



## AIR TRANSPORT: SINGLE EUROPEAN SKY

The single European sky initiative aims to increase the efficiency of air traffic management and air navigation services by reducing the fragmentation of European airspace. By its nature, this ongoing initiative is pan-European and open to neighbouring countries.

### LEGAL BASIS

Article 100(2) of the Treaty on the Functioning of the European Union.

### OBJECTIVES

The single European sky (SES) initiative was launched in 1999 to improve the performance of air traffic management (ATM<sup>[1]</sup>) and air navigation services (ANS<sup>[2]</sup>) through better integration of European airspace. The stated benefits of the SES could potentially be huge: compared with 2004, the SES (upon completion around 2030-2035) could triple airspace capacity, halve the costs of ATM, improve safety tenfold and reduce the environmental impact of aviation by 10%<sup>[3]</sup>.

### ACHIEVEMENTS

The single European sky initiative was launched in response to delays incurred as a result of air navigation, which had reached a peak in Europe in the late 1990s. The SES is intended to reduce the fragmentation of European airspace (between Member States, civil and military usage, and technologies), thereby increasing its capacity and the efficiency of air traffic management and air navigation services. By its nature, the initiative is pan-European and open to neighbouring countries in its implementation. In practice, the SES should result in reduced flight times (because of shorter paths and fewer delays) and, consequently, in lower flight costs and aircraft emissions. The first set of common requirements establishing the SES was adopted in 2004 (SES I); these included [Regulation \(EC\) No 549/2004](#) laying down the framework for the creation of the single European sky, [Regulation \(EC\) No 550/2004](#) on the provision of air navigation services, [Regulation \(EC\) No 551/2004](#) on the organisation and use of the airspace in

[1]Air traffic management (ATM) ensures the safe and efficient movement of aircraft during all phases of operations (including air traffic services, airspace management and air traffic flow management).

[2]Air navigation services (ANS) means all the services provided to air navigation, including air traffic services, communication, navigation and surveillance services, meteorological services and aeronautical information services.

[3]These are the 'official' SES objectives, the origin of which is unclear.



the single European sky<sup>[4]</sup>, and [Regulation \(EC\) No 552/2004](#) on the interoperability of the European Air Traffic Management network. This framework was amended in 2009 (SES II) to include performance-based mechanisms ([Regulation \(EC\) No 1070/2009](#)). It was also complemented by the extension of EU rules on aviation safety (and the related competencies of the European Aviation Safety Agency) to ATM, ANS, and airport operations<sup>[5]</sup>. In parallel, a number of implementing rules and technical standards have been adopted either by the Commission through the comitology procedure or, less frequently, by the legislator<sup>[6]</sup>.

This comprehensive regulatory framework has significantly boosted the restructuring of European airspace and the provision of ANS. It has led to, among other things: the separation of regulatory functions from service provision; much greater flexibility in the civil and military use of airspace; the interoperability of equipment; the harmonised classification of upper airspace<sup>[7]</sup>; a common charging scheme for ANS; and common licensing requirements for air traffic controllers. In addition, it has established the ‘key components’ which form the structure of the SES:

- Under the ‘performance scheme’<sup>[8]</sup>, binding performance targets in key areas — such as safety<sup>[9]</sup>, the environment, capacity, cost efficiency and incentives — are set in order to improve the overall efficiency of ATM and ANS. The performance targets are adopted by the Commission through the comitology procedure<sup>[10]</sup>. The ‘performance review body’ appointed by the Commission helps in the preparation of these targets and monitors the implementation of the performance scheme.
- The role of the ‘network manager’ (currently Eurocontrol<sup>[11]</sup>) is to improve the performance of the EU aviation network. It deals with the network functions, which must be handled in a centralised manner, as is the case with the design of the European route network, air traffic flow management (ATFM) and the coordination of radio frequencies used by general air traffic.
- ‘Functional airspace blocks’ (FABs) are intended to remedy the fragmentation of European airspace by restructuring it according to traffic flows rather than national boundaries. This is to permit enhanced cooperation (i.e. better management of airspace, optimisation of the route network, and an economy of scale through the integration of services) or even mergers between service providers across national

---

[4]From airport to airport, as airports serve as entry and exit points to airspace. This is referred to as the ‘gate to gate’ approach.

[5]Under [Regulation \(EC\) No 1108/2009](#) of the European Parliament and of the Council.

[6]As is the case with [Directive 2006/23/EC](#) of the European Parliament and the Council of 5 April 2006 on a Community air traffic controller licence.

[7]Airspace is classified in accordance with ‘classes’ defined by the Chicago Convention on International Civil Aviation, which are given a designation ranging from ‘Class A’ to ‘Class G’. Flight rules and the services provided differ from one class to another.

[8]Set up under [Commission Regulation \(EU\) No 691/2010](#).

[9]As of 2015.

[10]The first reference period for the performance scheme covered the calendar years 2012 to 2014. From 2015 onwards, each reference period covers five calendar years.

[11]The Organisation for the Safety of Air Navigation (Eurocontrol) is a pan-European civil-military intergovernmental organisation created in 1963 for the purpose of maintaining safety in the field of air traffic management. Eurocontrol is made up of 41 contracting states. There is a cooperation agreement between Eurocontrol and the European Union to implement the SES. In 2011, the Commission designated Eurocontrol as the first ‘network manager’ of the SES until the end of 2019. Eurocontrol was also nominated as the first SES ‘performance review body’ over the period 2010-2016.



borders, thereby lowering the costs of ANS. In each FAB, the Member States concerned must jointly designate one or more air traffic service (ATS)<sup>[12]</sup> providers. So far, nine FABs, covering 31 countries<sup>[13]</sup>, have been agreed.

