

# Air Freight Logistics Study Switzerland 2020

Facts – Requirements – Trends

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# Management Summary

**The study Swiss Air Cargo Logistics 2020 examines the relevance of air cargo logistics for the Swiss economy and highlights the performance of the players in air cargo logistics from various perspectives. Taking the customer perspective into account, the performance profile of Swiss air freight logistics is presented in a European comparison, focusing on the main topics of digitalisation, climate and environmental protection as well as regulatory framework conditions. This leads to the following key findings.**

## **Air cargo market & trends**

Air cargo opens up global markets for Switzerland, and as a business location Switzerland benefits significantly from good air transport connections. With the increasing importance of the overseas markets of Asia and North America, air cargo is of systemic significance for Switzerland's economic development and makes a decisive contribution to securing prosperity and jobs.

By value, 50% of all exports (CHF 157 billion) left Switzerland by air in 2019. The value share of 82% in total intercontinental exports underlines the high relevance of air cargo as a mode of transport for opening up intercontinental markets. The high value density of CHF 1,413 per kilo in exports in 2019 is regarded as a central characteristic of the transport mode air cargo in Switzerland. At less than 1%, the tonnage share of air cargo is very low for both exports and imports. With air cargo volumes at Swiss airports remaining nearly constant over the last ten years, the value of exports (+43%) and imports (+57%) carried by air has increased. Among industrial goods, the relevance of chemical-pharmaceutical goods has continued to increase in recent years, accounting for 47% of all air cargo exports. Machinery, medical products and watches are further important export goods of the Swiss air cargo industry. A special feature of Switzerland as an air cargo location is the high proportion (70%) of freight on passenger

flights. While the export industry benefits from a dense network of flights due to the combination of freight and passenger services, airlines with a departure/destination at Swiss airports depend on air cargo in the lower deck of passenger flights.

## **Customer perspective**

Air cargo transports are organised jointly by shippers, forwarders, airlines and ground handling agents and are closely linked with customs, security and other authorities. Due to the complexity of process chains in air cargo logistics, specialised forwarders usually organise and handle the processes on behalf of shippers. This means that the perspective of freight forwarders in particular must be considered in the context of customer requirements. Short transport times over long distances, high security standards for the freight as well as a pronounced reliability through precisely planned transport processes are decisive criteria for the use of air cargo as a means of transport from the customer's perspective. Although the majority (over 75%) of air cargo is handled by Swiss freight forwarders via Swiss airports, relevant airports are also located outside of Switzerland due to the international nature of the transport mode, meaning that Swiss air cargo is in direct competition with airports in the surrounding European region.

By international comparison, the three Swiss national airports are valued for their speed, reliability and for their high security standards. Due to the high-quality products in Swiss air cargo, adequate infrastructure for special goods such as valuable cargo, temperature-controlled and perishable goods is a key success factor for the air cargo location. One challenge arises from Switzerland's high cost level, especially for labour-intensive operations. As a result, the competitiveness of Swiss air cargo logistics suffers compared to other European airports. Due to the high wage level, Switzerland can differentiate itself from other European countries, particularly in terms of quality. The digitalisation of

air cargo logistics plays a decisive strategic role here. In view of the complex process chains, the use of integrated platforms with common standards offers the potential for paperless shipment processing and seamless monitoring.

### **Digitalisation**

Concerning digitalisation, increased transparency and a higher degree of automation in shipment processing are central approaches in air cargo logistics, whereby technological trends such as artificial intelligence and block chain have the potential to cause major structural changes in a short time. Manual, paper-based processes currently entail considerable additional administrative work and limit resource planning and data quality for all stakeholders. Paperless handling processes are rated as important or very important by 69% of the carriers surveyed. In a fragmented market without dominant market participants, the enforcement of industry-wide standards is challenging. With the ONE Record initiative, IATA is shifting from document-centered to data and process-centered air cargo logistics, thus promoting end-to-end electronic data exchange. Compared to stand-alone solutions, the overarching integration of all parties involved offers efficiency advantages in the overall logistical view. The modest number of actors and the resulting small Swiss market offer good opportunities to implement the digitalisation potential throughout the industry and to build integrated platforms for the inclusion of all actors.

### **Climate and environmental protection**

In 2018, commercial aviation accounted for 2.4% of global CO<sub>2</sub> emissions from the combustion of fossil fuels. About 19% of these emissions can be attributed to air cargo. With 5.35 million tonnes of CO<sub>2</sub> equivalents emitted, air traffic emissions in 2017 accounted for around 10% of Switzerland's total CO<sub>2</sub> emissions. Due to the increasing share of air traffic in global CO<sub>2</sub> emissions and the forecast further increase, the industry is of particular importance in achieving international climate protection goals. CO<sub>2</sub> has the strongest climate impact of all aviation emissions, as it not only causes the highest proportion of emissions from the combustion of kerosene but also remains in the atmosphere for many decades. In addition to CO<sub>2</sub> emissions, the climate impact of "non-CO<sub>2</sub> emissions" such as nitrogen oxide, sulphur dioxide, hydrocarbons and soot particles must be considered as well. IATA's four-pillar climate protection strategy offers effective long-term

approaches to reducing air traffic emissions, with technological innovations promising the greatest impact. The political promotion of sustainable fuels is a starting point for Switzerland to contribute to the ecologically sustainable development of aviation.

The IATA four-pillar climate protection strategy offers long-term effective approaches to the reduction of air pollution emissions, whereby technological innovations promise the greatest effect. The political promotion of alternative fuels is a good starting point for Switzerland to contribute to the ecologically sustainable development of aviation.

Compared with all other modes of transport, air transport causes by far the most CO<sub>2</sub> emissions per kilometre. Since the transport of air cargo shipments is inseparably connected with upstream and downstream road transport, the ecological footprint of an air cargo shipment must be viewed holistically and cannot be reduced to air transport between two airports alone.

### **Regulatory framework conditions**

Due to the air traffic agreement with the EU, Swiss air cargo logistics benefits from extensive air traffic rights, which means that Switzerland has a very high level of air traffic connections for its size by international comparison. Restricted operating times and the limited accessibility of Swiss airports due to the ban on night and weekend driving of trucks and the ban on night flights represent a challenge for the competitiveness of Swiss air cargo, particularly in terms of international competition with other European airports.

As a reaction to the COVID-19 crisis in 2020, the study has been expanded to include an excursus on the focus topic of air freight in times of crisis in order to record the relevant effects on air freight logistics and make statements on how the industry is dealing with the crisis.

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