

Strategic Deployment Monitoring report 2025

Table of Contents

1	<i>Introduction.....</i>	2
1.1	Purpose	2
1.2	Scope.....	2
2	<i>Progress of the deployment activities.....</i>	3
2.1	Completion of CP1: substantial achievements, with isolated delays.....	4
2.2	SDOs: industrialisation under way and first signs of deployment intent by early movers .	5
2.2.1	Industrialisation progress snapshot	6
2.2.2	Implementation by first early movers	6
3	<i>Investments.....</i>	8
4	<i>Main attention points for 2026</i>	10

List of Figures

Figure 1: Scope of the strategic deployment monitoring report.....	2
Figure 2: Deployment status of SESAR Solutions delivered by SESAR development activities	3
Figure 3: Deployment progress across Phases A, B & C.....	4
Figure 4: CP1 implementation status as of December 2024	5
Figure 5: Strategic Deployment Objectives (SDOs).....	5
Figure 6: Average Solution industrialisation rate per SDO	6
Figure 7: Map of completed DSDs exercises.....	7

1 Introduction

1.1 Purpose

The Strategic Deployment Monitoring Report provides an annual update on the progress of the deployment activities supporting the implementation of the European ATM Master Plan 2025 (Master Plan), ensuring alignment with performance ambitions and strategic vision.

The Master Plan is the strategic roadmap for the digital transformation of European ATM, defining the operational and technological changes required to modernise the system, achieve performance ambitions, and deliver a safe, sustainable, and efficient Digital European Sky. Its effective implementation is therefore essential to ensuring that Europe's ATM infrastructure evolves in line with future capacity, environmental, resilience, and cost-efficiency needs.

This report is submitted to the Governing Board (GB) of the SESAR 3 JU for information. By providing a consolidated overview of progress, challenges and emerging needs related to the deployment phase of the SESAR innovation pipeline, it aims to support the GB in taking informed strategic decisions to steer the Digital European Sky (DES) programme.

1.2 Scope

The Strategic Deployment Monitoring Report aggregates information of executive relevance on the status of SESAR deployment covering the **industrialisation**¹ and **implementation**² phases (see Figure 1).



Figure 1: Scope of the strategic deployment monitoring report

The strategic deployment monitoring report 2025 is aligned with the new Master Plan and presents the aggregated information on the status of SESAR deployment progress **up to the end of 2024**.

The information used for deployment monitoring is collected with the support of the AMPLE 3 project. It draws on sources such as EUROCONTROL, the SESAR Deployment Manager, and the Performance Review Board.

The Strategic Deployment Monitoring Report is complemented by the Strategic Development Monitoring Report, which assesses the progress in development activities (up to TRL6).

¹ 'Industrialisation' refers to activities and processes, following their validation that include regulation, standardisation, certification and production by the manufacturing industry (ground and airborne equipment manufacturers).

² 'Implementation' refers to the procurement, installation, testing, training and putting into service of equipment and systems, including associated operational procedures, carried out by operational stakeholders.

2 Progress of the deployment activities

The European ATM Master Plan defines the pathway to deliver the Digital European Sky (DES). The roll-out is divided into four phases (A-D). Phase A addresses known critical network performance deficiencies, Phase B delivers efficient services and infrastructure, Phase C defragments European skies through virtualisation and dynamic airspace configuration, and Phase D achieves the Digital European Sky.

By the end of 2024, a total of 139 SESAR Solutions³, covering the entirety of Phases A & B and 2/3 of Phase C, had completed their development activities and were delivered for deployment⁴.

Of these, 38% are under industrialisation and 62% are under implementation, of which 20% fully deployed (Figure 2).

