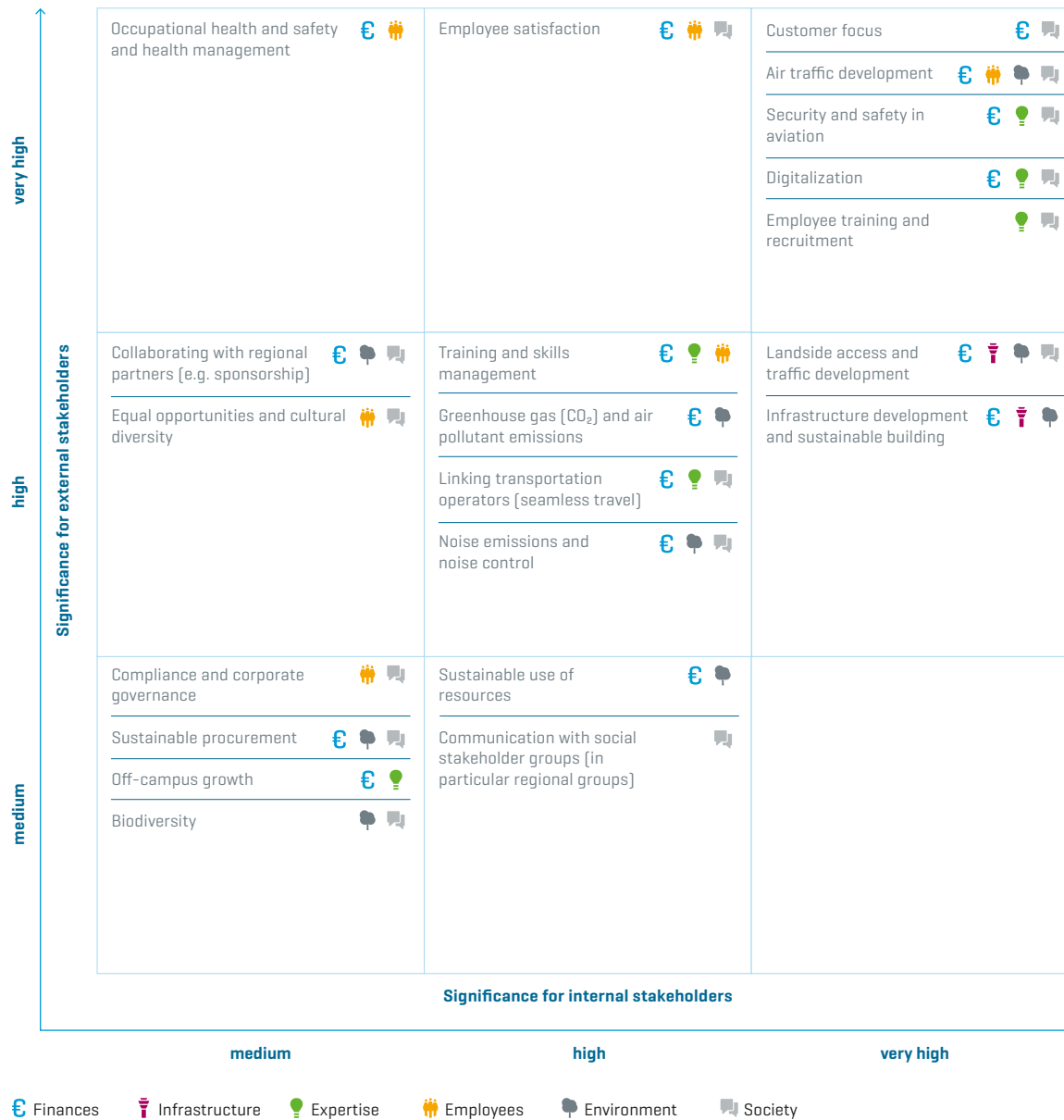
to show the influence its business activities have on the SDGs and how it can make a positive contribution to achieving the Sustainable Development Goals in the future through its strategic projects. To this end, FMG first identified the goals that are relevant to it and that it can influence. In 2017, another goal was added to the eleven identified: With SDG 11 «Sustainable cities and communities», sustainability is also taken into account in the realization of strategic building projects on the airport campus.

#### The Sustainable Development Goals (SDGs) relevant for Munich Airport

	Good health and well-being
	Quality education
	Gender equality
	Clean water and sanitation
	Affordable and clean energy
	Decent work and economic growth
	Industry, innovation and infrastructure
	Sustainable cities and communities
	Responsible consumption and production
	Climate action
	Life on land
	Partnerships for the goals



## Materiality matrix



## Materiality process

**1. Identification:** FMG conducts an annual survey of its main stakeholder groups and FMG management when it publishes its integrated report. It also uses the results of internal scenario analyses to understand the business model in the broader context of a sustainable approach to development.

**2. Prioritization:** The results of the annual stakeholder and FMG management survey are presented in a materiality matrix with two equivalent axes, which represent the importance of the individual issues for internal and external stakeholders. These issues are then discussed with experts within the company, and content is allocated to the strategic fields of action. The issues are also incorporated into the targets process. In 2017, FMG integrated selected key topics into the external brand survey for the first time. The number of people surveyed thus tripled compared to the previous year.

**3. Validation:** Members of the management team discuss the relevant issues as part of the annual strategic target agreement process. The stakeholder survey also provides external feedback on the content of the integrated report. Fields of actions and targets are adapted, expanded, or incorporated for the first time.

### Transparency through dialog

Munich Airport's brand message is «Living ideas – Connecting lives». Working with all stakeholders is the only way for the company to tackle upcoming challenges and successfully shape its future. FMG applies a three-stage approach to stakeholder dialog, thereby encouraging transparency and increasing social acceptance.

#### Stage 1: customized information on target-group-specific channels

For the information of the various interest groups, the airport has defined customized communication content and developed the appropriate communication formats. The integrated report, which FMG is now publishing for the eighth time, is an important tool in this regard. It brings together financial and sustainability reporting within a central publication and addresses all target groups.

#### Stage 2: exchange and collection of stakeholder feedback

The airport engages its stakeholders in discussions and decisions regarding issues that are of importance to them, thus creating the basis for trust and long-term acceptance. Via the reader survey, for example, the airport checks on the acceptance of the integrated report every year and determines the significance of key issues for stakeholders.

#### Stage 3: the results of dialog flow into business operations

Finally, Munich Airport also takes into account stakeholder feedback in relation to its business activities. Its stakeholders force FMG to confront new issues and thereby act as a mirror of society. This in turn makes it possible to identify issues and trends at an early stage, benefit from outside knowledge, communicate the company's stance, and defuse conflicts.



Sporting partnership: The airport is a premium partner of the BBL team FC Bayern Basketball.

## Stakeholder dialog

[facebook.com/flughafenmuenchen](https://facebook.com/flughafenmuenchen)

[twitter.com/MUC\\_Airport\\_EN](https://twitter.com/MUC_Airport_EN)

[instagram.com/munich\\_airport](https://instagram.com/munich_airport)

## Environment

### Central stakeholder groups

Airlines, business partners, the media, employees, passengers, visitors, politicians, authorities, the region, associations, and organizations

### Examples of central stakeholder groups

Local residents, potential business partners, end customers, shareholders, society/the public, real estate sector, interested parties, suppliers, air traffic industry, lessees, ministries, lease holders, regional economy, academic institutions, and research

## Communication channels

Online	Public relations work	Dialog	Committees
<ul style="list-style-type: none"> <li>• «Passngr» app</li> <li>• Social media</li> <li>• Website: munich-airport.com</li> <li>• Website about the extension: gutfuerbayern.de</li> <li>• Intranet</li> <li>• Aircraft noise and air quality monitoring platform</li> <li>• Newsletter</li> <li>• Online report</li> </ul>	<ul style="list-style-type: none"> <li>• Publications (for example the integrated report)</li> <li>• Press events and press releases</li> <li>• Marketing partnerships</li> <li>• Airport tours</li> <li>• Visitors Park</li> <li>• Airport Days</li> </ul>	<ul style="list-style-type: none"> <li>• Conferences, meetings</li> <li>• Trade fairs</li> <li>• Works meetings</li> <li>• Employee survey</li> <li>• Employee meetings</li> <li>• Passenger survey</li> <li>• Terminal services, InfoGate counters</li> <li>• Dialog management</li> <li>• «Regional Liaison Office»</li> <li>• «Political Affairs»</li> <li>• Parliamentary evenings</li> </ul>	<ul style="list-style-type: none"> <li>• Expert talks and specialist discussions</li> <li>• Working groups and committees</li> <li>• Communities Council</li> <li>• Aircraft noise commission</li> <li>• Airport forum</li> <li>• Airports Council International (ACI)</li> <li>• German Airports Association (ADV)</li> </ul>

[report2017.munich-airport.com](#)

## Examples

Public relations	Media	Region	Sponsorship activities in Munich
<p>Corporate Communications shares the latest information on the social media channels of Facebook, Twitter, Instagram and YouTube, in the style appropriate for each online platform. The top stories for 2017, for example the airport's anniversary celebrations and the parting of Air Berlin, resonated well with the fans and followers of Munich Airport.</p>	<p>FMG's press office regularly and quickly updates the media on the latest developments. The 25th anniversary was the standout media event of 2017 and offered many opportunities to push the airport's success story into the media limelight. Much attention was also paid to the annual press conference in March 2017, where the company discussed the dynamic growth in traffic and its strong economic performance.</p>	<p>Good cooperation with the region is essential if Munich Airport is to be successful, and the Regional Liaison Office is responsible for this. As a support office, it reports directly to the Executive Board and sees itself as a kind of bridge-builder between the airport and the region. For the municipalities, political decision-makers, institutions and citizens, the Regional Liaison Office is the first port of call for questions relating to the airport.</p>	<p>In 2017, in addition to FC Bayern Basketball, Midsummer Night's Dream in the Olympiapark and the Munich Marathon, FMG supported more than 20 other flagship projects from the fields of sport, the arts and culture in the state's capital. Through this effective presence, Munich Airport is pushing even closer to the city of Munich and is thus meeting its responsibilities to it.</p>





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The week of celebrations for the 25th anniversary of Munich Airport was a huge success, with more than 50,000 visitors in total. More than 20,000 visitors attended each of the Family Days on the Saturday and Sunday, to admire close-up the interesting aircraft parked on the specially opened apron, such as a NATO AWACS or the historic Douglas DC-6B. Before that, more than 10,000 guests had celebrated the Music Days held at the airport.

### Making an impression with quality

Munich Airport is particularly well-known for the quality of its services. These high standards apply across all areas – in the core business of aviation as much as in the consumer business and internal processes.

### Passenger Experience Index (PEI): measuring quality and managing measures

Passenger satisfaction is of central importance to Munich Airport. A survey developed by FMG provides in-depth information on this and on how comfortable the passengers feel in the airport and what they think of the quality of the services provided. The PEI is firmly established in the airport's targets system as one of the non-financial key performance indicators. It allows FMG to derive fields of action that sustainably improve the passenger experience.

### Airport Service Quality (ASQ): making service quality visible

Munich Airport is one of more than 310 airports worldwide that regularly takes part in the ASQ survey on service quality initiated by the international airport association ACI (Airports Council International). As a result, it can compare itself to the best hubs in Europe. In 2017, Munich Airport took third place in the category for European airports with more than 40 million passengers.

### 5-star airport: title successfully defended

In 2017, the London-based aviation research institute Skytrax once again named Munich Airport as Europe's only 5-star airport, making it part of an exclusive group of just six airports in the world to carry this premium mark of approval. In particular, it was the commitment, friendliness and expertise of the airport staff that contributed to the airport receiving this award once again. In addition to hospitality, the evaluation criteria included ambiance and comfort, services, processes, and orientation.

### Skytrax: T2 is the world's best passenger terminal

Munich Airport was named Europe's best airport at the «Skytrax World Airport Awards 2017». Terminal 2, which was used by 30 million passengers in the reporting year, received the highest accolade of best passenger terminal in the world. The airport took fourth place in the global ranking. More than 13 million passengers from 105 countries rated 550 international airports and numerous airlines for the survey. They considered criteria such as the friendliness and expertise of airport staff, the range of shopping and leisure outlets, and transfer options.

### Service and hospitality: maintaining and optimizing service quality

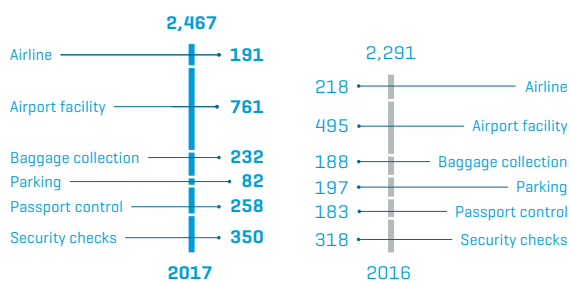
Tailor-made service and hospitality training and workshops raise the operational heads' awareness of customer contact and emphasize their role as ambassadors for the service culture in the relevant divisions. FMG thus encourages an awareness of customer orientation and the role model function within the Airport Family. This community encompasses not just the Group, but also all partners based on the campus, such as the 5-star airline Deutsche Lufthansa, and the authorities active at the airport.

### Dialog management: dealing with feedback professionally

The central dialog management team quickly responds to, categorizes and analyzes all customer feedback on a case-by-case basis. It records not just complaints, but also constructive criticism and positive feedback. 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. In 2017, Munich Airport recorded 55 complaints per one million passengers handled.

### Dialog management

Number of complaints on key issues



### Certified quality management: creating effective processes

The quality management system launched at Munich Airport on the basis of the international standard DIN EN ISO 9001:2008 establishes structures that support the evaluation and improvement of processes. By optimizing its processes on an ongoing basis, Munich Airport has successfully established itself and its high quality standards on the market.

### Employees as brand ambassadors

Strong brands have a positive impact on company success. They are shaped, inter alia, by direct staff contact with customers and partners. For this reason, the Munich Airport Group places great value on anchoring the brand values and attributes more firmly across the Group. According to an in-house brand survey<sup>1)</sup>, 80 percent of staff knew what the brand «M» stands for and its significance for their daily work. This positivity has also reached the airport's customers<sup>2)</sup>: 64 percent perceived Munich Airport to be particularly customer-focused. 47 percent stated that the customer experience at Munich Airport is significantly better than at other airports. Its identity as a premium airport with a Bavarian core also cultivated a strong emotional connection for passengers: 60 percent named Munich Airport as their «favorite airport», while 70 percent perceive «M» as a trustworthy brand. «InnovationPilot», Munich Airport's crowd-sourcing platform, introduced in 2016, also reflects this closeness to the airport. After just three ideas campaigns, more than 1,300 users have already registered for joint brainstorming, while 67 percent perceived a positive development in offerings at the airport.

<sup>1)</sup> Employee survey 2017, Cubia AG

<sup>2)</sup> External brand study 2017, IMPACT IRC



Munich Airport is Europe's first-ever 5-star airport.

### Top five measures in the sustainability program [Full program online: munich-airport.com/sustainability-program](https://www.munich-airport.com/sustainability-program)

Material topics	Initiatives	Measures	Status 2017	Measure ends
Customer focus	Ensuring the necessary quality and efficiency at the Munich Airport site	Developing, operating, monitoring and coordinating the Group-wide continuous improvement process (passenger satisfaction data, ASQ, dialog management, etc.)	Ongoing	Ongoing
		Continuing and developing the quality and service offensive (5-star program)	Ongoing	Ongoing
		Supporting the «Neufahrner Kurve» project	100%	2017 [completed]
Landside access and traffic development	Improving rail access over the medium term	Supporting the planning approval process for the «Erddinger Ringschluss» [airport-Erding]	80%	2018
		Ensuring the route 38 extension project between Munich, Mühldorf, and Freilassing as part of the new Federal Transport Infrastructure Plan	75%	2020

# SERVICE PORTFOLIO

- 55** – Aviation
- 59** – Commercial Activities
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- 62** – Participations, Services & External Business

For Munich Airport, showing class means not only providing outstanding services for the airlines, but also creating an attractive offering of retail outlets, catering options and services for the passengers. Moreover, thanks to its service portfolio, the airport is constantly reaching out to more and more new customer groups on the campus.



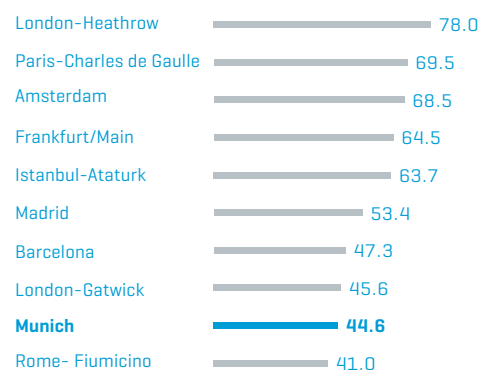
## Aviation

### Efficient hub airport

The Aviation business division is responsible for FMG's core business. It provides and markets aviation infrastructure and services for airlines and passengers, working with the authorities and other stakeholders. In the process, it promotes the hub function of Munich Airport. Hubs bundle flights in an efficient and resource-friendly manner. This creates lots of different connections using a minimum number of aircraft. Long-haul transport in particular would not be possible to the accustomed extent without feeder services. The share of transfer passengers that has remained stable in percentage terms since 2015 at 36 percent safeguards the important hub function of Munich Airport. In absolute terms, the number of transfer passengers has increased since 2011 by 1.42 million passengers.

### Munich compared with other European airports in 2017

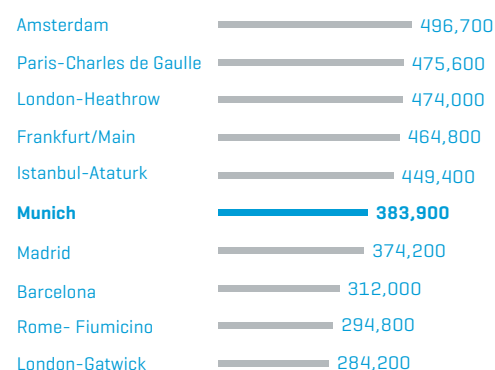
Passengers in commercial traffic in millions



### Munich Airport offers many connection options

Munich Airport has the densest network of intra-continental flights in Germany, meaning that it is able to offer travelers several European destinations and – in conjunction with its inter-continental services – transfer connections to long-haul destinations. Munich Airport's distinguishing features are its short minimal connecting time, a high standard of service and amenities, and efficient processes. Its outstanding connection options are also reflected in its good rating in the Airport Industry Connectivity Report 2017 published by the ACI. This report assesses the quality of connections at individual air traffic hubs. Munich Airport achieved sixth place in the European ranking, and 11th place worldwide. However, Munich Airport is not just attractive as a hub for transfer passengers – its wide range of direct connections also scores points with travelers. This segment was given a second wind in 2017 by the stronger presence of the Lufthansa subsidiary Eurowings.

Aircraft movements in regular/charter traffic



Data as of: January 29, 2018 / source: Airports Council International (ACI)

### Continued growth in passenger figures and aircraft movements

In 2017 a new passenger record was set with 44.6 million travelers – an increase of 5.5 percent over the previous year. To a large extent, competitors were able to compensate for the flight cancellations due to the insolvency of Air Berlin. In the ranking of airports in Europe with the highest volume of passengers, Munich Airport remained in ninth position. The number of aircraft movements rose again and – thanks to an increase of 2.6 percent – reached a value of around 405,000 flights, despite the severely negative impact of the insolvency of Air Berlin.

### High growth rates for freight

Freight turned around in Munich [362,831 tonnes] achieved the highest growth rate of 8.5 percent. The cargo volume, that is, the total of freight and mail turnaround, rose slightly more moderately by 7.1 percent to 378,803 tonnes. «Belly-hold» cargo, which is transported on passenger flights, recorded a particularly positive performance: It increased by 14.1 percent to 310,820 tonnes. Well over 90 percent of this important freight share is transported on long-haul routes – a traffic segment that would simply not exist in this form without Munich Airport's hub function.

### Modern aircraft types raise the prestige of the location

In 2017, Deutsche Lufthansa deployed the state-of-the-art long-haul aircraft, the Airbus A350, in a regular service in Munich for the first time. Lufthansa is stationing a total of 15 machines of this type in Munich and is strengthening the location thanks to the efficiency of these aircraft with low consumption and lower noise pollution. The significance of Munich as a long-haul airport with an attractive catchment area is also demonstrated by the announcement in 2017 that five Lufthansa Airbus A380s would be stationed there for the 2018 summer timetable. This is the largest passenger aircraft in the world and can be used economically only at efficient hubs with a particularly high level of demand.

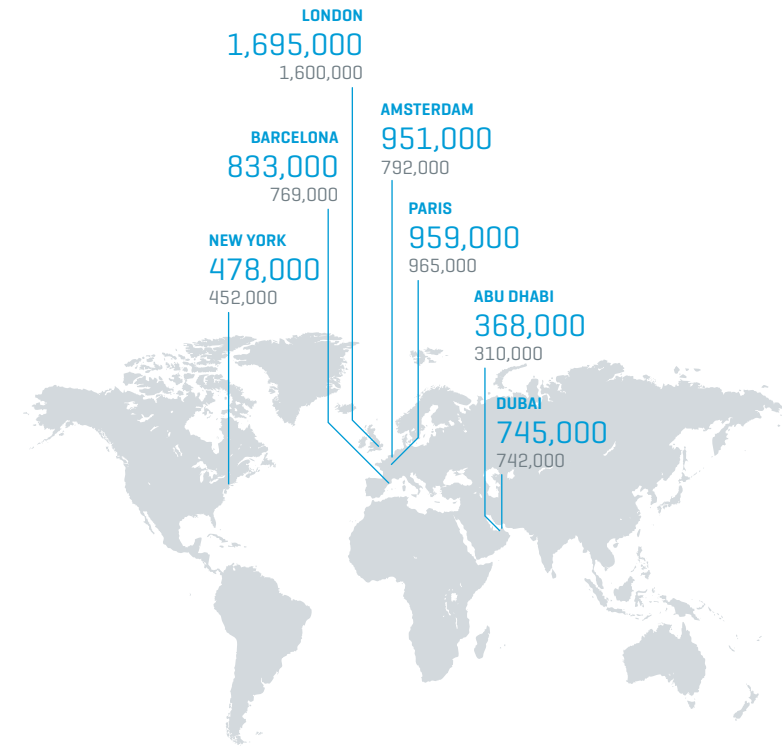
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### Destinations with the highest passenger volume

2017 2016



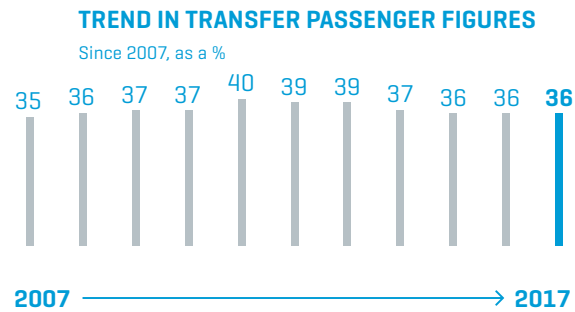
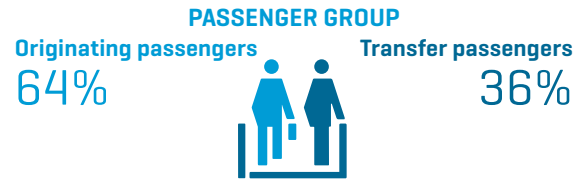
### New record in the third quarter

In the months of July, August, and September, Munich Airport recorded around 13 million passengers – this far exceeded the value for the previous year once again.

#### PREVIOUS RECORD DAY FOR HIGHEST TRAFFIC VOLUME



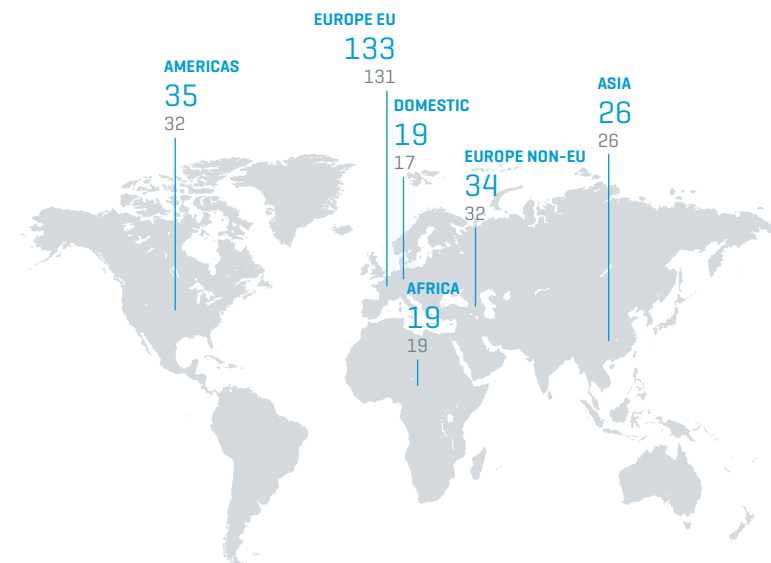
### Passenger structure in 2017





### Dense traffic network serving numerous destinations

2017 2016



### More airlines serving more destinations

In 2017 the number of direct destinations served by Munich grew by nine, to 266. Lufthansa in particular considerably expanded its traffic network at the Munich location with various increases in the frequency of continental and inter-continental flights. The low-cost airline Eurowings extended its offering by around a hundred daily departures to 30 destinations and announced the stationing of three long-haul aircraft in Munich for the year 2018. Eurowings has been flying out of Terminal 2 since March 2017. Over the course of the year, Etihad Airways and Oman Air also moved into Terminal 2 because of the codeshare cooperation with Lufthansa. Condor consolidated its long-haul offering in the summer timetable with the destinations of Las Vegas and Seattle and increased the frequencies to Punta Cana; in the winter timetable, it flew to Fort de France as part of a triangular route with Bridgetown, and also to Dubai and Recife. United Airlines launched a new daily connection to San Francisco. The Irish low-cost airline Ryanair introduced two daily flights between Dublin and Munich in summer 2017. In the winter timetable, easyJet

### Expansion of the Lufthansa long-haul fleet

#### Capitals Impact on capitals

€	<ul style="list-style-type: none"> <li>+ Increase in the revenue of loading and unloading service providers</li> <li>+ Higher revenue in the retail and catering trade in the terminals</li> <li>+ Improved competitive position</li> <li>- Investments for adapting the infrastructure</li> <li>- Acquisition costs for the new connections</li> </ul>
🛫	<ul style="list-style-type: none"> <li>+ Strengthening of the hub function</li> <li>+ New direct connections</li> <li>+ Upgrading and modernization of the equipment</li> </ul>
💡	<ul style="list-style-type: none"> <li>+ Acquisition of new competencies (for example, handling of the new aircraft types)</li> </ul>
👥	<ul style="list-style-type: none"> <li>+ Larger range of jobs on offer</li> </ul>
🗣️	<ul style="list-style-type: none"> <li>+ Lower noise pollution thanks to new aircraft types such as the A350</li> <li>+ Less environmental pollution due to lower fuel consumption</li> <li>+ Emissions from the A380 far below the international limit values</li> <li>- More aircraft movements</li> </ul>
💬	<ul style="list-style-type: none"> <li>+ Positive effects in overall economic terms</li> <li>+ Creation of around 500 new jobs</li> <li>+ Improvement of the attractiveness of the catchment area for the economy and tourism</li> </ul>

→ see pages 14-19



→ Glossary

operated up to eight daily flights to Berlin-Tegel to compensate for the discontinued connections run by Air Berlin.

### High safety standards officially confirmed

As well as Airport Security, Airport Safety is crucially important for airports. This includes the safe operation of aircraft and a guarantee of the technical operational readiness of the infrastructure and systems that ensure the safe processing of air operations. Munich Airport is continually enhancing the existing Safety Management System [SMS] to maintain and improve its renowned high safety standard even with increasing numbers of passengers and increasing levels of complexity in air traffic. For example, Safety Management identifies and assesses risks in the context of Safety and Risk Assessments, and initiates measures to guarantee the safety of flight and airport operations in accordance with international standards.

In 2014, the EU passed new regulations for the certification of airports with the aim of harmonizing safety standards, and achieving a consistently high level of safety at all European airports. As part of this process, Munich Airport gained certification based on the requirements set out by the EASA [European Aviation Safety Agency] in December 2017. With that, it fulfilled a crucial prerequisite for retaining its operating license. Munich Airport is still subject to regular inspections and checks performed by the responsible license authority, the South Bavaria Air Agency under the government of Upper Bavaria.

### New organization of the Airport Rescue and Firefighting service

The Munich Airport Rescue and Firefighting service is responsible not only for fire safety on the campus, but also rescue services. With its two stations, it can reach any point on the runways within a maximum of 180 seconds of an alarm being triggered. This quick response meets the

strictest requirements [category 10] set out by the ICAO [International Civil Aviation Organization], and is therefore in keeping with the high safety standards in place at Munich Airport. Since October 2017, the Airport Rescue and Firefighting service has joined the previous Corporate Safety unit to form the new Group Safety corporate division, after it was previously organizationally assigned to the Aviation business division. The aim of this restructuring was to be able to manage critical safety situations as effectively as possible in conjunction with the authorities at the airport. The regular emergency drill required by the ICAO to ensure that Munich Airport could retain its operating license was due in September 2017. Alongside the Airport Rescue and Firefighting service, over 550 emergency personnel with more than 120 vehicles from the fire service, the emergency services, the Technical Relief Service [THW] and the Bavarian Red Cross, Maltese Cross, and St John's Ambulance services worked together successfully.

### Prevention of bird strikes: making the premises as unattractive as possible

Collisions between aircraft and heavy birds or flocks of birds can pose a danger to the safety of flight operation. For several years, Munich Airport has therefore implemented a special biotope management scheme: The green areas around the runways are mowed as rarely as possible, and there are no particularly large bodies of water near to the flight operation areas, as otherwise ducks and geese would congregate there. Suitable steel cables are stretched over the drainage ditches near the runways to make access difficult for waterfowl in particular. Specially trained staff from «Wildlife Management» also monitor the bird population on the airport campus to prevent any possible dangers due to bird flight movements in good time. Despite these safety measures, the protection of the birds that have settled at Munich Airport is still considered important.



The new Sportalm in Terminal 2 with its Alpine design and culinary specialties.

In 2017, during the EASA certification process, the government of Upper Bavaria audited FMG's animal hazard management. The company is now certified in accordance with the EASA provisions. On the issue of bird strike prevention, FMG works closely with the relevant partners and institutions, in particular the airlines, German air traffic control, regional and higher-level authorities, and the GBSC [the German Bird Strike Committee]. The statistics from the GBSC show that Munich Airport has had a relatively low bird strike rate for many years now. The average bird strike rates in Areas 1 and 2 in Germany for 2017 were 163.5 and 80 percent respectively higher than the rates recorded for Munich Airport.

→ Glossary



## Commercial Activities

### Various offerings in the non-aviation segment

The Commercial Activities business division at FMG acts as the Center Manager, developing all the retail and catering spaces in the two terminals and in the München Airport Center [MAC]. It is also responsible for all offerings regarding parking and the marketing of advertising space. Commercial Activities also designs and holds numerous events, especially in the MAC Forum. With this portfolio, the business division addresses the end customers, especially the passengers, as well as employees and visitors. This business division therefore makes a significant contribution to the revenue from the non-aviation segment.

