


# Perspectives

Annual Report 2011



**Perspectives.** We are an airport operator. We run a major piece of aviation infrastructure – part of an international, interconnected transport network that sustains global mobility and unites people across national boundaries. We are also a responsible corporate citizen who seeks an open, fair and balanced dialogue with stakeholders and interest groups and for whom the long-term protection of the environment, climate and natural resources is paramount. As such, we pursue a forward-looking business strategy intended to strike a successful balance between business, environmental and social objectives. We provide our dedicated workforce with the training and continuing education they need to be their best; we offer attractive, long-term employment; and we deliver valuable economic and labor-market stimulus with a reach far beyond the bounds of our airport. Our goal: to create value – for our customers, employees, owners and host region.



## Motivation

Munich Airport is a key hub for domestic German and international air traffic. Our desire as the airport's operating company is to unite the world's people, markets and continents. People – our passengers, business partners, employees and neighbors – are the main motivating force behind everything we do. They drive and inspire us to be our best.



Economy



Environment



Social equity

# Perspectives 2011

## Motivation

## Markets

## Message



Economy

Our goal is to sharpen our customer focus and enhance the appeal of the products and services we offer air travelers and visitors.



Environment

We work to conserve resources and reduce our environmental impacts out of respect for the environment and future generations.



Social equity

We believe in supporting and empowering our employees, creating value for our customers, and partnering with our region to promote growth.

This report focuses on people as the core motivator driving our organization.

# Contents



## Introduction

- 4 Executive board
- 5 CEO's letter
- 6 Management team
- 8 Key events

## Company profile and strategy

- 26 Company profile
- 31 Company strategy
- 36 Expansion of Munich Airport
- 42 Landside access master plan

## Service portfolio

- 46 Aviation business
- 51 Non-aviation business
- 55 Quality, security and safety

## Communication and social responsibility

- 66 Stakeholder dialogue
- 69 Regional growth partnerships
- 72 Economic value
- 76 Community engagement

## Workforce and work environment

- 80 Human resources strategy
- 82 Training and HR development
- 86 Diversity
- 87 Work-life balance and health protection
- 90 Remuneration and codetermination

## Environmental and climate protection

- 94 Climate strategy
- 102 Resource stewardship
- 105 Noise control
- 108 Biodiversity

## Financial review

- 112 Supervisory board's report
- 113 Consolidated management report
- 128 Consolidated financial statements
- 147 Independent auditor's report

## Sustainable development

- 150 Sustainability program
- 156 Sustainability figures
- 170 Report profile
- 172 GRI index
- 181 Glossary



**Thomas Weyer**  
Vice President and Chief Financial Officer  
Chief Infrastructure Officer

**Dr. Michael Kerkloh**  
President and Chief Executive Officer  
Personnel Industrial Relations Director

*Dear Reader,*

In many respects, 2011 was a milestone year in Munich Airport's development. We logged around 38 million passenger movements – more than in any year previously in our history. Up 9 percent compared to 2010, the passenger volume grew faster here, at Bavaria's gateway to the world, than at any other airport in Germany, elevating us to number six in the league table of Europe's busiest commercial airports, our highest position ever. In the global rankings, we were also on the ascent, rising three places, to 27th. And in the cargo sector, we recorded a new all-time high of 286,000 metric tons in the volume of goods transhipped.

These figures, combined with solid efficiency gains, led to record earnings in 2011. The Group as a whole generated sales of €1.15 billion (6.4 percent more than in 2010), and our consolidated net income grew 17.6 percent, to €193.3 million.

At the start of the year, AeroGround, a newly formed Flughafen München GmbH subsidiary, took over our ground handling operations. AeroGround rapidly established itself in the marketplace, winning a share of 70 percent, and with a new and competitive lineup delivered our first positive earnings in the ground handling sector in many years.

A key event – arguably the most important since we relocated from Munich's old airport, Riem, to our current site, and one that will shape our direction as a center of aviation – occurred in the summer of 2011: On July 26, the regional government of Upper Bavaria granted zoning approval for our third runway. With this landmark decision, the government's zoning authority expressly endorsed the needs assessment and plans for the third runway submitted by Flughafen München GmbH. Since then, voting in a municipal referendum in Munich has gone against the third runway, but the zoning approval is still under judicial review. If the courts find in our favor, this will grant us a long-term right to build the runway – something clearly of enormous strategic value for us.

The Group scored another important success in 2011, this time on the road to carbon-neutral growth. Although around 38 million passengers used the airport's infrastructure during the course of the year, the carbon emissions that we as an organization can influence directly – from our plants, installations, buildings and vehicles – were again significantly lower, for the third year in succession. The most recent reduction in CO<sub>2</sub>, by almost 9,600 tons compared to a year earlier, proves that our efforts in this area really are paying off and that we're an important step closer to our broader overall objective of carbon-neutral growth by 2020.

To underscore our strategic commitment to operating sustainably, we broke new ground in corporate reporting in 2011 by releasing our first combined sustainability and annual report, covering the 2010 fiscal year. Our 2011 report takes the same approach, combining financial and business data with coverage of our economic, environmental and social initiatives, progress on sustainability targets, and key performance indicators.

*Michael Kerkloh*

Dr. Michael Kerkloh  
President and Chief Executive Officer  
Flughafen München GmbH

## Management team


**Rainer Beeck**

Director  
 Senior Vice President  
 Consumer Activities

**Michael Roth**

Senior Vice President  
 Corporate Services

**Josef-Heinz Loichinger**

Director  
 Senior Vice President  
 Finance and Controlling

**Dr. Josef Schwendner**

Director  
 Senior Vice President  
 Legal Affairs and  
 Compliance


**Siegfried Pasler**

Chief Executive Officer  
 AeroGround Flughafen  
 München GmbH

**Dr. Robert Scharpf**

Director  
 Senior Vice President  
 Human Resources

**Andreas von Puttkamer**

Director  
Senior Vice President  
Aviation

**Hans-Joachim Bues**

Senior Vice President  
Corporate  
Communications

**Gerhard Wirth**

Senior Vice President  
Security

**Johann Bernhard**

Director  
Senior Vice President  
Engineering and  
Facilities

**Gertrud Seidenspinner**

Senior Vice President  
Corporate Development  
and Environment

**Michael Zaddach**

Senior Vice President  
Information Technology

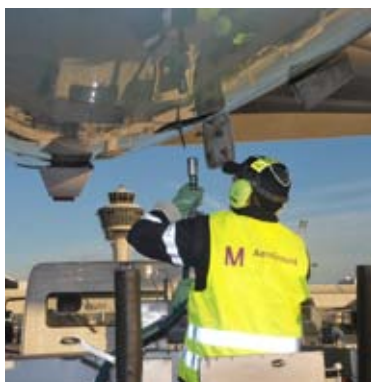
**Carsten Wilmsen**

Senior Vice President  
Corporate Real Estate  
Management and  
Development  
Senior Vice President  
Planning and  
Construction

## Key events

### January 2011

AeroGround, a wholly owned Flughafen München GmbH (FMG) subsidiary, begins operating at Munich Airport, relaunching FMG's ground handling activities in a more competitive, restructured form. AeroGround is the airport's largest ground services provider, employing around 2,000 people, and has contracts with more than 100 domestic and international carriers.



### February 2011

Readers of the magazine *Traveler's World* rank Munich as the fourth-best in a comparison of the world's airports. Only Bangkok, Singapore and Hong Kong rate higher. Munich is commended for its fast check-in operations and short waits.

### March 2011

Munich Airport's initiatives to reduce carbon emissions are certified to Level 3 ("Optimization") under the Airport Carbon Accreditation program run by ACI Europe, the umbrella organization for European airports. Level 3 accreditation is awarded to those airports that not only take effective and



### March 27, 2011

During the summer timetable season, airlines operate services to more than 220 destinations worldwide, including 49 on long-haul routes, in a total of 68 countries. Lufthansa begins flying daily to Mumbai, São Paulo, Singapore and Seoul/Busan; Qatar Airways steps up the frequency of its Doha service from seven flights a week to eleven; and Yakuta Airlines adds a new long-distance destination – Irkutsk, near Lake Baikal – to the airport timetable.



lasting steps to reduce emissions but also seek to promote similar efforts by other organizations on campus. Munich is the first airport in Germany to be Level 3-certified under the ACI's accreditation program.

### April 4, 2011

FMG publishes the outcome of a representative poll carried out on its behalf in the airport's surrounding region by the organization TNS infratest. The poll shows that 84 percent of people in neighboring communities regard the presence of the airport either as positive or highly positive. Close to 80 percent of respondents also stated that they had benefited personally from the airport's presence.

### May 23, 2011

In the 2011 World Airport Awards, Munich is chosen as the best airport in Europe, having already won the title annually from 2005 to 2008 and again in 2010. Munich also comes fourth overall in the global rankings, just as in 2010, and picks up an additional award in the special category Best Airport for Leisure Amenities, ranking second, worldwide. The Kempinski

and FMG supervisory board chairman Georg Fahrenschon, FMG president and CEO Dr. Michael Kerkloh, CFO Thomas Weyer, and supervisory board member Dieter Reiter, who heads the city of Munich's Department of Labor and Economic Development.



Hotel Airport München is selected as the second-best hotel in Europe. The awards are based on votes cast by more than 11 million passengers around the world in the most recent survey conducted by Skytrax, an independent aviation research organization headquartered in London. Seen here celebrating the awards, from left to right, are Bavarian finance minister



### June 6, 2011

Thanks to new information counters, visitors can find their way around Munich Airport quicker and more easily. Known as InfoGates, the counters are part of a proprietary system developed in-house at Flughafen München GmbH that enables users to contact information service staff at the push of a button to ask questions and get help finding their way. The system also calculates the distances to be covered, the estimated times on foot, and the potential waits at passport control and security screening.

### June 21, 2011

VIP WING, a new 1,200-square-meter VIP lounge area, opens in the south wing of Munich Airport's Terminal 1. Uniting international flair with local Bavarian charm, VIP WING has a wide range of facilities, including suites, conference rooms, work spaces, quiet areas, showers, and an interfaith prayer room. The new lounge



area is open to paying customers, regardless of the carrier they are flying with or their grade of ticket. The VIP service package includes baggage handling and customs clearance, passport checks, and transfers by limousine between the VIP lounge and planes.

### July 8–10, 2011

FMG holds its first sustainability fair at Munich Airport. Bannered "Working today for tomorrow" and hosted in the München Airport Center, the event spotlights key initiatives aimed at promoting and advancing sustainable airport operations. Besides various units in the FMG Group, exhibitors also include Deutsche Lufthansa AG and aircraft engine maker MTU.



### August 18, 2011

In the München Airport Center, Munich Airport and Deutsche Lufthansa present the first – and largest – stationary wave surf machine ever to be installed at an airport. Through to the end of August, be-



### October 21, 2011

During the 2011/2012 winter timetable season, airlines offer services to more than 200 destinations in 68 countries. For a week in December, Deutsche Lufthansa flies an Airbus A380 once a day to New York, and for the first time



### July 26, 2011

Upper Bavaria's regional government issues the zoning approval authorizing Munich Airport to build a third runway. The government's decision follows a detailed and comprehensive review of all the factors involved and endorses the needs assessment and plans for the third runway submitted by FMG.

ginners and professionals alike can come to the airport and surf for free. The high point of the event is the first European Championship in Stationary Wave Riding, held on August 20–21.

during a winter season, operates daily services connecting Munich with Hong Kong, Mumbai, Singapore, Boston and São Paulo. Lufthansa also extends its Singapore route with an onward leg to Jakarta, the capital of Indonesia, and its Riyadh route with a second Saudi city, Jeddah.

### November 25, 2011

Emirates begins operating an Airbus A380, the world's largest passenger jet, on one of its two daily services from Munich to Dubai. Emirates is the first foreign carrier to fly an A380 to and from Germany on a regular basis.



### January 26, 2012

A European Commission delegation headed by László Andor, the EU Commissioner for Employment, Social Affairs and Integration, comes to Munich Airport on a fact-finding trip to learn about FMG's plans and initiatives in the area of corporate social responsibility. The trip concludes with a



### January 31, 2012

The Airports Council International Europe reaffirms the Level 3 certification originally awarded to Munich Airport in March 2011 as the first airport in Germany under the ACI's Airport Carbon Accreditation program.



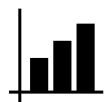
### December 16, 2011

FMG's supervisory board elects Dr. Markus Söder, Bavaria's Minister of State for Finance, as its new chairman. Söder succeeds Georg Fahrenschon who, as Bavaria's previous finance minister, had chaired the supervisory board from December 2008.

brief visit to the company's child daycare center, "Airport Hopper," which is currently the only one of its kind at a commercial airport in Germany. Seen here among the infants, from left to right, are the EU Commissioner, airport CEO Dr. Michael Kerkloh, and Bavarian labor minister Christine Haderthauer.

### March 25, 2012

For the summer timetable season through to October 27, carriers are operating regular services to 158 continental, 40 long-haul and 18 domestic destinations. Deutsche Lufthansa starts serving new routes to Bastia (Corsica), the channel island Jersey, Montpellier in the south of France, Odessa on the Black Sea, and Pula in Istria, and Star Alliance partner Air China begins offering a daily service to Beijing.



Economy

**€1.15 billion**  
in group sales

**8.8%**

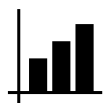
rise in passenger  
traffic, year on year

**202** retail, service  
and hospitality outlets

Munich Airport has more than 37,000 square meters of smart retail and dining space designed to meet the tastes of air travelers and visitors.

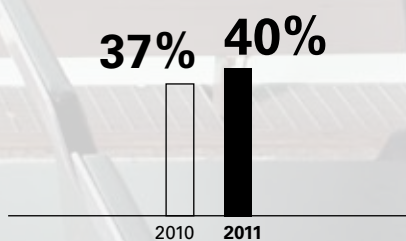






Economy

Cargo volume  
up **5.9%**  
to more than  
**303,000**  
tons



**Transfer volume on the rise**

**241**

destinations  
served from  
MUC

Fifty-seven percent of our passenger base are leisure travelers,  
the remaining 43 percent are business travelers.



Environment

Year-on-year carbon  
reduction of almost

**9,600 tons**

**1,774  
employees**

trained in environmental  
and climate protection

**90%** of FMG subsidiary  
Allresto's food purchases are sourced  
locally in Bavaria

FMG subsidiary Allresto operates numerous bars, cafés and eateries at Munich Airport. Its Il Mondo restaurant combines fine Italian cuisine with a commanding view of the apron.





Environment

**65%**

of aircraft deicer  
is recycled

**60%**

of the air-  
port's area  
is unpaved

**700 hectares**

of additional green space  
surround the airport

FMG staff regularly inspect our compensatory mitigation sites around the airport. This helps us keep up with maintenance and monitor our growth targets for biotopes and conservation sites.





Social equity

**Around 550**  
organizations  
operate at the  
airport

**€100 million**

spent on goods and  
services by FMG in  
the airport's region

**Almost 29,600**  
people employed on  
the airport campus

FMG's apron controllers are just some of the almost 8,000 people who work to ensure that the airport keeps operating smoothly and safely.





Social equity

People from  
around **50**  
nations work  
at the airport

**16.8**

hours of training,  
on average, per  
group employee

FMG sponsors  
**roughly 500**  
local community  
projects and initiatives

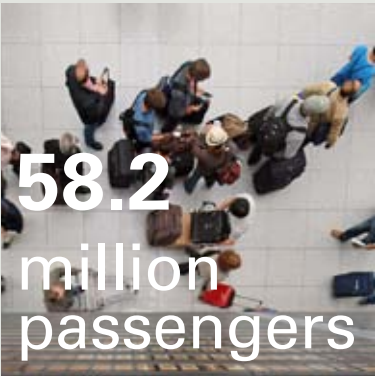
"Airport Hopser," our child daycare center and the only one of its kind at a commercial airport in Germany, looks after children up to the age of three.



- Company profile
- Company strategy
- Expansion of Munich Airport
- Landside access master plan



Projection for 2025



Our goal: "By 2015 we will be one of the most attractive, efficient and sustainable hub airports in the world."



Aircraft movements  
in 2011

# Company profile and strategy

**26 Company profile**

**31 Company strategy**

**36 Expansion of Munich Airport**

**42 Landside access master plan**

- ↓ **Company profile**
- Company strategy
- Expansion of Munich Airport
- Landside access master plan

## Company profile

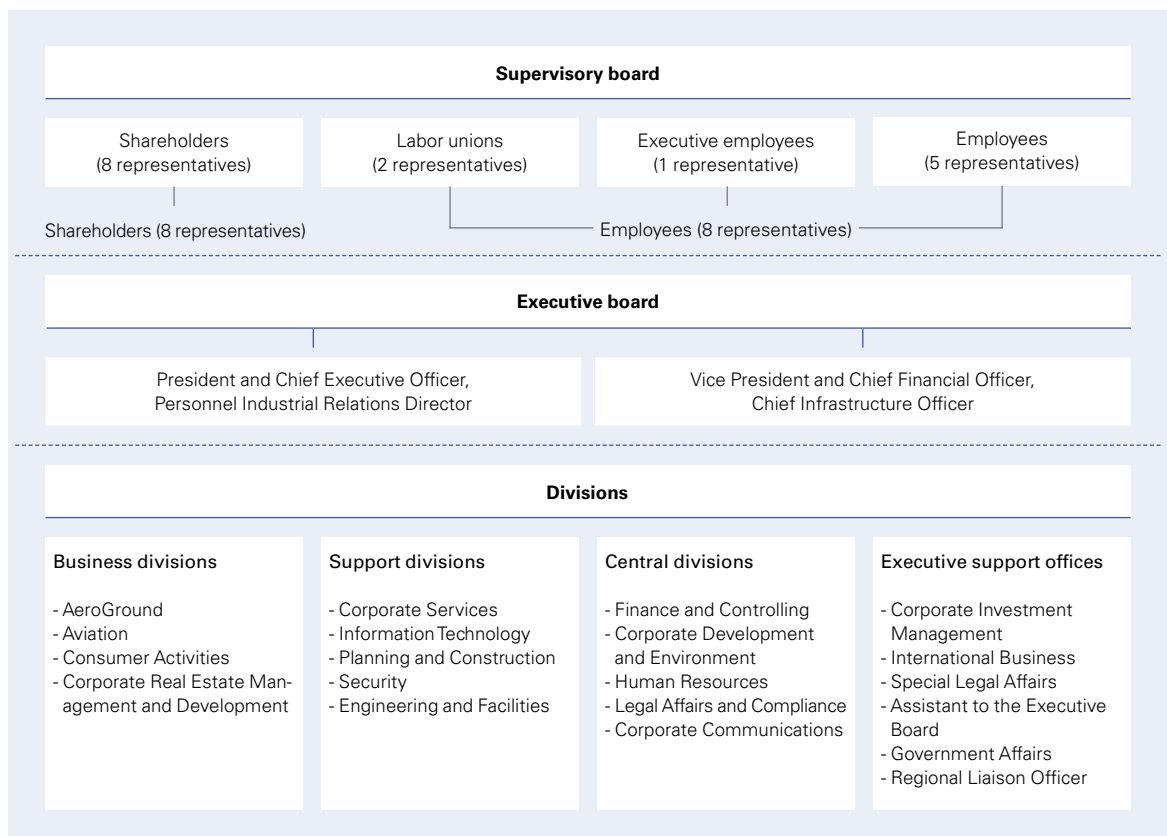
### FMG corporate structure and overview

Munich Airport is operated by Flughafen München GmbH (FMG), a company headquartered in Munich and initially formed in 1949. Since 1973, the company has been co-owned by the Free State of Bavaria (51 percent), the Federal Republic of Germany (26 percent), and the City of Munich (23 percent). The FMG Group of companies has a workforce of roughly 7,000 people. With the exception of consulting services provided to other international airports, the Group's activities are confined to Munich Airport.

Structurally, FMG is organized around three types of divisions: There are five central divisions, which perform overarching management and control tasks, four business divisions, which operate independently within their respective markets, and five support divisions, which provide a range of specialized services to the Group as a whole. A number of changes have been made to this structure, effective January 1, 2011.

The FMG Group now has two new business divisions alongside Aviation and Corporate Real Estate Management and Development: AeroGround (formerly, Ground Handling) and Consumer Activities (based on what was previously Retail and Services and now includes the Center Management subdivision and the Advertising and Media/Marketing subdivision). The five central divisions are Finance and Controlling; Corporate Development and Environment; Human Resources; Corporate Communications; and, as of the start of 2011, Legal Affairs and Compliance (formerly, Legal Affairs and Security). There were no changes among FMG's support divisions. These comprise Corporate Services; Information Technology; Planning and Construction; Engineering and Facilities; and Security. Following a round of reorganization, the Terminal 2 division no longer exists in its old form.

The graphic shows Flughafen München GmbH's organizational structure and governing bodies.





## Aviation

Our Aviation division's primary role is to ensure the safe and orderly handling of air traffic within the bounds of Munich Airport. Its areas of responsibility include the runway system, apron areas, terminal and passenger services, and central infrastructure; its remit also extends to running the airport's fire service, processing aviation data, preparing traffic forecasts, marketing the airport, developing traffic, managing the airport's lounge and service center operations, and conducting international consulting projects.

## Corporate Real Estate Management and Development

Our Corporate Real Estate Management and Development division's activities essentially comprise developing, marketing and managing company-owned buildings and other facilities in accordance with market needs. Besides the airport's own infrastructure, the real estate under management by the division includes buildings outside the → [airport campus](#), plots of land acquired to enable future expansion, and compensatory mitigation sites created to restore the ecological balance.

## AeroGround Flughafen München GmbH

AeroGround Flughafen München GmbH is a wholly owned Flughafen München GmbH subsidiary. Together with its sister companies aerogate and Cargogate, it provides a comprehensive range of landside and airside services for aviation. These include aircraft loading and unloading, baggage and cargo handling, passenger and crew transports, landside handling (provided by aerogate) and cargo handling (provided by Cargogate). AeroGround collaborates closely with aerogate and Cargogate to operate as a full-service provider, offering customers tailored service packages from a single source.

## Consumer Activities

Consumer Activities is responsible for planning and managing Munich Airport's entire consumer business. Its activities include developing, marketing and managing retail, hospitality and advertising in line with consumer demand. One of the division's units is Parking and Services, which operates a wide range of airport parking facilities and develops and delivers innovative, value-added products and services for customers.



→ [Glossary](#)

- ↓ Company profile
- Company strategy
- Expansion of Munich Airport
- Landside access master plan

i

→ Glossary



A 1,575-hectare facility with two runways

Munich Airport began operating at its current site on May 17, 1992. It is located in an area known as Erdinger Moos, 28.5 kilometers to the northeast of the center of Munich, Bavaria’s state capital. In 2011, the airport logged roughly 37.8 million passengers and a total of 195,318 aircraft movements.

In its entirety, the airport is 1,575 hectares in area. It has a north runway and a south runway for air traffic,

both 4,000 meters long and 60 meters wide. They are parallel to one another, 2,300 meters apart, and offset by 1,500 meters.

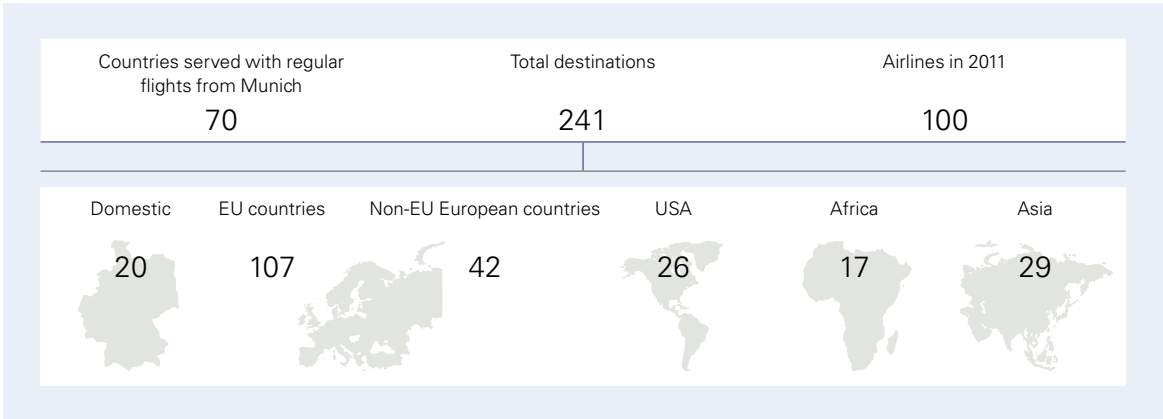
The prevailing wind direction at the airport is from west to east, and this is reflected by the predominant direction in which aircraft take off and land. In 2011, 59 percent of flights arrived from or departed to the west and 41 percent from or to the east. The → **minimum clearance** between aircraft in optimum weather conditions is 2.5 nautical miles (4.6 kilometers) during landing and three nautical miles (5.5 kilometers) during takeoff, in both cases with a vertical separation of 1,000 feet (around 350 meters).

Serving 241 destinations in 70 countries

In 2011, the average number of passengers per day at Munich Airport exceeded 100,000 for the first time, rising to 103,462, from 95,128 per day a year earlier. The airport also handled an average of 1,095 takeoffs and landings a day in the commercial sector (2010: 1,038) and 832 metric tons of cargo (2010: 786 tons).

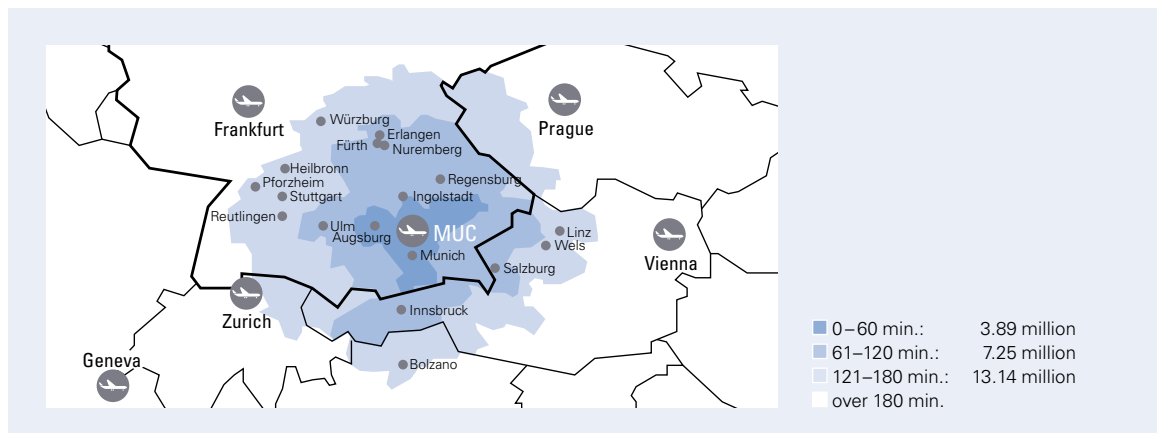
Of the 184 airlines operating scheduled and charter services at the airport, 100 flew to 241 destinations on a regular basis – 20 domestic and 221 international, in 70 countries.

Destinations served on a regular basis<sup>1</sup> in 2011



<sup>1</sup> Scheduled and package-tour traffic; countries and destinations on passenger routes only

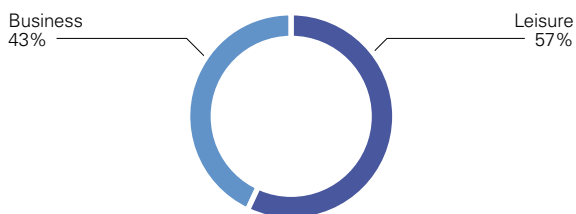
### Population in Munich Airport's catchment area



Based on fastest routes calculated by the software Microsoft® AutoRoute®

### Passengers' reasons for travel in Terminals 1 and 2 in 2011

■ Total passengers: 37.8 million



### A wide range of businesses on campus

With around 7,000 and close to 10,000 employees respectively, the FMG Group and the Lufthansa Group are the two biggest employers at the airport. In total, almost 29,600 people work at the airport, including more than 25,300 employees and around 1,700 public servants, in ten different sectors and industries. The majority of airport workers (almost 10,300) are employed by airlines or in the general aviation and handling sectors; a further 7,700 or so work in airport operations and security; 2,800 are involved in general services; and 2,500 work in the hospitality, restaurant and catering industry. Besides the various public and government agencies and offices, there are organizations in a number of other sectors at the airport – including banking and commerce, freight ware-

housing and forwarding, engineering, servicing and maintenance, car hire, bus and transfer services, and travel and tourism – which together employ a further 6,300 people.

### Slower global economic growth

Having grown 4.3 percent in 2010, the global economy faltered in 2011, particularly in the year's latter half, due to factors like the European sovereign debt crisis, the earthquake in Japan, signs of emerging economies overheating, and restrictive economic policies. As a result, growth rates either slowed (to around 2 percent in Europe and roughly 4 percent in South America, for example) or slid into negative territory (to -0.7 percent in Japan). Only China, the world's second-largest economy, managed to sustain its high growth of more than 9 percent. The global rate of growth in 2011 was around 3 percent.

### Sales up 6.4 percent

An 8.8 percent increase in the passenger volume gave our sales and earnings a boost, lifting FMG Group sales to €1.151 billion in 2011, up 6.4 percent on the prior year. The Group's two revenue streams remained in equilibrium, with non-aviation business contributing around 48 percent of Group sales and aviation business the remainder. Our aviation revenues essentially consist of landing fees and ground handling charges whereas our non-aviation streams



→ [www.munich-airport.com/business](http://www.munich-airport.com/business)

- ↓ Company profile
- ↓ Company strategy
- Expansion of Munich Airport
- Landside access master plan



→ Glossary

include building and car park rentals, our own retail and hospitality operations, and utility services. Our aviation and non-aviation businesses contributed equally to our sales growth, with each showing a gain of more than 6 percent.

Our personnel costs remained more or less flat, year on year, at €308.1 million. Our material costs included a one-time expenditure of €69.0 million to form a reserve for a regional impact fund set up in the context of our project to build a third runway. Adjusted for this expenditure, our material expenses were around 5 percent higher than a year earlier, largely as a result of a one-time increase in employee phased retirement payments.

### Pretax earnings up sharply

Higher sales combined with careful cost management led to a significant increase in our pretax earnings in fiscal 2011. Adjusted to account for the reserves formed for our regional impact fund (a total charge of around €69.0 million) and for Ground Handling (in-

come of around €73.0 million), Group → **earnings before interest and taxes (EBIT)** rose by €42.2 million, or 14.4 percent, to €334.6 million.

Interest income of €104.8 million was up €145.4 million on the prior year. This was largely due to the elimination of all outstanding interest owed to shareholders in 2010, with a payment of €152.0 million. As of 2011, interest on shareholder loans amounts to around €20 million annually.

The aforementioned interest payment of €152.0 million to shareholders was actually transferred in 2011, causing a one-time drop in → **cash flow from operations** to €208.1 million, from the prior-year level of €305.5 million.

Adjusted for the special effects noted above, our earnings after tax (EAT) rose by 17.6 percent, to €193.2 million (2010: €164.3 million, including €152.0 million in interest paid to shareholders).



→ Glossary

# Company strategy

## Building on sustainability

In 2010, we conducted a strategy review at Munich Airport that culminated in the definition of a new → **corporate mission**: “By 2015 we will be one of the most attractive, efficient and sustainable hub airports in the world.”

This formally established sustainability as a cornerstone of what we as a company aim to accomplish. However, our fundamental strategic planning and overall strategy have already been sustainability-driven for several years now in that our strategic objectives have centered on economic, environmental and social performance. The various strategic objectives and initiatives we are currently pursuing are set out in a program that presents all of our sustainability management activities clearly and transparently.

Our mission is ambitious, and we can only accomplish it successfully by 2015 if all units at FMG work toward it as one. Our mission statement summarizes our key strategic emphases from a group perspective and helps to ensure a common understanding of our goals for Munich Airport’s development, going forward.

In the aviation sector, these goals concern domestic, European and long-haul traffic, as well as related infrastructure and services. In the non-aviation sector, we aim to provide interesting offerings that make Munich Airport an attractive place for visitors and air travelers alike. We want to expand the airport as an in-demand location for real estate and to win new business for our “airport city.” Here, customer satisfaction and efficient internal processes are key. And, of course, we aim to accomplish these goals in an environmentally compatible manner.

Through our strategy, we want to create lasting value for our shareholders, our surrounding region, our business partners and our customers. The full text of our strategic mission statement is available on the → **Internet**.

## Strategy and management

To help us fulfill our mission of becoming one of the most attractive, efficient and sustainable → **hub airports** in the world by 2015, we have defined a strategic roadmap at group level. The roadmap contains the Group’s 20 strategic goals for the period through to 2015; these are based on different balanced-scorecard dimensions (finance, customers/markets, processes and employees) and are revised and updated on a five-year cycle. Every unit throughout our organization makes its own distinct contribution toward these goals.

In our strategic planning process, all company units begin by developing initiatives aimed at accomplishing these goals at the operational level. In line with our economic planning requirements, we define specific measures each year that are designed both to turn these initiatives into specific actions and to coordinate these measures unit-wide.

Our wider efforts to deliver our strategy do not center solely on formulating initiatives and uniting them within a program, we also operationalize our strategy by defining key performance indicators that enable us to measure strategic outcomes and the effectiveness of our initiatives. This approach makes our goals as an organization more concrete and clearly establishes the steps we take along the way to accomplishing our mission.



→ [www.munich-airport.com/strategy](http://www.munich-airport.com/strategy)



→ [www.munich-airport.com/mission](http://www.munich-airport.com/mission)



→ [Glossary](#)

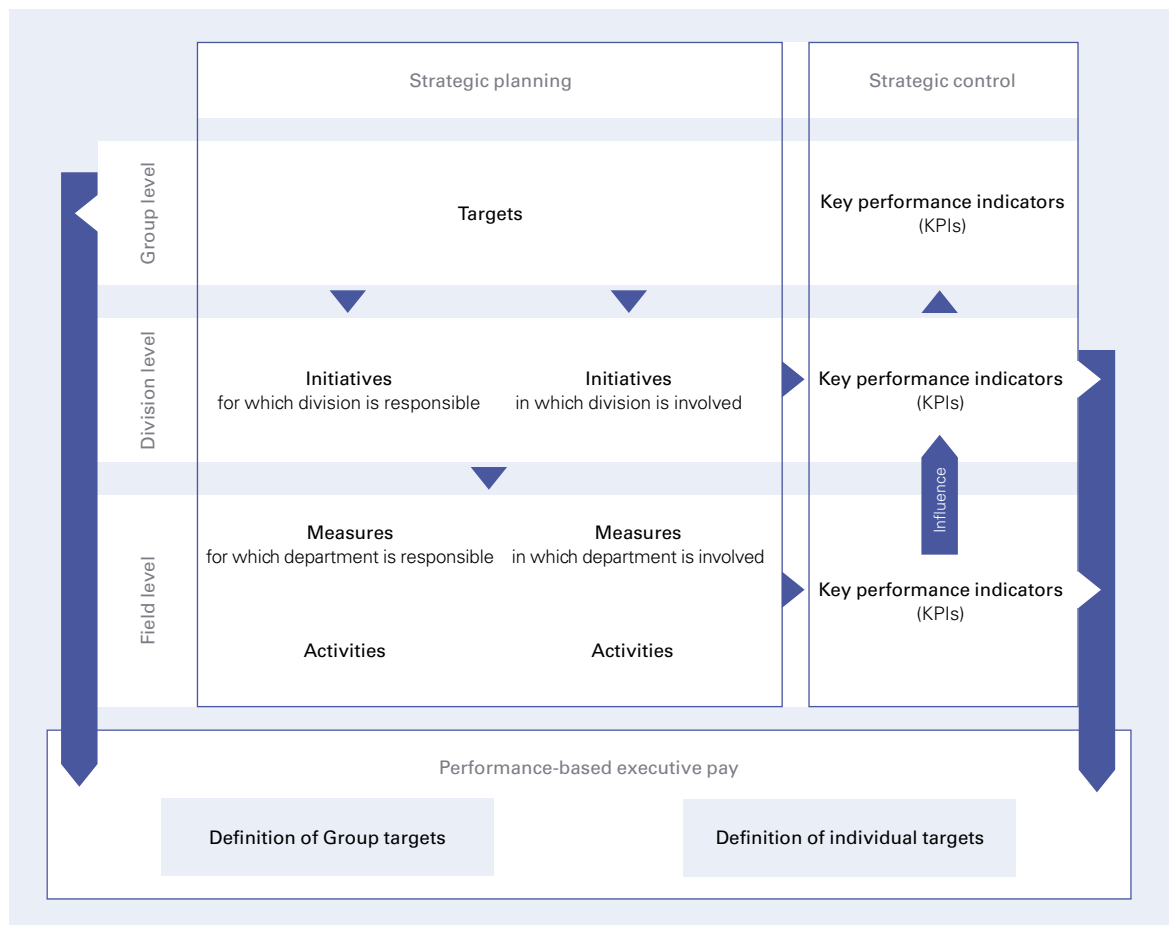
- ← Company profile
- ↓ **Company strategy**
- Expansion of Munich Airport
- Landside access master plan

The philosophy underlying our strategic planning at FMG is as follows:

- Executive management at Group level is responsible for setting the strategic direction by defining targets, each of which is measured using the relevant key performance indicators.
- Tier 1 (division level) managers are responsible for aligning with and operationalizing strategy in their divisions by means of intermediate-term initiatives. The latter's effectiveness is assessed over time based on the relevant key performance indicators.

- Tier 2 (field level) managers are responsible for aligning with and operationalizing strategy in their subdivisions by implementing division-specific initiatives. Performance is measured according to the relevant strategic KPIs and the success of the individual measures implemented.

#### Strategic planning at Flughafen München GmbH



Implementation of corporate strategy – from our mission at the topmost level in the organization all the way down to managers' individual annual targets – is also the foundation for performance-based remuneration. The latter helps us to deliver our strategy effectively and achieve sustainability targets in the work carried out by our business units.

### Sustainability decision-makers

The FMG Group has a sustainability panel staffed by the heads of Human Resources, Finance and Controlling, Corporate Development and Environment, Engineering and Facilities, and Corporate Communications. The panel reports directly to executive management on a quarterly schedule and is tasked with making fundamental decisions on sustainability-based projects.

#### Members of the sustainability panel



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→ Glossary

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→ See p. 150 ff. for our sustainability program and strategic objectives

## Materiality matrix and sustainability program

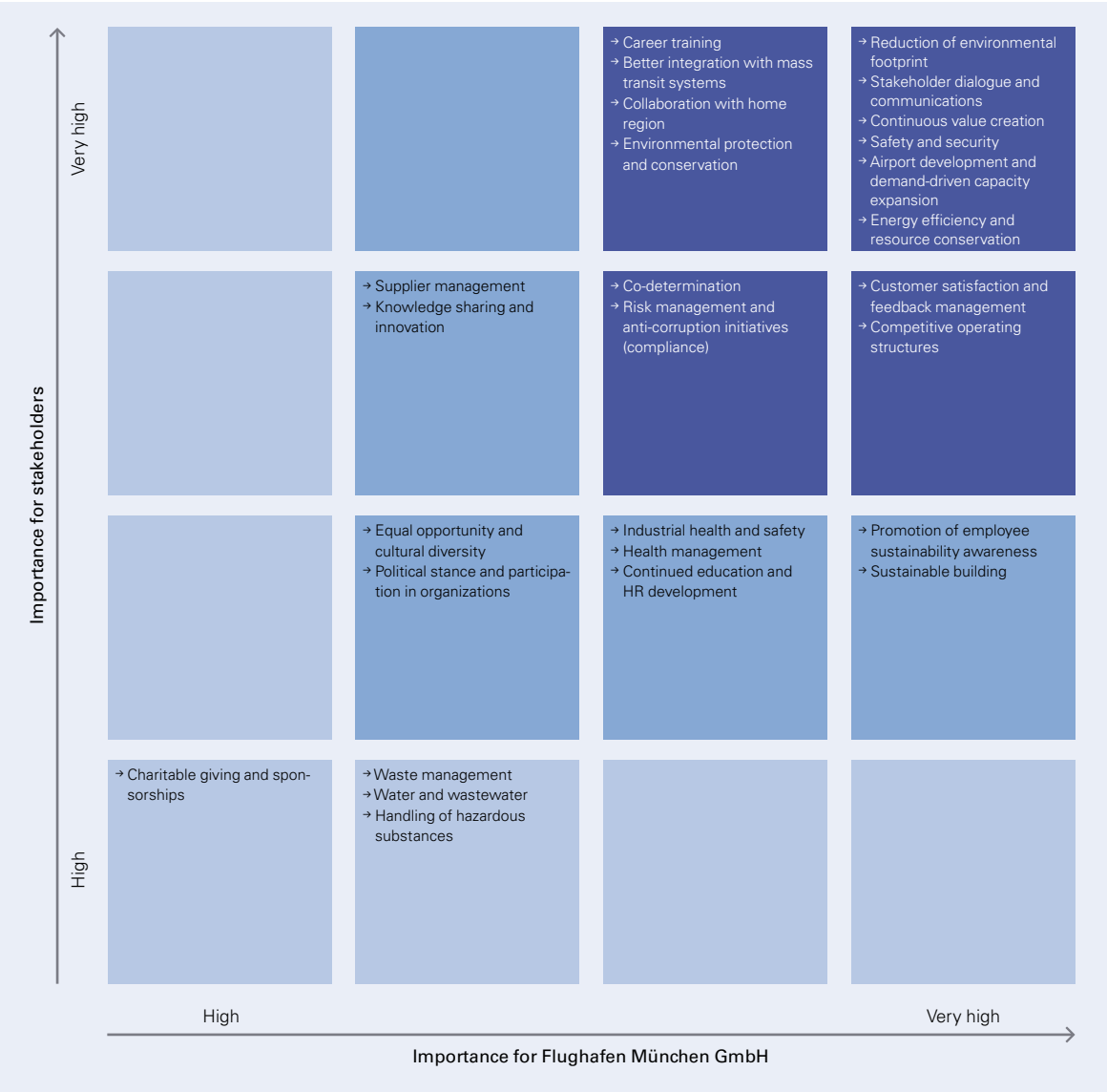
The materiality matrix presented here illustrates how we prioritize key sustainability topics. Each topic's position within the matrix reflects its importance for our → **stakeholder groups** and for Flughafen München GmbH.

The topics' relevance for stakeholders was assessed by means of surveys conducted online and by mail. The feedback we received largely reaffirmed our thematic focuses, resulting only in minor changes between the review year and the year before. More importance was accorded to "Airport development and

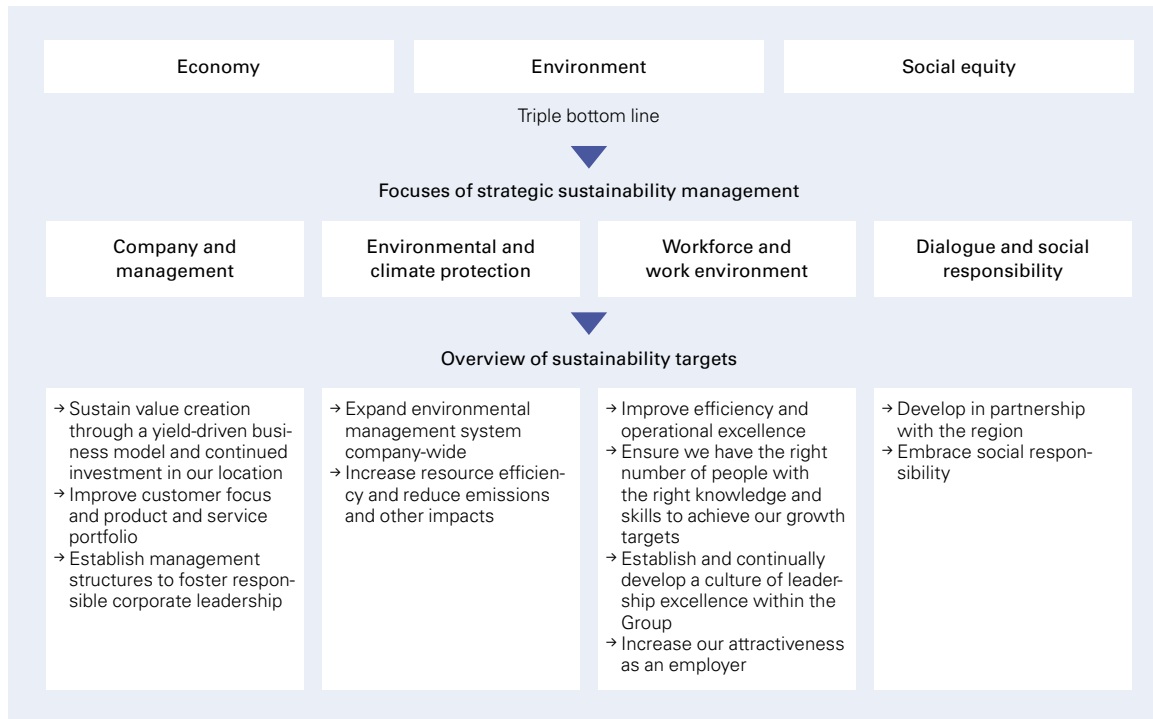
demand-driven capacity expansion," "Environmental protection and conservation" and "Knowledge sharing and innovation," whereas "Charitable giving and sponsorships" were seen as less important than previously. The updated matrix reflects these changes. The sustainability panel decided which issues were important for Flughafen München GmbH.

FMG has developed a sustainability program that reflects the company's → **strategic objectives** and helps correlate our numerous activities and initiatives with our materiality matrix clearly and transparently for an external audience.

