SESAR
DEPLOYMENT MANAGER

GUIDANCE MATERIAL FOR SESAR DEPLOYMENT PROGRAMME IMPLEMENTATION

MONITORING VIEW

20 December 2017

LET'S DELIVER TOGETHER

Guidance Material for
SESAR Deployment Programme Implementation

Monitoring View 2017

FPA MOVE/E2/2014-717/SESAR FPA
SGA MOVE/E3/SUB/2016-402/SI2.745134

Deliverable D1.3

December 20ᵗʰ, 2017

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Introduction

What is the Monitoring View?

The adoption by European Commission of the **Reg. (EU) n. 716/2014 (Pilot Common Project)**, the establishment of the SESAR Deployment Manager as per Reg. (EU) n. 409/2013, as well as the subsequent elaboration of the **SESAR Deployment Programme**, mark all together the real start of the Deployment Phase of SESAR. It is within such phase that the **modernization of the European ATM system** becomes an operational reality and starts bringing the expected benefits, after its careful planning and its progress towards an adequate level of technological maturity.

This modernization initiative entails a coordinated effort from all operational stakeholders impacted by the PCP Regulation, which are required to get organized to ensure a **synchronized, timely and performance-driven deployment** of the ATM Functionalities included in the PCP.

In order to better streamline and synchronize the implementation activities across Europe, the SESAR Deployment Programme includes a constantly **evolving reporting mechanism**, which **monitors all implementation activities** associated to the ATM functionalities of the DP, thus tracking the **overall progress of the PCP implementation**.

More specifically, the synchronization of the PCP deployment relies on the **oversight and monitoring of all implementation initiatives** activated by operational stakeholders impacted by the Pilot Common Project: such oversight is **not only limited to Implementation Projects performed under SDM coordination** and benefitting of EU funding support, but also **involves any other deployment activities aiming at implementing technological and/or operational elements within the SESAR Deployment Programme scope**, helping to comply with the requirements set forth by Regulation (EU) n. 716/2014.

Monitoring the full picture of the deployment also allows the identification of those **activities that still need to be undertaken** to achieve the full PCP implementation across Europe, also ensuring the adequate level of involvement of the requested stakeholder categories. These activities – or _**implementation gaps**_ **-** represent what is **still deemed necessary to ensure the complete and timely implementation of the related Family, Sub-AF, AF and then of the overall PCP**. Each **existing gap** is composed of two main elements:

-   The **technical/operational element to be deployed**, i.e. one of the Families included in the SESAR DP;
-   The **geographical location** (e.g. airport or country[1]) in which the Family shall be deployed.

As the deployment phase of SESAR passed its start-up period and is **now progressing at full speed**, the tailored structure of the SESAR Deployment Programme has been designed in order to allow an adequate level of flexibility, and to ensure constant alignment with the **living ATM reality**, both on ground and on airborne side.

The **Monitoring View 2017** thus provides such updated view, building on a dedicated _Monitoring Exercise_ involving all impacted operational stakeholders. This view is **updated on a yearly basis**, so as to make sure that **all progresses in the implementation are duly taken into account**, helping to steer the subsequent phase of the PCP deployment and to develop a **common reference for all involved actors**.

SESAR Deployment Programme (SDP) the "_comprehensive and structured workplan of all activities necessary to implement common projects_"

Planning View a detailed and constantly updated planning tool for Stakeholders

Guidance Material for the SDP implementation

Monitoring View the reporting instrument to track progress in the implementation

Fig. 1 - The SESAR Deployment Programme and the associated Guidance Material

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[1] Depending on their specific features, this list is also complemented by the **Network Manager** – whose scope of activities expands beyond national borders to include the full European ATM Network – and by the **Maastricht Upper Area Control (MUAC)**, considering its responsibility to provide air navigation service on behalf of Belgium, Germany, Luxembourg and the Netherlands. Airspace Users are also considered, for specific families.

Considering its role as **monitoring and reporting instrument** for all PCP-related activities performed by operational stakeholders, the **Monitoring View** is organized into the following sections:

- **Section 1**, which provides for a high-level overview of the status of deployment across Europe. Specifically, it identifies **all activities that have already been performed between 2014 and 2017**, those currently in progress and/or planned, as well as the **main implementation areas that still need to be tackled by ATM stakeholders**, with the objective to avoid significant gaps in the DP's implementation. On the basis of the inputs gathered during the Monitoring Exercise from the operational stakeholders, this section also provides the expected roadmap towards the full PCP implementation;

- **Section 2**, which provides the **full detailed picture** of the implementation status of PCP-related elements – clustered by Family – in each airport or country, whilst also presenting a dedicated view per stakeholder category, **both the ground stakeholders and the Airspace Users**;

The document is complemented by a dedicated **Appendix**, which – building on the same input underpinning the view per Family included in Section 2 – provides a **view per Member State**, illustrating the status of the PCP Implementation within each country included in the geographical scope laid down by Regulation (EU) n. 716/2014. The Appendix also lists the relevant SDM-coordinated Implementation Projects contributing to move the deployment forward within each country.

Key principles underpinning the SDM Monitoring Exercise

The elaboration and maintenance of a constantly updated and consistent view on the status of implementation of all technological and operational elements included within the Pilot Common Project scope relies on the **close cooperation between the SESAR Deployment Manager and the operational stakeholders** directly impacted by the Regulation, as well as on the **support of the Network Manager and of the European Defence Agency.** Indeed, gathering such an extensive amount of data and ensuring the adequate level of detail to support and steer the synchronization of the deployment efforts and investments across Europe, required **the establishment of a dedicated exercise,** to be performed on a yearly basis, to **engage all operational stakeholders, making sure that all relevant information is correctly harnessed and considered.**

In this direction, a dedicated **SDM Monitoring Exercise** has been preliminarily **established in 2015**. To this end, building on the legacy of the **Interim Deployment Programme (IDP) monitoring activities**, the full alignment between specific DP Families 2016 and the IDP Activity Areas and/or Work Packages addressing PCP prerequisites and facilitators has been duly taken into consideration. Such exercise has then been refined and expanded in 2016, setting the ground for **yearly iterations** that ensure a **more structured and reliable view**.

The current monitoring exercise has been carried out **taking into account targeted and detailed inputs provided by all relevant operational stakeholder categories**, gathered through *ad-hoc* **templates and surveys**, specifically developed by the SESAR Deployment Manager, with the cooperation of EDA, NM and the SESAR JU. To achieve such goal, the **2017 SDM Monitoring Exercise** involves:

- The *ground stakeholders*, organized and clustered on a **geographical scope-basis**;
- The *Airspace Users*, for those Families where they are directly involved, having specific regard to the **PCP-related flight planning capabilities**, as well as the **aircraft capabilities**. The analysis has been conducted building on a **fleet-centric approach**.

The resulting snapshot is therefore the outcome of the **integration of feedback received by all stakeholder categories** involved in the deployment of each Family, and **clearly identifies the remaining *gaps* in the deployment**. Whenever a gap has not been fully closed yet by deployment initiatives, the monitoring exercise also allows to identify the **percentage of the gap still expected to be covered** in order **to achieve the full Family deployment**. Such percentage is defined taking into account the **different milestones** that typically **mark the steps on the way to the deployment of each Family** at a specific airport or within a specific country.

