FACT SHEET

Aviation, supported by air traffic management (ATM), is a key driver of EU economic growth, jobs and trade, and essential for the life and mobility of its citizens. However, the current ATM system is highly fragmented and reliant on ageing technology, leading to inefficiencies of €4 billion annually. The role of SESAR is to define, develop and deploy what is needed and build a safer, more efficient and connected, greener ATM system for Europe in aviation and air transport.

The aviation industry employs around **1.4 million** people and supports between 4.8 and 5.5 million jobs.

Aviation contributes an overall impact of **€110 billion** to the EU's GDP[1].

SESAR'S THREE PHASES

2005 – 2008

Definition Phase

Total of €60 million: EU funded €50 million and industry funded €10 million

2015 – 2024

Development Phase – Under the responsibility of the SESAR Joint Undertaking

SESAR 1 Programme (2008-2016): €2.1 billion
SESAR 2020 Programme (-2024): €1.6 billion
The EU, industry and Eurocontrol each contribute one third to the total funding

2035

Deployment

Estimated cost between €18 billion and €28 billion. 10% is expected to be funded by the EU, with the remainder funded by the aviation sector

Lorem ipsum

SESAR JOINT UNDERTAKING

A unique public-private partnership, in place since 2007

2 founding members: EU and Eurocontrol

19 industry members

100+ companies from across air traffic management

60+ universities, research centres and SMEs

3,000 experts from aviation and ATM

OUR VISION

With SESAR, the future of air traffic management is characterised by:

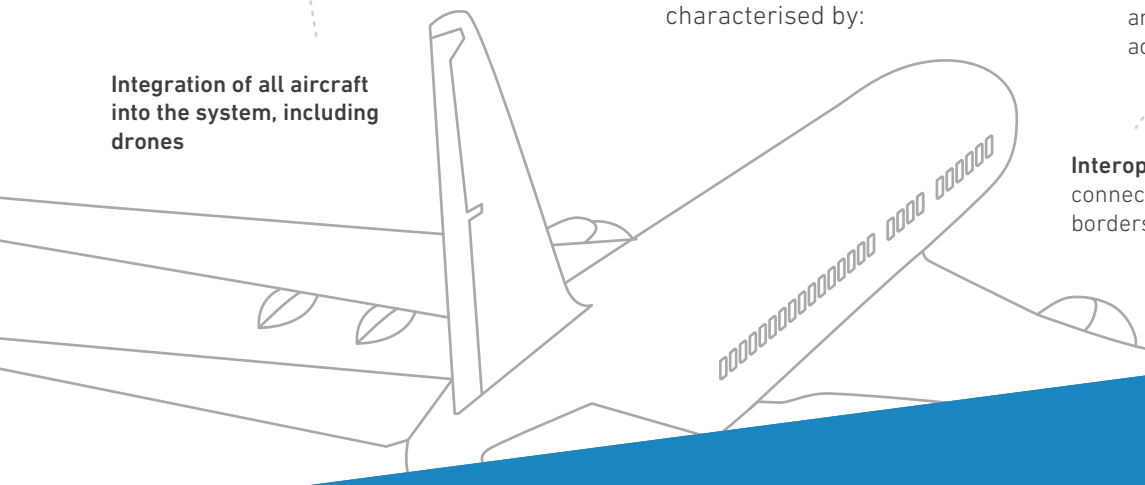
Increased virtualisation, regarding provision of services irrespective of the location of physical infrastructure

Integration of all aircraft into the system, including drones

Flight-centric operations, so airlines can fly their preferred routes

Improve information sharing, creating an intranet of services and applications accessible by all aviation stakeholders

Interoperable systems, allowing connectivity of systems across borders



1 European Commission aviation sector

MILESTONES

In **2016**, **completion of SESAR 1** research activities and **delivery of SESAR Solutions Catalogue**.

In **2015**, the world's **first flight trial of a large civil drone integrated into commercial traffic**.

The opening in **2014** of **the world's first remote tower facility** in Sweden. These towers can serve Europe's remote locations and boost regional economies. Sweden plans to launch another 12 remote towers in coming years. Germany and Ireland have expressed interest too.

In **2013**, the SESAR JU delivered a first set of solutions selected by the European Commission for Europe-wide deployment[2], coordinated by the SESAR Deployment Manager. The **24 solutions** to be deployed between **2015 and 2024** across Europe are expected to deliver approximately **12.1€ billion worth of performance gains for some 3.8€ billion of investments**[3].

The world's first flight in four dimensions (4D spatial dimensions + time) in 2012 and 2014 to enhance flight predictability and therefore punctuality and efficiency.

OUR ACHIEVEMENTS

Since its establishment, the SESAR JU and members have taken ATM research 'out of the lab' into real systems and real-life air traffic operations across Europe and internationally. They have:

Conducted **300** industrial research projects

350 validation exercises

30,000 flight trials

More than **90** industrial prototypes

Dozens of exploratory projects to push the boundaries of ATM knowledge and aviation

60 new or improved operational procedures and technologies (SESAR Solutions)

BENEFITS

SESAR offers benefits in several key areas:

Digitisation

Remote tower & virtual tech rollout, better information exchange and cross-border collaboration, all air vehicles (including drones) integrated into Europe's airspace

Investment

1.4€b in R&D (,(2024-2016 3.8€b in 24 deployment solutions, EU-wide (2024-2015) generating 12.1€b in performance gains

Decarbonisation

Greener flight routes, 500-250kg fuel savings per flight & 10kg per passenger

People

Shorter travel times, better mobility & connectivity, less noise & congestion around airports, consumer savings, 4-3 times better safety SESAR Solutions Catalogue.

SESAR 2020

SESAR 2020 provides the tools and funds to meet the goals set out in the EU Aviation Strategy **for a Single European Sky**. It builds on the results of its predecessor, capitalising on lessons learned, and helping to forge stronger relationships and focus energy on achieving critical scale to deliver market-ready innovations in a timely, cost-effective way.

Research and innovation activities will continue under SESAR 2020, **with focus on four areas:**

- High performing airports (estimated 25% of 2020 industrial research budget)
- Advanced air traffic services (24%)
- Optimised ATM network services (14%)
- Enabling aviation infrastructure (37%)

The programme will create an innovation pipeline, moving ideas into industrial research and large scale demonstrations.

- €20 million will ensure the safe integration of **drones** into airspace. By 2050, drones will represent a quarter of air traffic.
- €12-15 million will address **cyber security** to ensure information can be shared securely among all stakeholders.
- €85 million will be used to fund **exploratory research** projects.

2 Commission Implementing Regulation (EU) No 716/2014 of 27 June 2014 on the establishment of the Pilot Common Project supporting the implementation of the European Air Traffic Management Master Plan

3 Official proposal on the content of the PCP (edition 1.0), 6 May 2013, SESAR Joint Undertaking. All figures are undiscounted.