Materiality matrix



## Our perception of sustainability



## European initiative to promote sustainable air transport

The EU's Directorate-General for Research and Innovation and a think-tank made up of aviation and air transport experts were tasked by Siim Kallas, the European Commission's Vice President responsible for transport, with developing a vision for the future of aviation in 2050. The think-tank's report, *Flightpath 2050*, presents a strategy based on the systematic widening of measures in the area of air transport initially proposed in a European Commission whitepaper published on March 28, 2011. Dr. Michael Kerkloh, Flughafen München GmbH's president and CEO, represented European airports in the think-tank and helped shape the long-term strategy unveiled at Aero-days in Madrid on March 30, 2011.

Designed to promote sustainable growth in aviation at the EU level, the strategy focuses on strengthening the competitiveness of Europe's air transport industry, on achieving significant further reductions in air traffic's emissions, and on satisfying the general need for mobility – in part through the optimization of networking between transport modes.

The Advisory Council for Aviation Research in Europe (ACARE) is currently conducting a detailed review of the objectives outlined in *Flightpath 2050*. In an initial step, five working groups with a total of more than 300 specialists are preparing guidelines on research and innovation projects to be implemented through to the year 2050. The guidelines are slated for completion in July 2012 and are to be presented at the ILA Berlin Air Show in September 2012. Flughafen München GmbH is actively involved in this process, both as a member of ACARE's governing body, the General Assembly, and as the organization heading one of the five working groups.

The company is particularly keen to encourage greater → **intermodality** by creating more attractive, customer-friendlier links between aviation and other modes of transport, to further reduce air traffic's environmental footprint (particularly for communities located close to airports), and to optimize airport facilities, processes and aviation procedures.

The *Flightpath 2050* report is available on the → **Internet**.



→ See p. 150 ff. for our sustainability program



→ Glossary



→ [http://ec.europa.eu/transport/air/hlg\\_aviation\\_aeronautics\\_en.htm](http://ec.europa.eu/transport/air/hlg_aviation_aeronautics_en.htm)

# Expansion of Munich Airport

## Plans for the future

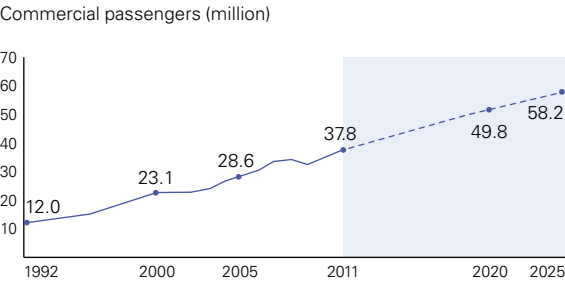
Munich Airport has steadily advanced to become one of Europe’s foremost aviation hubs. In 2011, we logged some 37.8 million passenger movements – three times the volume recorded in 1992, the first year at our current location. Forecasts indicate that the volume will likely continue to rise, to around 58.2 million by 2025. This is because besides serving originating and terminating air travelers, our airport is an important hub airport for international air travelers. We also expect to see the volume of cargo that we handle continue to increase. Our goal is to maintain our leading position in Europe and to continue to meet the growing demand for air transport within our catchment area, comprising southern Germany and neighboring countries. This is why we filed for zoning approval for a third runway in 2007 and now, nearly two decades after we began operating at our location in Erdinger Moos, are gearing up to expand the airport in line with tomorrow’s demand for air transport.

## At the limits of capacity

Today’s two-runway system, capable of supporting a maximum of 90 aircraft movements an hour, is already causing significant bottlenecks. For several hours each day, the system is at saturation point and, during peak hours, we are unable to meet airlines’ requests for arrival and departure slots (the scheduled times at which planes can take off and land). Even during off-peak hours, we have more or less exhausted our options for increasing capacity. This means that airlines have no appreciable scope for expanding their route networks out of Munich.

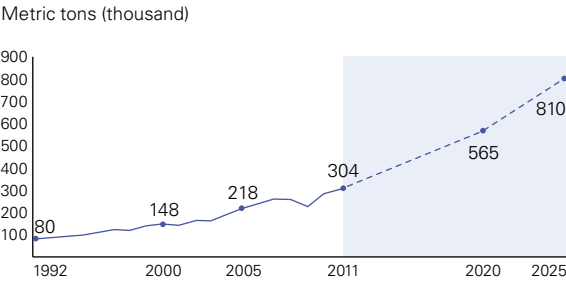
The solution is to build a third runway, bringing our capacity up to at least 120 aircraft movements an hour – a level that would allow us to accommodate our projected traffic growth.

**Passenger demand through to 2025**  
Historical and projected growth



Source: Munich Airport, February 2012; Intraplan Consult GmbH

**Cargo demand through to 2025**  
Historical and projected growth  
(incl. mail, excl. trucked freight)



Source: Munich Airport, February 2012; Intraplan Consult GmbH



### National economic factors

For the state of Bavaria and the local region, an efficient hub airport is a significant location factor, not least because access to air transport plays a crucial role for the state's exporting industries. With an export rate of around 50 percent, Bavaria is one of the most economically successful regions, not just in Europe but in the whole world. The state also enjoys an outstanding reputation as a center of research and development, a hotbed of cutting-edge technology, a major banking and trade show location, and a strong logistics center. On top of this, Bavaria is the number-one tourist destination in Germany.

To maintain Bavaria's international competitive edge, we need to improve and expand connections to the world's growth markets, and a key requirement is an efficient airport that is ready and equipped to meet tomorrow's challenges. To quote the state government's strategy paper for future development, "Action must be taken in the long term to ensure that Munich's commercial airport, an important European aviation hub, can expand in line with demand and operate efficiently."

The construction of a third runway would lead to the creation of 11,000 new jobs compared to today: Deutsche Lufthansa AG, for instance, is planning to boost the size of its long-haul fleet from 24 jets to 40. Stationing a single A340-600 long-haul jet creates 220 jobs directly at the airport, plus additional jobs in other companies, and can be compared in terms of its importance for the labor market to the arrival of a substantial mid-sized company. The growth projected for Munich Airport will therefore continue to have a beneficial impact on employment. And even the actual construction of the third runway, which would likely mean investing at least €1.2 billion, represents an exceptionally important economic stimulus.

### Extensive compensatory measures

If the third runway is built and the airport expanded, we will also implement a comprehensive landscape conservation and mitigation program. Extensive compensatory measures in an area covering 806 hectares, plus isolated parcels (non-contiguous sections of land with a total additional area of around 100 hectares) would ensure that the unavoidable ecological impacts on nature, the landscape and water resulting

- ← Company profile
- ← Company strategy
- ↓ **Expansion of Munich Airport**
- Landside access master plan



→ [www.munich-airport.com/aircraft-noise](http://www.munich-airport.com/aircraft-noise)

from the construction of the new runway are mitigated completely. In fact, we expect these measures would even improve the situation around the airport, which in some regards is less favorable for local animal and plant life on account of the intensive agriculture in the area.

To offset intervention affecting the landscape and plant and animal life, we would create more than 280 hectares of new grassland adjacent to the third runway and maintain it in a way that provides the right kind of habitat for ground-nesting species of birds. Our aim is to secure our membership of Natura 2000, a Europe-wide network of nature protection areas. We would also implement compensatory measures important for species conservation outside as well as inside the airport perimeter. Expanding the airport would not cause the overall diversity of species to decline in the area.

The package of measures associated with the airport's expansion and the compensatory measures required are set out in a landscape conservation plan issued by

the government authority responsible for approving the construction project.

### Noise impact on local residents

Noise control requirements at Munich Airport issue from the Air Traffic Noise Act, which passed into law in Germany on June 7, 2007. In addition, Flughafen München GmbH is committed to minimizing noise nuisance caused by aviation in its surrounding region.

In line with current aviation noise legislation, the regional government of Upper Bavaria, the relevant zoning authority, examined the potential noise impact from the third runway as part of a wider assessment conducted during the zoning approval process. During this process, the authority weighed the interests of noise protection against the benefits that would result from the new runway. The definition of noise control areas and decisions on possible entitlement to reimbursement for sound-proofing in buildings subject to specific levels of noise during the day or at night must comply with the terms of the Air Traffic Noise Act. Taking into account the Act's provisions



concerning entitlement to reimbursement and compensation as well as incidental provisions in the zoning approval, the construction of the runway can, according to the zoning authority, be reconciled with the need to protect the general public and neighbors from aviation noise.

### Statutory entitlements

According to a Supreme Court ruling, owners of residential property subject to an equivalent [→ continuous sound level](#) (LAeq) from air traffic of 70 dB(A) during the day or 60 dB(A) at night are entitled to reimbursement of costs on grounds of “constitutional reasonableness.”

In its zoning approval, the regional government of Upper Bavaria widened this entitlement significantly, stating that it applied to around 100 land owners. Noise levels on their property do not actually reach 70 dB(A) during the day or 60 dB(A) at night, but the land in question is located within a band 210 meters to the north or south and 2,000 meters east or west of the extended axis of the runway. The Upper Bavarian regional government has therefore done significantly more than is required by law to ensure the protection of the residents of Attaching. It justifies its decision by pointing out that the residents would be subject to multiple impacts because of their proximity to the current north runway. This means that land owners are subjected to daytime noise levels of 67 dB(A) or more, as well as visible and perceptible overflights and air turbulence caused by arriving and departing aircraft.

### Passive noise control and compensation for noise in outdoor living areas

The provisions of the Air Traffic Noise Act and ancillary regulations govern reimbursement of expenses for noise protection in buildings and compensation for impairments to outdoor living areas.

Under Section 4, Paragraph 3, Item 3 of the Air Traffic Noise Act, a noise control zone must be defined by statutory order as soon as zoning approval is granted for the construction of the third runway. The noise control zone serves as a basis for settling claims for reimbursement of expenses incurred by fitting sound insulation to buildings and for compensation for impairments to outdoor living areas: In the daytime noise control zone 1 (LAeq = 60 dB(A) during the day) sound insulation and compensation are granted; in the nighttime noise control zone (LAeq = 50 dB(A) at night, or LAmax = 6 x 68 dB(A)), affected homes qualify for sound insulation, including additional ventilation. In some instances, properties are located in daytime noise control zone 1 and in the nighttime noise control zone. In addition, the majority of properties affected are located within the existing combined daytime and nighttime noise protection zone (in the amended version approved on March 23, 2001). Property in this area already qualified for and received sound insulation under the original zoning approval for Munich Airport. This means that around 80 percent of the buildings in the combined daytime and nighttime protection zones have already been fitted with sound insulation. For the most part, buildings which have not been fitted with sound insulation as yet and will now qualify are located in Attaching, Berglern, Mitterlern and Manhartsdorf.

### Sound insulation in buildings and compensation for noise in outdoor living areas

Properties qualify for sound insulation when the noise control zones (defined by daytime noise contour 1 and the nighttime noise contour) are established by an administrative order of the Bavarian Ministry for Economic Affairs, Transport and Technology. Under current legislation, claims for compensation for noise in outdoor living areas can be filed once the runway goes into operation. However, the federal government must first issue an implementation order as required under Section 9, Paragraph 6 of Air Traffic Noise Act, determining the nature and scope of the compensation.



[→ Glossary](#)



→ [www.munich-airport.com/video](http://www.munich-airport.com/video)



→ [Glossary](#)

## Key regulations concerning noise

### → Operating regulations

Munich Airport can impose operating restrictions to temporarily or permanently limit, or completely prohibit, the operation of particularly noisy types of aircraft. Aircraft without an ICAO Annex 16 noise certificate are not allowed to take off or land at Munich Airport. On the airport's third runway, the same applies to Chapter 2 aircraft<sup>1</sup> and to marginal Chapter 3 aircraft.

### → No changes to the current night-flight curfew

The current night-flight curfew, introduced in 2001, will remain unchanged, not least because FMG has not applied to conduct regular night flight operations on the airport's third runway. The runway may only be used in exceptional circumstances – in the event of an emergency or if one of the two existing runways is closed. This means that current noise and movement quotas will remain the same. The provisions contained in the zoning approval are such that people need not be concerned that they could be affected by the relocation of current night flights to the third runway or the introduction of additional night flights on the third runway.

## Zoning approval granted

The regional government of Upper Bavaria granted zoning approval for the construction of a third runway on July 26, 2011. The approving authority reviewed and considered all of the impacts associated with the requirements submitted and, by issuing its decision, has expressly approved the plans we submitted for the third runway.

The statutory approval of the Upper Bavarian regional government is a key milestone inasmuch as it means that the construction project can begin immediately. However, the company has chosen to follow the advice of Bavaria's Higher Administrative Court and not to proceed until the principal proceedings concerning the project have reached a conclusion.

Since the grant of zoning approval, voting in a municipal referendum in Munich has gone against a third runway at the airport. However, the approval is still under judicial review, and if the courts find in our favor, this will grant us a long-term right to build the runway – something of major strategic value for us.

## A satellite building for Terminal 2

In December 2010, FMG and Lufthansa's supervisory boards gave the go-ahead for the construction of a → **satellite** that will significantly boost capacity at Munich Airport's Terminal 2. With this project, FMG and Lufthansa, who jointly operate Terminal 2, are responding to the swift growth in passenger numbers at the airport. Terminal 2, inaugurated in 2003 and designed specifically to support Lufthansa and partner airlines' hub operations, handled 26.5 million passengers in 2011, exceeding its notional annual capacity limit of 25 million.

## Augmenting passenger capacity

The new building, which has already received zoning approval, will create the capacity to handle an additional 11 million passengers a year. The satellite will cost around €650 million to build and, as with Terminal 2 previously, the expense will be shared 60:40 by FMG and Lufthansa.

The new satellite has been designed as an add-on to the existing baggage sorting hall on the apron to the east of Terminal 2. Under the current plans, the satellite will have passenger handling facilities on three levels, plus a total of 52 gates. The building will also have 27 aircraft stands, more than doubling the number of contact stands currently available for Terminal 2.

## An energy-efficient people mover system

The satellite will be equipped with an underground automated people mover (APM) system connecting it to Terminal 2. The system's two stations and tunnel were built to a semi-finished state when Terminal 2 was erected. Three trains, each with four cars, will shuttle between the terminal and the satellite at a

<sup>1</sup> Exception: Aircraft certified by the Federal Office of Aviation or an EU member state. No exceptions will apply on the airport's third runway.



The satellite's bright, light-filled main concourse spans three floors and combines engaging interior and retail spaces with easy wayfinding and short distances.

speed of around 25 km/h on the 400-meter two-track line. The APM will have the capacity to carry as many as 9,000 passengers per hour in each direction.

The APM has been designed to meet strict requirements for energy-optimized transportation and power efficiency. For example, the trains' braking energy is captured and converted into electricity, which is fed into the airport's power network. Optimized, demand-based management of train capacity and the low acceleration and speed of travel help limit the amount of power the APM consumes. The energy footprint is small overall, thanks in part to the use of advanced technology like high-performance LEDs and state-of-the-art heating and cooling systems to reduce energy consumption.

### Green from the ground up

As a terminal building, the satellite falls under our ambitious carbon targets, which means we want its carbon emissions to be 40 percent lower than those of our two existing terminals. This calls for a variety of measures. For instance, on its outside the satellite will have a double-skin corridor façade containing a cold storage medium that helps to optimize the

building's energy performance. During the summer months, this medium, known as a phase change material or PCM, stores cooling energy when temperatures drop at night and then uses that energy to help cool the building during the day. The building's HVAC system will employ advanced → [air source technology](#), and the lighting will partly comprise LEDs and will be dimmable. On the inside, the escalator areas will be divided off from the building concourse by a wall of glass. Isolating them in this way creates a climate buffer within the satellite. The building's contact stands will be equipped with a system to supply planes with preconditioned air.

### Inauguration planned for 2015

Preparatory work on the satellite began in the summer of 2011, and the actual construction work commenced in the spring of 2012. During the course of this year, numerous contracts that will appeal to local small and midsize businesses in the airport's surrounding area will be put out to tender. The airport has launched a special website as a central contact point where companies can register and describe the construction services they offer. The new passenger building is due to open in 2015.



→ Glossary

- ← Company profile
- ← Company strategy
- ← Expansion of Munich Airport
- ↓ **Landside access master plan**

## Landside access master plan

### The importance of efficient landside access

Munich Airport is one of Europe's major intermodal transport hubs and, as such, relies on user-friendly and efficient landside access. For years now, we have been working to improve road and rail access, but the planning authority and decision-making powers reside with local communities and transport carriers. Although → **road capacity** has been expanded in line with demand in recent years, the development of rail capacity has been delayed, even though it would help to reduce carbon emissions caused by landside traffic to and from the airport.

### Customer survey on rail access

In light of this situation, we conducted extensive market research on Munich Airport's rail access in 2011 in an effort to understand where customers see the shortcomings of today's rail services and to assess customers' expectations in terms of optimum rail access.

The study's initial phase, which focused on qualitative market research, consisted of individual interviews designed to evaluate the needs and expectations of

those passengers who begin their air journeys at our airport or who come here as visitors. The poll, conducted in the fall of 2011, showed that customers prefer time efficiency and convenience when choosing their access mode. The study's second phase will consist of quantitative analysis conducted to develop representative statements.

The long-term strategy for improving the airport's rail access, already approved by policymakers, will be refined in line with customer expectations and the results of this study. At the same time, we plan to introduce improvements that will benefit customers in the shorter term.

### Priority for links between rail and air transport

As part of its Federal Transport Infrastructure Plan, the German government is preparing an overarching transport strategy that promotes interconnection between the country's airport infrastructure and its road and rail networks and the creation of attractive links between rail and air services. For international airports, connecting directly to the national mainline rail network is especially important.



→ See p. 69 for details of community transport infrastructure projects





A study into the benefits of intermodality for transport and the economy – initiated by Munich Airport and prepared in association with Frankfurt and Düsseldorf airports, Deutsche Lufthansa, national rail carrier Deutsche Bahn and German air traffic control operator DFS – highlights the economic effectiveness of air-rail intermodality. The study shows that linking rail and air transport creates significant benefits, both for transport systems and the national economy. As

yet, this benefit is not addressed in full in the federal government's current transport infrastructure plans; however it could be taken into account if the assessment procedure were amended.

The study is valuable in that it will help prioritize initiatives to improve airports' rail connectivity in the updated Federal Transport Infrastructure Plan announced for 2015.

- Aviation business
- Non-aviation business
- Quality, security and safety



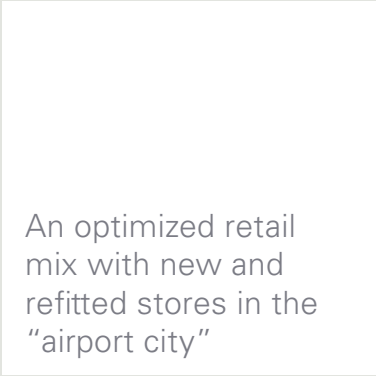
More than  
**37,000 m<sup>2</sup>**



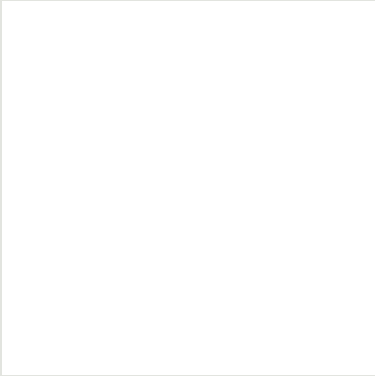
of retail and  
hospitality space



**No. 6**



An optimized retail  
mix with new and  
refitted stores in the  
“airport city”



in the rankings of  
Europe’s ten leading  
airports

# Service portfolio

**46 Aviation business**

**51 Non-aviation business**

**55 Quality, security and safety**

## Aviation business



→ Our video "Impressions 2012" takes a brief look back at the past year at Munich Airport.  
[www.munich-airport.com/video](http://www.munich-airport.com/video)



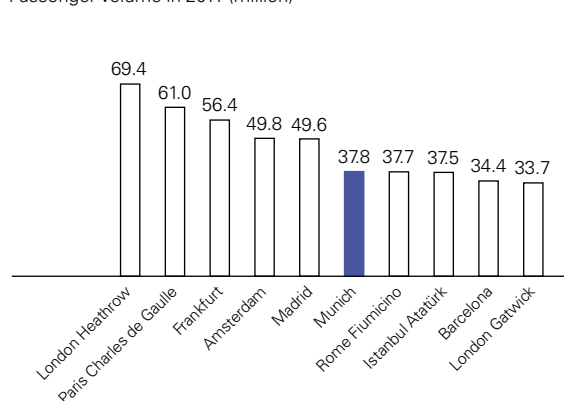
→ [www.munich-airport.com/statistics](http://www.munich-airport.com/statistics)

### Now number six in Europe

Munich Airport is firmly established as a major European aviation hub. Logging 37.8 million passenger movements in 2011, Bavaria's gateway to the world bypassed Rome Fiumicino to rank sixth among the busiest passenger airports in Europe for the first time. The sharp rise in our passenger volume – by 8.8 percent, or more than 3 million – also boosted our position in the global rankings from 30th to 27th place.

#### Munich compared to other airports in Europe

Passenger volume in 2011 (million)



Whereas two-thirds of Germany's airports saw passenger traffic remain flat or decline, and none recorded as sharp a gain in passenger numbers in 2011, Munich can look back on a truly successful year marked by robust traffic growth.

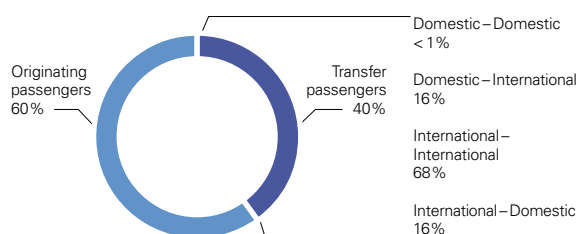
Based on takeoffs and landings, which were up by 5.1 percent year on year, Munich also ranked sixth in Europe, with 410,000 aircraft movements in total – around 20,000 more than in 2010.

### Steady gains in transfer traffic

Munich Airport's ability to sidestep the wider trend within its industry and, unlike many other airports, to report such gratifying results in spite of the difficult market, is due largely to its rapidly expanding role as a hub airport.

This is evident from the continuous rise in the number of transfer passengers. Compared to 2010, when transfers accounted for 37 percent of our passenger base in Munich, our transfer volume reached 40 percent in 2011. To put this figure in perspective, transfers accounted for just 12 percent of passengers back in 1992, when the airport began operating at its current location.

#### Transfer passenger flows in 2011

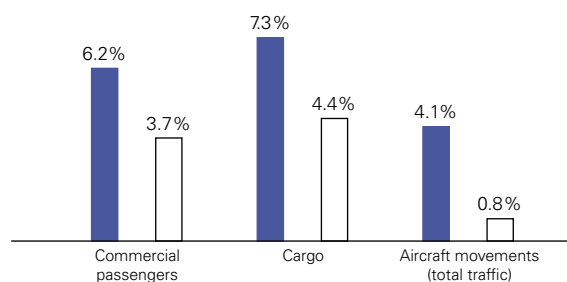


Source: Passenger survey in 2011, 7.5 million outbound transfer passengers (extrapolated from survey data)

#### Mean traffic growth rates 2009–2011

■ Munich Airport

□ Airports in Germany excl. MUC<sup>1</sup>



<sup>1</sup> German Airports Association (ADV)

One key point in our favor is that Munich is designed to be a transfer-friendly airport, where passengers only need to cover short distances. As a result, the minimum connecting time – the amount of time re-

quired to enable a passenger to make a connection from an inbound flight to an outbound flight – is just 30 minutes in Terminal 2. In Terminal 1, the minimum connecting time is 35 minutes; if a transfer involves switching between terminals, it is 45 minutes. This is a crucial factor when organizing transfer connections by air.

Those who benefit most from Munich's gradual transition from a point-to-point airport to a [→ hub airport](#) are the local population and businesses in Bavaria and neighboring states. Besides a tightly meshed network of European routes serving more destinations in Europe than any other airport, we offer them access to an extensive and attractive range of long-haul services.

Today, Germany's two main hub airports, Munich and Frankfurt, now handle 90 percent of the country's incoming and outgoing intercontinental traffic. Both economically and environmentally, a hub-centric strategy is the most efficient way to organize intercontinental

traffic, because it concentrates passengers in just a few flights and enables carriers to make optimum use of aircraft capacity.

In 2011, the number of seats offered per flight at Munich Airport increased to 134, up four on a year earlier, reflecting the continuing trend toward larger aircraft. On average, 99 passengers were carried on each flight – three more than in 2010.

### Higher service frequencies on intercontinental routes

The number of weekly takeoffs from Munich to intercontinental destinations alone more than doubled between 2001 and 2011, from 138 to 278. Passenger numbers on intercontinental routes increased by close to 7 percent compared to 2010, with volumes on services to and from Asia growing faster than others. For the first time in years, it was not traffic to the Gulf region that drove the rise in Asia traffic: In 2011 growth rates were higher on services to destinations



→ Glossary

#### Long-haul destinations in 2011



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→ Glossary

on the Indian subcontinent and in the far east. The greatest absolute gains were recorded for India and the city state of Singapore, not least as a result of an expanded offering of flights. Traffic to and from Thailand, however, declined – due to the political unrest in 2010 and the long period of flooding in the fall of 2011. Both these events led to slower demand and a reduction in the number of tourist flights offered by carriers. By contrast, demand for flights to and from Japan remained steady in comparison with 2010, in spite of the tsunami and the Fukushima nuclear disaster.

Growth in traffic across the Atlantic varied: Although services to Canada and Brazil saw solid gains, passenger numbers dropped on routes to tourist destinations in Mexico, Cuba and the Dominican Republic. In 2011, carriers in the long-haul sector expanded their offerings. A new service to the city of Montreal, with five flights a week, was launched last winter, and from the start of the summer season there were daily services to Mumbai, São Paulo and Singapore. Service frequencies also increased on routes to Qatar, Oman, China and Canada.

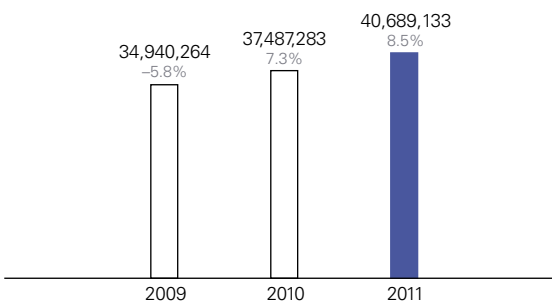
In addition to the more frequent services, new destinations, too, helped boost the appeal of intercontinental services from Munich. During the summer, our first-ever service to Irkutsk, near Lake Baikal, was launched; an existing service to Singapore was augmented with an onward leg to Jakarta, the capital of Indonesia; and the route to Riyadh in Saudi Arabia was extended to Jeddah. Our busiest intercontinental route in 2011 was Dubai, followed by Chicago, Newark and Tokyo. Since 2011, the carrier Emirates has regularly operated a new Airbus A380 double-deck wide-body jet on one of its two services a day from Munich to Dubai. Lufthansa, too, offered flights with an A380, to New York, during a week in December.

### Swift gains in the continental sector

The marked rise in the passenger volume is largely due to continental traffic, which grew 11 percent, year on year. Gains were especially strong in hub traffic on European routes, with service frequencies and the numbers of available seats both higher.

Italy and Spain, each with around 2.7 million passenger movements, remained the countries with the highest passenger traffic in 2011, followed by the United Kingdom, Turkey and France. London Heathrow was again the most popular international passenger destination in 2011, ahead of Paris Charles de Gaulle and Amsterdam.

→ **Workload units (WLU) in all traffic segments 2009–2011**  
Percentage change on prior year



### Minor rise in domestic traffic

On domestic routes, Munich Airport saw passenger numbers rise almost 5 percent for the year as a whole, with demand for flights within Germany stronger in the first six months than in the year’s latter half. Demand likely slackened over the course of 2011 as a result of a new airline ticket tax, levied both on outward and return journeys. Given that value added tax is charged on top, the overall tax on domestic traffic is now disproportionately high. Just as in 2010, our busiest domestic route was Hamburg, followed by Berlin Tegel and Düsseldorf.

### Cargo breaks records

During 2011, we saw our overall → cargo volume – the total air freight and air mail handled at Munich Airport – grow 5.9 percent, year on year, to more than 303,000 metric tons. With a rise of 4.2 percent compared to 2010, air freight reached a new all-time high of more than 286,000 tons. The swift growth

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→ Glossary

in this segment was mainly due to a post-banking-crisis resurgence in the economy, which first began to mount toward the end of 2009.

The biggest gains in cargo were in the exports sector, where the volume was up 8.0 percent on the prior year; imports, by contrast remained flat. This was likely because high stock levels in warehouses allowed importers to ship freight by sea rather than by air, which, although slower, is less costly.

Given that around 75 percent of air cargo on long-haul routes is carried as bellyhold freight in passenger aircraft, intercontinental passenger services are of major importance in the cargo sector. Freight-only services carry just 15 percent or so of air cargo, of which around two-thirds are flown on medium and short-haul routes by express carriers.

We transshipped 17,454 tons of mail in 2011, some 44 percent more than in the prior year. One-third of this was logged on night mail flights. In spite of the sharp and sudden gain, the quantity of air mail we generally handle, which varies depending on Deutsche Post's current transport strategy, is relatively insignificant in terms of our overall cargo tonnage at Munich Airport.



## AeroGround kicks off with a broad service portfolio

AeroGround Flughafen München GmbH, a wholly owned FMG subsidiary and the largest provider of ground services at Munich Airport, began operating on January 1, 2011. The company's launch went off smoothly, thanks largely to efforts in the latter half of 2010 to create structural and organizational foundations that would ensure a lasting turnaround for Flughafen München GmbH's ground services. By mid-2011, the company mucground Service Flughafen München GmbH had been incorporated into AeroGround as well.

AeroGround and its 2,000-strong workforce offer an extensive portfolio of high-quality services at marketable and competitive prices in what is a fiercely contended market. With a share of 70 percent and a customer base comprising more than 100 domestic and international airlines, AeroGround rapidly established itself in the marketplace and succeeded in winning long-term handling contracts with more than 20 airlines in the latter half of the year alone. In 2011, our ground handling operations were back in the black for the first time since 1999, with AeroGround handling some 135,000 aircraft, including the Airbus A380.

To continue providing customers with optimum service, AeroGround reorganized its aircraft handling operations in 2011, took on and trained additional human resources, and gave full employment contracts to 46 former temporary workers. The company also introduced important changes designed to boost flexibility: New working time models and the creation of a cross-unit HR pool mean AeroGround can now tailor its services more exactly to its customers' specific needs and requirements.

## aerogate continues to expand passenger handling

Wholly owned FMG subsidiary aerogate provides passenger handling services, arrival services and a baggage delivery service at Munich Airport. It also operates the airport lounges, supervises the airport's ramp areas, and runs a IATA ticket agency.



→ [www.aeroground.de](http://www.aeroground.de)



Cargogate provides cargo handling, storage, documentation, and customs clearance services at Munich Airport. The company has contracts with more than 75 percent of the airport's cargo customers and handles more than one-third of the airport's air cargo.

In the first quarter of 2011, the cargo volume expanded swiftly on the back of a resurgence in demand after the financial and economic crisis. As the year unfolded, though, growth slowed, eventually lagging behind our projections and prior-year figures, so that by yearend the overall tonnage transshipped was down 4.1 percent overall compared to 2010.

By working closely with its sister companies aerogate and Cargogate, AeroGround is able to operate as a full-service provider, offering customers tailored service packages from a single source.



→ [www.efm.aero](http://www.efm.aero)



→ [Glossary](#)

Passenger handling is a highly competitive market, and aerogate has a share of almost 60 percent in Terminal 1. Here, the company's workforce of around 400 people handled more than 33,000 flights and over 3 million passengers in 2011.

In Terminal 1, aerogate's base of 60 customers includes scheduled carriers like airberlin, Iberia and EL AL, tourist carriers like TUIfly, and more exclusive long-haul airlines like Emirates, Etihad, Saudi Arabian Airlines, Oman Air and Delta Airlines.

In Terminal 2, the company is primarily involved in ticketing and supervision roles for seven Star Alliance carriers, including Thai Airways, United Airlines, TAP, Qatar and ANA.

### **Cargogate: A robust market position**

Cargogate is a wholly owned Flughafen München GmbH subsidiary which has handled cargo at Munich Airport since 1975. With around 250 employees,

### **EFM: A strong and efficient performer**

EFM – Gesellschaft für Enteisen und Flugzeugschleppen am Flughafen München mbH, co-owned by Flughafen München GmbH (49 percent) and GGG Service for Airlines GmbH (51 percent), part of the Lufthansa Group, carries out aircraft pushback and → [deicing](#) operations, supplies preconditioned air, and provides a range of training and consulting services. In its 2010/2011 fiscal year, EFM and its 140-strong workforce conducted around 150,000 pushback and maneuvering operations and deiced roughly 11,600 aircraft. During the company's prior fiscal, maneuvering and deicing operations totaled 131,000 and 11,800 respectively.

Good environmental practices play an important role in EFM's operations, and the company tracks its environmental performance through its quality management system, which was certified to ISO 9001 in 1997. EFM's environmental management system gained ISO 14001 accreditation in 2003.

## Non-aviation business

### A strong non-aviation portfolio

Our airport is a place where air travelers, visitors and employees converge in large numbers and, as such, it is a popular location for restaurateurs, retailers, hoteliers and advertisers. Our extensive portfolio of non-aviation activities encompasses retail, hospitality and services, plus a broad and innovative parking offering, and the development, marketing and leasing to clients of buildings and spaces on campus for advertising and events. Our non-aviation business contributed 48 percent of FMG Group sales in 2011.

### Continuously optimizing our offering

In 2011, we again sought to further expand and fine-tune our non-aviation activities to accommodate customers' and business partners' changing expectations and requirements. We continued to focus on making Munich Airport an even more engaging and attractive location, not just rolling out new projects and tenancies aimed at better addressing target groups, but also optimizing our retail business and organizing numerous successful events.

### More than 200 retail and service outlets

Retail plays a major part in Munich Airport's non-aviation business. In 2011, we had a total of 154 stores and services outlets and 48 hospitality units in the two terminal buildings and the München Airport Center (MAC).

Of these, 63 retail and service outlets (including 43 in public areas) plus 27 restaurants, bars and cafés (21 in public areas) were located in Terminal 1 and the München Airport Center. In Terminal 2, most of the retail units are sited in the gate area. Of the terminal's 91 retail and service outlets, 64 are in the sterile area behind the security checkpoints, as are 13 of the 21 restaurants and cafés.

With more than 37,000 square meters of retail and hospitality space, we have a consumer offering for air travelers and airport visitors that is as appealing as it is extensive. During the course of the year, we added a number of new stores, remodeled others and updated our overall retail mix as part of our ongoing



→ [www.munich-airport.com/shopping](http://www.munich-airport.com/shopping)



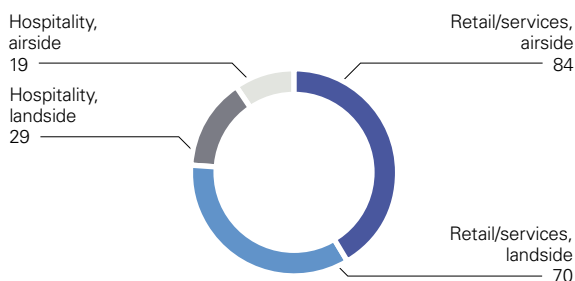
efforts to optimize the choice available in the two terminals and the MAC (known collectively as our “airport city”). In the first half of the year particularly, the airport’s retail business showed exceptional growth. Key changes at Terminal 2 included a new Italian restaurant and a steak house, and an expanded Travel Value store. Several fashion boutiques and a confectioner opened in both terminals.

#### Retail units in 2011

Total: 202 (103 airside, 99 landside)

■ Retail/services: 154 (total)

■ Hospitality: 48 (total)



“Mount Quattro” in the München Airport Center’s Forum, along with a test track and an automobile exhibition.

From January to the middle of May, more than 10,000 sales and service employees from Audi branches all over the world came to the airport to attend familiarization training on the new Audi A6. August very much belonged to the Audi Q3: Again in the MAC Forum, the company promoted its brand new model of car by installing a 1,400-square-meter, 9-meter-high mirrored cube, creating an experiential, three-dimensional display with thrilling special effects and the new Q3 at its center on a rotating stage.

### A world first and the Olympics

The main highlight among the events in 2011 came in August with Surf & Style in the München Airport Center Forum. Here, Munich Airport presented the world’s first – and largest ever – stationary wave pool at an airport, and invited professionals and beginners alike to come and surf the wave for free. As part of the event, we hosted the first European championship in stationary wave riding, on August 20-21, which drew a crowd of around 20,000 spectators.

### Advertising on the terminal façade

Munich Airport offers an extensive range of advertising space in its two terminals, the München Airport Center and outdoors. This includes promotional and event space, in particular the MAC’s covered Forum, plus a variety of other high-quality advertising options. Besides standard advertising, such as lightbox signs and posters, advertising customers can choose from a range of more specialized forms of advertising, such as giant posters on building and parking garage façades, advertising on baggage carts, and gobo advertising on floors. We also offer exhibition and display space for standing and suspended advertising objects.

Germany’s largest poster space, the west facade of Terminal 2, was used again by Audi AG and by Deutsche Lufthansa AG to install advertising for periods of several months in 2011. Audi came up with several landmark marketing initiatives at Munich Airport in 2011. To celebrate 30 years of the Quattro system, for example, the automaker set up a 13.5-meter-high

One key focus of Munich Airport’s activities in the first half of 2011 was Munich’s bid to hold the Winter Olympics and Paralympics in 2018. As a national sponsor of our city’s candidacy for the Games, we ran a joint advertising initiative with Lufthansa early in the year, consisting of a giant welcome gate – 16 meters high, 40 meters wide and weighing 200 tons. This was installed on the main approach highway to Munich Airport to highlight the city’s Olympic bid. Ultimately, though, the South Korean city of Pyeongchang was the successful candidate.

### Parking and Services: An attractive portfolio

Our Parking and Services subdivision is responsible for operating the parking facilities at Munich Airport, comprising 14 multistory garages and several open-air lots, with a total capacity of more than 34,000 parking spaces. The subdivision’s customer base includes not just air travelers and airport visitors but also airport building tenants and airport employees who park at the airport.



→ [www.airport-media-muc.de](http://www.airport-media-muc.de)



→ [www.munich-airport.com/parking](http://www.munich-airport.com/parking)



The airport gained a further 670 parking spaces in parking garage P20 in 2011, which were completed midyear after 18 months of construction work. With the capacity for more than 7,000 vehicles, P20 now ranks as one of the largest multistory garages anywhere in the world.

One of the services in our portfolio is convenience and secure parking. This is available in P20, a car park especially popular with frequent fliers, corporate customers and businesspeople because of the choice of value-added services there, which include vehicle washing and interior cleaning. Valet parking, too, is available: Travelers can hand their car over to an airport employee who parks it in a garage of their choice, and when they arrive on their return journey, the car is driven up for them, ready for collection.

A new service, Smart and Spot Repair, was launched in 2011. This enables customers to have minor damage to their car's paintwork or interior repaired during their absence. Especially popular with passengers is the option of making a firm parking reservation online by credit card up to six months in advance. When booking through the airport website, travelers can also qualify for discounts of up to 48 percent on parking rates. In 2011, around 6.8 million vehicles used the parking facilities at Munich Airport – 3.0 percent more than a year earlier.

### Allresto: Certified organic and environment-friendly

Allresto Flughafen München Hotel und Gaststätten GmbH is responsible for running approximately 85 percent of the hospitality operations at Munich Airport. These operations are organized in separate restaurant, canteen and hotel business units. Restaurants are Allresto's core business and it runs these itself. They include restaurants serving German, Bavarian, Italian, Argentinian and Asian food, plus several bistros, a fast-food restaurant, cafés and a variety of bars in the airport's two terminals and the municon conference center. The five employee canteens on campus and the Hotel Kempinski are managed by caterers Eurest Deutschland GmbH and hoteliers the Kempinski Group.

Through its mixed franchise- and license-based model and its own strong brands, Allresto delivers attractive and innovative hospitality to air travelers and visitors at Munich Airport, and its high standards of service have earned us top scores for airport dining in Skytrax passenger surveys, in 2010 and again in 2011.

Allresto had a mean headcount of 650 employees and generated total sales of €89 million in fiscal 2011. The company's stated aim is to become the most attractive, efficient and sustainable hospitality operator in the transport sector in Europe.



In 2011, eurotrade had a workforce of around 1,000 people and reported net sales of €172.6 million – a rise of 7.5 percent, year on year. This is one of the company's best results ever. To continue building on its prior successes and sustain its performance over the longer term, eurotrade pursues a strategy based on innovative goods and shop concepts. One approach it has taken is to combine upmarket brand-name apparel with luxury jewelry in the same retail unit. The company has also expanded its duty free/Travel Value stores on level 04 in Terminal 2 to offer passengers a shopping experience extraordinaire in a 1,200-square-meter retail space.

In 2011, eurotrade opened its first retail unit outside Munich Airport – a duty free/Travel Value store at Friedrichshafen Airport. In coordination with corporate parent Flughafen München GmbH, it will continue on an expansion course, going forward.

Allresto sources around 90 percent of its produce with local suppliers in Bavaria. The company is certified under the Eco-Management and Audit Scheme and is committed both to conserving resources in the way it handles foodstuffs and to advancing sustainability in areas like logistics and cleaning. Allresto is also certified organic; this means the company is authorized under EU regulations to produce organic foods, which it serves in the Bistro Organic in Terminal 2.

### eurotrade: A special shopping experience

The company eurotrade Flughafen München Handels-GmbH, a wholly owned Flughafen München GmbH subsidiary, is a retail operator at Munich Airport. It has an appealing overall retail mix comprising around 70 units, including a number of small hospitality operations, duty free and Travel Value outlets, newsagent and souvenir shops, and a range of stores selling fashion and textile goods, luxury-brand watches, jewelry and accessories. Its aim is to ensure customer satisfaction and loyalty by offering premium products from local and international brands and labels that match customers' wishes and expectations.

### MediCare: Expert healthcare

FMG subsidiary MediCare Flughafen München Medizinisches Zentrum GmbH offers 24-hour healthcare services to air travelers, visitors, and employees at Munich Airport. MediCare also provides a portfolio of corporate and aviation physician services to Munich Airport and organizations on campus, and in 2011 treated its 100,000th patient.

In addition, MediCare runs AirportClinic M, a health-care center of competency that unites a unique, full-service approach to specialized care in such fields as orthopedics, gynecology and urology with easy access for both local and international patients. The company is co-owned by Flughafen München GmbH with 51 percent and by MAHM GmbH, a company operated by a group of physicians, some of whom are based at Munich Airport, with 49 percent. MediCare currently has a workforce of 66 employees and in 2011 reported sales of around €6 million.



→ [www.eurotrade.org](http://www.eurotrade.org)

## Quality, security and safety

### Customer feedback on quality of service

The opinions of our customer base – which includes passengers, visitors, meeters and greeters, and the people who work on campus – are exceptionally important to us. We need to be aware of their needs and expectations if we are to succeed in constantly delivering better service. This is why we have had a feedback system in place for several years for managing the suggestions and complaints we receive from airport users, and for a long time now, we have also conducted polls at Munich Airport to track customer satisfaction.

### Continuous service optimization

Most of the comments we receive are submitted by means of letters, online forms, and the feedback cards provided throughout the airport. We have a central complaints management office which ensures that all suggestions or complaints received in writing not only get a quick and personal response but actually help us to improve our standards of service. We keep a systematic record of all these suggestions; we also regularly review the subjects of complaints to identify trends and patterns, and we publicize these internally.

During 2011 we received and processed 1,340 complaints in total – an extremely small number, considering the 38 million passengers who passed through the airport over the course of the year. Criticism centered mainly on online parking reservations and the waiting times at baggage claims, plus issues with airlines that were beyond our reasonable control. The latter included flight cancellations and delays, poor on-time performance and poor service from airlines. We forward complaints like these to the relevant offices. Complaints concerning security screening were down compared to prior years.

One example of our responsiveness to customer comments is that we have improved our WiFi service. Following a growing number of requests, we in January 2012 introduced WiFi that is free to users for the first 30 minutes.

### Mystery shopping safeguards quality of service

Since 2006, we have used mystery shopping as a means of quality control. Midyear in 2011, we conducted a series of three rounds of test purchases at 192 shops, restaurants and service outlets, with English-speaking as well as German-speaking shoppers.

We scored the retail units on their interior and exterior presentation, cleanliness, price labeling, the variety of their products and, above all, the knowledgeability and courteousness of their customer-facing staff. With tests like these, we later discuss the results with the units' operators. The purpose of mystery shopping is to ensure that we uphold and continue to improve standards of service at Munich Airport.

### ASQ 2011: Consistently high quality scores

Airport Service Quality (ASQ), a benchmarking program operated by the → [Airports Council International \(ACI\)](#) in Europe, and the annual passenger surveys conducted by London-based independent



→ [Glossary](#)



market researchers Skytrax also provide Munich Airport with regular information on how air travelers score our standards of service.

The ASQ rankings, based on how passengers rate airports, provide the 190 or so scheme participants worldwide with quarterly data on customer satisfaction. In all four quarters of 2011, Munich Airport achieved a rating of 4.0, which equates to a quality assessment of "very good." This boosted us to second place in our peer group, which comprises airports with a similar structure and passenger traffic volume. One factor that helped us to accomplish this was an improvement in passengers' satisfaction with the waiting times at security screening and passport control.

### InfoGate on the expansion track

Two years in development, InfoGate, an information system designed by Flughafen München GmbH, went into operation in mid-2011. There are six InfoGate counters in Terminal 1 and the München Airport Center. At these counters, passengers can push a button to contact an information service agent who can give specific answers to any questions they have and explain how to find their way at the airport. The agent and the user can both see each other at life size on a video link. The system also calculates distances to be covered,

estimates how long they will take to cover on foot, and tells users how long they can expect to wait at passport control and security screening.

