

The Single European Sky initiative

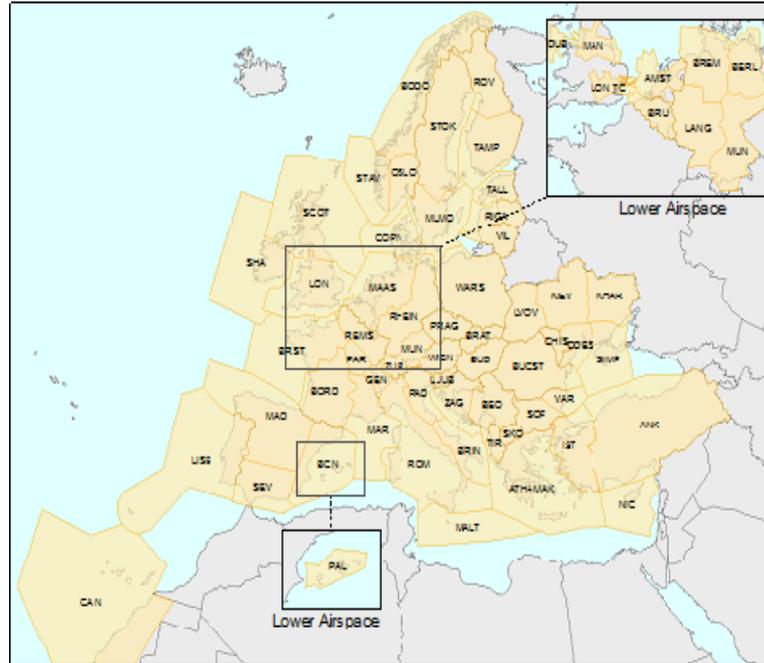
After the severe delays of late 1990's it was understood that something needs to be done about the strain on air traffic capacity caused by the continuing increase in traffic.

This was the primary aim of the ambitious initiative for a Single European Sky (SES I), launched in 2004. A second package of measures, known as SES II, followed in 2009 as the focus turned to include also cost-efficiency and environmental concerns. Now the Commission proposes a SES 2+ package to speed up the implementation of SES II.

Despite the current economic crisis, global air transport over the long term is expected to grow by around 5% annually until 2030. As traffic increases so do concerns about safety and rising costs. The common EU aviation policy aims at making Europe not only competitive, but also the safest air space in the world.

A fragmented ATM system

The European ATM system consists of 27 national authorities overseeing over a hundred ANSPs (counting en-route and local). Other comparable regions have one consistent feature - a single ANSP, overseen and regulated by a single authority. The Eurocontrol PRC commissioned a study in 2006 to research the impact of fragmentation on the efficiency of the European ATM system. The table gives an overview of the additional costs caused by the fact that Europe has a large number of service providers. The core idea of SES was to take action against those inefficiencies while proposing to establish cross-border Functional Air Blocks (FABs) and the centralised Network Manager to run certain network level services.



Cost of fragmentation in European ATM systems

	Cause of fragmentation	Annualised costs	% of cost of fragmentation
Common issues	Piecemeal procurement (mainly ATM systems)	€30m - €70m	14%
	Sub-optimal scale in maintenance and in-service development (mainly CNS)	€10m - €15m	
	Fragmented planning	€60m - €120m	
ACCs	Economies of scale in ACCs (operating costs)	€370m - €400m	53%
	Economies of scale in ACCs (capital cost)	€105m - €140m	
	Constrained sector design (flight efficiency benefits)	€50m - €100m	
ATM systems	Lack of common systems (operating costs)	€150m - €215m	23%
	Lack of common systems (capital costs)	€30m - €90m	
	Increased coordination at interfaces	€10m - €20m	
CNS infrastructure	Optimum location of en-route nav aids	€3m - €7m	4%
	Overprovision of secondary radar	€15m - €60m	
Associated support	Economies of scale in training, administrative costs and R&D	€40m - €100m	6%
Total costs of fragmentation		€880m - €1400m	100%

