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# /Expansion plans

## Macro-economic dimension

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. In 2013 its companies established a new record in foreign trade, exporting goods valued at 167.8 billion euros. In a study conducted on behalf of the Bavarian industry association VBW, Bavaria secured ninth spot amongst 46 countries analyzed in terms of the development of the quality of their location behind countries such as China, India and Brazil. Together with Sweden, Bavaria is the only industrialized state in the leading group of countries.

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 fair location, and a strong logistics center. On top of this, Bavaria's 25 million tourists per year make it Germany's most popular tourist destination.

If Bavaria is to maintain its international competitive edge, it must improve and expand connections to the world's growth markets. A key requirement for this 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 current regulation on Bavaria's regional development program dated August 22, 2013 came into force on September 1, 2013. It continues to adhere to the principle that Munich's civil airport will, as a European hub, safeguard Bavaria's long-haul air connections and the domestic and international air connections of southern Bavaria. The construction of a third take-off and landing runway together with the associated taxiways and apron is expressly set as a goal of state development.

The growth projected for Munich Airport will therefore continue to have a positive impact on employment. The construction of the third runway, for which an investment of around € 1.2 billion is calculated, also represents an exceptionally important economic stimulus.

## At the limits of capacity

For years now there have been regular bottlenecks at peak times on both runways, for which a maximum of 90 aircraft movements an hour are permitted. Therefore, the airlines' demand for slots (scheduled times at which planes can take off and land) can scarcely be met.

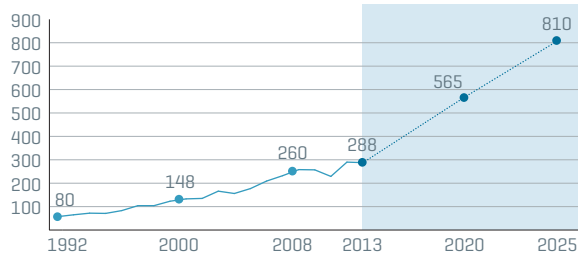
This has been confirmed by independent studies. For instance, in its Aviation Report 2007, the German Center for Aerospace (DLR) attested that, in 2006, Munich Airport was already utilizing 90 percent of its capacity for scheduled flights. This finding was substantiated by a study for the EU conducted by British consultants Steer Davies Gleave in 2009 who calculated a slot utilization of approximately 92 percent for Munich Airport. During the proceedings relating to the planning approval process for the planned third runway, the airport coordinator for Germany, who is responsible for awarding slots, confirmed that, in 2011 for example, weekday arrival and departure pairings could only be allocated early in the morning and late in the afternoon and that at peak times, 97 percent of available slots were used.

The air traffic forecast for 2025 cannot be handled with the two-runway system. The useful capacity of an airport cannot be determined by simply adding up the available slots. In determining the practical available capacity, fluctuation in demand over the year, the week, and during the day must also be taken into account. This means that airlines have no appreciable scope for expanding their route networks out of Munich. The third runway, which would make it possible to increase capacity to at least 120 aircraft movements per hour would make it possible to handle the forecast traffic volume and ease the bottlenecks.

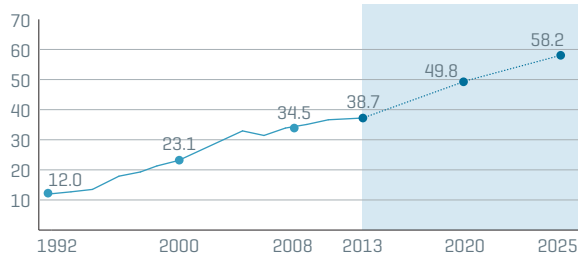
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## Demand forecast through 2025

Freight volume – Development and forecast  
(including mail, excluding trucking)  
in thousands of tonnes



Passenger volume – Development and forecast  
Commercial passengers in million



Source: Munich Airport, January 2014, Intraplan Consult GmbH (ITP)

## Planning for the future

Munich Airport has developed into one of Europe's foremost aviation hubs. It is not only an originating and termination airport, but also a transit airport for international air traffic. Its passenger volume has tripled in comparison with 1992, the first year at the new location. For 2025, a further increase to 58 million passengers is forecast. Airfreight volumes are also set to increase further. The goal is to maintain Munich Airport's position in Europe and to continue to meet the growing demand for air travel within our catchment area which comprises southern Germany and neighboring countries. For this reason, a course was set for airport expansion to match demand and, in 2007 a planning application made for the construction of a third runway.

This was approved by the government of Upper Bavaria in July 2011. Following an intensive examination and consideration of all public and private ramifications, the zoning authority confirmed the needs presented by Flughafen München GmbH and their plans submitted for the third runway. This approval is valid for up to 15 years.

Judgment passed by the Bavarian Higher Administrative Court (Bayerischer Verwaltungsgerichtshof) on February 19, 2014 concerning the third runway upheld Munich Airport's expansion plans. Following five meetings on site, 41 days' proceedings and an extremely intensive assessment of the 2,800 pages of the planning application submitted to the local government of Upper Bavaria, the court dismissed 16 objections raised against the approval granted for the »third runway«. The judges concluded that the approval granted by the government of Upper Bavaria met technical and legal requirements and is therefore lawful.