Parallel to this, we have rolled out InfoGate Interactive, a self-service system with a touch-screen terminal. There are currently 17 of these freestanding terminals around the airport which provide airport visitors with information on shopping, services, and places to eat and drink, as well as flight departure and arrival times.

The huge interest in the system and the positive feedback from the entire travel and tourism sector encouraged us to set up a subsidiary, InfoGate Information Systems GmbH, in early 2012 to market our InfoGate products. This exemplifies the emphasis we place at Flughafen München GmbH on innovative products and services "made in MUC."

The attractive design of the information terminals was honored with a Good Design Award 2011. These awards are given each year by the Chicago Athenaeum Museum of Architecture and Design, in association with the European Centre for Architecture, Art, Design and Urban Studies, in recognition of products that enrich society and people's lives through good design.

### Focus on security

At an international passenger airport like ours, security is an issue of maximum priority. As the airport's operator, FMG must ensure the security of its facility in accordance with EU requirements and the provisions of Section 8 of Germany's Aviation Security Act, which covers buildings and technical aspects as well as HR and organizational measures. Alongside FMG, our subsidiary CAP, which has a workforce of around 770 people, is also responsible for the airport's security. Under Section 9 of the Aviation Security Act, air transport companies operating at Munich Airport are responsible for ensuring both their own security and the security of their cargo. All of the control measures are subject to ongoing quality checks. Bavaria's aviation security authority is in charge of overseeing Munich Airport, whereas the Federal Office of Aviation is responsible for the airlines. In addition, continuous



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



→ [www.munich-airport.com/security](http://www.munich-airport.com/security)



### Bodies responsible for aviation security and safety

	Responsible	Tasking	Oversight
Security	Airport operator	Duty of self-protection as per Section 8 of the Aviation Security Act	State aviation security authority
	Airline company	Duty of self-protection as per Section 9 of the Aviation Security Act	Federal Office of Aviation
	Aviation security authority	Passenger and baggage screening as per Section 5 of the Aviation Security Act	Federal police <sup>1</sup>
	Federal police	Border controls on persons	Federal Ministry of the Interior
	Customs	Border controls on international movements of goods	Federal Ministry of the Interior
Safety	Air traffic control	Monitoring of air space, coordination of flights	Federal Ministry of Transport, Building and Urban Development

<sup>1</sup> In Bavaria: State aviation security authority

national and EU quality checks are carried out, and we perform our own in-house checks as part of our internal security quality management system.

### Continuous onward training

Before entering the gate areas, passengers and their hand luggage are screened by employees of Sicherheitsgesellschaft am Flughafen München mbH (SGM). This screening is conducted on behalf of Bavaria's highest aviation security authority, the South Bavarian Office of Aviation. To make sure that checks are carried out consistently and to the required security and quality standards, each of the 1,200 or more aviation security officers working at the airport completes around 40 hours of onward training every year. All training for security personnel is delivered in accordance with in-house as well as official requirements, and covers statutory regulations on dealing with persons and personal property.

Two more bodies tasked with aviation security are the federal police and customs. The police are responsible for inbound and outbound passport control procedures plus a variety of security tasks, including protecting at-risk flights and providing armed protection at passenger screening points in the airport's terminals. Customs carries out import and export inspections on the goods people are carrying.

### A system to optimize safety

Just like general airport safety and security, the safe operation and handling of aircraft in line with statutory aviation regulations has utmost priority at Munich Airport. Given the steady, ongoing growth in air traffic, we do our utmost to prevent accidents, avoid dangerous situations, and minimize the potential impacts in the event that something does happen. We therefore



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operate a → **safety management system** (SMS) in compliance with the requirements laid out in Annex 14 of the → **ICAO's** Convention on International Civil Aviation and Section 45b of Germany's Aviation Certification and Licensing Regulations. The SMS is comprehensive in that it covers the whole airport. This means that we are also responsible for supervising all of the businesses, frontline services and other organizations involved in safety-related tasks at the airport. Organizationally, responsibility for the system resides with traffic management in our Aviation division.

The airport's safety team, comprising a safety manager and experts from various areas of airport operations, acts as an interface to airline companies, air traffic control, government aviation agencies, and their respective safety management systems. The team's core tasks include the following: collaborating on approval procedures and airport inspections as required under aviation law; conducting airport-wide safety audits; investigating accidents, loss events, and safety-relevant occurrences; and liaising with aviation agencies on issues of aviation operations safety.

### A new crisis management system

In 2011, we completed a project to refine and deploy a site-wide crisis management system for Flughafen München GmbH. We conducted this in line with guidance on critical infrastructures issued by the Federal Ministry of the Interior. The term "crisis" describes a situation that poses a threat to our airport's existence – a situation that cannot be managed effectively through our regular organizational structure and processes, and thus calls for a specialized organizational unit, a crisis team.

Crisis management not only involves taking steps to control and overcome a crisis (including issuing alerts, rapidly assessing the situation, etc.), it is also about having a crisis management office in place, staffed by a specialist team that is responsible for safeguarding and refining the organization's crisis readiness.

During the crisis management project, we appointed eight crisis team supervisors, who are on call around the clock according to a duty roster, plus seven situation assessors, whose role is to assess the crisis potential of emerging situations and to work with crisis

team supervisors to initiate action aimed at managing situations as they develop. We also took steps to consolidate and optimize communications and networking between key stakeholders on site, such as the police, the Airport Operators Committee in Munich, and government ministries.

### The airport fire service: On site in 180 seconds

To satisfy our rigorous safety standards at Munich Airport, we have two fire stations on campus: the south fire station is responsible for firefighting on the south runway, in Terminal 1's ramp areas, and in the cargo and maintenance areas; the north fire station is responsible for the north runway, Terminal 2's ramp areas, the general aviation terminal and the helipad area. The two fire stations work together to fight building fires.

Munich Airport's fire service meets International Civil Aviation Organization guidelines that require crews to be able to deploy to any point on the runways and begin fighting a fire within 180 seconds of being called out. The same guidelines also stipulate the minimum number of firefighting vehicles, minimum quantities of quenching agent, and the quenching-agent flow rate. To further improve the airport fire crews' equipment, the service received two new fire trucks in 2011. Powered by 1,000 horsepower engines, these can accelerate from zero to 80km/h in 20 seconds, in spite of weighing 43 metric tons. The fire service also took delivery of two additional fire trucks in 2012.

To guard against building fires, all of the buildings on the airport campus are equipped with automatic and manual fire alarms – some 52,000 in total. If an alarm is triggered, the fire service's command and control center can identify where the detector is located. When the alarm is raised, it takes less than 40 seconds for the first fire trucks to leave the stations.

The command and control center also has hotlines to fire departments, emergency call centers, and police

headquarters in the airport region so that the airport's fire service can request outside support in the event of a major incident or respond to calls for assistance from local emergency responders outside the airport if the need arises.

Fire service personnel complete around 150 hours of classroom and field training each year to hone and extend their skills at operating extinguishing systems, handling hazardous materials, working while wearing breathing apparatus, giving first aid, and carrying out technical rescue operations in connection with road traffic accidents. The fire service has its own training ground and basin where crews can practice controlling major fires. Residue from the kerosene used to create practice fires is collected in underground traps and then disposed of safely.



→ [www.munich-airport.com/fire-department](http://www.munich-airport.com/fire-department)

### Consulting for major airports

Munich Airport's fire service operates a TÜV Süd-accredited quality management system and now consults not just for other major commercial airports in and outside Germany, but also for corporations' plant fire departments.

In 2011, young people were able to apply for a place on a new vocational training course as plant firefighters. The first year of the three-year program begins in September 2012. In addition, airport fire service paramedics and assistant paramedics have been certified as trainers and are now officially qualified to teach first aid.

The airport fire service responded to 3,582 callouts in 2011, of which 857 were false alarms. The callouts included 1,831 technical support operations, 574 safety monitoring operations, 118 fires, and 202 first-response operations to provide first aid prior to the arrival of ambulance services. At yearend, the service had a total workforce of 193. During 2011, around 11,000 visitors took part in tours to learn about the highly varied work of the fire service.

## Bird control: Guarding against bird strike

Collisions between aircraft and animals – birds in particular – pose a threat to aviation safety. We engage in a variety of initiatives at Munich Airport to guard against this kind of event and to ensure the safety and continuity of airport operations. Bird control is carried out by specially trained Flughafen München GmbH employees who are on site throughout the airport's operating hours and remain in constant contact with air traffic control. They use various methods to drive off animals that pose a potential threat to safety. Often, it suffices if they simply drive up in a vehicle and get out or sound the horn. Patrols also use pyro-acoustics to startle animals. This involves firing flares that make a bang, whistle or flash after a delay.

## Sophisticated biotope management

Unlike many other international airports, Munich does a lot more to prevent bird strike than just startle the birds. We expend considerable effort on creating and maintaining biotopes that blend in with the local landscape yet are carefully managed so as not to attract to the airport and its immediate surrounding area those kinds of birds that pose a threat to aviation (for example, species that are heavy or have a tendency to swarm or are active flyers).

Two-thirds of the airport site is covered with greenery, which requires special care and maintenance in connection with bird strike prevention. Given that short grass would tend to attract bird species dangerous to aviation, the grassy areas around the runways are mown as seldom as possible. Flocking species like starlings and gulls are generally not attracted to the long grass because they lose sight of each other, and larger, heavier birds like buzzards and herons avoid it because of the difficulty of finding prey. This not only helps to improve aviation safety, it is also important from a conservation point of view as the landscape has a far greater environmental value than uniform, intensively farmed arable or pastureland. In an effort

not to attract heavy waterfowl, we have avoided creating open expanses of water as far as possible; we have installed wires over groundwater drainage ditches; and we have drained areas where surface water tended to accumulate. The airport's perimeter fence keeps out large mammals like deer and wild boar, giving other species a chance to thrive.

As a further safeguard against bird strike, we also have agreements in place that put certain constraints on tenant farmers who work FMG-owned land. For instance, under the terms of these agreements, farmers are not permitted to use liquid fertilizer or sludge on the fields within 600 meters of the airport perimeter.

FMG works closely with organizations on the question of bird strike prevention, in particular with airline companies, German air traffic control, regional and national government agencies, and the German Bird Strike Committee (DAVVL). In addition, the airport operating company has public-agency status and thus a say in connection with bird strike risk when local authorities approve land use in areas outside the airport perimeter.

## Low bird strike rate in Munich

The likelihood of a bird strike event is lower at Munich than at most other commercial airports. The regional government of Upper Bavaria noted in its zoning decision for Munich Airport's third runway in 2011: "Munich Airport has mean bird strike rates of 1.29 in its inner zone and 0.72 in its outer zone, compared to mean inner and outer-zone rates Germany-wide of 2.56 and 1.18." The rate indicates the number of bird strike events per 10,000 aircraft movements.

## High IT security standards

Flughafen München GmbH has released binding information security guidelines governing the treatment of information and the use of information technology, both within its own organization and at its affiliates. The



→ <http://relaunch.davvl.de>



guidelines detail areas of responsibility and contain fundamental rules designed to protect information.

The FMG Group has a chief information security officer whose role is to manage information security across the whole of the organization. He reports directly to FMG's executive management and is supported by other information security officers in the parent company itself and in its various subsidiaries.

Key information security tasks include technical, organizational and employee-related audits, the creation of guidelines (on using IT systems and on contracting external service businesses, for example), risk management, technical measures to harden computer security, and initiatives to raise employees' awareness of the importance of IT security.

New FMG systems are produced in accordance with MAP, an in-house project management methodology, and MAPIT, a supplement that applies specifically to IT systems. This unified approach to project manage-

ment means that steps are taken during the development phase and thereafter to ensure that systems satisfy FMG quality, security and reliability requirements.

The safe handling of information stored on IT systems (in particular, customer data) is covered by in-house information classification and handling guidelines. These detail specific requirements on storing information on mobile devices, sending information by e-mail and deleting data securely.

Our main information security management focuses in 2011 were on conducting a comprehensive emergency exercise, auditing technical solutions (a PA system, for instance) and HR processes. We also held training programs for project supervisors on the information security aspects of projects, we stepped up training for new employees, and we rolled out various technical IT security safeguards, including an updated firewall infrastructure.



→ [www.munich-airport.com/consulting](http://www.munich-airport.com/consulting)

- ← Aviation business
- ← Non-aviation business
- ↓ Quality, security and safety



### Measurable quality objectives with ISO 20000

FMG has its own IT services arm, the Information Technology division. Besides planning, deploying and operating the airport's IT systems, the division provides services for information systems, office systems and

communications equipment (for LANs, WLANs, fixed and mobile telephony, and radio, for example), as well as consulting and advisory services.

The division, which has 190 employees and looks after around 520 customers, is also responsible for

providing the requisite IT infrastructure. Since 2006, the division has been accredited to the ISO 20000 IT service management standard and has since successfully re-certified annually – most recently in 2011.

ISO 20000 establishes a measurable quality standard for the delivery of managed IT services. Key processes include incident management, change management, availability and continuity management, configuration management, and information security management.

To safeguard the availability of critical systems that are essential to airport operations, such as passenger information systems and dispatching systems for the airport aprons and terminals, our IT division not only employs ISO 20000-compliant processes, it also draws on a range of technical means and solutions.

Examples include state-of-the-art security measures to protect the airport's networks, comprehensive system management with a high level of operating-process integration, and a pair of data centers, at separate locations, which switch over system components according to defined cycles.

The division applies key performance indicators to gauge the effectiveness of measures at the process and technical system levels. It also publishes detailed monthly reports on system availability and capacity reserves that help to identify emerging problems at an early stage and enable timely intervention.

### IT process optimization

The ISO 20000 IT service management standard places considerable emphasis on continuous improvement, as this ensures that procedures are adapted and optimized in step with changing conditions.

For instance, our IT service management (ITSM) tool was identified as needing improvement. This is a software program for coordinating and supporting IT division job processes in areas like the supply or troubleshooting of user equipment. It has now been replaced by more advanced, more powerful software. The new

software has enabled us to automate supply and other processes to a greater extent and so achieve valuable efficiency gains. These supply processes include equipping work points with a desktop PC, notebook PC or phone, installing a range of software on a desktop or notebook PC, providing wireless systems for flight-related processes (e.g., baggage handling), and enabling access to CCTV systems.

The software allows us not only to respond faster to customer inquiries, but also to reduce the labor cost per process cycle, to improve the quality of IT service delivery and service data, and to simplify the process of invoicing customers. Although still being tested, the new ITSM tool will be rolled out during the course of 2012.

An IT emergency exercise designed to practice a complex system failure scenario and assess the quality of documentation and processes revealed that our emergency procedures functioned smoothly and our staff had the skills and training to respond precisely and efficiently. Minor flaws were found in the documentation, but these were soon rectified.

### AirSide: The airport at a glance

AirSide is an abbreviation for Airport Status Indication Equipment, a system designed and developed by our Information Technology division to collate and show a comprehensive overview of information on air traffic on a smart board display. With AirSide, users can track and log key events such as aircraft and vehicle movements, aircraft handling operations, refueling, the current runway status, construction work, emergencies, snow and ice clearing operations, and operating area closures. AirSide's main users are FMG traffic management staff, who work with it around the clock as a means of rapidly assessing the overall situation at the airport. Because AirSide can be configured to suit different user groups' needs, it is now also in operation with the airport fire service, air traffic control, and public bodies like the police, customs, the South Bavarian Office of Aviation, and the regional government of Upper Bavaria.

- Stakeholder dialogue
- Regional growth partnerships
- Economic value
- Community engagement



FMG awards more than half its procurement by value to businesses in Bavaria.



receive funding from FMG to promote youth sport.

Flughafen München GmbH engages regularly with key stakeholder groups in an open dialogue.

# Communication and social responsibility

**66 Stakeholder dialogue**

**69 Regional growth partnerships**

**72 Economic value**

**76 Community engagement**

# Stakeholder dialogue

## Engaging with airport stakeholders

Flughafen München GmbH regularly engages with its key → stakeholder groups through various means, including continuous passenger and employee surveys and an open exchange of opinion, based on mutual trust, with airline companies and partner businesses. We also work closely with neighboring communities and partner organizations in our immediate local area, as their support is crucial to our current and future success as a business organization. And through our regional liaison office, we maintain close ties with local communities, policymakers and citizens’ groups.

The forms of dialogue we engaged in with each of our stakeholder groups are described on the → Internet.

## Advocacy at a range of levels

Our office of political affairs liaises between the company, policymakers and administrations. Its role is to represent the FMG Group’s interests in dealings with EU bodies, the German federal government and parliament, the Bavarian state government and parliament, and the city council of Bavaria’s state capital, Munich. Its remit also includes working with aviation industry bodies and organizations.

The office of political affairs ensures that information is shared at different levels in an effort to promote awareness of issues that concern the FMG Group. It not only maintains constant contact with various bodies and organizations, it also holds regular events,

including parliamentary evenings in Berlin and round-table discussion in Brussels. In addition, FMG regularly publishes → policy statements that present its official stance on current aviation issues.

By collaborating closely with industry associations, including the → German Airports Association (ADV), the Federal Association of the German Air Transport Industry and the → Airports Council International (ACI Europe), we have access to well-founded information on key aviation topics and, at the same time, are assured that our industry’s interests are well represented collectively.

In April 2006, we took the step of setting up a liaison office in Brussels with a view to better representing our interests as an airport at the European level and to improving links with key officials and decision-makers in EU bodies. However, Flughafen München GmbH makes no financial contributions of any kind to political parties, policymakers or associated organizations.

## Analysis of stakeholder groups

Because workable, future-proof solutions and sustainable development can only be accomplished through a constant dialogue with all segments of society, we engage in a process of continuous communication with our stakeholders, not just inside our organization but at the local, regional, national and international levels as well.

### Key stakeholder groups



→ Glossary

→ Our policy statements are available here: [www.munich-airport.com/publications](http://www.munich-airport.com/publications)

→ Glossary

→ Glossary

→ [www.munich-airport.com/stakeholders](http://www.munich-airport.com/stakeholders)

We conducted our first detailed analysis of our stakeholder base in 2008, mainly through structured interviews with in-house contacts representing each target group. As in prior years, the results of this analysis again formed the basis for selecting stakeholder groups for this year's report. These results are reviewed on a regular basis.

### Dialogue with the media

FMG's stakeholder groups also include the media and the public at large, in our home region and beyond. We engage with these groups through events and regional fairs, visitor support services, internet and intranet sites, and newspapers and other publications. The purpose of our combined corporate communications activities is to foster a better understanding of our actions and policies as an organization and to achieve credibility and trust among the general public.

Corporate Communications is both the voice and the ears of FMG. The division engages in strategic communication and reputation management designed to make employees, the media and the public at large aware of the company's intentions and interests and, at the same time, inform the company about relevant opinions, sentiments and trends in society.

As part of its media relations work, Corporate Communications regularly organizes events like our annual press conference as well as media events on a wide range of subjects, and the division's press office regularly publishes news releases and photographs on current events and developments at Munich Airport.

### Presence in social media

With the growing popularity and importance of social networks, Flughafen München GmbH has embraced new communication channels like → [Facebook](#) and → [Twitter](#). Users on these new platforms comment on and rate airport-specific topics as well as expansion projects like the construction of the airport's third runway. FMG expressly allows employees to participate in exchanges through social media, from company computers and during office hours.

In social networks like Facebook, Xing or Twitter, differentiating between business and private communications is difficult. Nonetheless, if employees log into their private account from their PC at work and blog,

FMG regards this as work. FMG trusts its employees to confine themselves to company- and work-related activities online during office hours and to use their knowledge and expertise to make a positive contribution to discussions conducted on the Internet.

Critical comments and inaccurate assertions are part of any active debate or discussion on the Internet, but the medium also allows us to rectify and refute such comments and assertions. The company has a dedicated social media team, part of Corporate Communications, which takes an active part in online discussions and can intervene if necessary to correct false claims or posts. The team additionally uses social media channels to inform users about everything from new aviation routes and retail offerings to special events taking place at the airport. These channels are also of importance when it comes to recruiting new employees.

### Information and entertainment at our sustainability fair

On July 8–10, 2011, we hosted a sustainability fair, bannered "Working today for tomorrow," at Munich Airport. Held in the München Airport Center, the fair was organized to inform people about FMG's range of initiatives aimed at protecting the environment, ensuring employee welfare, addressing local people's interests, and safeguarding the airport's future.



→ [www.facebook.de/flughafenmuenchen](http://www.facebook.de/flughafenmuenchen)

→ [www.twitter.com/MUC\\_Airport\\_EN](http://www.twitter.com/MUC_Airport_EN)



The fair featured a large number of stands where airport visitors and employees could find out more about Munich Airport's sustainability vision and programs. Exhibitors at the event included FMG units responsible for environmental protection, training and construction, our regional liaison office, and our subsidiary Allresto, which manages food operations at the airport. Other organizations on → [campus](#), too, used the event to present their sustainability strategies and activities, including Deutsche Lufthansa AG, Bauhaus Luftfahrt and SCA Hygiene Products. Also exhibiting was aircraft engine maker MTU, which showed new propulsion technologies and visionary concepts for the future of aviation.

Other attractions included a brand new airport fire truck, a specially built track on which visitors could ride electric-powered bicycles, and an extensive and varied supporting program specially for younger visitors.

We also took the event as an opportunity to officially inaugurate a new cycle path connecting the two terminals and the München Airport Center with the rest of the airport's cycle route network.

### Our neighbors' perception of the airport

To gain a better picture of what people who live in our region think of the airport, market researchers TNS

Infratest conducted a representative opinion survey on behalf of Flughafen München GmbH's regional liaison office in the fall of 2010. Having already commissioned a similar poll in 2003, we were able to use the results of the new survey to assess any changes that had emerged over the last seven years.

The 2010 survey centered primarily on the Erding and Freising districts, both adjacent to the airport, plus a number of communities in the administrative districts of Landshut, Dachau, Munich and Ebersberg. In total, 2,073 people were polled by phone in 38 communities.

The results of the survey not only reaffirmed the positive findings of 2003, they were even better in several instances. Ninety percent of respondents stated that they enjoyed living in the region, and the main reason cited was the quality of life. Around 84 percent viewed the presence of the airport as beneficial for the region as a whole, and almost 80 percent stated they found it positive for them personally. Ninety percent were of the opinion that the airport's → [hub traffic](#) brings benefits for Bavaria's economy, and 72 percent thought that the hub traffic benefited the region. The survey also showed that the local population makes active and frequent use of the airport, both as air travelers and as visitors, and this underscores the degree of acceptance the airport has found within its surrounding region.

On a less positive note, the poll also revealed that respondents thought significant action was needed to improve public transport access to the airport from the places where they lived. Communities in the Erding administrative district in particular were keen to see improvements to → [public mass transit services](#) to the airport. In several of these communities, the dissatisfaction is likely due to delays to the completion of the Erding circular rail link, which will require the construction of a new two-track rail line between the town of Erding and Munich Airport.

The surveys in 2003 and 2010 have delivered findings and insights that are valuable for our regional policy and give us a solid foundation for future assessments and detailed surveys. We have made the results of the surveys available to local communities.



→ Glossary



→ Glossary



→ See also the section titled "Landside access master plan" on p. 42 and the consolidated management report on p. 126



→ You can find the report "Munich Airport as seen by its neighbors" at [www.munich-airport.com/publications](http://www.munich-airport.com/publications)

## Regional growth partnerships

### The Communities Council: A forum for dialogue

For Flughafen München GmbH, an open and constructive exchange with the airport's local region is exceptionally valuable. The Communities Council, formed in September 2005 to accompany the planning process for the expansion of Munich Airport, plays an important role in this context by fostering productive dialogue and by providing the airport and its local communities with a forum for information sharing and communication. The Council is supplied with timely and current information on the planning progress at its meetings; it also acts as a mouthpiece for the region, voicing local concerns, offering recommendations and suggestions, and helping to achieve consensus on solutions to problems. The Council has around 40 members, including people representing local towns and communities, administrative districts, the business community and labor unions, as well as employees from Deutsche Lufthansa AG, Deutsche Flugsicherung GmbH and Flughafen München GmbH, who represent the aviation sector. The Council is chaired by Edda Huther, a former president of the Constitutional Court of Bavaria.

### A regional fund for infrastructure and special projects

Together with the Communities Council, Flughafen München GmbH's shareholders in 2008 elected to set up a regional fund to offset impacts caused by the construction of the airport's third runway. Under

current plans, the fund's resources of €100 million are to be allocated over a period of between 10 and 15 years, primarily to local infrastructure projects. Payouts from the fund are, however, contingent upon the start of the runway construction work. Fifty million euros are to go to local highway construction projects; the other half has been earmarked for local community infrastructure development, compensation in instances of hardship, and special projects.

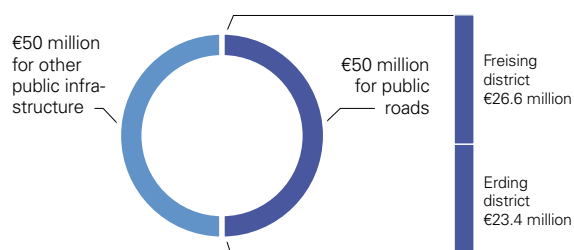
### Support for transport infrastructure projects

At present, money from the fund has been assigned to two community road construction projects, in the Erding district (€23.4 million) and the Freising district (€26.6 million). The funding will go toward Erding's north bypass (capped at €13.5 million) and to Freising's west expressway. Funding has now also been approved for the construction of the Moosburg west expressway (up to a maximum of €4 million) and a road between Berglern and Eitting in the Erding district. Currently, €5 million apiece have been made available to the Erding north bypass and the Freising west expressway projects; all other funding is on hold until work has begun on building the third runway. To date, Erding district council has drawn down around €500,000 in funding to cover planning work for the town's north bypass. Freising, too, has drawn down €500,000, for the purchase of land in preparation for the construction of the town's west expressway.



→ [www.munich-airport.com/regional-fund](http://www.munich-airport.com/regional-fund)

#### €100 million regional fund



### A bridge between the airport and its neighbors

The goal of our regional liaison office is to establish the airport as an integral part of its home region and as a "regular" neighbor. To accomplish this, our regional liaison officer and his team have been engaged since 2002 in efforts to network systematically with the surrounding region at various levels. The regional liaison office's remit is to operate as a coordination center or bridge between the airport and the region. It carries Flughafen München GmbH's messages out into the region and feeds neighbors' concerns back to the airport.



→ [www.airfolgsregion.de](http://www.airfolgsregion.de)

## Our regional marketing initiative

FMG plays an active role in, and co-funds, Airfolgs-Region Erding-Freising, a joint working group for regional marketing, set up in 2005. The group's purpose is to encourage collaboration at the community and administrative district levels and to promote our region's unique qualities as a center of tourism and business through professional marketing.

As in past years, the working group exhibited at a number of national and regional travel and tourism fairs during 2011. One of the year's highpoints was the completion of the group's cycle routes project, launched in 2009: Eight themed routes across the region, covering a total distance of 275 kilometers, have now been mapped and marked for local cyclists and tourists.

The joint working group re-focused its efforts to promote business in the region in 2011. Initiatives included holding its first one-day event for business owners and launching an energy efficiency project for local companies. The latter offers business owners the chance to obtain advice on measures that they can introduce to improve their companies' energy efficiency.



## Marketing business parks and real estate

The Munich Airport Area (MAA) working group, set up by the airport's nearby municipalities of Hallbergmoos, Oberding and Marzling in association with Flughafen München GmbH, began operating in 2010. Its purpose is to systematically promote and coordinate the development and marketing of members' business parks and real-estate projects. The MAA conducts targeted marketing initiatives and attends all key national and international trade shows in order to engage with potential investors, developers and real-estate project developers and businesses.

One key selling point for the MAA is the region's access to world markets through Munich Airport. This and the close links between the business and research communities in business and technology parks near the airport are two important factors that are helping to expand and strengthen the region's role as a center of high technology.

The Munich Airport Area working group offers potential investors flexible and unbureaucratic guidance and support during and after the process of locating to the area. The MAA's target groups are organizations in sectors like air logistics, aerospace, and information and communication technology. Potential customers also include businesses in international service industries, clean technology and medical engineering.

## Regional business links

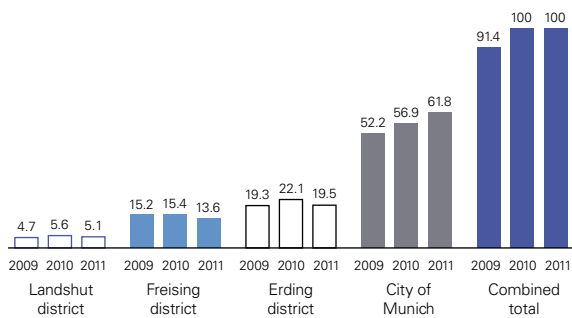
Munich Airport has purchasing and supply relationships, many of them long-standing, with a large number of companies in its surrounding region, ranging from trades, artisans and service businesses to growers of agricultural produce.

In our procedures for awarding contracts and tenders, we actively seek to include local companies in the selection process as far as possible, provided the order value is below the threshold set for EU-wide tenders. That said, companies in our region also take part in our EU-wide tenders. Based on contract value, around 32 percent of the orders placed by Flughafen Mün-

### Purchasing and supply relationships

(FMG excl. subsidiaries)

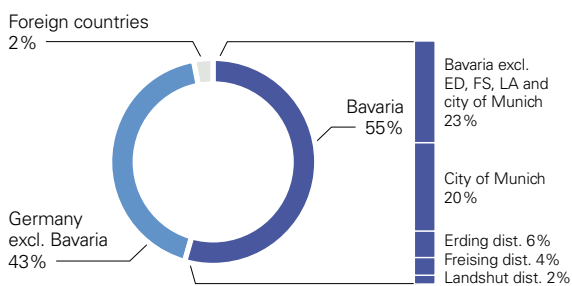
Regional spend in millions of euros



### Purchasing and supply relationships

(FMG excl. subsidiaries)

Overall and regional distribution of spend



Dist. = district

chen GmbH (excluding its subsidiaries) currently go to local businesses in the Freising, Erding and Landshut administrative districts and the city of Munich.

In 2011, our subsidiary Allresto Flughafen München Hotel und Gaststätten GmbH sourced around 90 percent of its foodstuff purchases worth a total €13.1 million in Bavaria, including around €8 million in the Erding, Freising and Landshut districts. This procurement volume encompassed the production, processing and sale of goods.

Cornerstone principles of Allresto's procurement policy are to primarily purchase and process regional and seasonal products on competitive terms (i.e., at the right quality and price), to ensure access and delivery distances are short, and to promote sustainability. This policy ensures a circular flow of income within the region's agriculture, processing industries and commerce while at the same time reducing transport emissions.

### Legal compliance in procurement

When calling for bids, we take steps to ensure compliance with national and international laws and agreements. This requirement is reaffirmed in legally binding form when we conclude contracts with suppliers. Around 93 percent of our supplier businesses are based in Germany. Of these, 59 percent are in Bavaria. Just 2 percent of our suppliers are registered businesses outside the European Union.

The structure of our supplier base ensures that EU laws apply, providing a solid safeguard against human rights violations and child labor. In the case of high-risk product groups where the likelihood of child labor is significant, we take appropriate steps to ensure that none is involved. Manufacturers of high-risk products in areas where businesses are known to use child labor are required to present certificates from independent organizations confirming that they do not.

### Evaluation of suppliers

Since 2004, Flughafen München GmbH has conducted annual evaluations of around 150 suppliers as part of its supplier management process. Suppliers are scored on such criteria as the quality of their products or work, their reliability, their quality of service and their pricing. We also verify whether these companies are certified to specific quality and environmental standards. In some instances, we conduct audits to identify possible shortcomings and encourage suppliers to remediate any flaws we find.

# Economic value

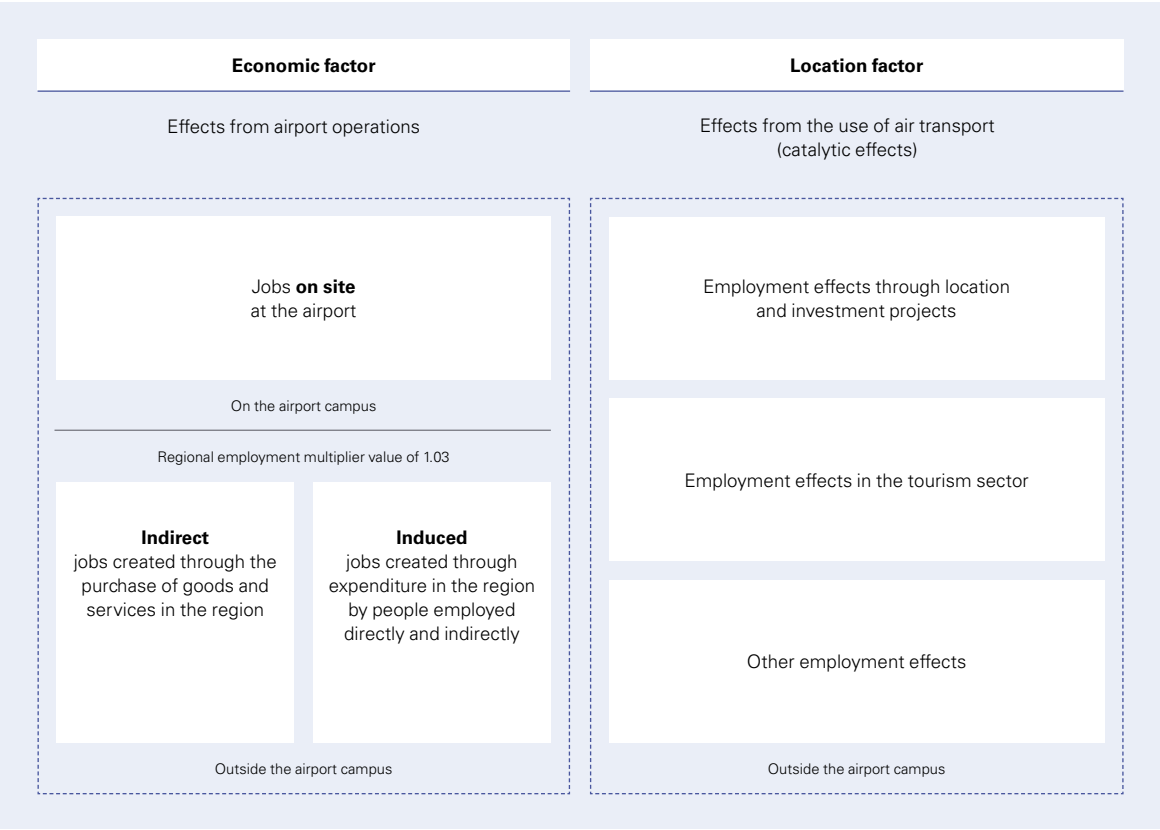
 [www.munich-airport.com/economy](http://www.munich-airport.com/economy)

## Protecting our location’s future

Munich Airport regularly receives outstanding approval scores from air travelers. Two key success factors behind these ratings are our popular appeal and our consistent and exceptional efficiency. Our airport also benefits significantly from its geographic location in the center of Europe, a factor that has become all the

more important with the expansion of the European Union. For Bavaria, Germany’s most popular tourist destination and a federal state with a highly export-driven economy, access to efficient international air transport services is exceptionally important. Moreover, millions of travelers from Bavaria use Munich Airport as a gateway to the world.

Schematic diagram of the airport’s effects on regional employment



Having an optimum choice of aviation routes and high-quality connections to places all over the world helps to sustain the region's economic strength and, by extension, the country's longer-term economic growth. By expanding our airport, we are helping to safeguard our region's future, because the success of the economy tomorrow will depend heavily on our ability to continue operating efficiently as an aviation hub.

## Economic effects

Munich Airport has an economic impact at a number of different levels. We differentiate here between the effects resulting from the operation of the airport and the effects from the use of the airport.

### 1. Effects from the operation of the airport

The direct effects include production, administrative and personnel expense, capital spending, revenue and jobs. The indirect effects are those resulting from contracts awarded by businesses at the airport to companies outside the airport – the creation of jobs, for example. Induced effects are those caused by goods and services purchased by airport workers and people not employed at the airport directly, such as value added, employment and revenue.

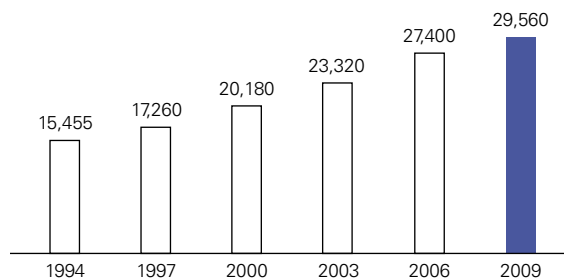
#### → Organizations' expenditures at the airport

In 2005, the organizations operating at Munich Airport spent an estimated €3.6 billion on products, services and capital goods (inputs).<sup>1</sup>

Around two-thirds of this spending was with businesses outside the airport, including €1.4 billion in the airport's surrounding area.<sup>2</sup>

In 2011, Flughafen München GmbH, excluding its subsidiaries, purchased goods and services worth €38 million in the Erding, Freising and Landshut districts and a further €62 million in the state capital, Munich.<sup>3</sup>

**Total employee population at Munich Airport**



Source: Flughafen München GmbH, workplace survey in 2009



→ [www.munich-airport.com/economy](http://www.munich-airport.com/economy)

#### → Wages and salaries paid by organizations at the airport

In 2009, the wages and salaries paid by all employers at Munich Airport totaled roughly €1.1 billion. More than €740 million were paid to employees living in the airport's surrounding area.

Rates of pay across all 29,560 airport employees, including part-time and marginally employed workers, have increased significantly in recent years. Employees who work on campus now earn €37,089 annually, on average. This figure grew by around 16 percent in the period from 2006 to 2009, or roughly 5 percent per year. These findings are based on our three-yearly workplace survey, last conducted in 2009. A new survey will be carried out during the course of 2012.

The airport's effects in terms of public budgets, too, are significant. Flughafen München GmbH alone – one of around 550 organizations at the airport – remitted more than €29 million in directly deducted payroll tax in 2011, a sum that clearly underscores the scale of the airport's economic importance.

<sup>1</sup> Ernst Basler + Partner/BulwienGesa AG (2007), Zoning Report, pp. 54–58

<sup>2</sup> The 72 local communities around the airport, including the city of Munich

<sup>3</sup> FMG procurement department, March 2012



### → Employment multiplier

The airport has an employment multiplier value of 1.03 within its local region. This means that the 30,000 jobs at the airport today are responsible for generating more than 30,000 additional jobs in the airport's surrounding area. At the national level, Munich Airport's employment multiplier is even higher, at 1.64.<sup>1</sup>

Just under 5 percent of people employed in the airport's local region work in jobs related either directly or indirectly to the operation of the airport. Excluding the state capital, Munich, this figure is significantly higher, at 16 percent.<sup>2</sup>

Forecasts indicate that the economy in the airport's local area will grow rapidly through to 2025, causing the number of jobs to rise sharply. Studies show that building the airport's third runway could create around 16,700 additional jobs.<sup>3</sup>

### 2. Effects through the utilization of air transport

The effects of major transport infrastructure facilities on national and regional economies are referred to as catalytic effects or location effects. Munich Airport acts as a catalyst, initiating and accelerating development processes within its region.

For example, the air transport services provided by Munich Airport help to reduce travel times and costs, facilitate access to global labor markets, and open up new procurement and sales markets for businesses. In the Munich region, the airport and its air transport links throughout the world help to boost productivity, investment, innovation and employment.<sup>4</sup>

Following are two examples of important catalytic effects and their impact on employment:

<sup>1</sup> Ernst Basler + Partner AG (2010), Zoning Report – Updated forecasts through to 2025, p. 21 ff.

<sup>2</sup> Ernst Basler + Partner AG (2011), Regional structural change in Munich Airport's surrounding area, p. 22

<sup>3</sup> Ernst Basler + Partner AG (2010), Zoning Report – Updated forecasts through to 2025, p. 24 ff.

<sup>4</sup> Munich Airport's catalytic effects on the national and regional economies, ECAD GmbH (European Center for Aviation Development), Darmstadt, 2008

### → Attraction of businesses to the area

For international businesses, easy access to efficient air transport services is a highly important factor in their choice of where to locate. According to a recent study by the European Center for Aviation Development (ECAD), proximity to air transport ranks fourth among the most important factors for businesses that choose to set up in the Munich region. More than half of these businesses would have picked a different location in or outside Germany if access to air transport had been inadequate. Companies engaged in international business currently secure around 250,000 jobs in the Munich region.<sup>4</sup>

### → Value creation through tourism

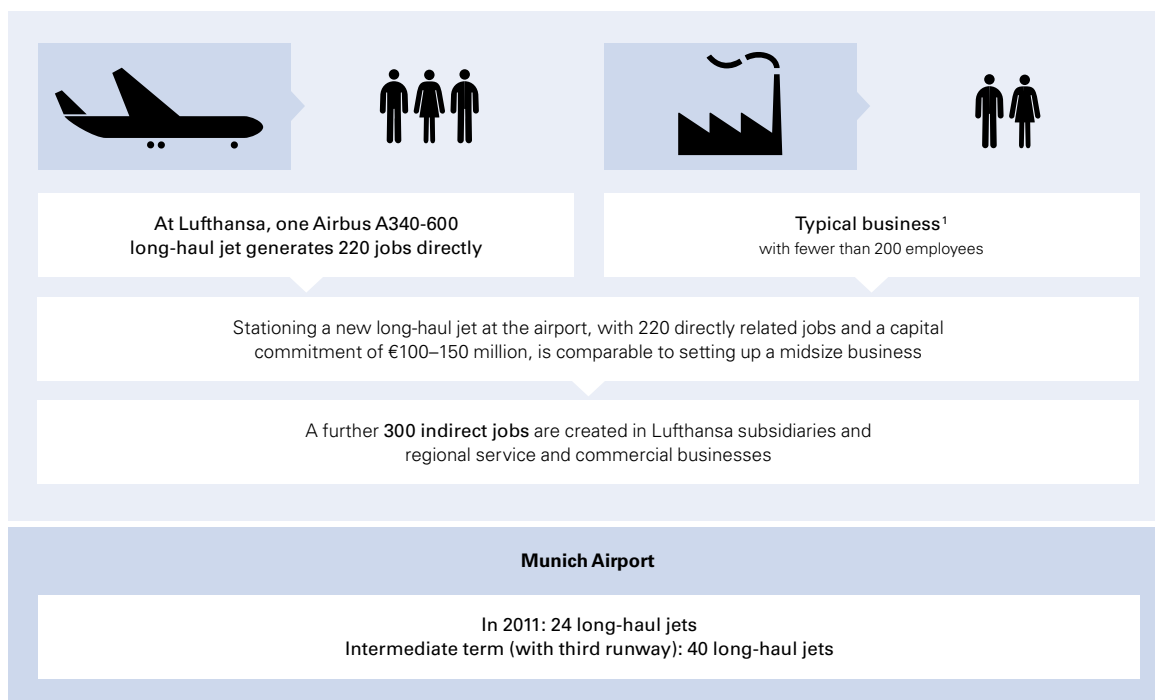
Munich Airport promotes tourism too, not just the influx of business. In 2007, for example, overnight visitors from foreign countries who traveled to the Munich region by air spent roughly €1.8 billion euros

there. Their expenditure created €978 million in value added in the Munich region, thus securing more than 44,000 jobs.<sup>4</sup>

### Contribution to employment in the region

With the wide range of employment it offers, Munich Airport makes a valuable contribution to the labor market in its home region. This is evident from the fact that, for many years now, the Freising district employment agency (which is also responsible for the Erding area) has reported some of the lowest levels of unemployment in Germany. In 2011, the jobless rate was down 0.8 percent on a year earlier, at just 2.1 percent; statistically, this represents almost full employment. In addition, large numbers of companies have chosen to locate close to the airport and are driving growth and prosperity in the region.

#### Jobs created by a single long-haul jet



<sup>1</sup> More than 99 percent of businesses in Germany have fewer than 200 employees.

# Community engagement

## Donations and sponsorships

As a responsible corporate citizen, we help our host region by providing both financial and in-kind support on a voluntary basis to around 500 projects in fields like social welfare, education, sport and culture. In 2011, we had agreements in place to support 74 sports clubs in the Erding and Freising districts. To underscore our commitment to promoting youth sport and to give clubs a solid basis on which to plan ahead, these agreements have terms of several years.

Another important area of our sponsorship work centers on supporting educational institutions – through the provision of funding to purchase books for school and community libraries, for example. Other financial support includes contributions to projects promoting the integration of migrant children, and funding for adult and youth education in community colleges. We recently signed our first donation agreement with a term of three years, with Kastulus Secondary School in Moosburg, to help with the purchase of new books and to enable the school to plan new education projects more reliably.

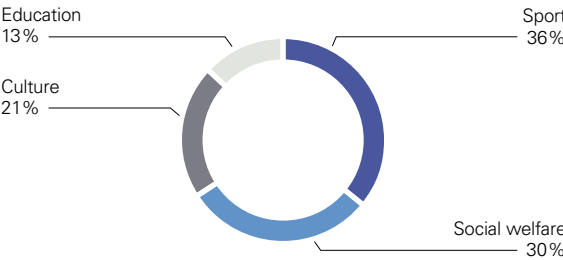
FMG currently helps to finance an intensive, full-day tuition program outside the mainstream school system for youngsters with severe educational difficulties. The program aims to advance students’ social and emotional growth, partly through outdoor education and labs, to give them the grounding they need in order to integrate better socially and, at the same time, prepare them for school-leaving exams or a vocational training course.

