

Foreword

Swiss Business Aviation in Focus



As a small country in the middle of Europe, the Swiss always thought beyond their own boundaries and established relationships worldwide. Combined with the love for detail, education, excellence, and innovation Switzerland soon became a center within Europe or even worldwide not only for aviation in general but for Business Aviation in particular. Connecting Switzerland to the world has always been the driver of success for our country – in both directions. It allows Swiss businesses and individuals to grow as well as attract international business and talents to connect to Switzerland.

This study outlines and stresses the importance of our small country to stay connected and the role the Business Aviation sector plays in it. It also emphasizes (and quantifies) the economic importance our industry has for this country, not only directly through jobs but also by adding to the attractiveness of Switzerland as home to over 850 large international companies and organizations.

Business Aviation generates over 34,000 direct and indirect jobs in Switzerland and CHF 15 billion in annual economic output. It ranges from aircraft manufacturers, operators, airports, maintenance providers, air crews, aircraft financiers to ground handling, fueling, catering, taxi and cleaning companies thereby generating widespread economic benefit. It connects remote areas allowing local businesses to prosper which otherwise would not have access. The example of

Payerne airport illustrates clearly what can be achieved locally when communities invest in Business Aviation and its related infrastructure.

Although Business Aviation has proven resilient and capable of adjusting to a changing environment, we – as well as our stakeholders – are facing significant changes: increasing fuel prices, consequences of the Russian-Ukrainian military conflict, shortage of trained staff, COVID-19 implications to name the most recent and tangible ones. The long-term challenges however remain how we can shape the future of Business Aviation in a societally, environmentally and economically sustainable manner.

From a Swiss perspective, it remains particularly important to strengthen (or avoid further deterioration of) essential infrastructure, accessibility to such infrastructure for Business Aviation, provision of a reliable legal and tax framework and not least the continuous education of aviation experts in Switzerland. Otherwise, the stagnation or even reduction of Business Aviation activity in Switzerland is going to continue.

As Swiss Business Aviation Association we are happy to be able to introduce the readers of this study to Business Aviation, increase their understanding of our industry and its importance for Switzerland, its economy and also its society.

A handwritten signature in dark ink, appearing to read 'N. von Planta'.

Niclas von Planta, President SBAA



Facts & Figures

1. Business Aviation Impact on National Level

- **>160 %** growth of BizAv market share in Switzerland in 2021 compared to 2019
- **34,100** direct and indirect jobs*
- **>15 Billion CHF** annual economic output*
- **35x** Swiss airports can be served by BizAv
- On average **3x** more BizAv flights per capita of the Swiss population compared to EU 27 countries
- Geneva and Zurich among the **Top 4** busiest BizAv airports in Europe in 2021

*pre-COVID-19 levels

2. Business Aviation Impact on Geographical Areas

- **11.6 %** average growth of all Swiss BizAv airports in terms of flight movements in 2021 compared to 2019
- **32 %** Swiss BizAv market share of Geneva Airport (GVA)
- **27 %** Swiss BizAv market share of Zurich Airport (ZRH)
- **Regional Swiss airports form the backbone** of the Swiss BizAv network
- **763 %** growth of (BizAv) flight movements at Payerne Airport in 2021 compared to 2016

3. Stakeholder Analysis and Customer Benefits

- **88 %** of the Top 50 of *Forbes Global 2000* leading companies are business aircraft users
- **86 %** of BizAv flights carry marketing and sales personnel, technical and engineering personnel, middle managers and corporate customers
- **90 %** of all Swiss BizAv routes are almost impossible to reach directly by scheduled flight
- **150 %** increase in passenger/employee productivity by using BizAv
- **>2h** time savings with a BizAv flight compared to commercial flights

Facts & Figures

4. Utilization Strategies and Location Factors

- **1-2h** accessibility of all Swiss airports by car or train
- **<2h** by plane to reach the biggest European capitals
- **>15,000** flights per year are carried out by business aircraft for humanitarian missions
- **2 %** of all European BizAv flights are used to serve medical evacuations
- **>850** headquarters of international companies and organizations are located in Switzerland

In the increasingly fierce international competition between locations, **the availability of a nearby Business Aviation airport is a non-negligible location factor for many companies.**

"For large companies, Business Aviation is an argument, but on the other hand, the airport network is very good in Switzerland. It is the biggest advantage of choosing Switzerland compared to other countries."

