



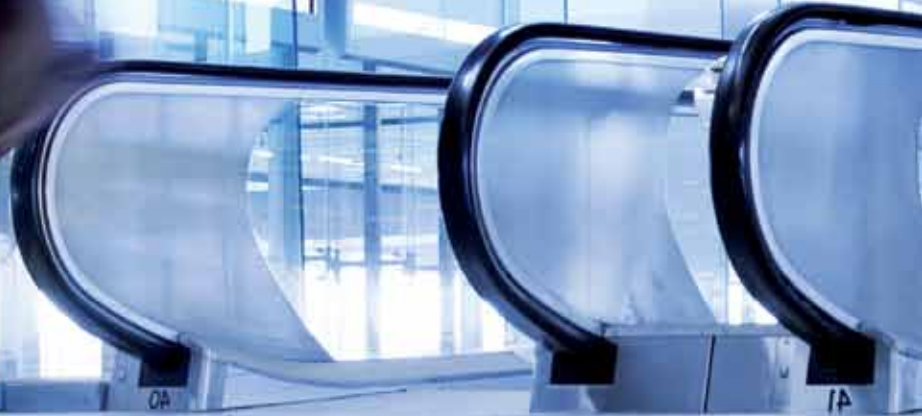
**Aviation**  
Road Map 2020

Competitive  
Sustainable  
Integrated

bm v 

Gates 1 2 3 4 5

Visionary  
Thinking





|        |   |            |
|--------|---|------------|
|        | → Federal Minister Doris Bures: Visionary thinking – strategic action! .....            | Page 5     |
|        | → Summary → Competitive. Sustainable. Integrated. ....                                  | Page 6     |
| Gate 1 | → Departure<br>→ Ways to a Competitive, Sustainable and Integrated Overall System ..... | Page 8     |
| Gate 2 | → Status quo → The Current Situation of Austrian Air Transport .....                    | Page 10    |
| Gate 3 | → Visions → Visions for the Future of Austrian Aviation .....                           | Page 22    |
| Gate 4 | → Strategy → The Strategic Orientation of Austrian Aviation .....                       | Page 32    |
| Gate 5 | → Methods → Sub-goals and Measures .....  | Page 36    |
|        | → The Vision for 2020 → Competitive. Sustainable. Integrated. ....                      | Page 43    |
|        | → Appendix → Committee Members → Abbreviations → List of References .....               | Page 44–46 |



**strategic  
action**

## Visionary thinking – strategic action!

Austria's outstanding geographic location gives it a significant role to play within aviation both in the European Union and internationally. But we all know the conditions to which international aviation is subject, as well as the drastic changes which are currently taking place. Increased competition, new business models, rising fuel prices, climate goals, natural disasters, terror threats, health risks – the list of influencing factors is long and demands far-sighted, visionary and strategic thinking and action.

### Our vision for 2020:

**Austria is competitive and well-established on the international level**

In 2020 we will have a strong, competitive aviation infrastructure in Austria. The country will have used its geographic advantages to establish itself as a hub in Central Europe with connections to the western Balkan states, the Russian Federation and its successor states, the Middle East and central Asia. A fundamentally liberalised aviation market will generate growth. Austro Control will play a leading role in the system of Europe's integrated airspace "Single European Sky". Cost and fee structures in Austria will be transparent and attractive to businesses. Our airports will be optimally connected to intermodal ground transport systems. Technological, operational and incentive-based measures will have effected a significant reduction of emissions. And: Austria will have the highest-possible standards in both safety and security.

### Road Map for an Austrian Aviation Policy: the federal government's strategic plan for the optimum development of Austrian aviation between now and 2020

This overall strategy, developed with stakeholders in the Austrian aviation industry, is now available and offers the aviation industry a comprehensive planning and decision-making structure for the coming years and thus also the necessary tools for the realisation of our vision for 2020. The main goals for Austria as a centre of air transport are:

- ➔ Increasing the competitiveness of the Austrian aviation industry
- ➔ Developing strong and sustainable infrastructure
- ➔ Having aviation be regarded as an integrated system

### Measures to be taken: from visionary thinking to strategic action

Visions, goals and strategies form the basis – but realisation is the task at hand. This is why, together with the Federal Ministry of Transport, Innovation and Technology and with stakeholders in Austrian aviation, we have integrated into this Road Map a comprehensive list of measures to be taken. This list should serve to help make the visions sketched out here become reality, thereby strengthening Austria's position as a centre of air transport for the challenges that lie ahead.

I would like to thank all those who were involved in the development of this Road Map for an Austrian Aviation Policy for their outstanding collaboration, and I look forward to continued good cooperation in the interest of reaching our goals. Let us now begin with the implementation of our Road Map for an Austrian Aviation Policy!



Doris Bures



Doris Bures  
Federal Minister for  
Transport, Innovation  
and Technology

## Summary:

# Competitive. Sustainable. Integrated.



60% more passengers in 10 years  
24.5 million passengers  
1,597 aircraft  
81 air carriers  
70,000 jobs

Given the many challenges faced by Austrian aviation domestically and internationally, today and in the future, the development of a Road Map for an Austrian Aviation Policy as a long term strategy is of central importance. The aim is to sustainably strengthen Austria's location as a centre of air transport in a global context while stabilising and expanding the position of Austria's aviation industry by allowing it to optimally utilise the opportunities presented by global competition. In order to achieve the established goals, the current situation of Austrian aviation will be presented in detail, visions of the future will be sketched out and potential strategies and appropriate measures for ensuring the successful development of the industry will be considered.

### Starting from a good position: the numbers speak for themselves

Austrian aviation is in a good starting position: security (legal certainty as well as protection of individuals and property), overall stability, service quality and Austria's geographic location are important preconditions for the positive development of aviation in Austria. Passenger demand has increased greatly over the past few years: between 2000 and 2010, the area of passenger flight grew by 60%. In 2010, 24.5 million passengers and 245,944 tonnes of freight were transported through Austria's six international airports. In the same year, 1,597 aircraft and 81 commercial aviation businesses were registered.

Aviation is a significant economic factor, with an estimated 70,000 jobs being directly or indirectly generated. Although Austrian aviation makes up only a small portion of the overall European industry, Austrian companies are important: Vienna International Airport is one of Europe's ten largest airports in terms of flight movements. But despite this good starting point, Austrian aviation needs to be better-equipped to handle current and coming challenges.



Largest home carriers in 2010:  
Austrian Airlines Group:  
10.9 million passengers  
Fly Niki:  
3.4 million passengers

### Projections and areas of activity: demand to double

The aviation sector is a growth market, even if it has had to overcome repeated market slumps (e.g. 9/11, volcano ash clouds, economic crises). Yet current projections point upwards (e.g. Eurocontrol's "Challenges of Growth 2008"): a doubling of demand can be predicted based upon moderate annual growth in Europe of approximately 2%. This means that more airports will have reached maximum capacity by 2030.

Regions and economic centres grow together. And the rapid growth of emerging economies entails that demand for passenger and cargo transport will rise and traffic flows will shift. Europe will have to fight to maintain its role in global aviation, and Austrian aviation needs to secure its position in the global field of competition. Appropriate conditions must be created to ensure a more important role for Austrian aviation in international aviation, in turn helping to guarantee the quality of Austria as a business location. Setting up strong, high-capacity infrastructure will therefore be of central importance. Airports will have to be better-embedded in the overall transportation network and better-connected to road and rail systems.

Periods of peak travel already see Vienna International Airport testing its maximum capacity and being forced to refuse traffic. Even with the third runway completed, existing facilities will have to be better-utilised over the long run, since enlarging airports will only become more difficult in the future. Bottlenecks will arise not only at individual airports but also in the airspace itself, which is why transnational cooperation and implementation of the Single European Sky (SES) need to be accelerated.



Demand for aviation services  
to double by 2030:  
Many airports will have  
reached their capacities.

Austrian aviation needs to expect and prepare for the introduction of stricter environmental regulations in connection with the advent of climate change. Negative effects can be reduced via technological innovation, increased airspace efficiency through the implementation of the Single European Sky (SES), and incentives like emissions trading. For all this, it is necessary that an internationally coordinated approach be taken in order to avoid the distortion of competition.

### High standards of safety and security are of the utmost priority

That goes for both organizational safety and security from external threats. International standards must be implemented in the best manner possible. Aviation is an international and integrative sector, with international collaboration and cooperation with neighbouring countries playing an important role. Austria can take up a cooperative stance within the European Union and, above all, contribute its expertise on Central and Eastern European countries. Aviation in Austria cannot be considered in an isolated way – various fields including health, the economy, social policy and foreign policy aspects influence this sector and must be taken into consideration. Communication with the various stakeholders is one further integral aspect of a consistent Austrian aviation policy.

In order for Austrian authorities to successfully perform the tasks that lie ahead, efficient government agency structures need to be created, responsibilities need to be clearly delineated and defined, and workers need to have the proper skills, training and degree of professionalism.

### Strategic goals and measures to increase competitiveness

In order to actively effect improvements in the defined areas, three strategic goals have been formulated:

- Increasing the competitiveness of Austria's aviation industry
- Developing strong and sustainable infrastructure
- Integration: aviation as an overall system

These goals make up the preconditions that enable forward-looking, consistent and coherent action by all parties involved. And with the way thus paved for the further development of Austria's strengths as a centre of aviation, it will be imperative that the opportunities which present themselves to Austrian aviation over the coming years be successfully utilised.