### High demands for ambiance and quality

Customers value Munich Airport as an innovative location with a distinctive Bavarian charm and five-star quality. Business partners, advertisers, and retail unit lessees use the airport to position their products, services, and brands. Munich Airport therefore attaches great importance to nurturing a positive relationship between the traffic and sales areas and to ensuring a suitable mix of sectors and brands. The airport's approach is centered around strong national and international brands and a unique Bavarian identity with impressive brand recognition.

Allresto Flughafen München Hotel und Gaststätten GmbH provides a diverse range of culinary options at Munich Airport. It runs around 75 percent of all catering facilities at the airport.

The high standard of the international, German, and Bavarian dishes on offer is reflected in the airport's strong results in the Skytrax World Airport Awards and its popularity among guests. The offering was supplemented in 2017 in the public area of Terminal 2 by the Sportalm restaurant in an Alpine design and with a large sun terrace. In the past fiscal year, Allresto also expanded the municon conference and meeting center. The event space near to the terminals now features over 34 rooms to cater for groups of four through a maximum of 180 persons. An exclusive restaurant rounds off the portfolio of municon.

eurotrade Flughafen München Handels-GmbH, a wholly owned subsidiary of FMG, operates 60 shops featuring a wide range of products. The assortment ranges from duty-free items through press and travel items and even includes fashion, watches, and jewelry. As a customer-oriented service provider, eurotrade always reflects the latest retail trends quickly in its shops. For example, one such trend is the sale of regional products such as chocolate, veal sausages, and beer. eurotrade is also innovative in terms of its payment systems: Since December 2017, WeChat Pay has been available for Chinese customers, as has the digital payment service Alipay. eurotrade was the first retail company in Europe to introduce this payment method. A website is now also available for Chinese customers where they can reserve and pay for selected items, and then collect them in person at the airport.

### Innovative parking services

Munich Airport expanded its parking facilities in 2017. For example, it further enhanced its online booking service and introduced new functions, such as paperless entry at the barrier using a QR code on a cellphone. With the new E-Charge Valet Parking service, drivers can hand over their electric car on the approach to the terminal and then find it fully charged again when they return. In the coming years, several new parking lots will be built at Munich Airport. For example, 2017 saw the start of construction on the parking lot P51 in the Visitors Park. At the same time, existing parking lots were renovated. As the car hire business registered strong growth in 2017, a new car hire center is currently in the planning stage.

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

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

➔ Group management report see page 95



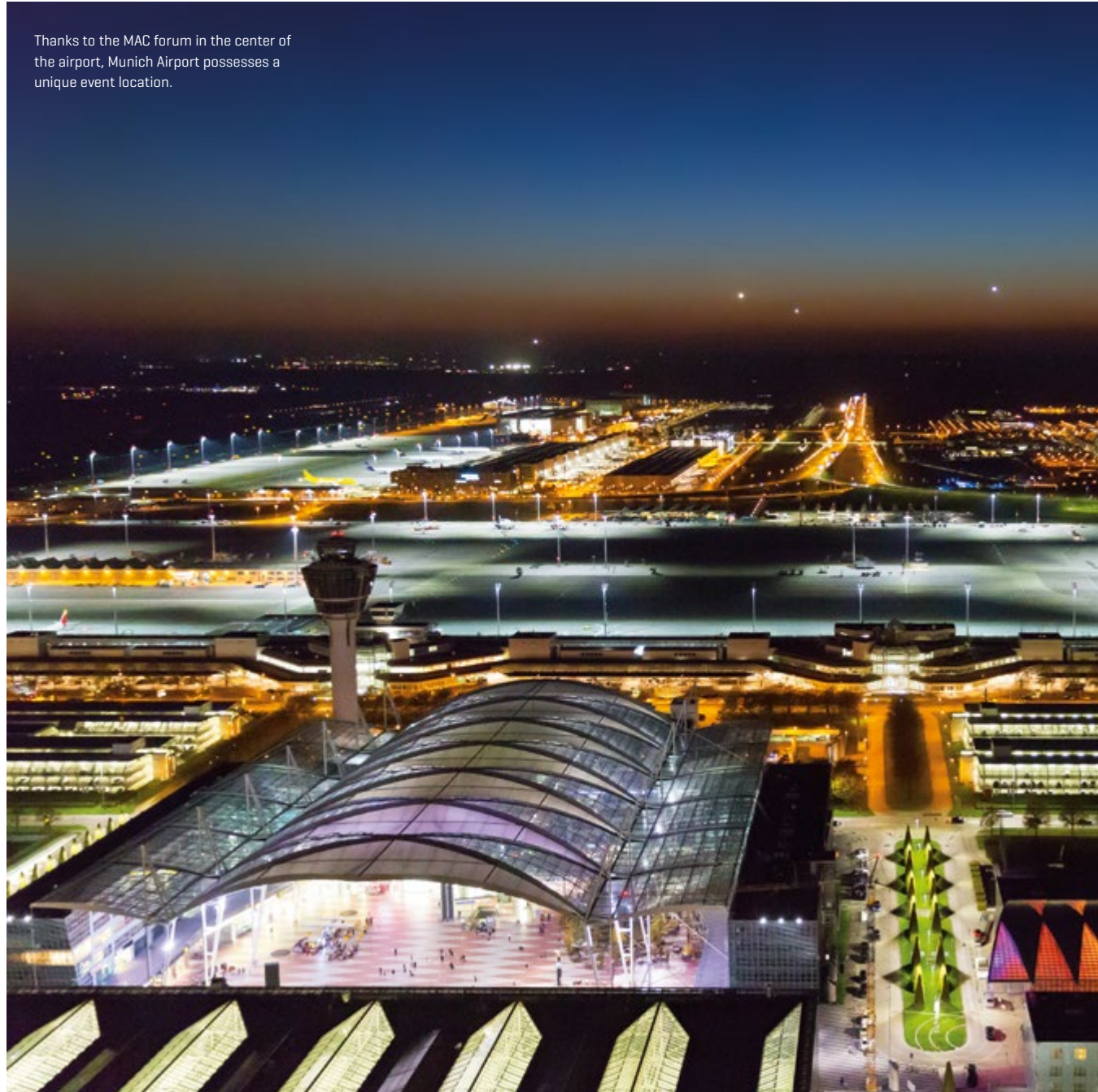
### MAC forum: popular location for events and advertising

The roofed-over open-air MAC forum between the two terminals – the largest such area in Europe – regularly hosts special events for passengers and visitors. The past fiscal year saw the following highlights at the MAC forum:

- **Tennis:** For the third time already, tennis matches were held at the airport prior to the BMW Open.
- **Taste & Style:** In its second year, the food festival once again attracted numerous visitors with the latest in culinary trends.
- **Bike & Style:** International stars from the mountain-bike and free-ride scene showed off their skills in spectacular shows. Visitors demonstrated their talents at various workshops.
- **Airport Basketball Days:** The highlight of this entertaining program featuring some top-quality players was the match between the basketball teams from Bayern Munich and Real Madrid.
- **Christmas and Winter Market:** The atmospheric market with a public ice rink has quickly become a tradition.

Advertising customers find an attractive environment at Munich Airport reaching target groups with strong purchasing power and high contact numbers. The large advertising area on the western facade of Terminal 2 is an impressive showcase. For example, this area featured both Lufthansa and Audi as advertising partners in 2017, as well as the tourist region of Kitzbühel. Advertising clients also have the opportunity to use entire spaces, promotion areas, and showrooms in the terminals to showcase their products. It was because of this that the airport succeeded in winning Chanel as a new customer in the premium segment and in staging an elaborate campaign for the new fragrance «Gabrielle» in Terminal 2.

Thanks to the MAC forum in the center of the airport, Munich Airport possesses a unique event location.







## Real Estate

### Successful development and marketing of the airport as a location for real estate

The Real Estate business division develops, markets, and operates all of FMG's property and real estate, some of which is located outside of the airport campus. Sustainable new-build concepts and city-style infrastructure form the basis for successful positioning on the market.

### Step by step toward opening AirSite West

The most significant future project for the business division is AirSite West. Munich Airport will be carrying out numerous new construction projects on this site to the west of the airport campus in the coming years.

### Preparation

As a first step, underground engineering and road construction are currently the most important factors. The underground engineering work began in the area of the Nordallee in 2017. At the same time, supply and disposal routes are being laid there. The investment in these infrastructure measures, which are due for completion through 2019, stood at just under 20 million euro in 2017. From 2020, a new access and exit from the radial highway will also lead directly to the north and south areas.

### Relocation of the Airport Academy

The Airport Academy will move from its off-campus location to AirSite West. The new modern building with state-of-the-art equipment will also house conference rooms and catering facilities to provide for the surrounding neighborhood, on a gross floor area of approximately 14,400 square meters.

### Provision of accommodation is growing

In addition to the premium- and medium-segment hotels on the airport campus, FMG is planning to build a budget hotel with 350 rooms for price-conscious guests at AirSite West. Munich Airport intends to build this hotel with internal investment and to open it at the end of 2021.

### Larger BMW airport service

BMW has been operating a Service Center at Munich Airport on an area of about 1,300 square meters since 1993 – including a shuttle service to and from the terminals. As the level of utilization has been growing more and more and this service is profitable only in the direct vicinity of the airport, BMW decided to lease a plot of land with an area of approximately 22,000 square meters at AirSite West. The permit is already available and construction will begin in spring 2018.

### FMG creates living space for employees

The demand for living space in the region of the airport is constantly growing. At the same time, Munich Airport – in light of its social responsibility – must also safeguard the future need for personnel, which includes strategies for supporting employees in their search for accommodation. One element in these strategies is the opening of a new apartment building with high-quality fittings in the summer of 2018, which FMG as the general tenant will offer to its applicants and employees. In this way, employees with a medium level of income will be able to find an apartment for a short-term tenancy.

[munich-airport.com/  
real-estate](https://www.munich-airport.com/real-estate)

## Participations, Services & External Business

### AeroGround: market leader in ground handling

AeroGround Flughafen München GmbH is a wholly owned subsidiary of FMG. Together with its subsidiary founded in 2016, AeroGround Berlin GmbH, it offers all landside and airside services related to aircraft, luggage, and passenger handling at Munich, Berlin-Tegel, and Berlin-Schönefeld airports. AeroGround is a founding member of ground.net and is thus part of a European ground handling network with over 70 stations in Germany, Greece, Bulgaria, Cyprus, Switzerland, Scandinavia, Great Britain and Italy.

[ground.net](#)

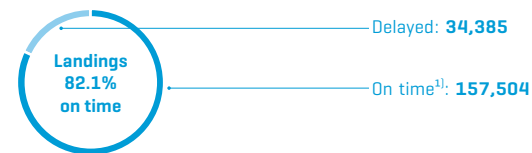
In 2017, some 2,900 employees handled over 318,000 aircraft movements, 26 million items of luggage and 40 million passengers in Munich and Berlin for 150 customers from the aviation industry. The Transport Service division at Munich Airport transported about 10,000 passengers in approximately 760 bus trips every day. In Munich, AeroGround retained its position as market leader in the field of airside aircraft and baggage handling in 2017. In this area, 95 percent of the handled flights took off on time. In Berlin, the level of punctuality stood at 89 percent. In 2017, a further nine partners were added to the client portfolio in Munich and Berlin. In addition, it was possible to extend nearly 20 ground handling contracts with already existing clients in Munich and Berlin.

In 2017, AeroGround Berlin won the «Ramp Safety Award» at one of the largest international ground handling trade shows in Barcelona. The reason for this award was the service of one employee whose quick reactions prevented injuries to passengers and damage to an aircraft. Furthermore, AeroGround Munich registered again in 2017 under the «Safety Audit for Ground Operations» (ISAGO) by the International Air Transport Association (IATA). This association sets uniform international safety and security standards for ground handling.

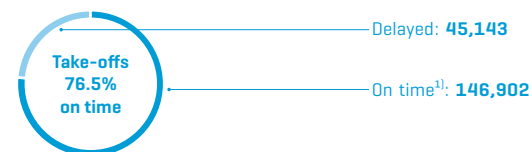
For the 2017 summer timetable, AeroGround Berlin took over the ground handling for the airline Air Berlin at Berlin-Tegel Airport and so became the market leader. In the first few weeks, this change of supplier entailed numerous challenges, but it was possible to gradually stabilize the performance over the following months. Air Berlin declared bankruptcy in August, and the related suspension of air traffic at the end of October represented a significant decline in ground handling at Berlin-Tegel Airport for AeroGround Berlin. Compensating for the loss of this important client, digitalization, the lack of personnel and technicians, and the rise of low-cost airlines are all challenges that AeroGround is taking on both now and in the future.

### Punctuality statistics in 2017 at Munich Airport, in regular/charter traffic

Total number of landings: 191,889



Total number of take-offs: 192,045



<sup>1)</sup> Deviation of up to 15 minutes

### aerogate: partner for excellent service

As a wholly owned subsidiary of FMG, aerogate München Gesellschaft für Luftverkehrsabfertigungen mbH is responsible for passenger service at check-in and at the gate, baggage delivery, the operation of lounges and reception services, arrival service, ramp supervision, and an IATA ticket agency at Munich Airport. In 2017, aerogate was successful in its ISAGO recertification by the International Air Transport Association (IATA). The FMG subsidiary also worked on continuously improving its service quality. For example, a web-based self-service portal was introduced in the Lost & Found area, which allows passengers to register the loss of a suitcase using tablets provided for this purpose or their own cellphone. A system has also been implemented for the automated processing of suitcases, partly using scanners.

Within the passenger handling segment, aerogate at Terminal 1 was again able to defend its market share of just under 60 percent. In 2017, an average of around 500 employees handled over 28,200 flights and some four million passengers. With just under 60 aviation services apprentices, aerogate was also the largest trainer for this particular career at the site once again in 2017.

### Cargogate: growth above the market trend

Cargogate Flughafen München Gesellschaft für Luftverkehrsabfertigungen mbH is responsible for the handling and storage of airfreight, as well as documentation and customs formalities. In 2017, 215 employees handled over 60 percent of the airfreight clients and so one third of the airfreight at Munich Airport. The net income of Cargogate improved considerably in the past year thanks to restructuring measures and an increase in the tonnage. The newly won client Thai Airways and the frequency increase at the freight company Air-BridgeCargo made a crucial contribution to achieving growth of almost nine percent to a total of 108,888 tonnes of freight.

### EFM: record in aircraft moving operations

EFM – Gesellschaft für Enteisen und Flugzeugschleppen am Flughafen München mbH – has 158 employees and is responsible for moving, de-icing, and providing conditioned air for aircraft. Up to now, EFM managed its activities from the West apron. In October 2017, the groundbreaking ceremony for a new building was held on the East apron; EFM plans to move in there in the summer of 2018. A new record was set in the winter season 2016/2017 with a total of 201,000 moving operations. The rise of 4.3 percent on the previous year was due primarily to growth in the number of departures and to a higher pushback rate. Thanks to the weather conditions, the number of de-icing operations also increased to 9,879 (previous year: 6,935). EFM has been certified to ISO 9001 since 1997, and to ISO 14001 since 2003. Following a successful audit in 2017, recertification to ISO 9001:2015 and ISO 14001:2015 is planned for 2018.

### InfoGate: new offering in the banking sector

The video-based information system InfoGate has been established at Munich Airport for several years. It displays employees on screens who can then provide specific, relevant, and comprehensive information for passengers and visitors in several locations. InfoGate was developed by InfoGate Information Systems GmbH. The clientele of the FMG subsidiary includes shopping malls, other national and international airports, and insurance companies. Since 2017, InfoGate has provided a special solution for branch banks: Bank customers can reach a customer adviser on site at their branch, even if the branch is not staffed. An adviser from the bank headquarters is then available for banking transactions via the screen.

### MediCare: more treatment possibilities in new facilities

MediCare Flughafen München Medizinisches Zentrum GmbH offers a wide range of medical services. They include emergency care for passengers, visitors and employees, as well as services relating to occupational health and aviation medicine. In 2017, MediCare extended its facilities in Terminal 1, Arrivals E. It was due to move into the area in February 2018. It also opened the extension to AirportClinic M, a private clinic with nine beds, in June 2018. The range of treatments available now includes various specialist areas as well as orthopedics, urology, and plastic surgery.

### Outsourcing of the international business

Munich Airport International GmbH (MAI) coordinates all the international activities at Munich Airport regarding consulting, management services, and training. It operates as an independent subsidiary of FMG, after having been a support office responsible for the international business until August 2017. Around 70 employees from ten different countries work for MAI, and 30 of them have full-time posts. It is planned to enlarge the team to over 100 employees in the coming

years. With its expertise, MAI can cover almost all the fields of business that are needed for the operation of the airport. Apart from classic Operational Readiness and Airport Transfers (ORAT), the company offers planning services, support with process optimizations, and concepts for site development. The next step will be to strengthen MAI's presence on promising growth markets. In the first half of 2018, MAI would like to open sales locations in the Middle East, Africa, and Asia. In parallel with that, it is analyzing joint ventures and the takeover of foreign consulting firms in order to supplement its own product portfolio.

### International business activities

The most important projects around the world in 2017:

- Istanbul, Turkey
- Singapore
- Muscat, Oman
- Palmerola, Honduras
- Cairo, Egypt
- Quito, Ecuador
- Riyadh, Saudi Arabia
- Ta'if, Saudi Arabia

[munich-airport.com/efm](http://munich-airport.com/efm)

OVER  
**50**  
PROJECTS

in 30 countries

[munich-airport.com/international](http://munich-airport.com/international)

[munich-airport.com/infogate](http://munich-airport.com/infogate)

### Top five measures in the sustainability program [Full program online: munich-airport.com/sustainability-program](http://munich-airport.com/sustainability-program)

Material topics	Initiatives	Measures	Status 2017	Measure ends
Digitalization	Digital offerings	Development of new digital products and services	Ongoing	2025
Infrastructure development and sustainable building	Implementing energy-efficient and sustainable building	Certifying selected buildings according to the standards of the German Sustainable Building Council (DGNB)	Ongoing	Ongoing
Customer focus	Optimizing the landside mobility products and services for end consumers	Integrating the strategic landside transportation concepts and products (rail, inter-city buses, car sharing) into the long-term parking needs concepts	80%	2018
Security and safety in aviation	Implementation issues related to corporate security	Designing and carrying out an air safety and security conference at Munich Airport	100%	2017 [completed]
Linking transportation operators (seamless travel)	Smart campus mobility	Carrying out a pilot project for autonomous driving at Munich Airport	15%	2020



# WORKING ENVIRONMENT AND SOCIETY

- 65** – Major employer
- 65** – Value creation
- 66** – Human resources strategy
- 68** – Employee satisfaction and codetermination
- 70** – Responsible employer
- 73** – Community engagement

For Munich Airport, showing class also always involves taking responsibility for people. For the employees working on the campus today, the airport is a good and reliable employer. The airport promotes intensive dialog with the people in the region and invests in the local communities on their behalf and in various ways.

## Major employer

### Strong neighbors – a strong location

With its 9,688 employees<sup>1)</sup>, Munich Airport Group is the second-largest employer at the site after Deutsche Lufthansa AG. For many years, the neighboring Freising job center region, which also covers the Dachau, Ebersberg, and Erding districts, has reported one of the lowest levels of unemployment in Germany. The average rate is 2 percent, practically corresponding to full employment and reflecting the great significance of Munich Airport in the regional labor market in 2017.

### An airport that makes an impact across the region

The municipalities and administrative districts in Bavaria benefit from the ongoing employment boom at the airport. The airport is particularly important for the labor market in its immediate surroundings: one quarter of all employment relationships subject to social security contributions in the districts of Freising and Erding are based at the airport. In total, almost 90 percent of all people in gainful employment at the airport are subject to social security contributions – significantly higher than the current national German average of 72 percent.

### Number 1 in the transport industry

In a study by the news magazine, Focus, Flughafen München GmbH claimed first place for the third time in succession as the «Best Employer in the Transport and Logistics Industry» in Germany. In the cross-industry ranking, FMG was ranked eighth among about 1,500 companies, and so reached the Top Ten of German employers for the first time.

<sup>1)</sup> Including apprentices, AeroGround Berlin GmbH and HSD, but excluding workers in marginal employment, temporary workers and interns.

## Value creation

### Economic benefits

Munich Airport has a regional economic impact at a number of different levels. A basic distinction is made between the effects resulting directly from airport operations on the one hand and the effects of its use on the other.

### Value distribution 2017

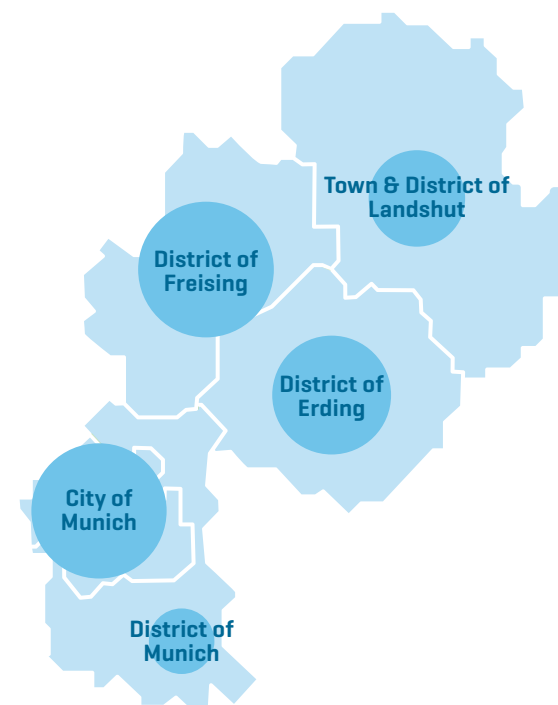


### Value-added effects resulting from airport operation

The value-added effects generated by airport operations can be categorized into direct, indirect, and induced effects.

- **Direct effects:** All value created by Munich Airport's economic activities. The direct value created is used to pay salaries and wages.
- **Indirect effects:** The sum of all effects in the region which are generated by supplier and service relationships of companies at Munich Airport.
- **Induced effects:** Economic activities with a value-added effect in the region which are generated by purchases made using income at Munich Airport.

## Where airport staff live



Source: Staff Survey 2015

### Proximity to the airport is crucial for companies

Effects resulting from the use of Munich Airport are known as location effects. They include positive economic effects, such as an increase in productivity and investments, plus a high level of employment and innovation. Proximity to the airport is seen as an important criterion for companies deciding to settle in the area. The airport also offers impressive advantages for the tourism industry.

## JOB GENERATOR A380

The stationing of five Lufthansa A380 wide-bodied aircraft in Munich will create up to 500 new jobs at the site.

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

## Central procurement of services

### Group-wide product group management

Munich Airport does not have a conventional supply chain, but procures a wide range of products and services needed to operate an international hub airport. The range of essential products is comparable to the requirements of a small town: the 139 product groups range from office supplies through road construction to vehicles and buildings. In 2017, the total procurement volume<sup>1)</sup> of the Munich Airport Group amounted to around 680 million euros. All procurement by specialist areas and subsidiaries is handled by the central Group-wide product group management system. Only the product groups merchandise, food & beverage, and medical equipment are purchased directly by the subsidiaries.

#### Legal basis

Section 21 of the  
SektVO  
[Sector Ordinance]

Section 7 of the  
SektVO  
[Sector Ordinance]

### Legal provisions in respect of procurement

The Munich Airport Group, a sectoral contracting entity, operates in the field of «Ports and Airports». As such, the procurement policy is based primarily on public procurement legislation. In the case of public orders, there is a Europe-wide call for tender in accordance with binding specifications under procurement law. Orders that are not subject to public procurement legislation are normally put out to tender by the Group on the basis of a formal process.

### Supplier structure

Around 5,100 suppliers work for the Munich Airport Group. The supplier structure during 2017 was relatively consistent with the previous year. 97 percent of the companies supplying Munich Airport are headquartered in Germany. Of these, 54 percent are from Bavaria and 34 percent are from Munich and the area surrounding the airport.

<sup>1)</sup>The figures relate to the total procurement volume placed by the Munich Airport Group in 2017.

### Supplier management

In 2017, Flughafen München GmbH assessed around 150 of its framework agreement partners according to the following criteria: the quality of the product or services, reliability, service and price trends, as well as the companies' certification according to quality and environmental standards. In the event of poor outcomes, the suppliers had the opportunity to eliminate existing deficiencies in supplier audits.

### Sustainability aspects

A party submitting a tender must confirm it complies with statutory provisions in order to rule out anything that would prevent it taking part in public procurement or tendering procedures. Those submitting tenders must also provide evidence that they comply with the standards relating to quality assurance and environmental management. The top priority when commissioning products or services is to draw up agreements that satisfy environmental, social, and economic requirements. For example, in the new call for tenders for service clothing for around 2,000 employees in 2016/2017 by Flughafen München GmbH, one component of the service description was compliance with the minimum criteria regarding ethical standards and ecological and human ecological requirements for fabrics and materials. The Munich Airport Group awards contracts on the basis of cost-effectiveness and places particular emphasis on the utilization of materials and products that are both durable and use low levels of natural resources. For investment goods, any subsequent costs for servicing and maintenance (life cycle costs) are also considered, where necessary. The Group is mainly supplied by business partners in the region, which helps reduce transportation distances and CO<sub>2</sub> emissions. For example, Allresto purchases food worth almost 20 million euros each year – nearly all of which originates from Bavaria, and at least half comes from the area directly around the airport.

## Human resources strategy

### Employer value proposition: good arguments for the airport as an employer

Which factors make Munich Airport one of the most appealing employers in the region? The answer can be found in the airport's employer promise, which is based around its position as a brand. It shows how the Group positions itself on the labor market to attract talented applicants, and bundles together the arguments in favor of a lasting, long-term bond with the airport as an employer.

### Forward-thinking HR policy

Munich Airport believes in the importance of an HR policy that not only focuses on people but also the company's future. The HR concept, which is focused on long-term development, is therefore geared toward current business conditions and the corporate strategy, as well as social megatrends such as demographic change, diversity, digitalization, individualization, mobility, health, and education. The HR strategy sets out important objectives for human resources management, which are reviewed annually and adjusted as required.

### The employer's promise





## Specific objectives in terms of HR management

General goal	Initial situation/challenge	Measures and outcome
Covering HR requirements	Staff requirements for the Munich Airport Group between 2012 and 2017: around 2,500 new employees (50 percent new jobs, 50 percent replacement staff), primarily in IT, engineering, building management, safety, retail, catering, and security	<ul style="list-style-type: none"> <li>Recruitments throughout the Group in 2017: 2,205</li> </ul>
	Updated training options	<ul style="list-style-type: none"> <li>Digital tool for deployment planning</li> </ul>
Increasing efficiency	Level of absence caused by sickness remains an important factor for increasing efficiency	<ul style="list-style-type: none"> <li>Improvements to occupational medical services and in-house health management («Gesundes Unternehmen» [«Healthy Company»] certificate from the AOK)</li> <li>Corporate Health Award, «Pro.Fit» project for the Airport Rescue and Firefighting service, «AufWind» musculoskeletal program, BETSI program</li> </ul>
	Cultivating efficient work conditions	<ul style="list-style-type: none"> <li>Annual review of pay-scale provisions and company agreements to identify potential for improvement</li> </ul>
Increasing employer attractiveness	Fiercely contested labor market	<ul style="list-style-type: none"> <li>Bonus for income generated by FMG in 2017</li> </ul>
	Demographic change	<ul style="list-style-type: none"> <li>Improvement in the employment conditions: new company agreement «Flexible Working Environment», already over 500 employees with home office or mobile office</li> </ul>
	Very low unemployment rates in the districts of Erding and Freising	<ul style="list-style-type: none"> <li>Increase in the significance of the Employer Marketing and Group Training divisions due to reorganizations</li> </ul>
	Attractive working conditions	<ul style="list-style-type: none"> <li>Relaunch of Group careers website as central landing page for applicants</li> </ul>
	Enabling and safeguarding equal opportunities	<ul style="list-style-type: none"> <li>Strengthening of employee retention through: <ul style="list-style-type: none"> <li>Targeted internal and external communications</li> <li>Ownership through employee survey</li> <li>Events for Group employees (e.g. campus festival)</li> </ul> </li> </ul>
Establishing excellent leadership	Leadership as a crucial indicator for employee retention and for reaching corporate goals	<ul style="list-style-type: none"> <li>Systematic rules for performance reviews</li> </ul>
	Increasingly complex requirements for managers	<ul style="list-style-type: none"> <li>Leadership Excellence program: <ul style="list-style-type: none"> <li>New training modules, e.g. «Diversity as Potential – Diversity – aware Leadership» and «Conducting Positive Performance Reviews»</li> <li>875 managers took part in 18 Leadership Excellence training modules</li> </ul> </li> </ul>



Munich Airport is an outstanding address for young professionals.

→ Group  
management  
report  
see page 100



### Percentages of Group employees...

**70%**  
ARE VERY SATISFIED WITH  
THEIR RESPECTIVE COMPANY

**71%**  
ARE PROUD TO WORK AT  
THE AIRPORT

**82%**  
IDENTIFY STRONGLY  
WITH THE AIRPORT

Source: Employee Survey 2017

## Employee satisfaction and codetermination

### Employee survey is part of the corporate culture

A regular employee survey paints a representative picture of the satisfaction of the employees with their working conditions, the company as an employer, and the management culture. The most recent survey in fall 2017 revealed that the measures derived from previous surveys had had a positive influence on important fields of action. The result reports are discussed in the organizational units and measures are drawn up in workshops. At the same time, working groups meet to identify cross-divisional fields of action. Across the Group, 5,570 employees took part in the voluntary survey.

### FMG promotes codetermination

The voice of the employees is a valuable factor in the corporate decision-making process. Employees have numerous opportunities to get involved in committees that are required by law or other working groups, i.e. the Supervisory Board, the Youth and Trainees Council, the Council for Employees with Disabilities, the company health management working group, or the company sports club. Most of the cross-divisional regulations in the company lead to company agreements with the Works Council, which currently has 31 members. In recent years, the employee representatives have concluded important company agreements with the employer, for example concerning home and mobile offices, performance reviews, and support for professional qualifications.

### Employment costs

**€ 482.1 million**

total personnel expenses for the Group



Of which

**€ 288.9 million**

personnel expenses at FMG



Of which

**€ 229.6 million**

wages & salaries<sup>1)</sup>



and

**€ 59.4 million**

social security, expenses associated  
with retirement provisions, and other support

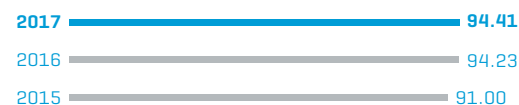
<sup>1)</sup> Including expenses for travel cost reimbursements and meal subsidies

## Personnel expenses and payments above the general pay scale

Flughafen München GmbH is a member of the Bavarian public employers' association and, as such, is bound by the TVöD collective pay scale agreement for public sector employees. FMG employees participate in a company retirement scheme, which is governed under the pay scale agreement and covered by the Bavarian supplementary pension fund for municipal employees. As at February 1, 2017, remuneration for staff at FMG and AeroGround increased by 2.35 percent. New negotiations with the labor unions ver.di and dbb are scheduled for April 2018.

## Employees covered by collective bargaining agreements

Proportion of total employees in %<sup>1)</sup>



<sup>1)</sup> All percentages are based on the total number of employees including apprentices, workers in minor employment, temporary workers, and interns but excluding AeroGround Berlin GmbH.

