Position statement

Reforming the funding of air traffic control

Proposals for state funding of essential services of general interest (SGI)

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BDL
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Initial situation

The tasks of air traffic control

The job of air traffic control is to direct and handle air traffic safely. Across the world, the essential task of air traffic control is defined, recognised and undertaken as a state responsibility.

Air traffic controllers not only have to perform tasks that serve the airlines, they fulfil the Federal Republic of Germany's international obligations by ensuring that Germany can be reached safely by air. In this export-oriented country, air traffic control also performs a public service as an infrastructure provider in the same way as the road and rail networks. It is also crucial for securing the supply of vital medical and hygienic goods, food and urgently needed spare parts to Germany. Ensuring the country's defensive capabilities by supporting military air operations is also in the interest of the state. It also performs policing duties in administrative assistance to the security authorities, such as providing protection against unauthorised intrusion into surveillance zones or other protected airspaces by manned (and in future unmanned) aerial vehicles. In recent years, it has furthermore become apparent that air traffic control also works towards the political goal of environmental and climate protection and so serves the state and its citizens.

The funding of air traffic control

According to the recommendations of the International Civil Aviation Organization (ICAO), air traffic control is funded on the basis of the "user pays principle". This means that, in many countries, the costs are currently primarily borne by the airspace users and thus essentially by the civil airlines. At the same time, the EU regulatory framework provides for the possibility that a state may fund air navigation services not exclusively by charging airspace users, but instead may also contribute public funds to cover the costs.

The issue on hand

Until now, air traffic control in Germany and some other EU member states has been funded exclusively by airspace users according to the respective volume of traffic utilised. State funding policies make no or insufficient provision for air traffic control tasks that are of general interest to the state and its citizens including those defined as essential public services.

The demand for air transport can sometimes fluctuate enormously and has clearly revealed the limits of the user-based funding system for air traffic control as practised today. The demand for air travel can be radically affected by a multitude of various crisis scenarios, some of them severe, as evidenced most recently by the COVID-19 pandemic. Furthermore, the current funding system does not make adequate provision for phases of air traffic recovery, during which passenger volumes can sometimes increase dramatically over a short period.

But infrastructures need to plan ahead with a long-term perspective. If they wish to avoid or are prevented from incorporating expensive planning buffers to absorb unexpected fluctuations in demand for reasons of expense, they will naturally have little flexibility. This applies to road and rail infrastructure just as much as it does to air traffic infrastructure at airports and air traffic control. However, the demand-driven infrastructure of air traffic control is today predominantly determined by the number of operational staff (air traffic controllers) available.

This can lead to inadequate service quality (delays) in times of (unexpectedly) high air traffic volumes. In times of (unexpectedly) low traffic volumes, excessive infrastructure maintenance costs can lead to users bearing a disproportionately high financial burden.

Funding in detail

Experience shows (especially since the start of the COVID-19 pandemic) that existing funding arrangements for air navigation services are not robust enough to provide the aviation industry with sufficient stability, especially in times of crisis.

However, these services are indispensable for providing the essential infrastructure needed to meet ICAO member states' obligations to keep their airspace and airports accessible (article 28 of the Chicago Convention). They are not freely scalable to adjust to times of inconsistent traffic situations and incur a high quantity of fixed costs. For this reason, the current EU regulatory framework already allows services related to air traffic control to be financed not only through user fees but also through financial contributions from the public sector (article 20 of Regulation 2019/317).

Proposal for reforming the user pays principle

One possible solution to the uncertainties described above regarding the funding of a public service company and the essential services of general interest that it renders could be to allocate these services to the state as the user:

In the tasks assigned to air navigation service providers, the state distinguishes between

- − The provision of essential services (SGI - essential services of general interest), operational and technical services necessary to provide a certain level of infrastructure services and
- − Services provided to the airlines beyond these basic SGIs.

The state assumes the costs incurred by essential services (costs covered without additional mark-up).

