

As One behind SESAR deployment





AS ONE BEHIND SESAR DEPLOYMENT

The Single European Sky is an ambitious initiative launched to modernise European air traffic management, making it safer, more cost-efficient and environmentally friendly. As the technological pillar, SESAR, is harnessing new technologies and accelerated digitalisation to contribute to making SES a reality. SESAR is composed of three phases: definition, development and deployment. Discover SESAR, a groundbreaking collaborative program aimed at modernizing and harmonizing ATM systems across the continent. Delve into the regulatory framework of Common Projects, which set out specific targets and timelines for essential ATM functionalities. Learn how common projects play a key role in enriching the performance of ATM operations. Meet the SESAR Deployment Manager, the orchestrator behind the deployment of these changes, and explore the unpredictable factors challenging ATM modernization.



Framework

The completion of the Single European Sky is defined as a policy priority by the EC for the Aviation sector: such completion is highly dependent on the progress made with the implementation of its technological pillar, SESAR, which is reflected in the EU ATM Master Plan and in the SESAR Deployment Programme.

SESAR is a collaborative program established to modernize and harmonize ATM systems across Europe. Its deployment phase, coordinated by SESAR Deployment Manager, involves the synchronised implementation of innovative technologies, operational procedures, and infrastructure upgrades to enhance airspace capacity, safety, efficiency, and environmental sustainability.

Common Project One (CP1), as defined by European Union Regulation 2021/116, serves as a the framework guiding SESAR deployment activities. CP1 sets out specific performance targets, operational requirements and timelines for implementing essential ATM functionalities. It lays the foundation for a seamless and integrated European airspace whilst at the same time increasing its overall performances, reducing delays, congestion, and enabling a significant reduction of the environmental impact of aviation.

Without the timely deployment of CP1, the goal of building more sustainable, resilient, efficient, and effective ATM in Europe will become more difficult to achieve, with negative short and mid-term outcomes for the aviation industry as a whole, as well as for the European passengers.







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Partners involved in SESAR deployment.







The Role of Common Projects in ATM Modernization

Common Projects play a vital role in coordinating and harmonizing ATM modernization efforts within the SESAR framework. By establishing clear objectives and requirements, timelines, and performance targets, Common Projects facilitate collaboration among stakeholders, including air navigation service providers, airports, airlines, and regulatory authorities.

These Projects promote the adoption of standardized SESAR solutions and interoperable technologies, ensuring compatibility and consistency across different the whole European airspace. Moreover, Common Projects enable economies of scale by pooling resources and expertise, thereby optimizing investment and maximizing the benefits of ATM modernization initiatives.

Common Projects play an essential role in guiding ATM modernization through SESAR deployment: they foster collaboration, standardization, and harmonization among all involved operational stakeholders. Through concerted efforts and sustained cooperation, stakeholders can leverage on the potential of common projects to transform the future of air traffic management and unlock sustainable growth for aviation.







Civil - Military collaboration

Modernisation through SESAR deployment contributes to the dual use of the European airspace and the underpinning Air Traffic Management infrastructure and systems, both for civilian and military/defence purposes.

Integrating the movement of military troops or assets, the main objective of the EU military mobility approach, is one of the objectives of the CP1, ensuring that military operations can be accommodated in the European Network without any prejudice to the safety and performance of all operations.

As SESAR deployment addresses and facilitates early and synchronised adoption of CP1, it is considered that a better use of the European airspace would increase the efficacy of European militaries, which is increasingly important in the current geopolitical scenario.

In particular, a more effective and efficient provision of air navigation services in Europe will benefit all types of Airspace Users flying into the European airspace, be it commercial or military traffic. This becomes evident when considering that military air forces manage the biggest fleet in Europe (more than 12.000 aircraft operated), and as such will directly take advantage of the possibility of operating such fleet in a safer, efficient, and environmentally efficient manner.









Countries involved in SESAR deployment.







As One team behind SESAR deployment

SESAR Deployment Manager

The SESAR Deployment Manager role and function is defined by the Article 9 of European Commission Implementing Regulation (EU) N°409/2013. Under the oversight of the European Commission, this function consists of the synchronization and the coordination of the deployment of a set of essential functionalities in the European ATM Master Plan by the Member States of the European Union and their operational stakeholders.

The SESAR Deployment & Infrastructure Partnership (SDIP) is the organization which has been selected by the European Commission on 01/06/2022 to perform the SDM function until 2027.

A strong industrial partnership stands behind SESAR Deployment Manager under the oversight of the European Commission. It represents all perspectives and standpoints of the operational stakeholders from the ATM industry:

4 Airlines: covering 3 million flights with around 500 million passengers per year (one third of the overall European passengers) with an operating network that touches all EU Member States;

15 Air Navigation Service Providers: safely controlling around 8 million flights per year (around 80% of the air traffic in the EU), as well as all major traffic flows operated in Europe;

Airports: ACI Europe representing over 500 airports of every size across 55 countries, able to provide the full airport operational perspective;

EUROCONTROL - Network Manager as the consortium coordinator: the best placed to provide a network-wide view, both in terms of technological deployment but also in terms of operational interoperability to ensure seamless functioning of the European ATM network.





PROJECTS



The number of projects in operation delivering benefits to passengers today.







Unpredictable factors impacting ATM modernization

While ATM modernization in Europe holds great promise for improvements, the aviation industry will always be subject to a myriad of unpredictable factors ranging from weather events to technical aspects, political, social, and economic dynamics. Adapting to these challenges requires robust contingency planning, stakeholder engagement, and a flexible approach to ensure the resilience and sustainability of ATM systems in the face of uncertainty.

One of the foremost unpredictable factors is the weather. Adverse weather conditions such as storms, heavy fog, or volcanic eruptions can disrupt air traffic, leading to delays and cancellations. These disruptions not only affect the operational capacity of ATM systems but also pose challenges to the implementation of new technologies and procedures. However, SESAR deployment and ATM modernisation includes specific technologies to make sure such weather events can be mitigated and their impact on air travel can be reduced to the minimum.







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Dedicated members forming the beating heart of SESAR deployment.





Delivering benefits to European passengers, citizens, environment and economy **Partnering in #SESAR deployment - March 2024**





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EVOLUTION



Of Common Project One deployment implemented or in progress.



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