## Commitment to the next generation

The Munich Airport Group is one of the largest training organizations in the region. Interested school leavers can choose from 20 different apprenticeships and dual-study courses. On September 1, 2017, 93 apprentices embarked upon their professional career at Munich Airport. This meant there were 275 young people taking part in apprenticeships Group-wide as of the reporting date of December 31. Flughafen München GmbH received 1,635 applications for apprenticeship places starting in 2017. At the same time, 43 young people completed their apprenticeships at FMG. A further 94 high-school students and 128 university interns received their first insight into the world of airports, producing 28 project-related Bachelor's and Master's dissertations in the process. In a 12-month graduate training program, FMG trains young employees as experts in a particular field and qualifies them simultaneously for cross-divisional projects. In the process, a mentoring program helps trainees to establish their own company-wide network.

## Airport is once again «Germany's Best Provider of Vocational Training»

For the second time in succession, the business magazine «Focus Money» honored Munich Airport for its outstanding work as a provider of vocational training in the transport industry. In a study of 5,000 companies, FMG once again scored highly thanks to the particular quality of its training management: At FMG, the apprentices are supported by seven expert trainers. In the various deployment areas on site, about 250 part-time trainers and teachers provide individual support for the next generation of experts. A special onboarding program allows the apprentices to make contacts, to gain their first experiences of teamwork, and to get to know the airport campus. Further elements that set the airport apart as a provider of vocational training are, for example, the trainee parents' day, the Erasmus+ exchange program, and the health day for apprentices.

→ Group management report see page 96

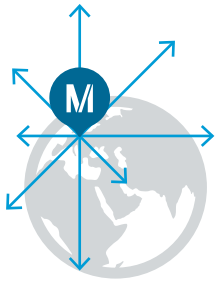
➔ [munich-airport.com/careers](http://munich-airport.com/careers)

➔ [xing.com/company/flughafen-muenchen](http://xing.com/company/flughafen-muenchen)

➔ [linkedin.com/company/munich-airport/](http://linkedin.com/company/munich-airport/)







## Sister airports

<b>ACSA</b>	Airports Company South Africa
<b>AOT</b>	Airports of Thailand
<b>BCIA</b>	Beijing Capital International Airport
<b>CAG</b>	Changi Airport Group (Singapore)
<b>Centrair</b>	Central Japan International Airport (Nagoya)
<b>DEN</b>	Denver International Airport
<b>DME</b>	Moscow Domodedovo

## Airport Academy: the intra-Group training center

Munich Airport runs an intra-Group, certified training center. Since May 2016, the Airport Academy – with a total of just under 50 employees – has also acted as an accredited training institute for the Airports Council International [ACI]: together with the international umbrella association of the world's airports, it develops specific training courses which it then offers in conjunction with the subsidiary MAI (Munich Airport International GmbH). Training activities based on e-learning modules are constantly becoming more and more significant. For example, the Airport Academy acquired a new learning-management platform for web-based training courses which are relevant for the EASA certification of the airport, among other things. The centerpiece of the Academy is a wide range of seminars in professional development, mainly in the areas of human resources, management, aviation, and security. A total of over 37,000 participant days proves the great willingness of employees to make the most of this offering. However, the Airport Academy is also open to external customers: about two thirds of the participants in the air safety training courses, apron driving license qualifications, and hazardous goods and management training courses come from external companies. In future, it is also planned to train target groups in other industries, such as cyber security specialists in the new Information Security Hub located on the airport campus.

→ Glossary

→ Glossary

## Global airport network

The popular international exchange programs promote both the personal development of the employees and also the progress of Munich Airport as a business. In 2017, some 18 apprentices visited partner airports in Athens, Malta, and Vienna as part of the European mobility program «Erasmus+». Moreover, a selected group of specialists and managers advanced their knowledge during trips to the company's sister airports in Nagoya, Cape Town, and Denver. In return, several delegations from other airports visited Munich. Moscow Domodedovo was named as a new sister airport.

## Responsible employer

### A job with added social value

Social aspects are playing an increasingly important role when it comes to choosing a place to work. Managers at the Munich Airport Group are of the firm belief that a working environment where people feel valued and good performance go hand in hand. Flughafen München GmbH was named one of the top 20 most family-friendly companies in Bavaria once again in 2017. The competition «Successful. Family-Friendly» was held by the Bavarian State Ministry of Economic Affairs and Media, Energy and Technology and the Bavarian State Ministry of Labor and Social Affairs, Family and Integration for the first time in 2017. FMG scored highly for a number of reasons, including its provision of daycare for employees' children, its support in emotional and financial emergencies, and its extensive range of health services.

### Diversity: both personal and cultural

As a company with an international outlook, Munich Airport benefits from the diversity of its employees. It respects the cultural heritage of all of its employees, taking into account their diverse interests and needs. Almost 23 percent of Group employees come from more than 70 different countries. of expertise within the Group.

This fosters cultural exchange and increases the richness As an employer, FMG actively accepts responsibility toward all its employees and ensures equal opportunities and prospects at all levels. The promotion of women to management positions is an integral part of HR work. In its efforts to gradually increase the proportion of female managers, Munich Airport Group formulated individual targets in the fall of 2017. A three-year period through June 30, 2020 was specified as the subsequent deadline.

### Networking for female managers

Female FMG managers set up the women's network «MStars» at Munich Airport. The aim is to organize a continuous exchange between like-minded businesswomen both inside and outside the company and to build up contacts – perfectly in line with the motto of the brand message «Living ideas – Connecting lives». To support women at the beginning of their management role, FMG has taken part in the «Cross Mentoring Program» since 2016. In this program, every participant is assigned a mentor from a different company for a period of one year. She can compare notes with this mentor about the challenges of everyday management life or about her personal career planning.

### Focusing on family and health

The Munich Airport Group offers a range of supplementary company benefits to foster a healthy work-life balance. For example, it launched the company agreement «Flexible Working Environment» at the beginning of 2017. More than 500 employees are already benefiting from this offer to perform up to 30 percent of their personal working hours in a home or mobile office. Much of the airport's work in this area aims to maintain or improve the staff's ability to work. The Corporate Health and Social Management (BGM) division offers a wide array of services, ranging from occupational medicine and employee catering to advice for people living in difficult circumstances.

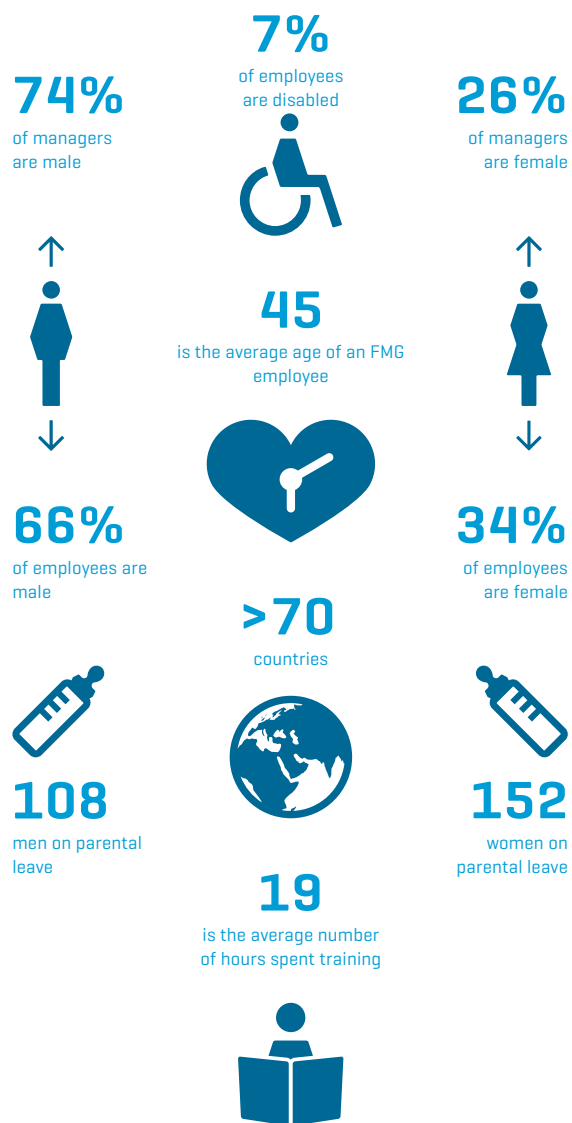
## Additional offers

- Health promotion initiatives, company sports club, ergonomics advice, fitness studio
- Corporate daycare center
- Care of employees' children during vacations and public holidays
- «DASE» social counseling facility
- Social fund
- Employee residences close to the airport
- Reduced-rate monthly tickets for Munich's public transportation system, Deutsche Bahn season tickets for train travel, and travel expenses allowance
- «TwoGo» ride-share portal
- Free parking on the airport campus
- In-house travel agency with discounted offers

## FMG health management is number one in the industry

Healthy, happy, and productive at work: in 2017, the Corporate Health and Social Management division was the industry winner of the renowned «Corporate Health Award» for its excellent health management system. This prize honors the commitment of the employer to maintaining the long-term health of the employees with need-oriented and age-appropriate offerings for both prevention and rehabilitation.

## Employees – data and facts



## Occupational safety further refined

FMG has set itself the task of constantly improving working conditions, as well as accident and illness rates. New solutions are being developed all the time at Munich Airport to counteract any health hazards or risks in the workplace.

### Work safety conference at Munich Airport

The maintenance and enhancement of the safety standard in the ground handling service is only possible with close cooperation in terms of occupational health and safety. In order to guarantee improved and safe processes while maintaining the same high quality, safety engineers, in particular from companies involved in aircraft handling on the campus, came together for the first time for a joint conference. The aim was to identify fields of action and to derive specific measures for minimizing risk and avoiding accidents.

### Annual report «Shared Task, Shared Responsibility»

A joint annual report from the Occupational Health and Safety, In-house Health Management, and Occupational Medical Services divisions was published for the first time in 2017.

### EcoWebDesk

Another success was the consolidation of EcoWebDesk at FMG and AeroGround. EcoWebDesk is a web-based IT system that supports the Group-wide implementation of the statutory requirements in relation to occupational health and safety.



It takes just a few flicks of the wrist to make the ideal ergonomic adjustments on the workstation.

### Electrical Safety Coordinator

The project to reorganize electrical safety at the Group was completed in 2017. In addition to the appointment of a coordinator, this project led to the passing of an operator guideline for properties, buildings, and facilities that is binding for all Group units. Supporting the managers in the implementation of this guideline is one of the key tasks for 2018. The guideline is designed to optimize the efficiency of the various processes and to define the responsibilities for properties, buildings, and facilities within the entire Group in a target-specific way.

### Ergonomics

The ergonomic design of the workstations was subjected to a detailed assessment in 2017. FMG plans to make considerable investments in 2018 on the basis of these investigations and tested application cases.

### Expected developments

The Occupational Health & Safety division is also active with regard to the ongoing digitalization, and is working closely together with the Airport Academy – for example, to develop web-based training courses on topics relating to occupational health & safety. In 2018, the assessment and certification of the internal occupational safety management system at FMG by the Trade Supervisory Authority will also be a major priority.

### Numerous prospects for employees with impaired health

FMG possesses a great deal of expertise in the deployment and continued employment of employees with impaired health. A whole range of offerings is available to allow them as normal an everyday working life as possible: Occupational Integration Management, the continued employment of performance-impaired employees, the recruitment of disabled persons, and the training of young adults with special educational needs. As at December 31, 2017, the Group employed 677 staff members with disabilities or equivalent limitations, corresponding to around seven percent of the total workforce.

### Binding standards for ground handling services

Since 2016, the providers of ground handling services at Munich Airport must satisfy numerous specifications with regard to occupational health and safety and qualifications during the process of a new license award. These binding standards will ultimately also improve the safety of the passengers and airlines.

### Back health – lifting aids in the baggage transportation system

Lifting aids have been installed at the work stations in the baggage transportation system in Terminal 1. Various loading aids were tested and assessed beforehand, together with the technical departments. The aim of the lifting aids is to help prevent chronic musculoskeletal disorders. They also help employees with impaired health to return to work.



# 19 t

**EVERY SINGLE AIRCRAFT HANDLER  
TACKLES UP TO 19 TONNES OF  
LUGGAGE EVERY SHIFT**



## Community engagement

### The airport and its regional projects

As a responsible neighbor, FMG has supported various institutions and initiatives in the region for 25 years. More than 750 projects that can be assigned to the five sponsorship pillars of the airport, education, social, sport, culture, and nature, have benefited from financial and material support. FMG launched a new campaign in 2017 entitled «Regional Sponsorship at the Initiative of Employees», where Group employees recommended associations or charitable organizations, in which they themselves are involved on a voluntary basis, for financial support. After a promising launch with around 50 projects implemented, FMG will continue this initiative in the coming year. In 2017 the airport set up the «NachWuchsWald» [«NewBirthForest»]: in future, a tree will be planted in the «Weltwald» forest in Freising to mark the birth of every new child of an employee at the Munich Airport Group. The project ran for the first time in 2017 for the birth years of 2015 and 2016, and will now be repeated every year.

Munich Airport supported many projects in the region that are designed to help high-school students with their choice of career, and to promote their talents.

### «SchuleWirtschaft» working group for schools and businesses

In the «SchuleWirtschaft» working group, Flughafen München GmbH works alongside principals from local schools, other regional businesses, specialist tradespeople, and representatives from the local job center. The aim of this voluntary network is to make the transition from school to working life easier for young people.

### «Jugend forscht» [youth research] at the airport

As a mentor and one of the organizers of the regional research competition for young people «Jugend forscht – Schüler experimentieren», Munich Airport supports up-and-coming talent in the fields of mathematics, IT, science, and technology. 120 young inventors took part in the event which was held in February 2017, under the heading «I Am Shaping the Future».



### «Girls' Day/Boys' Day»

As part of the nationwide «Girls' Day/Boy's Day» initiative, over 150 school children visited Munich Airport in April 2017 to find out about the range of training opportunities available there. The girls were able to explore their prospects in the fields of manual skills, technology, IT, and science, while the boys gained an insight into careers in the areas of childcare, education, health, and social services.

### The Airport Association: a good cause – for sure

Flughafenverein München e.V. was once again awarded the most important seal of approval available to German charities. For two years now, the association has ranked alongside around 230 organizations who bear the «DZI Seal of Approval», evidence that an association handles all of its donations carefully and responsibly. It also received an award from the Ukrainian Consul General for its particular support for the people of Ukraine. As well as making a number of anonymous donations and helping sick children's dreams come true, the airport association also supports local young people, senior citizens, and refugees, as well as regularly taking part in projects outside Germany. For instance, it transported around 15 tonnes of charitable donations to Latvia for the eighth time, and also provided hospitals and hospices in Ukraine and Romania with much-needed medical equipment and donations in kind.

### Top five measures in the sustainability program [Full program online: munich-airport.com/sustainability-program](https://www.munich-airport.com/sustainability-program)

Material topics	Initiatives	Measures	Status 2017	Measure ends
Occupational health and safety and health management	Making workstations more ergonomic by using innovative technology	Using innovative lifting aids in the baggage transportation system in Terminal 1	20% 	2020
	Optimizing occupational health and safety management	Establishing a central staff qualification management structure, for instance designing training measures for foreign assignments, designing online training modules for safety instructions	20% 	2018
Equal opportunities and cultural diversity	Covering the employee requirement qualitatively and quantitatively	Equality of men and women in leadership roles in the Munich Airport Group	Ongoing	2020
Sustainable procurement	Enhancing strategy development and sustainability management	Continuing to integrate sustainability criteria into supplier management	Ongoing	Ongoing
Collaborating with regional partners	Accepting social responsibility in the non-profit sector [regional support in the areas of sport, social affairs, culture, education, and nature]	Continuing existing sponsorship agreements, examining new project requests on the basis of the FMG sponsorship principles, and continuing intensive dialog with the sponsorship partners [such as «Jugend musiziert» [«Youth makes music»]]	Ongoing	Ongoing

# ENVIRONMENTAL AND CLIMATE PROTECTION

**75** – Climate protection strategy

**79** – Resource management

**81** – Noise protection

**83** – Biodiversity

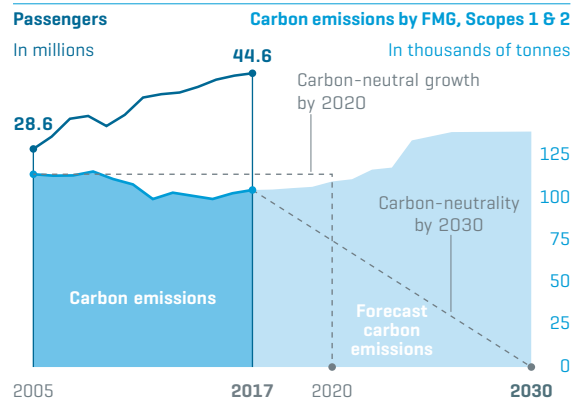
Showing class also means that Munich Airport always has its eye firmly focused on the impact that it has on the environment simply by virtue of being a major piece of transport infrastructure. It takes numerous measures to minimize that impact.

## Climate protection strategy

### Voluntary protection program: carbon-neutrality by 2030

The airport has once again significantly raised the bar for its climate-related goals, to enable it to keep up with the fast-paced development of objectives in climate protection policy and to meet its own targets. With respect to the emissions that it is able to impact directly, the airport is to make its operations completely carbon-neutral by 2030 – and will be the first airport in Germany to do so. To achieve this, the Munich Airport Group is aiming to reduce the greenhouse gas emissions that can be attributed directly to its operations by at least 60 percent using a wide array of technical measures. The remaining 40 percent will be balanced out by compensation measures, preferably within the region. This climate protection goal was passed by the Supervisory Board in December 2016 and is significantly more ambitious again than the former goal to achieve carbon-neutral growth by 2020. Flughafen München GmbH is investing 150 million euros by 2030 to achieve this target, almost an entire year's net profit.

### Carbon emissions target



### 40 percent fewer CO<sub>2</sub> emissions per passenger since 2005

Despite the continuous growth in traffic, FMG has lowered CO<sub>2</sub> emissions from around 162,000 tonnes in 2005 to around 152,000 tonnes in 2017. Had the some 220 individual measures not been taken, CO<sub>2</sub> emissions at Munich Airport would have been around 32,000 tonnes a year more than they actually are. Added to that, in this period, was a further 8,000 tonnes approx. from the optimization of energy generation. In 2017, Flughafen München GmbH invested around 1.2 million euros in measures to help increase energy efficiency and reduce greenhouse gas emissions by 2,266 tonnes in the long term.

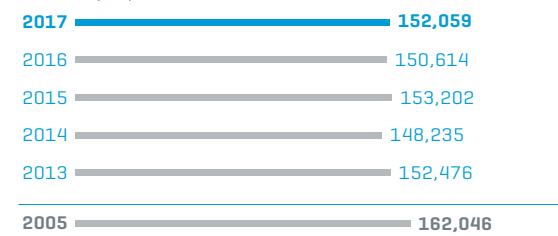
The improved energy efficiency is particularly significant when you think that between 2005 and 2017 the number of passengers rose by around 56 percent and the building area at the airport has increased by approximately ten percent, but the CO<sub>2</sub> emissions of buildings, systems and vehicles fell by around seven percent. This result is almost entirely from in-house efficiency measures in energy consumption and generation. In contrast, external effects – such as falling specific emissions in electricity energy purchases – had only a minimum influence. These successes make it clear that even the new ambitious climate-related goals are achievable.

One important factor in the climate protection strategy is the new pre-conditioned air systems (PCA systems), which cost almost 30 million euros. Since autumn 2016, this technology has been supplying aircraft parked in the parking positions next to the buildings with pre-conditioned air. As a result, the aircraft no longer need to run their auxiliary power units (APUs), which are responsible for high levels of noise, CO<sub>2</sub> emissions, and other air pollutants. In 2017, the operating times of the PCA systems were increased continuously, which led to around 12,100 tonnes CO<sub>2</sub> being avoided compared to the APUs. That is three times as much as in 2016. The operating times and the associated savings are set to increase further in 2018.

### CO<sub>2</sub> emissions at Munich Airport

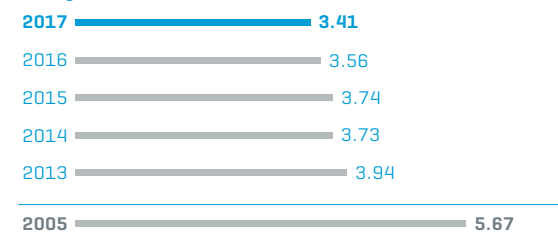
Scope 1, 2, and Scope 3 excluding the LTO cycle, APUs, and public transport

In tonnes per year



### Specific carbon emissions per passenger

In kilograms



The excellent energy KPIs of the satellite building, already evident in 2016, were fully confirmed in the first complete year of operation 2017. Per square meter of usable area, the new building generates over 50 percent fewer CO<sub>2</sub> emissions than comparable areas in the 14-year-old Terminal 2. Consequently, it represents an important component in the climate strategy.



→ Group management report  
see page 99



→ Download the brochure  
«Our climate, our contribution»  
[munich-airport.com/publications](http://munich-airport.com/publications)

→ Glossary

→ Scope 3  
see page 78



### Footprint: many emissions sources

Effective climate protection is a complex task for an airport. After all, any calculation of greenhouse gas emissions not only includes emissions resulting from the operation of infrastructure and aircraft emissions during take-off, landing, taxiing, or handling, but also other sources – these include the arrival and departure of passengers, visitors, and employees and the operation of businesses active at the airport such as hotels, shops, restaurants, gas stations, and workshops. However, almost two thirds of the CO<sub>2</sub> emissions stem entirely from the engines of the aircraft in the LTO cycle (landing and take-off cycle).

The following individual sources of emissions are counted [arranged in descending order according to their contribution to the footprint]:

- Air traffic in the LTO cycle
- Natural gas and heating oil for the power centers
- Power, district heat, cooling power, fuel, and natural gas supplies to external companies
- Feeder traffic: landside/public vehicle traffic (employees, passengers, visitors and freight)
- Auxiliary power units (APU) and engine test runs
- Power and district heat purchases for the Group
- Airside/in-house vehicle traffic (such as buses on the apron, luggage transporters and aircraft tug vehicles), ground power units, and other service and de-icer equipment

According to the ICAO calculation method applied internationally, the CO<sub>2</sub> that taking off and landing aircraft emit up to an altitude of 3,000 feet (914 meters) is attributed to the airport. All of an aircraft's movements below this limit are counted under the LTO cycle.

Carbon footprints provide the basis for the reliable recording of all forms of emissions and lend themselves to international comparisons. They break down all greenhouse gas emissions that can be attributed to the airport into three different scopes according to the international standard, the «Greenhouse Gas Protocol».

### Greenhouse gas emissions at Munich Airport

#### SCOPE 1 [SHARE: 14%]

Direct emissions from energy production and transportation

2% Diesel and gasoline for company vehicles

12% Energy self-generation

+

#### SCOPE 2 [SHARE: 2%]

Indirect emissions associated with buying in energy

2% Energy purchased externally

+

#### SCOPE 3 [SHARE: 84%]

Indirect emissions associated with the business conducted at the airport

1% Diesel and gasoline for outside companies

6% Public transport

5% APUs (auxiliary power units) and engine test runs

6% Energy purchases of outside companies

66% LTO cycle

**TOTAL: 100%**

### Scope 1

#### Block heat and power plant: highly-efficient cogeneration of heat and power

With its block heat and power plant, the airport generates over half of its on-site energy requirements using environmentally-friendly natural gas. The waste heat generated from this alone covers almost all of its heating and cooling requirements without requiring the use of additional energy. The airport then covers its remaining heating requirements by procuring district heat from Fernwärmeversorgung Freising. In turn, 50 percent of the purchased district heat – i.e. approximately 18 gigawatt hours (GWh) – is generated by a biomass thermal power plant in Zolling. This district heat obtained from biomass is renewable and climate neutral, and cuts CO<sub>2</sub> emissions by around 3,800 tonnes per year. If the heat and power were generated separately in the mix applied in the Federal Republic of Germany, the amount of CO<sub>2</sub> produced each year would be almost 50,000 tonnes higher. This corresponds to the CO<sub>2</sub> emissions of a medium-sized city of over 40,000 residents.

#### Renewable energy generation with photovoltaic systems

In its drive to achieve a carbon-neutral airport, Munich Airport is also using renewable energy. The first system of this type with an output of around 750 kilowatt will be realized by the summer of 2018 on the new P51 parking structure. It will then generate around 800,000 kilowatt hours of renewable electricity per year and thus save some 500 tonnes of CO<sub>2</sub> annually.

#### LED technology reduces CO<sub>2</sub> emissions

In 2017, Munich Airport continued to back LED technology. With the retrofitted lights both inside the buildings and outside, more than 1,000 tonnes of CO<sub>2</sub> will be saved in the future.

#### Sustainable building: important contribution to achieving carbon-neutrality

Flughafen München GmbH places great emphasis on sustainable building, a commitment that is underlined by its membership of the German Sustainable Building Council (DGNB). A center of core expertise plans and manages all CO<sub>2</sub>-relevant issues related to sustainable building.

→ Glossary

## ACA AIRPORT CARBON ACCREDITATION

The European airport organization ACI EUROPE once again awarded FMG «Level 3 – Optimization» for its 2017 Airport Carbon Accreditation following the successful reduction of CO<sub>2</sub>/greenhouse gas emissions.

↗ [munich-airport.com/climate-protection](https://munich-airport.com/climate-protection)

↗ [munich-airport.com/environmental-management](https://munich-airport.com/environmental-management)

↗ [dgnb.de/en/](https://dgnb.de/en/)

→ Glossary

### Building technology

By making improvements to its existing buildings, FMG has reduced its CO<sub>2</sub> emissions by almost 17 percent between 2005 and 2017. The airport estimates that it will enhance energy efficiency by a further 13 percent approximately to a total of some 30 percent. An intelligent control technology, for example, could reduce energy requirements in the office buildings.

### New buildings

The new buildings planned for completion by 2020, in particular those at AirSite West (for example, the office building, Airport Academy and budget hotel), are subject to the target to reduce CO<sub>2</sub> emissions by 40 percent compared to existing buildings. They can be designed as «light-tech buildings» to meet the passive house standard, while intelligent facade systems and climate-based concepts can help to increase user comfort.

### E-mobility on the rise

As part of its climate protection program, Munich Airport uses alternative fuels from renewable energy sources within its vehicle pool:

- 30 cars use biogas
- 32 apron buses – more than half of the total fleet – have been awarded the «Blue Angel» eco-label
- 25 passenger cars/mini-transporters and 268 pieces of handling equipment are electrically operated. Another 30 electric vehicles have already been ordered.

The proportion of electric vehicles is rising significantly: by 2030, they should comprise the lion's share of the vehicle pool. By the end of 2018, Munich Airport will replace a further 80 of its older vehicles run on gasoline or diesel with new electric vehicles. This is equivalent overall to more than 20 percent of the current vehicle pool. This six-figure, environmentally-friendly investment is supported by subsidies from the German Ministry of Transport. Compared to 2016, it proved possible to reduce the local emission of CO<sub>2</sub> by around 47 tonnes. But the airport is not only focused on its own electric cars; currently passengers and visitors can charge their electric cars at the more than 85 charging points in the parking structures. For employees, additional charging options are offered.



### TURBO SERVICE AT THE AIRPORT: 80 PERCENT CHARGING IN 30 MINUTES

In cooperation with «DriveNow» and the technology firm ABB, FMG has installed eight fast charging stations. With three charging points per station, the airport is thus – according to the Federal Association of the German Energy and Water Industries (BDEW) – currently the largest fast charging location for electric vehicles in Germany.

### Synthetic fuels from waste

The new fuel «C.A.R.E. Diesel», which is made from residual and waste materials as well as from renewable raw materials, also promises further potential. Its key advantages are the significantly lower soot generation, greenhouse gas emissions that are lower by up to 90 percent, significantly less nitrogen oxide, particulate matter, carbon dioxide and hydrocarbons on combustion and a guaranteed resistance to cold temperatures down to –22° Celsius. The fuel meets the diesel standard and can be used to power diesel vehicles without modifications to the engine. A practical trial was started in November 2017 in the road sweeper fleet. A total of around 11,000 tonnes of CO<sub>2</sub> per year can be offset in fuel consumption by vehicles.

### Scope 2

Less than a third of the power used on the airport campus comes from external energy providers. Overall, emissions produced by the external procurement of power and district heat have decreased by 25 percent since 2005. Looking at the Munich Airport Group alone, this figure has fallen by almost 50 percent. This is down to the new, even more efficient engines for cogeneration of heat and power on one hand, and reductions in power consumption on the other.

### Scope 3

In 2017, Flughafen München GmbH together with the airlines and the companies based at the airport developed further climate protection measures. The airport made significant investments in pre-conditioned air systems (PCA systems). These systems went into operation in Terminal 1, Terminal 2, and the satellite building in 2016. In 2017, their operating times increased significantly.

### Successful reduction in CO<sub>2</sub> emissions

The international investors initiative for the global disclosure of environmental data, CDP [formerly, the «Carbon Disclosure Project»] has honored Munich Airport for its hard work in the area of effective climate protection. Munich Airport was awarded an «A-» rating in the 2017 climate change report, thus improving on last year's result in the «Transportation Infrastructure/Airport Services» segment.

### Air quality

#### Influence of road and air traffic

The assessment of air quality in the area around the airport looks at a number of important factors, including nitrogen oxide NO<sub>x</sub>, sulfur dioxide SO<sub>2</sub> and particulate matter PM<sub>10</sub>. Just as for CO<sub>2</sub>, the share of air pollutant emissions attributable to aircraft is significantly larger than that represented by feeder traffic on the airport's roads. However, low-lying aircraft exhaust gases have less of an influence on the measured values, as the engines emit pollutants at a greater height and cause it swirl about more than cars do.

### Completed projects from the CO<sub>2</sub> reduction program

Issue	Measure	CO <sub>2</sub> reductions per year
Lighting	Changeover of wall lights in the underground garages to LED technology	140 t
	Changeover of street lighting on the Nordring and in the southern development zone to LED technology	121 t
Air conditioning	Conversion of individual main ventilation units in Terminal 1 to direct drive	105 t
	Replacement of heating pumps in the airmail sorting center with high-efficiency models	22 t
Airport technology	Use of mechanical brakes in the baggage transportation system instead of electric motors	707 t
	Increased use of PCA systems in Terminals 1 and 2 and in the satellite buildings	12,101 t

### Landing charges are also charged based on nitrogen oxide emissions

Flughafen München GmbH levies emissions-oriented landing charges. It is therefore actively contributing to improving the quality of the environment around the airport. This gives engine and aircraft manufacturers a long-term incentive to invest in the development of aircraft that produce less in the way of harmful emissions. With the information on the aircraft types that have landed, the airport can record the contaminants – including CO<sub>2</sub> – specifically for the engine, and directly map the technical progress.

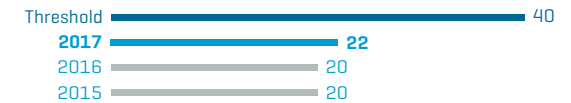
### Fixed and mobile measuring points

The impact of emissions on air quality at Munich Airport is continuously monitored at two measuring points. Air quality measurements in the western and eastern areas of the airport record the effect of all sources of pollutant emissions from road traffic, air traffic, and other airport operations – overlaid with the background levels from the Munich metropolitan area and the natural background concentration in the atmosphere. The contaminants ozone, nitrogen monoxide, nitrogen dioxide, sulfur dioxide, carbon monoxide, benzene, toluene, xylene, dustfall particulate matter PM<sub>10</sub> and PM<sub>2,5</sub> are monitored. The statutory limits for the protection of human health were also met in 2017; only for particulate matter PM<sub>10</sub> were there twelve [permitted] breaches of the statutory 24-hour limit. The 2017 annual averages for the key parameters of nitrogen dioxide (NO<sub>2</sub>) and particulate matter were in fact significantly below the limits, as they have been in previous years.