Business Aviation has been at the forefront of innovation since the dawn of aviation. More than ever, the industry is in flux, bringing new modes of transportation and new applications to market. At its core, Business Aviation embraces the future and how to reach it faster.

Adopting innovation in Business Aviation bridges the gap between technology trends and sustainability trends - **even if progress seems slow, it will inevitably come.**

Business Aviation is regarded the Formula 1 of the aviation industry - it drives innovation paving the way for advancements in the international aviation sector

5. Trends and Market Development

- **+5.8 %** Swiss BizAv market growth compared to 2019
- **+35 %** growth of Swiss BizAv flights movements from Sep. 2019 to Sep. 2021
- **+11.64 Billion CHF** worldwide business aircraft market size development until 2028
- **76 %** of aircraft demand until 2040 will be primarily in the small aircraft segment
- **0.04 %** of the global CO₂ emissions are caused by the BizAv sector

Management Summary

Business Aviation plays a vital role within the aviation industry in connecting Switzerland with Europe and the world by providing fast, secure and reliable passenger transport between distant and remote areas. The value of Business Aviation for Switzerland is based on the advantages associated with the connecting function of Business Aviation with regard to distant places in Europe and around the globe, which make a significant contribution to the attractiveness of Switzerland as a relevant location for companies, organizations and professionals with an international orientation. Jobs directly and indirectly created and secured by beneficial Business Aviation framework conditions contribute to Switzerland's prosperity.

Business Aviation has increasingly become the subject of controversial debates about the aviation industry and the question as to the extent to which it provides a necessary business tool to enhance personal mobility. Critical voices bring a ban on smaller aircraft or private flights into play.

Business Aviation is an industry with limited visibility to the general public, and little is known about it. Some people are skeptical about the use of Business Aviation and may not value its benefits. For many users of Business Aviation, on the other hand, it is an indispensable business tool whose importance in connecting people, countries, and continents became apparent not just in light of the COVID-19 crisis. The Business Aviation industry bucked the General Aviation trend in 2020 and 2021, showing growth and attracting new customer groups worldwide. During this time, the high flexibility of Business Aviation and its safe way of getting from A to B efficiently proved its value. Professionals and companies had to rely on business aircraft in times of thinned airline networks and travel restrictions – the crisis in the aviation industry gave new impetus to the Business Aviation business model and its unparalleled benefits.

In 2021, Switzerland recorded close to 100,000 Business Aviation aircraft movements – more than in 2019. In light of the general crisis in aviation and slow recovery, this temporarily increased the share of Business Aviation in total aircraft movements to 27 %.

The Swiss example reveals the impressive increase in the relevance of Business Aviation due to the COVID-19-related cancellation of scheduled flights. It becomes apparent that need for personal meetings in the private and business context is unbroken. In the short and long-term, virtual meetings are expected to replace only a certain proportion of business meetings – visiting conferences or production sites and initiating and closing contracts often require personal meetings.

Beyond business purposes, there are further areas of application that are rather unknown to many and therefore need to be given more attention. Business Aviation is regularly used in medical emergencies, providing fast and safe transport of patients from remote regions or to specific medical facilities far away – saving lives not only during the COVID-19 crisis. About 2 % of all European Business Aviation flights serve medical evacuations.

The functional interaction of time benefits, flexibility, benefits in terms of convenience, reliability and safety, and societal benefits makes Business Aviation an important industry and market player for various stakeholders.

Switzerland is considered an outstanding location for the headquarters of multinational companies and international organizations, not least because of its exceptional air traffic network. All Swiss airports can be reached within 1-2 hours by car or train, from which the major European capitals can again be reached within two flight hours. In this context, Switzerland's regional airports constitute the backbone of the highly efficient Swiss air passenger transportation system – which is made possible by Business Aviation.

Management Summary

Furthermore, 90 % of all Swiss Business Aviation routes are almost impossible to reach directly by scheduled flight.