We also help fund a wide range of cultural activities in the region, supporting everything from professional

orchestras and theatre ensembles to music schools, school orchestras, and concerts. In 2011, for example, we again sponsored the Erding Jazz Festival.

Numerous social welfare organizations and initiatives, too, receive funding, including Lebenshilfe Freising, which supports people with disabilities, several agencies in the Erding district that distribute food to people in need, and the aid agency Caritas in Freising.

Donations and sponsorships in 2011  
Percentage of overall budget



## Donations funded with flextime credit

In early 2011, FMG’s executive management and works council agreed to roll out a new charitable giving model under which employees’ flextime credit “lost” by not being taken as time off during 2010 could be gifted to social welfare initiatives at its equivalent value. This raised a sum of €51,500, which was donated to 11 social welfare organizations in the airport region, including food distribution agencies in the Erding and Freising districts, a day center in Erding for young people and adults with learning difficulties, the women’s shelter in Erding, and the organization Lebenshilfe Freising.

→ [www.munich-airport.com/sponsoring](http://www.munich-airport.com/sponsoring)



### Voluntary work by airport employees

Many people who work at Munich Airport volunteer their time to help those in need or in difficult circumstances as a result, say, of unexpected life events or a natural disaster. Some of these airport workers are members of aid organizations; others assist people on a purely personal basis. The FMG Group actively supports initiatives of this kind, in part by making its infrastructure available to employees.

### Help in many different areas

Run by employees and friends of FMG, the organization Flughafenverein München e. V. has been raising funds for charitable and philanthropic initiatives for 15 years now. In October 2011, for instance, in the space of just 48 hours, it succeeded in collecting 40 tons of relief supplies to send to the victims of a serious earthquake in eastern Turkey.

A charity golf tournament in 2011, the fourth organized by Flughafenverein, managed to raise €11,500 for Stiftung Sehnsucht, a foundation engaged in nationwide child and youth addiction prevention programs in schools and communities.

In August 2011, Flughafenverein München e.V. joined forces with the organization Navis e.V. to help the victims of a devastating drought in northeast Kenya.

Through the initiative, they were able to supply two drinking water treatment plants and provide medical aid to the population. Navis e.V. is a privately run aid agency that specializes in disaster relief, both in Germany and abroad. Flughafen München GmbH became an official member in January 2012.

### Aid for Tanzania

A customs officer at Munich Airport is working to support the inhabitants of Kitandililo, a poor village in Tanzania. His home community of Ismaning, now twinned with Kitandililo, regularly collects relief supplies. The officer has personally accompanied them to Tanzania several times to make sure they get through to where they are needed. Flughafen München GmbH helped promote a fundraising campaign launched at the airport to benefit the village.



237

←

trainees in group companies at December 31, 2011



€308.1 million

The FMG Group has a total workforce of almost 7,000 people.



↑

in personnel expenses across the FMG Group

# Workforce and work environment

**80 Human resources strategy**

**82 Training and HR development**

**86 Diversity**

**87 Work-life balance and health protection**

**90 Remuneration and codetermination**

# Human resources strategy

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

## HR management sets new targets

With a total employee population of around 30,000, Munich Airport is the biggest employer in its region. Flughafen München GmbH and its subsidiaries and

affiliates alone employ almost 7,000 people. Together, they are the second-largest employer on campus after Deutsche Lufthansa AG, with a workforce of almost 10,000.

### HR strategy: Targets and initiatives

**Target 1**

To achieve FMG’s growth targets we need employees in sufficient numbers with the right levels of education and training.  
We will accomplish this by:

- Establishing qualitative and quantitative personnel requirements over a five-year timeframe (to enable us to determine the headcounts we need in various areas)
- Aligning vocational and professional training to our qualitative and quantitative personnel requirements
- Developing marketing and recruitment strategies

**Target 2**

We want to continuously improve our efficiency and operational performance.  
We will accomplish this by:

- Reviewing employee agreements and company agreements to identify optimization potential
- Defining measures to positively influence our workforce’s employability and their health
- Developing models that will enable us to assign employees with health limitations to productive roles in the company

**Target 3**

We want to further improve our attractiveness as an employer, both inside the organization and out, and to foster greater employee loyalty.  
We will accomplish this by:

- Building a strong employer brand for the FMG Group to position and promote our organization, internally and externally, as a great place to work
- Developing a talent-management process that encourages high potentials and high performers to identify with the company, promotes their growth and fosters company loyalty

**Target 4**

We want to establish leadership excellence within the Group and continuously improve the quality of leadership.  
We will accomplish this by:

- Creating a leadership excellence program (prioritizing excellence criteria and training)
- Introducing employee performance appraisals and upward feedback
- Introducing a compensation model for employees in key functions and reviewing compensation arrangements for tier 1 and 2 management

## ↓ Human resources strategy

→ Training and HR development

→ Diversity

→ Work-life balance and health protection

→ Remuneration and codetermination

Our business growth and performance over the longer term will rely extensively on a successful HR strategy and management approach. Our HR strategy needs to align to and reinforce Flughafen München GmbH's wider corporate strategy, and to focus on improving our current business situation. At the same time, it has to address current social megatrends – primarily, demographic change and the related issue of workforce health, but also education, individualization, regulation/deregulation and globalization.

Today, we have an HR strategy in place that reflects these requirements and establishes key HR management targets and packages of measures.

### Organizational optimization

HR has undergone partial reorganization to facilitate systematic implementation of its strategy. We have now set up a separate unit dedicated to → **personnel and management development**. This is an increasingly important field, because our ability to hire people in sufficient numbers with the right qualifications is a key requirement for the company's continued growth. Parallel to this, we are also stepping up the leadership excellence program we initiated in order to drive continuous improvement in leadership quality.

The second organizational change concerns → **health management**. We have created a special health management office, which reports directly to the head of Human Resources, to reflect the strategic emphasis we place on a healthy workforce and on current initiatives to maintain our people's personal health and employability.

### Responsible employment practices

Ninety-eight percent of the FMG Group's workforce are employed on terms defined in collective pay-scale agreements. Under these agreements, there is no differentiation between wages paid to men and to women engaged in comparable types of work.

Flughafen München GmbH is a member of the regional public employers' association and, as such, is bound by the TVöD collective pay-scale agreement for public sector employees. However, our employee benefits significantly exceed those required by law. Regular and alternating shift work, for instance, may be remunerated either financially or through time supplements; vacation entitlements, too, are more generous than those dictated by national employment legislation. In addition, ancillary company agreements are in place that enable non-scale remuneration such as the payment of travel subsidies or hardship allowances for physically challenging types of work. We have also done more in recent years to enable employees to share in the company's success.

The collective pay-scale agreement additionally includes retirement provisions, and these are covered by Bavaria's supplementary pension fund for public service employers.

Similar provisions are in place at FMG Group subsidiaries, though these are governed by separate collective agreements. To meet our airport's specific operational requirements, half of FMG employees work in shifts – in areas like the fire service, security, aircraft handling, and terminal services, for example.



→ See p. 85 and p. 153



→ See p. 89 and p. 153

## Training and HR development

### A rich career and vocational training program

As the operator of a steadily growing airport with an extensive retail and services portfolio, we can provide a wide range of jobs in challenging and interesting fields for everyone from school leavers to career starters and career advancers.

In 2011, we offered work experience placements for 140 school students and 90 undergraduates in various units throughout the organization – an initiative designed to enable young people to discover first-hand what it is like to work at our airport. We also offered bachelor's and master's dissertation topics in connection with a number of company projects.

At December 31, 2011, 237 young people were on FMG training programs, preparing for jobs in fields as diverse as mechatronics, protection and security, cooking and catering, and real estate. In September 2011, 90 school-leavers embarked on vocational and work-study programs with us, making us one of the region's biggest training providers yet again.

Alongside training for classic career tracks, the FMG Group offers a number of new and innovative vocational programs, including system gastronomy and industrial firefighting. We also operate popular university-level work-study programs in aviation management and business administration (both leading to a bachelor of arts degree), plus a bachelor of science program in business IT, which offers an interesting alternative to a classic degree program for talented school-leavers with a university entrance qualification in mathematics or the sciences.

FMG generally used to consider itself a regional employer, but this perception has now changed. Given the current demographic shift, the exceptionally low jobless rate in the Erding and Freising districts (which averaged 2.1 percent during 2011) and the attendant shortage of labor, we will need to tap into a much wider labor market, going forward. This is because we will only be able to cope with the growth projected for Munich Airport if we can expand our workforce with the right kinds of people equipped with the right skills and qualifications. This means raising our profile



- ← Human resources strategy
- ↓ **Training and HR development**
- Diversity
- Work-life balance and health protection
- Remuneration and codetermination

as an attractive employer and doing more to publicize the range of interesting jobs we offer. Hence, we again stepped up and significantly expanded our company-wide HR marketing activities for relevant target groups.

### FMG's citizenship initiatives

As a committed corporate citizen, we engage in a range of initiatives to support school and education projects in our region. The *SCHULEWIRTSCHAFT* Freising-Erding-Flughafen working group is a prominent case in point. This was set up to promote networking between local schools and businesses, and we have played an active part in it since 1997.

We are also the primary sponsor of "Berufsfest", the region's biggest careers orientation fair, hosting it for the seventh time at the airport in October 2011; we are a partner of the nationwide Girls' Day program; and we host regional rounds of the "Jugend forscht/Schüler experimentieren" youth research competition. Since 2005, we have been operating a program aimed at helping young people unable to win a place on a vocational training scheme. It offers them six months of preparatory practical training designed to build core entry-level skills, greatly increasing their chances of gaining a foothold in the primary labor market and finding a suitable career.

### The Munich Airport Academy: Training for everyone

Alongside vocational and career training, onward training for our workforce forms an important element of our HR strategy. Our training arm, the Munich Airport Academy, not only offers education programs for the FMG Group's entire employee base, it also operates as a training provider for third-party organizations. Group employees can choose from an extensive array of courses, ranging from specialist seminars in specific aviation industry fields to more general courses in areas like computing, foreign languages and personal development. Given the growing importance of HR development, the number of workshops and specially tailored, demand-based seminars (on customer ser-



vice and customer focus for workers in terminal services, for instance) increased by 20 percent in 2011.

The Airport Academy consults for other organizations, too, including several outside Germany. In 2011, for example, the Academy won contracts with five airports in Austria to develop a web-based system to deliver training courses on security. Its international client base now also includes major airports like Qatar in Oman, which hired the Academy to consult on training programs prior to commissioning new airport facilities.

### Aviation training: Ensuring safety and efficient handling

Following the merger of FMG's former Ground Handling division with the subsidiary mucground to form AeroGround, the Munich Airport Academy's aviation training unit focused largely on tasks carried out by ground handling personnel in 2011. Whereas training in the past typically centered on individual roles and duties, all of AeroGround's employees had to be brought up to the same level of knowledge on a range of handling processes and operations in a string of seminars held over the course of the year.



This involved thorough training in all ground-handling task areas, including loading and unloading aircraft, transporting passengers and crew, and handling baggage, freight and mail. There was also significant demand for basic training of recently hired ground handling personnel and for cross-qualification training that would enable employees from other parts of the organization to be assigned to aircraft and baggage handling duties if necessary.

### Extensive security training programs

All of the security personnel working at Munich Airport are trained in accordance with statutory regulations. Training curricula include courses on the special legal requirements involved in dealing with people, such as those defined in Germany's General Act on Equal Treatment.

One of the primary focuses of security training in 2011 was on preparing new aviation security staff for personnel screening and for combined personnel and goods screening duties. Seven basic training courses were held for employees working at screening points around the airport during the course of the year, compared to just four, on average, in prior years.

### Security officer training

New EU regulations came into force at the end of 2011 concerning aviation safeguards against terror attacks. These regulations require airports to introduce tougher security checks on goods entering the security-critical area of the airport. The only exceptions are goods that arrive via secure supply chains, have already been subjected to a security check by a trusted supplier, and have subsequently been protected against unauthorized access until they are transported into an airport's secure area.

Companies supplying goods destined for Munich Airport's secure area can apply to Flughafen München GmbH's security unit to be qualified as a trusted supplier. This requires that suppliers appoint one or more security officers who receive special training from airport security professionals. The qualification program is scheduled to begin in the first quarter of 2012.

### Funding for private training initiatives

If employees elect to take part in job-related onward training on their own initiative and in their free time, we can provide them with financial support. In addition, employees requiring work-related training not

available from the Munich Airport Academy may attend programs offered by third-party training providers, in which case FMG will carry the costs.

### Exchanges at many levels

Alongside the range of seminars and courses available, our vocational trainees, employees and executives can also take part in national and international exchange programs to expand their knowledge and develop their cross-cultural soft skills. Through the EU's Leonardo da Vinci education and cultural program, for instance, 21 FMG vocational trainees had the chance to spend time gaining work experience at partner airports in Vienna, Athens, Lisbon and Malta in 2011.

Through collaborative programs with five partner airports and operating companies – Denver International Airport, Central Japan International Airport, Airports of Thailand, Singapore Changi Airport und Beijing Capital International Airport Co., Ltd. – FMG staff and executives were able to take part in workshops and exchange programs to help broaden their expertise and gather ideas on how we can advance our airport.

### Developing leaders

Our leadership development program in 2011 consisted of a wide range of measures and projects, including individual coaching for management-level employees. New hires and existing employees moving into managerial posts take part in a six-month program of consulting and induction coaching, tailored individually to questions arising in connection with their new leadership role. HR development at FMG also helps select suitable, high-quality internal and external candidates for key roles and posts in lower and middle management.

As part of internal reorganization at the HR division in the first half of 2011, we appointed new personnel officers whose role is to provide managers with a single point of contact for HR issues. These officers are on hand to assist with anything from personnel planning to disciplinary issues, and to provide professional advice and support where needed.

### Leadership excellence: A high-performance culture

In mid-January 2011, we launched a new project bannered "Leadership excellence – creating a high-performance culture", for management-level employees at Flughafen München GmbH. The program centers on fostering a culture of high performance and vertical collaboration across all tiers of management.

Its aim is to develop and expand managers' mediation abilities. Executives and team leaders attended workshops and presentations that put forward a range of ideas and suggestions on how to improve collaboration within the company and on how to support and prepare the people they lead as effectively as possible for tomorrow's challenges. The first training module centered on leadership through dialogue; the second explored how to develop a culture of high performance in teams.

Given that our corporate culture is not just about imparting knowledge but also about communicating and sharing ideas, we held our first workshops on dialogue – four in all – in June 2011. These were attended by managers from different divisions and levels within the organization and offered them an opportunity to discuss various aspects of their day-to-day work.

Another project we embarked on in 2011 was to define a corporate leadership code, based in part on ideas put forward by managers attending our dialogue workshops. Their input on what constitutes good leadership at FMG was discussed with the executive board and upper management, and established the foundation for a new code describing what the company expects from its managers. The code's principles form the basis for the selection, training and assessment of leaders and serve as a valuable guide for managers in leadership situations. At the end of 2011, the project was merged into an ongoing leadership development program.

# Diversity

## Cultural diversity

In an international organization like ours, which benefits from the heterogeneity of its people and their different mindsets and cultural backgrounds, mutual acceptance and appreciation are exceptionally important.

In Germany, the Equal Treatment Act has established a legal framework designed to support and promote equality of opportunity and diversity. The Act prohibits discrimination against employees on the basis of race, ethnic background, gender, religious persuasion, ideology, disability, sexual identity or age. At FMG we ensure that our managerial employees receive special training and are fully informed about this legislation. Documents are also available on the corporate intranet to familiarize our employees with the Act's fundamental provisions.

With 1,074 foreign nationals from more than 50 different countries among our 6,864 employees in the FMG Group, living diversity is very much an established part of our corporate culture. The protection of human rights has utmost priority for us within our organization's sphere of influence; the risk of child labor is precluded by current legislation. During the review period, there were no reported complaints concerning discrimination or the infringement of human rights.

## Disabled-friendly employer

In 2011, around 500 people with severe disabilities were employed at Flughafen München GmbH – around 11.5 percent of our workforce. This means we offer far

more jobs for the disabled than the statutory quota of five percent. Under our current integration policy, we have redesigned numerous work points in the company to better suit the needs of people with disabilities. This was conducted with the support of our disabilities officers and representatives, company departments, and outside specialists like the Office of Integration, the Department of Pensions, and the Employment Agency.

For some time now, FMG has also supported a private school operated by the organization Lebenshilfe Freising for young people with disabilities. Besides one-week work experience taster programs, we currently also offer disabled youngsters two-week block internships, three times a year, plus one-day-a-week work experience opportunities. At the end of 2011, we hired the first school-leaver from this program on a full work contract – an important landmark in the integration of people with learning difficulties in the primary labor market.

## Opportunities for employees with health limitations

We have an in-house system of integration management that aims to support and assist employees who face limiting health problems and are no longer able to continue in their current area of work. Through this system, they can find suitable alternatives. Some remain employed in their own departmental units in work that matches their abilities; others are reassigned to roles in internal services – as couriers, messengers, maintenance staff and quality assessors, for example.

## Work-life balance and health protection



### An attractive, family-friendly employer

The ability to tailor working hours to different needs is important not just in helping our people to strike a good balance between work and home life, but also in ensuring our appeal as an organization to work for. Around 1,300 people in almost every area of work across the FMG Group currently benefit from flexible work arrangements; these include everything from flextime and part-time working to partial telecommuting and scheduling based on work-time preferences (a provision specifically for those engaged in shift work).

Besides attractive supplementary benefits, our employees enjoy a range of offerings designed to help them balance careers and family life and, at the same time, protect their health and wellbeing.

#### Benefits for employees

- A child daycare center ("Airport Hopser") on the → [airport campus](#), for employees' children up to three years of age
- Options for extended parental leave

- Employee hostels close to the airport
- Vacation programs for employees' children
- Social counseling and family services
- Various health promotion programs, including health and fitness courses, a company sports club, and ergonomics consulting
- Reduced-rate monthly season tickets for public transport
- An employee insurance service
- Free parking on the airport campus

### A baseline essential: Industrial safety

High standards of industrial health and safety (IHS) are firmly anchored in our corporate culture at Flughafen München GmbH and are crucial to ensuring that our people are properly protected from work-related physical injury and ill health. We pursue a rigorous course of industrial safety and take every step possible to guard against accidents and job-related illness. Our industrial health and safety team works closely with state oversight agencies and professional associations to ensure that we keep up with changing statutory regulations and implement required changes swiftly.



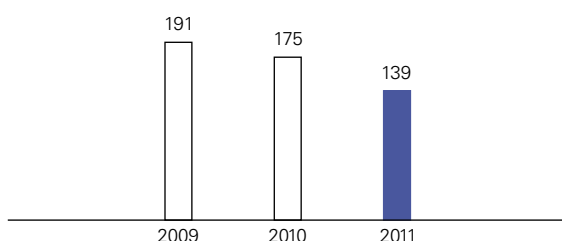
→ [Glossary](#)

### A sharp drop in the accident rate

Our accident statistics for 2011 show a steep 20.6 per cent drop in the number of reportable occupational accidents compared to a year earlier, from 175 to 139.

During the course of 2011, safety experts conducted more than 60 on-site inspections at the airport. These inspections confirmed that IHS measures were being implemented effectively and adapted correctly in line with changing operating procedures and practices.

**Reportable occupational and commuting accidents 2009–2011**



One prerequisite for providing all our company units and departments with effective support on safety issues is that FMG's executive management and works council cooperate in a spirit of mutual trust. All IHS measures, from safety-driven technical and organizational changes to the provision of personal protective equipment, have to be coordinated with the works council.

We have an industrial health and safety committee which convenes on a quarterly basis to discuss IHS issues at the airport. Besides senior executives, middle managers and safety officers from throughout the organization, its members include occupational physicians and works council representatives. This membership structure ensures that the committee represents the interests of our entire employee population.

We also have a health circle made up of members of the IHS committee, the works council and the airport's medical service. This meets monthly to discuss current health topics affecting the workforce as a whole. One initiative introduced on the advice of this body was to offer free annual flu vaccinations. Other types of inoculations, too, are available – against hepatitis and tick-borne encephalitis (TBE), for example – which are provided by the employee medical service of MediCare, an FMG associated company.

MediCare's role as our employee medical service provider extends to assessing categories of work to determine their possible health impact, advising on workstation ergonomics and health protection, and promoting general health. It also operates various prevention and screening programs, including eye tests for employees working at visual displays, and regular hearing tests for employees who work in noisy environments.

To help protect the latter group, safety experts continually update and extend the airport's noise map; they also test noise levels using personal dosimeters that measure vibrations, either on a transitory basis or over extended periods of up to eight hours. Where there is a need, they submit to the relevant company unit or department proposals on how to mitigate noise. We also place considerable importance on safeguards to protect those employees who work with hazardous substances or biological materials or who work at heights.

Our IHS initiatives additionally include delivering and documenting mandatory and statutory training and instruction programs on industrial health and safety in our divisions and other units. The breadth of training ranges from induction programs for new hires or employees switching units within the organization, to instruction on the safe operation of ground handling equipment.

← Human resources strategy  
 ← Training and HR development  
 ← Diversity  
 ↓ **Work-life balance and health protection**  
 → Remuneration and codetermination



### Company health management

One key focus of our HR policy in 2011 was on advancing our company health management, in part through the introduction of consulting on ergonomics. For example, we implemented ideas for reducing muscular and skeletal strain and advised employees on how best to set up their work points. These initiatives aim to help older members of the workforce in particular to remain in the company for longer, and are a timely response to the demographic trend toward an ageing society.

Likewise in 2011, we implemented a company agreement on integration management. This sets out to provide employees with individually tailored assistance designed to reduce health risks and guard against becoming unfit for work, and to help employees who have spent a long period of time off work to reintegrate. Integration management is now part of our wider company health management system.

As of 2011, employees working for the airport fire service fall under a new collective agreement reached jointly with the “komba” and “ver.di” labor unions. Besides pay scales and working hours, the agreement covers improved old age provisions and the option of entering phased retirement from the age of 60. In addition, we introduced a new program for improving and maintaining firefighters’ ability to work, which includes an hour’s sport every working day.

Our health management system’s supervisors were also busy in 2011 implementing so-called Regulation 2 issued by Deutsche Gesetzliche Unfallversicherung (DGUV), a state accident insurance carrier. Regulation 2 came into force for worker compensation associations and public accident insurers on January 1, 2011, and provides uniform guidance on how Germany’s Industrial Safety Act is to be interpreted. The regulation not only describes areas of required expertise but also company medical and technical safety provisions and support models. We plan to introduce a new company agreement in 2012 that implements DGUV Regulation 2.

## Remuneration and codetermination

### Personnel costs and social benefits

Our employees are remunerated according to their qualifications and their performance. In 2011, the average salary of a Flughafen München GmbH employee was €41,868 – significantly more than the nationwide average in the transport and logistics industry. This figure includes all pay-scale and managerial employees, as well as part-time and marginally employed staff.

The FMG Group's overall HR expense in 2011 totaled €308.1 million, of which Flughafen München GmbH accounted for €212.9 million. The latter figure comprises €168.5 million in wages, salaries, and travel and meal subsidies, plus €44.4 million in social security levies and retirement and support provisions.

In addition to their monthly wages and salaries, all Flughafen München GmbH employees – full and part-time – receive pay-scale and non-pay-scale supplementary benefits, such as annual bonuses, a profit share, a company pension, and subsidies for meals and travel.

### A culture of codetermination

Under the provisions of the Works Constitution Act, a German law governing industrial relations in corporations, Flughafen München GmbH's workforce enjoys a variety of codetermination rights.

The works council currently comprises 27 members and is re-elected every four years. Its task is to represent the interests of FMG employees and to oversee the fulfillment of collective pay-scale agreements, statutory regulations and requirements, and internal company agreements. The latter include agreements covering corporate health management, addiction pre-

vention, the integration of people with disabilities (or equivalent status), corporate integration management, and a variety of working time models. The company is required to notify the works council in detail and in good time about any intended structural changes so as to enable optimum solutions to be found, both for the company and for employees.

### A voice for trainees

The company has a youth and trainee council whose role is to represent the interests of young people and vocational trainees. Executive management is required to involve the council in connection with any issues pertaining to young employees and trainees. The council is represented on the works council, where it has a veto right on youth issues to allow decisions to be deferred pending further discussion. It is re-elected once every two years and currently comprises seven members. Employees aged 25 years and under can stand for election, and anyone currently in vocational training is entitled to vote.

### Opportunities for involvement

At FMG, we encourage our people not just to take on a role in statutory and company bodies like the works council, the supervisory board, the youth and trainee council, the council for employees with disabilities, and the industrial health and safety council, but also to actively support other bodies and initiatives.

There is plenty of scope for involvement – in everything from our careers and family project, the women's working group at FMG and the company sports club to the company health management working group, the company's ideas management working group and volunteering initiatives like Flughafenverein München e.V.

- ← Human resources strategy
- ← Training and HR development
- ← Diversity
- ← Work-life balance and health protection
- ↓ Remuneration and codetermination



## Protecting jobs

To comply with a 1996 EU directive requiring that third-party ground services providers be allowed to operate at airports in the European Union, we had to admit a competing operator to Munich Airport. Because this operator paid its employees lower wages and was thus able to charge lower rates than Flughafen München GmbH for ground handling services, we faced the risk of having to shed jobs in this sector at some time in the future.

Our first step to counter this risk was to form a new FMG subsidiary, MUC Ground Services (MGS). However, to secure the renewal of ground handling contracts with carriers – including Lufthansa, our biggest customer – management had to ask the workforce to make sacrifices on more than one occasion in recent years, both in terms of pay and the way their work was organized. In July 2011, AeroGround, a wholly owned FMG subsidiary, began providing ground handling services at Munich Airport. This company employs former FMG workers (under the same contracts) and former MGS workers.

Working closely with the labor unions and the works council, we have managed to find solutions that will enable us to secure jobs in this segment at least until 2016. These solutions include collective labor agreements, special working time arrangements aimed at easing the burden on employees, and greater use of part-time workers to support the core workforce at peak times. All this has enabled the FMG Group to protect jobs in ground handling while continuing to offer airlines and their passengers a reliable service.

Now, though, parts of the European Commission and a small number of airlines are calling for the market to be opened up still further. This is something that FMG, its works council, and policymakers in Berlin and Brussels all firmly reject. An additional ground handling operator at Munich Airport would make it impossible for AeroGround to break even, a situation that would clearly have negative consequences for the workforce and for job security.



of the heating energy we need at Munich Airport is generated on site.



Our goal is to achieve carbon-neutral growth by 2020.



in carbon emissions since 2010

# Environmental and climate protection

**94 Climate strategy**

**102 Resource stewardship**

**105 Noise control**

**108 Biodiversity**

# Climate strategy



→ See p. 37 f. and p. 108

## Action at multiple levels

Climate change involves everyone, and at Munich Airport we are keenly aware of our responsibility when it comes to reducing our climate footprint. This is why we engage in a comprehensive array of initiatives to mitigate and offset our climate impacts.



→ Glossary

Members of the → [German Airports Association](#) (ADV) have defined an extensive climate strategy that systematically charts a way forward for Germany's commercial airports. Intended to complement the four-pillar approach originally adopted by the aviation industry in Germany in 2007, the ADV's climate strategy involves carefully logging → [emissions](#) and taking concrete action to bring about their reduction. The former four-pillar approach set out to minimize aviation's environmental impacts through new technologies, efficient infrastructure, optimized operations and economic instruments, while at the same time enabling the industry to grow and remain competitive.



→ Glossary

In July 2008, the European Parliament proposed a cap on aircraft carbon dioxide emissions, setting as the upper limit the mean → [CO<sub>2</sub> emissions](#) generated by air transport between 2004 and 2006. From 2012, airlines' emissions must not exceed 97 percent of this guideline figure, and 95 percent from 2013.



→ Glossary



→ [www.munich-airport.com/climate-protection](http://www.munich-airport.com/climate-protection)

## Our contribution to climate protection

Our scope for exerting a positive influence on climate change may be limited, but we explore every possible avenue to bring down emissions as far as we can. Part of our strategy is to manage our airport's operations and development in such a way that we contain and control our impacts on the environment effectively and do more than merely comply with statutory requirements and environmental regulations.



→ Glossary

Preserving resources, saving energy and reducing carbon emissions are three core targets when we plan our buildings, a policy evidenced by the → [satellite](#)



→ See p. 41

we are constructing for Terminal 2. We use the latest energy provisioning technology available, we systematically exploit potential savings through smart energy-management solutions, and we take steps to promote employee awareness of the importance of using energy sustainably. We also protect the land and preserve natural diversity by working closely with the nature conservation authorities to plan suitable → [compensatory mitigation measures](#).

One of our most ambitious targets is to achieve carbon-neutral growth by 2020. Essentially, this means keeping the carbon emissions that we as an organization can directly control to a level of around 160,000 tons a year (the volume in 2005, our baseline year), in spite of our expansion plans and our projected traffic growth. Without systematic efforts to control our carbon footprint, our emissions would likely increase by between 50,000 and 80,000 tons by 2020.

To hit our target, we launched a group-wide carbon reduction program in 2009. It has four main thrusts: sustainable energy provisioning, efficient use of energy, awareness-raising among our workforce, and sustainable building. You can find additional information on our climate initiatives on the → [Internet](#).

## Systematic CO<sub>2</sub> monitoring and footprint analysis

A key element in carbon management is our carbon database, developed in-house at FMG, which provides us with a reporting, control and tracking tool for all our activities relating to carbon reduction and energy efficiency. We first published details of our carbon footprint in 2008. This was prepared in line with the internationally acknowledged → [Greenhouse Gas Protocol](#) (GHG Protocol), which groups emissions by sources into three so-called scopes.

Scope 1 consists of direct emissions caused by our own energy production; scope 2 covers indirect

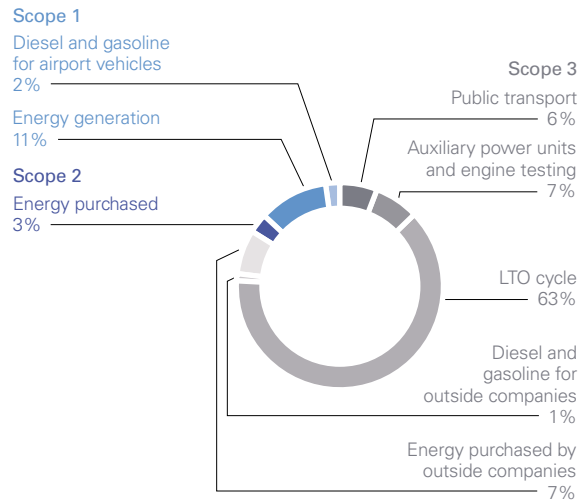
- ↓ **Climate strategy**
- Resource stewardship
  - Noise control
  - Biodiversity

emissions caused by energy purchased to meet our own requirements; and scope 3 emissions are those caused by third parties like the airlines and public transport operators serving our airport. Since 2008, our efforts to reduce our footprint have included measures like emissions-based landing charges that are designed to encourage organizations at the airport to follow our lead.

Our analysis of all airport-related pollutant emissions includes aircraft handling operations on the ground, the utilization of our infrastructure, and even landside modes of transport used by passengers, visitors and the workforce traveling to and from the airport. Emissions produced by aircraft are the responsibility of the airlines that operate them. The system boundary that determines which aviation emissions count toward the airport's own footprint are defined by the → **landing and takeoff (LTO) cycle**. In effect, this means we

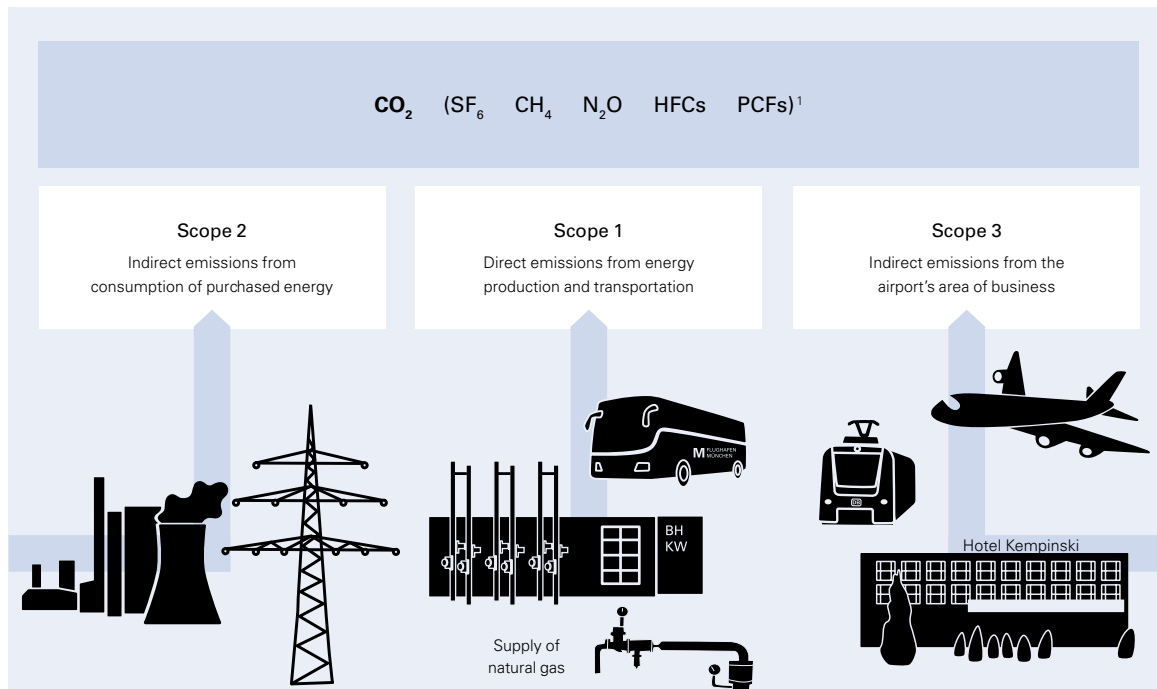
include in our calculations all emissions caused by planes at altitudes of less than 3,000 feet (914 meters) within the area of our airport.

#### Munich Airport's carbon footprint in 2011



→ Glossary

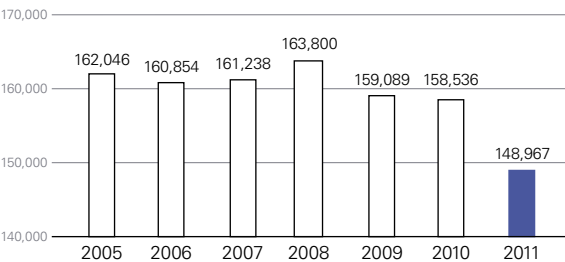
#### Greenhouse gas emissions at Munich Airport



<sup>1</sup> Carbon equivalent

Carbon emissions at Munich Airport

Tons per year (scopes 1, 2 and 3, excl. LTO cycle, APUs and public transport)



have control – that is, our scope 1, 2 and 3 emissions, excluding the LTO cycle, APUs and public transport – for the third straight year. By cutting our carbon emissions again, this time by 9,600 metric tons year on year, we have not just demonstrated that our efforts are paying off, we are also an important step closer to achieving our wider objective of carbon-neutral growth by 2020.

In light of this success, we now want to do more to share our knowledge and experience with other organizations at the airport and help them to improve their carbon performance, going forward.

Successful recertification of our EMS

In 2011, we succeeded for the third time in succession in gaining accreditation for our environmental management system (EMS) under the rigorous standards of Europe’s → [Eco-Management and Audit Scheme](#) and the global ISO EN DIN 14001 standard. The certification review was conducted by independent environmental auditors. We use our EMS to gather and analyze environmental data on things like energy and resource consumption. This gives us a basis on which to define and deliver wide-ranging measures intended to further reduce our environmental impacts and continuously improve our overall environmental performance. Details of the environmental data we collect and the measures we deploy are published in environmental statements. Our subsidiary Allresto and the Kempinski Hotel Airport München now also conduct environmental audits and, since 2008, have both been certified to the above standards. FMG subsidiaries aerogate and Cargogate are also due to roll out validated environmental management systems in the near future.

The recertification process at FMG and interim audits at participating subsidiaries in 2011 identified no instances of non-compliance with statutory environmental regulations.

A significant drop in carbon emissions

Although around 38 million passengers used Munich Airport’s infrastructure in 2011, we managed to significantly reduce the carbon output from all the plants, installations, buildings and vehicles over which we

Analysis of airport buildings

Through our carbon management initiatives in recent years, we have identified a range of measures to cut carbon and boost efficiency – measures that, to date, have delivered around 16,000 tons of carbon savings at Munich Airport. However, to offset future increases in carbon emissions caused by our projected growth, we need to do more. This is why we launched a new program in 2011 to systematically survey and reassess existing buildings with a high energy footprint in an effort to identify additional potential savings. We began with Terminal 1, our cargo building, our former air mail processing center, and Lufthansa’s Flight Operation Center.

The survey centered primarily on power consumption, the main cause of carbon emissions. Our initial findings indicate that a target of reducing consumption by another 5–10 percent on top of the savings already achieved in recent years is realistic. Analyses have shown that the greatest savings are likely to be achieved through changes to lighting systems (up to 80 percent) and to material handling systems (as much as 55 percent).

In 2011, we completed our retrofit of LED lighting in parking garage P20, an initiative that will cut power requirements by 39 percent and deliver total carbon savings of 860 tons a year. We also modernized the elevators in P20, equipping them with regenerative feedback units that convert braking energy into electric power and feed it back into the grid. This, too, will reduce our annual carbon output by a further 150 tons.

[i](#)  
→ Glossary

- ↓ Climate strategy
- Resource stewardship
- Noise control
- Biodiversity

In another initiative, we have started replacing the v-belts in the heating, ventilation and air-conditioning systems' electric drives with more efficient flat belts. This could save as much as 500 tons of carbon emissions a year.

### More transparency through meter management

We are also in the process of overhauling the airport's meter management system. Extensive technical changes to meter-reading, including the addition of more → **smart meters** to permit remote readouts, will help us to record power transmissions and consumption more transparently in the future. At the same time, we are optimizing our meter management processes.

This will make it easier for us to identify potential savings and to carefully monitor and safeguard those savings already achieved. Meter management is becoming one of the most important factors in our efforts to manage energy and carbon effectively at Munich Airport.

### Renewed accreditation for our carbon reduction

For the second time now, our efforts to manage and reduce carbon emissions at Munich Airport have been officially certified under the highly regarded Airport Carbon Accreditation program operated by the Airports Council International, earning us a new certificate in March 2011 for our performance in 2010.

There are four different levels in the Airport Carbon Accreditation program, and Munich Airport again received level 3 accreditation. This is awarded to airports that are in the optimization phase, defined as being in the process of taking effective steps to achieve a lasting reduction in emissions and to involve other organizations on site in their initiatives. Level 1 certification is given to airports that are mapping and measuring carbon emissions, and level 2 to those managing carbon to reduce their footprint. Level 3+ certificates are awarded to those that can show they are carbon-neutral. Airport Carbon Accreditation is a voluntary program in which all commercial airports in Europe can elect to take part.



→ Glossary



→ [www.airportcarbonaccreditation.org](http://www.airportcarbonaccreditation.org)



Together, the 56 airports that have signed up to the program to reduce their carbon footprints handle around 52 percent of Europe’s passenger traffic. Their combined efforts currently cut carbon emissions by 730,000 tons a year.

### Air pollutants at prior year levels

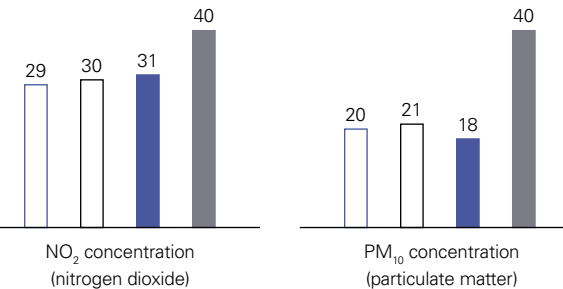
A federal government ordinance<sup>1</sup> from August 2010 imposes increasingly strict statutory limits on nitrogen dioxide (NO<sub>2</sub>) levels. The limit is currently set at 40 micrograms per cubic meter of air, averaged out over the year.

In 2011, levels of nitrogen dioxide and → **particulate matter** at Munich Airport were largely in the low-to-moderate range and broadly the same as in prior years. The mean level of nitrogen dioxide recorded at our main measuring station to the east of the airport over the course of the year was 31 micrograms per cubic meter, close to the levels of 29–30 micrograms measured between 2007 and 2010.

#### Pollutant levels recorded at the main measuring station

Annual mean levels in µg/m<sup>3</sup>

□ 2009 □ 2010 ■ 2011 ■ Limit



Our second measuring station, which is on the airport’s west side and, like our main station, extremely close to the airport, measured levels averaging 28 micrograms per cubic meter, compared to 27–28 micrograms per cubic meter from 2007 to 2010. Although the traffic volume at Munich Airport increased again in 2011, the levels recorded are roughly the same as in previous years.

Nitrogen dioxide levels at the airport are similar to those measured in German towns like Ingolstadt, Bamberg or Würzburg. Levels in rural towns are typically lower, whereas levels in downtown Munich are significantly higher than at the airport. The readings from both measuring stations are retrieved automatically every day over a remote data link and are published in monthly → **noise and emissions reports** on the Internet.

The mean annual level of particulate matter (PM<sub>10</sub>) measured during 2011 was 18 micrograms per cubic meter. In comparison, mean levels between 2007 and 2010 ranged from 18 to 21 micrograms per cubic meter. Levels of other pollutants caused by airport operations and aviation are generally very low. We also monitor these substances and publish the recorded levels in our monthly noise and emissions reports.

### Honey monitoring shows no impact on quality

Since 2008, Flughafen München GmbH has been testing for pollutants in honey produced by bee colonies sited at the perimeter fence and along arrival and departure routes. We check the airport colonies’ honey for traces of substances like heavy metals and polycyclic aromatic hydrocarbons (PAHs) that could be caused by air traffic. We additionally test pollen and wax samples – the latter because fat-soluble PAHs could accumulate in wax without actually occurring in measurable quantities in the honey. In 2011, the monitoring program confirmed prior years’ findings, which showed that the heavy metals and PAHs in the honey, wax and pollen were well below guideline levels and limits. This indicates that airport operations are not impacting on the quality of the honey.

### Biomass-powered heating

Munich Airport covers around 75 percent of its annual heating energy requirements through its own highly efficient on-site trigeneration plant that combines cooling, heating and power generation in a single facility. Barring a minimal amount of energy supplied by peak boilers, the airport meets the remainder of its heating needs by purchasing district heat, supplied by a local utility company in Freising via a pipeline.

<sup>1</sup>Thirty-ninth Ordinance on the Implementation of the Federal Pollution Control Act (Ordinance on Air Quality Standards and Emissions Limits), Section 3, dated August 2, 2010

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→ Our noise and emissions reports are available here:  
www.munich-airport.com/impacts

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→ You can find out more about air quality here:  
www.munich-airport.com/air

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→ www.munich-airport.com/environmental-research

- ↓ Climate strategy
- Resource stewardship
- Noise control
- Biodiversity

Since early 2011, 50 percent of our district heat (roughly 15 GWh) is generated by a new → **biomass** fired cogeneration plant in the town of Zolling. The heat generated from biomass causes no carbon emissions, reducing our footprint for purchased heating energy by almost 3,500 tons. We have secured a long-term supply option to ensure that we can continue to use energy from this source for the next few years.

The combination of district heat generated from biomass and our own trigeneration solution means that the airport has an exceptionally efficient and climate-friendly energy supply.

### A new energy strategy for 2030

Rising passenger numbers, plans to expand the airport, and our target of carbon-neutral growth will require that we extend our energy supply system in the near future. We therefore began in June 2010 to define a new energy supply strategy for the year 2030. This strategy builds on a forecast of the energy we will need for electric power, heating and cooling, and we are currently analyzing and classifying our current buildings to extrapolate the data we need for planning.

One way in which we can achieve greater energy efficiency is through new builds with 30–40 percent lower energy consumption than our current buildings. We can also introduce energy savings of more than 10 percent in our current facilities.



As part of our 2030 energy strategy, we have prepared a projection of our energy requirements in 2025. This is based on figures from 2007, which are included here in parentheses.



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#### Energy requirements in 2025

	Energy p.a.	Power
Electric power	316 GWh (227)	54 MW (34)
Heating	185 GWh (129)	66 MW (59)
Cooling	53 GWh (38)	35 MW (25)

We are in the process of assessing various ways to cover these energy requirements. Besides the option of purchasing all our energy from outside utilities (this is our comparison baseline), we are exploring and analyzing in detail the technical feasibility, costs and carbon emissions of various cogeneration options as well as more extensive use of renewables.

For the time being at least, it looks as if we could achieve the best outcome by expanding our on-site generating capacity on a modular basis to a level of 32 megawatts electric (MWe) by means of combined cooling, heat and power generation using internal combustion engines.

### Focus on sustainable building

At Flughafen München GmbH, we are committed to sustainable construction, which is why the company is a member of the German Sustainable Building Council (DGNB). To underscore this commitment still further, we have now trained a number of FMG employees as DGNB auditors and energy consultants, and in July 2011 hosted a sustainability fair over several days at which we demonstrated how we put the principles of sustainable building into practice.

Also in 2011, we published a manual on energy design and sustainable building, prepared by our Planning and Construction division, which maps out the planning and coordination processes in construction projects and sets the regulations and specifications for building projects.

Training courses are provided to all employees working in this field to ensure that processes and guidelines in the manual are implemented correctly in our construction projects.



Through the rules and guidance in this manual, we aim to achieve reductions in carbon emissions in new builds by up to 40 percent compared to current buildings on campus. We are also following the procedures for sustainable building described in the manual in all of the buildings we operate jointly with Deutsche Lufthansa at Munich Airport.

One key focus in sustainable building is on life cycle assessments. The benefit of LCAs is that they show how higher initial investment during the creation of a building can be offset in the longer term by lower follow-up expenses in the form of running costs.