- The SESAR (Single European Sky ATM Research) Joint Undertaking, set up in 2007, manages the technological and industrial dimension of the SES, i.e. the development and deployment of the new European ATM system. The total estimated cost of the development phase of the SESAR programme (for the 2008-2024 period) is EUR 3.7 billion, to be distributed equally between the EU, Eurocontrol and industry. The deployment phase (i.e. the large-scale installation of the new system between 2015 and 2035) could require around EUR 30 billion, to be funded by the aviation sector (90%) and the EU (10%).

Consequently, it seems that, despite annual fluctuations, the efficiency of ATM in Europe is improving. Average en-route ATFM delays have decreased from 1.43 minutes per flight in 2008 to 0.86 minutes in 2016 (with a current performance target of 0.5 minutes delay per flight). Average airport arrival ATFM delays have followed the same trend, falling from about 1 minute per flight in 2008 to 0.75 minutes in 2016. Similarly, the average horizontal direct en-route extension<sup>[14]</sup> — based on the latest filed flight plan — seems to be on a downward trend, from 5.03% in 2009 to 4.82% in 2016 (i.e. the routes flown were on average 4.82% longer than the most direct route), with a current performance target of 4.1%. Cost efficiency has also improved: in spite of lower-than-planned traffic demand, and the related fall in planned revenue, en-route unit costs per service unit (in real terms) fell by 16.7% in the SES area between 2009 and 2014<sup>[15]</sup>.

It is worth noting that these improvements can be partly explained by rather low traffic because of the economic downturn (2016 traffic levels were barely the equivalent of those recorded in 2008). While traffic has been increasing again since mid-2013, the current trends will probably not be enough to achieve the (very ambitious) SES objectives<sup>[16]</sup>. In fact, in spite of the progress made over the last 10 years, full integration of the European airspace is still far from complete. The SES initiative (which in any case is not expected to be completed by 2030-2035) faces difficulties and resistance, in particular because of its huge scope. In June 2013, the Commission proposed a new set of rules to address the issues of efficiency and performance, as well as the present sub-optimal institutional set-up. These proposals are still under discussion<sup>[17]</sup>.

---

[12] 'Air traffic services' (ATS) refers to the various flight information services, alerting services, air traffic advisory services and air traffic control services.

[13] All the Member States, together with Bosnia and Herzegovina, Norway and Switzerland.

However, these FABs (which are set up by mutual agreement between states according to a 'bottom-up approach') are still largely defined by national boundaries and do not necessarily mirror traffic flows.

[14] This is the difference between the actual route flown (between the departure and arrival terminal areas, with a radius of 30 nautical miles around airports) and the direct route, giving the excess distance flown.

[15] It should, however, be noted that the 2009 cost per service unit was particularly high. (The unit cost per service unit is used to determine the charges paid by airlines in return for ATM services).

[16] For instance, the current cost efficiency target should lead to a further reduction of 15.5% in the unit cost per service unit between 2015 and 2019.

[17] See Parliament's position at first reading of 12 March 2014 ([OJ C 378, 9.11.2017, p. 546](#)) and the Commission report of 16 December 2015 (COM(2015)0663).



## ROLE OF THE EUROPEAN PARLIAMENT

Parliament has always endeavoured to remove obstacles to the implementation of the single European sky by adopting a pragmatic approach. In this connection, it has insisted strongly and successfully on the need for close cooperation between the civil and military sectors, in the context of flexible use of airspace, even when the Member States were still reluctant to address the issue. It was also Parliament that proposed the creation of an industry consultation body, so as to enable stakeholders to advise the Commission on technical aspects of the SES. In addition, Parliament has always emphasised the crucial role that Eurocontrol has to play in the implementation of the SES, and the need to foster cooperation with neighbouring countries with a view to extending the initiative beyond EU borders.

Given that the major objectives of the SES are yet to be achieved, Parliament is now calling on the Commission to switch from a 'bottom-up' to a 'top-down' approach, in order to overcome any lingering reticence and to speed up the implementation of the initiative, in particular with respect to the SESAR programme and the functional airspace blocks.

Major related decisions taken by Parliament include:

- Its legislative resolution of 29 January 2004 on the joint text approved by the Conciliation Committee for a European Parliament and Council regulation laying down the framework for the creation of the single European sky<sup>[18]</sup>;
- Its legislative resolution of 25 March 2009 on the proposal for a regulation of the European Parliament and of the Council amending Regulations (EC) No 549/2004, (EC) No 550/2004, (EC) No 551/2004 and (EC) No 552/2004 in order to improve the performance and sustainability of the European aviation system<sup>[19]</sup>;
- Its resolution of 23 October 2012 on the implementation of the single European sky legislation<sup>[20]</sup>;
- Its legislative resolution of 12 March 2014 on the proposal for a regulation on the implementation of the single European sky (recast)<sup>[21]</sup>.

Esteban Coito  
04/2019

---

[18][OJ C 96 E, 21.4.2004, p. 100.](#)

[19][OJ C 117 E, 6.5.2010, p. 234.](#)

[20][OJ C 68 E, 7.3.2014, p. 15.](#)

[21][OJ C 378, 9.11.2017, p. 546.](#)