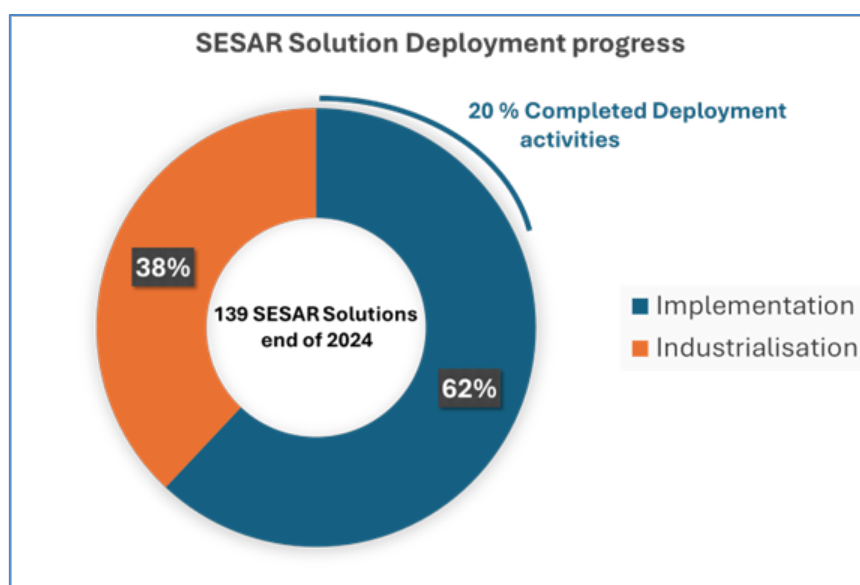


Figure 2: Deployment status of SESAR Solutions delivered by SESAR development activities

³ The 139 delivered SESAR Solutions are accessible in the [SESAR Solutions Catalogue](#).

⁴ A complete status of the development activities is provided in the Strategic Development Monitoring Report.

The deployment of the SESAR Solutions is progressing steadily across all 3 phases (Figure 3).

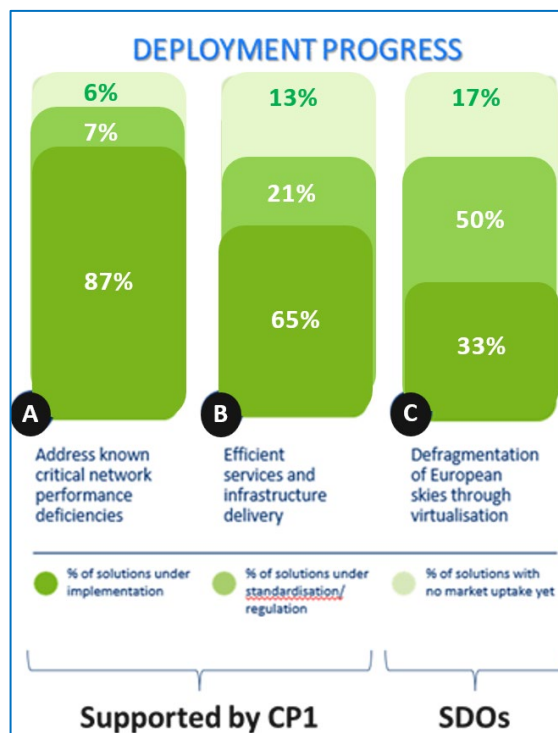


Figure 3: Deployment progress across Phases A, B & C

For Phases A and B, this deployment is supported by the Common Project (CP) 1, while the deployment of Phase C is linked to the Strategic Deployment Objectives (SDOs) outlined in the Master Plan. The deployment of Phase C will be supported by CP2, which is currently under preparation.

2.1 Completion of CP1: substantial achievements, with isolated delays

Through CP1⁵, the European Commission has mandated the implementation of six essential ATM functionalities (AFs) across Europe by the end of 2027. The implementation of CP1⁶ (covering Phase A & B) is progressing towards completion for both civil and military stakeholders. At the end of 2024, 46% of CP1 elements are already in operation, and when ongoing projects are included, overall progress should reach 91% (Figure 4). This represents a significant step forward compared to last year and shows clear progress towards closing a 10-year cycle of modernisation: overall milestones are on track with isolated delays observed.

⁵ European Commission Implementing Regulation no. 2021/116 on the establishment of the Common Project One supporting the implementation of the European Air Traffic Management Master Plan.

⁶ CP1 deployment progress is tracked through the SESAR Deployment Programme Monitoring View, whose data are collected through the LSSIP+ tool and dedicated questionnaires.