Our second freight-forwarder facility was commissioned to the specifications in our own building manual and the German Sustainable Building Council's standards. A pre-check conducted to verify compliance with the sustainability targets set under the DGNB certification system showed that the facility, if built as planned, would qualify for → **silver** standard certification.

In 2010, we launched an architectural competition to design a children's daycare center for Munich Airport. A core requirement for the designs submitted was that they should conform to sustainable construction principles. The plans based on the winning design have now been optimized for cost and, according to a pre-check, the building could achieve bronze or silver certification.

Our control point for persons and goods in Hangar 3 is another example of sustainable building practices at work. It is the first structure on campus with a heat pump system for exploiting geothermal energy, and during the last winter it withstood its first real test with ease.

### Information events: Raising sustainability awareness

Combating climate change is a challenge that calls for concerted action, because our ability to lessen our environmental impacts as an organization depends crucially on the buy-in of our workforce.



→ [www.dgnb.de](http://www.dgnb.de)

↓ **Climate strategy**  
 → Resource stewardship  
 → Noise control  
 → Biodiversity

To boost awareness among our workforce, we introduced a multistage sustainability education program in 2009: Twenty-one employees from various units within the Group were trained as trainers and in 2010 and 2011 held courses and information events on sustainability in their own companies and departments. By the end of 2011, 1,774 employees had attended the training program.

At a number of information events centering on the environment, carbon reduction and resource conservation in 2011, we presented audiences with a range of general facts and figures on climate change and explored how it applies specifically to our organization and divisions. Our primary goal was to show ways in which individuals can make a difference by reducing the resources they consume in their day-to-day work. We also continued to solicit and pool ideas that can help us cut our carbon footprint, and we have an in-house suggestions scheme in place which rewards employees for the ideas they put forward.

### Green IT: A raft of highly effective measures

The 2,500 or more desktop computers with monitors in operation at Munich Airport, along with scores of servers, notebook PCs and printers, a number of data centers, and a host of other equipment, including several thousand displays and information systems and 2,000 surveillance cameras, consume copious quantities of power. To keep power consumption in check, FMG's Information Technology division engages in a wide range of measures aimed at boosting efficiency and delivering valuable energy savings.

One focus of our efforts is on server systems, and we are gradually replacing physical servers with → **virtual servers**. In 2011 alone, we virtualized 80 servers, migrating them from multiple hardware units to one major server device with the same net performance – a move that is saving power and reducing costs. We

now operate just two big servers running multiple virtual machines, effectively saving around 300 watts of power for each system virtualized. Because servers are always on, 24 hours a day, virtualization is saving around 204,984 kilowatt hours of power and avoiding 123 tons of carbon emissions a year.

Storage systems in data centers have now reached a huge scale, not least because data security is crucial and relies on highly complex storage solutions. By switching to the most recent generation of storage systems, we have been able to cut our power requirements at each of our data centers by 4.5 kilowatts to create an overall annual saving of 78,840 kilowatt hours and 47 tons of carbon.

Bringing down the energy consumed by data center hardware also has an additional benefit: The centers are air-conditioned, and the more we reduce the power draw and the amount of waste heat, the less energy is required to cool them. We are also modifying the structural design of our data centers to optimize cooling efficiency.

We use surveillance cameras to help secure the airport, and these have now risen in number to 2,000. Even so, we have managed to reduce their power consumption by replacing older systems with a highly advanced, fully digital, networked system. Compared to its predecessor, the new system saves several dozen tons of carbon emissions.

Upgrading information displays in Terminal 1 modules B through E with slightly smaller but fully graphical panels is saving us around 9,000 kilowatt hours of power and avoiding more than five tons of carbon emissions a year. Our IT division is currently also working on a solution that will allow display systems to be partially shut down during off-peak hours, which will help to curb our power requirements even further.



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# Resource stewardship

## Outstanding water quality

Munich Airport sources its potable water from Moosrain water utility company, which extracts it from six bore holes at depths of between 94 and 160 meters. The bore holes are located in source water protection areas at Obere Point and Oberdingermoos in the Oberding municipality. The water is subject to strict monitoring and controls, and is of the highest quality. At present we do not use any rainwater as service water in our facilities.

## Protecting drinking water resources

Until recently, our trigeneration plant at Munich Airport needed around 170,000 cubic meters of potable water a year to cool its chillers and generator sets. Because this water is extracted from tertiary strata and is a valuable and scarce commodity, the local water authorities have stipulated that water used for closed-circuit cooling must now be drawn from quaternary strata closer to the surface. To comply with this requirement we in 2010 drilled a bore hole close to the airport's energy center from which we now extract quaternary groundwater to supply the energy center. Since this solution was implemented, the center has not used any potable water for cooling.

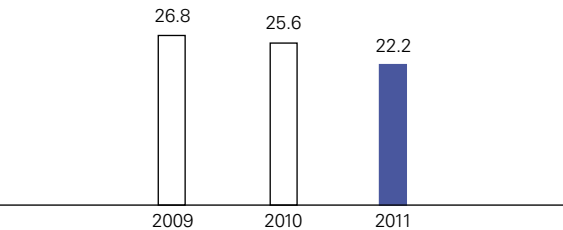
## Analysis of rainwater

We check the quality of rainwater at Munich Airport by testing 13 individual and aggregate parameters. There are no binding guidelines as such when it comes to assessing rainwater quality. However, because rainwater drains into the ground and because drinking water is often extracted from the groundwater, we take Germany's most recent Drinking Water Ordinance as a guide. In 2011, rainwater tests at Munich Airport showed that, with the exception of a few pH values that were too low, all of the parameters were within the limits set by the Ordinance.

## Wastewater treatment

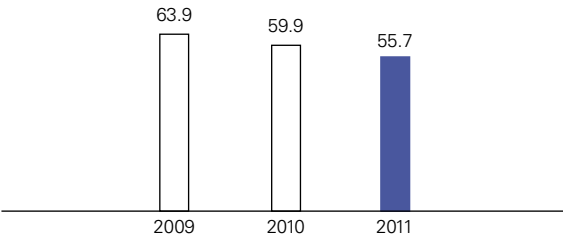
Aircraft need to be washed at regular intervals. This is not just for safety reasons, but also because dirt accumulating on the skin causes drag and increases fuel consumption. The wastewater from aircraft washing contains detergent residue, oil, kerosene and heavy metals. The water is fed from our three maintenance hangars through a network of pipes to our own wash-water treatment plant. Once cleaned and processed, the water is tested for quality, given a final check and then fed into the sewage system. We test the water regularly to ensure that the residual pollutant levels are within the statutory limits defined for wastewater.

**Total fresh water consumption<sup>1</sup>**  
Liters per workload unit



<sup>1</sup> Includes all companies on campus

**Total wastewater discharge<sup>1,2</sup>**  
Liters per workload unit



<sup>2</sup> Wastewater discharged to treatment facility comprises domestic wastewater, deicing water and rainwater.



All of the airport's wastewater, including meltwater containing deicing agent that drains off our runways and aprons in winter, is treated at a processing facility in nearby Eitting, operated by the local Erdinger Moos sewage company and specially expanded with the airport's support. Rainwater runoff from runways in the summer is relatively clean and can be allowed to drain laterally off paved areas; some goes into the live topsoil, and some flows via depressions in the terrain into drainage ditches.

### Deicer recycling

At Munich Airport, most aircraft → **deicing** is carried out by mobile deicing units at specially designated areas close to the runway heads. These areas are equipped with a system to trap wastewater from deicing operations and channel it into underground storage tanks. There the water is cleaned mechanically and chemically, then distilled and turned back into deicing fluid by means of additives. This process of recycling enabled us to treat and reuse 65 percent of the deicing fluid used during the 2010–2011 winter.

### Waste avoidance, recycling and disposal

The primary goal of waste management is to avoid generating waste. Under our in-house procurement guidelines, products that we as an organization purchase must satisfy environmental as well as economic requirements, and should be as eco-friendly as possible, with a long service life.

Waste reduction and recycling, too, are important, alongside waste avoidance. Only waste that cannot be recycled or processed for energy recovery is sent for permanent, environmentally compatible disposal.

A basic requirement in recycling is to strictly separate recoverable fractions from waste. To accomplish this, we have six waste collection points on campus where specially trained staff extract and sort the various materials and have them collected for processing by certified waste transport and disposal operators. We also optimize waste logistics – by maximizing container loads and keeping transport distances as short as we can so as to avoid harmful emissions like CO<sub>2</sub>.



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In our office buildings, we introduced four-segment waste bins in 2008 to encourage staff to separate paper, mixed recoverables, organic waste and residual waste at source and thus help streamline the recycling process.

Under EU regulations<sup>1</sup>, food waste from aircraft serving international destinations is classed as category 1 high-risk material, even when combined with other waste collected during cabin cleaning, and may only be disposed of in registered waste incineration plants. Following a decision by a local Erding-based organization specializing in animal carcass disposal, we put out a new tender for mixed-waste incineration services, and in January 2011 a specialist waste operator was contracted to organize and carry out the disposal process. Food waste is incinerated in Munich's thermal power plant, an accredited disposal facility.

### Hazmat controls and training

At Munich Airport, our operations involve a number of materials that are potentially harmful to the environment and water supplies and so have to be moved off site. These materials must be marked as hazardous during transportation. We as a company are subject

to the same regulations as other organizations involved in transporting hazardous goods by rail, road or air and are thus required by law to have at least one hazardous materials supervisor. Flughafen München GmbH appointed its first hazmat officer in 2007; however, from June 15, 2011, we outsourced this role to the company DEKRA Automobil GmbH, as permitted under the provisions of Sections 1–8 of Germany's Hazardous Materials Officer Ordinance. During the course of 2011, 144 metric tons of waste classed as hazardous material were transported from the airport for disposal, compared to around 156 tons in 2010.

As in prior years, we conducted spot checks in 2011 on the vehicles used to transport hazardous substances to ensure that they were up to code. We identified none that were unroadworthy or not fully operational. We also provided employees with regular training on handling hazardous substances in accordance with statutory requirements.

In 2011, no penalties or fines were issued on account of improper handling of hazardous materials, nor were there any accidents involving hazardous substances, such as oil, fuel or chemicals.

<sup>1</sup> Regulation (EC) 1069/2009, October 21, 2009 (Official Journal of the European Union L 300)

# Noise control

## Significant reduction in noise levels

Since the advent of jet engines in commercial aviation more than 40 years ago, aircraft noise levels during takeoff and landing operations have been cut by almost 90 percent, thanks largely to low-emission engine technology and improved aerodynamics. Aircraft types undergo noise certification based on a set of rules issued by the → [International Civil Aviation Organization](#) (ICAO). These rules are applied by aviation authorities issuing traffic permits and → [type certificates](#) to new aircraft and require that planes have a valid noise certificate.

The most recent and stringent noise limits for jet and propeller aircraft were set in September 2001. All aircraft type-certified after January 1, 2006, are required to comply with these limits. This requirement and the ban imposed on noisy aircraft in Europe in 2002 have led to a significant improvement in the aviation noise situation.

## A joint aim: Further reductions in aircraft noise

The Commission on Aviation Noise and Air Pollution at Munich Airport is a body formed to promote a continued reduction in aircraft noise. The Commission is made up of representatives of the airport, air traffic control operator Deutsche Flugsicherung GmbH (DFS), the airlines, the local region and government offices, and meets at regular intervals. Parallel to these meetings, members are also in constant contact on aviation noise issues. The members of the Commission have various means of managing noise – DFS through careful planning of arrival and departure procedures, the airlines through efforts to reduce fleets' noise emissions (be it for economic or environmental reasons), and Flughafen München GmbH through the implementation of statutory regulations and requirements concerning aviation noise, among other things.

## Active noise mitigation

To reduce the impact of aviation noise on the airport's neighboring communities, FMG is committed to doing more than just fulfill statutory regulations to improve the noise situation. We are currently discussing and reviewing a number of active anti-noise measures – such as noise avoidance and reduction at source and redistribution of noise – which could help diminish noise impacts, even in instances where the de facto benefits might only be small. These measures include optimizing aircraft departure procedures (by introducing steeper climb-outs), making greater use of the → [Continuous Descent Approach](#) method, which is quieter than conventional landing approaches, and changing the approach slope angle so that planes are at higher altitudes when they fly over the airport's wider surrounding area. Other options are to alter air routes to ease the noise burden on individual locations and settlements, optimize runway use to limit noise impacts, especially at night, promote advancements in aircraft engine design, and retrofit aircraft fleets.

All of these potential measures, which require careful consideration by Flughafen München GmbH, air traffic control and the noise commission, only make sense if they can be implemented multilaterally and can genuinely deliver improvements for airport neighbors.

## Aviation noise levels unchanged

In spite of a 5.1 percent rise in aircraft movements compared to 2010, around half of the → [continuous sound levels](#) (daytime Leq3 and nighttime Leq3) recorded at four measuring stations on our main departure routes during the busiest six months of the year were essentially the same, year on year. Differences were largely due to the fact that more planes took off in an easterly direction in 2011 than in 2010.



→ [www.munich-airport.com/aircraft-noise](http://www.munich-airport.com/aircraft-noise)



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**Continuous sound level (Leq3) in dB(A) recorded at four measuring stations on main departure routes during the six busiest months<sup>1</sup>**

	2011		2010		2009	
	Night	Day	Night	Day	Night	Day
Brandstadel	47	58	48	58	46	58
Pallhausen	42	55	42	55	40	55
Reisen	50	56	50	55	48	55
Viehlassmoos	43	56	43	55	41	54

<sup>1</sup> Since the enactment of new aviation noise legislation in Germany on June 7, 2007, the key metric applied in assessing aviation noise exposure has been the energy-equivalent continuous sound level Leq3 during the day and at night. Exposure assessments also take the noise level frequency at night into account. Because of variance in the operating direction, changes to departure routes, changes in route usage, and differences in operating times on account of closures (due to extreme weather or technical problems, for example), the figures for different years are not directly comparable. Detailed monthly noise figures recorded at our fixed measuring stations can be found on the → [Internet](#).

 → You can read more about aircraft noise control and measurements here: [www.munich-airport.com/aircraft-noise](http://www.munich-airport.com/aircraft-noise)

The daytime Leq3 at our Reisen and Viehlassmoos measuring stations was 1 dB(A) higher in 2011; at our Brandstadel and Pallhausen stations it was the same as a year earlier. There was no change in the nighttime Leq3 at our Pallhausen, Reisen und Viehlassmoos stations, and at Brandstadel it was actually 1 dB(A) lower than in 2010.

### Managing aviation noise complaints

As part of our wider complaints management system, we operate a phone line specifically for neighbors affected by aviation noise. The phone line enables us to respond directly to complaints concerning individual noise events and to answer questions concerning the aviation noise situation at the airport as a whole.

We monitor aircraft noise at the airport constantly as this provides us with the data we need to track aviation noise patterns, determine aircraft noise classes for our noise-based landing charges, and to answer inquiries on noise. Noise levels are monitored through a network of 16 measuring stations at fixed locations, plus three mobile units. The figures recorded are published in monthly reports on the airport's website.

### Mobile aviation noise monitoring service

FMG voluntarily conducts mobile aviation noise measurements for local communities on request. These measurements enable us to provide accurate noise information for locations where we have no fixed measuring stations.

In 2011, we conducted seven sets of mobile measurements over a total of 278 days. For the first time, these included the towns of Hochbrück, Gelting and Kirchseeon. Repeat measurements were taken at sites in Haimhausen, Eittingermoos, Buch am Erlbach, and Grünbach, allowing us to document changes in their noise levels.

### Noise quota use: 69 percent

The night-flight curfew in force at Munich Airport includes a noise quota computed on the basis of aircraft types and sizes and the number of aircraft movements. In 2011 we used up 69 percent of our allotted quota. During the year, the permitted average nighttime continuous sound level of 50 dB(A) was never exceeded

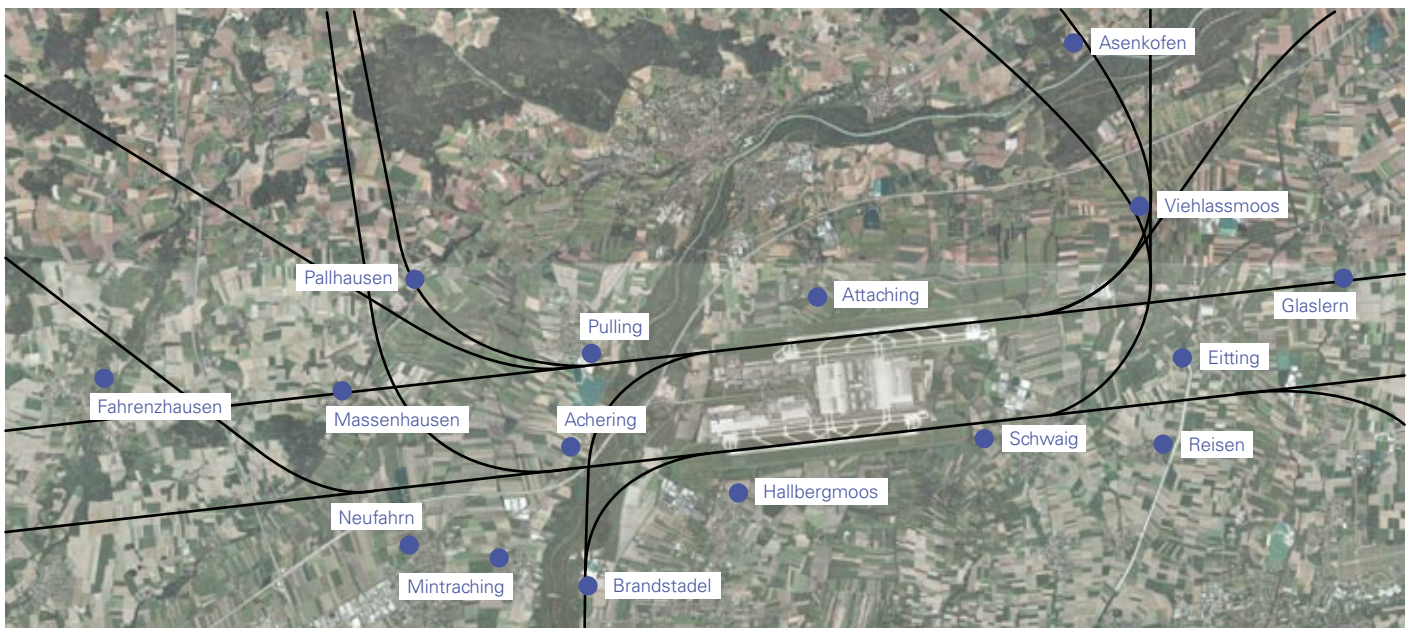
at any point where flight paths intersect the perimeter of the combined daytime and nighttime noise control zone.

### Emissions-based landing fees

Parallel to its noise-dependent charges, Flughafen München GmbH introduced emissions-based landing fees on January 1, 2008. The purpose of this fee policy is to reduce the amounts of → **nitrogen oxides** and uncombusted hydrocarbons emitted by aircraft engines. This is making a significant contribution to better local air quality in the area around the airport while creating a long-term incentive for engine and aircraft makers to invest more in the development of low-emission aircraft.



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Our 16 fixed measuring stations are all within a radius of 20 kilometers of the airport, at sites selected in collaboration with the noise commission. The stations are sited close to approach and departure routes and to towns and villages affected by aircraft noise. To ensure meaningful results, stations named after their nearest town or village are located as close as possible to flight paths and residential buildings.

# Biodiversity


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


[Glossary "Biodiversity"](#)

## Compensatory mitigation sites

In what is referred to as Zone III in the airport’s surrounding area, Flughafen München GmbH has created just over 350 hectares of compensatory mitigation sites. Of these, there are seven hectares in the Oberdingermoos conservation area, a further 18 hectares in Freising and Erding’s nature preserves, and 75 hectares in the Freisinger Moos and Nördliches Erdinger Moos bird reserves.

Zone II, comprising 250 hectares along the airport’s perimeter, integrates the airport into the surrounding landscape; it contains copses and hedgerows, fields and pastureland, and a number of man-made water-courses, including the airport’s south and east containment ditches, north diversion ditch, and north receiving ditch. Much of the airport’s perimeter zone is part of the Nördliches Erdinger Moos bird reserve.

As part of an environmental land project, we are holding around 100 hectares in reserve for the creation of further compensatory mitigation sites. This land is acknowledged by conservation experts as suitable and will be used for this purpose as necessary. Like our existing sites, this hectarage, too, is spread across the aforementioned conservation areas.

## Continuous maintenance and development

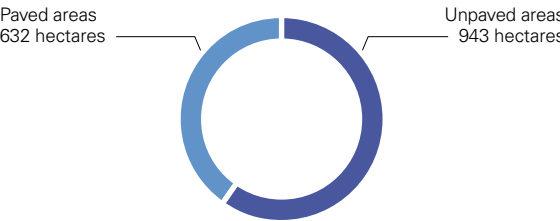
FMG’s compensatory mitigation sites comply with requirements issuing from a range of zoning approvals and amendments, and are reviewed by public

authorities to ensure that they are implemented and maintained correctly. Maintenance and development plans and targets have been defined for the various sites and biotopes in collaboration with the nature conservation authorities, and will help to safeguard the variety of species and biodiversity. Our broader overall objective is to maintain the variety of land use and locations while taking steps to preserve highly endangered habitats within the natural environment, such as moor grass pastures, sedge land and low-nutrient grassland. Other objectives include creating protected open and expansive pasture complexes and expanding small areas of existing fenland, which are in particular need of protection. The maintenance and development plans also include specific instructions on how to mow meadowland and wetland areas, along with exact information on when to conduct rejuvenation work and thin out hedges and copses.

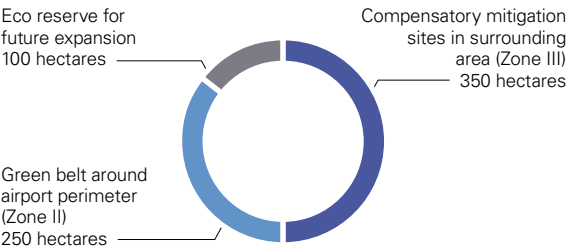
## Better ecological value

Structural elements such as trees, hedges and fallow strips planted or created in mitigative areas in the nature preserves help to promote and protect the natural variety and character of the land and are of immense value for local species diversity. Overall, the measures implemented under our landscape conservation plans are having a highly positive impact, preserving and protecting habitats for plants and animals, especially some of the rare and threatened species once typical for the local natural environment. In addition, programs to set up and expand wet, mesic and low-nutrient meadowland are helping us to accom-

**Airport’s total area**  
Inside perimeter fence (Zone I): 1,575 hectares



**Additional green areas**  
Current: 700 hectares





plish our primary conservation goal of reintroducing and developing former types of land use and biotopes in the Freisinger Moos and Erdinger Moos fenlands. These efforts are creating greater ecological value in the conservation areas around our airport.

Near-natural habitats, such as streams and rivers, riverbanks and sandbars, fens and marshland, bedding meadows and wet meadows, wet and alluvial woodland, and low-nutrient meadowland are all protected under conservation legislation. Areas like these are common at our compensatory mitigation sites and, in many instances, the care and maintenance work we carry out is intended expressly to protect them and enhance their ecological value.

### Protecting threatened bird species

The Freisinger Moos bird reserve helps populations of protected European bird species to survive and recover. These species include ground-nesting birds like quail, lapwing, the western curlew, the red-backed shrike and the bluethroat. Land owned by Flughafen München GmbH is mown and maintained in such a way that it provides a habitat that suits birds like these

and protects threatened species. The low-nutrient meadows set up as a mitigative site at Langer Haken, a former glider aerodrome, are especially important for the long-term protection of a small population of the western curlew, which is currently at risk of extinction.

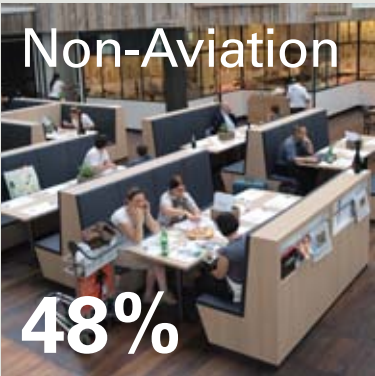
The open land and spinneys of the Nördliches Erdinger Moos bird reserve are also managed and maintained to provide a habitat that suits protected European ground-nesting birds like the blue-headed wagtail, corncrake, lapwing and western curlew, as well as species like the oriole, pied flycatcher, red-backed shrike and bluethroat.

At the Oberdingermoos nature preserve, there are valuable tracts of low-nutrient meadowland, rich in flowering plant species, that are reminiscent of older types of land use. These, too, are carefully landscaped and maintained to provide the right habitats to protect key European bird species like the tree pipit, redstart, lesser spotted woodpecker, red-backed shrike, oriole and river warbler.



← →

contribution to  
FMG Group sales



Fiscal 2011 was the  
FMG Group's most  
successful year yet.

↑

investment volume

# Financial review

## **112 Supervisory board's report**

## **113 Consolidated management report**

## **128 Consolidated financial statements**

128 Consolidated balance sheet

130 Consolidated income statement

131 Consolidated cash flow statement

132 Statement of changes in consolidated equity

133 Annex to the consolidated financial statements

## **147 Independent auditor's report**

## Supervisory board's report

The supervisory board was informed regularly and in detail by executive management in written reports and at meetings about the company's situation, its development, and important business events. On the basis of the reports and the information received, the supervisory board oversaw the management of the company's business and made such decisions as it was called upon to make in accordance with its statutory responsibilities.

The yearend accounts as at December 31, 2011, and the consolidated management report on Flughafen München GmbH and its group of companies presented by executive management have been audited and approved by Deloitte & Touche GmbH, the appointed auditors. Having conducted its own review, the supervisory board acknowledges the auditors' findings and raises no objections. In accordance with Section 42a, Paragraphs 2 and 4 of Germany's Limited Liability Companies Act (GmbHG) and Section 171, Paragraph 2 of Germany's Stock Corporations Act (AktG), the board approves the yearend accounts of Flughafen München GmbH and the FMG Group. The supervisory board proposes that the shareholders endorse the yearend accounts of Flughafen München GmbH and the FMG Group.

In fiscal 2011, Minister of State Georg Fahrenschon stepped down from the supervisory board. The board would like to thank him for his expert and committed service to the company as board chairman.

The supervisory board also wishes to express its gratitude and respect for the work carried out and the successes achieved by the company's executive management and employees in fiscal 2011.

Munich, July 5, 2012

**Dr. Markus Söder**

Chairman of the Supervisory Board  
Flughafen München GmbH

# Consolidated management report for 2011

The object of the Flughafen München Group is to operate Munich Airport and to pursue ancillary lines of business. The FMG Group comprises Flughafen München GmbH, 17 subsidiaries and special purpose entities, and two associated companies. In fiscal 2011, the company MUCGround Services Flughafen München GmbH, Freising, was merged into AeroGround Flughafen München GmbH, Munich. Moreover, as of 2011, MediCare Flughafen München Medizinisches Zentrum GmbH, Oberding, is no longer a subsidiary but is included in the Group's consolidated financial statements as an associated company. This change does not have a material effect on the consolidated financial statements.

## Activities and organizational structure

Flughafen München GmbH runs Munich Airport, which began operating at its current location in Erdinger Moos in 1992. To service air traffic, Munich Airport has two modern, highly efficient terminals and two runways, both 4,000 meters long and capable of operating independently. Besides its aviation and ground handling activities, Flughafen München GmbH also engages in a range of non-aviation business activities, primarily real estate management and development and retail operations, the latter including hospitality and parking services.

Flughafen München GmbH is organized functionally in central, business and support divisions. The business divisions operate and generate revenues independently within their respective markets, whereas the support divisions primarily operate internally and provide the business divisions with professional expertise and specialized services. The central divisions are responsible for the overall management of the airport.

A landmark change in FMG Group policy came in 2011 with the successful restructuring of our former Ground Handling division. The high losses recorded in the ground services segment since the market was thrown open to competing, private ramp-handling operators have been a major burden on the Group in recent years. By carving out our ground handling business into a wholly owned subsidiary with a competitive pay-scale structure, we created the right conditions for a successful turnaround in this segment.

## Strategy and sustainability

Munich Airport ranks as one of Europe's foremost aviation hubs. The FMG Group's success as an enterprise is the result of its ability to operate efficiently, to maintain business momentum and to focus firmly on profitable growth.

Munich Airport is committed to pursuing a sustainable business strategy that strikes a successful balance between key economic, environmental and social objectives. Group corporate policy sets out to maintain and strengthen the foundations of the Group's business in the longer term in such a way that, going forward, it can continue to operate successfully and safeguard both public mobility and Bavaria's locational appeal.

At FMG, we firmly believe that sustainable business practices help safeguard steadier and more consistent growth and make an organization more competitive in the longer term. We are therefore committed to sustainability, as reflected by our mission statement: "By 2015 we will be one of the most attractive, efficient and sustainable hub airports in the world."

For FMG, sustainability is nothing new. Helping our employees and leaders to grow and be their best, and engaging with our neighboring communities and surrounding region have always been of immense importance to us. We have also sought actively to protect the environment for many years now, as exemplified by our decision in 2008 to aim for carbon-neutral growth.

Our subsidiaries share the same commitment. Allresto, for instance, sources around 90 percent of its produce with suppliers in Bavaria. Accredited under the Eco-Management and Audit Scheme, the company goes to considerable lengths to preserve resources when processing foods and to ensure that its practices in areas like logistics and cleaning are sustainable. Allresto is certified organic, too, which means that it is authorized under EU regulations to produce organic foods, which it serves at the Bistro Organic restaurant in Terminal 2. The company's stated aim is to be the most attractive, efficient and sustainable hospitality operator in the transport sector in Europe.

### Economic and industry environment

Global economic growth faltered slightly in 2011, slipping to 3.8 percent, from 5.2 percent in 2010. Negative factors included a significant rise in raw material prices in the first six months and the severe earthquake in Japan in March 2011. As the effects of these shorter-term negatives eased, the global economy briefly looked more robust moving into the third quarter, before renewed problems in the Eurozone again curbed growth, and even emerging economies began to slow.

The U.S. economy, the world's largest, recovered somewhat as the year progressed, and by the fourth quarter annual GDP growth had hit 2.8 percent

according to the Department of Commerce – the highest it had been since early 2010. In the end, though, this was only enough for a 1.7 percent increase overall in 2011.

Emerging economies, too, cooled markedly over the course of 2011, as exports slowed. At the same time, several countries tightened economic policy in an effort to counteract inflationary pressures. This is why a number of central banks raised interest rates and minimum reserves and, in some cases, resorted to unconventional approaches to slow the influx of capital. Against this backdrop, China's economy lost pace, growing 9.2 percent over the year as a whole, compared to 10.3 percent a year earlier.

Growth in the Eurozone in 2011 was affected significantly by the mounting sovereign debt crisis. After a solid enough start to the year, the economy cooled off noticeably. Besides the debt crisis, increasingly restrictive fiscal policy stalled domestic economic activity. Without Germany, economic growth in the Eurozone would have come to a complete standstill by the third quarter of 2011; over the year as a whole, though, it did manage to reach 1.6 percent.

### Exceptional gains at Munich Airport

Germany's economy may not have succeeded in bucking the wider global trend entirely, but the country's domestic product nonetheless expanded sharply once again, driven by strong domestic demand as well as exports.

During 2011, airports in Germany logged almost 200 million passenger movements – some 5 percent more than a year earlier.

After 2009 and 2010, two crisis years during which the aviation industry weathered transient collapses triggered not just by the global credit crunch but also by events like the volcanic ash cloud, 2011 saw the industry return to solid growth. However, as a glance at the figures for a number of airports reveals, traffic gains varied by huge margins from one to the next.

Although passenger numbers at two-thirds of Germany's airports were either flat or in decline and aircraft movements at several were also lower, Munich can look back on a strong year with swift traffic growth, during which the passenger volume rose 8.8 percent – the highest gain at any airport in Germany – to reach roughly 38 million.

In the cargo sector, too, growth was robust, with the total freight and mail volume handled increasing by 5.9 percent to hit a new all-time high of more than 303,655 metric tons.

The number of takeoff and landing operations was up by around 20,000 or 5.1 percent on the prior year, almost reaching 410,000 and just 5.0 percent under the record highs we posted in 2007 and 2008.

In contrast to so many other airports – and in spite of the wider adverse conditions within the aviation industry – Munich can report such strong results thanks to the growth fueled by its expanding role as a key hub airport. This is reflected in a steady rise since the mid-1990s in the number of transfer passengers as a proportion of our overall passenger volume. In 2010, transfers accounted for around 37.0 percent of all passengers at Munich Airport, but by the end of 2011 this figure had increased to 40.0 percent.

A glance at the rankings of the ten busiest passenger airports in Europe reveals that Munich continues to compete successfully against other major aviation hubs. Thanks to our exceptional growth, we now rank sixth for the first time among Europe's top ten airports, based on the key metric of passenger numbers; ranked on aircraft movements, Munich has already been number six for several years now.

## Business trends and earnings

For the FMG Group, 2011 was its most successful business year ever. After the global financial and economic crisis of recent years, Munich Airport saw a return to robust traffic growth much sooner than anticipated. Our passenger volume grew significantly faster than the average rate recorded at other airports in Germany and elsewhere in Europe in 2011, rising 8.8 percent year on year to roughly 38 million.

The sharp increase in passenger movements is, however, due in part to the low baseline set by the prior year, with the first two quarters of 2010 beset by such factors as an extreme winter, the volcanic ash cloud, and a strike by airline pilots, which together curbed passenger traffic significantly. However, in spite of these events, two successive quarters of swift gains in the latter half of 2010 saw passenger numbers eventually break through our previous all-time high. This makes our Q4 passenger growth in 2011 – 5.0 percent on the busy last quarter in 2010 – all the more remarkable.

With a gain of more than 11.0 percent, continental traffic, more than any other segment, pushed our passenger numbers higher in 2011. Hub traffic to destinations in Europe, in particular, increased, prompting carriers to operate aircraft with higher seat capacities.

On the negative side, the events of the Arab Spring impacted substantially on traffic to and from the countries affected, but not on overall traffic growth at Munich Airport. Flights to and from Egypt saw passenger numbers drop by one-fifth due to the country's political upheavals, and traffic to and from Tunisia was down a quarter. However, these drops were more than offset by gains on routes to alternative travel destinations, with services to Turkey alone logging 212,000 additional passengers – almost twice the number by which passengers on flights to and from Egypt and Tunisia declined.

On intercontinental routes, the passenger volume grew by almost 7 percent. Routes to and from Africa were the only ones on which passenger numbers were down on the prior year, and this was due to fewer services being offered to two holiday destinations, Mauritius and the Cape Verde Islands. By contrast, passenger numbers on routes to and from Asia increased sharply.

On transatlantic routes, passenger trends differed, with marked gains on services to Canada and Brazil but declines on flights to tourist destinations in Mexico, Cuba and the Dominican Republic.

A key reason for our rising numbers of passenger and aircraft movements are changes in fleet policy by airlines serving Munich, most notably Deutsche Lufthansa. Because Munich Airport has been a solid growth market in recent years, Lufthansa has boosted capacity significantly here, mainly by operating jets with higher seat capacities rather than by stepping up frequencies on its routes.

Our earnings in 2011 reflect the traffic boom at Munich Airport during the course of the year.

## Sales

Group sales in fiscal 2011 totaled €1.150 billion (2010: €1.081 billion), rising 6.4 percent overall in the aviation and non-aviation sectors thanks to the growth in traffic and passenger numbers. The changes in Group sales and earnings are reviewed below, in the section titled "Group business activities."

## Expenses

Costs of raw materials and supplies in fiscal 2011 grew less rapidly, by 1.8 percent, or €5.292 million, to €294.813 million.

Year on year, the rise in personnel expenses was marginal, just 0.4 percent or €1.113 million, to €308.124 million. This was the result of natural wastage and structural changes in the ground handling sector.

Significant other operating expense and interest accounted for €292.620 million (2010: €350.544 million) or 27.9 percent (2010: 31.8 percent) of the Group's total pre-tax costs. This represents a 3.9 percent decrease on the prior year and is due both to an increase in other operating expense in 2010, from €98.228 million to €182.077 million, and to a drop in 2011 in the interest paid to shareholders, to €15.948 million from €151.982 million a year earlier. During 2010, all contractually owed interest from prior years was paid to shareholders.

Depreciation, amortization and impairments across the Group totaled €154.398 million (2010: €155.584 million).

The FMG Group generated a net profit of €186.543 million in fiscal 2011 (2010: €19.765 million). The year-on-year increase in profit is mainly the result of lower interest expense compared to 2010.

## Group business activities

The FMG Group consists of separate profit centers that are assigned organizationally either to business divisions – Aviation (including handling services), Consumer Activities, and Corporate Real Estate Management and Development – or to central or support divisions.

### Aviation

Our Aviation division is responsible for the safe and orderly handling of air traffic within the bounds of the airport. As of January 1, 2011, Flughafen München GmbH provides airside handling services through a subsidiary, AeroGround Flughafen München GmbH, Munich. AeroGround Flughafen München GmbH's organizational structure is aligned specifically to the needs of customer airlines using Terminals 1 and 2.

The Aviation division contributed 52.3 percent of Group sales. Thanks to the growth in air traffic, the division's earnings grew 6.0 percent, or €34.023 million, year on year, to €601.399 million.

### Non-aviation: Consumer Activities and Corporate Real Estate Management and Development

Our Consumer Activities division's roles include developing, marketing and managing the airport's retail and hospitality offerings, and selling advertising space at Munich Airport. It is also responsible for our Parking and Services business, which comprises on-site parking and a range of innovative parking-related services.

One of the mainstays of our non-aviation business is eurotrade Flughafen München Handelsgesellschaft mbH, Munich. This is a subsidiary which markets a select range of premium national and international goods, tailored carefully to the requirements of its airport customer base. Its focus is on responding quickly and flexibly to continuously changing customer needs and expectations.

Allresto Flughafen München Hotel und Gaststätten GmbH, Munich, runs the public restaurants and other hospitality operations in the public areas and secure areas of the airport; it is also responsible for the employee restaurants on campus and for the airport hotel managed by the Kempinski Group.

Our Corporate Real Estate Management and Development division develops, markets and manages company-owned buildings and other facilities in line with market needs. Besides the airport's own infrastructure, the real estate under management includes buildings outside the airport itself, plots of land acquired to permit future expansion, and compensatory mitigation sites created to restore the ecological balance.

Like our aviation business, our non-aviation business performed well, with sales growing 6.9 percent, or €35.524 million year on year, to €549.242 million, to provide 47.7 percent of Group earnings.

The higher sales volumes in the aviation and non-aviation sectors are both due to our rapid passenger growth in 2011.

## Asset and capital structure

	December 31, 2011		December 31, 2010	
	€ thousand	%	€ thousand	%
<b>Assets</b>				
Intangible assets	11,930	0.3	3,628	0.1
Tangible assets	3,557,281	90.9	3,566,587	91.6
Financial assets	3,600	0.1	4,365	0.1
<b>Fixed assets</b>	<b>3,572,811</b>	<b>91.3</b>	<b>3,574,580</b>	<b>91.8</b>
Inventories	50,956	1.3	57,765	1.5
Receivables	84,050	2.1	79,551	2.0
Liquid assets	200,129	5.1	178,455	4.6
<b>Current assets</b>	<b>335,135</b>	<b>8.5</b>	<b>315,771</b>	<b>8.1</b>
Prepaid assets and deferred charges	7,227	0.2	3,847	0.1
<b>Total assets</b>	<b>3,915,173</b>	<b>100.0</b>	<b>3,894,198</b>	<b>100.0</b>
<b>Capital</b>				
Capital stock	984,969	25.1	865,817	22.3
Shareholder loans	491,913	12.6	491,913	12.6
Long-term debt	2,069,709	52.9	2,091,598	53.7
Short-term debt	368,582	9.4	444,870	11.4
<b>Total assets</b>	<b>3,915,173</b>	<b>100.0</b>	<b>3,894,198</b>	<b>100.0</b>

Total assets at December 31 were €20.975 million higher than a year earlier, at €3.915 billion. This increase is largely the result of higher liquid assets.

Group fixed assets were lower by €1.769 million on the prior year. Additions totaling €151.625 million from investment activities and additions from reclassifications of current assets in the form of land and buildings are set against depreciation, amortization and impairments of €154.398 million.

Additions to tangible assets mainly concern land, buildings and construction in progress, with additions of land made primarily in connection with the project to build the airport's third runway. These additions totaled €6.461 million at Flughafen München GmbH. The additions of buildings mainly consist of access

created for the structural part of a new boarding bridge for the A380 (€1.366 million), the construction of the new VIP lounge in Terminal 1 (€3.141 million) and investment by Flughafen München GmbH in the expansion of parking garage P20 (€6.900 million).

As in 2010, additions to construction in progress – €93.750 million in total – largely consisted of planning and project work in connection with the airport's third runway (€18.991 million at Flughafen München GmbH) and planning costs relating to the satellite and expansion of the baggage transportation system (€52.710 million at Terminal 2 Betriebsgesellschaft mbH & Co oHG, Oberding). Other high-value additions at Flughafen München GmbH include €5.133 million for incomplete buildings and €5.498 million for incomplete technical installations and machinery.

Investments in plant and office equipment totaled €11.120 million. These essentially comprise purchases of vehicles, systems and plant and office equipment at Flughafen München GmbH totaling €4.127 million.

The drop of €765 thousand in financial assets is almost entirely the result of changes involving associated companies in the group of consolidated companies.

Current assets increased by a total of €19.364 million in 2011, but year-on-year changes varied from asset class to asset class: Trade receivables and other assets grew €4.499 million, and liquid assets rose by €21.647 million; inventories, by contrast, were lower, partly as a result of the reclassification of assets.

The €119.152 million change in equity is due mainly to the Group's consolidated net income (€197.119 million), payouts from minority interests (€25.767 million) and the repayment of contributions to third-party shareholders (€50.805 million).

Provisions were down €7.153 million at €218.800 million in 2011. The provision for the restructuring of our ground handling operations formed in 2010 was revalued and totaled €10.400 million at the balance sheet date. Tax provisions, too, were lower, down €9.615 million, at €15.995 million. However, once zoning approval was granted for the airport's third runway in the summer of 2011, assets also had to be transferred into the regional fund.

The FMG Group's total liabilities (excluding shareholder loans) dropped by €104.280 million in 2011, to €2.131 billion. The liability to shareholders in 2010 from interest on shareholder loans of €151.982 million was reduced by €136.034 million, to €15.948 million. Liabilities to banks dropped by €20.990 million; this occurred mainly in the context of loans with terms of more than one year. The increase in other liabilities is essentially due to liabilities reported in connection with the repayment of contributions to third-party shareholders.

In addition, trade payables were higher in 2011, up €14.787 million.

### Financial situation

Cash flow from operations secured sufficient financial resources to ensure the Group's liquidity throughout fiscal 2011. Including interest paid to shareholders, cash flow from operations totaled €208.068 million (2010: €305.466 million) and was sufficient to cover investments in 2011 of €136.919 million (2010: €84.248 million). Bank loans increased slightly in addition.

The Group's companies are all part of a cash pool formed for financing purposes. Capital spending in fiscal 2011 was funded entirely through operating cash flow.

### Group-wide procurement optimization

In 2011, FMG launched a new project to optimize procurement, group-wide. The project consisted of an analysis phase, to assess the current situation, and an implementation phase in which individual procurement processes were optimized.

The project not only resulted in numerous swiftly implemented savings in procurement projects across the Group, it also led to a crucial realignment in procurement strategy. This has seen changes in the roles assigned to buyers, consistent mapping of goods categories to procurement teams, and the integration of subsidiaries' purchasing processes into a central Group procurement system.

These changes, which also affected our procurement unit's organizational structure, combined with the workload involved in handling two major projects at the airport (the new satellite building and the third runway) and natural employee turnover, meant that we had to hire 17 new people in 2011. FMG's procurement unit will be busy implementing the planned changes into 2012.

## Employees

One important event from our employees' perspective was the formation of a new subsidiary for ground handling services, AeroGround Flughafen München GmbH, on January 1, 2011.

The situation in the ground handling sector in 2011 was dominated by the high traffic volume, which placed exceptional demands on our ground handling crews, particularly during the summer months. The burden was all the more acute because a shortage of readily available labor in the local market made hiring the people we needed a problem.

Our People First project, launched for our ground handling personnel in 2010, was widened and transformed into a company health management program. This project, along with the company integration management system we introduced in 2011, exemplifies the considerable emphasis we as an organization place on the whole issue of employee health.

We also progressed our careers and families project (known in the FMG Group as "befamily!"), which was introduced to better reconcile employees' family interests with employer needs and expectations. The project involves a raft of specific measures. One prominent example is our decision to build a children's daycare center at the airport.

In 2011, FMG kept up its acknowledged high level of support for young people, demonstrating once again its commitment to good corporate citizenship in the airport's surrounding region.

## Customer satisfaction

Munich Airport typically wins a number of awards each year that underscore its special qualities.

Readers of the magazine *Traveller's World* picked Bavaria's gateway as the sixth-best airport in a worldwide comparison in 2011. We successfully retained our position as the best in Europe, and in the global rankings we were only bettered by Singapore, Seoul, Hong Kong, Dubai and Bangkok. Munich was the only commercial airport in Germany to make it into the *Traveller's World* top ten.

The independent London-based research organization Skytrax also conducts annual polls across the aviation industry to rank airlines and airports on their performance. Worldwide, more than 11 million passengers from over 100 countries took part in the survey for the 2011 World Airport Awards.

Survey respondents rated more than 240 international airports and an even greater number of airline companies. The airports were scored according to some 40 categories, including handling operations and service quality, airport shopping and entertainment, and ease of transit.