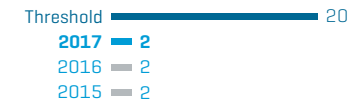
### Concentration of contaminants at the measuring point on the east side of the airport premises

Annual averages in µg/m<sup>3</sup>

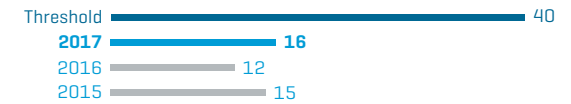
NO<sub>2</sub> concentration [nitrogen dioxide]



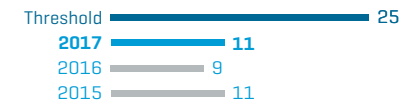
SO<sub>2</sub> concentration [sulfur dioxide]



PM<sub>10</sub> concentration [particulate matter]



PM<sub>2,5</sub> concentration [particulate matter]



Munich Airport is the first airport in Germany to additionally determine the quality of air using a mobile air quality measurement station. It measures the same substances as the stationary measuring point in the east of the airport in specialist investigations conducted over several months in the surrounding municipalities. In 2017, measurements were recorded over a ten-month period in Schwaig. The measured concentrations were below the statutory limits and thus confirmed the results from the stationary measurements.

### Transparent information

For three years now, Munich Airport has been providing information on the Internet about the current noise levels in the airport [munich-airport.com/noise-protection]. Now this service is also available for air quality [munich-airport.com/air-quality]. The measured values recorded at the air quality measuring points are updated around the clock. Munich Airport is thus ensuring even greater transparency around the issue of air quality.



## Keeping track of contaminants

Long-lasting contaminants can accumulate in the environment and therefore seep into the food chain. Munich Airport has been monitoring this situation for many years using a variety of methods. In 2017, plant pots containing Italian ryegrass and kale, and pots for collecting dustfall were set up at twelve measuring points around the airport site. 240 grass cultures and 36 kale samples provide around 1,700 measurements per year relating to air pollutants and their impact. Work also continued on the honey monitoring project in 2017.

## Resource management

### Doing more together for the environment

Munich Airport uses natural resources considerably, sparingly, and with a sense of responsibility toward future generations. Respectful exchange with the stakeholder groups is thus of major importance – including in relation to the topic of environmental management. Since 2005, Flughafen München GmbH has operated a certified environmental management system to the international standards of the **DIN EN ISO 14001** and the requirements of the EU regulation **EMAS** (Eco-Management and Audit Scheme). It supports those subsidiaries whose activities are of great environmental relevance as they introduce environmental management systems. Allresto, aerogate and Cargogate have all been successfully recertified already. In 2017, an external environmental audit confirmed FMG's certification for the next three years. It ensures that the sustainable development of the airport in accordance with EMAS also continues to be monitored by the environmental management system.

As passenger and freight handling requires the most resources at the airport, nine related key performance indicators reflect environmentally-relevant consumption values:

- Water consumption
- Heat consumption
- Diesel consumption
- Paper consumption
- Quantity of wastewater
- Quantity of waste
- Carbon dioxide equivalents
- Power consumption
- Total energy consumption

### Waste: high recycling rates

Flughafen München GmbH meets every single requirement in the German Waste Management and Product Recycling Act. The number one priority is to produce as little waste as possible. 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. Sustainable waste management contributes to generating secondary materials, while also helping to save on costs.

### Resource conservation is everyone's responsibility

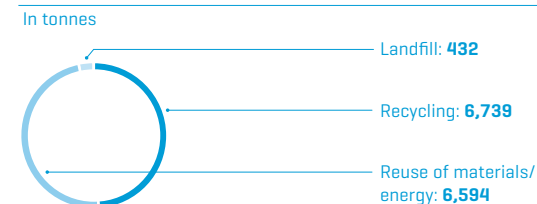
Flughafen München GmbH is making continuous improvements to the entire process chain as well as to the process for separating and sorting all waste and scrap material. Consequently therefore a new plant has been shredding confidential data material promptly «in-house» since September 2017. This process guarantees a high level of data protection, as sensitive files need no longer be transported to the specialist disposal firm. All employees are called on to conserve resources. They can, for example, dispose of their light bulbs at work. The collection project for old cell phones is to start in

2018, as soon as the search for a suitable recycling partner has been completed. In 2017, to counteract the flood of waste from single-use coffee cups that has been widely discussed in the media of late, FMG distributed 3,000 reusable porcelain coffee-to-go cups to its staff in the airport's own design, in order to gain initial experience for a potential campus-wide introduction. Since 2016, Flughafen München GmbH has used exclusively recycled paper with the «Blue Angel» eco-label. New digital workflows, for example for business trip applications, also help to save paper.

### Who causes what

The majority of waste and scrap material is generated by affiliated companies, the companies based at the airport as well as airlines. A custom-designed disposal concept tailored specifically to the party generating 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.

### Disposal methods for waste



Increased construction, dismantling and renovation works lead to a higher quantity of waste than in the previous year. The recycling rate remained at a consistently high level.

# 1,700

## MEASUREMENTS

provided by 240 grass cultures and 36 kale samples per year

→ Glossary

↗ Download the brochure  
Environmental statement  
[munich-airport.com/  
publications](http://munich-airport.com/publications)

## 3.2 PERCENT

less drinking water  
consumed

### A responsible approach to water

The aim of water management at Munich Airport is to affect the natural water balance as little as possible and arrange the various effects caused by water resource management, drainage, and the provision of drinking and extinguishing water so that they have as little impact as possible. Overall, FMG aims to achieve the following:

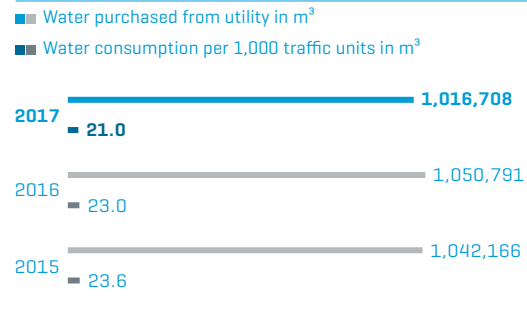
- Minimize the volume of wastewater
- Separate waste water at the source, and treat and dispose of it separately
- Only use drinking water where drinking water quality is really needed
- Keep wastewater away from sealed surfaces so as to prevent peak run-off
- Make sure the condition of the groundwater and bodies of water above ground is not impaired

For example, for some years now, quaternary groundwater close to the surface [process water] from the airport's wells has been used for cooling in both power centers, west and east, instead of precious tertiary groundwater [drinking water]. This led to a saving on drinking water of around 1,447,000 cubic meters by the end of 2017 in both process water wells. Preparatory building works have started on additional process water wells in a bid to save up to a further 50,000 cubic meters of drinking water a year over the next few years.

Overall, drinking water consumption at Munich Airport fell by 3.2 percent in 2017. This is because the airport takes an economical approach when handling drinking water. For every 1,000 traffic units [1,000 passengers or 100,000 kilograms of airfreight], specific drinking water consumption decreased further to 21 liters, compared to 23 in the previous year.

→ Glossary

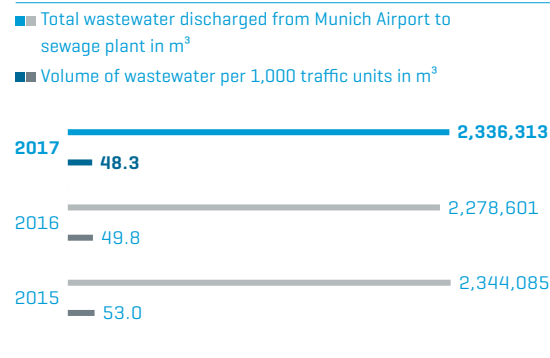
### Total drinking water consumption<sup>1), 2)</sup>



<sup>1)</sup> Includes all companies on the campus.

<sup>2)</sup> Values are derived as follows: Water metering in m³ measured at the drinking water feed points [transfer points] from the water utility company to Munich Airport.

### Total wastewater discharge<sup>1), 2)</sup>



<sup>1)</sup> Includes all companies on the campus.

<sup>2)</sup> The wastewater discharged to the sewage plant consists of domestic wastewater, industrial wastewater, mixed water, and de-icing waste

### Sophisticated wastewater disposal concept

A sewage system stretching for around 300 kilometers collects wastewater at Munich Airport. Depending on the level of contamination, the water is pretreated in the airport's own plants, retained, added to bodies of water, or sent to the sewage plant in Eitting.

### Ground biofiltration system meets expectations

Ground filters at the heads of the runways prevent de-icer from contaminating the ground water, if the wind blows it onto surrounding green areas. At the same time, they are used to retain and clean the collected waste de-icer. Depending on the level of contamination, it is routed to a body of water or – during harsh winters where lots of de-icer is used – sent straight to the sewage plant. Regular inspections of the groundwater using a TOC [Total Organic Carbon] measurement system prove that de-icing operations are not polluting the groundwater with organic substances thanks to the use of the ground biofiltration system. The filters at the northwestern and northeastern heads of the runways have already been in operation for some time; a further ground filter to the east of the southern runway was completed in 2017, while a fourth is currently under construction for the western part of the southern runway.

### Aircraft de-icer cycle

De-icing vehicles keep aircraft free from ice and snow before take-off. The de-icer dripping off the aircraft during this process finds its way via slit drainage gutters and channels into underground basins. It is then mechanically and chemically treated in the airport's own recycling plant, before being distilled and converted back to its original state with the use of additives. Munich Airport's process for recycling de-icer is the only one of its kind in the world. The recycling rate for the active glycol component in de-icer was around 53 percent for the 2016/2017 season. The average for the last few years has ranged between 41 and a maximum of 59 percent – depending on the weather and taking into account a level of energy consumption suited to the environmental footprint.

## Noise protection

### Regulations regarding noise protection

#### Aircraft are required to adhere to strict noise limits

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. However, airport operators themselves can also ban particularly loud aircraft types. Munich Airport does not allow loud aircraft without certificates according to ICAO Annex 16 to take off from or land on its premises. For the planned third runway, the same will also apply to aircraft assigned to [Chapter 2](#), and also to marginal [Chapter 3](#) aircraft. Other organizations and projects have set similar goals: With its vision for 2020, the EU's ACARE (Advisory Council for Aviation Research in Europe) is aiming to halve perceptible noise, while the EU's «Flightpath 2050» project hopes to reduce noise emissions by 65 percent by 2050 taking the year 2000 as its base figure.

### Night flight regulations at Munich Airport

The night-flight curfew includes a noise quota, which is based on aircraft types and sizes, and the number of aircraft movements. During 2017, only 65 percent of the permissible noise volume was used at Munich Airport. In 2017, the mean night-time **continuous sound level** at the borders to the control zone did not exceed the permitted value of 50 dB(A). The current night-flight curfew, introduced in 2001, will also apply for the planned third runway. The third runway may only be used at night in exceptional circumstances, such as an emergency or closure of one of the other runways.

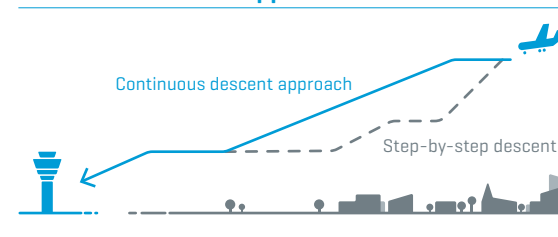
### Noise reduction measures provide relief for residents

Munich Airport aims to keep the impact on residents and employees caused by flight noise as low as possible. It applies a range of steps to achieve this, including operational, technical, and financial measures.

### Engines running idle during final approach

Munich Airport currently gives all airlines the opportunity to land according to an optimized descent profile on the north runway. With these continuous descent operations (CDO), the aircraft's engines are set to minimal power (ideally, they should be idling) during the descent, thus avoiding, in as far as possible, any horizontal flight phases. This offers positive effects for both the airlines and the environment: It helps to save kerosene on the one hand, while reducing noise and CO<sub>2</sub> emissions on the other. It also reduces noise levels by up to 6 dB(A) due to the higher crossing height in contrast to the standard procedure.

### Continuous descent approach



→ [Group management report see page 88](#)

→ [Glossary](#)

↗ [acare4europe.com](http://acare4europe.com)

↗ [munich-airport.com/night-flight](http://munich-airport.com/night-flight)

↗ [munich-airport.com/noise-protection](http://munich-airport.com/noise-protection)

→ [Glossary](#)

↗ [Download the report Flightpath 2050](#)

[ec.europa.eu/transport/modes/air/doc/flightpath2050.pdf](http://ec.europa.eu/transport/modes/air/doc/flightpath2050.pdf)

In 2017, only 65 percent of the permissible noise volume was used at Munich Airport.





### New engine architecture halves noise levels

The development of very quiet aircraft types is set to accelerate further with the use of new, highly-effective geared turbo-fan engines. This engine architecture reduces fuel consumption by 15 percent, and therefore also reduces both carbon dioxide emissions and noise levels. The A320neo aircraft model is already equipped with these engines. It is currently the most efficient and quietest aircraft at Munich Airport, and is used for short- and medium-haul flights.

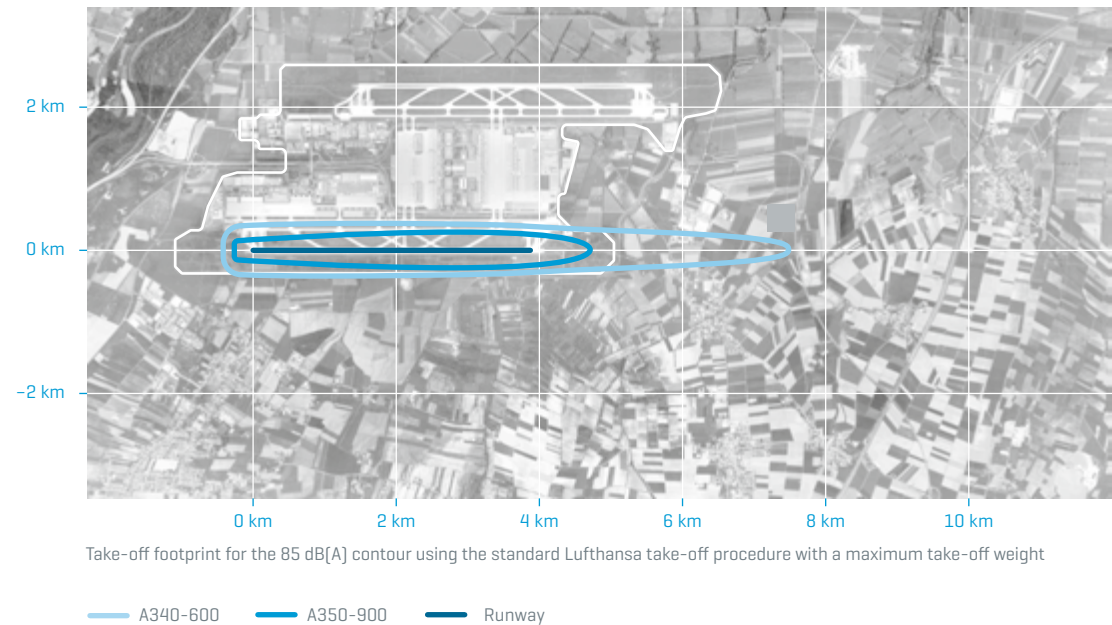
Lufthansa has based 15 A350-900 long-haul aircraft at Munich Airport and started using them on its regular flights between Munich and Delhi in February 2017. A further ten A350-900s have been ordered to gradually replace the A340-600 models. New modern aircraft types like the A350-900 generate significantly lower noise levels compared to the A340: Measurements show a reduction of up to 7 dB(A) during take-off and of up to 3 dB(A) during landing. In contrast to an A340, the A350-900's noise contour is around 40 to 50 percent smaller and its noise level does not exceed 85 dB(A) outside the airport premises. The use of these types of aircraft and, in particular, the stationing of the A350s will help to significantly reduce aircraft noise emissions, especially the peak level in the area around the airport. This results in lower aircraft noise pollution in the airport region.

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

### Landing charges: quiet equals cheap

Munich Airport can influence the type of aircraft used by ensuring its landing charges depend on noise levels. Airlines using quiet aircraft benefit from a charges system based on a broad sliding scale. Noise-based take-off and landing charges may be as much as eight times higher for a loud aircraft type than a quiet one.

### Comparison of noise contours for the Airbus A340-600 and A350-900



### Dense measurement network for aircraft noise monitoring

Using 16 fixed measurement points, FMG continuously monitors aircraft noise within a radius of about 20 kilometers around Munich Airport. It also performs mobile measurements on request, which is a voluntary service available to municipalities that are not covered in the stationary measurement network. In 2017, nine mobile aircraft noise measuring systems recorded values on a total of 280 days, including – for the first time – in Maierklopfen, Pastetten, Buch am Buchrain, Kirchheim and Mintraching-Grüneck. Mobile measurements were again taken in Anzing, Oberndorf, Lengdorf and Ismaning.

### Aircraft noise monitoring online

Local residents can use the «Fluglärmüberwachung online» platform [«Online aircraft noise monitoring»] to find out about the current noise levels in the airport region: It provides both the latest measurements from the 16 stationary aircraft noise measuring points as well as data from the three mobile measuring vehicles.

## Biodiversity

### Landscape design benefits the environment

To integrate Munich Airport into its environment in the best possible way, FMG set about – from the very outset – creating structures that would upgrade the environment in the wider area and link it together. The concept divides the areas in Erdinger and Freisinger Moos into three zones:

#### Zone I: airport premises with runway system, buildings, and roads

High-quality green areas, with over 6,000 additionally planted trees, make up almost two thirds of the airport premises and zone I. Specialist care and maintenance has led to rich variety of vegetation growing there. This has helped to cultivate high-quality low-nutrient meadows in some areas, which are ecologically much more valuable than the intensively farmed green spaces or arable land beyond the airport fence.

#### Zone II: wooded green belt with structural diversity around the airport premises

With its woods, ditches, and meadows, this area around the edge of the airport acts as a buffer for settlements and agriculture. For instance, more than half of the area around the northern receiving ditch is now home to vegetation that is worthy of protection, such as the Hungarian iris, marsh gladiolus, or fen pondweed.

#### Zone III: ecological compensation measures

FMG has in the interim created approximately 375 hectares of compensation areas. The responsible certification bodies (Southern Aviation Office, government of Upper Bavaria, as well as the local [«lower»] and the regional [«higher»] nature conservation authorities) have confirmed that sufficient areas have been cultivated and that these are looked after properly. The areas serve as a counterbalance for interventions in the natural landscape caused by construction and renovation measures. The result is a large variety of threatened and rare bird species, including the corn bunting, whinchat, and Eurasian curlew, as well as types of biotope.

### The airport inside a bird sanctuary

Munich Airport is part of the 4,525-hectare «Nördliches Erdinger Moos» European bird sanctuary, which is home to 40 endangered species of bird, some highly endangered. It directly borders the airport premises and also includes the 658 hectares of airport meadow around the runways. The area is an important habitat for endangered species of meadow breeders and also for rare species of plants, reptiles, dragonflies, and butterflies, such as creeping marshwort, sand lizards, ornate bluets, and the dusky large blue.

### Munich Airport protects meadow breeders and butterflies

Many species of meadow breeder in Bavaria are endangered. To improve their habitats, FMG set up a project in 2016, entitled «Meadow breeder protection in the area around Munich Airport», receiving specialist support from the Bavarian Ministry of the Environment. To achieve this goal, around 50 hectares of land currently used for agriculture will be used to develop and test preventive concepts and measures by 2020. These will include steps such as nest protection, more extensive cultivation, mowing concepts designed to suit meadow breeders, fencing to protect against predators, and the development of ecological lease agreements with corresponding requirements regarding cultivation.

One of the flagship projects within the Bavarian Environmental Pact is the airport's voluntary commitment to protect rare species of moor-based butterflies on «Freisinger Moos». Scarce heath butterflies, bog fritillaries, dusky large blues and scarce large blues are the four rare and at-risk species that will enjoy a new, protected habitat in six appropriate areas in the region, covering a total space of five hectares. To this end, for example, Munich Airport developed wide borders lined with damp hedgerows and enriched the area with plants important for caterpillar breeding and feeding. In years to come, the areas will also be mown in a manner suitable for these species, in order to copperfasten the success of the measures already taken.

### Hunting as active nature protection

Conservation and species protection play an important role in hunting activities in the airport area. For instance, fox and marten populations on the airport meadows are controlled by the airport hunters in an effort to protect at-risk meadow breeders. In addition, FMG owns land in the Isar floodplains, one of Bavaria's eleven designated areas for red deer. In the past, it has succeeded in safeguarding population areas ensuring red deer continue to be able to move safely, and in striking a balance between nature protection and hunting interests.

➔ Download the brochure Bird sanctuary and airport operations [munich-airport.com/publications](https://munich-airport.com/publications)

➔ [munich-airport.com/bird-sanctuary](https://munich-airport.com/bird-sanctuary)

### Top five measures in the sustainability program ➔ Full program online: [munich-airport.com/sustainability-program](https://munich-airport.com/sustainability-program)

Material topics	Initiatives	Measures	Status 2017	Measure ends
Biodiversity	Establishing and enhancing environmental management	Voluntary butterfly project as part of the Bavarian Environmental Pact (developing and implementing species protection measures for selected butterfly species on FMG premises)	50%	2020
Noise emissions and noise protection	Accepting responsibility for pollution resulting from air traffic	Designing and enhancing a noise protection strategy (active noise protection, flying procedures e.g. CDO, flight paths, landing charges, passive noise protection, noise protection programs)	50%	2020
		Introducing pre-conditioned air systems	100%	2017 [completed]
Greenhouse gas (CO <sub>2</sub> ) and air pollutant emissions	Becoming carbon-neutral by 2030	Converting exterior lighting and apron lighting to LED technology	50%	2022
		E-mobility: expanding charging infrastructure and procuring more electric vehicles	20%	2019

# FINANCIAL REPORT

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## Information on the consolidated financial statements and the Group management report for the fiscal year 2017

The online report published in full on the Internet is decisive for the audit of the consolidated financial statements. In addition to the unconditional independent auditor's report, the full consolidated financial statements and the Group management report for the fiscal year from January 1 through December 31, 2017 are generally accessible at [report2017.munich-airport.com](http://report2017.munich-airport.com). The version published there was audited by KPMG AG Wirtschaftsprüfungsgesellschaft. The present printed Group management report 2017 corresponds to the audited version. The consolidated financial statements are presented in abridged form in the printed report. This includes the consolidated income statement, the consolidated statement of comprehensive income, the consolidated balance sheet, the consolidated statement of changes in equity, and the consolidated cash flow statement. The Group notes under IFRS are published only in the online report.



# Group management report

## Situation of the Group

### Business model of the Group Situation

Flughafen München GmbH (FMG) is headquartered in Munich. As the parent company of the Munich Airport Group [Munich Airport] it is the operator of Munich's commercial airport.

Munich Airport is active in the business units Aviation, Commercial Activities, Real Estate and Participations, Services & External Business. The service profile offered by the Group covers virtually all the services available at the airport campus – from air travel including passenger and cargo handling through to retailing, hotels, and catering services. This integrated business model and depth of added value sets Munich Airport apart from its European competitors.

Munich Airport is committed to a corporate policy of sustainability. The orientation on economic, environmental and social goals ensures public acceptance of the airport and consequently the viability of its business model.

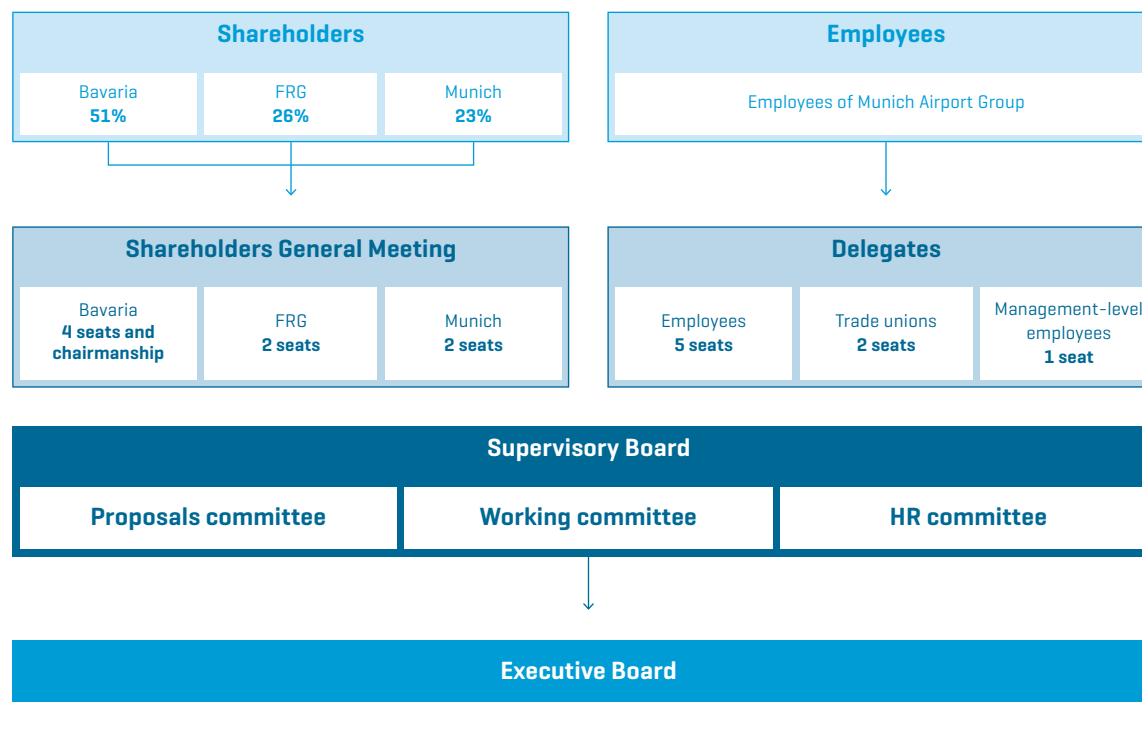
### Main features of management and control Fig. 1

The owners of FMG are the Free State of Bavaria with 51.0 percent, the Federal Republic of Germany with 26.0 percent, and the City of Munich with 23.0 percent.

The shareholders' general meeting is the highest monitoring and decision-making body. It decides unanimously on the Group's business fundamentals including airport expansion and borrowing. Moreover, decisions are passed with a simple majority.

### Governance Structure

Fig. 1



### Supervisory Board

FMG has a Supervisory Board, as specified in Article 1 [1], [6] of the German Co-Determination Act (Mitbestimmungsgesetz - MitbestG). The Supervisory Board exercises monitoring and co-determination rights. It appoints members of the Executive Board and determines their remuneration. Transactions exceeding certain thresholds and terms require Supervisory

Board approval. The employees' representatives in the Supervisory Board are elected for a five-year term by the Group employees. The shareholders' representatives are elected by the shareholders' general meeting. Their term in office ends with the shareholders' general meeting that resolves on the formal discharge of the members for the fourth fiscal year after the start of their term in office.

The Supervisory Board has appointed a proposals committee, a working committee, and an HR committee. The proposals committee, working committee and the HR committee were entrusted with the following tasks: Fig. 2

### Executive Board

The term of office of the Executive Board of FMG is normally five years; reappointment or extension of the term in office is permissible. The Board has three members and is responsible for the Group's corporate policy and strategic focus. It determines the budget and monitors business developments.

The Executive Board of FMG receives a fixed [salary] and a performance-related remuneration including short- and medium-term incentives [bonus]. The bonus is primarily linked to the consolidated profit before taxes.

### Female quota

The female quota on the Supervisory Board stood at 31 percent as at June 30, 2017, above the target level of 25 percent. This quota of 31 percent is set to be maintained through June 30, 2020.

Through June 30, 2017, the proportion of women on the Executive Board should be increased to one third due to the planned appointment of another member of the Executive Board. This has been achieved through the appointment of Andrea Gebbeken as of October 1, 2016. The current quota of 33 percent is set to be maintained through June 30, 2020.

It was not possible to achieve the set target of 13 percent for the proportion of female managers in the highest management tier of the Group parent company FMG through June 30, 2017. However, at that point, new appointments to the first management level were already known, so the quota of female managers rose to the target of 13 percent through December 31, 2017.

### Committees in the Supervisory Board

Fig. 2

Proposals committee	<ul style="list-style-type: none"> <li>• Right of proposal for the appointment of a member of the Executive Board in the event that voting in the Supervisory Board does not achieve the requisite two-thirds majority for the member of the Executive Board to be appointed in the first ballot.</li> </ul>
Working committee	<ul style="list-style-type: none"> <li>• Statement on the resolutions proposed by the Executive Board</li> <li>• Approval of certain legal transactions that exceed set maximum monetary values and terms</li> </ul>
HR committee	<ul style="list-style-type: none"> <li>• Designing the contracts of employment for the Executive Board (with the exception of remuneration)</li> <li>• Setting and amending the rules governing remuneration in the area of the Group not governed by collective wage agreements.</li> <li>• Setting or amending the salary level of certain employees above a set salary level or level of remuneration</li> <li>• In individual cases, giving commitments regarding occupational provision benefits, including company retirement provision</li> </ul>

The quota of female managers in the second highest management level stood at 21 percent through June 30, 2017. It was therefore not possible to achieve the set target of 29 percent. This was due to the fact that males were newly appointed to three positions that were previously held by females. In these cases, no female applicants were available in the application procedure who fulfilled the necessary criteria for the vacant positions.

On the premise that there are regular changes of personnel on the top and second-highest management levels, a target value of 19 percent for the female quota through June 30, 2020 was set for the top management level. The target value of 29 percent was retained for the second-highest management level.