In addition to the three national airports, Zurich, Geneva and Basel, the 35 smaller regional airports with Business Aviation operations contribute significantly to the high-performing infrastructure of the Swiss air traffic network. The numerous regional airports take a relief function for the three national airports. Moreover, Swiss regional airports are often used by Business Aviation in case of capacity bottlenecks or due to their proximity to the final destination. Payerne airport, for example, recorded an enormous 763 % increase of flight movements in 2021 compared to 2016, after opening the airport for civil aviation besides military operations.

Geneva Airport (GVA) has the largest share of Business Aviation flight movements in Switzerland accounting for 32 % of Switzerland's Business Aviation market, while Zurich Airport (ZRH) ranks second in terms of Business Aviation flight movements with a national market share of 27 % in 2021. However, there are limits to Business Aviation aircraft movements at the two major national airports nearly operate at maximum capacity in normal times and exceeding slots at peak times.

(Swiss) Business Aviation operated significantly more flights in 2021 than even before. However, it remains to be seen how resilient the Business Aviation market will perform in the face of further crises such as the war in Ukraine combined with the Russian sanctions, as well as other unforeseen events in the future.

In the ecological area of tension, Business Aviation faces an area of conflict. On the one hand, the CO₂ emissions per passenger are higher than in commercial flights – however, Business Aviation overall contributes only a small share to the CO₂ emissions of aviation.

On the other hand, Business Aviation serves as a pioneer for sustainable aviation innovations, which are usually first implemented on smaller business jets and then adapted and adjusted for larger aircraft. Business Aviation in particular has the opportunity to be an implementer and frontrunner for innovations in the aviation industry and to establish long-term technological and sustainable innovations in the aviation industry.

Business Aviation needs to be clear about its core missions and its major concerns:

- Which customers will Business Aviation target in the future and how will the customer segment evolve?
- Which future flight routes will be demanded by Business Aviation customers?
- Will Business Aviation be an ecological outcast or will Business Aviation drive the change and create economical, ecological, and societal impact among industries?

Innovative propulsion technologies, sustainable aviation fuels, and more efficient aircraft in combination with emerging business models such as digitally integrated mobility platforms need to be at the heart of these strategies. Business Aviation has the unique opportunity to become part of and shape an ecosystem of integrated modern and environmentally friendly mobility options.



What is Business Aviation?

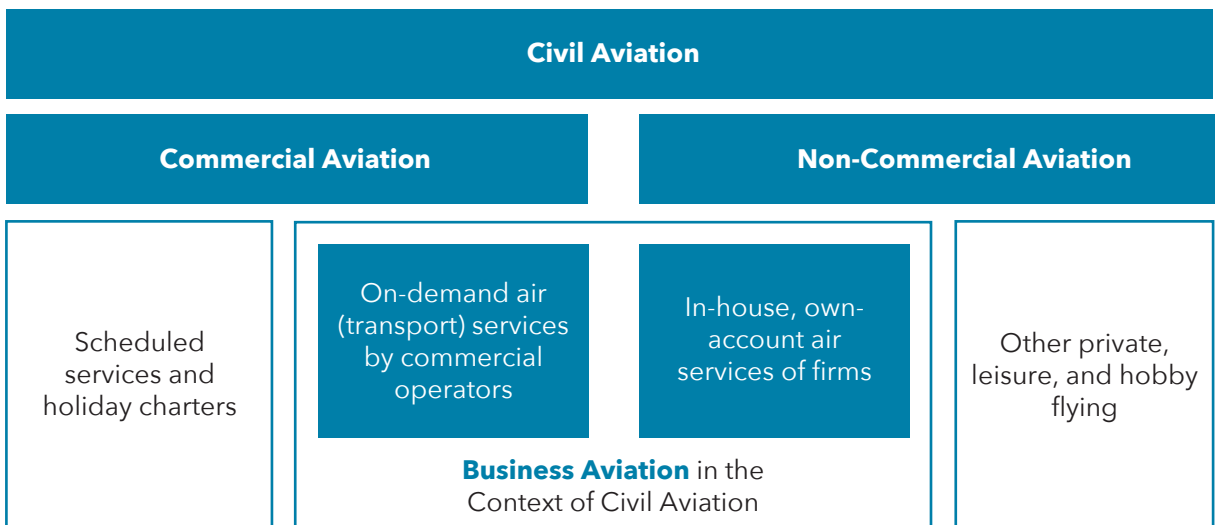
For many people, the term “Business Aviation” conjures up associations of sleek jets used exclusively by a small group of “super-rich” people – whether for business purposes or exclusively for private pleasure, because “money is no object”. However, Business Aviation differs from commercial aviation simply in the fact that Business Aviation involves the operation or use of aircraft that are generally not available for public hire by companies or individuals. More to the point, Business Aviation provides strategic network capacities to an increasing number of companies, organizations and industries, giving its customers a burgeoning role in shaping the social relationships that form the foundation of the global economy.