As each milestone is assigned with a specific weight in the Family deployment, the progress towards the full coverage of a specific gap is defined by the **achievement of this standard set of milestones** from

the Stakeholders' operating within the defined geographical scope[2]. In particular, a gap is considered **fully closed when all associated milestones have been achieved**, the technologies within the Family scope have been fully deployed and their **operational use has started**.

Furthermore, within the 2017 SDM Monitoring Exercise, the **expected date of completion** of each Family within each airport / country **has been also identified**, on the basis of the declarations coming from the involved operational stakeholders.

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[2] Whenever necessary on the basis of their features and scope, some Families of the SESAR Deployment Programme have been further broken down into Functionalities and Intermediate Building Blocks, so as to provide a higher level of detail and to effectively track the progress of the deployment activities.

PCP IMPLEMENTATION STATUS

1. PCP Implementation Status

1.1   Current status of PCP deployment

As anticipated in the introduction, SDM identified the concept of the **coverage of the existing implementation gaps** as a suitable indicator to **measure the progress of the PCP implementation activities.** Tracking the growing number of **covered (or "closed") gaps** during the years allows the identification of the pace at which deployment activities are delivering their tangible results. Furthermore, it enables the measuring of the gradually reducing scope of remaining activities to be performed to achieve the full deployment of the PCP.

A "*closed gap*" implies that **the implementation of a Family within a specific geographical location** (airport[3] or country – to refer to Airspace dimension – plus Network Manager and MUAC, when applicable) **has been achieved**, and no further activities are necessary to ensure the operational use of the elements included in the Family scope.

On the contrary, an "*open gap*" indicates **the existence of activities that still need to be performed** to ensure the complete deployment of the related Family.

The **overall number of ground gaps** has been defined by taking into account **all implementation activities needed to deploy the DP Families within the applicable countries**. That means that whenever a Family has been declared as not applicable at a certain country/airport by the relevant operational stakeholders, no gap has been considered.

The following exceptions shall be noted:

- Implementation activities linked to **Family 1.2.4, 6.1.4** and **6.1.5** are not included in the overall number of ground gaps, as their scope is only associated to implementation on airborne side (further detail is reported in the last section of Chapter 2);

- **Families 5.1.3 and 5.1.4** – given the specific features of the activities linked to the establishment of a common SWIM Governance framework and their dimension expanding beyond national borders – have been treated following a different approach, detailed as well within Chapter 2;

- **Family 1.2.5** has not been taken into account in the definition of the overall figure, as the implementation of its technological and operational elements is not mandatory neither according to the PCP nor to other EU regulations, and is not considered as a facilitator towards the deployment of one of the Sub-AFs included in Regulation (EU) n. 716/2014.

As a result of such assumptions and evaluations, the **overall number of ground gaps illustrated within the Monitoring view is 1140**.

According to the results of the SDM Monitoring Exercise, such gaps have been clustered into the following categories:

- *closed gaps*, for which the implementation has been already completed;
- gaps whose **implementation is in progress with the support of EU funding** and under the coordination of the SESAR Deployment Manager;
- gaps whose **implementation is in progress without the EU funding support**, through deployment activities performed by operational stakeholders without the coordination of SDM;
- gaps whose **implementation is planned** by operational stakeholders, but not currently in place;
- gaps for which the **implementation is not currently planned**.

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[3] The scope of the SDM 2017 Monitoring Exercise encompasses all 25 PCP airports but Istanbul Ataturk.

PCP implementation: a general view

215 gaps out of the 1142 that compose the Deployment Programme scope are **already fully implemented** and the associated technological and operational elements are already in use by the relevant stakeholders. This means that – after less than three years from the inception of the SESAR Deployment Phase (initiated by the end of 2014) – the activities aimed at the **implementation of operational and technological elements associated to the scope of the Pilot Common Project** have already covered the 18,8% of Regulation (EU) n. 716/2014. It is worth noting that such **implemented gaps are spread across all PCP ATM Functionalities and 24 Deployment Programme families**, demonstrating a wide-ranging and far-reaching effort from involved stakeholders.

Furthermore, as reported within **Figure 2**, the **implementation activities are progressing well**, as they are **covering around 546 gaps**, amounting to 48% of their total number. More specifically, **384 gaps are in the process of being implemented** benefitting from the outcomes of EU-funded and SDM-coordinated Implementation Projects, covering either the implementation of the partial or full scope of an identified gap. On the other hand, **for 162 gaps** the implementation is in **progress with Stakeholders' own resources and/or through other means of funding/financing**.

In other words, **more than two thirds of the identified gaps** (67%) is **either already closed or is in the process of being implemented** by the relevant operational stakeholders. Furthermore, such progresses led to the achievement of **partial results** in **almost 200 additional gaps**, for instance through the achievement of intermediate implementation steps.

In addition, for **about 19% of the gaps**, operational stakeholders have declared **plans that will address the associated family implementation** (or at least part of it), bringing the total number of gaps implemented, addressed or soon-to-be addressed by implementation activities to **975**, around 85% of the total DP scope.

Fig. 2 - Current PCP Implementation Status - overview

Finally, stakeholders declared the **lack of specific plans** for the **remaining 15% of the PCP scope** (167 gaps). In these cases, the implementation activities are not planned mostly due to one or more of the following reasons:

- the low readiness of the associated Families does not allow the elaboration of implementation plans. It is the case of implementation activities linked to **Family 4.3.2** (21 gaps with no associated plans), or **Family 6.1.2** (18 gaps);
- the potential uncertainties linked to the **implementation of SWIM-related elements** (especially those associated to different kinds of ATM information exchanges, i.e. Sub-AF 5.3, 5.4, 5.5, 5.6), which rely on the establishment of the SWIM Governance Framework. For **86 implementation gaps** associated to AF5 elements no specific implementation date has been indicated by the

stakeholders; furthermore, it is worth noting that Family 5.2.3 and Family 5.6.2 are still considered as *medium readiness* families;

- potential concerns associated to the **deployment of specific Sub-AFs**, such as the integration of **Departure Management with Surface Management Constraints** and its link with the **A-SMGCS Planning and Routing functions**, and the deployment of **Enhanced Short Term ATFCM Measures** (especially with regard to Family 4.1.2, STAM Phase 2);

- possible reservations regarding the deployment of Family 2.3.1 **– Time Based Separation –** within all airports identified in the PCP Geographical scope;

- the **sequencing of the Families implementation**, which in some cases require to proceed with the deployment of a specific family to elaborate plans to implement another (e.g. the integration of the AOP-NOP, which relies on the implementation of the local Initial Airport Operations Plan, Family 3.1.2 and 3.1.3 which require the full deployment of Family 3.1.1).

Some of these concerns have been identified as **potential risks** in the SESAR Deployment Programme that **can threaten the timely PCP implementation**, along with the potential misalignments between the DP itself and the stakeholders' investment plans. SDM is already **supporting the ATM community**, in cooperation with the appropriate SES bodies, in the **preparation and implementation of the identified mitigation actions**, which are expected to improve the situation in the upcoming years.

Detailed view per ATM Functionality

The following picture and the associated paragraphs provide a more detailed view per each PCP AF.