In the global rankings, Munich was fourth, the same slot as a year earlier, behind Hong Kong, Singapore and Seoul.

For the sixth time in seven years, Munich Airport was also chosen as the best airport in Europe in the Skytrax awards.

### Corporate governance and compliance

The term compliance describes the efforts undertaken by companies to ensure that their operating units and employees abide by laws, regulations, national and international norms and standards, and in-house policy, rules and guidelines.

Effective January 1, 2011, FMG set up a dedicated Compliance department. The new department is an executive support office attached to FMG's central Legal Affairs and Compliance division, but reports to the executive and supervisory boards directly. The department is responsible for implementing, extending and optimizing the FMG Group's new compliance management system. Our aim is to have the system certified to the IDW PS 980 standard during 2012.

### Management and oversight bodies

As a limited liability company domiciled in Munich, Flughafen München GmbH is governed in accordance with the requirements of Germany's Limited Liability Companies Act, relevant commercial law and corporate law statutes, and a number of co-determination and collective bargaining statutes. Besides an executive board, the company has a supervisory board, installed as an independent body to oversee the executive board.

Under the articles of Flughafen München GmbH, the supervisory board's role is to monitor executive management. The supervisory board consists of

eight members representing the company's shareholders, plus a further eight representing the company's employees. Flughafen München GmbH's shareholders are represented on the supervisory board in proportion to their percentage ownership of the company. On the employee side, the board has members representing company employees (five seats), labor unions (two seats), and management-level employees (one seat). The supervisory board's key powers include the authority to appoint and dismiss members of the company's executive management team.

Under the provisions of the company's articles, certain steps and transactions undertaken by executive management that exceed set maximum monetary values may only be conducted with the express approval of the supervisory board. In the event that supervisory board members are divided on a decision and the numbers in favor and against are equal, the vote of the chair (representing the shareholders) counts double.

The shareholders' representatives on the supervisory board are appointed by the relevant federal and state ministries and administrative districts.

Flughafen München GmbH's executive board consists of the President and Chief Executive Officer (who is also Personnel Industrial Relations Director and spokesperson for the executive board), and the Vice President and Chief Financial Officer (who is also Chief Infrastructure Officer). Details of the company's system of executive pay and the remuneration received by individual members of the executive and supervisory boards are provided in the annex to the consolidated financial statements, here in this report.



→ [www.munich-airport.com/compliance](http://www.munich-airport.com/compliance)

## Transparency guidelines

The FMG Group has a number of organizational handbooks that set out requirements governing processes in Group companies (excluding special purpose entities). There are numerous compliance guidelines on public procurement law, procurement and contracting processes, and information security. These ensure that processes and procedures are transparent and traceable, both internally and externally. In contracting and tendering procedures, Flughafen München GmbH 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.

## Analysis of procurement processes

To improve security in procurement, assessments are conducted on a quarterly cycle to identify possible cases of noncompliance with Group procurement rules and practices. The standard procurement processes in different parts of the organization are analyzed to determine whether competition criteria are being met in individual instances.

Checks are performed to ascertain whether a unit awarding a contract has obtained three competing bids as required under in-house rules or, if it has not, whether it can present adequate justification.

In addition, invoices for which there is no matching order in the SAP enterprise software system are scrutinized. The purpose is to reduce so-called maverick buying (procurement outside our standard procurement routes) as this can result in savings.

## Anticorruption

In 2010 we published our updated FMG Code of Conduct. This describes fundamental corporate principles for ensuring legally compliant and ethical behavior among our employees and managers. Available on the intranet, the Code includes rules prohibiting the acceptance of gifts, entertainment or favors and the

granting of favors to third parties, as well as rules on sideline work and regulations on contract award procedures. It also references other guidelines by which employees must abide. The Code's purpose is to ensure that proper procedures are followed in connection with procurement and the award and handling of contracts.

We regularly provide training and publish information to make sure that employees and managers are familiar with the guidelines and any updates or amendments to them. We also require company managers and employees to confirm by signature that they acknowledge the FMG Code of Conduct and that they undertake to support and abide by it.

In the event that a unit or individual is confronted with an issue or situation that is unclear, they can seek advice from the Compliance department.

Through to the end of 2010, our head of internal auditing also served as the Group's anticorruption officer. On January 1, 2011, this role passed to the head of our newly formed Compliance department.

During 2011, as part of ongoing efforts to refine our compliance management system, we began cataloging specific compliance risks. This process encompasses all units at Flughafen München GmbH and all FMG Group subsidiaries.

Our anticorruption officer has reported that there were no alleged cases of corruption at Flughafen München or its subsidiaries in 2011. One case of suspect pricing was investigated where it appeared that price-setting had not been on a competitive basis, but the suspicion proved unfounded.

## Electronic whistle-blower system

On July 1, 2011, we rolled out an electronic whistle-blower system. Known as the Business Keeper Monitoring System (BKMS® System), it enables Group employees, business partners and customers

to report behavior potentially damaging to our organization. Whistle-blowers can submit reports anonymously, and the system is designed to protect their anonymity. Reports received are assessed, and further action is taken as necessary.

### Data protection

Flughafen München GmbH's data protection officer is also assigned organizationally to the Compliance department but conducts his job independently. During 2012, the company aims to introduce a unified group-wide data protection concept that sets standards for ensuring and enforcing individuals' data privacy rights.

Initial training courses delivered to new employees and vocational trainees, along with periodic onward training for employees in data privacy law, have helped raise awareness of statutory data protection requirements. In addition, we will be rolling out a new web-based training program in 2012 to extend our offering of training in this area.

Specialist individual advice is also available in instances where people are unsure how to comply properly with data protection regulations.

### Opportunities and risks

Flughafen München GmbH has a comprehensive risk management system in place that serves to identify, assess and track risks.

### Basic risk policy

When exploring business opportunities, Flughafen München GmbH takes steps to assess the attendant risks. There must be an appropriate relationship between opportunities and risks.

Following are fundamental principles we apply, based on our objectives:

- Our risk strategy aligns with our corporate strategy; the two must be consistent with one another.
- Our risk management system is integral to our business processes.
- Risk is mainly managed by those responsible for business processes.
- Our risk management process is intended to ensure that key risks are identified, assessed and tracked.
- Decision-makers are notified transparently about risks that are identified.
- We make active use of the means at our disposal to avoid or mitigate risks and take swift counteraction where necessary.

### Risk management system

Flughafen München GmbH's system of risk management covers the full extent of the company's operational and strategic business processes and is designed to identify, gauge and mitigate all potential risks facing the company and its subsidiaries (excluding special purpose entities). Risks that we identify are assessed based on their likelihood of occurrence and on a quantification of the scale of their impact in the event that they become reality. The primary goal of our risk management is to take a controlled approach to risk and to define appropriate preventive measures.

Our risk management also covers all aspects of sustainability – environmental, economic and social – on which a monetary value can be placed.

All risk information is reviewed internally in a quarterly report which is issued to executive management and division heads. This enables executives to respond quickly and effectively to shifting risk

scenarios and to mount a swift response to new and emerging threats. Supervisory board members also receive copies of the latest risk reports.

To ensure thorough observance of laws and directives as well as the company's own internal rules and guidelines, Flughafen München GmbH's executive management took steps to firmly embed compliance principles into business processes and the Group's general corporate and management culture during the past year. These steps included the introduction of an overarching compliance framework on January 1, 2011.

To minimize possible financial damage, the FMG Group has insurance for appropriate amounts covering key areas of potential loss and liability. Throughout fiscal 2011, the Group was fully able to meet its need for financial resources, thanks to stable internal funding and guaranteed lines of credit. Munich Airport is not currently experiencing any kind of liquidity squeeze in money markets.

The main focuses of our risk reporting in 2011 were as follows: the legal proceedings initiated by the Landshut prosecutor's office, the Landshut revenue service investigators, and Munich's central customs office in connection with events at the Flughafen München GmbH subsidiary CAP Flughafen München Sicherheits-GmbH; risks associated with a possible further opening up of the ground handling services market; and a European Commission review concerning the construction of Terminal 2. All of the above represent risks that will continue beyond 2011.

Other risks addressed included possible industrial action in connection with collective bargaining on pay deals for air traffic control operators and airport fire service personnel. These risks receded during the course of the year when the pay negotiations ended in a successful settlement.

In the latter half of the year, uncertainty surrounding the future of the economy and the possible implications for Flughafen München GmbH became a focus of our risk reporting.

External risks assessed as having a low likelihood of occurrence but a potentially severe economic impact included acts of terror, natural disasters, and the loss or impairment of the airport's ability to function as an aviation hub.

Financial risks, including risks issuing from various financial instruments (derivatives, and the management of receivables, liabilities and financial assets) are reviewed at regular intervals and assessed with regard to current price changes and to default and liquidity risks. Derivative financial instruments are now only employed as an interest rate and currency risk hedge, and require the express approval of executive management.

We identified no risks to our continuity as an enterprise in 2011.

### Fiscal risks

Flughafen München GmbH and the FMG Group face credit, interest rate and foreign exchange risks in connection with reported and future items and transactions. To address interest rate and foreign exchange risks, Flughafen München GmbH hedges underlying transactions on a large scale with derivative financial instruments. The treasury is responsible for managing market risks efficiently. As a rule, only those risks are managed that can affect cash flow. Interest derivatives are only employed to optimize lending terms and to limit exposure to adverse movements in interest rates. No transactions are conducted for commercial or speculative reasons.

Our exposure to interest risk is mainly through financial liabilities with variable interest rates. Interest rate hedging positions can result in negative market values when market interest rates are lower.

In instances where planned foreign currency income cannot be matched with foreign currency expense, foreign exchange risks arise; these are hedged with foreign currency forward contracts.

Credit risk is tied mainly to short-term financial investments. This risk is generally controlled by making financial investments with banking organizations in the European Union that offer deposit protection.

Risks affecting Flughafen München GmbH's assets, finances and earnings may arise in connection with the current situation in global financial markets and its potential impact on the economy as a whole, on general liquidity, and on future bank lending.

Potential bad debt risk is addressed through strict and effective debt management. This includes checking customers' credit ratings thoroughly, continuously tracking unpaid invoices, and taking a strict approach to payment reminders and collections.

### The FMG Group's overall risk situation

No risks posing a threat to continuity have been identified.

### Opportunities and growth projects

With the economy expected to stabilize and demand for air transport likely to increase, Flughafen München GmbH's executive management considers the intermediate and long-term prospects for continued growth in hub traffic to be promising. To be able to capitalize on the opportunities for growth, Munich Airport urgently needs a third runway. In 2011, the zoning process for the runway ended in a grant of approval, allowing the expansion work vital for the airport's future to go ahead.

A municipal referendum is to be held in the state capital, Munich, on June 17, 2012, on the construction of the airport's third runway. The purpose of the referendum is to determine whether the city of Munich, as a shareholder of Flughafen München GmbH, should approve the planned construction project.

In addition, 20 cases brought against the zoning approval are currently being heard by the Bavarian Administrative court. Flughafen München GmbH has chosen not to immediately exercise the right granted by the zoning approval and begin construction, but to await the court's rulings.

Irrespective of the forecasts and the traffic scenarios projected for the decades ahead, the airport already needs a third runway today. Our present capacity with our two-runway system, which allows us to schedule 90 takeoffs and landings an hour, is by no means sufficient to cover airlines' current needs. Munich Airport is already operating at the limits of its capacity, and carriers would readily use as many as 110 slots an hour at peak times – in other words, for eight to ten hours a day – if they were available.

Besides additional runway capacity, Munich Airport also needs more contact stands at terminals and more passenger-handling resources if it is to accommodate its growing hub traffic.

To address these needs, we are collaborating with Lufthansa to build a satellite on the east apron as an extension to Terminal 2. The satellite will be connected to the terminal via an underground automated people mover system. The project has been granted zoning approval, and the foundation stone ceremony set for April 23, 2012. The satellite, which will have 52 gates and 27 contact stands with direct building access, is due to open in 2015 and will create the capacity to handle a further 11 million passengers a year.

As with the construction of Terminal 2 previously, the costs of the new building and its technical installations – around €650 million in total – will be shared 60:40 by FMG and Lufthansa.

Once built, the satellite will help to uphold and safeguard Munich Airport's acknowledged high quality standards as a transfer hub, even with the anticipated future growth in traffic, and further strengthen Munich's role as a premium international gateway.

The airport is also currently erecting a new 16,000-square-meter cargo handling facility, which is due to open in the summer of 2012.

### Planned construction and infrastructure projects

The grant of zoning approval for a third runway at Munich Airport means that Flughafen München GmbH is now committed to providing €100 million in funding for local infrastructure projects in surrounding communities. Payouts are, however, contingent upon runway construction actually going ahead.

Ten million euros from the fund were already allocated to two infrastructure projects in Erding and Freising in 2008.

Enhanced, more efficient land-side transport connections are of major importance to Flughafen München GmbH's ability to sustain its future growth.

Quality road and rail network access is both a crucial factor to Munich Airport's future as an international transport hub and a considerable benefit to the airport's home region.

Flughafen München GmbH is therefore pushing hard for improvements to landside access, particularly by rail, not least because moving traffic off the road network and onto rail services helps to avoid harmful emissions.

An expert review conducted in November 2009 on behalf of the Bavarian Ministry for Economic Affairs, Infrastructure, Transport and Technology into how to improve Munich Airport's rail access marked a major advance in connection with expansion plans for the rail infrastructure in and around Munich.

A large proportion of our passenger base already travels to Munich Airport on public transport: In 2011, 45 percent of passengers used local rapid transit rail and bus services. However, significantly more passengers and airport workers would switch to traveling by rail if a through connection serving the area to the east of Munich Airport were available and if the airport were integrated into the mainline rail network.

Access from northeast and southeast Bavaria could be improved by completing the Neufahrn branch line, the Erding circular rail link and the Walpertskirchen branch line. We expect work on the Neufahrn branch line to begin in 2013 and to finish in 2016.

In the short term, the introduction of a much faster service between the airport and Munich's Central Station has the highest priority. In the longer term, the airport additionally needs to link up to the mainline route from Munich to Mühldorf, Freilassing and Salzburg; this will also connect the airport to the EU Trans-European Networks' west-to-east rail artery running from Paris, through Munich and Vienna, to Bratislava.

Munich Airport's goal of connecting aviation with high-speed transport on the ground is not just of major importance at the regional level, it is also consistent and compatible with wider national and European transport policy objectives.

## Notable events after the end of fiscal 2011

Flughafen München GmbH has agreed to furnish MAC Grundstücksgesellschaft mbH & Co. KG with a €66.500 million loan to help it secure financing. MAC Grundstücksgesellschaft mbH & Co. KG was assured this loan in a letter dated March 5, 2012.

## Outlook

There will be numerous strategic growth and development opportunities for Munich Airport in the foreseeable term.

## Growth projections

Leading research organizations predict that Germany's economy will grow during 2012, but at a rate of less than 1.0 percent. Moderate growth, of less than 2.0 percent, is anticipated for 2013. In light of improving economic data, sentiment within the aviation industry is positive on the near-term future.

Air transport demand at Munich Airport remains on the rise in 2012. In the early part of the year, passenger traffic, for example, was up between 3.0 and 4.0 percent on prior-year figures. However, given our current runway system's capacity issues, we do not expect to see a significant increase in aircraft movements, because we have no more free slots at in-demand times of the day when traffic is at its heaviest.

The International Air Transport Association (IATA) expects passenger numbers to increase 4.0 percent over the year (2011: 6.1 percent) but cargo traffic to remain flat. The German Airports Association (ADV) predicts growth will run to around 2.6 percent nationwide in 2012. The ADV forecast is lower than in prior years to reflect the impact of the plane ticket tax and the increasingly difficult economic circumstances.

It remains to be seen how the European economy and the aviation industry fare, going forward. Key issues in this context are whether the sovereign debt crisis will spread to the real economy, and whether solutions can be reached in the current disagreement over the European Union's emissions cap-and-trade scheme.

We are confident that in 2012 we will be able to sustain the kind of rapid growth that we have accomplished in prior years. Based on the estimates in our current business plan, we expect passenger numbers to reach 39.5 million and our consolidated net income to be roughly the same as in 2011.

Looking ahead to the intermediate term, we expect our consolidated total income in 2013 to be at roughly the same level as in 2011, and we anticipate plenty of opportunities for Munich Airport's strategic growth and development emerging in the foreseeable future.

# Consolidated balance sheet as at December 31, 2011

Assets	December 31, 2011		2010
	€	€	€ thousand
<b>A. Fixed assets</b>			
<b>I. Intangible assets</b>			
1. Franchises, intellectual property and similar rights and assets, and licenses to such rights and assets	4,625,098.52		3,623
2. Goodwill	7,305,262.46		0
3. Advance payments	0.00		5
		11,930,360.98	3,628
<b>II. Tangible assets</b>			
1. Land, rights similar to land, and buildings, including buildings on land not owned	3,083,301,807.80		3,133,155
2. Technical equipment and machinery	240,695,365.05		279,920
3. Other equipment, plant and office equipment	40,831,170.61		43,344
4. Construction in progress and advances on fixed assets	192,452,100.19		110,168
		3,557,280,443.65	3,566,587
<b>III. Financial assets</b>			
1. Investments in associated companies	3,360,749.47		4,038
2. Other loans	239,221.03		327
		3,599,970.50	4,365
		<b>3,572,810,775.13</b>	<b>3,574,580</b>
<b>B. Current assets</b>			
<b>I. Inventories</b>			
1. Substitute plots of land	17,257,872.70		28,927
2. Raw materials and supplies	8,184,861.60		5,972
3. Work in progress	805,923.30		0
4. Goods for resale	24,707,121.93		22,866
		50,955,779.53	57,765
<b>II. Receivables and other assets</b>			
1. Trade accounts receivable	46,335,995.88		46,746
2. Receivables from affiliated companies	169,189.07		0
3. Receivables from associated companies	427,929.14		258
4. Other assets	37,116,984.32		32,547
		84,050,098.41	79,551
<b>III. Cash on hand and balances with banks</b>		200,128,566.82	178,455
		<b>335,134,444.76</b>	<b>315,771</b>
<b>C. Prepaid expenses</b>		<b>7,227,403.64</b>	<b>3,847</b>
		<b>3,915,172,623.53</b>	<b>3,894,198</b>

← Supervisory board's report  
 ← Consolidated management report  
 ↓ **Consolidated financial statements**  
 → Independent auditor's report

Liabilities and equity	December 31, 2011		2010
	€	€	€ thousand
<b>A. Equity</b>			
<b>I. Subscribed capital</b>	306,776,000.00		306,776
<b>II. Capital reserve</b>	102,258,376.24		102,258
<b>III. Retained earnings</b>			
Other reserves	11,143,519.33		1,984
<b>IV. Consolidated net profit</b>	186,542,963.02		19,765
<b>V. Minority interests</b>	378,248,150.36		435,034
		984,969,008.95	865,817
<b>B. Shareholder loans</b>		491,912,735.89	491,913
<b>C. Provisions</b>			
1. Provisions for pensions	19,064,724.00		19,064
2. Provisions for taxes	15,994,661.71		25,610
3. Other provisions	183,740,385.98		181,279
		218,799,771.69	225,953
<b>D. Liabilities</b>			
1. Liabilities to shareholders of the parent company	15,948,252.11		151,982
2. Liabilities to banks	1,742,155,132.80		1,763,145
3. Trade liabilities	73,626,840.53		58,840
4. Liabilities to affiliated companies	656,895.36		0
5. Liabilities to associated companies	2,506,405.66		6,455
6. Other liabilities of which for taxes: €5,438,430.51 (2010: €9.812 million) of which for social security: €48,903.69 (2010: €27 thousand)	296,410,248.27		255,162
		2,131,303,774.73	2,235,584
<b>E. Deferred income</b>		28,617,388.46	29,664
<b>F. Deferred tax liabilities</b>		59,569,943.81	45,267
		<b>3,915,172,623.53</b>	<b>3,894,198</b>

## Consolidated income statement for the period from January 1 to December 31, 2011

	2011		2010
	€	€	€ thousand
1. Net sales		1,150,641,282.91	1,081,094
2. Increase in work in progress		805,923.30	0
3. Other own work capitalized		12,317,868.38	10,675
4. Other operating income		114,136,312.95	50,948
		<b>1,277,901,387.54</b>	<b>1,142,717</b>
5. Materials expense			
a) Supplies and raw materials	-153,942,239.59		-148,281
b) Purchased services	-140,870,280.85		-141,240
		-294,812,520.44	-289,521
6. Personnel expense			
a) Wages and salaries	-248,266,428.11		-244,708
b) Social security, pension costs and support of which pension costs: €14,213,896.05 (2010: €16.753 million)	-59,857,990.66		-62,303
		-308,124,418.77	-307,011
7. Depreciation, amortization and write-downs on intangible assets and property, plant and equipment		-154,397,828.20	-155,584
8. Other operating expense		-182,077,089.87	-98,228
		<b>-939,411,857.28</b>	<b>-850,344</b>
		<b>338,489,530.26</b>	<b>292,373</b>
9. Income from investments in associated companies	3,757,072.90		2,074
10. Other interest and similar income	5,753,719.41		2,079
11. Interest and similar expense	-110,543,312.09		-252,326
		-101,032,519.78	-248,173
<b>12. Income from ordinary activities</b>		<b>237,457,010.48</b>	<b>44,200</b>
13. Extraordinary income	0.00		13,285
14. Extraordinary expense	0.00		-5,942
15. Extraordinary gain		0.00	7,343
16. Income taxes of which deferred tax expense: €14,302,893.00 (2010: €8.270 million)		-38,228,072.50	-37,206
17. Other taxes		-2,109,502.37	-2,087
<b>18. Consolidated net income</b>		<b>197,119,435.61</b>	<b>12,250</b>
19. Minority interest in consolidated net result		-24,994,717.54	-15,408
20. Consolidated profit carried forward		19,764,770.95	13,577
21. Profit carried forward from initial consolidation of special purpose entities		0.00	3,346
22. Transfers from other retained earnings		0.00	6,000
23. Transfers to other retained earnings		-5,346,526.00	0
<b>24. Consolidated net profit</b>		<b>186,542,963.02</b>	<b>19,765</b>

# Consolidated cash flow statement for fiscal 2011

	2011	2010
	€ thousand	€ thousand
Consolidated net income	197,119	12,250
Depreciation, amortization and write-downs on fixed assets	154,398	155,584
Decrease in provisions	-6,848	-48,530
Other noncash changes/credits	4,890	-2,159
Net cash from profits/losses from disposals of land held for sale	-3,505	1,017
Increase (2010: decrease) in inventories, trade receivables and other assets not booked under investment or financing activities	-13,712	6,383
Decrease (2010: increase) in trade payables and other liabilities not booked under investment or financing activities	-124,274	180,921
<b>Cash flow from operating activities</b>	<b>208,068</b>	<b>305,466</b>
Proceeds from disposals of property, plant and equipment	5,159	8,590
Capital expenditure on property, plant and equipment	-135,527	-82,187
Proceeds from disposals of intangible fixed assets	9	0
Capital expenditure on intangible fixed assets	-1,392	-2,061
Proceeds from the sale of land held for sale	439	678
Capital expenditure on the purchase of land for sale	-1,157	-3,110
Proceeds from the sale of associated companies	1,600	0
Capital expenditure on the purchase of minority shares in consolidated companies	-577	0
Proceeds from short-term management of cash assets	0	6,500
<b>Cash flow from investment activities</b>	<b>-131,446</b>	<b>-71,590</b>
Receipts from associated companies as part of group-wide cash management	0	3,671
Payments to associated companies as part of group-wide cash management	-2,979	0
Payments to minority shareholders	-32,503	-15,136
Proceeds from financing loans	31,100	2,500
Repayment of financing loans	-50,566	-63,839
<b>Cash flow from financing activities</b>	<b>-54,948</b>	<b>-72,804</b>
<b>Change in cash and cash equivalents</b>	<b>21,674</b>	<b>161,072</b>
Cash and cash equivalents at start of period	178,455	17,383
<b>Cash and cash equivalents and end of period</b>	<b>200,129</b>	<b>178,455</b>
Interest payments	-238,675	-102,744
Income tax payments	-32,911	-5,041

## Statement of changes in consolidated equity

	Parent company				Minority shareholders	Consolidated equity
	Subscribed capital	Capital reserve	Consolidated equity generated	Equity	Minority capital	
	€ thousand	€ thousand	€ thousand	€ thousand	€ thousand	€ thousand
At Jan. 1, 2010	306,776	102,258	21,561	430,595	11,481	442,076
Other changes	0	0	3,346	3,346	408,145	411,491
Consolidated net income	0	0	12,250	12,250	0	12,250
Minority interest in net income of consolidated subsidiaries	0	0	-15,408	-15,408	15,408	0
<b>At Dec. 31, 2010</b>	<b>306,776</b>	<b>102,258</b>	<b>21,749</b>	<b>430,783</b>	<b>435,034</b>	<b>865,817</b>
At Jan. 1, 2011	306,776	102,258	21,749	430,783	435,034	865,817
Other changes	0	0	3,814	3,814	-30,976	-27,162
Withdrawal of a shareholder from MAC KG	0	0	0	0	-50,805	-50,805
Consolidated net income	0	0	197,119	197,119	0	197,119
Minority interest in net income of consolidated subsidiaries	0	0	-24,995	-24,995	24,995	0
<b>At Dec. 31, 2011</b>	<b>306,776</b>	<b>102,258</b>	<b>197,687</b>	<b>606,721</b>	<b>378,248</b>	<b>984,969</b>

# Annex to the consolidated financial statements 2011

## I. General notes to the consolidated financial statements

Flughafen München GmbH, Munich, manages and coordinates all of the businesses in the FMG Group of companies. As the Group's parent company, FMG has published consolidated financial statements and a consolidated management report for the FMG Group for fiscal 2011 in accordance with Section 290 of the German Commercial Code (HGB).

With the exception of EFM – Gesellschaft für Enteisen und Flugzeugschleppen am Flughafen München mbH,

whose fiscal year runs from October 1 to September 30, the fiscal year for the FMG Group and its consolidated companies corresponds to the calendar year.

The consolidated income statement was prepared according to the total cost method.

### 1. Scope of consolidation

Besides Flughafen München GmbH, the consolidated financial statements cover the following companies.

- Flughafen München GmbH subsidiaries and special purpose entities included in the yearend accounts as fully consolidated companies:

	Seat	Share of capital %
aerogate München Gesellschaft für Luftverkehrsabfertigungen mbH	Munich	100.0
AeroGround Flughafen München GmbH	Munich	100.0 <sup>1</sup>
Allresto Flughafen München Hotel und Gaststätten GmbH	Munich	100.0 <sup>1</sup>
CAP Flughafen München Sicherheits-GmbH	Freising	100.0
Cargogate Flughafen München Gesellschaft für Luftverkehrsabfertigungen mbH	Munich	100.0 <sup>1</sup>
eurotrade Flughafen München Handels-GmbH	Munich	100.0 <sup>1</sup>
Flughafen München Baugesellschaft mbH	Oberding	60.0
FM Terminal 2 Immobilien-Verwaltungsgesellschaft mbH & Co oHG	Oberding	60.0 <sup>1</sup>
FMV – Flughafen München Versicherungsvermittlungsgesellschaft mbH	Freising	100.0 <sup>1</sup>
Terminal 2 Betriebsgesellschaft mbH & Co oHG	Oberding	60.0 <sup>1</sup>
Beteiligungsgesellschaft mbH der FMG	Freising	100.0 <sup>1</sup>
MAC Grundstücksgesellschaft mbH & Co. KG	Grünwald	94.9 <sup>1</sup>
MALTO Grundstücks-Verwaltungsgesellschaft mbH & Co. KG	Grünwald	0.0 <sup>1</sup>
MFG Flughafen-Grundstücksverwaltungsgesellschaft mbH & Co. ALPHA KG	Grünwald	0.0 <sup>1</sup>
MFG Flughafen-Grundstücksverwaltungsgesellschaft mbH & Co. BETA KG	Grünwald	0.0 <sup>1</sup>
MFG Flughafen-Grundstücksverwaltungsgesellschaft mbH & Co. Gamma oHG	Grünwald	0.0 <sup>1</sup>
München Airport Center Betriebsgesellschaft MAC mbH	Grünwald	0.0

<sup>1</sup> Exemption provisions apply regarding disclosure of the yearend accounts as per Section 264, Paragraph 3 and Section 264b of the German Commercial Code.

- The following are included as associated companies in Flughafen München GmbH's consolidated yearend accounts:

	Seat	Share of capital %
MediCare Flughafen München Medizinisches Zentrum GmbH	Oberding	51.0
EFM – Gesellschaft für Enteisen und Flugzeugschleppen am Flughafen München mbH	Freising	49.0

The following changes were made to the group of consolidated companies in fiscal 2011:

- As of fiscal 2011, MediCare Flughafen München Medizinisches Zentrum GmbH is no longer recorded in the yearend accounts as a fully consolidated company but as an associated company. Given that its sales, net income and total assets amount to less than 1 percent of the corresponding figures for the consolidated group, the company is not fully consolidated on account of its minor significance (Section 290, Paragraph 2 of the German Commercial Code).
- MUCGround Services Flughafen München GmbH, Freising, was merged into AeroGround Flughafen München GmbH.
- The group acquired 94.9 percent of the limited partners' share in MAC Grundstücksgesellschaft mbH & Co. KG in October 2011. In addition, a third-party shareholder resigned.

Due to first-time implementation of regulations pursuant to Germany's Accounting Law Modernization Act (BilMoG) in 2010, the following special purpose entities were reported as fully consolidated subsidiaries in accordance with Section 290, Paragraph 2, Item 4 and Section 313, Paragraph 2, Item 1 of the German Commercial Code: MFG Flughafen-Grundstücksverwaltungsgesellschaft mbH & Co. ALPHA KG, MFG Flughafen-Grundstücksverwaltungsgesellschaft mbH & Co. BETA KG, MFG Flughafen-Grundstücksverwaltungsgesellschaft mbH & Co. Gamma oHG, MALTO Grundstücksgesellschaft mbH & Co. KG, MAC Grundstücksgesellschaft mbH & Co. KG, and München Airport Center Betriebsgesellschaft MAC mbH. The FMG Group does not have majority rights in these special purpose entities. However, from an economic standpoint, it does have a major share in the associated risks and opportunities. München Airport Center Betriebsgesellschaft MAC mbH is a subletting company; the other special purposes entities are real estate management companies.

The Group sold its stake in Bayern Facility Management GmbH, Munich, valued at equity, in March 2011.

## 2. Principles of consolidation

Since fiscal 2007, capital has been consolidated in accordance with the revaluation method for additions to the consolidated group.

Differences in assets or liabilities arising through capital consolidation are capitalized as goodwill under intangible assets, are written down over a useful life of five years, and are reported as earnings in the consolidated income statement.

As in the prior year, assets and liabilities were valued in accordance with German Accounting Standards (DRS), Section 4, "Company acquisitions in consolidated accounts."

Stakes in associated companies acquired since the Accounting Law Modernization Act was first applied are reported at book value in accordance with Section 312, Paragraph 1, Item 1 of the German Commercial Code. Existing investments in associated companies prior to initial application of the Accounting Law Modernization Act are reported at the proportional share in the equity of the associated company as at the time of their initial consolidation in accordance with Section 312, Paragraph 1, Item 2 of the prior version of the German Commercial Code. The investments included in the consolidated yearend accounts using the at-equity method at December 31, 2011, are stated at the amount of the proportional change in their equity.

Sales, expenses, earnings, receivables and liabilities within the group of consolidated companies are set off against one another.

Internal Group income from construction projects in fiscal 2011 was booked as other capitalized labor, overheads and material under property plant and equipment and written down accordingly. Specifically, this internal Group income comprised: €3.234 million in total from FM Terminal 2 Immobilienverwaltungsgesellschaft mbH & Co. oHG with Flughafen München Baugesellschaft mbH and Flughafen München GmbH; €2.103 million in total from Terminal 2 Betriebsgesellschaft mbH & Co. oHG with Flughafen München Baugesellschaft mbH and

Flughafen München GmbH; €452 thousand from MAC Grundstücksgesellschaft mbH & Co. KG with Flughafen München GmbH; €322 thousand from AeroGround Flughafen München GmbH with Flughafen München GmbH; and €107 thousand from Flughafen München GmbH with Flughafen München Baugesellschaft mbH. The elimination of intragroup profits on long-term assets from these construction projects led to expense of €670 thousand. The elimination of income at Flughafen München GmbH from the sale of long-term assets to AeroGround Flughafen München GmbH, offset against the adjustment for additional write-downs in the purchaser's own separate financial statement, resulted in a consolidation effect of €4.038 million being recognized as income. The following were adjusted for consolidated reporting purposes: provisions in the yearend accounts of Allresto Flughafen München Hotel und Gaststätten GmbH to cover €6.262 million in restoration commitments toward Terminal 2 Betriebsgesellschaft mbH & Co. oHG, Flughafen München GmbH and MAC Grundstücksgesellschaft mbH & Co. KG, provisions of €4.057 million for remediation work at Flughafen München GmbH for special purpose entities, and a provision at Flughafen München GmbH with a valuation difference of €39.800 million in the consolidated financial statements.

## II. Accounting and valuation principles

### 1. Intangible and tangible assets

Purchased intangible assets are recorded at their original cost and depreciated using the straight-line method, for the most part assuming a useful life of three years.

Excess cost over book value from capital consolidation is capitalized as goodwill and depreciated over five years. Goodwill created through capital consolidation in fiscal 2011 totaled €2.342 million. Existing goodwill in separate financial statements is also depreciated over five years.

Tangible assets are valued at their mandatory capitalized cost of production or original cost in accordance with Section 255, Paragraphs 1 and 2 of the German Commercial Code. The costs of production include material overheads where appropriate, production overhead, and wear, as well as consumption or other reduction in the useful economic life of an asset if caused by production.

Assets with a limited useful life are depreciated using the straight-line method over their anticipated overall service life in line with the German Airports Association's tax depreciation tables. Contrary to these tables, Group buildings are generally depreciated over a period of 40 to 50 years.

The additional depreciation recorded by Flughafen München GmbH and FM Terminal 2 Immobilien-Verwaltungsgesellschaft mbH & Co oHG in the accounts prepared for tax purposes and the accounts prepared for financial reporting purposes in fiscal 2011 totaled €25.099 million. This concerns buildings as defined in Section 7, Paragraph 4, Item 1 of the German Income Tax Code that are classed as operating business assets and are nonresidential in character – essentially, buildings belonging to the passenger handling facilities.

In fiscal 2008 and 2009, in accordance with the then current fiscal regulations, assets costing between €150 and €1,000 were grouped into collective items and depreciated over a period of five years using the straight-line method, regardless of the assets' actual useful life. As of fiscal 2010, assets costing less than €150 and up to €410 are depreciated in full in the year of their purchase. These low-value assets are retired after five years, irrespective of the aforementioned depreciation methods.

## 2. Financial assets

Adjustments in connection with migrating the year-end accounts of associated companies to a consistent group-wide accounting and valuation system were so minor that none were required under Section 312, Paragraph 5 of the German Commercial Code. Profits from the disposal of associated companies are reported under income from investments in associated companies.

Other financial assets are stated at the lower of cost or fair value.

Low-interest employer loans are stated at their nominal value at the balance-sheet date.

## 3. Current assets

Inventories are mainly stated at their weighted average cost for the past three months and are written down at the lower of cost or fair value to cover risks arising from slow-moving items and drops in price.

Substitute plots of land and emissions allowances reported as inventories are capitalized at the lower of cost or fair value.

Receivables and other current assets are stated at the lower of nominal or fair value. Identifiable risks are accounted for in valuation adjustments. Appropriate provisions are made to cover general credit risk from receivables. Non-interest-bearing or low-interest receivables are reported at their present value.

Cash on hand and credit balances with banks are reported at their nominal value.

## 4. Provisions

Provisions for pensions were calculated according to actuarial principles using the Projected Unit Credit method and interest rates of between 4.68 percent and 5.17 percent (2010: between 4.78 percent and 5.22 percent) and an anticipated rate of increase in wages and salaries of 3.00 percent (2010: 3.00 percent). A rate of increase in pensions of 2.00 percent was assumed (2010: 2.00 percent). Life tables published by Prof. Klaus Heubeck were also applied.

Prospective entitlements for spouses' pensions were calculated using the collective method. Calculations were based on notional final ages of 63, 65 and 66 years for men and 65 years for women.

Provisions for phased retirement schemes set up under old agreements are calculated in accordance with the terms set out in Section 253 of the German Commercial Code and accepted actuarial rules. Pension obligations were valued at their present actuarial value, assuming a salary rise trend of between 0.00 percent and 1.50 percent (2010: between 0.00 percent and 1.50 percent). These were calculated according to the 2005 G guideline tables published by Prof. Klaus Heubeck and monthly payments in advance, at an interest rate of between 3.80 percent and 3.94 percent (2010: between 3.90 percent and 3.97 percent).

To meet obligations arising through phased retirement agreements and overtime credits, reinsurance agreements were concluded which are ring-fenced from other creditors. In fiscal 2011, the reinsurance agreements are valued at fair value and offset against the underlying obligations. In instances where this results in an excess obligation, that excess is included in the provisions.

If the current value of the reinsurance exceeds the obligations, this is included on the asset side of the balance sheet as an active difference resulting from offsetting.

As a result of a new collective pay agreement for apron controllers and airport fire service employees, provisions were made for phased retirement for these roles for the first time in 2011. These provisions were also calculated using Prof. Klaus Heubeck's 2005 G guideline tables, assuming monthly payments in advance, at an interest rate of 5.14 percent, and a duration of 15 years. The valuation assumed that the trend will be for apron controller salaries to rise 5.9 percent a year until 2016 and 3.00 percent a year from 2017. A salary trend of 2.50 percent per year was assumed for fire service employees. Initially, no fluctuation was taken into account for either of these groups.

Prof. Heubeck's 2005 G guideline tables were also used to calculate provisions for anniversaries and benefits. The benefit provisions were based on an interest rate of 5.05 percent (2010: 5.06 percent) and a salary and pension trend running at 2.00 percent (2010: 2.00 percent). Anniversary provisions were based on an interest rate of between 4.49 and 4.69 percent (2010: between 4.57 and 4.69 percent) and assumed a salary trend of between 2.00 and 3.00 percent (2010: 3.00 percent) and a fluctuation of between 3.00 and 10.00 percent (2010: 3.00 percent).

Other provisions are carried at anticipated settlement amounts based on prudent and reasonable commercial assessment. Other provisions with terms of more than one year are discounted at interest rates appropriate to their terms, determined and published by Deutsche Bundesbank in accordance with the German Regulation on the Discounting of Provisions. The interest rates at which provisions were discounted in 2011 were between 3.75 percent and 4.78, depending on their residual term.

Based on a conservative assessment, all foreseeable risks and losses occurring through to the balance-sheet date – even those emerging between the reporting date and the date of the preparation of the consolidated yearend accounts – have been addressed.

## 5. Liabilities

Liabilities are valued at their respective settlement amounts. Liabilities for annuity payments are stated at their present values, with a mean interest rate of 5.5 percent.

## 6. Deferred taxes

Deferred taxes are determined based on differences between the times at which values are measured for assets, liabilities, accruals and deferrals in connection accounts prepared for tax purposes and accounts prepared for financial reporting purposes. Tax losses and interest carried forward are taken into account in the process. Valuations for controlled companies are conducted on the basis of the current corporate income tax and trade tax rates (plus reunification tax) for the tax consolidation group. For companies outside the tax consolidation group, their individual rates of tax apply. In accordance with the options provided by Section 274, Paragraph 1, Sentence 2 of the German Commercial Code, deferred tax assets exceeding deferred tax liabilities are not capitalized. Deferred taxes under Section 306 of the German Commercial Code are offset against deferred taxes under Section 274.

## 7. Currency conversions

Foreign-currency receivables and liabilities with a residual term of less than one year are valued at the mid-market spot rate on the balance-sheet date.

All other foreign-currency receivables and liabilities are valued at the conversion rate applicable at the invoice date or the less favorable of the lower or higher spot rate on the balance-sheet date.

## 8. Derivative financial instruments

Derivative financial instruments are valued individually at their market value on the balance-sheet date. The underlying transactions and hedging transactions are combined in a single unit of valuation if they satisfy the requirements for doing so.

### III. Notes on the consolidated balance sheet and consolidated income statement

#### 1. Changes in Group fixed assets

	Acquisition and production costs						Dec. 31, 2011
	Jan. 1, 2011	Additions	Reclas- sifications from current assets	Changes to consolidated group	Retirements	Reclas- sifications	
	€ thousand	€ thousand	€ thousand	€ thousand	€ thousand	€ thousand	€ thousand
<b>Intangible assets</b>							
1. Franchises, intellectual property and similar rights and assets, and licenses to such rights and assets	28,630	1,392	0	-118	-1,872	1,401	29,433
2. Goodwill	0	4,963	0	2,342	0	0	7,305
3. Advances on intangible assets	5	0	0	0	0	-5	0
	<b>28,635</b>	<b>6,355</b>	<b>0</b>	<b>2,224</b>	<b>-1,872</b>	<b>1,396</b>	<b>36,738</b>
<b>Tangible assets</b>							
1. Land, rights similar to land, and buildings, including buildings on land not owned	4,380,338	27,456	12,314	0	-1,601	3,718	4,422,226
2. Technical equipment and machinery	1,352,641	3,201	0	-16	-31,415	5,731	1,330,141
3. Other equipment, plant and office equipment	270,463	11,120	0	-578	-9,834	323	271,494
4. Construction in progress and advances on fixed assets	110,167	93,750	0	0	-297	-11,168	192,452
	<b>6,113,609</b>	<b>135,527</b>	<b>12,314</b>	<b>-594</b>	<b>-43,147</b>	<b>-1,396</b>	<b>6,216,313</b>
<b>Financial assets</b>							
1. Investments in associated companies	4,038	2,380	0	-901	-2,156	0	3,361
2. Other loans	327	13	0	0	-101	0	239
	<b>4,365</b>	<b>2,393</b>	<b>0</b>	<b>-901</b>	<b>-2,257</b>	<b>0</b>	<b>3,600</b>
	<b>6,146,609</b>	<b>144,275</b>	<b>12,314</b>	<b>729</b>	<b>-47,276</b>	<b>0</b>	<b>6,256,651</b>

← Supervisory board's report

← Consolidated management report

↓ Consolidated financial statements

→ Independent auditor's report

Cumulative depreciation						Book values		
Jan. 1, 2011	Additions	Changes to consolidated group	Retirements	Reclas- sifications	Dec. 31, 2011	Dec. 31, 2011	Dec. 31, 2010	
€ thousand	€ thousand	€ thousand	€ thousand	€ thousand	€ thousand	€ thousand	€ thousand	
25,008	1,781	-109	-1,872	0	24,808	4,625	3,623	
0	0	0	0	0	0	7,305	0	
0	0	0	0	0	0	0	5	
<b>25,008</b>	<b>1,781</b>	<b>-109</b>	<b>-1,872</b>	<b>0</b>	<b>24,808</b>	<b>11,930</b>	<b>3,628</b>	
1,247,182	90,782	0	960	0	1,338,924	3,083,302	3,133,155	
1,072,720	48,082	-16	-31,343	2	1,089,445	240,696	279,921	
227,119	13,753	-453	-9,754	-2	230,663	40,831	43,344	
0	0	0	0	0	0	192,452	110,167	
<b>2,547,021</b>	<b>152,617</b>	<b>-469</b>	<b>-40,137</b>	<b>0</b>	<b>2,659,032</b>	<b>3,557,281</b>	<b>3,566,587</b>	
0	0	0	0	0	0	3,361	4,038	
0	0	0	0	0	0	239	327	
<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>3,600</b>	<b>4,365</b>	
<b>2,572,029</b>	<b>154,398</b>	<b>-578</b>	<b>-42,009</b>	<b>0</b>	<b>2,683,840</b>	<b>3,572,811</b>	<b>3,574,580</b>	

### Investment in associates

In the fiscal year reviewed, MediCare Flughafen München Medizinisches Zentrum GmbH is no longer reported in the consolidated yearend accounts as an affiliated company but as an associated company. It is carried at the value of the attributable equity share of €227 thousand as at the time of the transitional consolidation. In the review year, the carrying value increased to €300 thousand through a share of €73 thousand in MediCare's net profit for the year.

EFM's carrying value grew from €2.910 million at January 1, 2011, to €3.061 million at December 31, 2011. Over the same period, the unit generated a proportionate net profit for the year of €2.307 million with a payout of €2.156 million.

### 2. Receivables and other assets

Other assets totaling €20.433 million are due within more than one year (2010: €21.424 million). All other receivables and other assets are due within one year.

Receivables from affiliated and associated companies of €169 thousand (2010: €0 thousand) and €428 thousand (2010: €258 thousand), respectively, result entirely from the provision of goods and services.

### 3. Equity

The FMG Group's retained earnings comprise other retained earnings from Flughafen München GmbH, eurotrade Flughafen München Handels-GmbH, Aero-Ground Flughafen München GmbH, CAP Flughafen München Sicherheits-GmbH, and Flughafen München Baugesellschaft mbH, and earnings from consolidation entries and from subsidiaries' net income.