To achieve the goals defined for the year 2020, a broad spectrum of measures have been developed by public authorities and the aviation industry, as well as by the Social Partners [employer/employee representational bodies]. These developmental steps are to be further defined and implemented in close cooperation with individual stakeholders via a process coordinated by the Federal Ministry for Transport, Innovation and Technology, with the work of stakeholders being supported by a committee established for this purpose.



Developing strong infrastructure:  
embedding airports in  
the transport system,  
implementation of  
Single European Sky.



International collaboration  
and cooperation with  
neighbouring countries:  
Austria can assume a  
cooperative position.

Gate 1



Departure



## Gate 1: Ways to a Competitive, Sustainable and Integrated Overall System

The Austrian Federal Government's governing programme for its 24<sup>th</sup> legislative period stipulates the compilation of a Road Map for an Austrian Aviation Policy, a strategic concept that aims at the competitive development of Austrian aviation.<sup>1</sup> In November of 2009, at the initiative of Federal Minister Doris Bures, representatives of the following organisations gathered together for a kick-off meeting for the Road Map for an Austrian Aviation Policy: Austrian commercial airports, commercial aviation companies, ground handling services, Austro Control GmbH (ACG), the Austrian Federal Economic Chamber (WKO), the Austrian Chamber of Labour (AK), the Austrian Aeroclub (ÖAeC), the Federal Ministry for European and International Affairs (BMeiA), the Federal Ministry of Finance (BMF), the Federal Ministry of Economy, Family and Youth (BMWFJ), the Federal Ministry of the Interior (BM.I), the Federal Ministry of Agriculture, Forestry, Environment and Water Management (BMLFUW), the Federal Ministry of Defence and Sport (BMLVS), the Supreme Civil Aviation Authority (OZB) and other departments of the Federal Ministry for Transport, Innovation and Technology (bmvit).

To start the kick-off meeting, the study entitled "Road Map for an Austrian Aviation Policy" was submitted by the University of Leiden (International Institute of Air & Space Law).<sup>2</sup> In the months following this, four working groups formed to discuss the current situation of Austrian aviation and to work out the most important spheres of activity in the respective areas of: aviation policy, economy/location/environment, infrastructure and the organisation of public authorities. The area of research, innovation and technology was given only peripheral consideration since a strategy for these areas had already introduced in May 2008 and is currently being implemented.

Based upon the findings of the four working groups and input from the University of Leiden, a number of goals, sub-goals and measures were identified; these should lead to the strengthening of Austria as a centre of air transport in terms of its being an integrated, competitive and sustainable system. In the following, a vision for the future of Austrian aviation (leading up to 2020) will be presented in the context of the current situation, and from this vision a plan for realisation will be developed.



Road Map for an Austrian  
Aviation Policy: Goals and  
measures for the realization  
of a vision for the  
strengthening of Austria as  
a centre of air transport

<sup>1</sup> See Bundesregierung Österreich 2008, 54 f

<sup>2</sup> See De Wit / Mendes de Leon 2009

Gate 2 Status quo ↑



# Gate 2: The Current Situation of Austrian Air Transport

## 2.1 Austrian Air Transport: Facts and Figures

This section contains a presentation of numerical data relevant to aviation in Austria, some of which is compared over several years.

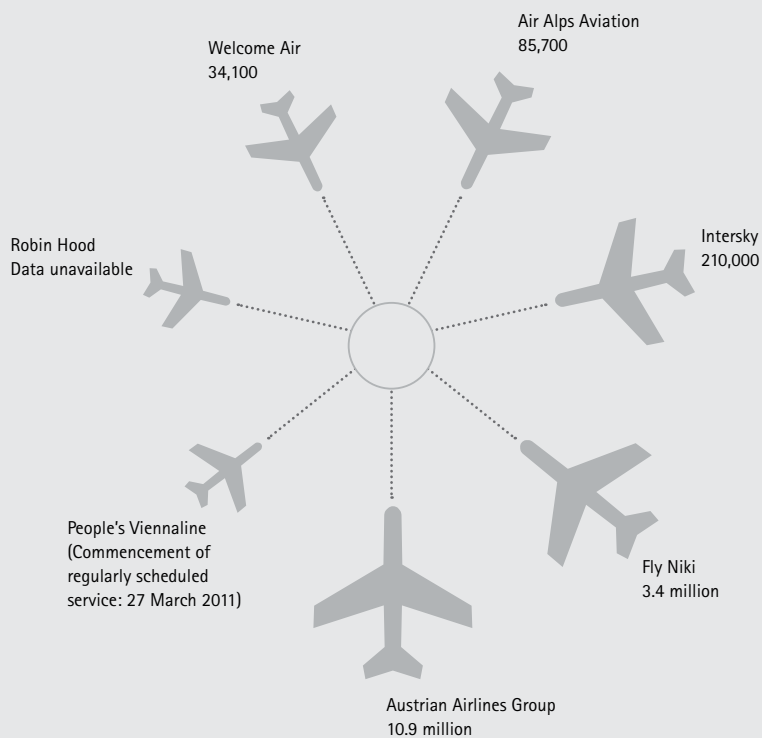
### Austria's most important air carriers

In 2010, a total of 81 air carriers were registered in Austria;<sup>3</sup> of these, 63 were categorised as fixed-wing carriers and 18 as helicopter carriers. The largest Austrian air carriers in terms of passengers were Austrian Airlines Group (Austrian Airlines / Tyrolean / Lauda Air) and Fly Niki (Niki Luftfahrt GmbH). Since September 2009, Austrian Airlines Group has been part of the Lufthansa group. German airline Air Berlin owns a stake in Fly Niki. Other than the two abovementioned airlines, there are a number of other air carriers providing regularly scheduled service and/or charter services; such companies are particularly important for regional airports.



81 airlines are registered in Austria (as of 2010); the largest are Austrian Airlines Group and Fly Niki.

### Passenger volume of home carriers



Data source: "Linienunternehmen" (2010)

3 See bmvt 2011

## Ownership structure of domestic airports

In Austria there are six airports served by both Austrian and foreign carriers:

- Graz Thalerhof (Ownership structure of Flughafen Graz Betriebs GmbH: 99.9% Graz AG, 0.1% Gesellschaft für Strategische Unternehmensberatung GmbH)
- Innsbruck-Kranebitten (Ownership structure of Tiroler Flughafenbetriebsges.m.b.H.: 51% Innsbrucker Kommunalbetriebe AG, 24.5% Federal State of Tyrol, 24.5% City of Innsbruck)
- Klagenfurt-Wörthersee (Ownership structure of Kärntner Betriebs GesmbH: 80% Kärntner Landesholding, 20% City of Klagenfurt)
- Linz-Hörsching (Ownership structure of Flughafen Linz GesmbH: 50% OÖ Verkehrsholding GmbH, 50% City of Linz)
- Salzburg Airport W. A. Mozart (Ownership structure of Salzburger Flughafen GmbH: 75% Salzburger Beteiligungsverwaltungs GmbH, 25% Stadt Salzburg Beteiligungs GmbH)
- Vienna International Airport (Ownership structure of Flughafen Wien AG: 20% Federal State of Lower Austria, 20% City of Vienna, 10% private employee participation foundation, 50% private shareholders)



Six Austrian airports are served by Austrian and foreign carriers.

## Transport connections at the six Austrian Airports

| Airport    | Motorway                    | Local rail   | Regional and long-distance rail | Bus  |
|------------|-----------------------------|--|---------------------------------|------|
| Vienna     | ★★★★                        | ★★★★<br>S7 train, City Airport Train (CAT); CAT not yet extended to Bratislava Airport (BIS) | ★★★                             | ★★★★ |
| Salzburg   | ★★★<br>Improvement possible | ★★★<br>Transfer at main railway station  | ★★★                             | ★★★★ |
| Innsbruck  | ★★★                         | ★★★  | ★★★                             | ★★★★ |
| Graz       | ★★★★                        | ★★★<br>Within walking distance   | ★★★                             | ★★★★ |
| Linz       | ★★★                         | ★★★  | ★★★                             | ★★★★ |
| Klagenfurt | ★★★★                        | ★★★<br>Within walking distance (long)  | ★★★                             | ★★★★ |

very good ★★★★★    good ★★★    fair ★★    absent ★

Data source: Airports

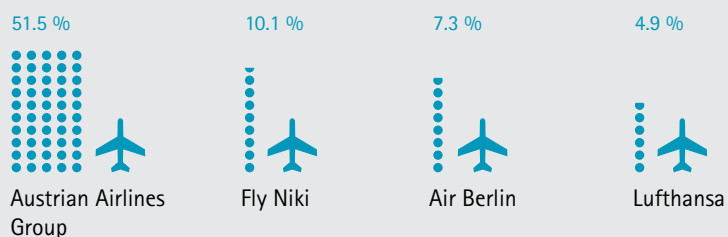
## Market shares at Vienna International Airport<sup>4</sup>

In 2010, Austrian Airlines Group claimed 51.5% of regular-service passenger volume. Other important airlines at this Austrian air transport hub were Fly Niki (10.1%), Air Berlin (7.3%) and Lufthansa (4.9%). All other airlines came in below the 3%-mark. Over a 5-year period, this represents an increase in market share for Fly Niki (2005: 4.1%) and Air Berlin (2005: 6.3%) and a loss in market share for Austrian Airlines Group (2005: 56.0%) and Lufthansa (2005: 5.9%). The entire Lufthansa group (including Austrian Airlines Group, Brussels Airlines, British Midland, Germanwings, SunExpress and Swiss) thus claimed a market share of 62.6% in 2010, with the combined market share of Air Berlin and Fly Niki amounting to 17.4% .