Fig. 3 - PCP Implementation Status: view per AF

AF 1 – Extended AMAN and Performance Based Navigation in the High-Density TMAs

More than **one quarter of the existing implementation gaps** associated to AF1 Families have already been closed, with significant results already achieved across all families. In addition, **around 60 % of the ATM Functionality is already in the process** of being implemented (in most cases benefitting of EU funding support and of the SDM coordination activities). This means that the **deployment of AF1 is not currently on-going only in 12% of the cases** (for half of them, however, stakeholders declared plans to implement the Families).

Whilst **for Family 1.1.1 and 1.2.2 more than half of the stakeholders operating in the PCP airports** have already implemented the associated technological and operational elements, it is worth mentioning that for some families only a limited set of gaps have already been closed (only **1 for Family 1.1.2**, **5 for Family 1.2.1** and **2 for Family 1.2.3**). On the other hand, intermediate results have been achieved in the implementation of all the mentioned Families: 13 airports have already partially implemented the **AMAN upgrade to included Extended Horizon function**, 11 partially deployed **RNP approaches with vertical guidance** and 2 implemented some elements associated to RNP 1 operations.

AF 2 – Airport Integration and Throughput

Around **80% of the gaps associated to ATM Functionality #2** is **either fully covered** or the associated deployment activities are **already in progress**; in the wide majority of cases, the implementation activities are also coordinated by SDM.

For a limited number of cases (less than **10% of the total gaps**), no plans have been declared by stakeholders: that is due essentially to some uncertainties of **Family 2.3.1** (Time Based Separation); for the latter, it is worth mentioning that no plans have been declared by **9 airports out of the 16 into which the deployment is required**.

The implementation of **Family 2.1.1, 2.1.2, 2.1.3 and 2.2.1**[4] is well advanced, as the number of fully or partially covered gaps amounts **respectively to 15, 20, 19 and 17 gaps out of the 24 airports**.

Although a limited number of airports have already fully implemented the technological elements linked to **Families 2.1.4, 2.4.1, 2.5.1 and 2.5.2**, it has to be highlighted that the **deployment activities have already started in respectively 14, 16, 18 and 19 airports**: in 80% of the cases, such activities are being carried out under the coordination of SDM.

AF 3 – Flexible ASM and Free Route Airspace

More than **25% of the implementation gaps** associated to AF3 have already been **fully covered by operational stakeholders**, with significant results associated to **Family 3.1.1** (11 closed gaps) and especially to Family 3.2.3 and 3.2.4, dealing with the implementation of **Direct Routings (DCTs)** and **Free Route Airspace (FRA)** and registering respectively 25 and 14 closed gaps.

117 gaps are in the process of being implemented – both within and beyond the umbrella of the FPA and the associated coordination of SDM – impacting all Families of the ATM Functionality. That would lead to the **full implementation of Family 3.2.1 and 3.2.3**, for which all gaps are either already implemented or in progress.

With regard to Family 3.2.1, which is associated to the upgrade of ATM systems supporting Sub-AF 3.2, it is worth noting that in **22 countries (plus MUAC and Network Manager) the implementation activities have already achieved some tangible results**, through the implementation of some of the functionalities and supporting tools included in the Family's scope: more specifically, in 13 occasions the progress is above 50%, and 4 of the Family gaps have already been fully covered.

For around **15% of the identified gaps**, the implementation activities have been **planned but not started yet**, whilst for the remaining 5% of the gaps no specific plans have been elaborated by the relevant stakeholders (mostly associated to Family 3.1.2 and 3.1.3).

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[4] The implementation of Family 2.2.1 is limited only to the Installation of A-SMGCS Level 1 and 2 and does not include the Surface Management Constraints integration that is described in the PCP Sub-AF 2.2.

AF 4 – Network Collaborative Management

The number of **completed implementations** amount to **11,2% of the total gaps** associated to **ATM Functionality #4**. The percentage is lower than the results stemming from AF1, AF2 and AF3, taking into consideration the **lower level of readiness of some of the elements linked to specific families**. For example, Family 4.3.2 is marked as a low readiness family and around two thirds of the gaps are not associated to any implementation plans.

The currently **on-going implementation activities** cover around **38% of the existing gaps**: these are mainly focused on STAM Phase II (Family 4.1.2), the deployment of Interfaces between ATM systems and NM systems (Family 4.2.3) and the implementation of Traffic Complexity Tools (Family 4.4.2). For the latter two families, the progress is often included into **far-reaching upgrades of the relevant ANSPs ATM systems**, covering a wider range of Families.

More than half of the ATM Functionality is not in progress yet, although plans have been declared for around 29% of the total number of existing gaps: that leaves **almost one quarter of the AF-related gaps without any associated specific implementation plans**.

AF 5 – Initial SWIM

The overall implementation of the **ATM Functionality #5 is successfully progressing**, although it needs to be considered that some key enabling activities are currently being ramped up through the execution of the multi-Stakeholder initiative associated to the establishment of a SWIM Governance (which would also benefit of EU funding, as awarded through CEF Call 2016).

Over **50% of the gaps are addressed by the operational stakeholders**, either through the full closure of the gaps or through deployment activities currently on going with and without the support of EU funding. More in detail, **39 of the 317 gaps** to be covered by the implementation of technological elements linked to the deployment of Initial SWIM have been **closed**, **138 are in the process of being addressed**, and 76 out of 317 are associated with future plans of the Operational Stakeholders to achieve the full PCP deployment.

Finally, it is worth highlighting that **around 20,2% of the AF5 gaps are not covered by any plans for future implementation** at the moment, as some technological elements are not yet fully mature, and others will be ready for their implementation and subsequent full operational use after the establishment of a SWIM Governance.

AF 6 – Initial Trajectory Information Sharing

The implementation of the three ground families associated to **ATM Functionality #6** is tightly linked to the urgent deployment of DLS capabilities at European Level, divided into the ATSP domain (included within **Family 6.1.1 – ATN B1 based services**) and the communication domain, through **Family 6.1.3 – A/G and G/G Multi Frequency DL Network in defined European Service Areas**.

Whilst Family 6.1.1 is already implemented within 11 European countries, it is worth mentioning that for **38 gaps out of the 90 that compose the AF6**, the **implementation activities are in progress**, in many cases also supported by activities coordinated by the SDM in its role of DLS Implementation Project Manager. These activities also allowed the **achievement of intermediate results in 7 gaps**.

Family 6.1.2, associated to **ATN B2 based services**, is a **low readiness family**: that means that **no gap has been closed yet**, and that in the vast majority of cases the implementation activities are **neither in progress nor planned**, waiting for the progress of those technological elements with a higher level of maturity and readiness for the implementation.

PCP IMPLEMENTATION STATUS

1.2 Expected roadmap for PCP completion

Overall roadmap

Complementing the current snapshot of Regulation (EU) n. 716/2014 implementation status, the 2017 SDM Monitoring Exercise also allows to build the **expected roadmap towards the full implementation of the Deployment Programme**, as per the **data and information provided by all relevant ATM operational stakeholders** operating within the PCP geographical scope.

Together with the information on the current and planned status of the implementation, each respondent to the Monitoring Exercise was also requested to identify the **planned date for the complete implementation of the Family** within its geographical area of responsibility.

Through the combination of inputs from operational stakeholders operating within a specific airport or Country, **for each existing gap** it was possible to identify the expected date on which **all elements** linked to a specific family will be **fully deployed** and their **operational use will start**. The main results stemming from such analysis are reported within Fig. 4 and are further illustrated in the following paragraphs.