The Group's consolidated net profit at December 31, 2011, is calculated as follows:

	€ thousand
Consolidated net income	197,119
Minority interest in net income	-24,995
Allocation to other retained earnings	-5,346
Consolidated profit carried forward	19,765
<b>Consolidated net profit</b>	<b>186,543</b>

The minority interests comprise Flughafen München Baugesellschaft mbH (€13 thousand), FM Terminal 2 Immobilien-Verwaltungsgesellschaft mbH (€10.000 million), Terminal 2 Betriebsgesellschaft mbH & Co oHG (€1.210 million), MFG Flughafen-Grundstücksverwaltungsgesellschaft mbH & Co. ALPHA KG (€145.006 million), MFG Flughafen-Grundstücksverwaltungsgesellschaft mbH & Co. BETA KG (€168.312 million), MFG Flughafen-Grundstücksverwaltungsgesellschaft mbH & Co. Gamma oHG (€50.871 million), MALTO Grundstücksverwaltungsgesellschaft mbH & Co. KG (€5.575 million), MAC Grundstücksgesellschaft mbH & Co. KG (negative €58 thousand), and München Airport Center Betriebsgesellschaft MAC mbH (negative €2.681 million).

The change in consolidated equity is presented separately in the equity table.

### 4. Provisions

Provisions for deferred taxes in the FMG Group's consolidated financial statements total €15.995 million (2010: €25.610 million).

In fiscal 2011, the FMG Group had other provisions totaling €183.740 million (2010: €181.279 million). These essentially comprise €10.400 million (2010: €89.900 million) for the restructuring of our ground handling activities, €17.749 million (2010: €11.838 million) for settlement backlogs and future obligations in connection with phased retirement programs, €78.169 million (2010: €9.476 million) for the regional impact fund, €3.351 million (2010: €4.523 million) for the fulfillment of statutory requirements concerning fire extinguishing systems, and €21.885 million (2010: €19.083 million) for maintenance work, major repairs, restoration commitments and outstanding invoices for construction work.

In accordance with Section 246, Paragraph 2, Sentence 2 of the German Commercial Code, entitlements from reinsurance contracts that are ring-fenced from other creditors and are solely for the purpose of meeting liabilities from phased retirement obligations can be offset against these obligations. The acquisition costs of the assets in connection with phased retirement programs amount to €12.471 million (2010: €14.331 million). The figures represent the current value as determined by experts at Allianz Lebensversicherungs AG. At the balance sheet date, the settlement backlog of the offset liabilities totaled €20.481 million (2010: €26.169 million).

## 5. Liabilities

### Liabilities table

	December 31, 2011				December 31, 2010	
	Total	Residual term up to 1 year	Residual term 1 to 5 years	Residual term over 5 years	Total	Residual term up to 1 year
	€ thousand	€ thousand	€ thousand	€ thousand	€ thousand	€ thousand
Liabilities to shareholders of the parent company	15,948	15,948	0	0	151,982	151,982
Liabilities to banks	1,742,155	84,467	836,224	821,464	1,763,145	78,288
Trade liabilities	73,627	69,202	4,425	0	58,840	55,386
Liabilities to affiliated companies	657	542	115	0	0	0
Liabilities to associated companies	2,506	2,506	0	0	6,455	6,455
Other liabilities	296,411	102,807	172,530	21,074	255,162	50,364
of which to insurance companies	43,622	54	43,568	0	43,614	46
	2,131,304	275,472	1,013,294	842,538	2,235,584	342,475

Total liabilities to affiliated and associated companies of €657 thousand (2010: €0 thousand) and €2.506 million (2010: €6.455 million), respectively, include €530 thousand (2010: €0 thousand) and €1.599 million (2010: 4.652 million) from cash management within the Group and €12 thousand (2010: €0 thousand) and €907 thousand (2010: €1.803 million) in accounts payable, and €115 thousand (2010: €0 thousand) in outstanding contributions.

Under the terms of a master loan agreement and a syndicate agreement concluded with two subsidiaries, the financing banks have as security the cession of entitlements from rents, land use agreements and insurance contracts, and the temporary transfer of title to Terminal 2 buildings and structures, to extensions above and below ground, and to superstructures on these buildings and structures, including the extended baggage sorting hall and the planned satellite building. For one of the two subsidiaries, the title to furniture, fittings, movables and production equipment has also been transferred temporarily. At December 31, 2011, the two subsidiaries' liabilities to banks totaled €924.392 million.

## 6. Deferred tax liabilities

Deferred tax liabilities are incurred by differences in the valuation of fixed assets, particularly in connection with buildings. Differences in the accrual valuations lead to deferred tax assets which are netted against deferred tax liabilities and pertain essentially to the reserve formed for the restructuring of our ground handling activities. Losses and interest carried forward also incur deferred tax assets; these too are netted. It is expected that the loss and interest carry-forwards will be used in full by 2013. Deferred taxes were computed within Flughafen München GmbH's tax consolidation group at a corporate income tax rate, including reunification tax, of 15.825 percent and a trade tax rate of 11.83 percent (trade tax index of 3.5 percent, multiplied by the assessment rate of 338 percent). The deferred taxes of businesses outside the tax consolidation group are valued on the basis of corporate income tax (including reunification tax) at a rate of 15.825 percent and individual trade tax rates of between 8.4 and 11.2 percent.

## 7. Sales, earnings and expenses

Sales are grouped by areas of activity, corresponding to internal structures.

	2011		2010	
	€ thousand	%	€ thousand	%
Aviation and handling services	601,399	52.3	567,376	52.5
Non-aviation	549,242	47.7	513,718	47.5
	<b>1,150,641</b>	<b>100.0</b>	<b>1,081,094</b>	<b>100.0</b>

Other operating income includes €69.093 million (2010: €0 thousand) from the write-back of contractually required provisions in ground handling. Additional other operating income items include €19.373 million (2010: €7.260 million) from the write-back of current provisions formed in the past but not required in fiscal 2011, €6.162 million (2010: €5.544 million) in income from advertising in subsidiaries, €2.529 million (2010: €335 thousand) in revenue from the disposal of noncurrent assets, and €1.866 million (2010: €1.199 million) in ground rents.

Other operating expense includes €24.657 million (2010: €21.880 million) for advertising, €13.664 million (2010: €11.042 million) for rents, leases and licenses, €6.719 million (2010: €6.469 million) for insurance, and €10.097 million (2010: €9.040 million) for auditing and consulting.

## 8. Income from investments in associated companies

This includes €73 thousand (2010: €0 thousand) in income from associated companies.

## 9. Interest earnings and expense

Interest earnings include €148 thousand (2010: €0 thousand) in interest earned on provisions.

Interest expense includes a total of €5.852 million (2010: €3.241 million) in interest on long-term provisions.

Interest expense from longer-term personnel provisions comprises the net expense after offsetting against earnings from assets invested. The sole purpose of the assets invested is to meet pension and overtime payment obligations; these are ring-fenced from other creditors. Under the terms of Germany's Accounting Law Modernization Act (Section 246, Paragraph 2, Sentence 2 of the German Commercial Code), €341 thousand (2010: €274 thousand) in investment income were offset against €695 thousand (2010: €687 thousand) in interest expense.

## 10. Income taxes

Income tax expense of €38.228 million (2010: €37.206 million) comprises €14.303 million (2010: €8.270 million) allocated to deferred corporate income tax and trade tax liabilities, and €23.925 million (2010: €28.936 million) in advance payments and additions to provisions for corporate income tax and trade tax.

## 11. Extraordinary gain

The extraordinary gain reported in the prior year resulted entirely from initial application of Germany's Accounting Law Modernization Act (BilMoG).

## IV. Additional notes

### 1. Contingent liabilities

To address risks relating to possible back payments of wage taxes and social security contributions and continuing balance-sheet insolvency at CAP Flughafen München Sicherheits-GmbH, Flughafen München GmbH issued a renewed declaration of backing up to the amount of €8.500 million on behalf of its subsidiary. This amount exceeds the subsidiary's own reserve.

Following a judicial investigation, CAP on February 25, 2011, received a notice of liability for wage tax, church tax and reunification tax for the period from April 2003 to August 2008 amounting to €1.186 million. CAP appealed against this on March 25, 2011, within the statutory term and applied for the suspension of enforcement. No judicial decision on this application had been reached by the time FMG's yearend accounts were prepared. To protect CAP's liquidity, FMG will provide a shareholder loan of €4.500 million if required, which will be conditionally repayable and subject to conditional interest.

### 2. Other financial obligations

Rental and lease agreements on office and business equipment and purchasing commitments incurred expenses of €30.374 million, of which €15.026 million apply to fiscal 2012.

At the end of fiscal 2011, FMG had €16.895 million in financial obligations for land purchases for which the purchase amount is not yet or only partially due.

Other financial obligations amounting to €5.272 million from insurance contracts (business, terrorism and property insurance) will arise through to December 31, 2012.

Obligations from supply and service agreements essentially apply to ongoing business operations and amount to €9.533 million a year. The company also has additional obligations in connection with environmental protection measures and the honoring of public-law requirements.

Obligations issuing from purchasing commitments amount to €6.950 million.

### 3. Derivative financial instruments

The FMG Group had the following derivative financial instruments at the reporting date:

- Forty-four payer swaps with a volume of €1.305 billion (including €50.000 million in follow-up transactions for expiring interest swaps and €456.000 million in payer swaps concluded in fiscal 2011 as interest hedges with regard to future utilization of an existing syndicated loan agreement) and terms through to 2021. At December 31, 2011, the payer swaps had an accumulated value of negative €55.081 million.
- Six US dollar foreign currency forwards with a volume of US\$9.361 million. The purpose of these foreign exchange transactions is to secure future payments received in connection with the company's international activities. The foreign exchange hedging transactions have a total market value of negative €88 thousand.

All interest and currency derivatives are valued in aggregate with their respective principal underlying transactions (of which some have a high probability), so there was no cause to form a reserve as a hedge against negative market values. A reserve of €249 thousand was formed to cover ineffective interest rate hedges.

In addition, two loans in existence at the balance-sheet date, which have terms through to 2014 and were originally taken out in Japanese yen, were transferred into euros by means of cross-currency swaps (total volume: €43.568 million).

The market values of all interest derivatives and forward exchange transactions are those quoted by the counterparties (banks) and are determined according to current interest structure charts and the discounted cash flow method.

	Risk	Underlying transaction		Hedging instrument		Hedge type	Prospective effectiveness
	Type	Type	Amount	Risk	Amount		
Currency	Contracted cash flow	Yen loan	¥6 billion (€43.6 million)	Yen forward sale	¥6 billion	Micro hedge	Critical term match
Currency	Anticipated cash flow	Consulting mandate, invoiced in Omani rials	OMR3.6 million	Dollar forward sales <sup>1</sup>	US\$9.4 million	Micro hedge	Critical term match
Interest	Contracted cash flow	Variable-interest loans	€500 million	Payer swaps	€500 million	Micro hedge	Critical term match
Interest	Contracted cash flow	Variable-interest loans	€726 million	Payer swaps	€726 million	Micro hedge	Critical term match
Interest	Contracted cash flow	Variable-interest loans	€29.4 million	Payer swaps	€29.4 million	Micro hedge	Critical term match

<sup>1</sup> Forward sales in US dollars were made on account of non-liquid hedging instruments in Omani rials. The Omani rial has a fixed parity with the US dollar.

#### 4. Auditors' remuneration

In fiscal 2011, the auditors of the Group's financial statements received €90 thousand for auditing and €95 thousand for other services.

#### 5. Business with related parties (persons and companies) as defined in the German Commercial Code

Under Section 314, Paragraph 1, Item 13 of the German Commercial Code, related parties (companies and persons) are legal or natural persons who are able to exert an influence on Flughafen München GmbH or who are controlled by or are subject to significant influence by Flughafen München GmbH.

Business with related parties largely consists of dealings conducted with subsidiaries and affiliated companies. These business dealings relate for the most part to rentals, services and finance. Such business is conducted on a regular basis and on market-typical terms.

No business dealings are conducted at market-atypical prices.

## 6. Executive board

Members of the executive board of Flughafen München GmbH, the Group's corporate parent, in 2011:

### Dr. Michael Kerkloh

President and Chief Executive Officer

### Thomas Weyer

Vice President and Chief Financial Officer  
 Chief Infrastructure Officer

## 7. Supervisory board

Members of the supervisory board in 2011:

### Georg Fahrenschon

Minister of State,  
 Bavarian State Ministry of Finance  
 chairman  
 (until November 3, 2011)

### Dr. Markus Söder

Minister of State,  
 Bavarian State Ministry of Finance  
 chairman  
 (from December 16, 2011)

## Free State of Bavaria

### Josef Poxleitner

Director-General,  
 Board of Building and Public Works in the  
 Bavarian State Ministry of Home Affairs

### Dr. Hans Schleicher

Director-General,  
 Bavarian State Ministry for Economic Affairs,  
 Infrastructure, Transport and Technology

### Klaus Weigert

Director-General,  
 Bavarian State Ministry of Finance

## Federal Republic of Germany

### Christiane Wietgreffe-Peckmann

Senior Principal,  
 Federal Ministry of Finance

### Michael Odenwald

Director-General,  
 Federal Ministry of Transport,  
 Building and Housing  
 (from January 18, 2011)

## City of Munich

### Christian Ude

Chief Mayor, City of Munich

### Dieter Reiter

Councilor, City of Munich

## Employee representatives

### Thomas Bihler

Clerical employee,  
 employee representative

### Heinrich Birner

Director of the ver.di labor union,  
 Munich region  
 vice chairman  
 (from December 16, 2011)

### Michael Börries

Certified aircraft handler

### Hans-Joachim Bues

Senior Vice President Corporate Communications,  
 executive employees' representative

### Willy Graßl

Clerical employee

### Orhan Kurtulan

Certified aircraft handler,  
 full-time works councilor

### Anna Müller

Clerical employee,  
 full-time works councilor

### Sabine Peters

Clerical employee

## 8. Executive board remuneration and loans

Remuneration of executive board members consists of a fixed salary and a variable, performance-based component:

<b>Executive remuneration in 2011</b>	<b>Fixed</b>	<b>Variable</b>	<b>Total</b>
	€ thousand	€ thousand	€ thousand
Dr. Michael Kerkloh	262	150	412
Thomas Weyer	236	118	354
<b>Total</b>	<b>498</b>	<b>268</b>	<b>766</b>

In addition, executive board members received emoluments in kind and contractually agreed fringe benefits totaling €24 thousand in 2011. Reserves were also formed at December 31, 2011, to cover future pension obligations, amounting to €1.221 million.

Former members of executive management and surviving dependents of former members received emoluments of €742 thousand in fiscal 2011. Reserves of €8.529 million were formed to cover future pension payments and accrued pension rights of surviving dependents.

Emoluments paid to supervisory board members totaled €16 thousand (2010: €17 thousand).

Executive board members did not receive any loans, nor were there any contingent liabilities in their favor.

## 9. Employees

Excluding members of executive management but including all employees on unlimited, fixed-term and trainee contracts, the FMG Group had an average headcount of 6,670 employees in fiscal 2011. In addition, there were 222 apprentices in vocational training programs.

Munich, April 30, 2012

**Dr. Michael Kerkloh**

**Thomas Weyer**

## Independent auditor's report

We, the appointed auditors, have audited the consolidated financial statements prepared by Flughafen München GmbH, Munich, comprising the balance sheet, income statement, cash flow statement, equity statement, notes to the consolidated financial statements, and consolidated management report for the fiscal year from January 1 to December 31, 2011. The preparation of the consolidated financial statements and the consolidated management report in accordance with German commercial-law requirements is the responsibility of the company's management. Our responsibility as auditors is to express an opinion, based on our audit, of the consolidated financial statements and of the consolidated management report.

We conducted our audit of the consolidated financial statements in accordance with Section 317 of the German Commercial Code (HGB) and with generally accepted standards for the auditing of financial statements as issued by the Institute of Public Auditors in Germany. These standards require that we plan and perform the audit in such a manner that, under the principles of proper accounting, any misstatements materially affecting the presentation of the net assets, financial position and results of operations in the consolidated financial statements or in the consolidated management report are detected with reasonable assurance. Knowledge of the business activities and the economic and legal environment of Flughafen München GmbH and its group of companies and expectations as to possible misstatements are taken into account in the determination of audit procedures. The effectiveness of the accounting-related internal control system and the evidence supporting the disclosures in the consolidated financial statements and the consolidated management report are examined

primarily on a test basis within the framework of the audit. The audit encompasses assessing the annual financial statements of those entities included in consolidation, the determination of entities to be included in consolidation, the accounting and consolidation principles applied and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements and the consolidated management report. We believe that our audit provides a reasonable basis for our opinion.

Our audit has not led to any reservations.

Based on the findings of our audit, it is our view that the consolidated financial statements comply with the statutory requirements and give a true and fair picture of the net assets, financial position and results of operations of Flughafen München GmbH in accordance with these requirements. The consolidated management report is consistent with the consolidated financial statements and, as a whole, provides an appropriate representation of the Group's position and its future business opportunities and risks.

Munich, May 4, 2012

### **Deloitte & Touche GmbH**

Appointed auditors

### **Dorn**

Auditor

### **Hehl**

Auditor



foreign nationals in  
the workforce



Flughafen München  
GmbH's strategic  
sustainability program  
is guiding sustainable  
development at  
Munich Airport



in value added

# Sustainable development

**150 Sustainability program**

**156 Sustainability indicators**

**170 Report profile**

**172 GRI index**

## Sustainability program


Our strategic sustainability program at Flughafen München GmbH spotlights future opportunities and risks we face and provides us with a roadmap for our onward development and our mission through to 2015. Our 2011 sustainability program builds on our prior-year program and comprises four focus areas with specific sustainability targets.

The program defines an overall target as well as near, intermediate and longer-term initiatives for each focus area. It also sets deadlines by which these initiatives are to be completed and tracks how far each has progressed. In our environmental and climate protection focus area, we also operate a comprehensive environmental program based on our EMAS and DIN EN ISO 14001-certified environmental management system; this program is covered in detail in our annual environmental statements.

Field	Initiative	Activities in 2011	Status in 2011	Target date	
Company and governance					
Target: Sustain value creation through a yield-driven business model and continued investment in our location					
Return on capital employed	Generate an ROCE higher than the general market weighted average cost of capital (WACC)	ROCE of 9.3% achieved; same level to be maintained going forward	Ongoing	Ongoing	
Higher earnings	JUMP, a group-wide program of measures to improve earnings	Implementation of JUMP program initiatives	100% ■■■■■■■■■	2011	
Expansion of the airport	Growth and expansion of the airport's infrastructure as per our master plan	Processing to deadline of objections raised regarding our third runway; completion of planning for satellite as per general development plan	Ongoing	Ongoing	
	Incorporation of sustainability criteria into plans for expansion and reconstruction under consideration of carbon targets	Measurement and differential assessment of carbon figures for other buildings; planning of technical manual on energy design and sustainable building on campus	100% ■■■■■■■■■	2011	
		Incorporation of binding carbon targets into planning process	Ongoing	Ongoing	
		Certification of selected buildings to German Sustainable Building Council (DGNB) standards	Development of certification system for terminals in association with DGNB	50% ■■■■■□□□□	2015
		Target: Greater customer focus and a more attractive product and service portfolio			
Demand-driven product and service portfolio	Improvement in the airport's quality of service	Monitoring by means of direct customer feedback and surveys: ACI benchmark program, Airport Service Quality (ASQ), Skytrax rating, complaints management	Ongoing	Ongoing	





Field	Initiative	Activities in 2011	Status in 2011	Target date
Demand-driven product and service portfolio	Continuation of strategic innovation management	Continued merging of idea pool (in-house suggestion scheme) with innovation management system	50% <div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>	2012
		Tighter linkage between strategy development/implementation and innovation management	Planned	2012
Target: Establish management structures to foster responsible corporate leadership				
Strategic sustainability management	Advancement and expansion of our strategic sustainability program and management system	Continuation of sustainability projects and initiatives, incorporation of these into multi-project management system	Ongoing	Ongoing
		Linkage of strategic sustainability management with organizational, process, quality and innovation management	Planned	2012
	Collaboration with GRI on development of updated GRI guidelines (G4)	Organizational stakeholder meeting in Munich	100% <div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>	2011
		Collaboration on development of GRI guidelines (G4)	10% <div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>	2014
	Integration of sustainability and annual reports	Preparation of a concept for integrated, cross-media reporting	100% <div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>	2011
		Participation in International Integrated Reporting Council (IIRC) pilot program	30% <div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>	2013
		Continued interlocking of reporting process	10% <div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>	2012
	Refinement and revision of future strategy work	Optimization of internal planning and control processes	10% <div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>	2013
	Promotion of sustainability awareness	Planning and organization of information events on sustainability with new thematic focuses	10% <div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>	2013
	Incorporation of sustainability criteria into supplier management system	Addition of sustainability aspects to strategic procurement strategy	45% <div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>	2013
Compliance and anticorruption	Formation of an independent compliance unit in the company	Development and implementation of a compliance strategy for the Group and creation of an organizational and process framework	100% <div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>	2011
	Compliance training programs	Company-wide delivery of training courses	Planned	2013
	Creation of a compliance management system, incl. whistle-blower system	Rollout of electronic whistle-blower system	100% <div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>	2011
		Planning and certification of compliance management system	80% <div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>	2012

Field	Initiative	Activities in 2011	Status in 2011	Target date
Environmental and climate protection				
Target: Company-wide expansion of environmental management system				
Environmental management	Certification of additional subsidiaries in accordance with DIN EN ISO 14001 and EMAS	Allresto and Kempinski successfully re-certified	100% ■■■■■■■■■	2011
		Certification of Cargogate and aerogate	80% ■■■■■■■ ■	2012
	Re-certification of FMG's existing environmental management system	Re-certification	Ongoing	Ongoing
	Incorporation of current thematic focuses into environmental management program	Assessment of other relevant thematic focuses	Ongoing	Ongoing
	Airport Carbon Accreditation by Airports Council International (ACI)	Retention of level 3 (optimization) certification awarded for successful reduction of carbon footprint	Ongoing	Ongoing
	Data management	Expansion of carbon database	100% ■■■■■■■■■	2011
		Creation of an integrated database system for the environmental management information system (EMIS)	80% ■■■■■■■ ■	2012
Target: Resource efficiency and reduction of emissions and other impacts				
Greenhouse gas emission	Preparation of an annual carbon footprint	Annual process established	100% ■■■■■■■■■	2011
	Refinement of our strategy for reducing carbon emissions (strategy to implement carbon reduction)	Identification of more ways to reduce carbon output and achieve 2014 milestone in preparation for carbon-neutral growth by 2020	40% ■■■■ ■■■ ■■■	2014
		All measures to cut carbon recorded in a database. Examples of measures implemented: optimization of lighting (LED technology in P20, MAC signage, outdoor lighting at T2 pier), optimization of ventilation (demand-based HVAC systems in baggage sorting hall and T2)	50% ■■■■ ■■■ ■■■	2015
	Implementation and monitoring of carbon reduction measures	Start of a new campus-wide program to save power	10% ■ ■■■■■■■ ■	2015
		Greater use of renewable energy	Use of renewable energy to heat buildings: 15 gigawatt hours supplied by Zolling biomass plant, saving 3.5 tons of carbon a year	20% ■■ ■■■■■ ■

Field	Initiative	Activities in 2011	Status in 2011	Target date
Emissions and other environmental impacts	Reduction of air pollutants and noise	Mobile noise measurements conducted for local communities on request; measurement of continuous sound level; permanent hotline for noise complaints	Ongoing	Ongoing
		CDA (quieter landing approach procedure)	Ongoing	Ongoing
		Emissions-based take-off and landing charges	Ongoing	Ongoing
		Honey monitoring program (food-stuff testing)	Ongoing	Ongoing
Resource conservation and energy efficiency	Green IT	Continuous introduction of new measures as part of green IT program	Ongoing	Ongoing
	Optimization of processes to save resources	Recycling of spent deicing fluid, installation of centralized meter management (smart metering); reduction of paper consumption (replacement of fresh-fiber paper with recycled paper)	Ongoing	Ongoing
	Reduction of vehicle fleet fuel consumption and use of alternative drive technologies	Implementation of car policy, plans to increase number of electric and hybrid vehicles	Ongoing	Ongoing
	Optimization of energy production	Conversion of chiller no. 3 to operate with heat pumps, increase of free cooling capacity	50% 	2020

#### Workforce and work environment<sup>1</sup>

Target: Continuous improvement in efficiency and operational excellence

Process optimization	Introduction of system of personnel officers	System of personnel offices introduced	100% 	2011
	Organizational changes to support HR policy	Separation of HR development from company's HR Development, Training and HR Marketing unit, creation of a separate HR and Leadership Development unit	50% 	2012
Health management	Employability assessments as part of a pilot project on employee health	Development of a package of measures	50% 	2013
	Incorporation of the pilot project into org structure	Creation of Company Health Management unit	100% 	2011

<sup>1</sup> Following the appointment of a new head of Human Resources in the summer of 2011, a new HR strategy was developed (p. 80). This shapes the course of future personnel work and is reflected in the section on the workforce and work environment in our sustainability program.

Field	Initiative	Activities in 2011	Status in 2011	Target date
Skills management	Group-wide coordination of training management by the Airport Academy	Unit-specific assessments of training needs in collaboration with personnel officers	Planned	2013
		Preparation for integration of training on ground handling tasks	100% ■■■■■■■■■■	2011
		Implementation of an e-learning platform and widening of computer-based training (CBT)	100% ■■■■■■■■■■	2011
	Implementation of projects with partner organizations	Close collaboration with several partners, including Munich University of Technology, LMU Munich and Bauhaus Luftfahrt	100% ■■■■■■■■■■	2011
Target: Support FMG's plans for growth by ensuring a supply of suitably qualified workers				
Skills management	HR development	Projected HR requirements over five years	100% ■■■■■■■■■■	2011
		Quantitative gains and qualitative enhancements	Planned	2012
Employee recruitment and training	Management of qualitative and quantitative HR planning	Achievement of initiatives' milestones on schedule, definition of recruitment mix	20% ■ ■ ■ ■ ■ ■ ■ ■	2013
	Development of additional needs-based vocational and work-study programs	Review of vocational training portfolio	Planned	2014
	Hiring of new employees for the FMG Group	Development of a recruitment strategy	25% ■ ■ ■ ■ ■ ■ ■ ■	2012
		Hiring of new vocational trainees (90) and external employees (871) in line with needs and requirements	100% ■■■■■■■■■■	2011
Target: Establish and continuously advance leadership excellence in the FMG Group				
Skills management	Leadership development	Leadership excellence program to improve managers' leadership skills	100% ■■■■■■■■■■	2011
		Improvement of leadership skills: Implementation of leadership excellence program module	25% ■ ■ ■ ■ ■ ■ ■ ■	2014
	Definition of leadership standards and instruments	Redesign of employee reviews	40% ■ ■ ■ ■ ■ ■ ■ ■	2012
		Definition and introduction of a corporate leadership code, combined with leadership instruments	40% ■ ■ ■ ■ ■ ■ ■ ■	2012

Field	Initiative	Activities in 2011	Status in 2011	Target date
Target: Increase attractiveness as a company to work for and boost employee loyalty				
Employee satisfaction	Identification of employer attractiveness as a core element of HR strategy	Increase in employee loyalty over the next five years	Planned	2015
		Significant increase in non-scale profit sharing for employees	100% ■■■■■■■■	2011
	Improvement of employee satisfaction	Implementation of the "befamily!" project	100% ■■■■■■■■	2011
		Planning and expansion of child-care support	100% ■■■■■■■■	2011
	Development of an employer brand	Employer branding program	Planned	2012
	Expansion of marketing to schools and universities	Network widened successfully	100% ■■■■■■■■	2011
Communication and social responsibility				
Target: Develop in partnership with the region				
Regional dialogue	Regular communication with stakeholder groups	Talks with community representatives and policymakers in the airport region, information events for businesses and advocacy groups, collaboration with local neighbors and partners	Ongoing	Ongoing
Regional value creation	Transparency on purchasing and supply relationships	Recording and publication of FMG's locally sourced purchase volume (incl. Allresto)	Annually	Annually
	Information for and communication with suppliers of goods and services	Creation of information flyers for potential suppliers of goods and services in the region	Ongoing	Ongoing
	Greater activity to promote tourism	Stepping up of promotional activities at regional shows and fairs	60% ■■■■■ ■■■■	2012
Target: Embrace social responsibility				
Regional sponsorships	Support for sport, social welfare, culture and education in the region	Sponsorship of MiBiKids in Freising, Freising Forest Sculpture Show, Freising Summer Theater Festival, Erding Jazz Festival, Open Airding Festival, intensive remedial school project in Wartenberg, etc.	100% ■■■■■■■■	2011
		Continuation of existing sponsorship agreements and review of new project requests according to FMG sponsorship principles, intensive dialogue with sponsorship partners	Ongoing	Ongoing

## Sustainability indicators

These indicators are determined based on Global Reporting Initiative (GRI) recommendations and guidelines for sustainability reporting. An overview of all G3 indicators is provided in the G3.1/AOSS GRI index. Unless stated otherwise, the figures given here pertain to the entire FMG Group, including affiliates in which we hold a majority stake.

### EC1 / Value added

	2011	2010
FMG Group	€ million	€ million
Net sales revenue	1,150.6	1,081.1
Other earnings	136.8	73.1
Total operating performance	1,287.4	1,154.2
Less operating expenditure	-476.9	-387.8
Less depreciation and amortization	-154.4	-155.6
<b>= Total value added</b>	<b>656.1</b>	<b>610.8</b>

Our value added statement shows the difference between the company's output and the value of attendant up-front expenditures. The distribution figures indicate the respective shares of those participating in the value added process (employees, the state and providers of capital).

### EC1 / Value distributed

	2011	2010
FMG Group	€ million	€ million
Employees	308.1	307.0
Providers of capital	94.6	100.3
The state	56.3	191.3
Third-party shareholders	25.0	15.4
The company	172.1	-3.2
<b>= Total value distributed</b>	<b>656.1</b>	<b>610.8</b>

Our employees again accounted for the greatest amount of value added in 2011 – more than €300.0 million in the form of wages and salaries, social security levies and retirement provisions.

FMG's payments to the state include taxes and the interest paid to shareholders. In the review year, FMG again received no state financial grants.

## AO1, AO2, AO3 / Air traffic figures



→ [www.munich-airport.com/statistics](http://www.munich-airport.com/statistics)

	2011	2010	2009
<b>Passenger movements (total)</b>	<b>37,782,256</b>	<b>34,742,222</b>	<b>32,701,759</b>
Commercial traffic	37,763,701	34,721,605	32,681,067
Scheduled and charter traffic	37,733,585	34,690,578	32,657,300
<b>Load factor (%)</b>	<b>73.7</b>	<b>73.8</b>	<b>71.5</b>
<b>Aircraft movements (total)</b>	<b>409,956</b>	<b>389,939</b>	<b>396,805</b>
Commercial traffic	399,581	378,919	386,558
Scheduled and charter traffic	388,044	367,760	376,770
<b>Cargo handled</b>			
Flow air freight and air mail (t)	<b>303,655</b>	<b>286,820</b>	<b>229,095</b>
<b>Workload units (total, → WLU)</b>	<b>40,689,133</b>	<b>37,487,283</b>	<b>34,940,264</b>



→ Glossary

## AO1 / Passenger figures

	2011		
	Total	Arrivals	Departures
<b>Passengers (commercial, excl. transit)</b>			
Domestic	9,782,554	4,879,405	4,903,149
International	27,851,660	13,972,205	13,879,455
<b>Total</b>	<b>37,634,214<sup>1</sup></b>	<b>18,851,610</b>	<b>18,782,604</b>
<b>Passengers (commercial, transit)</b>	129,487 <sup>2</sup>	129,487	129,487
<b>Total</b>	<b>37,763,701<sup>2</sup></b>	<b>18,981,097</b>	<b>18,912,091</b>
<b>Transfers (%)</b>	40 <sup>3</sup>	—	—

<sup>1</sup> Figure for terminal passengers (only passengers boarding or exiting aircraft).

<sup>2</sup> Transit passengers are only counted once and included once in the overall total.

<sup>3</sup> The volume of transfer passengers is based on surveys conducted among departing passengers.

**AO2 / Aircraft movements<sup>1</sup>**

	2011		
	Total	Arrivals	Departures
<b>Commercial passenger flights</b>			
Domestic	107,229	53,679	53,550
International	288,417	144,032	144,385
<b>Commercial cargo flights</b>			
Domestic	1,420	716	704
International	2,019	988	1,031
<b>Commercial mail flights</b>			
Domestic	496	249	247
International	0	0	0
<b>General aviation, non-commercial</b>			
Domestic	5,966	3,017	2,949
International	4,409	2,302	2,107
<b>Total</b>	<b>409,956</b>	<b>204,983</b>	<b>204,973</b>

<sup>1</sup> State flights are not included.



→ You can find detailed information on nighttime aircraft movements here in our monthly impact reports:  
[www.munich-airport.com/impacts](http://www.munich-airport.com/impacts)

**AO3 / Cargo tonnage (t)**

	2011		
	Cargo handled	Inbound cargo	Outbound cargo
Cargo-only flights	41,341	16,463	24,878
Bellyhold cargo on passenger aircraft	244,860	106,338	138,522
<b>Total based on flights</b>	<b>286,201</b>	<b>122,801</b>	<b>163,400</b>

**S01 / Donations and sponsorships**  
 (Percentage of overall budget)

	2011	2010
Sport	36	28
Social welfare	30	29
Education	13	13
Culture	21	30

This year's report is the first to include detailed workforce figures that distinguish between men and women working for Flughafen München GmbH and the FMG Group.

Due to the merging of our former Ground Handling division into the FMG subsidiary AeroGround and the resulting internal HR changes, we have chosen not to

include year-on-year comparison figures (other than for the total workforce) in this year's report as they would not be representative. We will resume publishing annual comparison figures from 2012.

The workforce figures for the Group include all majority owned subsidiaries and FMG.

#### LA1, LA4, LA13 / Total workforce<sup>1</sup>

FMG Group	2011						2010	2009
	Women	%	Men	%	Total	%	Total	Total
<b>Total workforce</b>	<b>2,314</b>	<b>33.71</b>	<b>4,550</b>	<b>66.29</b>	<b>6,864</b>	<b>100</b>	<b>6,862</b>	<b>7,100</b>
<b>Full and part time employees<sup>2</sup></b>								
Part time	819	11.93	521	7.59	1,340	19.52		
Full time	1,495	21.78	4,029	58.70	5,524	80.48		
<b>Employment contracts<sup>2</sup></b>								
Limited	456	6.64	402	5.86	858	12.50		
Permanent	1,858	27.07	4,148	60.43	6,006	87.50		
<b>Other employees</b>								
Trainees	149	—	88	—	237	—		
Interns	18	—	17	—	35	—		
Temporary workers	20	—	541	—	561	—		
Workers in marginal employment	110	—	225	—	335	—		
<b>Employees under collective bargaining contracts</b>					<b>6,739</b>			
<b>Total employees on campus<sup>3</sup></b>					<b>29,560</b>		<b>29,560</b>	<b>29,560</b>

FMG	2011						2010	2009
	Women	%	Men	%	Total	%	Total	Total
<b>Total workforce</b>	<b>746</b>	<b>18.81</b>	<b>3,221</b>	<b>81.19</b>	<b>3,967</b>	<b>100</b>	<b>4,169</b>	<b>4,342</b>
<b>Full and part time employees<sup>2</sup></b>								
Part time	273	6.88	330	8.32	603	15.20		
Full time	473	11.92	2,891	72.88	3,364	84.80		
<b>Employment contracts<sup>2</sup></b>								
Limited	17	0.43	58	1.46	75	1.89		
Permanent	729	18.38	3,163	79.73	3,892	98.11		
<b>Other employees</b>								
Trainees	81	—	54	—	135	—		
Interns	17	—	16	—	33	—		
Temporary workers	0	—	0	—	0	—		
Workers in marginal employment	4	—	39	—	43	—		
<b>Employees under collective bargaining contracts</b>					<b>3,828</b>			

<sup>1</sup> At December 31, 2011

<sup>2</sup> Excl. trainees, workers in marginal employment, temporary workers and interns

<sup>3</sup> Based on three-yearly workplace survey, last conducted in 2009

### LA13, LA15 / Age structure, gender, parental leave

FMG Group	2011					
	Women	%	Men	%	Total	%
<b>Age structure of workforce<sup>1</sup></b>						
< 30 years	586	8.54	483	7.04	1,069	15.58
30–50 years	1,323	19.27	2,688	39.16	4,011	58.43
> 50 years	405	5.90	1,379	20.09	1,784	25.99
<b>Total</b>	<b>2,314</b>		<b>4,550</b>		<b>6,864</b>	
<b>Parental leave<sup>2</sup></b>						
Employees taking parental leave	104	—	65	—	169	—
Employees taking part time parental leave	26	—	3	—	29	—

FMG	2011					
	Women	%	Men	%	Total	%
<b>Age structure of workforce<sup>1</sup></b>						
< 30 years	162	4.08	151	3.81	313	7.89
30–50 years	432	10.89	1,943	48.98	2,375	59.87
> 50 years	152	3.83	1,127	28.41	1,279	32.24
<b>Total</b>	<b>746</b>		<b>3,221</b>		<b>3,967</b>	
<b>Parental leave<sup>2</sup></b>						
Employees taking parental leave	25	—	51	—	76	—
Employees taking part time parental leave	12	—	3	—	15	—

<sup>1</sup> At December 31, 2011. Excl. trainees, workers in marginal employment, temporary workers and interns

<sup>2</sup> Entitlement to parental leave is governed by Germany's Parental Benefit and Parental Leave Act. Excl. trainees, workers in marginal employment, temporary workers and interns. Figures for employees who began parental leave in 2011.

### LA13 / Executive employees

FMG Group	2011		FMG	2011	
		%			%
<b>Total executive employees</b>	<b>488</b>	<b>7.11<sup>1</sup></b>	<b>Total executive employees</b>	<b>364</b>	<b>9.28<sup>1</sup></b>
Women	74	1.08	Women	44	1.11
Men	414	6.03	Men	320	8.07
<b>Age structure of executive employees</b>			<b>Age structure of executive employees</b>		
< 30 years	12	2.46 <sup>2</sup>	< 30 years	3	0.82 <sup>2</sup>
30–50 years	287	58.81 <sup>2</sup>	30–50 years	196	53.85 <sup>2</sup>
> 50 years	189	38.73 <sup>2</sup>	> 50 years	165	45.33 <sup>2</sup>

<sup>1</sup> Executive employees as a percentage of total workforce at December 31, 2011

<sup>2</sup> Percentage of total executive employees

## LA2 / Employee turnover<sup>1</sup>

FMG Group	2011			
	Hirings	%	Departures	%
<b>Hirings and departures by age group</b>				
< 30 years	515	53.59	422	43.15
30–50 years	389	40.48	349	35.69
> 50 years	57	5.93	207	21.17
<b>Total</b>	<b>961</b>	<b>—</b>	<b>978</b>	<b>—</b>
<b>Hirings and departures by gender</b>				
Men	457	47.55	610	62.37
Women	504	52.45	368	37.63

FMG	2011			
	Hirings	%	Departures	%
<b>Hirings and departures by age group</b>				
< 30 years	81	54.73	114	25.62
30–50 years	54	39.49	165	73.08
> 50 years	13	8.78	166	37.30
<b>Total</b>	<b>148</b>	<b>—</b>	<b>445</b>	<b>—</b>
<b>Hirings and departures by gender</b>				
Men	93	62.84	367	82.47
Women	55	37.16	78	17.53

<sup>1</sup> Incl. trainees, excl. workers in marginal employment, temporary workers and interns

## LA2 / Mean turnover rate<sup>1</sup>

	2011	
	FMG Group	FMG
Mean turnover rate	13.77	10.85

<sup>1</sup> Incl. trainees, excl. workers in marginal employment, temporary workers and interns

## LA10 / Average hours of training<sup>1,2</sup>

	2011	
	FMG Group	FMG
Average hours of training per employee	16.83 <sup>3</sup>	8.95
Hours per male employee	—	9.23
Hours per female employee	—	7.73
Hours per executive employee	—	13.06
Hours per non-executive employee	—	8.53

<sup>1</sup> At December 31, 2011. Excl. trainees, workers in marginal employment, temporary workers and interns

<sup>2</sup> Mean hours of training and seminars per worker; employees only (see 1); excl. aviation security training

<sup>3</sup> Figures for all majority owned subsidiaries, excl. T2 BG and eurotrade (consolidation not completed within reporting period)

**LA7 / Health and safety<sup>1</sup>**

	2011		2011
<b>FMG Group</b>		<b>FMG</b>	
<b>Injury figures<sup>2</sup></b>		<b>Injury figures<sup>2</sup></b>	
Reportable occupational and commuting accidents	246	Reportable occupational and commuting accidents (calendar days from third day)	139
Total resulting days of absence (calendar days from first day)	4,852	Total resulting days of absence (calendar days from first day)	3,564
Fatal occupational accidents	0	Fatal occupational accidents	0
		Rate per 1,000 workers <sup>3</sup>	35

<sup>1</sup> Incl. trainees, excl. workers in marginal employment, temporary workers and interns

<sup>2</sup> All workers. Injuries requiring first aid are recorded when employees attend Munich Airport's medical center

<sup>3</sup> Reportable accidents x 1,000 ÷ mean workforce size in 2011

**LA7 / Sick leave<sup>1</sup>**

	2011			2010
<b>FMG Group</b>	Women	Men	Total	Total
Reported occupational illnesses	0	3	3	1
Sick leave rate (%) <sup>4</sup>	—	—	6.63	7.20

	2011			2010
<b>FMG</b>	Women	Men	Total	Total
Reported occupational illnesses	0	3	3	1
Sick leave rate (%) <sup>4</sup>	5.41	7.98	7.54	7.80

<sup>1</sup> Incl. trainees, excl. workers in marginal employment, temporary workers and interns

<sup>2</sup> All workers. Injuries requiring first aid are recorded when employees attend Munich Airport's medical center

<sup>3</sup> Reportable accidents x 1,000 ÷ mean workforce size in 2011

<sup>4</sup> Hours off sick in relation to planned working hours, incl. treatment, rehabilitation, therapy programs, etc.

**LA13 / Employees with disabilities<sup>1</sup>**

	2011	2010		2011	2010
<b>FMG Group</b>			<b>FMG</b>		
Number of employees with limiting disabilities	567		Number of employees with limiting disabilities	456	
Employees with severe disabilities (%)	8.26	7.60	Employees with severe disabilities (%)	11.50	10.30

<sup>1</sup> As per Book IX of the Social Security Code

LA13 / Nationalities<sup>1</sup>

FMG Group	2011			
	Women	Men	Total	%
<b>Employee nationalities</b>				
German nationals	2,112	3,915	6,027	84.88
Foreign nationals	356	718	1,074	15.12
<b>Nationalities by country</b>				
Germany	2,112	3,915	6,027	84.88
Turkey	28	372	400	5.63
Austria	18	39	57	0.80
Italy	22	45	67	0.94
Greece	8	18	26	0.37
Kosovo	3	23	26	0.37
Bosnia and Herzegovina	3	10	13	0.18
USA	6	5	11	0.15
United Kingdom	6	9	15	0.21
Africa	8	32	40	0.56
Other	254	165	419	5.90

FMG	2011			
	Women	Men	Total	%
<b>Employee nationalities</b>				
German nationals	781	2,840	3,621	88.27
Foreign nationals	46	435	481	11.73
<b>Nationalities by country</b>				
Germany	781	2,840	3,621	88.27
Turkey	1	302	303	7.39
Austria	8	27	35	0.85
Italy	8	23	31	0.76
Greece	2	11	13	0.32
Kosovo	0	10	10	0.24
Bosnia and Herzegovina	0	7	7	0.17
USA	2	4	6	0.15
United Kingdom	1	4	5	0.12
Africa	0	9	9	0.22
Other	24	38	62	1.51

<sup>1</sup> At December 31, 2011. Incl. trainees, excl. workers in marginal employment, temporary workers and interns

**LA1, LA2, EC7 / Employees' areas of residence<sup>1,2</sup>**

	2011			
	FMG Group	%	FMG	%
Erding	1,669	23	1,026	18
Freising	1,606	23	744	25
Munich	1,304	14	678	14
Landshut	1,001	18	592	17
Pfaffenhofen	110	2	79	2
Other administrative districts	1,411	20	983	24

<sup>1</sup> Resident in administrative district at December 31, 2011; incl. trainees, excl. workers in marginal employment, temporary workers, and interns

<sup>2</sup> Number of workers resident in administrative district

**EN1, EN2, AO6 / Materials used: Deicing agents<sup>1</sup>**

	2010/2011	2009/2010	2008/2009
Pavement deicer (t) <sup>2</sup>	4,443	4,296	3,143
Aircraft deicer (Safewing Type I) (m <sup>3</sup> )	5,629	6,237	3,991
Aircraft deicer (Safewing Type IV) (m <sup>3</sup> )	1,512	1,613	1,114
Recycling rate of deicer deployed (%)	65.0	68.7	73.1
Number of days of winter operations	167	155	67

<sup>1</sup> Seasonal data

<sup>2</sup> Liquid potassium formate and sodium formate granules

The company responsible for deicing operations at Munich Airport, Gesellschaft für Enteisen und Flugzeugschleppen am Flughafen München mbH (EFM), uses glycol-based deicing fluid to clear ice from aircraft. Planes are sprayed with the fluid by deicing vehicles.

There are two types of deicer: Type I has a low viscosity and is mixed with water in a ratio of 55:45. It is heated to 85° C before being applied to aircraft. Type IV deicer contains a thickening agent and is viscous. It is applied cold, in undiluted form.

Deicer applied to aircraft at deicing points drains along with melted ice and snow through channels into underground collecting tanks. The mixture is then taken by truck to a recycling plant for processing, where it is cleaned in a number of mechanical and chemical stages and then distilled. This process produces the glycol-containing substance on which the deicing agent is based. Additives are introduced to create type I deicer. Following lab tests and manufacturer approval, the deicer can be used again.