<sup>4</sup> See Flughafen Wien AG 2011

## Airlines' shares of passenger volume in regular service (Vienna)

Data Source: Flughafen Wien AG (2011)



## An increasing number of aircraft<sup>5</sup>

In 2010 there were 1,597 registered civilian aircraft in Austria (this represents growth of 23% since 2000). Of these, 818 were in the category of general aviation and 317 in the commercial aviation sector (regular and charter service). The rest were distributed among other, smaller segments (e.g. 157 rotary-wing aircraft, 98 ultra-light aircraft and 188 motor gliders).



In 2010, Austrian Airlines Group claimed ca. 51.5% of passenger volume in regular commercial service.

## Increase in flight movements

Austro Control recorded 1,141,991 flight movements in 2010, representing an increase of 38.8% since 2000.<sup>6</sup> There were 320,409 commercial flight movements at Austrian airports in 2010,<sup>7</sup> representing an increase of 18.5% since 2000. The total number of commercial flight movements in 2010 can be broken down as follows: Vienna – 245,992; Salzburg – 20,159; Graz – 17,313; Innsbruck – 15,347; Linz – 13,688; Klagenfurt – 7,910.

## Passenger statistics of Austrian airports

Data source: Statistics Austria



|        | Innsbruck | Salzburg  | Linz    | Klagenfurt | Graz    | Vienna     |
|--------|-----------|-----------|---------|------------|---------|------------|
| ● 1999 | 680,620   | 1,260,711 | 746,929 | 235,348    | 752,496 | 11,924,514 |
| ● 2010 | 1,033,512 | 1,625,842 | 692,039 | 426,935    | 989,959 | 19,682,590 |

5 See Statistik Austria 2010, 148, and Austro Control GmbH 2011

6 See Austro Control GmbH 2011

7 See Statistik Austria 2010, 39 ff, and Statistik Austria 2011



A 40% increase in flight movements and a 60% increase of passenger volume in ten years

## Rising passenger figures<sup>8</sup>

In 2010, a total of 24.5 million passengers were transported. This represents an increase of 56.7% in comparison with 2000. Approximately 90% of passengers used regular-service airlines and about 10% used charter-service airlines. Of the total number of transported passengers in 2010, 19.7 million were handled at Vienna International Airport, followed by Salzburg (1.6 million), Innsbruck (1 million) and Graz (1 million).

## Higher freight volume

2010 saw Austria's six airports handle approximately 245,944 tonnes of freight and 12,495 tonnes of mail.<sup>9</sup> In 2007, Austria ranked 9<sup>th</sup><sup>10</sup> among the EU-27 in terms of loaded and unloaded tonnes of freight and mail; Vienna International Airport and Linz Airport made the most significant contributions to this statistic. Among the EU-27, Vienna International Airport ranked 16<sup>th</sup> in terms of tonnes of handled freight.<sup>11</sup> Over a ten year period, freight volume at Austria's six airports demonstrated continuous growth (except during the market collapses of 2001/2002 and 2008/2009) which ultimately totalled 83.4%.

## General aviation<sup>12</sup>

Statistics Austria defines general aviation as private flights, training flights, work-related flights, test flights, governmental flights, military flights and other types of flights.<sup>13</sup> Non-scheduled commercial motorised flight movements have grown in significance over the past few years.<sup>14</sup> While the number of such flight movements rose by 13% between 2004 and 2008, this figure fell back to around 2004 levels in 2009.

## Fee levels

The fees charged by individual airports are prescribed by their respective fee schedules. Due to the variety of fees charged and the differences in services, a comparison of the individual airports is of only limited value. An attempt at comparison was made by the International Civil Aviation Organization (ICAO) in its publication "Tariffs for Airports and Air Navigation Services" (2009), which puts Vienna International Airport, for example, in the upper-middle range in terms of landing, take-off and passenger fees compared to the most important airports in directly neighbouring countries.<sup>15</sup> According to this comparison, Zurich Airport had the highest fees while the fees at Munich Airport were lower than those at Vienna International Airport. In terms of air traffic control user charges, Austria ranks consistently between 8<sup>th</sup> and 12<sup>th</sup>.<sup>16</sup> In 2011 Austria ranked 8<sup>th</sup> among Eurocontrol's 38 current member states, with first place representing the most expensive provider.<sup>17</sup>

<sup>8</sup> See Statistik Austria 2010, 39 ff, and Statistik Austria 2011

<sup>9</sup> See Statistik Austria 2010, 51 ff, and Statistik Austria 2011

<sup>10</sup> See Eurostat 2009, 96

<sup>11</sup> See European Commission 2010, 132

<sup>12</sup> See Statistik Austria 2010, 160

<sup>13</sup> Military flights fall under "general aviation" due to the current legal basis of aviation statistics reporting in Austria.

<sup>14</sup> See Statistik Austria 2010, 141

<sup>15</sup> See International Civil Aviation Organization 2010

<sup>16</sup> This depends on the development of costs, traffic and fees in Eurocontrol member states as well as on exchange rate fluctuations.

<sup>17</sup> Eurocontrol 2011, 6

## Aviation as an important economic factor

Aviation is an important economic factor in Austria. This assessment was confirmed by the study "The Economic Significance of the Austrian Aviation Industry".<sup>18</sup> According to this study by the Vienna University of Economics and Business, the value created by the aviation industry in Austria amounted to approximately 2.4 billion Euros in 2002. Based upon annual growth of air traffic in Austria, the study predicted that the value created by the aviation industry in 2010 would be around 4 billion Euros. The study also determined that the Austrian aviation industry was responsible for a total of 36,769 jobs in 2002 and projected that this figure would rise to 61,742 by 2010. Altogether, these findings mean that Austrian aviation was responsible for the livelihoods of 75,108 people in 2002, a figure which the study projected would reach 126,120 in 2010.<sup>19</sup>

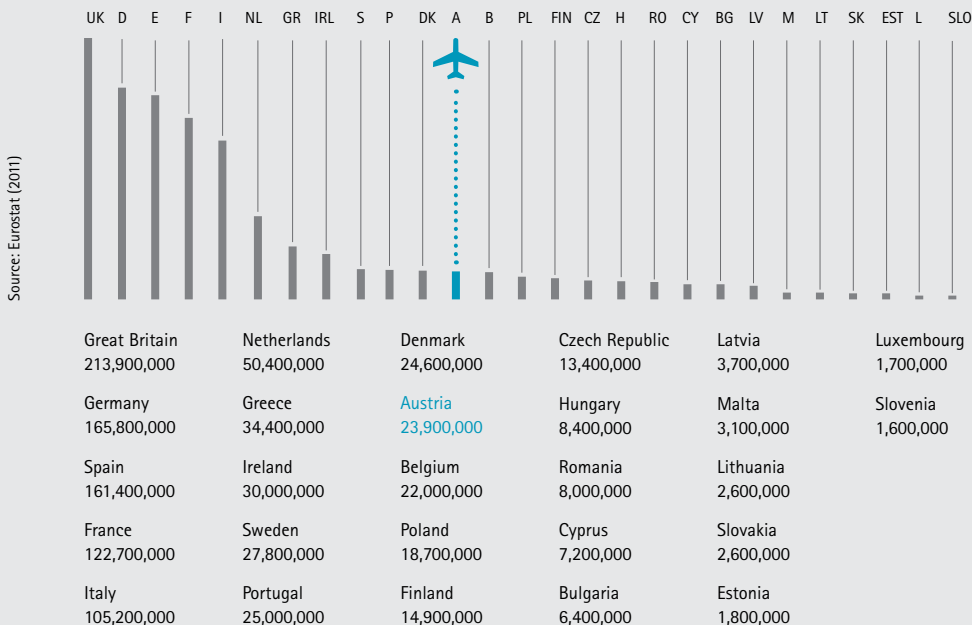
## The outstanding position of Austrian aviation within the European Union

Compared with the rest of Europe, Austrian aviation represents only a very small part of total volume: Austrian passenger volume averaged 2.2% of total EU passenger volume between 2005 and 2008.<sup>20</sup> Nevertheless, Austrian companies are relatively important: in a 2008 comparison of the 33 most important EU airline companies, Austrian Airlines Group ranked 16th in terms of passenger-kilometres travelled.<sup>21</sup> The same publication ranked Vienna International Airport 9th EU-wide in terms of flight movements.<sup>22</sup> According to a Eurocontrol study,<sup>23</sup> Austria's 200 business aviation flights per day put it in 6th place; particularly notable here is that more than 50% of these flights were overflights. The same study ranked Vienna International Airport 9th among European airports in terms of the highest number of business aviation takeoffs per day.