### Operating activities

#### Organizational structure

The Group's organizational structure is divided into the business units, service and central divisions of FMG. Commercial management and the internal reporting system are based on the business units. The business units comprise the business and service divisions of FMG and the Group companies integrated in the business units. Fig. 3

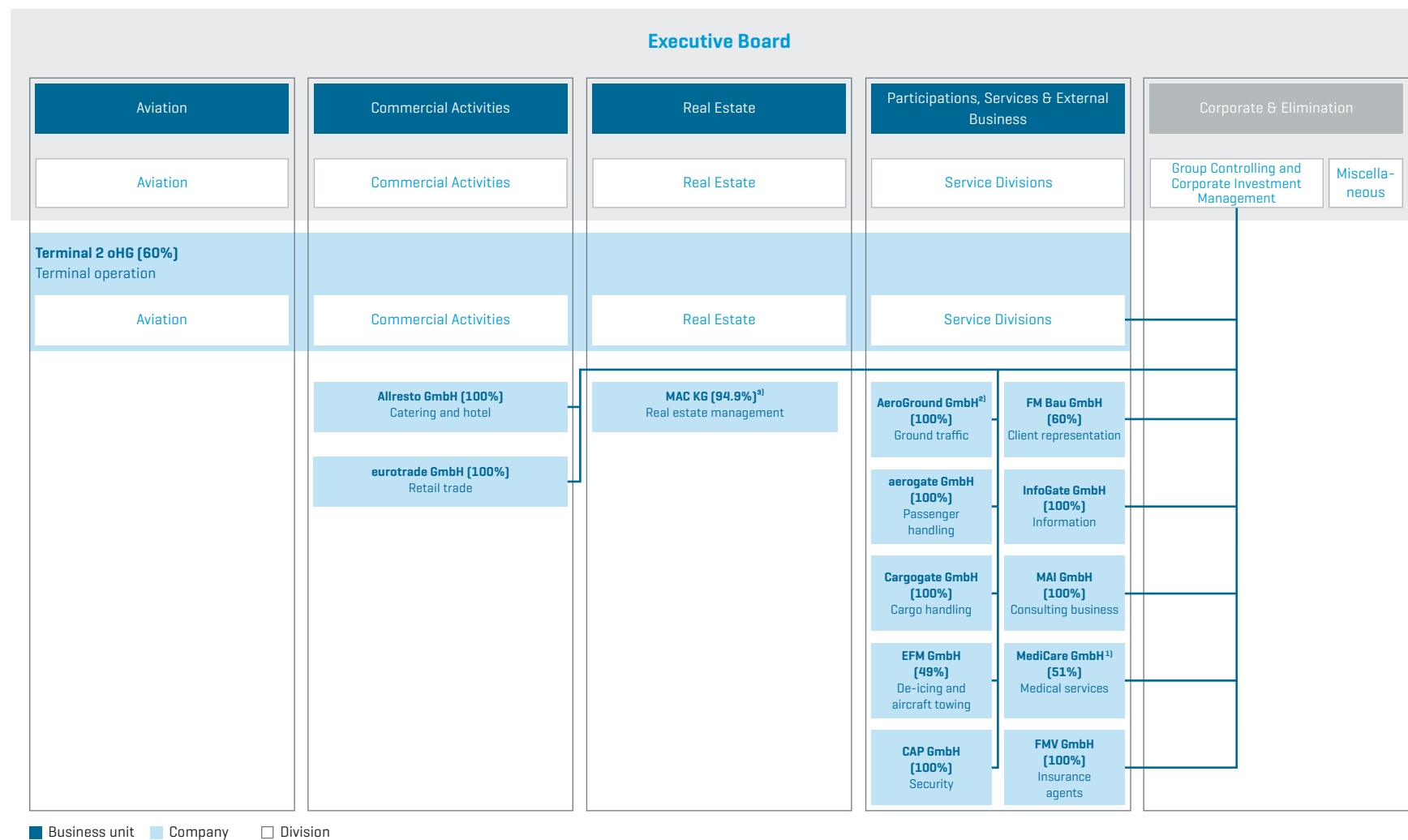
With a notarial deed dated July 20, 2017, Flughafen München GmbH transferred the «International Consulting Business» division to Munich Airport International GmbH (hereinafter MAI) by way of a spin-off against the granting of new shares in accordance with Section 123 [3] of the German Reorganisation Act (Umwandlungsgesetz - UmwG). The spin-off was carried out retrospectively as at January 1, 2017. MAI was consolidated for the first time upon starting business operations on January 1, 2017.

As at January 3, 2017, Munich AirportClinic GmbH (hereinafter MaCl) was founded as a subsidiary of MediCare Flughafen München Medizinisches Zentrum GmbH. The purpose of this company is the commercial operation of a clinic at Munich Airport for the exclusive treatment of self-paying patients and patients covered by private health insurance, including all ancillary activities that serve this business purpose either directly or indirectly. MaCl will not begin business operations until 2018.

In total, the Group comprises twelve fully consolidated companies, one associate, and five companies that are not consolidated. These are directed by Group Controlling and Corporate Investment Management in line with the business unit strategy assigned in each case.

## Organizational structure of Munich Airport

Fig. 3




<sup>1)</sup> MediCare Flughafen München Medizinisches Zentrum GmbH has a 100 percent equity interest in Munich AirportClinic GmbH and an 18.2 percent equity interest in Radiologisches Diagnostikzentrum München Airport GmbH.

<sup>2)</sup> AeroGround Flughafen München GmbH has a 100 percent equity interest in AeroGround Berlin GmbH. In turn, AeroGround Berlin GmbH has a 100 percent equity interest in HSD Flughafen GmbH.

<sup>3)</sup> MAC Grundstücksgesellschaft mbH & Co. KG i.L. (MAC KG) has been in liquidation since November 1, 2016.



 Business units

## Business units

- Infrastructure operations at the limit of capacity
- First-class service and wide variety of offerings along passenger routes
- Highly attractive real estate location
- Participations – full service provider for the airlines
- Services – energy and telecommunications for all airport tenants

## Aviation

The Aviation business unit covers the operation of Munich Airport's air traffic infrastructure.

The following airport charges are levied for the provision and operation of the air traffic facilities: Fig. 4

### Air traffic charges

Fig. 4

	Assessment basis
Take-off and landing charge	Maximum take-off mass of the aircraft (MTOM) on take-off and landing
Noise charge	Fixed amount per landing depending on the noise category
Emissions charge	Nitrogen oxide equivalent emitted per landing
Passenger charge	Number of passengers on take-off
Freight charge	Number of workload units on take-off/landing
Parking charge	Maximum take-off mass [for every started period of 24 hours, from the fourth hour]
Security charge	Number of passengers and/or workload units on take-off
Fee for passengers with reduced mobility [PRM fee]	Number of passengers on take-off
De-icing charge	Number of passengers and/or workload units on take-off
Waste disposal charge	Number of passengers on take-off

In fiscal year 2014, Munich Airport concluded a master agreement on charges with uniform terms and conditions for all airlines, which sets the future trend of air traffic charges until 2020 and consequently ensures funding for infrastructure. On average, charges rise by around 2 percent per year.

At present, Munich Airport has two runways with a maximum capacity of 90 aircraft movements per hour during daytime operations. As a rule, this capacity is fully utilized over large parts of the day. Market-appropriate development of the traffic is scarcely possible any longer, as there are already a large number of requests from airlines that can no longer be satisfied. This fact is confirmed by the airport coordinator of the Federal Republic of Germany who is commissioned with awarding the landing and take-off slots. Between 10:00 p.m. and 6:00 a.m., flights are very limited and confined solely to exceptionally quiet aircraft. Scheduled and charter traffic is restricted to 28 planned aircraft movements per night. The restrictions may also be relaxed for homebase airlines and delayed flights. In the period between midnight and 5:00 a.m., night mail and survey flights by German air traffic control are the only permitted movements. Other exceptions to the curfew include, for example, emergency and medical aid flights, landings required for reasons of air safety as well as flights approved by the Bavarian Ministry of the Interior, for Building and Transport as the responsible authority in justified exception cases.

Although the runway system is still the real bottleneck, the airport terminals must also be continuously adjusted to increasing demand. The Terminal 2 satellite building put into operation in the previous year was used intensively in 2017 with a total of about 11 million passengers. Moreover, the identity checks in Terminal 2 were given new, more powerful body scanners. The security checks in Terminal 1 were extended last year to create handling capacities that satisfy the demand. In addition, the plans to convert Terminal 1 to improve the service quality even further were moved forward in 2017.

Through its central location in Europe, at the heart of one of the most economically successful regions, Munich Airport is ideally positioned in strategic terms. The region around the airport is distinguished not only by above average economic development but also by constant growth in the population and people in employment. This is also why Munich Airport is the German airport with the highest proportion of business travelers – and is consequently predestined for especially valuable scheduled connections. At the same time, population growth and rising prosperity are also leading to increased demand for private flights from Munich Airport.

Collaborative work with Deutsche Lufthansa AG [hereinafter Deutsche Lufthansa] has helped Munich Airport become a major international air traffic hub. Joint extension projects, such as Terminal 2 and the satellite building, form the basis for a sustainable partnership that ensures long-term growth, secures global connections for the business locations of Munich and Bavaria, and satisfies the continuous growth in demand for air travel with a high-quality offering.

Thanks to its outstanding market position and the successful cooperation with Deutsche Lufthansa, Munich Airport possesses the densest network of continental connections in Europe, based on the number of destinations. Extremely popular connections guarantee ideal links between the Bavarian commercial capital and the rest of Europe and the world. The large number of long-haul connections is feasible only with an efficient system of feeder flights. Without this system, the original demand in Munich, based on the size of the catchment area, would not be sufficient for most contemporary long-haul connections. Incidentally, this state of affairs also applies to every other location in Germany. Due to the tourist attractiveness of the location and the growing catchment area with a wealthy population, Munich Airport is not only interesting for the Deutsche Lufthansa hub traffic but also for point-to-point connections. This can be seen in part by the fact that increasing numbers of low-cost airlines are trying to establish themselves in Munich. Following a change of strategy, the airline Ryanair is showing interest in major locations like Munich and added its first flights from Munich to its portfolio as from the winter timetable 2017/2018.

The pleasing growth scenarios for Munich Airport are hindered by the bottleneck in the runway system. In addition, a lack of traffic rights or ongoing traffic rights negotiations may hinder the development of traffic, for example to Africa [Ethiopia] or to China. An additional obstacle to market-appropriate growth is still the German aviation tax: While neighboring countries abolished comparable taxes again [Netherlands] or plan to reduce such taxes considerably [Austria], there are currently no plans in Germany to adjust the aviation duties.

Cargo handling is also heavily dependent on the development of passenger traffic and the capacity of the runway system. After all, the majority of the airfreight – over 80 percent – at Munich Airport is transported as bellyhold cargo on long-haul passenger flights. Exclusive freight flights are rather more flexible in their flight times than passenger routes. However, freight airlines are more and more dependent on night flights which are only possible in Munich in exceptional circumstances due to the strict night-flight regulations.

### Commercial Activities

The Commercial Activities business unit is responsible for marketing space throughout Munich Airport that may be used for commercial purposes. This includes both strategic planning of the sector mix with regard to the retailing, service and catering space as well as the issue of leases and concessions to third parties and Group companies.

Munich Airport has over 20,089 square meters of catering space and 25,916 square meters of space dedicated to retailers and service providers. FMG's subsidiaries operate their own retail or catering businesses on around 63 percent of the total area.

Commercial Activities is also responsible for the five-star hotel in the airport's central area. Since the opening of its extension in March 2017, the hotel now possesses 551 rooms and 30 conference rooms.

This business unit is also responsible for marketing parking at Munich Airport. At present, there are around 36,000 parking spaces, of which 23,000 are in multi-storey car parks and garages and around 13,000 are on paved and unpaved car parks.

Commercial Activities markets the advertising media and spaces at the airport as well. As a niche area of out-of-home advertising, advertising at Munich Airport features high-profile advertising spaces with little wastage tailored to clients' individual requirements.

The business unit's service portfolio also includes the events business.

### Real Estate

The Real Estate business unit develops, operates, and markets all real estate and property owned by Munich Airport, both on and off campus. The real estate location is divided into location-specific areas, which are marketed under the AirSite concept.

Munich Airport has a lot to offer as a real estate location: an attractive environment, good road connections, very good parking, and a comprehensive range of goods and services for daily needs. The existing rail traffic access will be significantly improved by the addition of the Neufahrner Kurve.

In accordance with the high expectations of the entire site, a vibrant, distinctive urban development concept, which will provide the basis for excellent leisure amenities and a successful business environment, is currently being developed. The initial development measures at AirSite West have been launched recently.

Another field of activity is the creation of cost-effective living space for employees in collaboration with external partners. Here, too, initial contracts are due to be concluded soon.

## Participations, Services & External Business Participations

The other companies of the Group complete the airport's business. The significant companies are: Fig. 5

### Significant subsidiaries

Fig. 5

AeroGround	The companies provide landside and airside handling services for airline customers, including ground handling services and passenger care, at the Munich and Berlin locations.
aerogate	The company provides passenger handling, operation services with ramp supervision, Lost & Found with luggage delivery, ticketing service, and arrival and concierge service at Munich Airport. The range is completed by general aviation services, as well as consulting and training.
Cargogate	As a regulated agent, the company carries out services in relation to the throughput of airfreight and dealing with the associated customs formalities. The company packs and stores the airfreight in a hall area of circa 20,000 square meters, as well as handling the documents involved. Cargogate also offers handling services for all common special goods, such as hazardous substances, refrigerated and valuable goods.
MAI	The company provides consulting services for the commissioning and ongoing operation of airports all over the world.

## Services

Besides the business units and subsidiaries, Munich Airport's service divisions are also involved in external sales. The largest contribution comes from the following service divisions: Fig. 6

### Significant service divisions

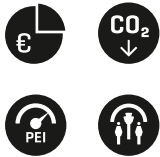
Fig. 6

Technology	The service division is responsible for the secure and cost-effective operation of airport infrastructure. Among other things, this includes the supply of energy and heating/refrigeration, maintenance of buildings and airport specific equipment as well as vehicle management for series vehicles and handling equipment. This division also plays a significant role in implementing Munich Airport's CO <sub>2</sub> strategy as part of its energy management.
IT	The IT service division provides its customers at Munich Airport with various services in the areas of media and communications technology, IT workstation equipment, and server, database, and memory system engineering. The core competencies of the division are primarily the integration of different technical IT platforms and the provision of customized support services for the logistical processes at Munich Airport.

In total less than 5 percent of the Group's external sales are accounted for by activities in the Participations, Services & External Business (excluding ground handling). Therefore, the economic development of this business unit is not explained in detail. In contrast, the developments regarding the ground handling services of the Group have been incorporated in the sections on Aviation.

### Control system and values management Indicator system ensures sustainable business

Munich Airport measures the performance of its managers using financial and non-financial indicators. In doing so, it focuses on indicators that measure corporate sustainability and quality. Accordingly, earnings before taxes (EBT) give the economic, CO<sub>2</sub> reductions the ecological, and the employee retention index the social perspective of traditional sustainability management.



With the Passenger Experience Index (PEI), the airport measures the achievement of its quality targets, which are designed as a strategic approach towards improving customer satisfaction. FMG surveys internal and external interest groups every year to determine and regularly affirm the relevance of the performance indicators for stakeholders.

### Earnings before taxes (EBT)

Since the previous year, the earnings targets of management have been formulated on the basis of earnings before taxes (EBT). EBT is the input factor for determining profitability. It relates to the consolidated profit before taxes, calculated by applying the International Accounting Standards in the version adopted into European law by the European Commission.

### CO<sub>2</sub> reductions

CO<sub>2</sub> reduction measures include cutting greenhouse gas emissions, conserving resources, the use of energy, and energy efficiency. At the end of 2016, Munich Airport set itself a new target of becoming climate neutral by 2030. At least 60 percent of the emissions are to be cut effectively, and the remainder will be compensated for using high-quality certificates. This analysis considers both the emissions caused by the energy generation and consumption of Munich Airport itself (Scope 1) and the emissions from purchased energy (Scope 2).

### Passenger Experience Index (PEI)

The PEI is a measurement model for customer satisfaction which allows Munich Airport to derive location-specific targets adjusted to the needs of target groups and to assign the fields of action for improving service to existing customer contact points. For reasons of objectivity, an independent, external service provider determines these values. Regularly throughout the entire year, this service provider measures the satisfaction of departing and arriving passengers. On a monthly basis and at the end of the year, Munich Airport therefore obtains a wide range of detailed information about the satisfaction of its air passengers in eleven categories along the entire passenger experience chain. The overall satisfaction with the airport experience is reflected in the PEI value which is calculated from all the measured values

weighted by passenger relevance. As the target for 2018, the PEI follows the two values calculated in 2017 for the overall satisfaction of arriving and departing passengers.

### Employee retention index

Munich Airport surveys all Group staff every three years to determine the level of employee satisfaction. The employee retention index represents the percentage of employees indicating their loyalty to the company in the employee survey. The last survey took place in 2017. As the employee retention index is measured on a three-year cycle, it is not possible to give an expected/planned value for 2018.

### Innovation and ideas management

The aim of innovation management at Munich Airport is to improve customer satisfaction and customer experience with new services and products. The development of products for the airport industry has also been promoted more intensively since 2017.

Thanks to the analysis of trends and market needs, innovation management is able to develop target-oriented innovations for both passengers and customers. The feasibility and cost-effectiveness of the innovations is reviewed in pilot projects and subsequently a decision is made on whether they should be continued, implemented, or possibly expanded to involve other divisions. In the process, innovation management at Munich Airport works with startups, established companies of the region, and also increasingly with international companies to be able to access cutting-edge scientific and business knowledge at all times.

The ideas of the company's own employees provide another significant input for innovation management. In the reporting year, a total of 675 ideas were submitted via the internal open innovation and idea management system, «InnovationPilot», on subjects such as employees, areas and buildings, and technical equipment and vehicles, and 45 of these ideas were implemented.



## Economic report

### Macroeconomic and sector-specific environment

- Powerful economic growth thanks to strong domestic consumption
- German aviation registers growth – but stays behind in an international comparison
- Retail trade – benefits from a strong economic cycle
- Catering and hotel industry – upturn continues
- Advertising industry – digitalization as a driver of growth
- Parking areas – dependence on customer structure
- Munich office market exceeds all expectations

### Macroeconomic environment

Both national and international economic growth are crucial for an international air traffic hub such as Munich Airport.

The growth of the global economy slightly exceeded expectations in 2017. Current projections suggest global gross domestic product (GDP) of between 3.0 percent [World Bank, Global Economic Prospects, January 2018] and 3.7 percent [International Monetary Fund, World Economic Outlook, January 2018]. These figures are up to 0.3 percentage points higher than those in forecasts published at the beginning of the year.

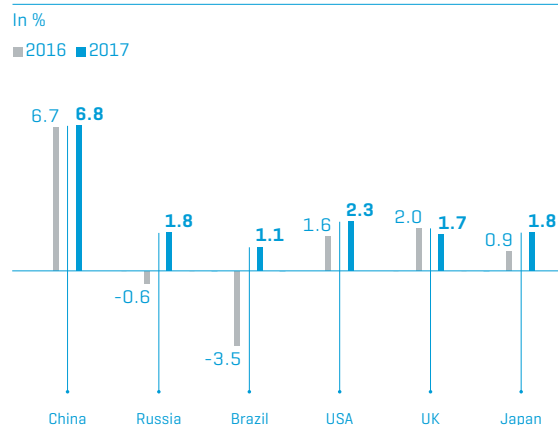
A significant cause for the higher growth rate compared to the weak years of 2015 and 2016 is the positive economic performance in important emerging countries. For example, the situations in Russia and Brazil were largely defused in 2017. As exporters of commodities, both countries suffered a severe recession in the years 2015 and 2016, due among other factors to the price collapse on the oil market and other commodities markets in the fall of 2014. The oil and commodities prices have climbed again recently, which allowed the Russian and Brazilian economies to grow by 1.8 percent and 1.1 percent respectively in 2017. Moreover, the economy in the People's Republic of China performed slightly better than expected. Current projections for the year 2017 stand at 6.8 percent, whereas a growth rate of only 6.5 percent had been assumed at the beginning of the year.

The positive development of the previous years continued even more strongly in the industrialized countries. In most cases, domestic economic forces provide important growth impulses. For example, a notable desire to spend and strong growth in investments in construction and plant and equipment have been observed among US consumers thanks to the low unemployment figures and solid increases in real wages. The Japanese economy grew more strongly than expected in 2017 due to an increase in private consumption, investments, and demand from abroad. In Great Britain, there was a rise in consumer prices because of the decline in the value of the pound sterling, ensuring that private consumption performed only moderately and tempering the economic performance which in itself was positive. Fig. 7

The upturn in the eurozone picked up pace in 2017. The current projection by the International Monetary Fund assumes growth of 2.4 percent for 2017 [IMF, World Economic Outlook, January 2018]. The strongest growth driver was private consumption. In addition, a strong investment dynamic and a positive performance in exports contributed to this improved growth. The extraordinarily expansionary monetary policy of the European Central Bank also supported the upturn in the eurozone. The economic situation in southern European countries has consolidated further. Fig. 8

### Economic growth in selected destinations worldwide

Fig. 7

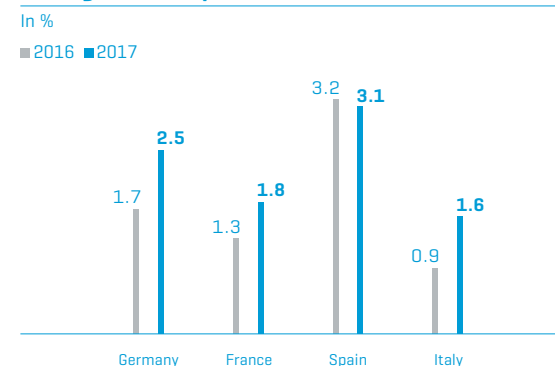


GDP growth in 2016 and 2017

[Source: IMF, World Economic Outlook, January 2018]

### Economic growth in selected destinations throughout Europe

Fig. 8



GDP growth in 2016 and 2017

[Source: IMF, World Economic Outlook, January 2018]

Macroeconomic and sector-specific environment

Following the sharp fall in recent years, the oil price bottomed out at below USD 30 per barrel (Brent Crude) in January 2016. Following the announcement by OPEC that it wanted to curb oil production, the crude oil price rose in the fourth quarter of 2016, meaning that it reached USD 57 per barrel in mid-December 2016. During the course of 2017, the oil price (Brent Crude) fluctuated between USD 45 and 67 per barrel.

### Sector-specific environment for Aviation

According to the analyses of the International Civil Aviation Organization (ICAO), global aviation set new records again in 2017. A total of 4.1 billion passengers (+7.1 percent) were transported and there was a significant rise in the total scheduled revenue passenger-kilometers (+7.6 percent). The performance therefore exceeded the growth of the previous year of +7.4 percent. Airfreight (freight tonne-kilometers) also increased considerably compared last year (9.5 percent compared to +3.8 percent).

The airports that are members of the German Airports Association (ADV) achieved extremely positive growth rates on average in 2017. The commercial passenger volume (arrival/departure) increased by 5.2 percent in total. Aircraft movements rose by 1.6 percent and cargo throughput (total of airmail and freight excluding transit items) was 6.7 percent up. As a result, Munich Airport registered higher growth rates in 2017 in all traffic segments than the average value for German passenger airports. Further details on this subject can be found in the section «Aviation».

The insolvency of Air Berlin led to a temporary reduction in the offering of German aviation. The number of seats available on these routes fell by 21 percent from October through December. This capacity gap has gradually been refilled since January 2018. The timetable dates for the winter timetable 2017/2018 show that 97 percent of the capacity gaps in German domestic air traffic will have been closed again already by March 2018.

In a global comparison based on total scheduled revenue passenger-kilometers, the Asia/Pacific region claimed first place with growth of 10.1 percent, followed by Europe (+8.2 percent). The performance in the Middle East was comparatively weak (+6.4 percent), losing market share for the first time since 1997. The reasons for this lower growth rate in the Middle East were particularly the low oil price and the high dollar exchange rate.

According to the details of the German Aviation Association (BDL), the German airlines and airports performed below average compared with their European counterparts. While air travel (measured by total scheduled revenue passenger-kilometers) in Europe grew more strongly than the global average at 8.2 percent, German airlines achieved only an increase of 3.1 percent (previous year: 1.4 percent). The performance at German passenger airports was similar: the number of arriving or departing air passengers rose in 2017 to about 235 million (+5.2 percent). The passenger figures at airports throughout Europe increased by 8.8 percent. The BDL regards the structural disadvantage of German aviation companies with regard to aviation tax and security fees in an international comparison as the main reason for this development.

The main problem for German air travel is therefore not a lack of demand, but rather the impossibility of satisfying the demand with a corresponding supply. In its latest Air Travel Concept, the Federal Ministry of Transport and Digital Infrastructure analyzed 20 measures for satisfying the requirements. It reached the conclusion that the objective (taking part in the global growth) will be achieved only in part despite implementing all of the proposals from the portfolio. A further delay in implementing these measures would therefore represent a fundamental risk to the competitiveness of the German air travel industry.

### Sector-specific environment for Commercial Activities

Thanks to higher income and record levels of employment, German retailers again registered a total increase in sales in 2017 of 4.1 percent up to € 512.8 billion, according to the figures of the Federal Statistical Office. More and more shop-based retailers profited from online growth by exploiting the opportunity of digitalization. On a price-adjusted basis, their growth stood at 2.6 percent, as in the previous year.

According to the German Retail Association (HDE), the retail trade is still doing well, as the favorable situation on the labor market and the positive expectations of citizens with regard to the economy and their own wages are continuing to bolster consumer confidence. The ifo Business Climate Index also confirms this development: the majority of the surveyed retail companies assessed their business situation for the coming six months as positive.

According to the German Hotel and Catering Association (DEHOGA), the hotel and restaurant industry concluded 2017 with a gain for the eighth year in succession, so continuing its upward trend. The accommodation sector was also able to record an increase in sales of 2.9 percent, which represents a growth rate of 0.9 percent on a price-adjusted basis. Caterers performed slightly better with a nominal sales gain of 3.0 percent (gain of 0.9 percent in real terms). The catering sector grew by 2.0 percent (0.1 percent in real terms).

In fiscal year 2017, the gross advertising expenditure by advertisers rose by 1.9 percent to around € 31,867 millions. Some media groups posted substantial growth, including the Out-of-home advertising segment primarily used by the airport, which grew by 7 percent.

Shifts in the modal split, which reflects the manner in which passengers travel to the airport, as well as changes in the number of visitors had different impacts on the Parking business unit. The «Shared Mobility» business (hire cars and carsharing) benefited in particular from the increased passenger volume. It was possible to compensate in terms of sales for passengers switching to other incoming modes of transport, in particular to the S-Bahn railway, with a longer average stay in the parking facilities.

→ Glossary

## Sector-specific environment for Real Estate

The market for office real estate in the Munich area exceeded expectations in 2017 and achieved the highest floor-space turnover since 2000. According to the market report by Colliers International Deutschland Holding GmbH, the total turnover in 2017 increased by 26 percent to 984,200 square meters.

The vacancy rate for office real estate was also reduced further in 2017, falling by 0.6 percentage points in comparison to previous year to 2.4 percent. At the end of 2017, there was about 150,000 square meters less available to rent short-term than a year ago, with a total of 535,900 square meters.

The average rent for office real estate in Munich increased by 8 percent to € 17.30/m<sup>2</sup>. The peak rent performed rather more moderately with a gain of 2 percent [€ 35.60/m<sup>2</sup>].

While tenants are finding it increasingly difficult to find suitable space and therefore have to compromise in terms of the location or amenities, landlords can impose higher rents and fewer incentives in many cases. The demand for office space remains high. However, the available space is becoming more and more scarce and has already reached critically low levels, particularly in the urban area. Large-scale users therefore prefer to secure their desired spaces through advance project tenancies. However, it must be noted here that a sufficiently long planning horizon is necessary, amounting to about three years on average.

## Course of business

- Outsourcing of the international consulting business
- Opening of the extension to the five-star hotel
- Insolvency of Air Berlin and Niki
- New passenger record and increase in aircraft movements
- Ground handling services in a difficult economic environment
- Retail trade – recovery in important destination countries provides initial growth impulses
- Catering and hotel – on the path to success
- Parking areas – demand increases with passenger traffic
- Advertising sector – challenging market environment
- Impulses for further location and real estate development

## Key events in the past fiscal year

With a notarial deed dated July 20, 2017, FMG transferred the «International Consulting Business» division to MAI by way of a spin-off against the granting of new shares in accordance with Section 123 [3] of the German Reorganisation Act [Umwandlungsgesetz - UmwG]. The spin-off was carried out retrospectively as at January 1, 2017. MAI therefore started operating business and was incorporated in the scope of consolidation for the first time in 2017.

After a construction period of two years, the extension and the new conference area of the five-star hotel were completed on schedule and inaugurated at the end of March 2017. The hotel boasts 162 new rooms in a modern, Alpine look on seven floors with a total surface area of 8,800 square meters. The five-star hotel at the airport now has 551 rooms in total. In the fiscal year 2017, T€ 40,542 (of which T€ 9,664 acquisitions in 2017) were capitalized under property, plant and equipment for this purpose.

The insolvencies of Air Berlin and Niki led to a reorganization of the German aviation industry. The suspension of air traffic at the end of October caused a temporary reduction of the offering. From October through December, the number of seats available on domestic German routes fell by 21 percent. At Munich Airport, the insolvency had a considerable effect on the handling services in Terminal 1. To some extent, it was possible to compensate for the created gaps in air traffic with other airlines by increasing capacity and using larger aircraft. Balance-sheet risks arising from business relations with Air Berlin and Niki were taken into account accordingly.

There were no other events that had a material impact or will have a material impact on the business development of Munich Airport in the fiscal year.

## Aviation Fig. 9

### Munich Airport traffic figures<sup>1)</sup>

Fig. 9

	2017	2016	Increase	
			Absolute	Relative
Aircraft movements	404,505	394,430	10,075	2.6%
Passengers in millions	44.6	42.3	2.3	5.5%
Cargo handling in tonnes <sup>2)</sup>	388,517	375,121	13,396	3.6%

<sup>1)</sup> Discrepancies possible due to rounding

<sup>2)</sup> To ensure greater comparability with other passenger airports, the cargo volume is specified here including freight volumes that remain on board the aircraft in transit through Munich Airport. The values may therefore differ from those in other publications where only the freight and/or cargo turnaround [excluding transit items] is analyzed.

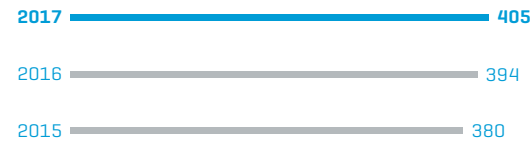




## Aircraft movements at Munich Airport

Fig. 10

In thousands



With an absolute increase of about 2.3 million passengers, Munich Airport again registered pleasing growth and set a new record in 2017 with a total of 44.6 million passengers [+5.5 percent]. In addition, September 2017 set the record as the busiest month for traffic since the opening of the airport with a total of 4.4 million air passengers. The busiest day so far, when about 164,000 air passengers were handled, also came in 2017 – on September 29. The gaps caused by the partial withdrawal of Transavia Airlines and the insolvency of Air Berlin were compensated in part by other airlines through increased capacity and the use of larger aircraft.

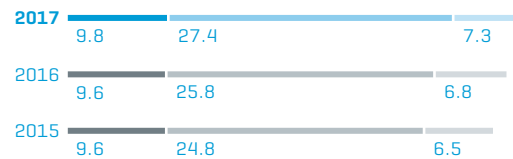
Despite the insolvency of Air Berlin and Niki and the partial withdrawal of Transavia Airlines from Munich, the number of aircraft movements increased further in 2017. The increase by 2.6 percent to 404,505 aircraft movements exceeded the average for German passenger airports. Following a brief commitment in Munich, the low-cost carrier Transavia Airlines found itself forced to make a partial withdrawal because, among other factors, the necessary slot times that were needed for economic operation were often no longer available and therefore there would not realistically be any appropriate development options. Low-cost airlines need to run three to four turnarounds every day per stationed aircraft in order to survive on the market. This was often not possible for Transavia Airlines. On the other hand, the performance of Deutsche Lufthansa was most pleasing. After a strong year in 2017, five A380s will be stationed in Munich for the summer timetable 2018 as a replacement for the A340-600s. In 2017, Deutsche Lufthansa [including Cityline and Eurowings] stationed about 120 aircraft at Munich Airport, as well as a further four belonging to the partner bmi regional. Fig. 10

## Passenger numbers at Munich Airport

Fig. 11

In millions

■ National ■ Continental ■ Intercontinental



The number of seats offered remained unchanged at 153 seats per flight. The trend of the last few years toward larger aircraft was no longer evident in 2017. Passenger growth was therefore made possible by a better level of utilization of 76.5 percent [+1.4 percentage points] and an increased offering of flights.

Both originating and transfer traffic were key factors in traffic growth. At 28.3 million passengers, Munich now has more originating passengers [passengers who are not transferring] than Frankfurt Airport or all other airports in the German-speaking area. The proportion of transfer passengers remains unchanged, at 36 percent, on the previous year.