It is worth noting that for **around 18%** of the 1142 implementation gaps that compose the full Deployment Programme scope, **no specific date of completion** has been indicated by operational stakeholders, among other reasons due to the **low level of readiness for implementation of the technological and operational elements** to be deployed, and – in a smaller set of cases – due to the lack of already defined plans to steer and address such implementation.

Expected Roadmap towards the full Deployment Programme implementation (ground side)

For **17,9%** of the PCP-associated ground gaps, no specific target date has been indicated by stakeholders, among other reasons because of the **lack of readiness of the technological elements** to be deployed

Reg (EU) n. 716/2014 target date for the ground part of PCP deployment

18,8% — May 2017
21,1% — Dec 2017
27,1% — Dec 2018
30,9% — Dec 2019
45,5% — Dec 2020
63,3% — Dec 2021
66,5% — Dec 2022
71,4% — Dec 2023
82,0% — Dec 2024
82,1% — Dec 2025

Fig. 4 - Expected Roadmap towards the Full PCP implementation

As illustrated within Section 1.1, the current[5] status of implementation of the Pilot Common Project includes **215 gaps fully covered**, amounting to around **19% of the total number of 1142** implementation gaps. By the end of 2017, a limited set of **26 additional existing gaps** are expected to achieve their full coverage, also benefitting from the progress of EU-funded and SDM-coordinated Implementation Projects. Among the soon-to-be closed gaps, it is worth mentioning the following:

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[5] Such status corresponds to the **status of PCP implementation as in May 2017**, when the monitoring data and associated information has been submitted by the relevant ATM operational stakeholders. For the deployment activities performed benefitting under the coordination of SDM, the monitoring results are fully aligned with the DP Monitoring and Performance View / SESAR FPA 2/2017, published in July 2017.

- The implementation of the **reference geographic database in Spain**, which would lead to the coverage of Family 1.2.2 gaps in Barcelona, Madrid and Palma de Mallorca airports;
- The combined **implementation of Family 3.1.1 and 3.1.2 in Denmark, Lithuania and Slovak Republic**;
- Significant progress in the **deployment of Sub-AF 3.2**, thanks to the deployment of Direct Routings (DCTs) across Spain (through SWFAB project contributing as well to Free Route Airspace implementation) and Greece, followed by Cyprus on January 2018. Such achievements will lead to the completion of **Family 3.2.3** within the full PCP geographical scope, also considering that by the end of the year the associated Network Manager systems upgrades will be completed;
- The implementation of STAM Phase 1 (**Family 4.1.1**) across in **Belgium** and **Slovenia**, bringing the total amount of Family 4.1.1 closed gaps to 17 out of the existing 19.

By the end of 2018, the total number of gaps is expected to arise to **309** (around 27,1% of the total), thanks to the achievement of the full coverage for additional **68 gaps** spread across all PCP ATM Functionalities. A significant increase will be due to the closure of **9 gaps for Family 6.1.1 ATN B1 based services in ATSP domain** (Bulgaria, Estonia, Greece, Italy, Latvia, Malta, Romania, Slovenia and Spain), at the latest on February 2018, in correspondence with the target date of Regulation (EU) no. 310/2015 on DLS services.

Moreover, stakeholders from 12 countries are expected to fully implement ASM tools to support the advanced Flexible Use of Airspace, thus bringing the total number of **Family 3.1.1 closed gaps to 27**. Finally, AF1 implementation is expected to accelerate, thanks to the achievement of the full coverage of **12 gaps spread across 5 families**, with the involvement of all relevant stakeholder categories (ANSPs, Airport Operators, Airspace Users and MET Service Providers).

Whilst during 2019 the number of closed gaps is expected to gradually **increase to 353** (30,9% of the total), the implementation of the PCP will spike to **45,5%**, with the coverage of additional **167 gaps**, leading to a **total number of 520 closed gaps** by **December 2020**.

The acceleration in the deployment progress will be significantly pushed by the closure of implementation activities (including a **wide number of SDM-coordinated Implementation Progress**) covering **almost 80 gaps from AF1 and AF2**, spread across almost all identified Families, including the full implementation of **RNP approaches with vertical guidance** (Family 1.2.1) in 8 PCP airports and the closure of more than **60 gaps** associated to **Sub-AF 2.1, Family 2.2.1 and Sub-AF 2.5**. Additional progress will be represented by the implementation of **NewPENS (Family 5.1.2)** within **23 countries**, benefitting from the multistakeholder initiative funded by INEA in the framework of CEF Calls 2015 and 2016.

By the **beginning of 2022**, the number of closed gaps is expected to arise to **723**, topping **63% of the overall implementation of the Pilot Common Project**: such constant growth (with 198 gaps closed during 2021) is explicitly led by the progress in the implementation of AF3, with **59 gaps** to be closed within Sub-AF 3.1 *Airspace Management and Advanced Flexible Use of Airspace* and **23 gaps** spread across Family 3.2.1 and 3.2.4, targeting the almost complete implementation of Free Route Airspace across Europe. More specifically, by the end of 2021, in compliance with the deployment target dates stated within the PCP Regulation, **Free Route will be implemented at and above Flight Level 310 in 26 out of the 27 applicable European countries (**plus Maastricht Upper Area); this implementation might however be **subject to certain limitations** (such as time, entry-exit point and cross-border limitations, etc.).

According to information submitted by the relevant ATM stakeholders, in the longer run (from 2022 to the end of 2025) the progress in PCP deployment will **continue at a steady pace**, allowing for the closure of around additional **200 gaps** in total, with a significant increase in covered gaps from AF4, AF5 and AF6.

At the current time, **no ground gaps are explicitly declared to be closed beyond the PCP timeframe** (i.e. after January 1st, 2026), whilst **only 1 gaps out 1142** is currently expected to be **closed during 2025**.

On the other hand, due to the **lack of readiness for implementation of specific Families** (e.g. 4.3.2 Reconciled Target Times for ATFCM and arrival sequencing, 5.6.2 Upgrade/Implement Flight Information Exchange System/Service supported by Blue Profile, 6.1.2 ATN B2 based services in ATSP domain), no specific date has been selected for around **200 gaps**. A **specific focus is needed for AF5 and AF6** implementation, as no completion date has been indicated for around **110 gaps**.

SDM, together with the relevant SES bodies and in cooperation with all ATM stakeholders, is carefully **monitoring such potential issues and is supporting operational stakeholders in the**

implementation of the necessary mitigation actions to raise the level of readiness for deployment of the relevant technological elements.

As an example, the establishment of an appropriate SWIM Governance framework – in accordance to the dedicated SWIM Governance Action Plan published in 2016 and whose progress is detailed within the Planning View 2017 – is expected to **improve the situation for AF5**, paving the way for the **timely implementation of the necessary components and structures** to be implemented at European and local level, building the set for the **different kinds of ATM information exchanges defined in the PCP**.

Moreover, the new coordinated effort to deploy Data Link Services at European level, in accordance to the **DLS Recovery Plan**, will support a **faster and more effective implementation of the data link capabilities at air/ground and ground/ground level**, which would in turn enable the subsequent integration of Trajectory Information into the ATM systems.