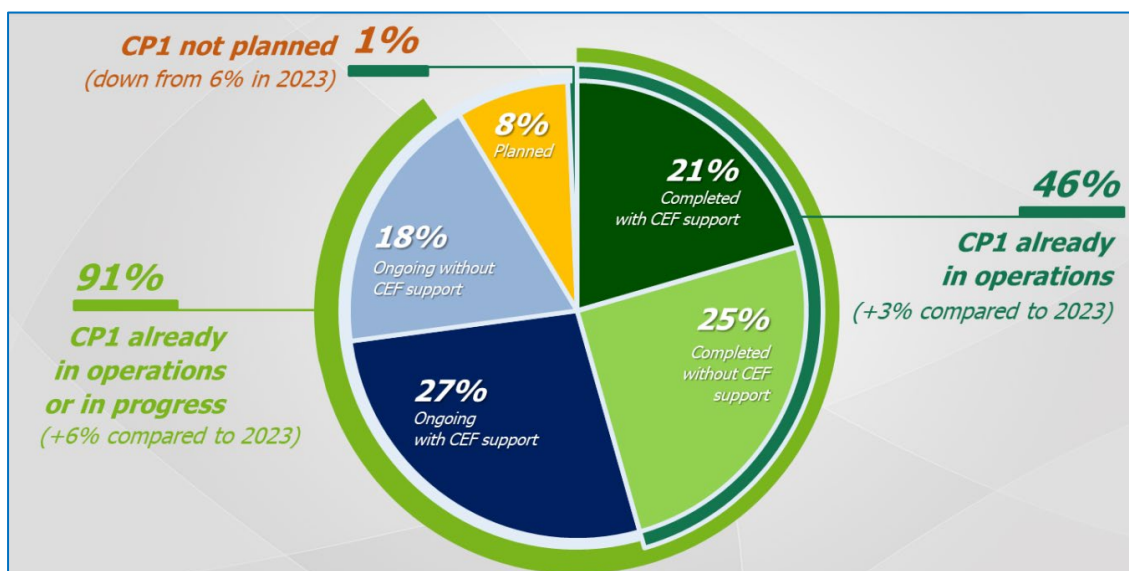


Figure 4: CP1 implementation status as of December 2024.⁷

The successful implementation of the ATM functionalities “system wide information management” (AF5) and “Initial trajectory information sharing” (AF6), where implementation timelines are encountering some delays, is a strategic imperative for delivering on the Master Plan objectives.

2.2 SDOs: industrialisation under way and first signs of deployment intent by early movers

The SDOs (Figure 5), which cover Phase C, represent the next wave of SESAR deployment beyond CP1 and will form the foundation of the upcoming CP2. While CP2 will be the main regulatory instrument supporting their deployment, not all SDOs will fall within its scope, meaning that part of their rollout will rely on voluntary implementation. A coverage of the SDOs included in the upcoming CP2 will be provided in the next Strategic Deployment Monitoring Report.



Figure 5: Strategic Deployment Objectives (SDOs)

⁷ SESAR Deployment Programme Monitoring View 2024 (Delivered on 19 June 2025)

Encouragingly, several SDOs are already progressing into industrialisation and implementation ahead of CP2's finalisation, demonstrating strong stakeholder commitment and early movement in the right direction.

This section reviews their progress and the first signs of voluntary uptake by early movers, both civil and military.

2.2.1 Industrialisation progress snapshot

The Industrialisation process has already started for all SDOs. Although some SDOs show very good industrialisation rate⁸, progress is uneven and requires close monitoring to determine when and where coordinated deployment will deliver maximum impact (Figure 6).

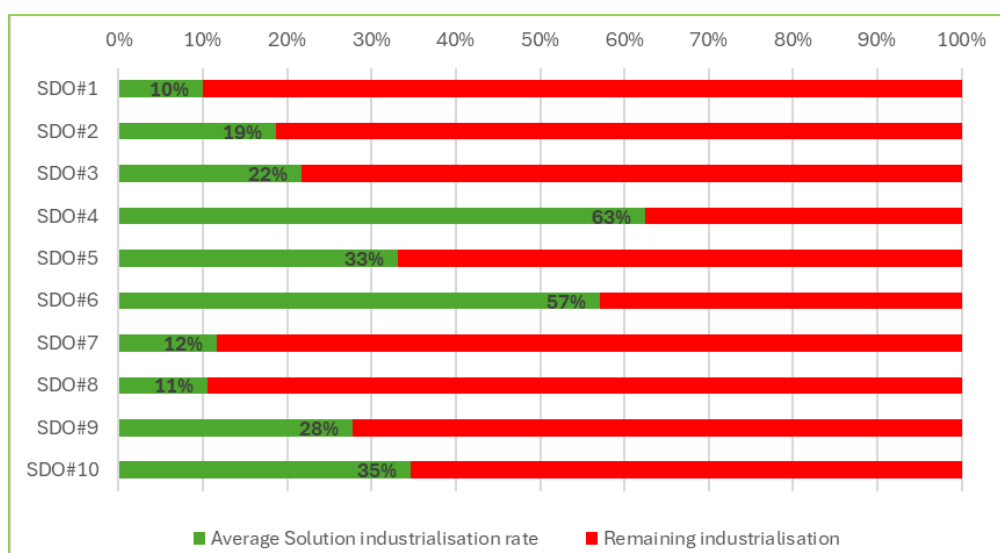


Figure 6: Average Solution industrialisation rate per SDO

2.2.2 Implementation by first early movers

By the end of 2024, encouraging signs of intention to implement the SDOs by early movers is already visible through the submitted RP4 plans covered in the next section.