9th ranking for  
Vienna International Airport  
in EU-comparison

## Distribution of passenger volume in the European Union



18 See Kummer / Medenbach 2004, 148

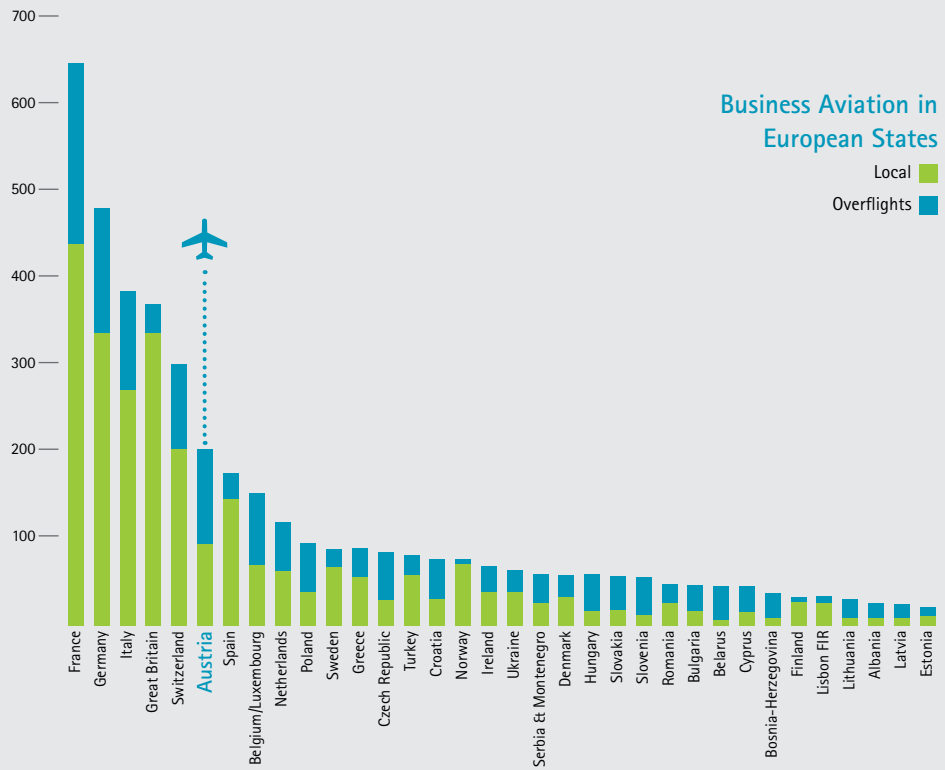
19 Confirmation of this projection by the Institute for Transport and Logistics Management at the Vienna University of Economics and Business

20 See Statistik Austria 2010, Business Management

21 See European Commission 2010, 128

22 See European Commission 2010, 133

23 See Eurocontrol 2010, 3 ff



## 2.2 Authorities as Coordinating Bodies: Cooperation between Different Aviation Authorities

The Austrian Civil Aviation Authority is a part of the Federal Ministry for Transport, Innovation and Technology. The duties of this authority include aviation policy, aviation law, matters of air traffic control, oversight of Austro Control and administrative processes at airports and air traffic control facilities including oversight of both operations and safety. Subordinate aviation authorities are the Federal State governors, Austro Control, the Austrian Aeroclub and district administrative authorities. Austro Control, which is 100%-owned by the Republic of Austria,



Services are carried out in the shortest-possible time.



is a privately organised company responsible for the safe and efficient conduct of flight activity in Austria's airspace. Austro Control was formed in 1994 out of the Federal Office of Civil Aviation and was entrusted by statute with the performance of official duties, serving as an authority both in the field of air traffic control and as an aviation agency. The Austrian Aeroclub is Austria's umbrella organisation for all recreational flight in the area of non-commercial general aviation, and is also charged with the performance of official duties in certain areas.

## 2.3 Aviation in a European and Global Context: Influence of the Legislative Framework

Aviation is a strictly regulated field, and most regulations are developed in a European and/or global context.

Existing European Union aviation legislation has harmonised regulations in the relevant areas of civil aviation. In the area of safety, for example, Regulation (EC) No. 216/2008 was a milestone: it included the introduction of new, harmonised rules for flight operations, licenses and the training of crew. Likewise, the authority of the European Aviation Safety Agency (EASA) was given broader authority over air traffic management (ATM) and airports.

Similarly harmonised is the area of security. Basic common standards for the protection of civil aviation against unlawful interference jeopardising safety were laid down Europe-wide in Regulation (EC) No. 300/2008 as well as Commission Regulation (EU) No. 185/2010.

The overarching area of environmental matters (e.g. noise pollution, emissions trading [ETS] and consumer protection) is also dealt with at both the European and global levels. In the area of environmental protection measures, the introduction and implementation of environmental taxes (e.g. ETS) is a current theme. It must also be noted that there is a shift in relations with third countries, traditionally regulated by bilateral agreements under international law, to the European level via plurilateral and multilateral agreements.

Besides the European role, the global dimension is also very important. Global solutions are above all necessary for the maintenance of national and international operational and technical safety standards, but also to ensure competitiveness. These developments and shifts are increasingly forcing nations to adapt their own structures and regulations.



Aviation is being harmonised  
in a European and  
global context.



© Austrian Airlines

## 2.4 Global Challenges: Liberalisation, Economic Development, Environmental Protection and Transport Links<sup>24</sup>

The global challenges facing Austrian aviation lie especially in dealing with future economic development and the aviation sector's liberalisation, doing justice to growing environmental requirements and strengthening intermodality.

### Challenge #1: Demand for aviation services, liberalisation and competition

Demand for aviation services depends heavily on the economic growth of a country. In economically expanding countries such as Brazil, China, and India, the aviation sector is likewise growing at an above-average rate. Overall, the aviation market is considered to be growing but also volatile, in light of the severe setbacks in 2001 (9/11) and 2009 (economic crisis). This volatility represents a considerable challenge to all those involved in aviation (airports, air navigation services, airlines, etc.) since they must give consideration to this unpredictability when planning their long-term (infrastructure) projects.

Generally speaking, liberalisation of the aviation market has led to increased competition between airlines and to a reduction in ticket prices leading to a boost in demand with commensurate profits in individual segments, but on the other hand it has also led to lost jobs and lost profits. Takeovers, the formation of alliances and the bankruptcy of airlines have permanently changed the image of the sector, including the formerly traditional national airlines. Many airlines have turned to developing so-called "hub and spoke" systems<sup>25</sup> and/or integrated their existing systems into "multi-hub" systems<sup>26</sup> with a view to network synergies, improved services and cost reductions (such as through the integration of the AUA network in the "multi-hub system" of Lufthansa). This sometimes, however, leads to tough competition between the hubs for transfer markets that overlap (e.g. FRA, MUC, VIE, ZRH).

Another structural change results from the new business models of low-cost carriers, which are able to maintain very low ticket prices by unbundling the traditional product (simple networking strategies, continuous cost-cutting efforts and innovative sales systems, such as via the Internet). Direct and indirect competition with low-cost carriers has forced many traditional "network carriers" to adapt or simplify their products on short and medium-haul routes in order to save costs.

Liberalization has – as described above – led to the formation of global alliances (ESP, Star Alliance, SkyTeam and One World) and thus to the development of "multi-hub systems". Currently, less popular routes are served mostly with two transfers. The use of new, smaller long-haul aircraft (A350, B787) could represent an incentive to serve such routes with a single transfer, without transferring at the hub of an airline's alliance partner (hub-bypassing).

An opposite development could lead to more two-transfer connections, as aircraft such as the A380 are seeing increasing use on major routes between the primary hubs of different continents. In terms of ensuring competitiveness by maintaining a level playing field, many factors – such as geographical location and the quality of services – are important, but factors especially relevant to whether or not airlines choose to serve a given hub include airport fees, air navigation charges, government fees and other charges relating to "total stay costs" (such as airport fees, security fees, handling fees and air traffic control).



Liberalisation of the aviation market brought major changes and led to fierce competition among airlines.

<sup>24</sup> See De Wit / Mendes de Leon 2009, 4 ff

<sup>25</sup> In a "hub-and-spoke" system, passengers and goods are transported from their city of departure to their destination airport via a hub airport.

<sup>26</sup> "Multi-hub" systems consist of several co-ordinated single-hub networks which are connected by flights between the respective hubs.

## Challenge #2: Environmental protection

Alongside airport fees, an important cost factor affecting demand is above all environmental costs. On the other hand, though, compliance with high environmental standards regarding noise and emissions has by now become essential for the future growth and competitiveness of any mode of transport.

The expected trend of environmental costs increasing with the aim of reducing greenhouse gas emissions can therefore be seen as an incentive and a challenge for Austria to produce a "level playing field" between the various modes of transport which effectively reflects internal and external costs. Currently, however, the creation of a global emissions trading scheme (ETS) represents the greatest challenge in terms of climate change. Only a global system – as opposed to a purely European system – can create appropriate incentives for improvements in efficiency and the increased use of resource-saving technologies while preventing the distortion of competition and the redirection of traffic flows to airports which lie beyond the scope of the ETS (hub-bypassing).

In addition to compliance with the requirements of the International Civil Aviation Organization in terms of noise ("Balanced Approach"<sup>27</sup> includes: noise reduction at the source, noise-reducing flight procedures, flight-operational measures and spatial planning measures), another particular noise-related challenge is cooperation between the different (political) levels (local, regional, national, international) in the various relevant policy fields (emission protection, land-use planning, etc.) to find a long-term balance between the interests of affected local populations and economic interests.

## Challenge #3: Transport connections (intermodality)

The competitiveness of airports depends increasingly on their integration into local, regional and international transport (and logistics) networks. More and more international airports are not only embedded in their local and regional transport systems but also have a connection to international and/or high-speed rail networks. The provision of an efficient, sustainable and comfortable intermodal transport network to optimally serve the catchment areas of the respective Austrian airports is an important prerequisite for preserving the network's quality and making Austria attractive as a location for international companies and organisations. The seamless handling of constantly rising passenger, baggage and freight volumes and efficient compliance with safety and environmental regulations (ETS, noise) requires not only optimum linkage with other modes of transport, but also new concepts of cooperation and the use of technological innovations.



