

European Airspace Modernization Routes to Prosperity

Europe is in danger of missing out on a €245 billion annual boost to GDP by 2035 unless urgent reform and modernization is made to European airspace and air traffic management.

An additional 1 million jobs will be created in 2035 if modernization goes ahead. And European consumers stand to gain €32 billion a year.

Air transport currently helps to generate €766 billion in economic benefits to Europe, and nearly 12 million jobs. But a lack of airspace modernization across Europe is acting as a drag on economic growth and competitiveness to the European economy. Inefficiency in European air traffic management means unnecessary delays, increased costs, and additional CO₂ emissions.

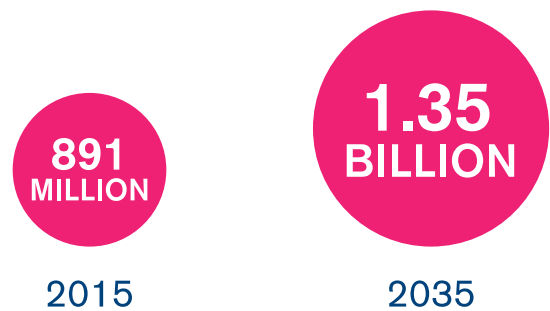
Unless action is taken, these issues will get worse as passenger numbers in Europe increase from 891 million in 2015 to 1.35 billion in 2035. This will put significant pressure on airport and airspace capacity.

European governments have been aware of the potential challenge for many years. A solution – the Single European Sky (SES) – has been developed. But progress has been painfully slow.

The International Air Transport Association (IATA) commissioned SEO Amsterdam economic research to put some economic facts behind the potential benefits of delivering the SES. The evidence they have collected is that by 2035 Europe would see an annual GDP boost of €245 billion and an additional 1 million jobs.



European passenger numbers set to grow



Source: IATA 20 Passenger Forecast

KEY POINTS

- Flight delays and congestion in Europe is set to increase
- Single European sky project supposed to resolve the problem but it is stalled
- Urgent action is needed if Europe is to reap benefits of better air connectivity

WHAT BENEFITS WILL AIRSPACE MODERNIZATION GENERATE?

GROSS DOMESTIC PRODUCT (GDP) BENEFITS

SEO Amsterdam estimates that European GDP will be boosted in each year through the period that improvements are made to European airspace. Europe-wide, these will total €245 billion annually in 2035

GDP benefits are driven by increases in employment and in productivity. The cumulative effect of productivity improvements as they cascade throughout the economy are considerable.

Productivity gains are made through:

- fewer delays & shorter flight times,
- greater frequency/connection options,
- lower costs

EMPLOYMENT BENEFITS

SEO estimates that modernizing European airspace will lead to a boost in employment in each period up to 2035, peaking at an uplift of an additional 1,000,000 jobs in 2035.

Increased employment will be driven by increased economic activity notably trade and tourism, as more flights can be added. There is a virtuous circle in that more flights drive more economic activity which in turn creates more demand for air connectivity and so on.

CONSUMER BENEFITS

The SEO report looks at consumer benefits that flow from modernized European airspace. The researchers modelled a typical flight, defined as 126 minutes, with 138 people on board.

The total consumer benefit in 2035 will be €32.5 billion annually. As with productivity, consumer benefits are comprised of fewer delays & shorter flight times, greater frequency/connection options, and lower costs, ultimately reflected in ticket prices.

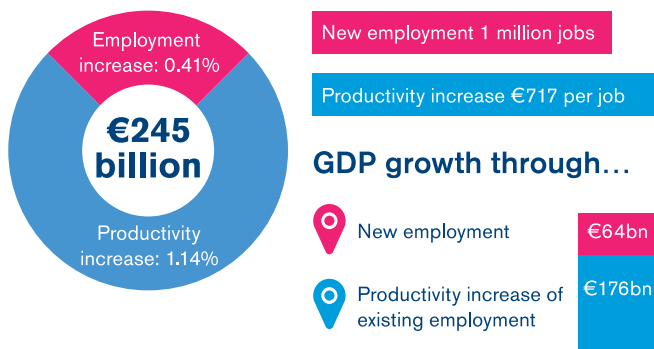
ADDITIONAL BENEFITS FROM INCREASING AIRPORT CAPACITY

Constrained airport capacity is also an issue of increasing concern in Europe. Eurocontrol has estimated a 12% shortfall in available capacity by 2035. This may not sound much but would translate into 1.9 million fewer flights, and 120 million passengers making fewer journeys – all of which is missed economic opportunity. Moreover, congestion means that the passenger experience will get worse for those who do fly.

- The SEO research indicates that resolving airport bottlenecks would release an additional €56 billion in GDP benefit and 300,000 jobs Europe-wide.