In addition, 9 Digital Sky Demonstrators projects were ongoing⁹, delivering on SDO#2, SDO#5, SDO#6, SDO#7, SDO#8, and SDO#10. By that date, exercises were completed for DSD projects covering SDO#2 and SDO#10 (as shown in Figure 7).

⁸ The “industrialisation rate” of a Solution is computed as the average of the industrialisation rate of all the industrialisation needs of its mandatory enablers. It is considered to be zero for Solutions still in the development phase.

⁹ These DSDs projects were awarded under the DSD1a, 1b and 2 calls.

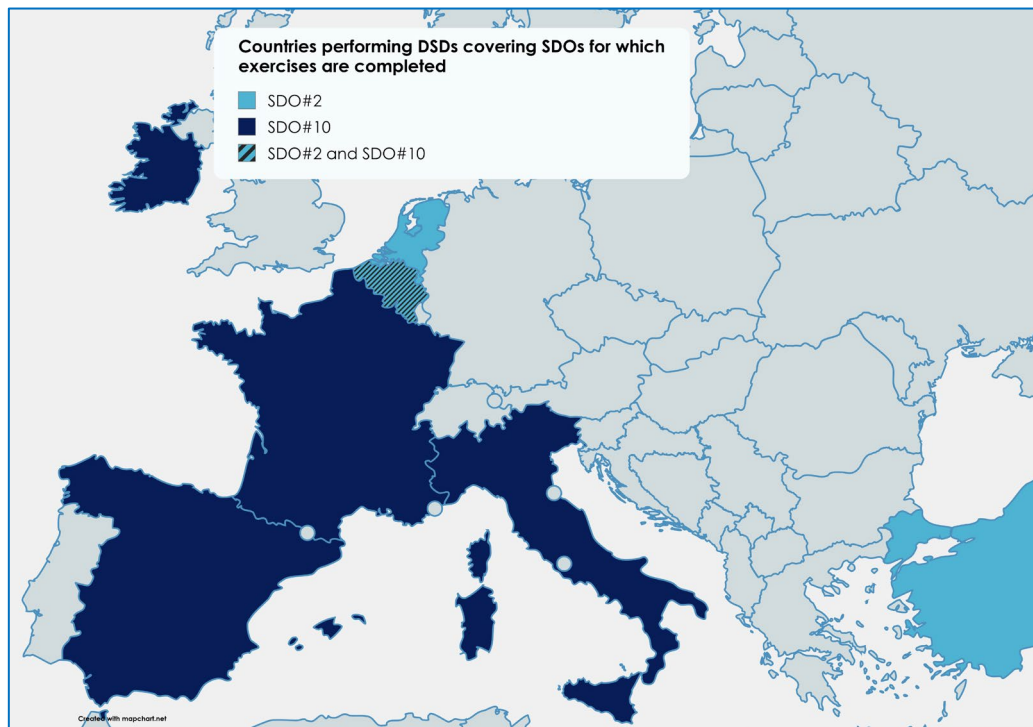


Figure 7: Map of completed DSDs exercises

3 Investments

As part of the Single European Sky (SES), the European ATM Master Plan sets out the vision and the priorities for the modernisation of European ATM through (beyond CP1) the implementation of the Strategic Deployment Objectives (SDOs) which are currently considered for CP2.

The Master Plan places strong emphasis on the coordination of SES instruments as a critical condition for the successful implementation of the SDOs and for effectively steering related investments. To that end, the SESAR 3 JU Governing Board, in February 2024, endorsed the main principles guiding investments in SDOs, namely that:

1. SDOs defined in the ATM Master Plan shall be the reference for prioritising investments in RP4 performance plans;
2. The overall consistency of investments with the ATM Master Plan shall be better ensured; and
3. The guidance material shall specify what costs related to SDOs can be included in RP4 performance plans.

As a concrete step to reinforce this alignment, a new reporting template (Annex V) was introduced in the RP4 performance plans, enabling Member States to declare the consistency of their planned investments with the Master Plan, in accordance with Article 23(9) of the SES2+ Regulation. This alignment is essential as it:

- ensures that technological investments are consistent with EU-level targets and the Master Plan ambitions and deliver measurable performance outcomes;
- enables the Performance Review Board (PRB) to monitor the contribution of national investments to SES2+ objectives and Master Plan ambitions; and
- fosters coordinated and synchronised deployment across the European network, avoiding fragmentation and duplication of effort.