### Noise impact on local residents

One of the effects of air traffic is the impact the noise has on people living in the area surrounding Munich Airport. Due to the optimum site operating regulations, Munich Airport compares favorably with other major airports in this respect. In comparison with the similarly affected population in Frankfurt, noise measurements are five percent lower and one percent lower compared to London's Heathrow airport. Munich Airport also compares favorably with other modes of transport in terms of the impact of noise.

Based on the Air Traffic Noise Act, 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. This was confirmed by the Bavarian Higher Administrative Court in February 2014. The government of Upper Bavaria held the construction of the runway to be compatible with the need to protect the general public and neighbors from aviation noise if provisions concerning entitlement to reimbursement and compensation as well as incidental provisions in the zoning approval are taken into account.

Key regulations concerning noise:

- **Operating regulations**

The operation of particularly noisy types of aircraft can, given the framework of operating restrictions, be permanently or temporarily restricted or prohibited. Aircraft without an ICAO [International Civil Aviation Organization] Annex 16 noise certificate are not allowed to take off or land at Munich Airport. On the airport's third runway, the same will apply to Chapter 2 aircraft 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 for approval to conduct regular night-flight operations on the airport's third runway. The runway may only be used at night in exceptional circumstances – in the event of an emergency or if one of the two existing runways is closed. This means that the current noise quota will remain the same. The provisions contained in the zoning approval are such that residents around the airport need not be concerned that they could be affected by night flights on the third runway.

### The path to the T2 satellite

In December 2010, FMG and Lufthansa gave the go-ahead for the construction of the T2 satellite. FMG and Lufthansa, who jointly operate Terminal 2, thus responded to the dynamic growth in passenger numbers at Munich Airport. The new building provides additional capacity for eleven 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.

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

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The satellite building was designed as an extension to the existing baggage sorting hall on the apron to the east of Terminal 2 and will have 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.

### Green Building

The new building has been planned as a »green satellite« and ambitious carbon targets will apply, which means carbon emissions will be 40 percent lower than those of the two existing terminals. This will be achieved through many measures, such as a climate facade, advanced air source technology for the air conditioning and LED lighting and dimming.

### Construction work on schedule

Construction work started in spring 2012 with the next important steps following in 2013. In March, the building received its facade; in May, passenger boarding bridges were positioned in pairs while interior design work began in summer. Representatives from politics and business joined 500 construction workers on September 12 to mark the traditional topping-out ceremony.

The facade and the shell of the building are scheduled for completion and the roof will be closed during the first half of 2014. By the end of the year, the first vehicles will be delivered for the passenger transport system. Completion of the new terminal building is planned for 2015.

Numerous contracts that will appeal to SMEs in the vicinity of the airport were put out to tender. Munich Airport has launched a special website as a central contact point where companies can register and specify the construction services they offer.

### T1 refurbishment to accelerate passenger handling

Thanks to the satellite building, work to expand Terminal 2 capacity is already fairly well advanced. By contrast, the next big construction project in the passenger segment, the refurbishment of Terminal 1, is still at the planning phase. The refurbishment will significantly increase the appeal of Terminal 1, creating enhanced capacity and expanding the functionality of the terminal.





FMG is also planning to merge the separate arrival and departure areas A and B in Terminal 1. This will increase efficiency in passport and security controls, and in the baggage claim area for the non-Schengen area. On top of this, a new central shopping area will be developed. As part of the refurbishment, Terminal 1 will be raised by two floors, or 22 meters, on the apron side. The additional floor space will be used for centralized arrival checks and new lounges. The investment cost for the rebuilding will amount to several hundred million euros. Construction is scheduled from 2016.

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### **New plans for the north-west of the airport campus**

Munich Airport is planning to reorganize the urban landscape to the north-west of the airport campus. In the 1980s and 1990s, the area served as a construction center while the airport was being built. Today, with its two building centers the area is used as a car park for taxis and rental cars and as a temporary storage site for construction materials.

In future, we envisage using the areas for office space, areas for winter and emergency services, power and utilities plant and for parking for passengers and employees. In addition, plans have been drawn up to improve access to the road network by adding another traffic junction on the central airport distribution road and a roundabout on Freisinger Allee heading out to Nordallee.

### **Expanding the Hotel Kempinski**

Having opened in 1994, the Kempinski Hotel Airport München is a five-star business hotel with 389 rooms, spa facilities and a small conference area operating in close vicinity to the terminals. The hotel is well-positioned in the market and is highly profitable. Given the high hotel occupancy rates, further business growth would only be possible through hotel expansion. An hotel extension of approximately 160 rooms on six floors and office areas is planned. The extension is to be accessed via a connecting passage from the lobby of the existing building. Completion is scheduled for the end of 2016. FMG will raise the capital expenditure required of 36 million euros from its own resources.