Detailed views per ATM Functionality

AF 1 – Extended AMAN and Performance Based Navigation in the High-Density TMAs

The implementation activities associated to ATM Functionality #1 are well advanced and already started delivering their first results, also in terms of the achievement of the related performance benefits: **around 28% out of the 121 gaps** to be covered have already been closed by the first months of 2017, setting the ground for the future implementation of all technological and operational elements mandated by the Pilot Common Project. It is also worth mentioning that the progress in the implementation is expected to keep a **steady pace until December 2020**, closing on average more than 10 gaps per year, slowing down during 2021 and 2022, then experiencing a significant spike during **2023**, bringing the **total of closed gaps to 116** (around 96%). **No specific date** has been indicated for just a small set of implementation gaps.
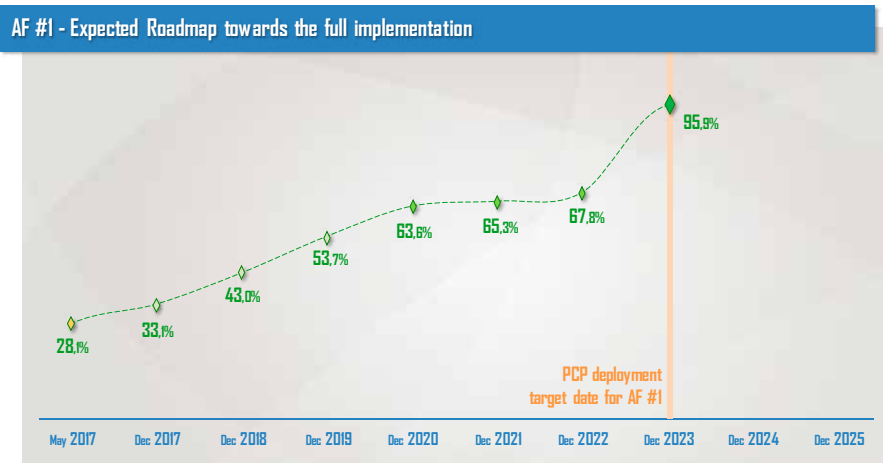
Fig. 5 - AF1 Expected Roadmap for Implementation

It is worth noting that the implementation activities have already produced their results mainly regarding a facilitating family, **1.1.1 Basic AMAN**, and a complementary family, **1.2.2 Geographic Database for Procedure design**, which have been fully implemented across **13 airports each**.

The progress achieved within the implementation of such families is of utmost importance; **Basic AMAN** represents **an intermediate step and a potential push towards the implementation of Family 1.1.2**, whose implementation has currently been completed only at London Heathrow and will be achieved – in accordance with the deployment target date stated in the Regulation – by the end of 2023. On the other hand, the **implementation of the Geographic Database** works as an **enabler for the full deployment of Sub-AF 1.2**. It is also worth noting that by the end of 2017, 3 additional gaps for Family 1.2.2 are expected to achieve their full completion (in Barcelona, Madrid and Palma de Mallorca), also benefitting from the closure of a SDM-coordinated Implementation Project.

It is worth noting that **for almost all implementation gaps associated to Family 1.2.1 and 1.2.3**, operational stakeholders have declared plans that would lead to the implementation completion **in line with the deployment target dates** listed in the PCP regulation for the ATM Functionality and **with the FOC dates** specifically identified for each Family in the SESAR Deployment Programme. Moreover, some earlier implementations are foreseen: as an example, **RNP approaches with vertical guidance** (Family 1.2.1, with FOC date at the end of 2020) are **already implemented at Nice, Oslo, Paris Orly, Zurich, and Vienna**, whilst the implementation is foreseen before the end of 2019 in other 8 airports, spread across six European countries.

The implementation of Family 1.2.5 – **RNP routes connecting Free Route Airspace with TMA** – is not mandatory according to Regulation (EU) n. 716/2014, although it is required to access the full performance benefits associated to the Pilot Common Project. It is worth underlying that **the implementation activities** linked to this Family are **not included in the counting of the existing implementation gaps**. No local stakeholders indicated a specific date for the implementation of such operational elements.

AF 2 – Airport Integration and Throughput

Out of the six ATM Functionalities included in Regulation (EU) n. 716/2014, AF2 represents the **one for which the highest percentage of implementation gaps is already closed** at the current date. **55 gaps**, spread across all 9 identified Families from the SESAR Deployment Programme, **have already been fully covered**, also benefitting from a wide number of Implementation Projects funded by INEA within CEF Transport Calls 2014 and 2015 and under the synchronization activities performed by the SDM.

After a foreseen slow but **steady progress in 2018 and 2019** (closing 23 gaps in total), **by the end of 2020**, the total number of closed gaps is expected to **increase to 146**, amounting to **70,2% of the total gaps** for AF2. That is due to the **22 completed IPs associated to AF2**, involving several operational stakeholders from different countries.

The implementation will then continue at full pace in the following years, bringing the

Fig. 6 – AF2 Expected Roadmap for Implementation

total amount of closed gaps on December 2024 to **182**, amounting to **87,5% of the total existing implementation gaps**.

For **around 30 gaps**, **no specific date has been identified** by the stakeholders, due to lack of detailed plans towards the full implementation: the widest number of gaps for which a target date has not been identified are associated to **2.3.1 Time Based Separation** and **2.5.1 Airport Safety Nets associated with A-SMGCS**. More specifically, **4 airports** currently **do not foresee to implement Family 2.5.1 by December 2020** (PCP deployment target date); this is due to the fact that Family 2.4.1 is a pre-requisite for the implementation.

The **status of implementation of Sub-AF 2.1** is however **well-advanced at the current time**, considering that **Family 2.1.1, 2.1.2 and 2.1.3 are already deployed respectively in 12, 13 and 14 airports across the PCP geographical scope**. The implementation efforts from operational stakeholders is expected to lead to the almost complete closure of the Families in line with the FOC dates listed in the SESAR Deployment Programme, derived from the deployment target dates stated in the Pilot Common Project.

Furthermore, **9 implementation gaps** associated to **Family 2.2.1** have already been closed by the joint effort of Airport Operators and ANSPs, depending on the specific operational arrangement in place within each airport. It is worth noting that all involved stakeholders declared **plans to close the existing gaps earlier than December 2020**, whilst earlier implementations are foreseen in 8 airports (closing the gaps on December 2019 and, in one case, on May 2018). However, the **foreseen implementation** of Family 2.2.1 is limited only to the Installation of A-SMGCS Level 1 and 2 and **does not include the Surface Management Constraints integration**, that is described in the PCP Sub-AF 2.2.

A **smaller number of closed gaps** is **associated to Family 2.3.1, 2.4.1, 2.5.1 and 2.5.2**: more specifically, Time Based Separation (Family 2.3.1) has been implemented at Heathrow Airport, whilst A-SMGCS with Planning and Routing functions (Family 2.4.1) and the associated Airport Safety Nets (Family 2.5.1) have been deployed at Brussels Airport. Finally, the implementation of vehicle systems contributing and supporting Airport Safety Nets (Family 2.5.2) has been completed at Brussels, Paris Charles De Gaulle and Paris Orly.

PCP IMPLEMENTATION STATUS

AF 3 – Flexible Airspace Management and Free Route

The deployment of Flexible Airspace Management and of Free Route at European level is **progressing at a notable speed**, with more than **25% of the identified implementation gaps already fully covered** by operational stakeholders (mostly ANSPs and the Network Manager). By the **end of 2017**, the overall **number of closed gaps is expected to raise at 64**, reaching almost 31% of the total.