## EN1, EN3, EN4, EN16, EN17, EN29 / Energy consumption and emissions<sup>1</sup>

	2011			2010		
	GJ	MWh	CO <sub>2</sub> (t)	GJ	MWh	CO <sub>2</sub> (t)
<b>Scope 1 Direct energy consumption/emissions</b>						
Natural gas, gas/diesel engines CHP <sup>2</sup>	48,185	173,465	34,727	52,979	190,725	38,438
Natural gas, gas/gasoline engines CHP <sup>2</sup>	34,171	123,015	24,627	32,262	116,143	23,407
Natural gas, boiler plant	644	2,318	464	7,174	25,826	5,205
Fuel oil, gas/diesel engines	5,667	20,401	5,435	5,903	21,251	5,661
Fuel oil, boiler plant	9	34	9	5	19	5
Liquid gas	309	1112	259	231	832	194
Fuel oil, emergency power generators	106	381	101	143	514	137
Natural gas consumed by EFM <sup>3</sup>	772	2,780	556	964	3472	700
Diesel and gasoline	12,758	45,929	12,181	14,339	51,620	13,645
<b>Total</b>	<b>102,621</b>	<b>369,434</b>	<b>78,361</b>	<b>114,001</b>	<b>410,402</b>	<b>87,392</b>
<b>Scope 2 Indirect energy consumption/emissions</b>						
Purchased power <sup>4</sup>	27,739	99,859	56,221	27,389	98,601	56,696
Purchased heat <sup>5</sup>	9,011	32,438	3,455	4,920	17,713	3,773
Purchased natural gas <sup>6</sup>	402	1448	290	563	2025	408
Power supplied to external companies	-17,540	-63,143	-35,550	-16,628	-59,861	-34,420
Heat supplied to external companies	-10,433	-37,559	-6,942	-12,267	-44,161	-9,406
Cooling supplied to external companies	-827	-2,978	-336	-751	-2,703	-311
Natural gas supplied to external companies	-402	-1,448	-290	-563	-2,025	-408
Purchased power transmitted	1,497	5,391	3,035	1,487	5,354	3,079
<b>Total</b>	<b>7</b>	<b>7</b>	<b>19,883</b>	<b>7</b>	<b>7</b>	<b>19,411</b>

<sup>1</sup> Data accounting in accordance with GHG Protocol. Heat values and emissions factors in accordance with German Emissions Trading Authority (DEHST) requirements and Federal Environment Agency (UBA) publications. Other figures, in particular those for purchased power and heat, are taken from UBA publications.

<sup>2</sup> Combined heat and power plant

<sup>3</sup> EFM: Gesellschaft für Enteisen und Flugzeugschleppen am Flughafen München

<sup>4</sup> 19.01% of power generated from renewables (base year 2010, as per Section 42 of German Energy Industry Act)

<sup>5</sup> 50% of district heat generated from biomass (base year 2011)

<sup>6</sup> No renewables, natural gas purchases only (base year 2011)

<sup>7</sup> Figures for heating, cooling and power are not aggregated for technical reasons.

**EN17, EN29 / Other greenhouse gases**

	CO <sub>2</sub> equivalent (t)	
	2011	2010
CH <sub>4</sub> – flight operations (LTO cycle <sup>1</sup> )	509	617
N <sub>2</sub> O – flight operations (LTO cycle <sup>1</sup> )	3,278	3,072
CH <sub>4</sub> – feeder traffic <sup>2</sup>	6	8
N <sub>2</sub> O – feeder traffic <sup>2</sup>	341	338
CH <sub>4</sub> – auxiliary power units <sup>3</sup>	86 <sup>4</sup>	79 <sup>4</sup>
N <sub>2</sub> O – auxiliary power units <sup>3</sup>	330 <sup>4</sup>	306 <sup>4</sup>
CH <sub>4</sub> – engine test runs	2 <sup>4</sup>	2 <sup>4</sup>
N <sub>2</sub> O – engines test runs	10 <sup>4</sup>	10 <sup>4</sup>

<sup>1</sup> Landing and takeoff (LTO) cycle: includes all air traffic up to an altitude of 914 meters (3,000 feet) landing and taking off at Munich Airport

<sup>2</sup> Feeder traffic comprises traffic caused by passengers, visitors and employees.

<sup>3</sup> Auxiliary power units (APUs) are used to supply power and pressurized air for aircraft systems on the ground without having to run the main engines.

<sup>4</sup> Estimated

**EN17, EN19 / Other greenhouse gases and ozone-depleting substances**

Coolants in chillers	2011			
	Coolant	Leakage quantity (kg)	GWP <sup>1</sup> (kg/kg)	CO <sub>2</sub> (t)
Appliances in buildings	Ozone-depleting R 22	51.5	1,700	88
Appliances in buildings	R 422D	6.5	2,623	17
Appliances in buildings	R 407C	2.86	1,652	5
Mobile equipment (vehicle air-conditioning systems)	R 134a	46.93	1,300	61
Central turbo chillers	R 134a	0	1,300	0
<b>Total</b>				<b>170</b>

<sup>1</sup> Global warming potential

**EN20, AO5 / Measured pollutant concentrations (µg/m<sup>3</sup>)<sup>1</sup>**

	2011	Current statutory annual limit	2010	2009
NO <sub>2</sub> concentration (nitrogen dioxide)	31	40	30	29
SO <sub>2</sub> concentration (sulfur dioxide) <sup>2</sup>	3	20	3	3
PM <sub>10</sub> concentration (particulate matter)	18	40	21	20

<sup>1</sup> Annual mean figures

<sup>2</sup> There is no annual limit on SO<sub>2</sub> for human health, but there is for the protection of vegetation. Strictly, this limit only applies outside major urban centers or transport facilities. As long as this figure remains so low, the limit represents a worst case estimate.

**EN20, EN29, AO5 / Air pollutant emissions (t)**

	2011	2010
NO <sub>x</sub> – flight operations (LTO cycle <sup>1</sup> )	1,374.6	1,248.5
NO <sub>x</sub> – feeder traffic <sup>2</sup>	112.9	129.7
SO <sub>x</sub> – flight operations (LTO cycle)	99.7	93.4
SO <sub>x</sub> – feeder traffic	0.2	0.2
PM <sub>10</sub> – flight operations (LTO cycle)	13.0	11.9
PM <sub>10</sub> – feeder traffic	2.8	3.5

<sup>1</sup> Landing and takeoff (LTO) cycle: includes all air traffic up to an altitude of 914 meters (3,000 feet) landing and taking off at Munich Airport

<sup>2</sup> Feeder traffic comprises traffic caused by passengers, visitors and employees.



→ [www.munich-airport.com/air](http://www.munich-airport.com/air)

**EN8 / Total fresh water consumption <sup>1</sup>**

	2011	2010	2009
Water purchased from utility (m <sup>3</sup> )	901,618	959,287	938,000
Water consumption per workload unit (liters)	22.2	25.6	26.8

<sup>1</sup> Includes all companies on the airport campus



→ See p. 102 and p. 174

**EN21 / Total wastewater discharge <sup>1,2</sup>**

	2011	2010	2009
Total wastewater discharged from Munich Airport to treatment facility (m <sup>3</sup> )	2,265,382	2,244,561	2,234,545
Wastewater consumption per workload unit (liters)	55.7	59.9	63.9

<sup>1</sup> Includes all companies on the airport campus

<sup>2</sup> Wastewater discharged to treatment facility comprises domestic wastewater, deicing water and rainwater

### EN22, EN24, EN27 / Reclaimed materials/waste by type (t) and disposal method

	2011	2010	Change 2011/2010	Disposal and recycling
Waste from aircraft interior cleaning <sup>1</sup>	—	3,974	—	Munich North thermal power plant (energy recovery)
Waste for disposal/prohibited liquids (terminals)	212	200	6.0%	
Waste for disposal from facilities <sup>2</sup>	504	401	26.0%	
<b>Recycling</b>				
Paper, paperboard, cardboard from aircraft <sup>3</sup>	273	1,288	–79.0%	Sorting facility and paper factory in Munich/ Schrobenhausen (paper recycling)
Paper, paperboard, cardboard from facilities	1,606	2,035	–21.0%	
Mixed reclaimed materials/waste for recycling from facilities	2,878	3,086	–7.0%	Sorting facilities/specialist recycling operators in Eitting, Schwaig and Munich (recycling of secondary raw materials)
Mixed glass	130	161	–19.0%	
Wood	304	280	8.0%	
Bulk garbage	319			
Other materials (e.g. plastic foils, polystyrene)	134	240	–44.0%	
Food waste <sup>4</sup>	827	792	4.0%	Biogas plant (energy recovery)
Other problem waste (FMG only)	523	438	19.0%	Recycling/disposal operators and problem waste specialists in Munich and Ebenhausen (energy recovery from secondary fuels, recycling)
Hazardous waste (FMG only)	319	268	19.0%	
Concrete demolition/construction waste	448	331	35.0%	
<b>Total quantity</b>	<b>8,475</b>	<b>13,494</b>	<b>–37.0%</b>	

<sup>1</sup> Disposal is no longer FMG's responsibility and was outsourced on January 1, 2011, to a specialist contractor working on behalf of an animal carcass disposal company in Erding.

<sup>2</sup> Classed in part as mixed reclaimable materials/waste for recycling due to high quality of content

<sup>3</sup> Quantity from January to March 2011. From April 1, 2011, disposal outsourced to specialist operator and no longer handled by FMG

<sup>4</sup> Allresto not included as of November 1, 2011 (exception: in Terminal 2)

Munich Airport operates as a service provider, collecting waste and recoverable materials from tenants,

leaseholders, airlines and other organizations on campus for recycling and energy recovery.

## AO7 / Measured noise levels<sup>1</sup> (dB)

	2011		2010		2009	
	Night	Day	Night	Day	Night	Day
Brandstadel	47	58	48	58	46	58
Pallhausen	42	55	42	55	40	55
Reisen	50	56	50	55	48	55
Viehlassmoos	43	56	43	55	41	54



→ [www.munich-airport.com/aircraft-noise](http://www.munich-airport.com/aircraft-noise)

<sup>1</sup> Continuous sound level (Leq3) in dB(A) recorded at four measuring stations on main departure routes during the year's six busiest months

Since the enactment of new aviation noise legislation in Germany on June 7, 2007, the key metric applied in assessing aviation noise exposure has been the energy-equivalent → **continuous sound level** Leq3 during the day and at night. Exposure assessments also take the noise level frequency at night into ac-

count. Because of variance in the operating direction, changes to departure routes, changes in route usage, and differences in operating times on account of closures (due to extreme weather or technical problems, for example), the figures for different years are not directly comparable.



→ [Glossary](#)

## AO7 / Population growth in neighboring communities (residents)

	2011 <sup>1</sup>	2010 <sup>1</sup>	2009 <sup>1</sup>
Stadt Freising (Freising district)	—	45,223	45,118
Marzling (Freising district)	—	3,099	3,073
Oberding (Erding district)	—	5,384	5,358
Hallbergmoos (Freising district)	—	9,266	9,042

<sup>1</sup> As at December 31. Source: Bavarian State Office of Statistics and Data Management. Figures for 2011 were not available at press time.

## 2.8, EN11, EN13 / Airport area and green areas (ha)

	2011	2010	2009
<b>Total site, utility and planned functional areas<sup>1</sup></b>	<b>1,575</b>	<b>1,575</b>	<b>1,575</b>
Paved area	632	632	628
Unpaved area	943	943	947
<b>Total additional green areas</b>	<b>700</b>	<b>697</b>	<b>672</b>
Compensatory mitigation areas <sup>2</sup>	350	347	347
Greenbelt <sup>3</sup>	250	250	250
Eco land reserve for future expansion measures	100	100	75

<sup>1</sup> Zone I (inside airport perimeter fence)

<sup>2</sup> Zone III (outside airport perimeter fence)

<sup>3</sup> Zone II (outside airport perimeter fence)

# Report profile

## Contents and structure of the report

Quick to recognize the value of integrated corporate reporting as means of presenting a more all-encompassing picture of an organization's performance, Flughafen München GmbH is currently taking part in a worldwide pilot project initiated by the International Integrated Reporting Council (IIRC). The IIRC has set out to promote a new approach to reporting that meets the interests and expectations of all of an organization's stakeholders, especially those of financial market investors. This approach presents a detailed picture of the social and environmental context alongside an organization's economic performance. *Perspectives 2011* is Flughafen München GmbH's second combined report.

The ground covered by the combined report is defined, firstly, by our sustainability matrix, sustainability program and sustainability target performance and, secondly, by business and financial reporting requirements. Besides detailing our integrated corporate strategy and our diverse businesses, the report focuses on our plans to expand the airport's infrastructure and on the efforts undertaken by the FMG Group to engage with its local communities and wider surrounding region, to advance and retain employees, to protect the environment, and to combat climate change. Other sections in the report include our consolidated yearend accounts and management report, and key performance indicators for all three of our sustainability focus areas.

The report follows Global Reporting Initiative (GRI) Version G3.1 guidelines and the sector supplements for airports. It covers all core indicators, plus additional indicators where relevant and applicable. The → [GRI index](#) contains page references for all the individual GRI indicators covered in the report. *Perspectives 2011* complies with Application Level A+ of the GRI

guidelines. The GRI has reviewed the report to verify that it conforms to their guidelines and has confirmed that the report is a complete and correct implementation at level A+.

The information provided on the FMG Group's assets, finances and earnings follows German commercial law requirements and has been audited by the firm Deloitte & Touche GmbH in accordance with Section 317 of the German Commercial Code (HGB) and with principles for the auditing of financial statements defined by the Institute of Public Auditors in Germany (IDW). The audit was completed on May 4, 2012, and the financial statements were approved without reservations.

## Limits of scope

The period reviewed is the 2011 fiscal year (January 1 to December 31, 2011). The data presented generally pertains to this reporting period or to the status at the end of said period. As and where information relates to other periods, this is indicated accordingly. The combined report is an annual publication. The previous combined report, covering fiscal 2010, was published in 2011.

Unless stated otherwise, the indicators and information presented in the report apply to the entire Group, including its subsidiaries. In instances where information only applies to Flughafen München GmbH, this is indicated accordingly.

All of the statements in this report that are not based on historical information are forward-looking. They take into account risks and uncertainties but not any future changes in global economic conditions, legal requirements, market conditions, competitors' activities, or other factors beyond the influence and control of FMG.



→ See p. 172

## Certification

### Data measurement techniques and bases of calculations

All of the information and figures presented in this report were prepared and collected by the relevant organizational units for the reporting period using representative methods.

The notes on the consolidated yearend accounts include detailed explanations of the methods and controls employed in preparing the financial data presented.

Human resources data included in the coverage of our social and environmental performance is collected and evaluated in an electronic HR management system. Environmental data is recorded systematically in our environmental management system according to EMAS and DIN EN ISO 14001 standards and is subject to external validation by a certified environmental auditor. Carbon emissions are calculated as per the specifications of the Greenhouse Gas Protocol. Heat values and emissions factors subject to emissions trading are recorded in accordance with German Emissions Trading Authority (DEHST) guidelines. Other figures, such as those for purchased power and heat, are obtained from Federal Environment Agency (UBA) publications.

It would exceed the scope of this report to cover all of our activities at Munich Airport in full. Other topics are therefore treated in our detailed environmental statement for 2011 and in our abbreviated environmental statement for 2012 (EMAS). We also publish additional information and the results of studies and analyses on the → [Internet](#).

I, Dr. Reiner Beer, an accredited environmental auditor (DE-V-0007), confirm that the contents of Flughafen München GmbH's 2011 integrated report present an accurate picture of the organization and its activities in accordance with Global Reporting Initiative (GRI) G3.1 reporting standards and the sector supplement for airports. I also confirm that the information and figures contained in the 2011 report have been reviewed and are reliable. The review was conducted on the basis of Flughafen München GmbH's 2011 report. The scope of the review, as carried out by Intechnica Cert GmbH, encompasses all of the topics covered in the 2011 report other than the consolidated financial statements. The latter were reviewed by the appointed financial auditors, Deloitte & Touche GmbH, in accordance with Section 317 of the German Commercial Code (HGB) and approved on May 4, 2012.

Munich, June 25, 2012

#### Dr. Reiner Beer

Environmental audit organization  
Intechnica Cert GmbH, DE-V-0279

Certificate no. SVW 097-2012



→ [www.munich-airport.com/company](http://www.munich-airport.com/company)

# GRI index

GRI indicators	Remarks	Page reference	Status
<b>1. Strategy and analysis</b>			
1.1 Vision and strategy/Foreword by executive management		5	■
1.2 Key impacts, risks and opportunities		123–126	■
<b>2. Organization profile</b>			
2.1 Name of the organization	Flughafen München GmbH	26	■
2.2 Most important brands, products or services		27, 49–54, 55–59, 113	■
2.3 Operational structure		26	■
2.4 Location of the organization's headquarters	Munich, Germany	26	■
2.5 Countries in which the organization operates	Munich, Germany	26	■
2.6 Nature of ownership and legal form		26	■
2.7 Markets	Information on aircraft movements can also be found in our statistical annual report and traffic reports.	27, 29, 46–50, 51–54, <a href="http://www.munich-airport.com/statistics">www.munich-airport.com/statistics</a>	■
2.8 Scale of the organization	Details of destination airports and the carriers serving Munich Airport in the review year are published in our annual statistical report.	26, 28–30, 46–47, 116, 130, <a href="http://www.munich-airport.com/statistics">www.munich-airport.com/statistics</a>	■
2.9 Significant changes in the organization's size, structure or ownership		26, 36–37, 41, 113	■
2.10 Awards received in the review period		9, 53, 97, <a href="http://www.munich-airport.com/awards">www.munich-airport.com/awards</a>	■
<b>3. Report parameters</b>			
3.1 Reporting period		170	■
3.2 Date of most recent previous report		170	■
3.3 Reporting cycle		170	■
3.4 Contact points regarding the report		184	■
3.5 Process of defining report content		34–35, 170–171	■
3.6 Boundary of the report		133–135, 170–171	■
3.7 Limitations on the scope or boundary of the report		133–135, 170–171	■
3.8 Joint ventures, subsidiaries, outsourced operations		133–134	■
3.9 Data measurement techniques and the bases of calculations		133–134, 170–171	■
3.10 Explanation of the effect of any re-statements of information provided in earlier reports		113, 133, 170–171	■
3.11 Changes in reporting scope, boundary or measurement methods		113, 133, 170–171	■
3.12 GRI content index		173	■
3.13 External assurance for the report		147, 171	■

Status: ■ not covered ■ partially covered ■ covered in full

T Core indicator

T Additional indicator

GRI indicators	Remarks	Page reference	Status
<b>4. Governance, commitments and engagement</b>			
4.1 Governance structure of the organization		4, 6–7, 33, 121, 145, <a href="http://www.munich-airport.com/governance">www.munich-airport.com/governance</a>	■
4.2 Independence of supervisory board chairman		121, 145	■
4.3 Independent members of highest governance body		121, 145	■
4.4 Mechanisms for shareholders and employees to provide recommendations or direction to the highest governance body		33, 121	■
4.5 Linkage between compensation of the governance bodies, executives and senior managers and the organization's performance		31–32, 146	■
4.6 Processes in place to ensure conflicts of interest are avoided		121–123	■
4.7 Qualifications and expertise of the members of the highest governance body for guiding the organization's strategy on economic, environmental, and social topics		31–35	■
4.8 Mission, values, codes of conduct and principles		31, <a href="http://www.munich-airport.com/mission">www.munich-airport.com/mission</a> <a href="http://www.munich-airport.com/values">www.munich-airport.com/values</a>	■
4.9 Procedures of the highest governance body for overseeing the organization's economic, environmental, and social performance		31–33, 121, 123–126	■
4.10 Processes for evaluating the highest governance body's own performance with respect to economic, environmental, and social performance		31–33	■
4.11 Explanation of how the precautionary principle is addressed		56–59, 123–126	■
4.12 Externally developed charters, principles or initiatives to which the organization subscribes or endorses		50, 53–54, 66, 70, 96–97	■
4.13 Memberships		35, 66, 69, 70, 99–100, <a href="http://www.munich-airport.com/stakeholders">www.munich-airport.com/stakeholders</a> <a href="http://www.airfolgsregion.de">www.airfolgsregion.de</a>	■
4.14 List of stakeholder groups		66, <a href="http://www.munich-airport.com/stakeholders">www.munich-airport.com/stakeholders</a>	■
4.15 Basis for identification of stakeholder groups		66–67	■
4.16 Engagement of stakeholder groups	Corporate image analysis conducted in 2010: "Munich Airport as seen by its neighbors" available here →	34, 55–56, 66–69, <a href="http://www.munich-airport.com/stakeholders">www.munich-airport.com/stakeholders</a> <a href="http://www.munich-airport.com/publications">www.munich-airport.com/publications</a>	■
4.17 Response to topics and concerns raised by stakeholder groups		34, 36–42, 66, 69–71, <a href="http://www.munich-airport.com/stakeholders">www.munich-airport.com/stakeholders</a>	■
<b>Economic performance indicators</b>			
Management approach		31–35, 36–37, 69–77, 80–85, 150–152	■
EC1 Direct economic value generated and distributed		128–130, 156	■
EC2 Financial implications of climate change	Monitoring system in preparation, implementation in 2014	123–124	■
EC3 Coverage of the organization's defined benefit plan obligations		81, 90, 130	■
EC4 Financial assistance received from government	In the review period, FMG received no state financial grants.	24, 156	■

GRI indicators		Remarks	Page reference	Status
EC5	Ratio of standard entry-level wage compared to local minimum wage	The company is domiciled in Munich; 98% of its workforce is under collective bargaining contracts.	73, 90	■
EC6	Selection of locally based suppliers	Flyer on purchasing and supply relationships available here →	41, 71, 73–74, <a href="http://www.munich-airport.com/publications">www.munich-airport.com/publications</a>	■
AO1	Passengers	Munich Airport has a night-time curfew between 10:00pm and 6:00am during which flights are limited in number and confined to especially quiet aircraft.	47–48, 157, <a href="http://www.munich-airport.com/night-flight">www.munich-airport.com/night-flight</a> <a href="http://www.munich-airport.com/statistics">www.munich-airport.com/statistics</a>	■
AO2	Aircraft movements	Munich Airport has a night-time curfew between 10:00pm and 6:00am during which flights are limited in number and confined to especially quiet aircraft.	47–48, 157–158, <a href="http://www.munich-airport.com/night-flight">www.munich-airport.com/night-flight</a> <a href="http://www.munich-airport.com/statistics">www.munich-airport.com/statistics</a>	■
AO3	Air cargo tonnage	Munich Airport has a night-time curfew between 10:00pm and 6:00am during which flights are limited in number and confined to especially quiet aircraft.	48–49, 158, <a href="http://www.munich-airport.com/night-flight">www.munich-airport.com/night-flight</a> <a href="http://www.munich-airport.com/statistics">www.munich-airport.com/statistics</a>	■
EC7	Hiring of local human resources		82, 164	■
EC8	Infrastructure investments and services provided primarily for local benefit		40–41, 69–70	■
EC9	Significant indirect economic impacts		37, 70, 72–75	■
<b>Environmental performance indicators</b>				
	Management approach		42–43, 94–109, 121–123, 151–153	■
EN1	Materials used by weight or volume		164, 165	■
EN2	Percentage of materials used that are recycled input materials		164	■
EN3	Direct energy consumption by primary energy source		165	■
EN4	Indirect energy consumption by primary source		98–99, 165	■
EN5	Energy saved due to conservation and efficiency improvements		96–97, 99, 101	■
EN6	Initiatives to provide energy-efficient or renewable energy-based products and services		40–41, 94–98, 98–101	■
EN7	Initiatives to reduce indirect energy consumption and reductions achieved		42–43, 94–98, 98–101	■
EN8	Total water withdrawal by source	Water is sourced from the Moosrain water utility company.	102–103, 167	■
AO4	Quality of storm water		102	■
EN9	Water sources significantly affected by withdrawal of water	Water is sourced from the Moosrain water	102	■
EN10	Percentage volume of water recycled and reused	All wastewater is treated by the Erdinger Moos sewage company.	102–103	■
EN11	Land in or adjacent to protected areas		37–38, 108–109, 169	■
EN12	Impacts on biodiversity in protected areas		37–38, 60, 108–109	■
EN13	Habitats protected or restored		37–38, 60, 108–109, 169	■
EN14	Strategies for managing impacts on biodiversity		37–38, 60, 108–109	■
EN15	Impacts on threatened species		37–38, 60, 108–109	■
EN16	Direct and indirect greenhouse gas emissions by weight		94–95, 165	■

GRI indicators	Remarks	Page reference	Status
EN17 Other relevant greenhouse gas emissions by weight		165, 166	■
EN18 Initiatives to reduce greenhouse gas emissions		94–101	■
EN19 Emissions of ozone-depleting substances by weight		166	■
EN20 NO <sub>x</sub> , SO <sub>x</sub> and other air emissions by type and weight	Information on measuring stations, methodology, measuring data and pollutant sources	98, 166, <a href="http://www.munich-airport.com/air">www.munich-airport.com/air</a>	■
EN21 Total water discharge	All wastewater is treated by the Erdinger Moos sewage company.	102, 167	■
EN22 Quantity of waste by type and disposal method		103–104, 168	■
EN23 Total number and volume of significant spills	In the review period, no spills of hazardous materials were reported within the FMG Group.	104	■
AO5 Ambient air quality		98, 166–167, <a href="http://www.munich-airport.com/air">www.munich-airport.com/air</a>	■
AO6 De-icing/anti-icing agents used by type and volume		103, 164	■
EN24 Transport of waste deemed hazardous		104, 168	■
EN25 Impact of wastewater on biodiversity	All wastewater is treated at a processing facility in Eitting operated by the local Erdinger Moos sewage company. Rain water draining off runways and taxiways is relatively clean and can therefore drain into the ground; some goes into the live topsoil, and some flows via depressions in the terrain into draining ditches.	102	■
EN26 Initiatives to mitigate environmental impacts		39, 41, 94–98, 101, 102–104, 105–107	■
EN27 Reuse of packaging materials	Munich Airport provides a take-back service for retail packaging, which it sends for recycling.	168	■
EN28 Fines for non-compliance with environmental laws and regulations	No fines are known to have been imposed for noncompliance with statutory environmental regulations in 2011. <sup>1</sup>	96, 104	■
EN29 Significant environmental impacts of transporting products and other goods and materials used for the organization's operations, and transporting members of the workforce		165, 166, 167	■
EN30 Total environmental protection expenditures and investments	Not financially quantifiable at this time		■
AO7 Number and percentage change of people residing in areas affected by noise		38–39, 105–106	■
<b>Labor practices and decent work</b>			
Management approach		80–89, 153–155	■
LA1 Workforce by employment contract and region		159, 164	■
LA2 Employee turnover by age group, gender and region	The turnover rate is so low that it is not relevant for security.	161, 164	■
LA3 Benefits provided to full-time employees		81, 87–89, 90	■
LA4 Employees covered by collective bargaining agreements		81	■

<sup>1</sup> Flughafen München GmbH complies with statutory regulations and provisions based on the applicable legislation and legal framework.

GRI indicators		Remarks	Page reference	Status
LA5	Minimum notice periods regarding significant operational changes	As per Germany's Works Constitution Act	90	■
LA6	Workforce representation in health and safety committees	The entire workforce is represented in health and safety committees by the works council.	87–88	■
LA7	Injuries, occupational diseases and work-related accidents		87–88, 162	■
LA8	Measures regarding serious diseases		54, 87–89	■
LA9	Health and safety topics covered in formal agreements with trade unions	Members of the works council serve as permanent members on the health and safety committee. Several works council members fulfill dual roles – as employee representatives and as representatives of the ver.di and GÖD labor unions.	87–89	■
LA10	Hours of training per employee	Detailed figures cannot be published for data privacy reasons.	161	■
LA11	Programs for skills management and lifelong learning	Early retirement rules for airport fire service amended in collective agreement as of 2012.	83–85, 86, 89	■
LA12	Percentage of employees receiving regular performance and career development reviews	As of 2011, FMG has temporarily suspended its system of performance-related pay. Nonetheless, non-operating units continue to conduct performance and career development reviews. The reintroduction of performance-based remuneration for employees will be discussed in collective pay negotiations from 2014.	31–32	■
LA13	Composition of governance bodies and breakdown of employees per category		86, 145, 159, 160, 162, 163	■
LA14	Ratio of basic salary of men to women by employee category	Ninety-eight percent of the FMG Group workforce have collective bargaining contracts that set the terms of their employment. This ensures that men and women are paid the same.	81	■
LA15	Return to work and retention rates after parental leave, by gender		160	■
<b>Human rights</b>				
	Management approach		56–63, 69–75, 84, 86, 90–91, see also HR6 and HR7	■
HR1	Investment agreements and contracts that include human rights clauses or that have undergone human rights screening	The FMG Group's business operations are confined to Germany and Europe. Here, human rights are enshrined in law. In calls for tender, we make sure that national and international laws and agreements are applied. This is reaffirmed in legally binding form when contracts are signed.	71	■

GRI indicators		Remarks	Page reference	Status
HR2	Percentage of suppliers and contractors that have undergone screening on human rights	The FMG Group sources almost all the goods and services it purchases with local companies and suppliers in the surrounding area, all of whom are bound by strict laws on human rights. In calls for tender, FMG makes sure that national and international laws and agreements are applied. This is reaffirmed in legally binding form when contracts are signed.		■
HR3	Employee training on human rights	Required under Germany's General Act on Equal Treatment: information is available on the intranet and through executive employees.	84, 86	■
HR4	Incidents of discrimination and actions taken	There were no reported cases of discrimination during the review period.	86	■
HR5	Violation of the right to exercise freedom of association or collective bargaining	There were no instances of restriction of the right to freedom of association or collective bargaining in the review period. Munich Airport actively encourages employees to engage in codetermination. Their rights are protected by Germany's Works Constitution Act and other statutes.	90	■
HR6	Principles and measures to eliminate child labor	The FMG Group's compliance with statutory regulations means that there is no risk of incidents of child labor in connection with the Group's business activities. When hiring employees, for example, the Group complies with the minimum age requirements set by national statutes. When sourcing product groups where the likelihood of child labor is high, we take steps to ensure that none is involved. Manufacturers of high-risk products in areas known to use child labor are required to present independent certification that they do not.	86, 71	■
HR7	Principles and measures to eliminate forced labor	The FMG Group rejects all forms of forced labor. Due to the nature of the Group's business operations and the fact that working conditions in Germany are subject to strict laws, this indicator is of minor relevance. During the review period, no activities were identified as having the risk of forced or involuntary labor. When signing contracts, suppliers and contractors must agree to abide by national and international laws and agreements.	90	■
HR8	Security personnel training		57, 84	■
HR9	Violations involving rights of indigenous people	Not relevant		■

GRI indicators	Remarks	Page reference	Status
HR10 Operations that have been subject to human rights reviews and/or impact assessments	Barring consulting work for other international airports, the FMG Group's operations are confined to Munich. Compliance with Germany's constitution and the protection of human rights are of paramount importance for the Group. There were no review procedures or impact assessments in connection with human rights compliance in the review period.	86	■
HR11 Number of grievances related to human rights filed	There were no reported cases of human rights grievances in the FMG Group during the review period.	86	■
<b>Society</b>			
Management approach		36–41, 66–77, 121–123, 155	■
SO1 Percentage of operations with implemented local community engagement, impact assessments, and development programs	Corporate image analysis conducted in 2010: "Munich Airport as seen by its neighbors" available here →	37, 69–71, 72–75, 76, <a href="http://www.munich-airport.com/publications">www.munich-airport.com/publications</a>	■
AO8 Number of persons to receive compensation on the grounds of airport expansion		39	■
SO2 Business units analyzed for risks related to corruption		122–123	■
SO3 Percentage of employees trained in anti-corruption policies and procedures		122–123	■
SO4 Actions taken in response to incidents of corruption		122	■
SO5 Public policy positions and lobbying	Policy statements available here →	66, <a href="http://www.munich-airport.com/publications">www.munich-airport.com/publications</a>	■
SO6 Contributions to political parties and politicians	Flughafen München GmbH makes no financial contributions of any kind to political parties, politicians or associated organizations.	66	■
SO7 Legal actions for anti-competitive behavior	At the time of going to print, there were known cases of anti-competitive, anti-trust or anti-monopoly action being brought against the Group for the review year. <sup>1</sup>		■
SO8 Penalties for non-compliance with laws and regulations	At the time of going to print, there were no known cases of fines or sanctions against the Group for non-compliance with laws and regulations. <sup>1</sup>	124	■
SO9 Operations with significant potential or actual negative impacts on local communities		36–41, 105–107, <a href="http://www.munich-airport.com/aircraft-noise">www.munich-airport.com/aircraft-noise</a>	■
SO10 Prevention and mitigation measures implemented		38–39, 105–106, <a href="http://www.munich-airport.com/noise-protection">www.munich-airport.com/noise-protection</a>	■
<b>Product responsibility</b>			
Management approach	Rules for airport use available here →	55–63, 121–123, see also PR6 <a href="http://www.munich-airport.com/aviation">www.munich-airport.com/aviation</a> <a href="http://www.munich-airport.com/barrier-free">www.munich-airport.com/barrier-free</a>	■
PR1 Health and safety impacts during product life cycle stages		53, 56–59, 62–63, 96, 103–104	■

<sup>1</sup> Flughafen München GmbH complies with statutory, regulations and provisions based on the applicable legislation and legal framework.

GRI indicators		Remarks	Page reference	Status
PR2	Incidents of non-compliance with regulations concerning health and safety impacts	At the time of going to print, there were no known incidents of non-compliance with regulations and voluntary codes concerning the health and safety impacts of products and services during their life cycle. <sup>1</sup>	56–57	■
AO9	Total annual number of wildlife strikes per 10,000 aircraft movements		60	■
PR3	Type of product and service information required by procedures	Rules for airport use available here →	56–58, 122, <a href="http://www.munich-airport.com/aviation">www.munich-airport.com/aviation</a>	■
PR4	Incidents of non-compliance with regulations and voluntary codes concerning product and service information	At the time of going to print, there were no known incidents of non-compliance with regulations and voluntary codes concerning product and service information and labeling. <sup>1</sup>		■
PR5	Customer satisfaction including results of surveys measuring customer satisfaction		42, 55–56, 63, 67–68, 72–73	■
PR6	Programs for adherence to laws, standards and voluntary codes related to advertising	Flughafen München GmbH's advertising conforms to the rules issued by the German Advertising Council. The advertising we publish avoids all forms of discrimination and unfairness and does not mislead. In particular, our advertising follows the Council's code regarding advertising that involves or is accessible to children, and it remains within the realm of what may be considered decent, proper and moral. At no time in the period reviewed in this report did we incur sanctions, fines or warnings for infringements of advertising regulations. <sup>1</sup>		■
PR7	Non-compliance with regulations and voluntary codes concerning marketing communications	At the time of going to print, there were no known incidents of non-compliance with regulations and voluntary codes concerning marketing communications, including advertising, promotion, and sponsorship. <sup>1</sup>		■
PR8	Complaints regarding breaches of customer privacy and losses of customer data	At the time of going to print, there were no known instances of complaints regarding breaches of customer privacy and losses of customer data.	123	■
PR9	Fines for non-compliance with laws and regulations concerning the provision and use of products and services	At the time of going to print, there were no known instances of fines for non-compliance with laws and regulations concerning the provision and use of products and services. <sup>1</sup>		■

<sup>1</sup> Flughafen München GmbH complies with statutory regulations and provisions based on the applicable legislation and legal framework.



## Statement GRI Application Level Check

GRI hereby states that **Flughafen München GmbH** has presented its report "Perspectives - Integrated Report 2011" to GRI's Report Services which have concluded that the report fulfills the requirement of Application Level A+.

GRI Application Levels communicate the extent to which the content of the G3.1 Guidelines has been used in the submitted sustainability reporting. The Check confirms that the required set and number of disclosures for that Application Level have been addressed in the reporting and that the GRI Content Index demonstrates a valid representation of the required disclosures, as described in the GRI G3.1 Guidelines.

Application Levels do not provide an opinion on the sustainability performance of the reporter nor the quality of the information in the report.

Amsterdam, 22 June 2012

A handwritten signature in blue ink, appearing to read "Nelmara Arbex", is written over a faint circular watermark in the background.

Nelmara Arbex  
Deputy Chief Executive  
Global Reporting Initiative



The "+" has been added to this Application Level because **Flughafen München GmbH** has submitted (part of) this report for external assurance. GRI accepts the reporter's own criteria for choosing the relevant assurance provider.

*The Global Reporting Initiative (GRI) is a network-based organization that has pioneered the development of the world's most widely used sustainability reporting framework and is committed to its continuous improvement and application worldwide. The GRI Guidelines set out the principles and indicators that organizations can use to measure and report their economic, environmental, and social performance. [www.globalreporting.org](http://www.globalreporting.org)*

**Disclaimer:** Where the relevant sustainability reporting includes external links, including to audio visual material, this statement only concerns material submitted to GRI at the time of the Check on 15 June 2012. GRI explicitly excludes the statement being applied to any later changes to such material.

# Glossary

## Airport campus

The term airport campus is used to refer collectively to the entire airport site, including all of its buildings and facilities.

## Airports Council International (ACI)

An international organization, headquartered in Geneva, which represents airport operators. More than 1,600 airports in almost all of the world's countries are ACI members, including 400 airports in 46 European countries.

## Air source technology

Air source technology uses a system of natural ventilation. With natural ventilation, fresh air enters a building through vents and openings. Interior heat sources determine the pattern of airflow within rooms.

## Auxiliary power unit (APU)

Today's commercial aircraft have an auxiliary power unit in addition to their two or four main engines. The APU is used to start the main engines and to generate electric power when the plane is on the ground.

## Biodiversity

Biodiversity refers to the variety of life forms (including animal species, plants, fungi and bacteria), the habitats in which these life forms live (ecosystems such as woodland or bodies of water), and the genetic diversity within species (e.g., subspecies, strains and breeds).

## Biomass

Biomass is biological material that is biogenic as opposed to fossil in origin. Biomass refers both to living and naturally growing material in nature and to waste matter resulting from that material.

## Carbon dioxide (CO<sub>2</sub>)

Carbon dioxide is a colorless, odorless gas that is created when substances containing carbon combust (e.g., to generate heat and electricity or to power aircraft and motor vehicles). Carbon dioxide absorbs part of the heat radiation in the earth's atmosphere. This property makes it a so-called greenhouse gas.

## Carbon monoxide (CO)

Carbon monoxide is a colorless, odorless and flavorless toxic gas. It is created through the partial combustion of substances containing carbon without sufficient oxygen present or through combustion at very high temperatures.

## Cargo

A load carried on a means of transport, generally for a fee. The term cargo is applied to air freight and mail.

## Cash flow from operations

Cash flow is a business metric describing the new net cash assets during an accounting period.

## Collaborative Decision Making (CDM)

Airport CDM is an approach designed to streamline collaboration between all parties involved in flight and handling operations (airports, airlines, ground handling operators and air traffic control) so as to optimize procedures and maximize resource efficiency.

## Continuous Descent Approach (CDA)

An approach method using reduced engine power. The aircraft approaches its destination airport in a steady descent. This helps to conserve fuel and reduce aviation noise.

## Decibel (dB)

A unit of measure for sound intensity and sound pressure. One decibel (dB) is the smallest change in volume that a human can register. The decibel scale is logarithmic. Thus, a change of 10 dB represents a halving or doubling in the perceived noise level.

## Deicing

Aircraft deicing is an operation carried out on planes before they depart in order to clear them of ice and snow. In winter weather conditions, crucial parts of aircraft must be protected to prevent ice re-forming. This is accomplished by spraying them with a mixture of water and deicing agent (glycols).

### DIN EN ISO 14001

A standard created by the International Organization for Standardization (ISO). The standard establishes a worldwide foundation for certifiable environmental management systems.

### EBIT

Earnings before interest and taxes (and one-time cumulative effects, where applicable), commonly also referred to as the operating result.

### EBITDA

Earnings before interest, taxes, depreciation and amortization.

### Eco-Management and Audit Scheme (EMAS)

A system for voluntary environmental management and auditing, developed by the European Union as an instrument to enable businesses to continuously improve their environmental performance.

### Emission

The ejection, discharge or emanation of substances, energy or radiation into the surrounding environment by a given source. Emissions can take the form of gaseous pollutants, noise and dust, for example.

### Environmental impacts

The effects on humans, animals, plants and inanimate objects caused, say, by noise, air pollution, vibration, radiation, heat and light. Environmental legislation aims to control such impacts as effectively as possible.

### Equivalent continuous sound level Leq3

The equivalent continuous sound level Leq3 is the basic aviation noise metric applied in current aviation noise legislation. It is a direct measure of the sound energy at the point of observation and is therefore also described as the energy equivalent continuous sound level. Leq3 is measured over 16 hours during the day, from 6am to 10pm (daytime Leq3), or 8 hours during the night, from 10pm to 6am (nighttime Leq3). The six busiest months of the year are taken as the reference baseline.

### German Airports Association (ADV)

The ADV is the umbrella organization of commercial airports in Germany, Switzerland and Austria. The organization works to promote Germany as a strong and competitive center of aviation.

### Global Reporting Initiative (GRI)

An independent organization which publishes guidelines on sustainability reporting. Its aim is to establish a common baseline for communications and to ensure the comparability of sustainability reports.

→ [www.globalreporting.org](http://www.globalreporting.org)

### Greenhouse Gas Protocol (GHG Protocol)

The Greenhouse Gas Protocol is a 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 GHG emissions.

### Hub airport

An airport used by an airline company or alliance as a point of transit between short-, medium- and long-haul services to enable the airline or airlines to connect to a large number of destinations.

### Intermodality

Intermodal transportation involves the interconnection of two or more modes of transport – rail, road, air and sea, for example – along a given transport route.

### International Civil Aviation Organization (ICAO)

Headquartered in Montreal, the ICAO is an agency of the United Nations. The organization has a total of 190 contracting states. The goal of the ICAO and its members is to ensure the safe and sustainable development of civil aviation.

### Landing and takeoff (LTO) cycle

The LTO cycle consists of four phases: airport approach (including landing), taxi-in from the runway to the parking stand, taxi-out from the stand to the runway, and takeoff (including climb-out). The cycle encompasses altitudes up to approximately 915 meters and distances from the airport of around 8 kilometers in the case of departing aircraft, depending on how they climb out, and 17 kilometers in the case of arriving aircraft.

### Minimum clearance

This describes the minimum vertical or horizontal separation in terms of time or distance required between any two aircraft.

### Nitrogen oxides (NOx)

Gases that are formed when nitrogen combusts in combination with oxygen and occur in aviation exhaust gas.

### PM<sub>10</sub> particulates

PM<sub>10</sub> describes a category of particulate matter (i.e., fine dust particles) with a diameter of less than 10µm.

### Pre-conditioned air (PCA)

Air supplied by systems installed in airport ramp areas to heat or cool aircraft on the ground. By using these systems, planes do not need to run their own auxiliary power units (APU).

### Safety Management System (SMS)

The name given to a program in civil aviation to improve technical safety. Implementation of an SMS is a mandatory ICAO requirement at airports. The purpose of an SMS is to guard against accidents and incidents by identifying dangers, assessing and reducing risks, implementing countermeasures, and monitoring all relevant processes.

### Satellite

A satellite terminal is a building created to augment an existing airport terminal building. Unlike a fully fledged terminal, it lacks its own pick-up and drop-off areas and other typical landside facilities found in terminals, such as ticket desks, check-in counters, and baggage claims. Instead, a satellite simply has lounge areas where passengers can wait for flights, and air bridges to enable passengers to enplane easily.

### Smart metering

Smart meters enable utility users to keep track of their energy consumption and periods of energy use. Under Germany's Energy Industry Act, smart meters are required in all new builds and major refurbishments from 2010. The meters are intended to help consumers identify and curb energy waste.

### Stakeholders

Groups or individuals who can influence how a company achieves its targets or who are affected by a company's activities. They include employees, capital providers, customers, suppliers, local communities, non-governmental organizations (NGOs), public authorities and policymakers.

### Sustainable development

Sustainable development was recognized at the United Nations Conference on Environment and Development (UNCED) in Rio de Janeiro in 1992 as a normative international guiding principle of the community of states, global industry, global civil society and policymakers, and was enshrined as a fundamental principle in the Rio Declaration and Agenda 21.

### Type certification

Type certification is the official process by which the airworthiness of aircraft is assessed. It is carried out by the aviation authorities in the state in which an aircraft is registered and serves to verify compliance with regulating bodies' requirements.

### ROCE

Return on capital employed is applied in business management as a measure of how effectively and profitably a company is utilizing its capital.

### Virtual server

In computing, virtualization helps consolidate server environments and maximize hardware utilization by running multiple virtual servers on a single hardware device. This helps to significantly reduce the energy required to power hardware and cool data centers.

### Workload unit (WLU)

A metric used to track commercial passenger and cargo traffic. A workload unit equates to one passenger with carry-on luggage (100 kg in total) or 100 kg of air cargo or mail.

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digital orthophotograph (p. 107)  
Yorck Dertinger (p. 55)  
Florian Holzherr (p. 9)  
Koch+Partner Architekten und Stadtplaner (p. 41)  
Koch+Partner Architekten und Stadtplaner/  
rendered by VIZE.com (cover image<sup>1</sup>)

## Consulting and design

Kirchhoff Consult AG, Hamburg

## Translation

Tom Rattray

## Printing

G. Peschke Druckerei GmbH, Munich

## Paper

Circle silk Premium White

The paper is certified with the EU Ecolabel (FR/11/003).



ClimatePartner<sup>o</sup>  
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<sup>1</sup> Cover photo: The cover shows a rendered image of Terminal 2's satellite building. The satellite is due to open in 2015. The firm of architects and master planners in charge of the satellite construction project is K+P Architekten und Stadtplaner GmbH, Munich.