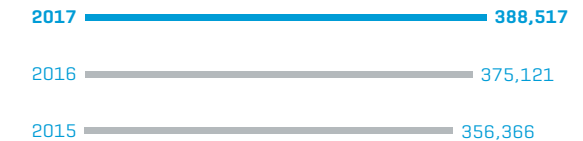
Demand for German domestic flights increased to 9.8 million passengers. This represented a slight increase of around 214,000 passengers [+2.2 percent]. German domestic movements increased by 1.1 percent or around 980 to approximately 88,000 take-offs and landings. In light of the insolvency of Air Berlin, which was ultimately operating almost exclusively on domestic German routes out of Munich, this was a remarkable result. Continental traffic posted significant growth: Aircraft movements increased to around 261,000, which equates to a rise of about 9,000 flights or 3.6 percent. About 1.7 million more passengers were transported than in the previous year [27.4 million]. This equates to an increase of 6.6 percent.

However, long-haul traffic grew most sharply in relative terms. Almost 7.3 million passengers took intercontinental flights, 476,000 more than in the previous year [+7.0 percent]. Long-haul movements also rose by 1.8 percent [540 more flights] to reach a total of 31,400 long-haul flights. Fig. 11

## Airfreight and airmail [including transit items] at Munich Airport

Fig. 12

In tonnes



On the basis of growth rates, the airfreight turnaround was the most successful traffic segment in 2017. A new record result was achieved with an increase of 28,334 tonnes to 362,831 tonnes or 8.5 percent.

With a share of over 80 percent, the quantity of freight loaded and unloaded on passenger aircraft, known as bellyhold cargo, was the most important traffic segment. As in the previous year, the volume of transported bellyhold cargo increased dramatically by 38,419 tonnes or 14.1 percent to 310,863 tonnes. The volume transported on exclusive freight flights, so-called «cargo-only», fell year-on-year. However, this loss was more than compensated by the growth in bellyhold cargo. In total, 2017 saw the highest ever freight result registered for Munich Airport.

Airmail was suspended from March 26, 2017 through the end of the summer timetable and was resumed only at the start of the winter timetable on October 29, 2017. This resulted in a reduction of 16.6 percent to 15,972 tonnes.

In total, the cargo [total of airfreight and airmail including transit items] increased by 3.6 percent to 388,517 tonnes. Fig. 12

Compared with the traffic results of the airports represented in the German Airports Association [ADV], aircraft movements and passenger volume posted above-average growth at Munich. In the case of cargo volume [airfreight and airmail including transit items], on the other hand, Munich fell behind the ADV average.

Fig. 13

## Traffic figures for 2017 as a comparison

Fig. 13

In %	ADV	Munich
Aircraft movements (total traffic)	1.6	2.6
Passengers (commercial traffic)	5.1	5.5
Cargo (airfreight and airmail and transit items)	6.4	3.6

Despite pleasing growth, Munich remained in ninth place in the ranking of the busiest European airports according to passenger numbers. It ranked seventh in aircraft movements (Airports Council International, as of January 2018).

There are two ground handling licenses at Munich Airport. One of them is awarded permanently to the subsidiary AeroGround Flughafen München GmbH (AE Munich). In 2017, the market share of AE Munich stood at 57.7 percent, and increased by almost 0.7 percentage points year-on-year. In total, AE Munich was able to achieve a considerable growth in handling volumes of 3.9 percent. The positive changes are essentially the result of the fleet growth implemented by Deutsche Lufthansa, in part relating to the A350 in Terminal 2.

The declining market share in Terminal 1 is based on growth in the low-cost segment, in which AE Munich was not able to participate. In addition, the insolvency of Air Berlin and Niki had a major impact on the handling services in Terminal 1, which was already notable as from August 2017.

In Berlin-Tegel, AeroGround Berlin GmbH took over the ground handling services for Air Berlin as from the summer timetable 2017, and so became the market leader. In the first few weeks, this change of supplier was a big challenge, but it was possible to gradually stabilize the performance over the following months. The ground handling in Berlin-Tegel fell significantly upon the declaration of insolvency of Air Berlin and the related suspension of air traffic at the end of October.

## Commercial Activities

The growth in revenue in the Commercial Activities unit was positive overall year-on-year, but grew at a slightly slower rate compared to the dynamic increase in the passenger volume. Among other factors, passenger relocations from Terminal 1 to Terminal 2 and the related economic effects led in some cases to a range of varied developments.

In contrast to the previous year, it was possible to increase the revenue in the retail trade. The destination countries China and Russia, in particular, provided strong growth impulse. The revenue with both countries increased disproportionately to the number of passengers. The average revenue also increased in this area year-on-year. The first signs of a recovery seem to have petered out, as revenue with both destination countries had declined dramatically in some cases in recent years.

The value of the pound sterling has declined considerably since the 2016 Brexit referendum in Great Britain, which has had a direct impact on the consumption behavior of passengers from Great Britain. Despite increasing passenger figures, the revenue from this customer group continued to fall.

The continuing political unrest in Turkey led, as in the previous year, to a much lower passenger volume traveling there, which was reflected in turn in correspondingly low revenue in the retail trade.

Thanks to dynamically increasing passenger figures and the new opening of two catering units, it was possible to increase the revenue from the restaurants and bars once again in both absolute and per-passenger terms. The airport more than compensated for the restrictions due to the conversion measures and the renovations of several restaurants.

In the hotel division, the extension with 162 additional rooms and the new conference center were put into operation successfully. At the Skytrax Awards 2017, the five-star hotel in the central area of Munich Airport was honored as the best airport hotel in Europe for the third time in succession.

The growth in passenger figures in originating traffic had a slightly disproportionately small impact on the parking business. Despite a slight decrease in parking transactions, revenue increased overall with changes in parking behavior and enhanced product categories.

The growth in the Out-of-home advertising segment was not as significant as expected at Munich Airport. The advertising revenue reached the same level as the previous year. In the terminals, however, performance was mixed. The satellite building registered considerable growth thanks to modern, digital advertising media, but in Terminal 1, on the other hand, the marketing situation was challenging due to the largely analog advertising scenarios there.

## Real Estate

Munich Airport's real estate business is continuing to stagnate at a high level. In fiscal year 2017, there were no new properties generating significant revenue. The difficult competitive situation facing airlines, in particular, meant that the Group was unable to increase rental income on existing properties over and above indexing.

In the context of the development of AirSite West, the first traffic-relieving measure was completed at the Nordallee/Novotel junction in the form of a traffic circle with bypass. The former construction head office 2 and other ancillary buildings were demolished to free up future building sites. Moreover, sewage construction measures were also carried out in the area of AirSite West.

In conjunction with the real estate strategy, the new P51 parking area with about 1,400 parking spaces is being built in this area close to the Visitors Park.

With regard to the future developments in air traffic, a new ramp equipment station is being built in the east for de-icing and towing aircraft.

## Results of operations, net assets, and financial position

Results of operations, net assets, and financial position

- Earnings after taxes rise again
- Net assets and financial position – Munich Airport builds up its liquidity reserves
- Capital structure – reserves built up despite repayment of loans
- Operating cash flow is basis of outstanding liquidity
- Investments – opening of the extension to the five-star hotel

### Results of operations Fig. 14

In fiscal year 2017, Munich Airport's earnings after taxes (EAT) rose by T€ 7,169 to T€ 158,800. The causes of this increase are explained in detail below.

→ Glossary

→ Glossary

In fiscal year 2017, the revenue of Munich Airport rose by T€ 104,613 or 7.7 percent to T€ 1,468,735. The largest pro rata growth in revenue, at 75.4 percent (T€ 78,799), was attributable to the Aviation business unit (including ground traffic). In terms of non-aviation revenue, the increase [+4.0 percent] can be attributed fully to the Commercial Activities business unit. The revenue from the Real Estate business unit stood at the same level as the previous year at T€ 126,918.

The largest contribution to the growth in revenue in the Aviation business unit came from the passenger and landing charges.

In comparison with growth in MTOM (Maximum Take-Off Mass) and passenger numbers, revenue from landing and passenger charges increased at a faster rate. Fig. 15

Despite the insolvency of Air Berlin and Niki, the airport managed to increase revenue in both ground handling and in passenger and cargo handling by T€ 24,096 [+15.7 percent] in total. The crucial factor here was above all a higher ground handling volume, new customers (such as Air Berlin in Berlin-Tegel for the period from March through October 2017), and an increased order volume from existing customers.

## Results of operations

Fig. 14

T€	2017	2016	Change	
			Absolute	Relative in %
Revenue Aviation	798,541	719,742	78,799	10.9
Revenue Non-Aviation	670,194	644,380	25,814	4.0
<b>Total revenue</b>	<b>1,468,735</b>	<b>1,364,122</b>	<b>104,613</b>	<b>7.7</b>
Other income	44,057	66,573	-22,516	-33.8
<b>Operating income</b>	<b>1,512,792</b>	<b>1,430,695</b>	<b>82,097</b>	<b>5.7</b>
Cost of materials	-398,988	-352,085	-46,903	13.3
Personnel expenses	-482,081	-452,515	-29,566	6.5
Other expenses	-111,736	-97,092	-14,644	15.1
<b>EBITDA</b>	<b>519,987</b>	<b>529,003</b>	<b>-9,016</b>	<b>-1.7</b>
Depreciation and amortization	-217,617	-239,071	21,454	-9.0
<b>EBIT</b>	<b>302,370</b>	<b>289,932</b>	<b>12,438</b>	<b>4.3</b>
<b>Financial result<sup>1)</sup></b>	<b>-73,130</b>	<b>-80,059</b>	<b>6,929</b>	<b>-8.7</b>
<b>EBT</b>	<b>229,240</b>	<b>209,873</b>	<b>19,367</b>	<b>9.2</b>
Income taxes	-70,440	-58,242	-12,198	20.9
<b>EAT</b>	<b>158,800</b>	<b>151,631</b>	<b>7,169</b>	<b>4.7</b>

<sup>1)</sup> This also includes income from companies valued using the equity method.

Revenue from the Commercial Activities business unit rose across all fields of activity. Catering and hotels [+14.0 percent] and Parking [+6.9 percent] registered the strongest growth.

Fig. 16

The cause for the decline in other income (including own work capitalized) (T€ -22,516) was above all the lower income from the sale of spare properties (T€ 3,209; previous year: T€ 27,264).

After 25 years of operations, there is a growing need to upgrade the buildings from the first stage of expansion at Munich Airport. The expenses for refurbishment, optimization and reconstruction measures are therefore constantly increasing. The expenses for purchased services in connection with the commissioning of subcontractors for ground handling at Berlin-Tegel also increased. In total, the cost of materials increased by T€ 46,903 or 13.3 percent.

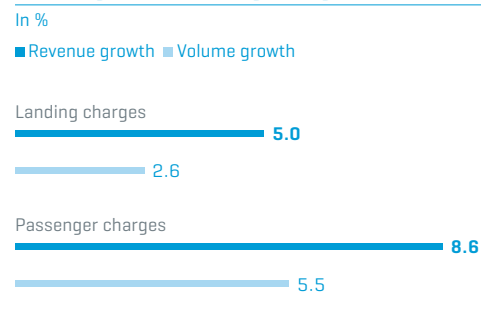
Munich Airport's personnel expenses are largely driven by the number of employees and the amount of remuneration paid to employees employed under the collective pay scale agreement for public sector employees (TVöD). The collective payment under this agreement was increased by 2.35 percent effective February 1, 2017. The Group again created new jobs in the fiscal year. The average number of employees increased from 8,891 to 9,316 year-on-year. In total, personnel expenses rose by 6.5 percent to T€ 482,081.

Other expenses rose to T€ 111,736. The causes for this increase included higher rental and leasing expenses and increased costs for advertising and public relations.

The decline in depreciation and amortization (9.0 percent or T€ 21,454) was partly due to the fact that individual components of buildings were fully amortized during fiscal year 2017.

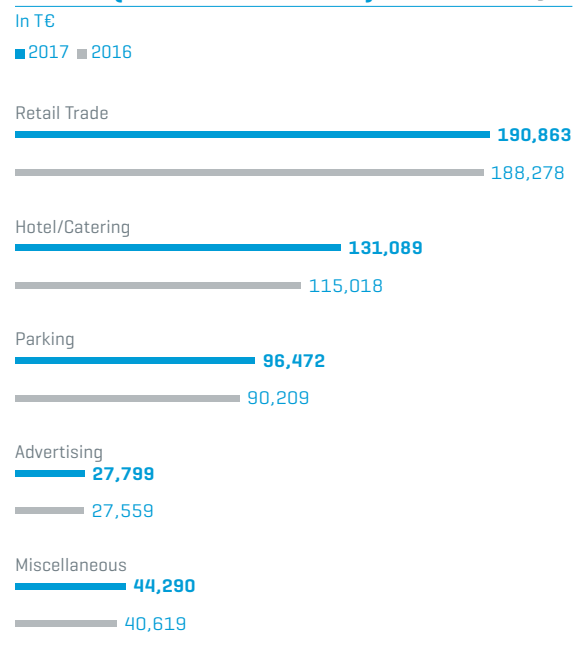
## Revenue and volume growth Passenger and landing charges

Fig. 15



## Revenue (Commercial Activities)

Fig. 16



The financial result improved by 8.7 percent to T€ -73,130. The causes for this were the non-cash revaluation gain from the valuation of the derivatives and the financial debts arising from shares in partnerships in the other financial result. At T€ -83,605, net interest income rose slightly above the level of the previous year because of the registered interest expenses due to the financial interests in partnerships. The actually paid interest could be reduced further, on the other hand, through repayments of debt and low interest.

Income taxes rose by a fifth to T€ 70,440 compared with the previous year. This was primarily due to the lower deferred tax income [T€ 6,447; previous year: T€ 18,921]. Due to the positive tax results, the current income taxes remained at the same level as the previous year.

## Net assets and financial position

Fig. 17

The decline in non-current assets was due to the lower investments at Munich Airport. In the previous year, the non-current assets were characterized by the completion of the satellite building.

## Net assets and financial position

Fig. 17

T€	Dec. 31, 2017	Dec. 31, 2016	Change	
			Absolute	Relative in %
Non-current assets	4,999,768	5,100,966	-101,198	-2.0
Current assets <sup>1)</sup>	306,516	142,895	163,621	>+100.0
thereof cash and cash equivalents	6,625	6,034	591	9.8
<b>Assets</b>	<b>5,306,284</b>	<b>5,243,861</b>	<b>62,423</b>	<b>1.2</b>
Equity	2,086,254	1,942,907	143,347	7.4
Other non-current liabilities <sup>2)</sup>	2,292,898	2,444,537	-151,639	-6.2
Other current liabilities	927,132	856,417	70,715	8.3
<b>Liabilities</b>	<b>5,306,284</b>	<b>5,243,861</b>	<b>62,423</b>	<b>1.2</b>

<sup>1)</sup> Including assets classified as held for sale

<sup>2)</sup> Including financial liabilities resulting from partnerships

In fiscal year 2017, Munich Airport invested a total amount of cash of T€ 158,000 in current money market transactions and fixed term deposits. As a result of this, the current assets increased by T€ 163,621 to T€ 306,516. In addition, FMG set up a commercial paper program [without trading on the stock exchange] in the amount of T€ 100,000 for the first time in 2017, which is available for short-term financing. No issues took place during the reporting year in the context of this program.

The company paid out T€ 30,000 from the previous year's consolidated profit of T€ 151,631 to the shareholders. The remaining amount was retained in fiscal year 2017.

The changes in other liabilities were mainly due to the financing area. The decline was mainly due to repayments of loans in the amount of T€ 69,175. In contrast, the exploitation of credit lines increased by T€ 32,600.



## Capital structure

Fig. 18

T€	Dec. 31, 2017	Dec. 31, 2016	Change	
			Absolute	Relative in %
Issued capital	306,776	306,776	0	0.0
Reserves	150,767	150,993	-226	-0.1
Other equity	1,628,698	1,485,125	143,573	9.7
of which net profit	158,800	146,736	12,064	8.2
Non-controlling interests	13	13	0	0.0
of which net profit	0	4,895	-4,895	-100.0
<b>Equity</b>	<b>2,086,254</b>	<b>1,942,907</b>	<b>143,347</b>	<b>7.4</b>
<b>Financial liabilities resulting from interests in partnerships</b>	<b>315,375</b>	<b>293,561</b>	<b>21,814</b>	<b>7.4</b>
<b>Shareholder loans</b>	<b>491,913</b>	<b>491,913</b>	<b>0</b>	<b>0.0</b>
Fixed-rate loans	687,535	704,843	-17,308	-2.5
Floating-rate loans	829,527	839,602	-10,075	-1.2
<b>Loans</b>	<b>1,517,062</b>	<b>1,544,445</b>	<b>-27,383</b>	<b>-1.8</b>
<b>Derivatives</b>	<b>51,255</b>	<b>70,293</b>	<b>-19,038</b>	<b>-27.1</b>
<b>Other liabilities</b>	<b>844,425</b>	<b>900,742</b>	<b>-56,317</b>	<b>-6.3</b>
<b>Financial liabilities</b>	<b>3,220,030</b>	<b>3,300,954</b>	<b>-80,924</b>	<b>-2.5</b>
Equity ratio	39%	37%	-	-

The improvement in the equity ratio was largely due to the income in the fiscal year. Fig. 18

The main terms of Munich Airport's current and non-current financial liabilities can be found in the table below: Fig. 19

## Non-current loans conditions

Fig. 19

Method of funding	Currency	Interest rate	Residual debt in T€	Interest rate in %	
				from	to
Financial liabilities resulting from interests in partnerships	EUR	Earnings-based	315,375	-	-
Shareholder loans	EUR	Variable/earnings-based	491,913	Base rate plus margin	
Loans	EUR	Floating-rate	836,260	3M and 6M EURIBOR plus margin	
Loans	EUR	Fixed-rate	695,879	0.48	4.05

[As of December 31, 2017]

The shareholder loans are available indefinitely and interest is charged on the basis of the base rate plus a margin, if the results and anticipated economic development allow this.

The loans bear customary non-financial covenants, including negative pledges and pari passu clauses. In addition, there are other general conventional agreements concerning interest rate adjustment and repayment in the event of changes in shareholder structure. There are no financial covenants.

Munich airport uses payer interest rate swaps and currency forwards to hedge against risks arising from interest rate and exchange rate fluctuations. Interest rate hedges are accounted for as a valuation unit. Fig. 20

→ Glossary

## Hedging transaction conditions

Fig. 20

Hedge transactions	Notional amount	Currency	Fixed rate in %		Forward rate in EUR/USD		Underlying transactions
			from	to	from	to	
Interest payer swaps	724,000	T€	0.28	2.92	-	-	Syndicated loans
Foreign currency forwards <sup>1)</sup>	4,626	T€	-	-	1.09	1.20	Expected transactions

<sup>1)</sup>These hedges are not recognized.

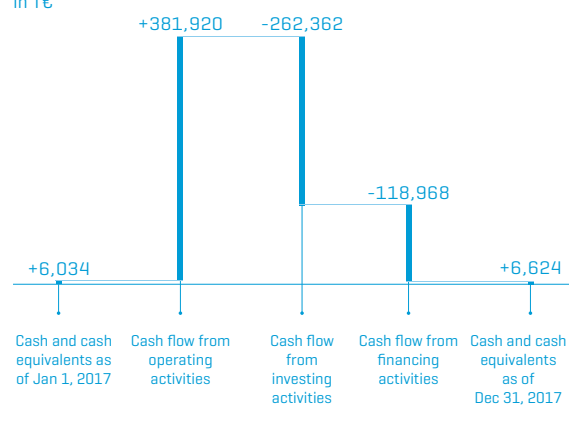
## Investments

In the fiscal year 2017, the investments in property, plant, and equipment at Munich Airport stood at T€ 125,851 in total. They were offset by scheduled depreciation and amortization in the amount of T€ 205,322.

## Cash flow statement

Fig. 21

In T€



## Liquidity

Fig. 21

Sufficient funds were available from the net cash flow from operating activities in fiscal year 2017 to ensure the liquidity of the company in operations. Cash outflows from investing activities mainly arose from the acquisition and production of property, plant, and equipment and current time deposits. A negative cash flow arose from financing activities due to distributions to shareholders, loan repayments, and interest payments.

The past fiscal year was characterized above all by the opening of the extension in the five-star hotel. After two years of construction, the extension was put into operation in March 2017. In total, Munich Airport invested T€ 40,542 in the conference center and the 162 new rooms. For this purpose, T€ 9,664 was capitalized to property, plant, and equipment in fiscal year 2017. The remaining amount was transferred from property under construction.

In addition, a large number of ongoing investment projects were implemented and continued in fiscal year 2017. These projects include investments relating to the expansion and modernization of Terminal 1, the planning of construction projects in multi-storey car parks, the development of AirSite West, and numerous replacement purchases in the area of IT and technology.

## Forecast/actual comparison

Fig. 22

	2016 Actual		2017 Forecast		2017 Actual	
			from	to		
			%	%		
EBT in T€	209,873	Increase	1.0	5.0	229,240	Exceeded
CO <sub>2</sub> reductions in tonnes	5,324	Increase	228.1	233.1	14,367	Achieved
Passenger experience index, departure	82.02	Increase	0.5	1.0	80.94	Not achieved
Passenger experience index, arrival	79.85	Increase	0.5	1.0	81.00	Exceeded
Employee retention index <sup>1)</sup>	73	Unchanged			86.6	Exceeded

<sup>1)</sup>The employee retention index relates to FMG, as this ensures that the results can be easily compared across all the surveys carried out. The figure quoted results from the last survey in 2017.

## Target achievement and overall assessment

Year on year and in comparison with the forecast development, these performance indicators have trended as follows: Fig. 22

## Earnings before taxes (EBT)

At T€ 19,367, Munich Airport's EBT for fiscal year 2017 grew by 9.2 percent, considerably exceeding all expectations. The main reasons for this were the higher sales revenue in the Aviation and the Catering and Hotel divisions and also the lower expenditure for external services relating to maintenance measures.

## CO<sub>2</sub> reductions

In order to achieve the long-term climate protection targets, binding targets are agreed each year for the various divisions and subsidiaries of the Group. They include specifications for the implementation and crediting of efficiency measures and special targets regarding the development of CO<sub>2</sub>-reducing technologies – for example, the gradual commissioning of the Pre-Conditioned Air (PCA) systems from 2016 through 2019. The airport surpassed the aggregate of the efficiency and special targets in 2017 with a total of 14,367 tonnes.





### Passenger Experience Index (PEI)

In fiscal year 2017, Munich Airport was able to raise the satisfaction of arriving passengers in Munich by 1.44 percent compared to 2016. This was achieved partly by optimizing the information systems at the baggage claim area in Terminal 2 and by increasing the traffic in the satellite building at Terminal 2. Among departing passengers, on the other hand, the passenger satisfaction fell by 1.32 percent, which was primarily due to the strong growth in traffic in various terminal areas and the related longer waiting times for the individual process steps along the passenger experience chain.



### Employee retention

The employee retention index is compiled every three years as part of an employee survey. The most recent full data collection regarding this indicator took place in 2017 on a one-off basis in a four-year data collection cycle. The employee retention index improved by 13.6 percentage points to 86.6 percent in comparison with 2013. A subsequent process, which will be put into action in the first quarter of 2018, is aimed at analyzing the results of the employee survey in the individual divisions. Division-specific measures will then be developed that should lead to improvements.

### Events after the balance sheet date

No events of particular significance occurred after the end of the reporting period.

## Outlook, risks and opportunities report

### Outlook report

#### Economic and industry-specific conditions

In calendar year 2018, the pace of global economic growth is set to remain virtually intact. Current forecasts range from 3.1 percent [World Bank, Global Economic Prospects, January 2018] to 3.9 percent [International Monetary Fund, World Economic Outlook, January 2018], slightly above the projections for 2017.

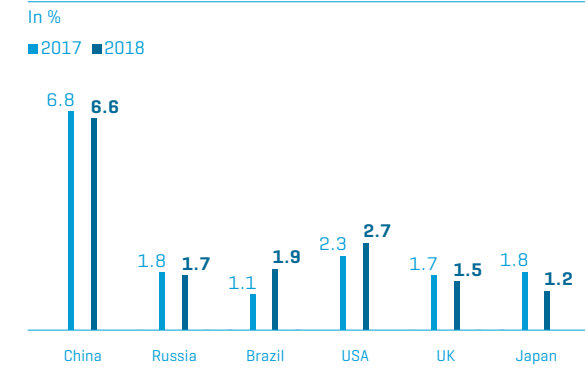
The economies of the leading industrial nations will probably grow at a similar rate to 2017, although a slightly lower growth rate is anticipated in Japan in particular. Since the commodities prices stabilized in 2017, the economic output in developing and emerging markets should continue to rise. Following an average increase in economic output in these countries of 4.7 percent in 2017, a growth rate of 4.9 percent is anticipated for 2018. For the members of this group that have suffered crises in recent years, namely Brazil and Russia, positive economic growth is expected to continue following the recovery in 2017.

Since the OPEC states agreed to limit oil production in the second half of 2016, the oil price increased and therefore fluctuated between USD 45 and 67 per barrel during 2017. It is assumed that the crude oil price will stagnate at about USD 58 per barrel in 2018. Fig. 23

For the eurozone, growth of 2.2 percent is expected in 2018. This increase in economic output is based on the continued strength of private consumption, the positive investment dynamic, and increasing exports. The relatively strong global economy and the falling unemployment rates throughout the eurozone are also bolstering this development. However, the growth in the eurozone is still clouded with a certain degree of uncertainty because the outcome of the Brexit negotiations is still unclear. Even so, the uncertainties regarding 2018 are expected to be relatively low because the formal exit of the United Kingdom is not due until March 2019. Fig. 24

### Forecast economic growth in selected destinations worldwide

Fig. 23

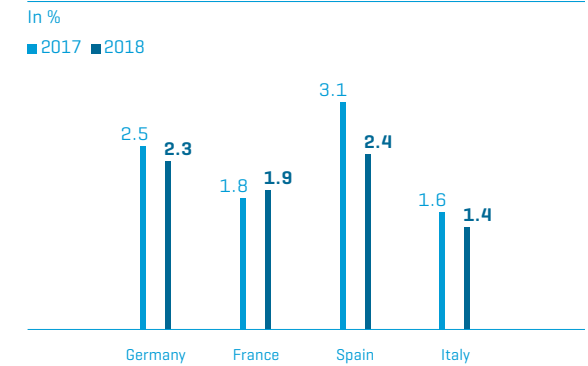


GDP growth in 2017 and 2018

Source: IMF, World Economic Outlook, January 2018

### Forecast economic growth in selected destinations throughout Europe

Fig. 24



GDP growth in 2017 and 2018

Source: IMF, World Economic Outlook, January 2018

The increase in economic output in the Federal Republic of Germany will, at 2.3 percent, be somewhat lower in 2018 than in the previous year. Nevertheless, the fundamental growth dynamic is unchanged. The early indicators for economic growth in the Federal Republic are currently reaching an extremely high level. For example, the ifo Business Climate Index stands at 117.2 and the ZEW Economic Sentiment Index at 17.4 points.

The upturn in the Federal Republic stems from a broad base and should therefore also continue in 2018. Private consumption (2018: 1.8 percent) will make a crucial contribution to growth as in the previous years. This is also indicated by the GfK Consumer Climate Index which is remaining constant at a high level. It currently stands at 10.8 points. Given the current strong increase in construction investments, growth will probably reach a slightly lower level in 2018 than in the previous year (2018: 2.6 percent). The investments in plant and equipment (2018: 5.1 percent) and exports (2018: 4.5 percent) are expected to gather pace considerably.

The general conditions in Bavaria and the region around the airport mean that further strong growth in transportation demand can be expected at Munich Airport. According to the results of the regionalized population projection by the Bavarian State Office for Statistics, the number of people living in Bavaria, especially around Munich, will grow in the period up to 2035. The population of Upper Bavaria will rise by 11.5 percent. The Prognos Future Atlas also shows optimum future opportunities for the regions mentioned. Driven by growing prosperity and an increasing population, the trend in the volume from Munich Airport's core catchment area was positive in the last two years in particular. This trend is expected to continue in future.

The global aviation market will continue to grow. The Airports Council International (ACI) assumes an average annual growth rate in the global passenger volume of 6.5 percent for the year 2018. The Asia/Pacific market provides the largest contribution to growth, followed by the European market. The annual average growth rate for airfreight for the same period stands at 7.6 percent worldwide. An annual growth of 2.3 percent is forecast for aircraft movements. Again, the majority of the growth will be attributed to the regions of Europe and Asia/Pacific.

The German Airports Association (ADV) is also optimistic about the future. With expected passenger growth of 4.2 percent, an increase in flight movements of 1.0 percent, and an increase in transported freight of 5.1 percent, 2018 looks like another successful fiscal year for German commercial airports.

### Forecast course of business

The Executive Board of Munich Airport has positive expectations of traffic volumes in 2018. The number of passengers should increase again by circa 3 percent and therefore reach around 46 million. The aircraft movements are expected to reach roughly the same level as 2017.

It is assumed that it will be possible to compensate to a large extent for the connections lost by the insolvencies of Air Berlin and Niki in 2018 through other airlines. The Executive Board therefore anticipates a neutral development in traffic figures as customer demand will persist and will largely be covered by other airlines. It is assumed that the negative effects from the insolvencies of Air Berlin and Niki will essentially be more than compensated for by 2019, meaning that the medium-term development of Munich Airport should not be impaired.

The reason for the growth in passenger volume is not only the registration of new connections, but also a sustained growth in transfer passengers and the increasing utilization of the seats available. The majority of the growth is contributed by the Lufthansa Group – partly due to the new stationing of several Airbus A380-type wide-bodied aircraft and the additions to the still young Eurowings fleet.

In addition to the forecast positive trend in traffic, the increase in air traffic charges of 2.6 percent implemented on January 1, 2018 in accordance with the master agreement on charges will lead to a rise in Aviation revenue.

Due to the Air Berlin insolvency, it is assumed that the revenue from ground handling services will decline as it is currently expected that the airlines that take over the Air Berlin business will process their ground handling services with service providers from outside the Group.

The forecast growth in passengers for 2018 will also have a positive impact as a rule on non-aviation sales revenue.

With regard to the retail trade, Munich Airport expects additional positive effects from concept changes, conversion measures, and new openings, as well as the traffic-related sales growth. The airport is therefore forecasting an extremely positive performance in this area.

The revenue from the Catering and Hotel division are expected to be slightly above the level of 2017. It will be possible to compensate for reduced demand from major hotel customers and declines caused by conversion work through increased sales arising from the passenger growth.

With regard to revenue from rental and leasing, it is assumed that it will be possible to compensate almost entirely for the loss of proceeds due to the Air Berlin insolvency with positive effects from the passenger growth and the rental of previously vacant premises.

The passenger growth in 2018 is partly due to higher transfer passenger figures and a growing low-cost segment. The Parking division only benefits to a limited extent from both of these effects, so the growth in this division will be relatively moderate.

The revenue from advertising is growing. The persistently challenging market environment in Terminal 1 is being countered by generating additional revenue with new digital advertising spaces and higher sponsorship income. The performance is more positive in Terminal 2.

Other revenue is also developing well. Increasing consulting revenue and the expansion of lounge activities in Terminal 1 are particularly worth mentioning.

Overall, Munich Airport anticipates a moderate increase in revenue of about 2 percent.





The trend toward higher cost of materials due to the increasing need to refurbish, convert, and optimize existing real estate will continue in fiscal year 2018. Munich Airport will also press ahead with its projects to develop real estate. Based on the traffic growth, the cost of materials in the Non-Aviation division will increase in line with revenue. On the other hand, the expenses for subcontractors for ground handling services at Berlin-Tegel – caused by the insolvency of Air Berlin – will fall considerably.