The progress of implementation is expected to grow stable in the next years, leading to the coverage of 53% of the gaps by the end of 2020. The completion of **several wide-ranging upgrade of ATM systems currently undertaken** by a vast set of ANSPs and the joint effort towards the FRA establishment at large scale is then expected to bring to the **closure of 82 gaps during 2021**, pushing the total to 193 closed gaps (around 92%) on January 1st 2022, the deployment target date of AF3. As described earlier within section 1.1, this implementation is likely to be subject to certain limitations.

For a limited number of gaps (around 8% of the total), **no specific date** (or a date exceeding the deployment target date) **for the full implementation has been identified** by operational stakeholders, although only for one third of them no plans are currently foreseen. That is **mostly linked to the activities linked to the full deployment of Sub-AF 3.1**., whilst on the other hand the deployment of Free Route is already in progress (either with or without the support of public funding in all European countries).
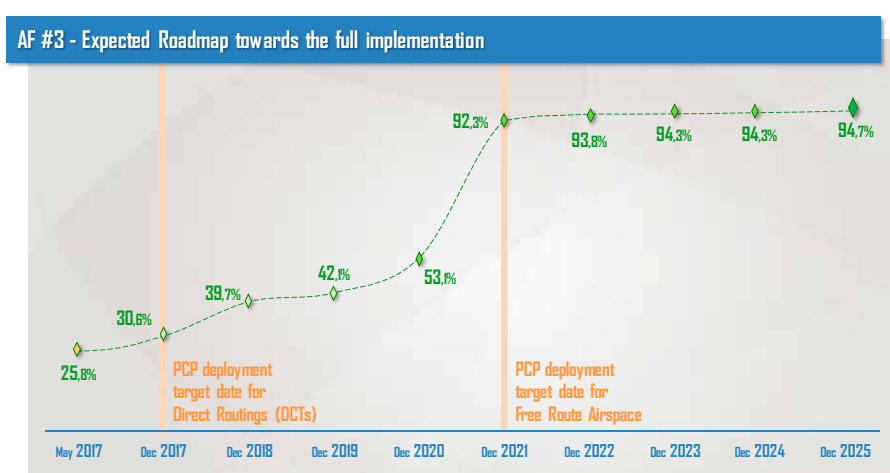
Fig. 7 – AF3 Expected Roadmap for Implementation

ASM tools to support AFUA are **already implemented within ten European countries** (Belgium, Bulgaria, Cyprus, Estonia, France, Hungary, Portugal, Romania, Switzerland and United Kingdom), plus MUAC, and additional implementations and integrations with NM systems will be closed by December 2017 in Denmark, Lithuania and Slovak Republic. **During 2018**, additional 13 countries will complete the deployment of the Family, bringing the **total closed gaps to 27**.

Given the close links among the technological and operational elements included within their scope, the **deployment of Family 3.1.2, 3.1.3 and 3.1.4 is expected to go almost in parallel**, with a slower deployment during the 2017-2020 time span (23 closed gaps in total), experiencing a **remarkable acceleration during 2021**, with respectively **19, 22 and 18 gaps to be closed by January 2022**.

The upgrade of ATM systems associated to **Family 3.2.1** is currently undergoing within almost all European countries, thanks to overarching improvements of ATM systems, which will **gradually bring to the implementation of tools and functionalities supporting DCTs and Free Route Airspace**. Starting from the 4 currently closed gaps, the **effort from ANSPs and Network Manager**, often supported by Implementation Projects coordinated by SDM under the FPA umbrella, will constantly deliver tangible results, leading to a **total number of 26 closed gaps by the end of 2017**.

The implementation of **Direct Routing (DCTs)** - included within Family 3.2.3 scope - has already achieved a remarkable progress, with **25 closed gaps out of the existing 29**. Furthermore, by January 2018 additional 4 gaps will be closed, achieving an **almost full completion of the Family (with DCT deployed in all 30 countries**, including Belgium, Luxembourg and Netherlands through MUAC).

Building on such progress, **Free Route Airspace** is also expected to progress at fast pace: starting from the **14 currently closed gaps**, the full implementation of the Family above Flight Level 310 will be achieved in **additional 13 countries by the end of 2021**. However, it is worth mentioning that current plans for the FRA implementation do not ensure a **consistent and full implementation** in all European airspace above FL 310, due to the limitations in terms of time, entry-exit point, cross-border, etc.

AF 4 – Network Collaborative Management

The **implementation activities associated to ATM Functionality #4** are **progressing at a slower pace**, in comparison with AF #1, AF #2 and AF#3. Only **12,2% of the identified implementation gaps are expected to be closed by the end of 2017**, with a limited progress rate in the upcoming years (25 additional closed gaps in the 2018-2020 framework).
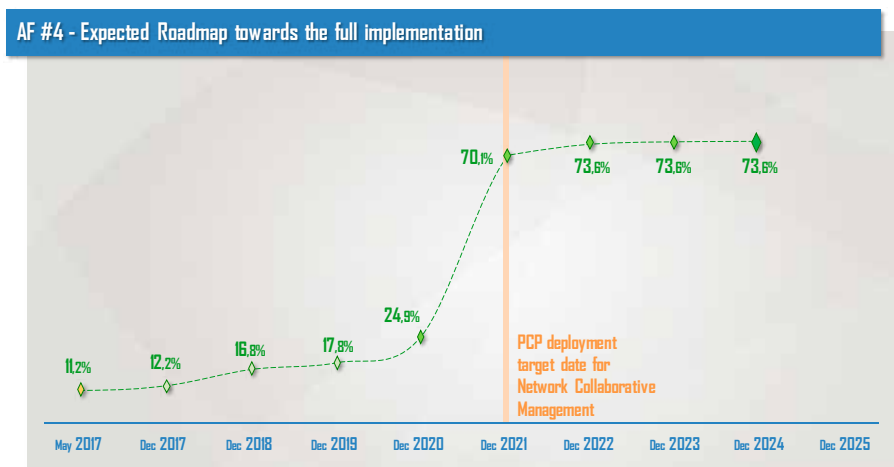
Fig. 8 - AF4 Expected Roadmap for Implementation

A **significant leap will be experienced during 2021**, with the closure of 89 gaps, bringing the percentage of completion of the Family just **above 70% on January 2022**, deployment target date of the AF in accordance to PCP Regulation.

However, it has to be noted that **no specific date of completion has been selected by operational stakeholders for around 26% of the total**, whilst 7 gaps are expected to be closed with a slight delay. That is due to, first and foremost, the **lack of technological maturity of Family 4.3.2** (indicated as a low-level of readiness family within the Planning View 2017), which does not allow to define specific plans for its deployment, but is also linked to the **lack of detailed plans from local stakeholders spread across Family 4.1.2** (STAM Phase 2, with 6 countries which didn't indicated a completion date), **4.2.2** (Interactive Rolling NOP, with 7 countries) and **4.2.4** (AOP-NOP integration, with 7 airports).

STAM Phase 1 - a facilitating Family that supports the implementation of Sub-AF 4.1 - is already **implemented within 15 out of the 19 applicable countries**; through the achievement of the full Family implementation in 2017 in two additional countries (Slovenia and Belgium) and the subsequent deployment in Spain by June 2018, additional progress is also expected in the upcoming years.