According to the PRB, in the draft performance plan submitted, 15 Member States indicated consistency with the Master Plan through Annex V, reporting a total of approximately €700 million of investment costs related to the SDOs. These initial declarations constitute a positive signal from a majority of Member States and an encouraging first step towards more systematic alignment with the Master Plan.

However, the PRB highlights that the data included in Annex V, as well as its comparability with information provided in other parts of the performance plans remain limited and should be improved to support robust analysis at EU level.

Despite these limitations, and while the RP4 Performance Plans are still awaiting final adoption across all Member States, placing the Master Plan's expectations alongside the PRB's assessment of the RP4 draft plans (as illustrated in the table below) already reveals a clear message: the journey has begun on a promising note, yet the collective ambition still falls short of what the future calls for. Achieving the objectives set out in the Master Plan requires investments of around €2.1 billion for RP4 (2025–2029) for the SDOs, meaning that the investments planned so far potentially fall significantly short of the required level. If this potential under-investment is confirmed and not corrected, it could delay

the roll-out of the Master Plan and shifting an excessive investment burden onto RP5 (2030–2034), where needs are already estimated at around €6 billion.

Table 1: RP4 Investments: Master Plan investment needs compared to draft RP4 Performance Plans

	ATM Master Plan investment needs in RP4 CAPEX ¹⁰ (in million €)	Draft RP4 Performance Plans determined costs ¹¹ (in million €) pending positive opinion
CP1	487	988
SDOs	2100	700
Write-offs	1400	N/A

Looking ahead into 2026, the PRB and the SESAR 3 JU will work together to further strengthen the monitoring of investment related to the implementation of the Master Plan which should also result in an improvement of the quality of information reported in Annex V. Member States are strongly encouraged to provide this information with a complete and consistent yearly reporting. Close cooperation between the PRB, the Commission and SESAR 3 JU will be essential to align their monitoring processes. Strengthening this cooperation is key to ensuring that the two SES instruments - the Master Plan and the performance scheme - work hand in hand to drive the investments needed for the timely deployment of the Digital European Sky as envisaged in the Master Plan.

¹⁰ Cumulative ANSPs Capital Expenditure.

¹¹ Total aggregated RP4 costs, i.e. depreciation, cost of capital, and operating costs.

4 Main attention points for 2026

This report reflects tangible progress achieved over the past year in deploying SESAR Solutions and advancing the implementation of the Master Plan. To build on this momentum, several key areas have been identified for focused attention and action in 2026:

- Finalise the implementation of CP1: with CP1 entering its final phase, the essential remaining work to deliver the Master Plan objectives will focus on “*system wide information management*” (AF5) and “*Initial trajectory information sharing*” (AF6).
- Shaping the next phase of deployment: SDOs represent the next wave of SESAR deployment beyond CP1, driving the evolution of a more integrated and future ready European ATM system. The next phase is under definition with the drafting of the CP2 proposal, which is based on selected SDOs, helping to determine when and where coordinated deployment will deliver maximum impact. *(Covered under the SESAR 3 JU BAWP 2026-2027 Objective 2)*
- Regulatory alignment: To ensure that the industrialisation process is as efficient as possible, SDO deployment shall be supported by an enabling technical regulatory framework. *EASA EPAS Vol II 2026*.¹² already addresses regulatory needs.¹³ for SDO#1, SDO#3 and SDO#7. In 2026, further EPAS alignment with the Master Plan is necessary to secure successful voluntary deployment for all SDOs. *(Covered under the SESAR 3 JU BAWP 2026-2027 Objective 5)*
- Securing and aligning investments: Successful SDO deployment requires appropriate and strategically aligned investments with the Master Plan. Building on the strong collaboration between the SESAR 3 JU and the PRB, the next report will place greater emphasis on strengthening the visibility and traceability of these investments throughout RP4, making sure that resources are strategically directed where they deliver the highest impact.¹⁴ *(Covered under the SESAR 3 JU BAWP 2026-2027 Objective 1)*

¹² <https://www.easa.europa.eu/en/epas-2022-2026-volume-ii>

¹³ This is related to the risk “EASA’s regulatory framework is not sufficiently supportive for a critical mass of early movers to deploy the priorities identified in the Master Plan” and its mitigation action identified in the Master Plan, p. 61.

¹⁴ This is related to the risk “Investments in deployment priorities identified in the Master Plan are not supported” and its mitigation action identified in the Master Plan, p. 61.

Follow us on social media:



@SESAR_JU



SESAR 3 Joint Undertaking



www.youtube.com/SESARJU



www.sesarju.eu