The Executive Board expects a further slight increase in personnel expenses as a consequence of increases in the collective pay rates. The workforce will essentially remain at the same level as in 2017.

The other expenses will increase in 2018, partly due to higher audit, consulting, and project services and increased expenses for advertising and public relations. Various other measures or unpredictable factors are anticipated, in some cases arising from the loss of the Air Berlin business.

In contrast, it is expected that depreciation and amortization will fall in 2018, which should help to improve the overall result. This is due to the fact that a series of fixed assets will be omitted from the depreciation over the whole year for the first time after a 25-year period of use.

A deterioration in the financial results is expected on balance. On the one hand, the interest expenses for loans to shareholders will increase because the Executive Board anticipates a hike in the underlying base rate as a result of further general increases in the market interest rates. On the other hand, Munich Airport assumes that the other financial result (profits/losses from financial instruments) will fall. In contrast, Munich Airport anticipates a reduction in the interest expenses based on the valuation of financial liabilities resulting from interests in partnerships.

In total, the Executive Board expects a change in EBT for the Group ranging from -4.0 through -10.0 percent. Fig. 25

### Forecast financial and non-financial key performance indicators

Fig. 25

	2017	2018			
	Actual	Forecast			
		from	to		
		%	% %		
EBT in T€	229,240	Decrease	-4.0	-10.0	
CO <sub>2</sub> reductions in tonnes	14,367	Increase	22.1	27.1	
Passenger Experience Index	78.53	Increase	0.0	0.5	

The PCA systems installed at Munich Airport will gradually be phased into normal operation. This will lead to significant reductions in CO<sub>2</sub>. Additional efficiency measures are designed to reduce energy consumption, especially for lighting, air conditioning, in IT, and in buildings and facilities.

In 2018, Munich Airport will further intensify the continuous improvement measures with regard to passenger satisfaction by strengthening and expanding the Passenger Experience Management. For example, it is planned to overhaul the service training concept and to further strengthen the service and hospitality training. In order to improve passenger satisfaction, the modernization of the toilets in the non-public area of all modules in Terminal 1 and the toilet renovations in Terminal 2 will be completed in 2018. A new lining system with integrated, automatic boarding-card checks should ensure a more convenient lining procedure for passengers on the one hand and, on the other hand, a better utilization of space and an overall improvement in the process.

With regard to the net assets and financial position, the Executive Board expects a positive free cash flow for 2018 despite the high planned outflow for investments in major projects for the expansion of the airport – even though the absolute level will decrease compared to 2017. Examples of these planned major projects are the new construction of an office building and the ground management at AirSite West, the partial renewal of the district heating network, the infrastructural reorganization in the southern development belt, and the S-Bahn railway tunnel for the «Erdinger Ringschluss» project.

On the assets side of the consolidated balance sheet, the planned investments will exceed ongoing depreciation and lead to an increase in non-current assets. Thanks to the extensive presumed retention of net income for 2018, equity will increase on the equity and liabilities side of the balance. It is planned to reduce liabilities through further repayments of the loans. A contrary development and therefore an increase in liabilities will arise due to an increase in investment activities.

## Risks and opportunities report

### Risk management system

The Executive Board of FMG and all subsidiaries and affiliated companies is responsible for the early detection and prevention of risks that jeopardize the continuity of Munich Airport and the investments. Group Management has overall responsibility for an effective risk management system and lays the essential foundation for it by communicating and defining corporate strategy and targets. It formulates specifications for the risk management process and the organizational structure of the risk management system.

The aim of the risk management system is to identify events and developments that may have a negative impact on the achievement of strategic and operational targets in good time and develop suitable countermeasures. It takes account of all aspects of entrepreneurial activity – economic as well as environmental and social.

The risk management guideline specifies the general principles of risk management in the Group as well as the tasks and responsibilities of the function holders involved in risk management. The guideline is based on the internationally recognized «COSO ERM» [Committee of Sponsoring Organisations of the Treadway Commission – Enterprise Risk Management] framework model.

The Risk Management Committee acts as an additional supporting management, control, and supervisory body within the risk management system. As the highest ranking risk management body, it is directly subordinate to the Executive Board and consists of the Chief Financial and Infrastructure Officer, the heads of the Aviation, Commercial Activities, and Real Estate divisions, the heads of the Legal Affairs, Committees, Compliance and Environment, Corporate Development, Group Controlling and Corporate Investment Management, Group Security, and Corporate Communications corporate divisions, and the risk manager. The head of Compliance is involved in the Risk Management Committee as a guest. The task of the Risk Management Committee is to analyze the risks from a Group perspective and to monitor the effectiveness of countermeasures. It provides

support with the development of the risk management system as well as risk identification, assessment, and control. The Risk Management Committee meets quarterly and agrees the risk report, which is subsequently presented to the Executive Board and the shareholders.

The risk management process comprises the following steps. A coordination and communication platform has been established to provide system support for this process.

### Identification and communication of risks

All divisional managers and Chief Executive Officers of subsidiaries and affiliated companies are responsible for the identification and assessment of risks. The coordination, administration, documentation, and forwarding of all risk-related information is carried out by the respective risk manager in the respective divisions. The risk manager checks the divisions' risk reports for plausibility and compliance with the Group-wide standards for risk assessment. He or she combines the divisions' individual reports in a risk report, taking account of materiality for the Group, and reports quarterly to the Executive Board and shareholders. Risks that jeopardize the Group's existence that have been identified for the first time must also be reported to the Executive Board on an ad-hoc basis.

As a basis for dealing with risks responsibly, each individual employee is involved in managing risks throughout the company. Each employee is responsible for eliminating risks in his area and reporting indications of existing risks to his manager without delay.

### Assessment of risks

Systematic risk assessment allows the company to determine the extent to which individual risks jeopardize the fulfillment of Munich Airport's corporate goals and strategies and which risks may possibly threaten its existence. The factors «expected loss» and «likelihood/frequency of occurrence» are presented in a two-dimensional risk matrix for this purpose. The expected loss describes the impact on profits that can be expected if the loss event occurs. The likelihood of occurrence specifies the level

of probability that the loss event will occur. In the case of events that recur over time, the company works with the frequency with which they occur. The assessment first takes place without measures to limit risk being considered [for gross risks, see the section «Risks»]. Subsequently, the risks are assessed after risk-minimizing measures are initiated or implemented [for net risks, see the section «Risks»].

### Dealing with risk

Starting from the risk analysis, appropriate countermeasures for dealing with risk are specified in line with corporate strategy and economic aspects. The strategies for managing risk include: controlling, insuring, minimizing, eliminating and passing on. The risk officers have the task of specifying and implementing countermeasures to manage risks in the respective affected division.

### Risk monitoring

The risk manager monitors the effectiveness of risk management continuously. Risks are also monitored separately by Internal Audit.

### Compliance management system

Compliance covers compliance with all airport-related laws, specifications and regulations, national and international rules and standards as well as in-house rules and guidelines. Munich Airport has established a Group-wide compliance management system, which encompasses all organizational provisions ensuring compliance with the aforementioned rules.

The Compliance department submits reports on the current status of the compliance management system to the Executive Board on a regular basis and to the Supervisory Board on an annual basis.

Compliance risks are also communicated as part of the risk reporting to the Executive Board and shareholders if internal thresholds are exceeded. Regular dialog takes place between Risk Management and Compliance.

### Identifying and minimizing compliance risks

The Compliance department prepares the compliance risk analysis with input from the divisions and combines it with the subsidiaries' compliance risk analyses every year.

Compliance risks are assessed in the same way as in the risk management process. Once the compliance risk analysis has been carried out, the Executive Board is notified of the results in a report.

The annual Compliance report to the Supervisory Board of FMG also includes the results of the compliance risk report. If there is an elevated loss potential and concomitant high probability of occurrence despite all the countermeasures taken, a detailed description is provided in the report.

In respect of 2017, there were no elevated compliance risks after the countermeasures taken were considered.

### Preventing corruption

The compliance guidelines and the guidelines covering gifts and invitations support managers and employees in ensuring legally compliant and ethical behavior at the workplace. They are published on the Intranet and are therefore available to all employees. The guidelines also reference other guidelines with which employees must comply, thus for example ensuring compliance with public procurement law with regard to procurement and contracting processes, data protection, and information security. These ensure that processes and procedures are transparent and traceable, both internally and externally. In contracting and tendering procedures, Munich Airport requires bidders to submit a declaration of commitment stating that they will undertake everything necessary to preclude corruption. Compliance failures are liable to sanctions, such as exclusion from the contracting process.

The position of anti-corruption officer is exercised by the head of the Compliance department. There were no confirmed cases of corruption in 2017.

### Communication and training

A key task of the Compliance department is to train and advise employees and managers in compliance matters as a preventative measure to stop compliance breaches from occurring.

Group compliance regularly provides training and publishes information to ensure that all employees and managers are familiar with the guidelines and any updates or amendments to them. Every year they must provide their signature to confirm that they have read the compliance documentation.

In 2017, some 61 managers of the Munich Airport Group took part in the three-hour training module on compliance as part of the Leadership Excellence Program. In addition to the legal fundamentals and the responsibilities of managers, this also covers Munich Airport Group's specific guidelines on compliance and the prevention of corruption. A total of 497 people have received training since the module started at the end of 2013. Participation in compliance training is documented.

The Executive Board and Supervisory Board deal with compliance issues at regular intervals.

### Electronic whistle-blower system

Through an electronic whistle-blower system, the Business Keeper Monitoring System [BKMS®], Group employees, business partners, and customers can report behavior potentially damaging to our organization. People inside the Group and outside can also contact the Compliance department by other means of communication [telephone, e-mail, face-to-face discussions] if they wish to draw attention to compliance infringements and need advice. Tender documents inform potential bidders of the possibility of using the BKMS® should compliance infringements be suspected.

### Data protection

Munich Airport's data protection officer is also assigned organizationally to the Compliance department but conducts his job independently and reports directly to the Executive Board. Initial training courses provided to new employees and apprentices, along with periodic onward training for employees in data privacy law, have helped raise awareness of statutory data protection requirements. Specialized, individual advice is also available in instances where people are unsure how to comply properly with data protection regulations.

There were no known instances of complaints regarding breaches of customer privacy and losses of customer data.

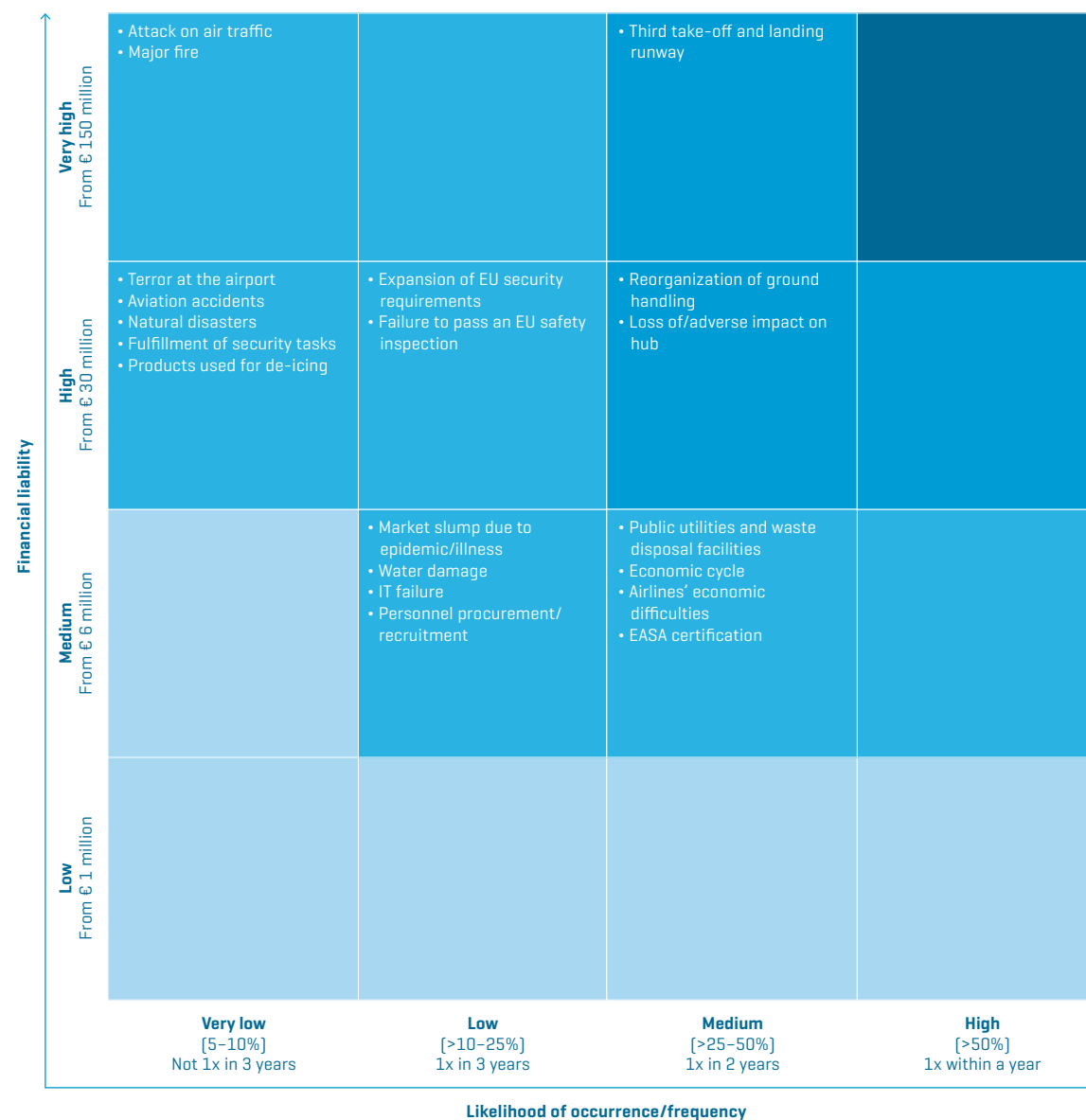
### Risks

Risks that could have a material influence on the business activity or on the net assets, financial position and results as well as the reputation of Munich Airport are explained below. The risks are presented in each case before [overview of gross risks] and after taking appropriate countermeasures into account [overview of net risks].

The risk assessment relates to the economic impact in the assessment period quoted. As of December 31, 2017, the following material gross risks were identified for Munich Airport: Fig. 26

### Overview of gross risks

Fig. 26





## Risks resulting from force majeure

Risk	Description and analysis	Countermeasure(s)
Natural disasters	A breach of the Isar dams near Freising caused by heavy rain could lead to the terminals being flooded.	Gradual upgrading of the Isar dams by the water authority. They have already been partially renovated. Insurance to cover earthquakes, storms, hail and flooding has been arranged.
Attack on air traffic	The risk of terrorist attacks on air traffic remains high. In addition to bodily injury and property damage, this would result, at least temporarily, in a decrease in the number of aircraft movements and passengers.	In order to prevent a terrorist attack, the Group Security division takes all the necessary strategic, operative, and technical/organizational measures: Provision of adequate and well-trained personnel resources as well as construction measures to guarantee modern and approved security technology and infrastructure, monitoring the quality of service through sustainable quality measures, and constant dialog with the responsible security authorities. Bodily injury and property damage as well as interruptions of operations are insured.
Terror at the airport	Acts of terror on the airport campus can result in bodily injury and property damage. A further consequence of such events would be, at least temporarily, a decrease in the number of aircraft movements and passengers.	In order to prevent a terrorist attack, the Group Security division takes all the necessary strategic, operative, and technical/organizational measures: Provision of adequate and well-trained personnel resources as well as construction measures to guarantee modern and approved security technology and infrastructure, monitoring the quality of service through sustainable quality measures, and constant dialog with the responsible security authorities. Bodily injury and property damage as well as interruptions of operations are insured.
Fulfillment of security tasks	The airline companies are responsible for security tasks in transferred areas. In these areas, airline companies fulfill the same task as airport operators but are not subject to the same supervisory authority. For Munich Airport, there is a risk that inspections will reveal defects in transferred areas and the airport as a whole will lose its security status as a result. Defective controls could lead to property damage and bodily injury as well as reputational damage.	At present, a Group company owned by Munich Airport is tasked with performing operational security tasks in the transferred areas.
Market slump from epidemics/illness	Epidemic/sickness outbreaks can result in market downturns with reduced aircraft movements and passenger numbers.	Due to a relatively high fixed cost ratio, Munich Airport's ability to react to market downturns is limited.
Large fire	In the event of damage to or destruction of terminals or infrastructure systems caused by a large fire, property damage and bodily injury, as well as long-term interruptions of operations are to be expected.	In order to minimize the risk of a major fire, Munich Airport takes all the necessary preventive and defensive measures and maintains its own Airport Rescue and Firefighting service. The risk of a major fire is also minimized by fire insurance cover (cover for property damage and interruptions of operations) and employer's liability insurance (liability claims of third parties). Following assessment of the countermeasures, the net risk is deemed to lie below the risk tolerance limit.
Aviation accidents	Aviation accidents or damage to aircraft can result in bodily injury and property damage as well as interruptions of operations and consequential damage.	To minimize the risk, Munich Airport maintains an Airport Rescue and Firefighting service, a medical service, and a counseling team. The risk of aviation accidents is minimized through liability insurance and fully comprehensive insurance. Following assessment of the countermeasures, the net risk is deemed to lie below the risk tolerance limit.

## Market risks

Risk	Description and analysis	Countermeasure(s)
Loss of/adverse impact on hub	If Deutsche Lufthansa amends its strategy of operating the Airport as a hub, this would result in dramatic falls in the number of passengers and aircraft movements.	Munich Airport's collaboration with DLH is based on joint investments and long-term cooperation agreements.
Airlines' economic difficulties	The European air traffic industry is in a difficult competitive situation. The airlines operating from Munich Airport are also affected by this.	Steady acquisitions of new customers should be able to compensate for any decreases in existing customers. Due to the strong demand for German domestic and tourist traffic, it is reasonable to assume that competitors will fill any emerging gaps at extremely short notice. It is planned to respond rapidly to any current developments through continuous market observation and close relations with decision-makers at various airlines.

## Market risks

Risk	Description and analysis	Countermeasure[s]
Economic cycle	As a consequence of a weak economy, the growth parameters assumed in the planning process cannot be achieved, which has an adverse impact on profits. During more significant economic crises, a collapse in loan finance markets may occur. The exit of the United Kingdom from the European Union (EU) could have a negative economic impact and needs to be observed carefully.	Reducing expenses through cost monitoring, if necessary reducing staff numbers in a socially responsible manner plus a short-term cut in the investment budget in non-critical divisions aim to mitigate the consequences of economic slowdowns. There are revolving credit lines to ensure the company is solvent.

## Operating risks

Risk	Description and analysis	Countermeasure[s]
EASA certification	If the European Aviation Safety Agency (EASA) Certificate is not renewed, then Munich Airport could lose its operating license. The certification procedure was completed successfully on December 6, 2017 with the formal award of the EASA Certificate. This means that the operating permit of the passenger airport in Munich was secured again as from January 2018. This risk will therefore be omitted from the risk reporting as from January 1, 2018.	
IT failure	Damage to the IT system can result from fire, water ingress, or sabotage. Failure of IT for traffic operations with the corresponding interruptions of operations would be the consequence. There is an increasing, abstract risk potential in the area of cybercrime, which needs to be observed and assessed continuously.	Critical corporate IT systems are fully redundant with systems located in physically separate locations. Property damage and interruptions of operations are insured. To defend against a cyber attack at Munich Airport, a central information security management system was set up in 2004 that specifies and monitors the strategic, technical, and organizational measures for combating cyber attacks. The risk is also minimized with an insurance policy. Following assessment of the countermeasures, the net risk is deemed to lie below the risk tolerance limit.
Water damage	Water damage caused by a break in the main drinking water or fire extinguishing water pipelines could lead to the failure of infrastructure systems important for air traffic.	Remotely controlled emergency shut-off equipment and additional protective devices in the pipeline connections limit the possible damage. Property damage and interruptions of operations are insured. Following assessment of the countermeasures, the net risk is deemed to lie below the risk tolerance limit.
Expansion of EU security requirements	The European regulations on aviation security require the rules governing checks on persons and luggage at airports to be extended in phases. The resultant conversion measures cause costs. Depending on the design, the conversion work causes the loss of leasable space.	Munich Airport is introducing optimization measures to minimize the loss of space.
Failure to pass an EU safety inspection	The EU's aviation authorities are conducting safety inspections at airports. If an inspection results in a high number of complaints, Munich Airport will lose its security status. The consequences would be a heightening of the safety regulations, considerable obstruction with operational processes, competitive disadvantages and a loss of image.	Munich Airport conducts thorough and strict quality controls to manage the quality of all safety aspects at the airport. After passing an inspection at the end of 2016 and following requirement-oriented process optimization and employee qualification, the likelihood of occurrence for the net risk is deemed to be extremely low.
Utilities and waste disposal facilities	The inadequate availability of substances necessary for operating activities, such as electricity, heat, cooling energy, drinking and extinguishing water, waste water, and waste, may result in property damage and interruptions of operations.	The service and maintenance programs, network redundancies, and storage reduce the risk of gaps in supply. Property damage and interruptions of operations are insured. Following assessment of the countermeasures, the net risk is deemed to lie below the risk tolerance limit.
Reorganization of ground handling	The success of the reorganization of the former Ground Handling business unit could be put at risk by the following uncertain events and circumstances: sustained declines in traffic at existing customers, handling losses due to the cession of partial fleets to airlines that do not belong to the customer portfolio, aggressive price policy of competitors, and an increasing decline in prices at Munich Airport.	A new contract was concluded at the end of 2016 in the negotiations concerning the extension of a long-term contract with an important customer of AeroGround. As a result, it was possible to extend associated collective restructuring agreements. Continuous monitoring and reporting on the reorganization progress and/or path. In the event of a loss of ground handling, the capacities and related costs are reduced.
Personnel procurement/recruitment	Personnel procurement is proving to be increasingly difficult in the various career groups. The causes for this include the strained labor market in the region, the high costs for accommodation, the increasing age of the workforce, as well as the high level of fluctuation in the area of ground handling services.	A working group was set up to counteract these issues. Its objective is to develop a Group-wide, coordinated procedure and target group-specific HR marketing and procurement concepts. Further suitable measures are the intensification of training activities, the promotion of marketing at universities, and appearances at trade fairs and job exchanges. Projects were also initiated to create affordable housing for Group employees. Following assessment of the countermeasures, the net risk is deemed to lie below the risk tolerance limit.

In addition to the risks shown in the risk matrix, there was a risk of quality losses in the previous year in the personnel and goods checks and in alarm tracking due to personnel shortages [CAP staff shortages]. Thanks to a successful increase in personnel and the deployment of a renowned security company as a subcontractor, this risk fell below the risk tolerance limit as at December 31, 2017.

As is often the case in ordinary business activities, FMG is facing various legal disputes. They could lead in particular to the payment of compensation for damages or, in the case of construction projects, to changes in the service remuneration. Moreover, further legal disputes may be initiated, or existing ones may be expanded. Apart from the issues that have already been provided for in the balance sheet, FMG does not anticipate any material negative impacts on the net assets, the financial position, and the earnings situation from the other cases that are currently known.

For the gross financial risks listed below, the expected financial liability fell short of the reporting limit as of December 31, 2017. Therefore they were not included in the risk reporting.

## Legal risks

Risk	Description and analysis	Countermeasure[s]
Third take-off and landing runway	In the event of the third runway project being finally shelved or postponed for a significant period of time, all existing planning and land acquisition costs must be checked in respect of their recoverability and depreciated if necessary. There could be a significant loss of corporate value unless capacity is expanded through the construction of the third take-off and landing runway. The development project will require further examination and the further procedure will need to be decided.	The legal ruling in favor of Munich Airport dated February 19, 2014 was an important milestone in limiting the legal risks for project implementation. Munich Airport is also making a case to politicians for the expansion. The well-founded work to persuade people of the merits of the third take-off and landing runway is continuing.
Products used for de-icing	There is a suspicion that the formates in the products currently used for de-icing paved areas and runways accelerate the oxidation of aircraft brakes. There are discussions about banning these formate de-icing products at the SAE [Society of Automobile Engineers] international standardization committee. As an alternative, there are currently only glycol-based de-icers on the market, and they are not approved for use at Munich Airport by the Ministry of the Environment. If they are banned, Munich Airport would have to invest substantial sums in waste water systems to comply with the requirements of water management legislation.	The German passenger airports are working together with the ADV [German Airports Association] and the BDL [German Aviation Association] to fight against the ban on formate de-icers. The aim is to continue applying pressure on the SAE through the ACI [Airports Council International] Europe. In discussions with the Bavarian water management authority, ACI Europe, and the responsible SAE working group, it was demonstrated that the smallest possible amount of de-icers is used to minimize the impact on the environment. It is planned to involve manufacturers of the de-icers in resolving the problem in future.

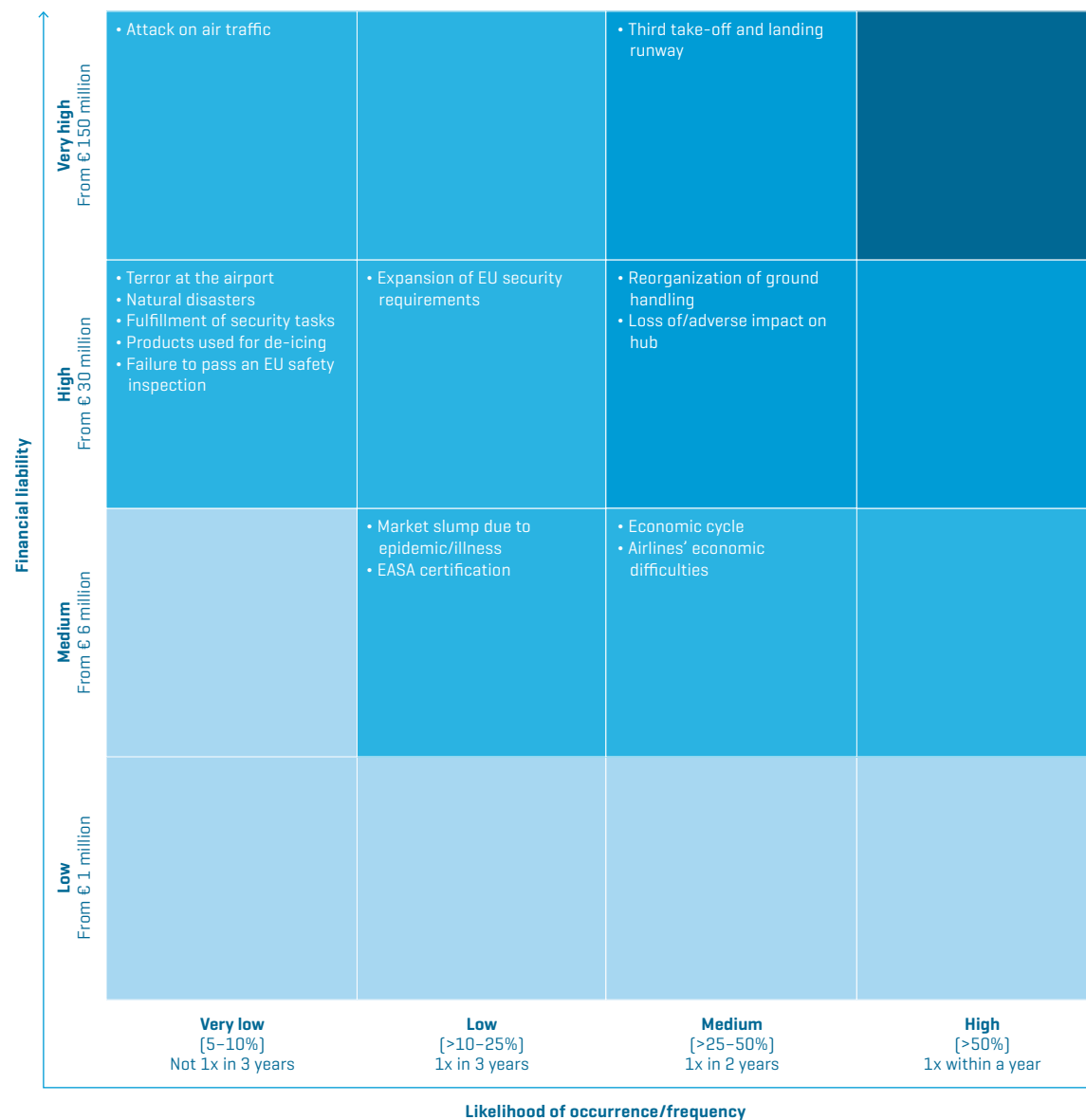
## Financial risks

Risk	Description and analysis	Countermeasure[s]
Currency risks	Currency risks arise insofar as planned sales in foreign currencies are not balanced by any corresponding expenses or outgoings in the same currency.	Munich Airport hedges currency risks using currency forwards.
Credit and credit rating risks	Credit and credit rating risks primarily arise from short-term deposits as well as trade receivables.	In general, deposits are only made with German banks with deposit protection. The management of credit rating risks includes the constant monitoring of debtors' creditworthiness, overdue invoices, and a stringent debt collections management. Dependent on the credit rating, certain services are only performed against prepayment or provision of collateral in the form of guarantees.
Interest rate risks	Interest rate risks essentially arise from floating-rate financial liabilities.	Munich Airport counters interest-rate risks using interest payer swaps.