<sup>27</sup> See ICAO 1998, 15



Single European Sky:  
The objective is to make  
aviation more efficient and  
more environmentally friendly.



The second-largest Austrian  
carrier: Fly Niki





© Vienna International Airport

Optimized processes  
ensure maximum  
comfort for travellers.



© Vienna International Airport

Swift handling of take-off  
and landing processes  
allows for better  
capacity utilization.



The heavier utilization  
of airports puts great  
demands on logistics and  
security concepts.



## Gate 3: Visions for the Future of Austrian Aviation

### 3.1 Projected Developments in Europe and Austria: Eurocontrol Study "Challenges of Growth"

The study "Challenges of Growth 2008" is the third in a series of studies which aim to provide decision-makers with current evaluations regarding future challenges in the aviation sector.<sup>28</sup> The study is based on four possible growth scenarios for the future of aviation. The scenario considered by Eurocontrol to be the most likely ("Regulation & Growth") is used as the basis for this analysis. This projection assumes moderate economic growth accompanied by more stringent regulatory guidelines in the aviation sector meant to facilitate preparation for increasing challenges, especially with regard to the environment.

- Demand for aviation services doubles by 2030.
- Until 2030, annual economic growth in the 27 present European Union Member States averages 2.2%.
- The price of oil rises to between \$90 and \$180 per barrel by 2030; a partial consequence of this is a weakening of the long-term trend of falling ticket prices from year to year.
- The emissions trading scheme encompasses all aviation in the European Union from 2012 onward and costs between 25 and 90 Euros per tonne of CO<sub>2</sub> for emission certificates; 100% of emissions are obtained in the form of certificates by 2030.
- The planned European Union expansion continues to progress: by 2030 the European Union includes 34 member states.
- The high-speed train network is expanded further.
- Business aviation maintains its current rate of growth, although the very strong growth seen between 2005 and 2007 is not achieved.
- Climate change impacts certain aspects of aviation.
- By 2030, 19 airports within the European Union reach their respective capacities.

#### Projections for Austria

There exist varying forecasts regarding the development of Austrian aviation. While the president of the Austrian Aviation Association predicts a doubling of air traffic in 15-to-20 years,<sup>29</sup> Vienna International Airport forecasts an annual growth rate of 5.2%.<sup>30</sup> Austro Control predicts long-term average yearly growth in air travel within Austrian airspace of around 4%<sup>31</sup> until 2020. In this context, one must keep in mind that with an increasing focus on the sustainable development of transport, comprehensive restrictions should be expected. An annual growth rate of 3% would thus probably be a conservatively realistic estimate. Sustained growth can be expected in the field of business aviation.

28 See Eurocontrol 2008

29 See Rehulka 2010

30 See Flughafen Wien AG 2010, 143

31 See Austro Control GmbH 2010, Abteilung Marktforschung & Statistik

### 3.2 Vision for 2020

The following section presents visions for 2020 and consists in a description of the framework conditions to be developed over the coming years and made available to the Austrian aviation industry by the target year.

#### Strengthening competitiveness

The continued and global integration of the world's regions, cultures and economic centres in conjunction with the increasing importance of formerly emerging nations located relatively far from Central Europe will lead to an even greater demand for ways of swiftly transporting passengers and freight. Traffic flows will also change, with regions such as Asia, the Middle East and South America coming into focus more and more. The harmonisation of European Union policies will have continued, with the national protective mechanisms that still exist in various countries having been eliminated.

It will have become essential for Vienna as a hub to be better-connected to centres of international business – both in the interest of optimising Austria's overall status as a business location, and in order to increase Austria's attractiveness as a seat for international organisations, including Vienna as the seat of the UN. Regional airports will have increasingly come to underpin the success of both tourism and the economy in their respective catchment areas. For regional companies they will represent a connection to the global economy, while tourism will likewise be supported in its further development.

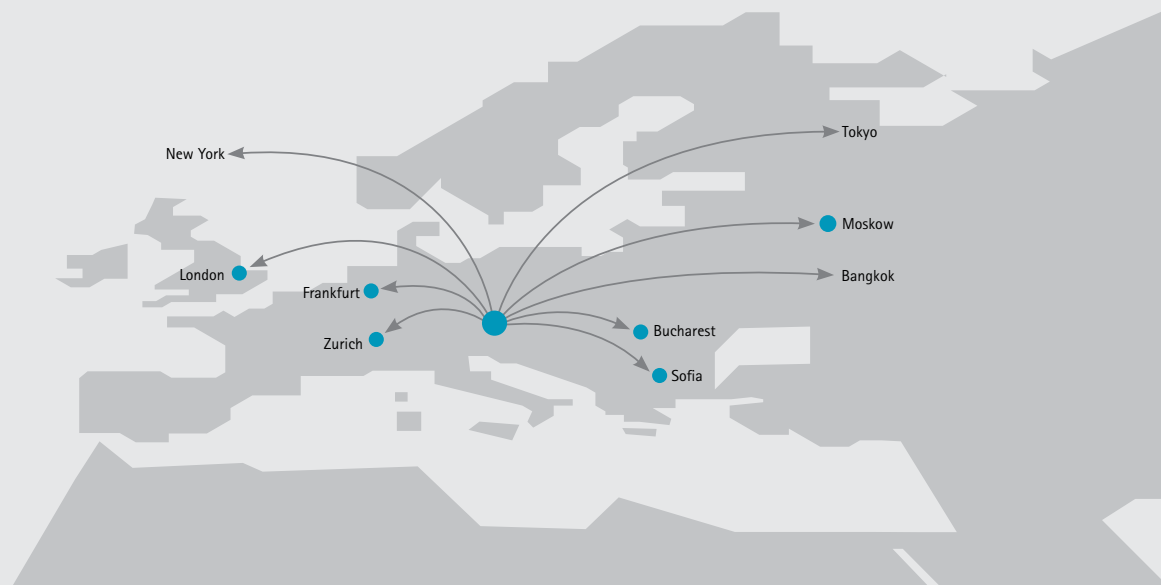
In order to improve Austria's competitiveness as a location, the general framework will have been designed in such a way that Austrian aviation companies will not be discriminated against to the benefit of European and non-European competitors. At the same time, however, companies themselves will do justice strategically to the increasing Europeanization of aviation markets in order not to be late in developing options via which they can optimally position themselves while constantly improving performance and efficiency. Aviation will have also continued to expand its role within the overall Austrian economy (in terms of the number of individuals employed, income, tax revenue, economic significance, etc.).



Airports will ensure the connection of regional companies to the global economy and enable the further development of tourism.

#### Leading destinations of flights from Vienna International Airport

| Western Europe     | Eastern Europe     | Long Haul        |
|--------------------|--------------------|------------------|
| Frankfurt: 479,450 | Moscow: 235,286    | Bangkok: 106,989 |
| London: 452,816    | Bucharest: 186,132 | Tokyo: 84,670    |
| Zurich: 390,369    | Sofia: 143,305     | New York: 81,350 |





The global aviation market will have for the most part been liberalised, and developments that can already be identified today (such as growth in BRIC countries and Gulf States) will mandate that Europe brace itself to compete globally for its role in the aviation sector in order to not be "overflowed" by emerging countries and air carriers. Austrian aviation will have recognized these trends in a timely manner, adapting offerings correspondingly (new destinations, a higher number of transported passengers per flight, reduction of domestic flights). Austria will be supportive of global liberalisation in general, although in cases of third countries where liberalisation is not yet sufficiently far advanced, reciprocal treatment will be considered.

The basic framework will ensure that the airlines which are important to Austria are able to expand their role in international aviation as well as their route networks, thus also guaranteeing the quality of Austria as a business location. In addition, airlines from third countries will make a growing contribution to diversification and the servicing of routes to destinations outside Austria. Furthermore, consideration will have been given to the strict monitoring of the carriers' financial health. The cargo sector will continue to accelerate its visibly strong growth. The field of business aviation will also be gaining in importance, connecting pairs of airports between which no regular direct service is available on the market.

Austrian commercial airports will have developed individual strategies (including coordinated developmental steps between airports and the air navigation service provider), and will cooperate even more closely with public (authorities) and private stakeholders (carriers, airports and other companies) to adapt to changing circumstances. Purely national strategies will have long since become outdated, and the cooperative arrangements between airports to which Austrian airports will belong will operate on a cross-border basis and serve various segments in parallel.

### Development of high-performance infrastructure

The increased importance of aviation will give rise to a need to stop viewing airports as solitary, isolated islands of traffic, instead better integrating them as infrastructural elements within the overall transport network. Improved integration will mean in particular their connection with primary road and rail networks.

The completed Vienna Central Railway Station will be fully operational. The integration of Austrian airports into the European high-speed rail network will have clearly expanded their catchment areas – even across national boundaries. As already mentioned in the present study, Vienna International Airport will be located in an economically fast-growing "Global City-Region".<sup>32</sup> Therefore, cross-border links (such as between Vienna and Bratislava) and agreements between countries and airports will see systematic and integrated development.

The comprehensive further development of intermodal hubs will also lead to the improvement of transport services. Passengers and freight will be seamlessly movable from one point in the world to another, even if no direct flight connection exists. Austria will compete successfully both as a destination and as a transport provider, since transport services from point A to point B will be available as an overall package including all associated services.



Adaptation to global developments: new destinations, more passengers per flight, reduction of domestic flights.