Under the ICAO Convention, states retain full responsibility for the sovereignty of their airspace and the provision of air navigation services necessary for its use. By assuming the costs of SGIs, they fulfil their responsibility for providing a national basic ATM infrastructure and ANS services (civil/military, national/regional) in line with national needs.

Services provided by an air navigation service provider that go beyond these basic SGIs are paid for – as before – by airspace users. This is to ensure that the airspace or airport capacity needed to handle air traffic safely, systematically and smoothly is provided.

For Germany, this would mean the following: based on the information above and in line with the principle of ensuring the accessibility of Germany by air in compliance with regulatory standards, the first step would be to define the following SGIs:

1. Maintaining 24/7 **core operations (ATS)** with minimal staffing

    – Focusing only on services for IFR traffic

    – Providing a minimum capacity (e.g. for state, rescue or humanitarian flights)

    – All operating units (ACCs, towers & AIS) factored in

    – Maximum merging of sectors (night configuration)

    – Single sector operations (SSO)

2. Maintaining the functionality of the **operational technical systems and services**

    – Ensuring availability of functional ATS, CNS and FM systems and services (indoor facilities, outdoor facilities, buildings)

    – Guaranteeing troubleshooting and maintenance of operationally used ATS, AIS, CNS, FM systems and services

    – Ensuring that the infrastructure is kept in operation

    – Focus on minimal life-cycle management (e.g. IT security updates, patches)

SGIs reflect a simplified picture of short-term operation of air navigation services reduced down to the essential services. Among other things, they do not factor in the following:

   – Services for VFR traffic and for military airspace users

   – ASM, ATFM and FIS services

   – Capacity commitments and capacity-enhancing measures

   – Administrative processes

   – System development/enhancement, new technologies (e.g. cloud services)

   – Investments for implementing the ATM roadmap

   – Meeting future regulatory requirements, such as cybersecurity or drone detection

   – Training and simulator operation

The actions proposed here could provide an initial more reliable, resilient and sustainable approach for meeting current and future challenges and expectations for ANS/CNS services. In addition, the approach described here can guarantee a reliable supply of services for the general public and industrial sector.

Ultimately, only an adequately and robustly funded air traffic control system can guarantee the accessibility of the Federal Republic of Germany by air, Germany's success as an air transport and business location, can safeguard sovereignty in the sense of defensive capability (military air operations) and secure environmental protection in the aviation infrastructure.

List of abbreviations

ATM   Air traffic management
                Central task of air traffic control. The aim is to organise air traffic in the allocated airspace safely, smoothly and economically. This ensures safe and efficient movement of aircraft during all phases of their operation.

ANS   Air navigation services

ATS   Air traffic system

IFR   Instrument flight rules
                Flights conducted in accordance with applicable instrument flight rules (IFR) using flight instruments, such as navigation instruments and flight monitoring devices, that allow aircraft to be flown in adverse visibility conditions.

ACC   Area control centre

AIS   Aeronautical information service
                Provides information for the planning and execution of flights

SSO   Single sector operations
                Sectors staffed by individual air traffic controllers during low-traffic periods e.g. at night.

CNS   Communication, navigation & surveillance
                Technical infrastructure

FM   Facility management

VFR   Visual flight rules
                Flights conducted according to applicable visual flight rules (VFR) usually at low altitudes in small aircraft and sports aircraft.

ASM   Airspace management
                Planning and division of airspace for optimum traffic utilisation

ATFM   Air traffic flow management
                Planning and managing traffic volumes to maximise the use of existing capacity and avoid congestion and delays.

FIS   Flight information service (FIS)
                Service provided by air traffic control for the dissemination of general information and instructions within a specific airspace, in particular for flights conducted under visual flight rules (VFR).

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The German Aviation Association (BDL) was founded in 2010 as a joint representative body for the German air transport industry. Members of the association include airlines, airports, German air traffic control and other service providers in the German air traffic sector. Our member companies employ over 180,000 people. The German air transport industry provides mobility for more than 200 million passengers annually and contributes to strengthening Germany as a business location by transporting foreign trade goods worth more than 200 billion euros.