Family 4.1.2, 4.2.2 and 4.2.3 are expected to experience a **slower (although constant) deployment pace**, as the wide majority of operational stakeholders identified December 2021 as the target date for the full Deployment of the Families. However, it has to be noted that **for more than one fifth of the countries** within AF4 scope, **no specific target date was indicated** for STAM Phase II (Family 4.1.2), and for the activities linked to the establishment of an Interactive Rolling NOP (Family 4.2.2), whilst the vast majority of stakeholders has declared plans to implement the Interfaces of ATM systems with NM systems in line with the deployment target date on January 2022.

For **Family 4.3.1**, the responsibilities of the implementation is shared between Airspace Users and - on ground side - the Network Manager, which declared plans to timely and effectively comply with the defined target date, completing the **implementation by the end of December 2021**.

Finally, the deployment of **Family 4.4.2** has **already achieved some preliminary results**, with the Traffic Complexity Tools already deployed and operational within Austria, Sweden, Switzerland and at MUAC. The implementation will continue at a regular pace, with notable earlier Family completions already within 2018 (within Czech Republic and Belgium).

AF 5 – Initial System Wide Information Management

As for AF #4, the implementation of **ATM Functionality #5 is progressing at a moderate pace**, due both to the lower level of maturity of some of the technological elements included in the Families' scope and to the **critical role of the still-to-be-fully-defined SWIM Governance Framework**, whose overall establishment has to be considered as a critical enabler for the complete implementation of the Family. More specifically, **Families 5.3.1, 5.4.1, 5.5.1, 5.6.1 and 5.6.2**, covering the different kinds of ATM information exchanges, are **highly dependent** from the implementation of the specific stakeholders' infrastructure components (covered by Sub-AF 5.2) and especially from the deployment of the common

components and **structures to be deployed on a European-wide basis**, as included in Families 5.1.1, 5.1.2, 5.1.3 and 5.1.4.

As a result, **only 12,3% of the total number of AF5-related gaps are currently covered**, and a limited number of additional gaps is **expected to be covered in the upcoming months** (5 by the end of the year, 3 by the end of 2018, 8 by the end of 2019).

However, **the situation is expected to** improve from 2020 onwards, with around **50 additional gaps** that will be closed **by January 2021**, and a regular growth in the following years.

Coming **closer to the deployment target dates**, it is expected that **a spike in closed gaps** will occur, bringing the total number of closed gaps to **around 73% of the total by the end of December 2024**.

Fig. 9 – AF5 Expected Roadmap for Implementation

Stakeholders did not provide a specific target date for the **completion and full implementation of around 27% of the total number of gaps**. That is specifically due to the lack of defined plans for the deployment of the Families addressing local infrastructure components and ATM information exchanges (nearly half of the gaps associated to Sub-AF 5.3, 5.4, 5.5 and 5.6 lacks a specific target date). It is however worth noting that for several of these families, the associated technological elements **still have to achieve the full readiness for implementation** (for example, having regard to the Flight Object, covered by Family 5.6.2).

The implementation of the PENS-related part of **Sub-AF 5.1** is by far the AF5 domain for which the implementation progress has achieved the most tangible results; **PENS** is fully implemented and **operational within 28 of the 30 applicable countries** in the PCP geographical scope (including MUAC) and the implementation of **Family 5.1.2** (NewPENS) is proceeding at fast pace, with the widest majority countries participating to a dedicated **multi-stakeholder initiative**, targeting the deployment in **additional 23 countries** by December 2020. Furthermore, the activities associated to the **establishment of a SWIM Governance Framework** have started and are progressing with the contribution of several stakeholders, benefitting of EU funding and in accordance to the specifically developed Action Plan (see Planning View 2017 for further information).

The implementation status of **Family 5.2.1** – Stakeholders' IP Compliance – already encompasses a significant number of **closed gaps** (i.e. Austria, Czech Republic, Hungary, Italy, MUAC, Romania, Slovak Republic, Slovenia, Switzerland and UK), and a stable progress rate is expected in the upcoming years (with Croatia and Poland expected to close the gaps by the end of 2017).

No other gap has been closed at the present time within any Family besides 5.1.1 and 5.2.1, but some progresses are expected in the short-term, anticipating a much more widespread trend in the medium-to-long run. The overall number of covered gaps is expected to grow up until **December 2024**, when a **total number of 231 gaps from Family will be closed** (contributing to the achievement of closing 73% of the gaps associated to the AF).

AF 6 – Initial Trajectory Information Sharing

The implementation of the **ground part of ATM Functionality #6** is related to **Family 6.1.1, 6.1.2 and 6.1.3**. The overall planning of the deployment of such families is strictly associated to the **content of the DLS Recovery Plan**, which has been elaborated with the specific purpose of steering the deployment of the most urgent technological elements that would lead to the deployment of Initial Trajectory Information Sharing at European level.

In accordance with the details of such plan, the implementation effort of operational stakeholders is currently focused on **Family 6.1.1** and **Family 6.1.3**, respectively covering the **implementation of ATN Baseline 1 at EU level**, and the supporting **air / ground and ground / ground network**.

Fig. 10 – AF6 Expected Roadmap for Implementation

The **implementation of Family 6.1.2**, which is linked to the actual implementation of trajectory information sharing, **will follow**, once all enablers have been deployed and the readiness of the family has evolved to an adequate status.

In accordance to the presented outlook, the **implementation of Family 6.1.1** has achieved a notable progress, with the **full coverage of eleven gaps** spread across Austria, Croatia, Czech Republic, Denmark, Germany, Hungary, Ireland, MUAC, Sweden, Switzerland and United Kingdom. Furthermore, France has partial DLS capability, providing three CPDLC services and allowing for interoperability with adjacent CPDLC airspaces.

The situation is expected to improve in the upcoming months, with the full coverage of the gap in Italy by the end of 2017, and additional **eight countries implementing the gap in 2018**, in line with the DLS Regulation target date (Bulgaria, Estonia, Greece, Latvia, Malta, Romania, Slovenia and Spain).

For **Family 6.1.3**, no gaps have already been closed, but the **implementation activities have started at full speed**, also benefitting from the SDM coordination in its role of DLS Project Manager and from the wide-ranging initiatives awarded in the framework of the CEF Call 2016. In particular, **24 gaps will be closed within the target date of December 2022**. However, it is worth noting that no specific date of completion has been declared for six gaps associated to this Family.

Finally, the implementation activities associated to **Family 6.1.2 have not started yet**, as they are highly depending from the progress in the implementation of the other two families. In this perspective, the **current situation, encompassing a wide number of gaps** for which **no specific date has been defined**, is expected to **evolve in the upcoming years**, when more detailed plans will be defined by the relevant operational stakeholders. As reported within the dedicated section, the implementation on Airspace Users side (related to Family 6.1.4) is also ramping up, thanks to dedicated initiatives to increase the number of aircraft equipped with "*best in class*" avionics.

1.3 Overview of PCP deployment per Family – Ground gaps

Complementing the overview presented above, the following charts provide for a **more detailed representation of the current status of PCP implementation** at AF level, with a breakdown for each of the Families for which ground gaps have been identified. The information reported matches what explained in the introductory charts, thus breaking down the gaps associated to each Family into the 5 categories.