Better transport services thanks to cross-border connections and the development of intermodal transfer points.

32 See De Wit / Mendes de Leon, 8 ff

Consumer demand for air services will also have changed (in terms of a higher average age, travellers with special needs, etc.). On the one hand, many travellers will desire the simplest possible trip with perfect intermodal links, and will also be willing to pay a higher price for high quality. On the other hand, low-cost connections with less comfort will also be in frequent demand.

The changing travel needs of the populace will be reflected more and more clearly in the differences between the offerings of low-cost systems and those of hub carrier systems. With hub carrier systems frequently offering a variety of additional services such as connecting flights and different classes, low-cost systems will put a stronger focus on the core product of transport from point A to point B ("point-to-point travel"). These various demands will be reflected in the development of airport infrastructure. Some transport service providers will commit to providing the extended range of services made possible by such infrastructure, while others will do without comprehensive services in order to be able to offer the lowest prices.

Even with the third runway at Vienna International Airport having been implemented, the search will continue for further ways to improve the use of existing capacity. Constructive negotiations with all the involved partners combined with low-noise flight procedures will make possible better use of existing infrastructure. This will be necessary since the both the sensitivity of nearby residents and comprehensive regulatory requirements will make expansion initiatives at airports difficult to implement. Furthermore, regional airports will sometimes be used as alternatives. Linz, Graz and Bratislava will be available as alternative airports due to their geographical proximity.

Close cross-border cooperation in air traffic control will be of the greatest importance as capacity limits are reached. Austria will play an active role in the FAB CE, and the SES II package will have been fully implemented. This will make European air traffic management significantly more efficient. The establishment of a powerful and efficient national supervisory authority fulfilling the SES requirement of separation between regulation and service provision will have been completed. Higher demands will be placed on air traffic control in the areas of safety, capacity, efficiency and environmental protection, but uniform functional airspace blocks (FABs) across Europe will provide major advantages in the management of take-offs, landings and overflights.

Comprehensive cooperation between Vienna International Airport and Bratislava Airport will contribute to the reduction of capacity bottlenecks. A coordinated approach by the two airports will also have proven useful in terms of air traffic control's prevention of congestion in the air. For Austria's regional airports (especially Innsbruck and Salzburg), the problem of massed arrivals and departures on Saturdays will have been alleviated; nevertheless, a plan will be in development for the improved utilization of existing capacities due to higher volume.

### Promotion of domestic and international cooperation

Within Austria, priority will be placed on cooperation between the individual stakeholders, whereby governmental authority will act as a mediator within this aviation-sector partnership. This will reinforce cooperation and coordination between public authorities and the Austrian aviation industry and facilitate the coordination and use of the expertise of individual stakeholders in making and implementing regulatory decisions. Due to its good geographical location, Austria will have taken a leading aviation policy role internationally in its relations with Central Europe, the Western Balkan States, Russia and the Middle East, having established itself as an "aviation policy bridgehead" in these regions. Due to Austria's close ties to economically and culturally similar countries such as Germany and Switzerland, cooperation among the respective aviation authorities will play an important role.



Cross-border cooperation in air traffic control: Austria will play an active role in the FAB CE.

Furthermore, there will exist a high degree of cooperation at the airline company level due to existing ownership relationships with these countries.

In the European Union, Austria will play a constructive role and be viewed especially by its eastern and south-eastern neighbours as an equal partner which contributes its expertise to strengthen both its own and its neighbours' role in the EU. The strong coalitions between Austria and eastern member states will allow the interests of smaller member states to be better-heard and represented as an alliance.

Austria will have expanded its presence and participation in various European committees and placed experts in a targeted manner. The ABIS rotation group, which will have recently expanded its membership, will still play an important coordinating role within the ICAO.

### Guiding environmental principles for aviation

Air traffic will place a burden on the natural environment through noise, pollution and greenhouse gas emissions, but a reduction in these impacts will have been effected thanks to aviation-related technological advances. This method will already have reduced emissions (noise, CO<sub>2</sub>, NO<sub>x</sub> and VOCs) in past decades, and will continue to do so. These improvements will contribute to the reduction of aviation's environmental impact.

Even with the noise energy emitted from each individual aircraft being constantly reduced, increases in air traffic will lead to a contrary development. Through the use of a "balanced approach," it will be possible to accommodate the interests of both local residents and the aviation sector.

As in other economic sectors, adherence to high environmental standards will have become one of the prerequisites for aviation's continued growth and competitiveness. Conditions will have been created which provide incentives to increase efficiency and use resource-saving technologies.

Many negative effects will be able to be further reduced through technical innovations in aircraft construction and in the field of air traffic management (ATM), while changes to ATM itself and market-related measures (e.g. ETS) – which proceeds for environmental measures will flow back into aviation – will serve as a cushion against numerous negative effects. On the one hand, more finely tuned offerings in terms of aircraft (very large planes vs. small, lightweight planes) will lead to far better results in terms of fuel consumption and speed. On the other hand, technological developments will lead to a reduction of emissions and immissions. For a noticeable reduction in aviation-related emissions, internationally coordinated action will be required. Distortions of competition will have to be avoided here. For this development, however, 2020 will only be the beginning.

Market-adapted individual distribution of various transport segments across various modes of transport will be in a position to continue reducing the environmentally negative effects of transportation in general. The areas of environment and aviation, which currently appear to be opposed to one another, will be better reconciled via technical developments as well as comprehensive adaptations.



Reduction of negative environmental impact with technical innovation and an internationally harmonised course of action.



Intermodality will generate synergies and reduce the negative environmental impact of transport.

## Safety & security as the primary objectives

International cooperation is the key prerequisite for guaranteeing high safety standards in civil aviation in the long term. New developments in the field of safety and security will be used to effect greater reductions in incidents and accidents in the aviation sector. In doing so, internationally agreed-upon standards will be implemented to the greatest possible degree while also paying attention to the economic feasibility of the associated costs.

### Safety

Due to its high national standards, Austria will rank among the top five EU member states in the area of safety. Systematic supervision will ensure that all relevant entities fulfil mandated operational security requirements.

In the field of air traffic control infrastructure, the so-called "Development Phase" of Single European Sky ATM Research (SESAR) will have been concluded, and the "Deployment Phase" will be in progress (with possible participation by government authorities). European air traffic control infrastructure overall will be developing according to an ATM master plan. The extension of the authority of the EASA to cover the areas of ATM/ANS and airports will enable greater bundling of regulatory tasks relating to the safety and efficiency of aviation at large.

### Security

The expansion of Vienna International Airport will make possible the introduction of improved security measures as well as the implementation of "one-stop security". These and similar initiatives will be of great importance and must be supported. Furthermore, innovations will be driven ahead which make possible the faster, more efficient and more secure inspection of passengers, baggage and cargo. The various authorities' competencies in this regard will have already been clearly defined.

5★

Austria will rank among the top five EU member states in terms of safety



"Inspector Rex" saves time on security checks.

## Future-oriented organisation of aviation authorities

To fully cover aviation-related regulatory responsibilities – except for the few responsibilities which fall within the scope of the Austrian state governors' purview – two aviation authorities will have been created: a civil aviation authority under the aegis of the Federal Ministry for Transport, Innovation and Technology which will be essentially focused on aviation policy, aviation-related legislation and the supervision of the first-instance level, and a first-instance aviation authority with comprehensive responsibilities in those aviation matters classified as first-instance.

These authorities will have streamlined organizational structures, systems of resource management to ensure necessary resources (including human resources) and appropriately qualified personnel to fulfil their legal mandates, their own budgets, clearly defined responsibilities and a reasonable fee structure, as well as appropriate, performance-oriented salary structures in compliance with international guidelines and competitive by international standards.

A noticeable shortening of communication chains will be achievable via the avoidance of duplications of work and redundancies, optimization of points of interface and efforts to make administrative procedures less bureaucratic. This will lead to efficient, transparent, predictable and objectively comprehensible decision making. One of the necessary steps will be to integrate this authority with the Federal Electronic Record System (ELAK), thereby facilitating the swifter and more transparent progress of documents and files via a "one-stop shop" approach.

Furthermore, each of these authorities will have its own modern training, schooling and testing system for employees and management, an internal quality assurance system, a monitoring and feedback system, a safety and risk-management system, and a well-functioning complaint management system.

Constantly optimized personnel reserves will enable the pooling of know-how as well as direct access to all aviation-related data and information. Through state of the art means of communication, the pertinent employees will be highly accessible both from within the authority and from the outside.



Optimisation regarding  
duplications of work,  
redundancies and points  
of interface



© Vienna International Airport

Secure and efficient inspection  
of passengers, baggage and  
freight will take top priority.

To keep pace with rapidly progressing international developments, these authorities will have a competency centre for intensive collaboration on the creation of domestic, international and/or European regulations and other guidelines, where stakeholders as well as external experts – to the extent that laws permit – will have the opportunity to participate. Last but not least, an interagency and inter-state system of crisis management will exist to ensure the safety and security of aviation in critical phases to the greatest possible extent.

### Social aspects of aviation

Sustainable development in aviation will be particularly important, and soft factors such as social commitment will be paid more and more attention. Negative effects of aviation on human beings will be reduced, while on the other hand aviation will be a major employer. Technological development will constantly require better-qualified personnel. There will be numerous calls for the introduction of worldwide minimum social standards in the field of aviation.