After considering countermeasures, the following nets risks remain: Fig. 27

**Overview of net risks**

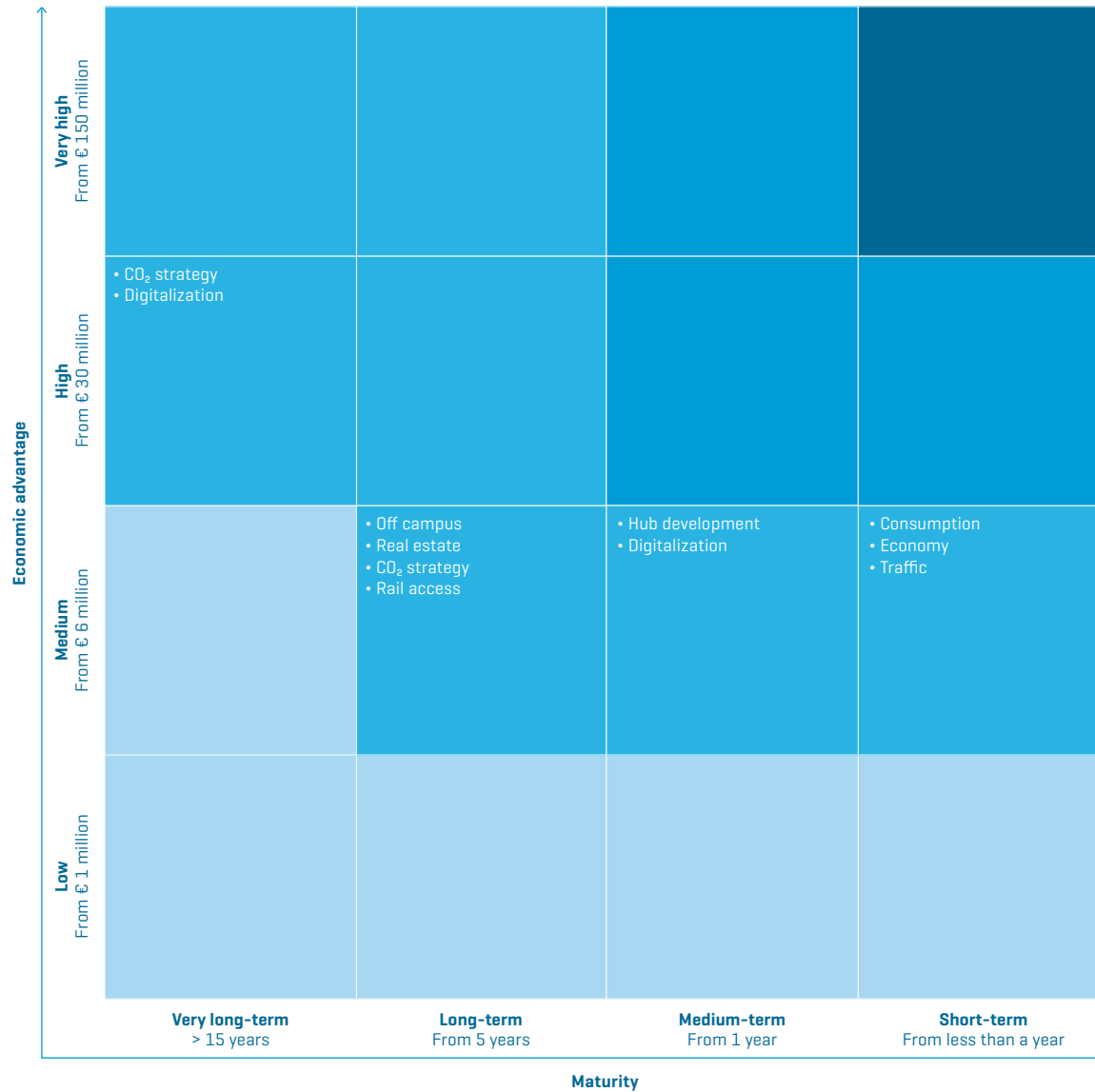
Fig. 27





Overview of opportunities

Fig. 28



Opportunities

The divisions and investments identify, assess, and manage opportunities on a decentralized basis with support from Corporate Development, Group Controlling, and Investment Management.

Below the report shows the developments and events that could lead to a positive deviation from planning. The presentation is based on the risk report with the difference that the horizontal axis shows the occurrence time – that is the time until opportunities are expected to occur – and not the frequency with which they occur. No multiple mentions are made if the influence remains constant over the course of time. However, multiple mentions are made if the economic benefit changes. The economic benefit arises in the short, medium, long, or very long term and it is analyzed periodically. Fig. 28/29

## Opportunities

Fig. 29

Opportunities	Description and analysis
Consumption	Overcoming the existing geopolitical and economic crises could lead to an increase in the propensity to consume of passengers from regions outside Europe above the planned level.
Economy	Global economic growth above planned levels could boost revenues further.
Traffic	An increase in air traffic growth above the expected level could increase revenues in all corporate divisions.
Hub development	The key partner airline DLH might expand the Munich Airport hub because of a further improvement in its market position, and this would lead to growth in passenger numbers above the planned target.
Digitalization	FMG is working on the strategy to adjust the Airport's business model more closely to the structural change resulting from digitalization. This strategy might give rise to medium- or very long-term growth effects which were not fully taken into account in planning so far.
Off-campus activities	The off-campus business of Munich Airport (services and retail) might develop better than expected, with corresponding growth in the consolidated profit.
Real Estate	In the long term, activities in the Real Estate business division could be strengthened more than is currently planned, which would lead to revenue in this and possibly other business divisions being increased.
CO <sub>2</sub> strategy	The continuing increase in efficiency among energy-saving technologies and an associated improvement in the price-performance ratio of low emissions energy generation could lead to the costs of Munich Airport's new CO <sub>2</sub> strategy being lower than expected.
Rail access	Better than expected improvements to rail access could lead to an expansion in the passenger catchment area and consequently to increased revenue in all business units.

## Overall assessment of the opportunities and risk situation

For Munich Airport as the second largest passenger airport in Germany and one of the largest airports in Europe, it is important to actively exploit any opportunities that arise and to improve its position on the market still further through constant growth. However, it is also a key objective of Munich Airport to recognize risks in good time and to counter them systematically.

Accordingly, the currently anticipated impact of possible events and developments is taken into consideration in business planning every year. The reported opportunities and risks are defined as potential deviations going beyond the forecast corporate result. Munich Airport consolidates and aggregates the risks reported by the corporate divisions and Group companies and reports quarterly to the Executive Board and shareholders. Opportunities are identified and managed with the involvement of the corporate divisions, Corporate Development as well as Group Controlling and Corporate Investment Management.

Taking account of the current business plan, the opportunities and risk situation has scarcely changed year on year. No new risks were identified that might potentially have a critical impact on income.

No risks were foreseeable from the Group-wide risk management system or in the assessment of the Executive Board during the current forecast period, which individually or in their entirety could jeopardize the continued existence of Munich Airport.

Munich Airport points out that various known or unknown risks, uncertainties and other factors may lead to actual events, the financial position, the business development or the performance of the company deviating significantly from the estimates provided here.

# Abrided consolidated financial statements

## Consolidated income statement

€	Disclosure	2017	2016
Revenue	VI.1	1,468,735	1,364,122
Changes in inventories and working progress		672	0
Own work capitalized	VI.2	13,017	19,930
Other income	VI.3	30,368	46,643
<b>Total income</b>		<b>1,512,792</b>	<b>1,430,695</b>
Cost of materials	VI.4	-398,988	-352,085
Personnel expenses	VI.5	-482,081	-452,515
Other expenses	VI.6	-111,736	-97,092
<b>Earnings before interest, taxes, depreciation and amortization (EBITDA)</b>		<b>519,987</b>	<b>529,003</b>
Depreciation and amortization	VI.7	-217,617	-239,071
<b>Operating result (EBIT)</b>		<b>302,370</b>	<b>289,932</b>
Interest result	VI.8	-83,605	-81,763
Other financial result	VI.8	8,843	668
<b>Financial result</b>		<b>-74,762</b>	<b>-81,095</b>
Result from companies accounted for using the equity method	VII.4	1,632	1,036
<b>Profit before tax (EBT)</b>		<b>229,240</b>	<b>209,873</b>
Income taxes	VI.9	-70,440	-58,242
<b>Consolidated profit (EAT)</b>		<b>158,800</b>	<b>151,631</b>
of which attributable to controlling shareholders		158,800	146,736
of which attributable to non-controlling interests		0	4,895

## Consolidated statement of comprehensive income

T€	Disclosure	2017	2016
<b>Consolidated profit</b>		<b>158,800</b>	<b>151,631</b>
Cash flow hedging	VII.16	18,464	13,239
Deferred taxes not recognized in profit and loss	VII.6	-3,691	-3,389
<b>Items that may be reclassified subsequently to profit and loss</b>		<b>14,773</b>	<b>9,850</b>
Actuarial gains and losses	VII.17	-314	-2,181
Deferred taxes not recognized in profit and loss	VII.6	88	611
<b>Items that will not be reclassified to profit and loss</b>		<b>-226</b>	<b>-1,570</b>
<b>Other comprehensive income net of tax</b>		<b>14,547</b>	<b>8,280</b>
<b>Total comprehensive income</b>		<b>173,347</b>	<b>159,911</b>
of which attributable to controlling shareholders		173,347	155,016
of which attributable to non-controlling interests		0	4,895



## Consolidated balance sheet

### Assets

TE	Disclosure	Dec. 31, 2017	Dec. 31, 2016
Intangible assets	VII.1	17,477	13,748
Property, plant, and equipment	VII.2	4,821,038	4,906,024
Investment property	VII.3	151,872	167,573
Investments in companies accounted for using the equity method	VII.4	4,116	3,415
Trade and other receivables	VII.5	53	84
Other financial assets	VII.5	290	304
Deferred tax assets	VII.6	4,148	6,890
Other assets	VII.9	774	2,928
<b>Non-current assets</b>		<b>4,999,768</b>	<b>5,100,966</b>
Inventories	VII.7	41,567	42,765
Trade and other receivables	VII.8	86,545	65,813
Other financial assets	VII.8	202	0
Current income tax assets		5,496	4,901
Other assets	VII.9	7,066	10,162
Short-term deposits	VII.10	158,000	12,000
Cash and cash equivalents	VII.10	6,625	6,034
<b>Current assets</b>		<b>305,501</b>	<b>141,675</b>
<b>Assets held for sale</b>	<b>VII.11</b>	<b>1,015</b>	<b>1,220</b>
<b>Assets</b>		<b>5,306,284</b>	<b>5,243,861</b>

## Liabilities

T€	Disclosure	Dec. 31, 2017	Dec. 31, 2016
Share capital	VII.12	306,776	306,776
Reserves	VII.12	150,767	150,993
Other equity	VII.12	1,628,698	1,485,125
Shares of non-controlling interests		13	13
<b>Equity</b>		<b>2,086,254</b>	<b>1,942,907</b>
<b>Financial liabilities resulting from interests in partnerships</b>	<b>VII.14</b>	<b>315,375</b>	<b>293,561</b>
Trade payables	VII.15	12,498	27,671
Other financial liabilities	VII.15	1,393,047	1,523,333
Employee benefits	VII.17	50,163	47,588
Other provisions	VII.18	91,300	92,709
Deferred tax liabilities	VII.6	435,540	441,125
Other liabilities	VII.20	17,305	18,550
<b>Non-current liabilities</b>		<b>1,999,853</b>	<b>2,150,976</b>
Trade payables	VII.19	159,303	167,833
Other financial liabilities	VII.19	677,649	594,112
Employee benefits	VII.17	40,887	35,294
Other provisions	VII.18	9,924	15,716
Current income tax liabilities		5,623	32,292
Other liabilities	VII.20	11,416	11,170
<b>Current liabilities</b>		<b>904,802</b>	<b>856,417</b>
<b>Liabilities associated with assets classified as held for sale</b>		<b>0</b>	<b>0</b>
<b>Liabilities</b>		<b>5,306,284</b>	<b>5,243,861</b>

## Consolidated statement of changes in equity

	Disclosure	Issued capital	Reserves		Other equity	Non-controlling interests	Equity
			Capital reserve	Revenue reserve			
T€							
<b>As of Dec. 31, 2015</b>	<b>VII. 12</b>	<b>306,776</b>	<b>102,258</b>	<b>25,288</b>	<b>1,383,556</b>	<b>-4,869</b>	<b>1,813,009</b>
Consolidated profit		0	0	0	146,736	4,895	151,631
Other comprehensive income		0	0	-1,570	9,850	0	8,280
<b>Total comprehensive income</b>		<b>0</b>	<b>0</b>	<b>-1,570</b>	<b>156,586</b>	<b>4,895</b>	<b>159,911</b>
Distributions		0	0	0	-30,000	0	-30,000
Deconsolidation		0	0	0	0	-13	-13
<b>Transactions with shareholders</b>		<b>0</b>	<b>0</b>	<b>0</b>	<b>-30,000</b>	<b>-13</b>	<b>-30,013</b>
Allocation to reserves		0	0	25,017	-25,017	0	0
<b>Change of reserves</b>		<b>0</b>	<b>0</b>	<b>25,017</b>	<b>-25,017</b>	<b>0</b>	<b>0</b>
<b>As of Dec. 31, 2016</b>	<b>VII. 12</b>	<b>306,776</b>	<b>102,258</b>	<b>48,735</b>	<b>1,485,125</b>	<b>13</b>	<b>1,942,907</b>
Consolidated profit		0	0	0	158,800	0	158,800
Other comprehensive income		0	0	-226	14,773	0	14,547
<b>Total comprehensive income</b>		<b>0</b>	<b>0</b>	<b>-226</b>	<b>173,573</b>	<b>0</b>	<b>173,347</b>
Distributions		0	0	0	-30,000	0	-30,000
<b>Transactions with shareholders</b>		<b>0</b>	<b>0</b>	<b>0</b>	<b>-30,000</b>	<b>0</b>	<b>-30,000</b>
<b>As of Dec. 31, 2017</b>	<b>VII. 12</b>	<b>306,776</b>	<b>102,258</b>	<b>48,509</b>	<b>1,628,698</b>	<b>13</b>	<b>2,086,254</b>

## Consolidated cash flow statement

T€	Disclosure	2017	2016
<b>Total comprehensive income</b>		<b>173,347</b>	<b>159,911</b>
Deferred taxes not recognized in profit and loss		3,603	2,778
Actuarial gains and losses		314	2,181
Cash flow hedging		-18,464	-13,239
<b>Consolidated profit (EAT)</b>		<b>158,800</b>	<b>151,631</b>
Result from companies accounted for using the equity method		-1,632	-1,036
Income taxes		70,440	58,242
Financial result		74,762	81,095
<b>Operating result (EBIT)</b>		<b>302,370</b>	<b>289,932</b>
Depreciation and amortization		217,617	239,071
Gains/losses from disposal of fixed assets		1,553	3,195
Increase/decrease in inventories		1,198	-2,944
Increase/decrease in current receivables		-20,732	-4,051
Increase/decrease in liabilities		-23,800	69,135
Increase/decrease in employee benefits		7,160	13,483
Increase/decrease in other provisions		-6,314	-5,916
Increase/decrease from acquisition of subsidiaries		0	450
Increase/decrease in other working capital		7,018	-11,573
Remaining change in working capital			
Gross cash flow from operating activities		486,070	590,782
Net income taxes paid/received		-104,150	-61,950
<b>Cash flow from operating activities</b>		<b>381,920</b>	<b>528,832</b>
Proceeds from the disposition of self-used property, plant, and equipment		18,016	1,732
Proceeds from the disposition of intangible assets		590	464

T€	Disclosure	2017	2016
Proceeds from the disposition of investment property		106	4
Proceeds from distributions collected from associates		931	778
Payments for the acquisition of subsidiaries		0	-1,500
Payments for investments in self-used property, plant, and equipment		-125,851	-263,432
Payments for investments in intangible assets		-7,279	-4,404
Payments for investments in investment property		-3,200	-5,521
Interest received		325	1,176
Changes of short-term deposits		-146,000	200,000
<b>Cash flow from investing activities</b>		<b>-262,362</b>	<b>-70,703</b>
Payments for distributions to shareholders	IX	-30,000	-30,000
Proceeds from borrowings	IX	33,184	200,000
Repayments of borrowings	IX	-69,175	-558,683
Cash flows from Group-wide cash management with associates and investments	IX	-2,832	-1,203
Interests paid (excluding construction period interest)	IX	-45,549	-58,891
Payments from construction period interest	IX	-4,596	-8,641
<b>Cash flow from financing activities</b>	IX	<b>-118,968</b>	<b>-457,418</b>
<b>Exchange gains or losses on cash and cash equivalents</b>		<b>0</b>	<b>0</b>
<b>Change in cash and cash equivalents</b>		<b>590</b>	<b>711</b>
<b>Cash and cash equivalents at the beginning of the year</b>		<b>6,034</b>	<b>5,323</b>
<b>Cash and cash equivalents at the end of the year</b>		<b>6,624</b>	<b>6,034</b>



# Boards of the Company

## Executive Board

	Period
<b>Dr. Michael Kerkloh</b> President and Chief Executive Officer, Personnel Industrial Relations Director	Since September 2002
<b>Andrea Gebbeken</b> Chief Commercial and Security Officer	Since October 2016
<b>Thomas Weyer</b> Chief Financial Officer, Chief Infrastructure Officer	Since September 2008

## General representatives

<b>Dr. Robert Scharpf</b> Authorized representative and Senior Vice President HR	Since July 2016
<b>Dr. Josef Schwendner</b> Authorized representative and Senior Vice President Legal Affairs, Committees, Compliance and Environment	Since July 2016

## Supervisory Board

	Additional mandates
<b>Free State of Bavaria</b>	
<b>Dr. Markus Söder (Chairman)</b> Bavarian State Ministry of Finance, Regional Development and Regional Identity	<ul style="list-style-type: none"> <li>• NürnbergMesse GmbH [Deputy Chairman of the Supervisory Board]</li> <li>• Flughafen Nürnberg GmbH [Member, as from March 31, 2017, Chairman of the Supervisory Board]</li> <li>• Bayerische Landesstiftung [Deputy Chairman of the Foundation Council]</li> <li>• Bayerische Forschungsstiftung [Member of the Foundation Council]</li> <li>• Staatstheater Nürnberg [Member of the Foundation Council]</li> </ul>
<b>Wolfgang Lazik</b> Bavarian State Ministry of Finance, Regional Development and Regional Identity	<ul style="list-style-type: none"> <li>• Bayerische Landesbank [Member of the Supervisory Board]</li> <li>• BayernLB Holding AG [Deputy Chairman of the Supervisory Board]</li> </ul>
<b>Helmut Schütz</b> Board of Building and Public Works in the Bavarian State Ministry of the Interior, for Building and Transport	<ul style="list-style-type: none"> <li>• Bayerische Eisenbahngesellschaft mbH [BEG] [Deputy Chairman of the Supervisory Board]</li> <li>• Rhein-Main-Donau Wasserstraßen GmbH [RMD Wasserstraßen GmbH] [Member of the Supervisory Board]</li> <li>• Deutsches Museum [Member of the Board of Trustees]</li> <li>• Bayerische Landesstiftung [Deputy Member of the Foundation Council]</li> </ul>
<b>Dr. Bernhard Schwab</b> Bavarian State Ministry of Economic Affairs and Media, Energy and Technology	<ul style="list-style-type: none"> <li>• Bayern Kapital GmbH [Member of the Supervisory Board]</li> <li>• Bayern Innovativ GmbH [Member of the Supervisory Board]</li> <li>• Bayerische Gesellschaft für internationale Wirtschaftsbeziehungen mbH Bayern International [Member of the Supervisory Board]</li> <li>• Zentrum Digitalisierung.Bayern [ZD.B], state-owned enterprise [Chairman of the Board of Directors]</li> <li>• Bayernwerk AG [Member of the Advisory Board]</li> <li>• Leibniz Institute for Food System Biology at the Technical University of Munich [Leibniz-LSB@TUM] [Chairman of the Foundation Council]</li> </ul>
<b>Federal Republic of Germany</b>	
<b>Dr. Martina Hinricher</b> Federal Ministry of Transport and Digital Infrastructure	<ul style="list-style-type: none"> <li>• DFS Deutsche Flugsicherung GmbH [Chair of the Supervisory Board]</li> <li>• Flughafen Köln/Bonn GmbH [3rd Deputy Chair of the Supervisory Board]</li> </ul>
<b>Christiane Wietgreffe-Peckmann</b> Federal Ministry of Finance	None

## Supervisory Board

	Additional mandates
<b>City of Munich</b>	
<b>Dieter Reiter</b> Lord Mayor	<ul style="list-style-type: none"> <li>• Stadtparkasse München [Chairman of the Board of Directors]</li> <li>• Stadtwerke München GmbH [Chairman of the Supervisory Board]</li> <li>• SWM Services GmbH [Chairman of the Supervisory Board]</li> <li>• Münchner Verkehrsgesellschaft mbH [Chairman of the Supervisory Board]</li> <li>• Münchner Verkehrs- und Tarifverbund GmbH [Chairman of the Supervisory Board]</li> <li>• GWG Städtische Wohnungsgesellschaft mbH [Chairman of the Supervisory Board]</li> <li>• GEWOFAG Holding GmbH [Chairman of the Supervisory Board]</li> <li>• Städtisches Klinikum München GmbH [Chairman of the Supervisory Board]</li> <li>• Messe München GmbH [Chairman of the Supervisory Board]</li> <li>• Sparkassenverband Bayern, public corporation [representative in the association meeting]</li> <li>• Sparkassen-Bezirksverband Oberbayern, public corporation [representative in the association meeting]</li> <li>• Bayerischer Städtetag, public corporation [Member of the plenary assembly]</li> <li>• Mathias-Pschorr-Stiftung, Hackerbräu [Chairman of the Foundation Advisory Board]</li> <li>• Planungsverband Äußerer Wirtschaftsraum München, public corporation [representative in the association meeting and the association committee]</li> <li>• Master Schools at Ostbahnhof, Zweckverband der LHM und der Handwerkskammer für München und Oberbayern [Chairman of the Association]</li> <li>• Regionaler Planungsverband, public corporation [Chairman of the Planning Committee, representative in the association meeting]</li> <li>• Zweckverband Freiham, Zweckverband [representative in the association meeting]</li> </ul>

## Supervisory Board

	Additional mandates
<b>Josef Schmid</b> Deputy Mayor	<ul style="list-style-type: none"> <li>• Gasteig München GmbH [Chairman of the Supervisory Board]</li> <li>• Münchner Volkstheater GmbH [Chairman of the Supervisory Board]</li> <li>• Deutsche Grund- und Hausbesitz GmbH [Chairman of the Supervisory Board]</li> <li>• Deutsche Theater München Betriebs-GmbH [Chairman of the Supervisory Board]</li> <li>• Pasinger Fabrik GmbH [Chairman of the Supervisory Board]</li> <li>• MGH-Münchner Gewerbehof- und Technologiezentrumsgesellschaft mbH [Chairman of the Supervisory Board]</li> <li>• Internationale Münchner Filmwochen GmbH [Chairman of the Supervisory Board]</li> <li>• Münchner Verkehrs- und Tarifverbund GmbH [Member of the Supervisory Board]</li> <li>• München Ticket GmbH [Member of the Supervisory Board]</li> <li>• Münchner Arbeit GmbH [Member of the Supervisory Board]</li> <li>• Ströer Deutsche Städte Medien GmbH [Member of the Advisory Board]</li> <li>• Deutsches Museum [Member of the Board of Trustees]</li> <li>• Mathias-Pschorr-Stiftung [Member of the Foundation Advisory Board]</li> <li>• Stiftung Buch-, Medien- und Literaturhaus Munich [Chairman of the Foundation Advisory Board]</li> <li>• Stiftung Lebendige Stadt [Member of the Foundation Advisory Board]</li> </ul>
<b>Trade union representatives</b>	
<b>Thomas Bihler</b> Clerical employee	<ul style="list-style-type: none"> <li>• Stiftung Ambulantes Kinderhospiz München [AKM] [Member of the Board of Trustees]</li> </ul>
<b>Heinrich Birner (Deputy Chairman)</b> Director of the ver.di labor union, Munich region	<ul style="list-style-type: none"> <li>• Stadtwerke München GmbH [Member of the Supervisory Board]</li> <li>• SWM Services GmbH [Member of the Supervisory Board]</li> <li>• Stadtparkasse München [Member of the Board of Directors]</li> </ul>
<b>Employee representatives (no additional mandates)</b>	
<b>Hans-Joachim Bues</b> Senior Vice President Corporate Communications, representative of the senior managers	<b>Irena Castello</b> Insurance agent, full-time member of Works Council
<b>Anna Müller</b> Clerical employee, full-time member of Works Council	<b>Bernhard Plath</b> Economist, full-time member of Works Council
	<b>Orhan Kurtulan</b> Certified aircraft handler, full-time member of Works Council
	<b>Renate Siedentopf</b> Insurance agent, full-time member of Works Council

Data as of: Dec. 31, 2017

# Supervisory Board report

The Supervisory Board was informed regularly and in detail by the Executive Board in written reports and at meetings about the Company's situation, its development, and important business events. In its meetings and the meetings of its committees, the Supervisory Board discussed all major Company matters and made such decisions as it was called upon to make in accordance with its statutory responsibilities.

The financial statements as of December 31, 2017, and the Management Report of Flughafen München GmbH and of the Group presented by the Executive Board have been audited and issued with an unqualified opinion by KPMG AG Wirtschaftsprüfungsgesellschaft, Munich, the appointed auditor.

Having conducted its own review, the Supervisory Board acknowledges the auditor's findings and raises no objections.

In accordance with Section 52[1] of Germany's Limited Liability Companies Act [GmbHG] and Section 171[2] of Germany's Stock Corporations Act [AktG], the Board approves the financial statements of FMG and the consolidated financial statements. It proposes that the shareholders endorse the financial statements of FMG and approve the consolidated financial statements.

The Supervisory Board wishes to express its gratitude and respect for the work carried out and the successes achieved by the company's Executive Board and employees in fiscal year 2017.

Munich, June 28, 2018

For the Supervisory Board



**Albert Füracker**

Chairman of the Supervisory Board  
of Flughafen München GmbH

# Note to the unqualified independent auditor's report

## **Details on the result of the audit of the consolidated financial statements and the Group management report for the fiscal year 2017**

The notes to the consolidated financial statements are not included in the above, abridged consolidated financial statements for the fiscal year 2017, which are designed to be included in the printed Integrated Report. The full consolidated financial statements – including the notes – and the Group management report for the fiscal year from January 1 through December 31, 2017 were audited by KPMG AG Wirtschaftsprüfungsgesellschaft, who came to the overall conclusion that the audit raised no objections and issued an unqualified independent auditor's report. In addition to the unqualified independent auditor's report, the full consolidated financial statements and the Group management report for the fiscal year from January 1 through December 31, 2017 are generally accessible on the Flughafen München GmbH website.



# Glossary

## Airports Council International (ACI)

An international organization, headquartered in Geneva, which represents airport operators. More than 1,600 airports in almost all of the countries in the world are ACI members, including 500 airports in 45 European countries.

## Auxiliary Power Units (APU)

In addition to their two or four main engines, today's commercial aircraft have a smaller auxiliary power unit. The APU is used to start the main engines and to generate electrical power when the plane is on the ground.

## Cash flow from operating activities

A business parameter describing the net cash inflow obtained from the business activities during an accounting period.

## Chapter 2/3 aircraft

These aircraft get their name from the ICAO Noise Standards, Annex 16, Volume 1. They have been banned from use within the EU since April 1, 2002, on account of their noise levels. The German Federal Ministry of Transport records particularly quiet Chapter 3 aircraft in its «bonus list». Aircraft approved after January 1, 2006, now have to comply with the limit values according to ICAO, Annex 16, Chapter 4.

## Continuous sound level Leq3

Underlying evaluation measurement for the new German Air Traffic Noise Act. It is a measure of the sound energy at the point of observation and is also referred to as the energy-equivalent continuous sound level. Leq3 is measured over 16 hours during the day, from 6 a.m. to 10 p.m. [daytime Leq3], and 8 hours during the night, from 10 p.m. to 6 a.m. [night-time Leq3]. The six busiest months of the year are taken as the reference baseline.

## Covenants

Specific clauses or [additional] agreements in credit contracts or bond conditions. These are contractually binding guarantees made by the borrower or the bond debtor for the duration of the credit agreement.

## DIN EN ISO 14001

DIN EN ISO 14001 stipulates the fundamental structures and requirements for an environmental management system, with which an organization can improve its environmental performance, fulfill its legal and voluntary obligations, and achieve environmental objectives. At the same time, ISO 14001 also acts as the basis for the certification of environmental management systems.

## Earnings Before Interest and Taxes (EBIT)

Earnings before interest and taxes [and extraordinary profit/loss, where applicable] is commonly also referred to as operating result or pre-tax profit.

## Earnings Before Interest, Taxes, Depreciation, and Amortization (EBITDA)

Earnings before interest, taxes, depreciation, and amortization

## Eco-Management and Audit Scheme (EMAS)

The joint system for voluntary environmental management and audits is an instrument developed by the European Commission for companies that wish to improve their environmental performance. EMAS expands the requirements of DIN EN ISO 14001 more stringently, for example in terms of external environmental audits, the continuous improvement of environmental performance, and transparent communications about environment-related developments.

## European Aviation Safety Agency (EASA)

The European Aviation Safety Agency is the European Union's flight safety body for civil aviation and is based in Cologne.

## German Accounting Standards (GAS)

The GAS are drawn up by the German Standards Committee (DSR) of the Accounting Standards Committee of Germany (ASCG). GAS 20, which has been published since December 2012 [with the most recent revision dated September 22, 2017] in the German Federal Gazette, stipulates the rules for corporate financial reporting in Germany.

## German Airports Association (ADV)

The umbrella organization of all passenger airports in Germany, Switzerland, and Austria. The organization works to promote Germany as a strong and competitive center of aviation.

## German Corporate Governance Code

Regulations for listed companies; the Code promotes good and responsible corporate governance and contains nationally and internationally recognized standards in the form of recommendations and suggestions.

## German Sustainability Code (GSC)

The GSC's aim is to make the sustainability performance of German companies transparent and comparable through use of a public database. The German Council for Sustainable Development, which was appointed by and also advises the Federal Government, prepares the German Sustainability Code.

### Global Reporting Initiative (GRI)

An independent institution that publishes globally recognized guidelines on sustainability reporting. The GRI standards create a shared language for organizations and stakeholders which can be used to communicate and understand the economic, environmental, and social impacts of organizations. Its aim is to establish a common baseline for communication and to ensure the comparability of sustainability reports. The new GRI Sustainability Reporting Standards (SRS) replace the G4 Sustainability Reporting Guidelines and will be compulsory for all reports published from July 1, 2018 onward.

### Greenhouse Gas Protocol (GHG Protocol)

Globally recognized instrument used to quantify and manage greenhouse gas emissions. The GHG Protocol defines requirements governing the calculation of greenhouse gas emissions on an organization-wide scale and the implementation of projects to reduce emissions.

### International Civil Aviation Organization (ICAO)

Headquartered in Montreal, the International Civil Aviation Organization is an agency of the United Nations. It has a total of 192 contracting states. The goal of the ICAO and its members is to ensure the safe and sustainable development of civil aviation.

### International Financial Reporting Standards (IFRSs)

These are accounting regulations for companies that allow financial statements to be compared independently of national standards. They comprise standards and official interpretations of their application.

### Landing and take-off cycle (LTO cycle)

The landing and take-off cycle refers to an aircraft's CO<sub>2</sub> emissions on the ground and during take-off and landing below an altitude of 3,000 feet (914 meters). Up to this internationally defined height, any greenhouse gases associated with aircraft turbines are attributed to the airport concerned and distances from the airport of about eight kilometers in the case of departing aircraft, depending on the climbout, and 17 kilometers in the case of arriving aircraft.

The LTO cycle is made up of four phases:

- Airport approach (up to landing)
- Taxi-in from the runway to the aircraft stand and taxi-in from the aircraft stand to the runway
- Take-off
- Climbout

### Particulate matter

The variable PM<sub>10</sub> (particulate matter < 10 µm) describes the proportion of particulate matter with a particle diameter of up to 10 µm. As a subset of PM<sub>10</sub>, PM<sub>2.5</sub> contains even smaller particles.

### Return on Capital Employed (ROCE)

Business management indicator for showing the profitability of the capital used. It is calculated by dividing the operating profit before or after tax by the total capital minus current liabilities and liquid assets.

### Schengen/non-Schengen

Departures and arrivals areas for passengers from member states that have signed up to the Schengen Agreement; these passengers have either arrived directly from one of these states or want to travel to one. No border or passport controls are needed. Non-Schengen refers to areas for passengers who have arrived from countries that are not party to the Schengen Agreement. Passports and customs checks are required in this case.

### Traffic unit (TU)

A measurement unit used to track all commercial passenger and cargo traffic. One TU is equivalent to one passenger arriving at or departing from an airport with hand luggage (a total of 100 kilograms) or 100 kilograms of airfreight or airmail turned over or a combination of passenger volumes (arrivals and departures) and the local airfreight and airmail volumes (unloaded and loaded).

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P.O. Box 23 17 55  
85326 Munich  
Germany

## Contact

Corporate Media:  
Telephone: +49 89 975 413 50  
Strategic Sustainability Management:  
Telephone: +49 89 975 340 52

E-mail: [bericht@munich-airport.de](mailto:bericht@munich-airport.de)

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