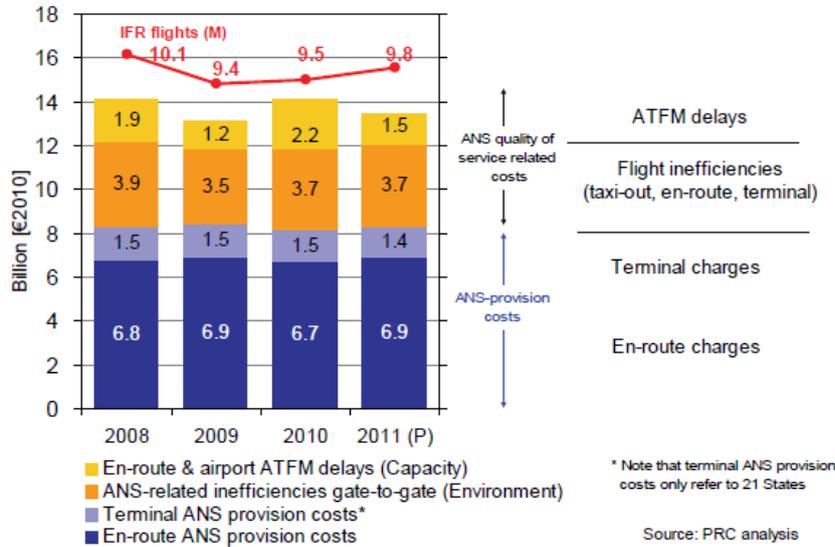
Safety

Aviation is a very safe mode of transport. There has been no accident with direct ATM contribution in 2011 and between 2000 and 2011 there have been only three major accidents in Europe, with a considerable ATM contribution. Whilst almost all accidents are caused by a combination of 5-10 individual causes, studies have shown that generally ATM is a contributor only in about 4% of all major accidents.

Cost of air traffic management

Total air navigation charges accounted for 6.2% of airlines' total operational costs in 2010. The air navigation service (ANS) costs are presented in the figure below, divided into terminal and en-route cost

Estimated ANS-related economic costs to airspace users (gate-to gate)

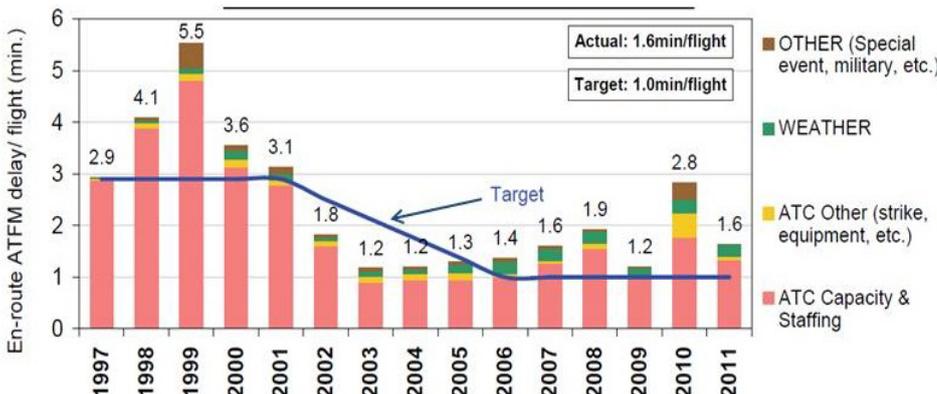
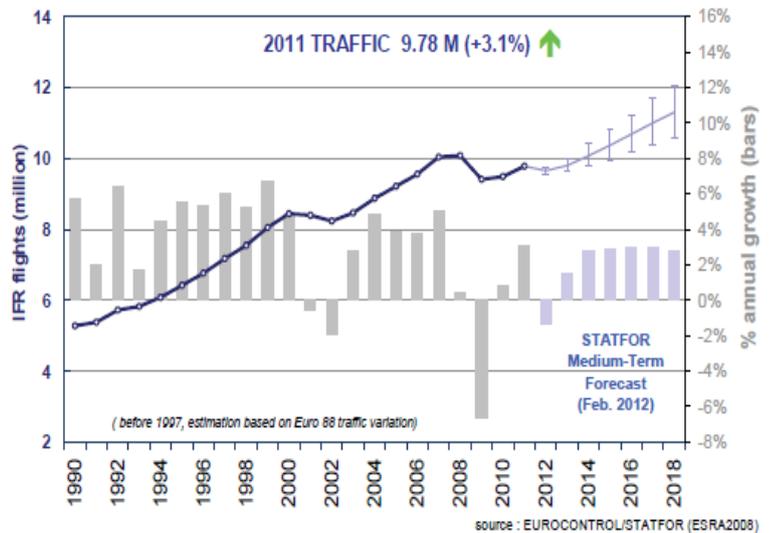


Airspace capacity

Due to the economic crisis, air traffic in Europe decreased in 2009 to recover only very slowly afterwards until 2012. Traffic is expected to grow to 11 million flights in 2018, 16% more than in 2011, with annual increase slightly above 2%.

The dip in traffic due to the economic crisis has helped alleviate the capacity crunch that was the main motivator of SES I, but as building new capacity is very slow, we need to urgently prepare for the rise that has started again. Unless we do so the long delays of the late 1990's will return with a corresponding cost to the economy and a slowing down of growth.

Development of IFR air traffic volumes (mainly airline traffic)



Delay

Despite the slow growth in traffic volumes, the congestion in airspace has prevailed and is still significantly higher than the targeted threshold (target: 1.0 min/flight in average, actual: 1.6 min/flight). In 2011, 18% of all flights were delayed by more than 15 minutes, with total delays of 17.9 million minutes. The figure below shows a development in delays that correlates strongly with traffic growth. Air traffic control capacity and staffing issues contribute the most to the delays.