The development of Business Aviation can be traced back to the early 1920s, when major U.S. corporations began using private aircraft to visit their manufacturing facilities that would be inaccessible by scheduled aircraft. At that time, the term “Private Aviation” was more commonly used.

The industry made its breakthrough in the early 1960s as a separate sub-division of civil aviation – special jets for business travel were developed for the first time². Thus, today the name “Business Aviation” has become established, which clarifies the primary use of the sector.

There is no agreed definition of Business Aviation – however, most common definitions refer to the same subject area. The U.S. Federal Aviation Administration (FAA) defines Business Aviation as “the use of any General Aviation aircraft [...] for business purpose.” The International Business Aviation Council (IBAC) refers to Business Aviation as “that sector of aviation which concerns the operation or use of aircraft by companies for the carriage of passengers or goods as an aid to the conduct of their business, flown for purposes generally considered not for public hire and piloted by individuals having, at the minimum, a valid commercial pilot license with an instrument rating”³.

The role of Business Aviation in the context of the civil aviation sector¹



¹ Maertens, S. et al. (2019). The Economic Footprint of the Business Aviation Sector in Europe. In: Airline Economics in Europe (Advances in Airline Economics, Vol. 8), Emerald Publishing Limited, Bingley, pp. 137-166.

² Budd, Lucy C. S. (2019). Aeromobile Elites: Private Business Aviation and the Global Economy. Transport Studies Group, School of Civil and Building Engineering. Leicestershire: Loughborough University.

³ EBAA (2018). IBAC Definition of Business Aviation.

1. Business Aviation Impact on National Level



Chapter Key Facts

Business Aviation plays a vital role in connecting regions with different economic strength both in Switzerland and across Europe. By analyzing the Business Aviation sector in Switzerland and comparing it to the European market, the relevance of Business Aviation is illustrated based on direct and indirect indicators such as market shares, jobs generated, annual economic output, Business Aviation flight movements, as well as intangible catalytic effects and others.

As the Swiss are enthusiastic air travelers, they also have among the highest number of flights per capita per year in Europe. At the same time, in the wake of globalization, Switzerland's geographic

location and dense Business Aviation airport network have contributed to attract numerous large multinational companies and major international organizations from around the world. The Swiss economy and society benefit greatly from the Swiss Business Aviation sector and the advantages it provides, contributing significantly to Switzerland's GDP directly, indirectly, and induced.

While the COVID-19 crisis and related travel restrictions have caused hardship for many industries around the world, particularly the airline industry, Business Aviation has proven to be particularly resilient, contributing to keep the world connected by air.

"The excellent air connectivity of Business Aviation contributes to Switzerland's attractiveness as a location factor, not least for multinational companies." – Guillaume Chassot, Director Payerne Airport

Business Aviation airports vs. other airports¹



Business Aviation chapter key facts:

- **>160 %** growth of BizAv market share in Switzerland in 2021 compared to 2019
- **34,100** direct and indirect jobs*
- **>15 Billion CHF** annual economic output*
- **35x** Swiss airports can be served by BizAv
- On average **3x** more BizAv flights per capita of the Swiss population compared to EU 27 countries
- Geneva and Zurich among the **Top 4** busiest BizAv airports in Europe in 2021

*pre-COVID-19 levels

¹ EBAA (2022). About Business Aviation. What is Business Aviation?