For all these reasons, social aspects will play an important role in aviation-related strategic concepts. Good working conditions and social satisfaction among the general populace will make an essential contribution to the quality of aviation. As far as passengers are concerned, the protection of air travellers' rights will continue to be ensured by EU regulations. A particularly successful project in terms of aviation's social compatibility will be the mediation process at the Vienna International Airport, which will facilitate agreement on solutions which lead to nearby air traffic and its effects being managed in the most acceptable way possible for the affected population.

Austrian aviation will invest in qualified personnel in order to maintain and expand today's quality standards. While certain jobs will see human staff replaced by technology, personal contact with airline and aviation industry staff will continue to play a important role for passengers in particular (such as older travellers, travellers with special needs, etc.).

© Austrian Airlines

Education and further training, as well as constant technological innovation, will continue to be important pillars of safe and forward-looking aviation.



## Expansion of technological competencies

The Austrian aviation-related research landscape will bring its technological expertise to bear in support of upcoming infrastructural requirements such as the reduction of flight accident rates, waiting times at the gate, flight delays and aircraft noise, as well as meeting the aviation industry's rising and individualised need for mobility. This will apply in particular to the following areas in which research is already in progress:

- Optimisation of taxi management in the manoeuvring area
- A broadband/multiband communications system
- Next-generation aeronautic communications technology
- Digital image processing for meteorological services
- Optimisation of air traffic managers' training via E-learning
- Accident avoidance assistance systems in the cockpit for private pilots
- Development of learning management processes for pilots
- Gaze analysis of air traffic controllers
- Collaborative decision making
- Passenger-centred airport operation management
- Study of passengers' choice of transport to and from the airport
- Provision of a complete operational picture (COP) for the management of all relevant movements at a given airport
- Aviation psychology

With the aviation industry sensing a greater need to upgrade their existing applications and products in the context of the SESAR programme, Austria's aerospace industry will already be able to deliver the applications and product innovations needed in this area.

Air traffic management will receive additional support from the implementation of satellite-based navigation systems (GALILEO, EGNOS), which will simplify approach systems and make them safer.





**Gate 4**



**Strategy**



## Gate 4: The Strategic Orientation of Austrian Aviation

In order to better equip Austria to deal with future challenges as a centre of air transport, and in order to realise the outlined vision, the following objectives have been identified; these are to be pursued with the help of various sub-goals and measures:

- Making Austria's aviation industry more competitive
- Developing high-capacity and sustainable infrastructure
- Integration: aviation as an integrated system

### Improving the Austrian aviation industry's competitiveness

Austria, in particular Vienna, is popular location among major international corporations, companies and organisations, and it is also a seat of the United Nations. Austria is also regarded as a very attractive holiday destination and cultural centre. Austrian aviation creates a basis for optimum use of the country's strengths and must therefore be supported and strengthened.

Especially in Europe, spatial concentration means that competition between various locations is more clearly evident than in other regions of the world. Therefore the Austrian aviation industry must have conditions equal to those in other countries in order to make better use of opportunities at the European and global level and also ensure aviation's competitiveness as an economic factor. Important for the competitiveness of a country's aviation sector are its unique selling points (USPs). Some of Austria's USPs would be Vienna International Airport's minimum connecting time, Vienna's suitability for West-East transfers thanks to its geographical location, and the proximity of airports to skiing centres. These unique features need to be given increased emphasis and further development. For Austria's further positive development as a business location, the competitiveness of Austria's aviation sector must be guaranteed via both competitive pricing and an effective and attractive aviation network connecting Austria with the rest of the world.

### Developing and ensuring strong and sustainable infrastructure

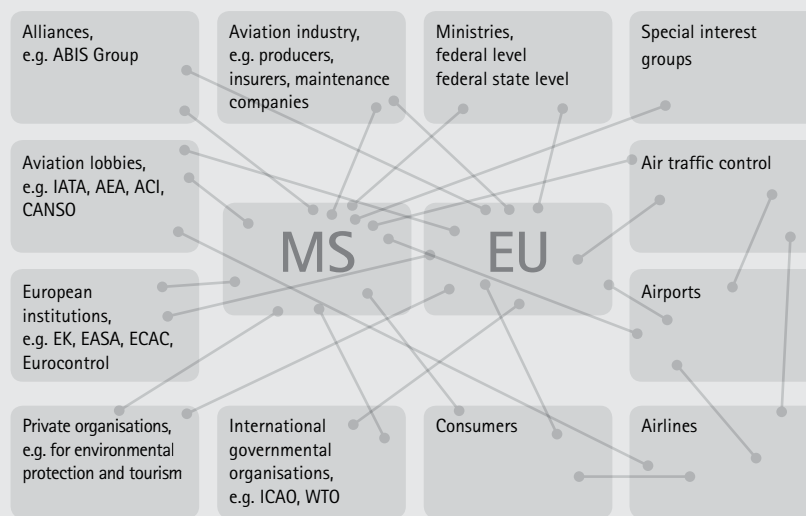
Especially in light of constantly increasing European and global competition in aviation, strong and sustainable infrastructure is essential for the economic success of aviation and for the economic development of a country. Ever-greater demands are accordingly being made on available infrastructure with regard to airports, intermodal connections and air traffic control infrastructure. To improve airports' accessibility, the integration of Austrian air transport infrastructure into the general transport system must be improved and moved forward now and in the future. Also, increasing traffic volume must entail both the improved use and the expansion of existing capacities, with air traffic control infrastructure being further developed and adapted to a commensurate degree.

Planning and implementation of infrastructure development must, however, be done in a sustainable manner so as to meet the needs of the present generation without compromising the prospects of future generations; it is imperative that environmentally friendly solutions be found.

## Integration: aviation as an integrated system

Aviation must inherently be regarded as an integrated system in a global context. No other mode of transport allows such rapid movement of passengers and cargo across national borders. Aviation has always been regulated on the basis of bilaterally and multilaterally implemented regulations (such as the Chicago Convention), and the degree of regulation is commensurately high – in particular in terms of bilateral, reciprocity-based agreements concerning the traffic rights of individual national carriers. Even so, the economic activity of aviation occupies a special position which is to a great extent not covered by international trade law (WTO). Its protagonists are networked both within their respective countries and internationally due to this mode of transport's international component. Therefore, it is necessary and desirable to pay attention to all relevant stakeholders when dealing with issues of aviation.

## Interconnections in Aviation



Coordinated interaction of all parties involved in the aviation system is fundamentally important for strengthening Austria as a centre of air traffic.

Within Austria, aviation policy is shaped by the federal government (ministries) and federal states in consultation with stakeholders. Their latitude for action is determined by the (mostly European and international) legal framework and must concentrate on areas which this framework leaves open. It is in particular via the increased formation of strategic coalitions with other EU member states and the cooperation which this entails that Austria is able to influence European and international regulations and/or decisions.

Of crucial importance for the strengthening of Austria as a centre of aviation is forward-looking, consistent and coherent action on the various levels in the interest of all participants in the aviation system (industry and business in general, the aviation industry in particular, and consumers) by a modern, efficient and sufficiently equipped aviation authority.



© Graz Airport

Regional airports ensure connection to international aviation hubs.



© Vienna International Airport

Aviation must be viewed as an integrated system of international protagonists and requires networking of all those involved.



© Vienna International Airport

Both connections to local means of transportation and attractive infrastructure serve to increase airports' competitiveness.

DEPA

GATE 5

MEASURES

VIENNA

GRAZ

INNSBRUCK

LINZ

SALZBURG

KLAGENFURT



### C3 Improving network quality at Austrian airports

| Measures at the national level:   | To be carried out by:     | Priority* |
|---|---------------------------|-----------|
| Supporting the expansion of route networks at the Austria's 6 international airports (e.g. by supporting airlines in doing so as well as assistance in conflict situations and in the attraction of new airlines) | bmvit, airports, airlines | ★★★★★     |
| A comparative study of MUC, ZRH and VIE in terms of network quality   | bmvit                     | ★★★★★     |
| Adaptation of existing and conclusion of new bilateral liberalisation agreements  | bmvit                     | ★★★★★     |
| Measures supporting the operation of routes between Vienna and the other federal states to improve the network (possibly via PSO contracts)   | bmvit & federal states    | ★★★★★     |
| <b>Measures at the EU/international level:</b>  |                           |           |
| Supporting EU liberalisation efforts (especially in eastern countries important for Austria)  | bmvit                     | ★★★★★     |
| Negotiation and conclusion of more liberal EU agreements  | bmvit                     | ★★★★★     |

### C4 Supporting the locational quality of Austria as a centre of air transport

| Measures at the national level:   | To be carried out by:            | Priority* |
|---|----------------------------------|-----------|
| Study on the economic significance of Austrian aviation   | bmvit                            | ★★★★★     |
| Study on the competitiveness of Austrian regional airports  | bmvit                            | ★★★★★     |
| Creation of a competitive cost structure  | bmvit, airports, ACG, airlines   | ★★★★★     |
| Image campaign for Austria as a centre of air transport (Vienna International Airport as a major hub and regional airports as regional nodes) | Airports, airlines, BG Luft, ACG | ★★★★★     |
| Creation of the best-possible conditions for business aviation and general aviation   | bmvit & airports                 | ★★★★★     |
| <b>Measures at the EU/international level:</b>  |                                  |           |
| Promotion of the Vienna-Bratislava Global City Region (GCR)   | bmvit & federal states           | ★★★★★     |
| Support for efforts towards cooperation with non-Austrian airports (such as VIE cooperating with BTS)   | bmvit                            | ★★★★★     |