Europe-wide benefits

European GDP increase of €245 billion in 2035 is realized through new employment and productivity increases by the labor force



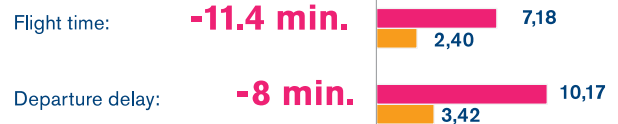
Europe (European Union 28 plus Switzerland, Norway and Turkey)

Source: SEO

Per-flight benefits

Airspace modernization leads to substantial time and cost savings on a representative intra-European return trip

Time savings



Connectivity effects



Source: SEO

SECTORAL BENEFITS

A fully modernized and reformed airspace in 2035 (compared to a “do nothing” scenario in which the status quo prevails) will generate tangible benefits. These effects will be particularly pronounced in the tourism, trade and knowledge economy sectors.

ENVIRONMENTAL BENEFITS

A key goal of the SES is to reduce the environmental impact of a typical flight by 10%. It is estimated that the present inefficiencies in European ATM waste 8 million tonnes of CO₂ each year. As the numbers of flights increase, this will increase to around 12 million tonnes. Lack of capacity on the ground also causes unnecessary stacking of flights in the air.

Reform of air traffic management to introduce straighter routes, and implementation of new technology and procedures in terminal airspace, will help to eliminate these wasted emissions.

WHAT DOES AIRSPACE MODERNIZATION MEAN?

The SEO Research is predicated on the goals of the Single European Sky being implemented in 2035, with incremental improvements occurring in the 20-year period prior.

The SES goals are for:

- Improvement in safety performance by a factor of 10
- 3-fold increase in capacity,
- Reduction in environmental impact of 10%
- Reduction in costs of 50%

Modernization also means specific technological and operational improvements are implemented. These are outlined in the SES ATM Research (SESAR) masterplan. In the near-medium term this means implementing six ATM functionalities, namely:

1. Extended Arrival Management and Performance Based Navigation in identified High Density Terminal Maneuvering Areas;
2. Airport Integration and Throughput;
3. Flexible Airspace Management and Free Route;
4. Network Collaborative Management;
5. Initial System Wide Information Management; and
6. Initial Trajectory Information Sharing

Consumer benefits

Airspace modernization unlocks billions in benefits to consumers, through a combination of more connections, fewer delays and reduced costs and flight times

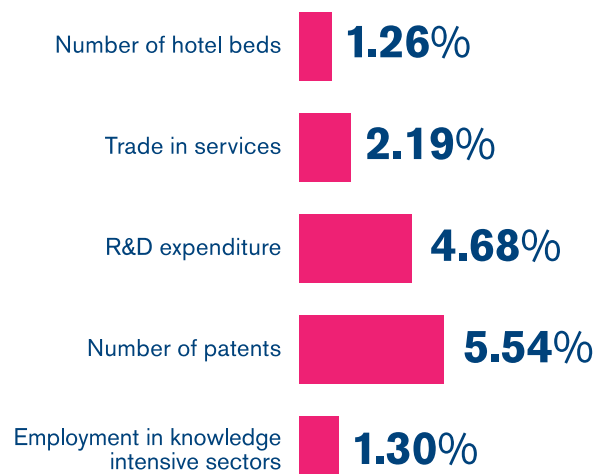


Benefits of airspace modernization

Source: SEO NetCost

Sectoral benefits

Airspace modernization has particularly positive effects on tourism, trade, innovation, employment in knowledge intensive sectors and productivity



Source: SEO Analysis

“Air traffic management inefficiency is not just a burden for airlines. Travelers suffer wasted time from delays. The environment suffers from avoidable emissions. And businesses face reduced productivity. Combined, all of this has a cost on Europe’s competitiveness. And the cost is shared broadly. Every European—individual or business—has a stake in this issue. But change is possible. Working together for strategic modernization and reform, we can make Europe’s skies fit for the future.”

Alexandre de Juniac, IATA Director General and CEO



SEO Amsterdam Report

WHAT'S NEEDED TO KICK-START PROGRESS

If Europe wants to achieve the benefits outlined in the SEO Amsterdam report, it needs to act immediately to reform and modernize its airspace.

Implementation of the Single European Sky is stalled. But research commissioned by IATA shows that governments have a number of options to move modernization forward, without impacting on jobs or requiring extra investment.

IATA is calling on Italy to create a National Airspace Strategy, against which progress towards the optimization of air traffic management in line with the SES goals can be measured.

A National Airspace Strategy should consist of the following key elements:

- Governance inclusive of industry
- Meaningful consultation with airspace users
- Milestones/interim key performance indicators towards delivery of SES goals
- Cost/benefit analysis
- Integration with wider European airspace network to maximize efficiency
- Link with domestic noise/environmental legislation
- Linkage with national defence requirements

For more information, please visit

www.iata.org/europe-airspace