



SESAR *from research to deployment*

Mariagrazia La Piscopia – SESAR Deployment Manager

Digital Transport Days – Helsinki – October 9th, 2019



LET'S DELIVER TOGETHER

What is SESAR and the role of the SESAR Deployment Manager



SESAR Deployment: translating R&D into a reality

Modernizing the Air Traffic Management across Europe



The **Single European Sky ATM Research** project is the technological pillar of the Single European Sky initiative. It is the key instrument to **modernize** European Air Traffic Management systems and infrastructures

Research and Development (R&D) ▶ Deployment

Planning, definition, development, validation and industrialization

Clear objectives

Synchronized investments for a coordinated implementation at EU level

The **SESAR Joint Undertaking**, responsible for **defining and developing solutions to address ATM challenges**



A unique body to lead



The **SESAR Deployment Manager**, responsible for **synchronizing / coordinating the deployment activities**

The **ATM Master Plan**, the key planning tool defining **technologies** to improve ATM operations



A common roadmap



The **SESAR Deployment Programme**, a blueprint for stakeholders' investment plans for **Common Projects**, the part of the ATM Master Plan made mandatory by EU law

Horizon 2020 (and previously FP7) directly supporting the R&D activities



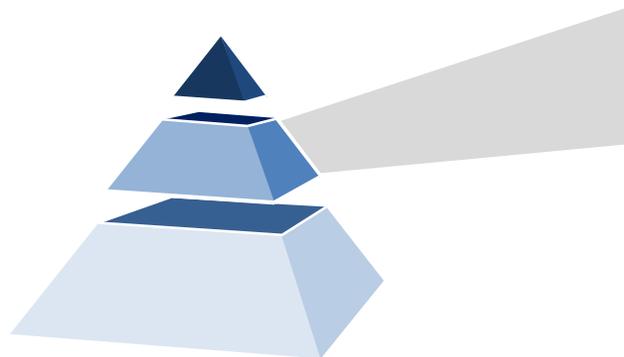
EU funding support



CEF co-funding the implementation activities and the **coordination of investments**

ATM industry stepping up for the challenge

How operational stakeholders are working to synchronize their investments



The SESAR Deployment Manager is an industrial partnership of investing stakeholders, working together to coordinate deployment

- 5 major Airlines
- 24 Airports
- 13 ANSPs



The Partnership has been **delegated with this role** by EC as a result of a **Call for Proposals** in 2014

Fulfilling its mandate to **manage and coordinate the deployment of SESAR**, SDM is entrusted to be the **Coordinator of all Implementation Actions** dealing with the implementation of **Common Projects**. Under this role, SDM works to:

- Synchronize major ATM investments
- Defragment and de-risk deployment
- Manage payments, checks and audits
- Ensure effective information flows

The numbers of the Framework Partnership

An unprecedented coordination of investments and stakeholders

€ 2.9 bln
Overall
Investment



8
Coordinated
Actions



94

Beneficiaries

- 11 Airlines
- 33 ANSPs
- 19 Airport Operators
- 12 Industry / Providers
- 6 Militaries
- 11 MET Providers
- the Network Manager
- SDM (as coordinator)

349

Implementation Projects



€ 1.3 bln
Co-funding
grants



27
EU Member
States





 **Co-financed by the European Union**
Connecting Europe Facility




Partnering in #SESAR deployment

SESAR: the technological pillar of the Single European Sky
www.sesardeploymentmanager.eu

Digitalization: a key aspect of SESAR Deployment

Implementing Projects on the key pillars of the future Digital European Sky: highlights

Data Link Services

Moving from voice communications between Pilots and Controllers to data exchanges
(20 projects, involving more than 20 stakeholders)



System Wide Information Management (SWIM)

Standardized communications to seamlessly exchange ATM data between all stakeholders
(almost 100 projects)



A cybersecure ATM infrastructure

Deploying new tools and components to enhance the safety and security of ATM operations across all Europe
(almost 30 projects)



Digital Systems in the Control Tower

Bringing automation into the airport operations, enhancing safety and efficiency of all aircraft movements
(almost 35 projects)



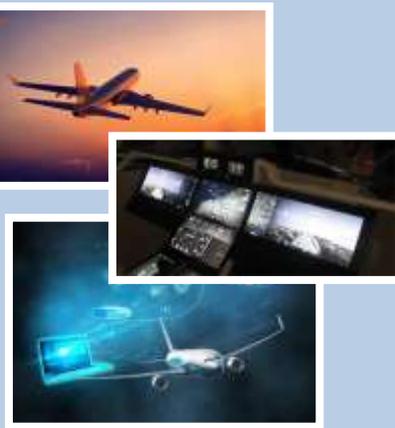
Flight Object (IOP)

Sharing detailed flight information in real time and at all stages across all ATM systems
(soon to be launched)



Extended Projected Profile

Automatic provision of aircraft data (trajectory, flight performance, etc.) to the ground to improve operations
(soon to be launched)



The SESAR “pipeline”: from R&D to deployment

The example of Extended AMAN

Extended Arrival Management Horizon

An innovative concept to **synchronize and sequence arriving flights**, for a **smooth, predictable and efficient flow** with no last minute interventions

Extending the range of this flow up to 400 km, **delays are lowered**, **noise and CO₂ emissions are cut**, as **less fuel is consumed** by arriving flights



Research and development



The **SESAR Joint Undertaking** and its Members (ANSPs, manufacturing industry, etc.), **supported by EU funding**, developed the **dedicated Solution #05** on this subject

Definition, development and validation activities were carried out in operational environments (e.g. **Amsterdam, London**) to achieve the **full maturity of the solution**

Deployment

Once the full maturity was achieved, the **SDM** started synchronizing its implementation **across EU major airports**



SDM is coordinating **around € 35 mln** of investments, co-funded under CEF Calls 2014, 2015 and 2016.

The implementation affects **17 of the major airports**, accommodating more than **700 million passengers**

Operational benefits

Once completed, the full implementation of **Extended AMAN** would lead to **benefits for all EU stakeholders and passengers**



It is estimated that the **benefits** coming from the implementation in all 24 airports will amount to **€ 800 mln in the timeframe 2014-2035**, thanks to **lower delays and reduced fuel consumption**



Thank you very much!

For questions, please contact:
mariagrazia.lapiscopia@sesardeploymentmanager.eu

follow us on Twitter [@SESAR_DM](https://twitter.com/SESAR_DM)

follow us on [LinkedIn](#)



LET'S DELIVER TOGETHER