### C5 Creating a uniform framework for worker protection

| Measures at the national level:   | To be carried out by:   | Priority* |
|---|-------------------------|-----------|
| Promoting demand-based training of qualified aviation personnel   | bmvit & stakeholders    | ★★★★★     |
| Supporting efficient safety standards for individuals employed in aviation  | bmvit                   | ★★★★★     |
| <b>Measures at the EU/international level:</b>  |                         |           |
| Initiative for the harmonisation of rules within the EU (presentation and explanation of the Austrian system's advantages; regulations at the EU level; cooperation with other member states on the introduction of uniform European regulations) | bmvit & Social Partners | ★★★★★     |
| Striving for global compatibility (social standards)  | bmvit & Social Partners | ★★★★★     |



I4 Reinforcing Austria's position as the Single European Sky is introduced

| Measures at the national level:  | To be carried out by: | Priority* |
|--|-----------------------|-----------|
| Creation of an information exchange platform focused on current developments relating to the introduction of a Single European Sky between airlines, airports, ACG and bmvit | bmvit & stakeholders  | ★★★★★     |
| Introduction of crisis management procedures in cooperation with stakeholders  | bmvit & stakeholders  | ★★★★★     |
| Embedding development of air traffic control infrastructure at Austrian airports in a master plan for the development of airport infrastructure                              | Airports, ACG, bmvit  | ★★★★★     |
| <b>Measures at the EU/international level:</b>   |                       |           |
| Political support of the involved parties in designing the FAB CE  | bmvit & ACG           | ★★★★★     |
| Inclusion of Austrian skills/expertise in projects such as SES II, SESAR, etc.   | ACG & bmvit           | ★★★★★     |
| Strengthening the role of Austria as an air traffic control site   | bmvit & ACG           | ★★★★★     |
| Cooperation with EU member states in the implementation of SES II  | bmvit & ACG           | ★★★★★     |

I5 Improving intermodal connections

| Measures at the national level:  | To be carried out by:                                | Priority* |
|--|--|-----------|
| Greater involvement of aviation in intermodal transport  | bmvit, airports, carriers of traffic, federal states | ★★★★★     |
| <b>Measures at the EU/international level:</b>   |  |           |
| Connecting Vienna International Airport to Vienna Central Train Station and/or Bratislava and Budapest | bmvit & ÖBB  | ★★★★★     |
| Supporting efforts to extend the City Airport Train to Bratislava                                      | ÖBB & VIE  | ★★★★★     |

I6 Supporting technological developments

| Measures at the national level:   | To be carried out by:           | Priority* |
|---|---------------------------------|-----------|
| Support of technological solutions aimed at improving the travel experience (such as check-in at all major Austrian railway stations) | bmvit                           | ★★★★★     |
| Exploiting synergies via comprehensive intra-ministerial cooperation  | bmvit                           | ★★★★★     |
| Support for the aviation research programme TAKE OFF  | bmvit                           | ★★★★★     |
| <b>Measures at the EU/international level:</b>  |                                 |           |
| Project initiative for the global implementation of one-stop security   | Airlines, airports, bmvit, BM.I | ★★★★★     |







## The Vision for 2020: Competitive. Sustainable. Integrated.

### Analysis of the situation and formulation of a strategy

The present document represents the first comprehensive consideration of a strategy for Austria's aviation sector. A particularly forward-looking aspect is the broad participation of all stakeholders in the formulation of this strategy, making possible both an all-encompassing representation of the current situation and a vision for 2020.

### Expanding on strengths – taking advantage of opportunities

The consensual strategy for the sustainable development of Austria as a centre of aviation which was developed out of this process is absolutely essential, with clear objectives which facilitate forward-looking, consistent and coherent action by all of those involved. This paves the way for maintaining and further developing existing strengths as well as taking confident advantage of opportunities such as may present themselves to Austrian aviation over the coming years.

The various packages of measures formulated in cooperation with all aviation-relevant partners are intended as a contribution to the maintenance and further improvement of Austria's competitiveness as a centre of aviation. The stakeholders will join together in further refining and implementing individual measures over the next few years. This process will be accompanied by the Federal Ministry for Transport, Innovation and Technology via annual meetings of the existing committee, which will continuously evaluate and update the agreed-upon strategy.

Upcoming challenges make a common approach indispensable. Furthermore, the success of a collaboratively formulated strategy very much depends on two essential factors:

- the will of stakeholders to cooperate in the interest of bringing about improvements
- the availability of resources needed for implementation of the agreed-upon measures

It is thus the responsibility of all those involved to join together in reaching the goals laid out in this "Road Map for an Austrian Aviation Policy".



Well-trained personnel ensure  
that operations run smoothly.

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## Abbreviations

|   |  |  |
|---|--|--|
| <b>ABIS Group</b><br>Rotation group comprised of Austria, Belgium, Netherlands, Luxembourg, Ireland, Portugal and Switzerland for the purpose of coordinating ICAO representation | <b>BMWFI</b><br>Federal Ministry of Economy, Family and Youth (Bundesministerium für Wirtschaft, Familie und Jugend) | <b>MS</b><br>Member State(s)   |
| <b>A-CDM</b><br>Airport Collaborative Decision Making   | <b>BRIC-States</b><br>Brazil, Russia, India, China   | <b>MUC</b><br>Munich Airport   |
| <b>ACG</b><br>Austro Control GmbH   | <b>BTS</b><br>Bratislava Airport   | <b>NO<sub>x</sub></b><br>Nitrogen oxides   |
| <b>ACI</b><br>Airports Council International  | <b>CANSO</b><br>Civil Air Navigation Services Organisation   | <b>ÖAeC</b><br>Austrian Aeroclub   |
| <b>AEA</b><br>Association of European Airlines  | <b>CDA</b><br>Continuous Descent Approach  | <b>ÖBB</b><br>Austrian Federal Railways<br>Österreichische Bundesbahnen                |
| <b>AK</b><br>Austrian Chamber of Labour (Arbeiterkammer)  | <b>CEE</b><br>Central and Eastern Europe   | <b>ÖGB</b><br>Austrian Federation of Trade Unions (Österreichischer Gewerkschaftsbund) |
| <b>AL</b><br>Airlines   | <b>VOCs</b><br>Volatile organic compounds  | <b>ÖLFV</b><br>Austrian Aviation Association (Österreichischer Luftfahrtverband)       |
| <b>ANS</b><br>Air Navigation Services   | <b>CO<sub>2</sub></b><br>Carbon dioxide  | <b>OZB</b><br>(Supreme Civil Aviation Authority)<br>Oberste Zivilluftfahrtbehörde      |
| <b>AÖV</b><br>Working Group of Austrian Commercial Airports (Arbeitsgemeinschaft Österreichischer Verkehrsflughäfen)  | <b>EASA</b><br>European Aviation Safety Agency   | <b>PSO</b><br>Public Service Obligation  |
| <b>ATC</b><br>Air Traffic Control   | <b>ECAC</b><br>European Civil Aviation Conference  | <b>SES</b><br>Single European Sky  |
| <b>ATM</b><br>Air Traffic Management  | <b>EC</b><br>European Community  | <b>SESAR</b><br>Single European Sky ATM Research                                       |
| <b>BG Luft</b><br>Austrian Federal Economic Chamber<br>Trade Association of Bus, Air and Ship Companies<br>Professional Category: Aviation  | <b>ETS</b><br>Emission Trading Scheme  | <b>SZG</b><br>Salzburg W. A. Mozart Airport  |
| <b>BMeiA</b><br>Federal Ministry for European and International Affairs<br>(Bundesministerium für europäische und internationale Angelegenheiten)                                 | <b>EU</b><br>European Union  | <b>UN</b><br>United Nations  |
| <b>BMF</b><br>Federal Ministry of Finance<br>(Bundesministerium für Finanzen)   | <b>FAB</b><br>Functional Airspace Block  | <b>USP</b><br>Unique Selling Proposition   |
| <b>BM.I</b><br>Austrian Ministry of the Interior<br>(Bundesministerium für Inneres)   | <b>FAB CE</b><br>Functional Airspace Block Central Europe  | <b>VIE</b><br>Vienna International Airport   |
| <b>BMLFUW</b><br>Federal Ministry of Agriculture, Forestry, Environment and Water Management<br>(Lebensministerium)   | <b>FIR</b><br>Flight Information Region  | <b>REG</b><br>Regulation   |
| <b>BMLVS</b><br>Federal Ministry of Defence and Sports<br>(Bundesministerium für Landesverteidigung und Sport)  | <b>FRA</b><br>Frankfurt Airport  | <b>WKO</b><br>Austrian Federal Economic Chamber<br>(Wirtschaftskammer Österreich)      |
| <b>bmvit</b><br>Federal Ministry for Transport, Innovation and Technology<br>(Bundesministerium für Verkehr, Innovation und Technologie)  | <b>GCR</b><br>Global City Region   | <b>WTO</b><br>World Trade Organisation   |
|   | <b>GRZ</b><br>Graz-Thalerhof Airport   | <b>ZUR</b><br>Zurich Airport   |
|   | <b>IATA</b><br>International Air Transport Association   |  |
|   | <b>ICAO</b><br>International Civil Aviation Organization   |  |
|   | <b>INN</b><br>Innsbruck-Kranebitten Airport  |  |
|   | <b>KLU</b><br>Klagenfurt-Wörthersee Airport  |  |
|   | <b>LNZ</b><br>Linz-Hörsching Airport   |  |

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