AF #1 – Extended AMAN and PBN in high density TMA

ATM Functionality #1 – Current implementation status per Family

Family 1.1.1 – Basic AMAN
- 54,2%
- 8,3%
- 8,3%
- 29,2%
- 24 gaps

Family 1.1.2 – AMAN upgrade to include Extended Horizon function
- 4%
- 64%
- 16%
- 4%
- 12%
- 25 gaps

Family 1.2.1 – RNP APCH with vertical guidance
- 20,8%
- 4,2%
- 29,2%
- 45,8%
- 24 gaps

Family 1.2.2 – Geographic Database for Procedure design
- 54,2%
- 4,2%
- 8,3%
- 33,3%
- 24 gaps

Family 1.2.3 – RNP1 Operations in high density TMAs (ground capabilities)
- 8,3%
- 12,5%
- 12,5%
- 8,3%
- 58,4%
- 24 gaps

Data collected and elaborated as of May 2017

Chart Key
- ■ Implementation completed
- ■ Implementation in progress with CEF support
- ■ Implementation in progress without CEF support
- ■ Implementation planned
- ■ Implementation not currently planned

Fig. 11 - AF1: current implementation status per Family

AF #2 – Airport Integration and Throughput

ATM Functionality #2 – Current implementation status per Family

Family 2.1.1 – Initial DMAN

50%
12,4%
4,2%
4,2%
29,2%
24 gaps

Family 2.1.2 – Electronic Flight Strips (EFS)

4,1%
54,2%
41,7%
24 gaps

Family 2.1.3 – Basic A-CDM

8,3%
58,4%
33,3%
24 gaps

Family 2.1.4 – Initial Airport Operations Plan (AOP)

4,2%
8,3%
50%
33,3%
4,2%
24 gaps

Family 2.2.1 – A-SMGCS Level 1 and 2

4,2%
37,5%
58,3%
24 gaps

Family 2.3.1 – Time Based Separation (TBS)

6,3%
12,5%
6,2%
18,8%
56,2%
16 gaps

Family 2.4.1 – A-SMGCS Routing and Planning Functions

4,2%
12,5%
54,2%
20,8%
8,3%
24 gaps

Family 2.5.1 – Airport Safety Nets associated with A-SMGCS (Level 2)

4,2%
25%
62,5%
8,3%
24 gaps

Family 2.5.2 – Vehicle and aircraft systems contributing to Airport Safety Nets

8,3%
12,5%
12,5%
37,5%
29,2%
24 gaps

Data collected and elaborated as of May 2017

Chart Key

- Implementation completed
- Implementation in progress with CEF support
- Implementation in progress without CEF support
- Implementation planned
- Implementation not currently planned

Fig. 12 - AF2: current implementation status per Family

SESAR
DEPLOYMENT MANAGER

24

AF #3 – Flexible ASM and Free Route

ATM Functionality #3 – Current implementation status per Family

Family 3.1.1 – ASM Tool to support AFUA
- 36,7%
- 16,7%
- 30%
- 13,3%
- 3,3%
- 30 gaps

Family 3.1.2 – ASM Management of real time airspace data
- 32,3%
- 38,7%
- 19,3%
- 9,7%
- 31 gaps

Family 3.1.3 – Full rolling ASM/ATFCM process and ASM information sharing
- 13,4%
- 33,3%
- 40%
- 13,3%
- 30 gaps

Family 3.1.4 – Management of Dynamic Airspace Configurations
- 50%
- 30%
- 16,7%
- 3,3%
- 30 gaps

Family 3.2.1 – Upgrade of ATM systems to support DCTs and FRA
- 13,3%
- 56,7%
- 26,7%
- 3,3%
- 30 gaps

Family 3.2.3 – Implement Published Direct Routings (DCTs)
- 86,2%
- 6,9%
- 6,9%
- 29 gaps

Family 3.2.4 – Implement Free Route Airspace
- 48,3%
- 27,6%
- 20,7%
- 3,4%
- 29 gaps

Data collected and elaborated as of May 2017

Chart Key
- Implementation completed
- Implementation in progress with CEF support
- Implementation in progress without CEF support
- Implementation planned
- Implementation not currently planned

Fig. 13 - AF3: current implementation status per Family

SESAR
DEPLOYMENT MANAGER

AF #4 – Network Collaborative Management

ATM Functionality #4 – Current implementation status per Family

Family 4.1.1 – STAM phase 1

5,3%
10,5%
5,3%
78,9%
19 gaps

Family 4.1.2 – STAM phase 2

16,1%
29,0%
16,1%
38,7%
31 gaps

Family 4.2.2 – Interactive Rolling NOP

10,3%
23,7%
13,8%
44,8%
10,4%
29 gaps

Family 4.2.3 – Interface ATM systems to NM systems

3,1%
25%
21,9%
50%
32 gaps

Family 4.2.4 – AOP/NOP information sharing

20%
48%
28%
4%
25 gaps

Family 4.3.1 – Target Time for ATFCM purposes

100%
1 gap

Family 4.3.2 – Reconciled target times for ATFCM and arrival sequencing

3,2%
6,5%
22,6%
67,7%
31 gaps

Family 4.4.2 – Traffic Complexity tools

10,4%
13,8%
31%
31%
13,8%
29 gaps

Data collected and elaborated as of May 2017

Chart Key

- ■ Implementation completed
- ■ Implementation in progress with CEF support
- ■ Implementation in progress without CEF support
- ■ Implementation planned
- ■ Implementation not currently planned

Fig. 14 - AF4: current implementation status per Family

PCP IMPLEMENTATION STATUS

AF #5 – Initial SWIM

ATM Functionality #5 – Current implementation status per Family

Family 5.1.1 – PENS 1: Pan-European Network Service version 1
- 93,6%
- 3,2%
- 3,2%
- 31 gaps

Family 5.1.2 – NewPENS: New Pan-European Network Service
- 65,6%
- 15,6%
- 18,8%
- 32 gaps

Family 5.2.1 – Stakeholders Internet Protocol Compliance
- 31,3%
- 6,3%
- 15,6%
- 9,4%
- 37,5%
- 32 gaps

Family 5.2.2 – Stakeholders SWIM Infrastructure Components
- 46,9%
- 15,6%
- 31,2%
- 6,3%
- 32 gaps

Family 5.2.3 – Stakeholders' SWIM PKI and cyber security
- 34,4%
- 21,9%
- 6,2%
- 37,5%
- 32 gaps

Family 5.3.1 – Upgrade/Implement Aeronautical Information Exchange System / Service
- 40,6%
- 25,0%
- 21,9%
- 12,5%
- 32 gaps

Family 5.4.1 – Upgrade/Implement Meteorological Information Exchange System / Service
- 43,8%
- 25%
- 25%
- 6,3%
- 32 gaps

Family 5.5.1 – Upgrade/Implement Cooperative Network Information Exchange System / Service
- 18,7%
- 37,5%
- 9,4%
- 34,4%
- 32 gaps

Family 5.6.1 – Upgrade/Implement Flight Information Exchange System / Service supported by Yellow Profile
- 9,7%
- 12,9%
- 38,7%
- 38,7%
- 31 gaps

Family 5.6.2 – Upgrade/Implement Flight Information Exchange System / Service supported by Blue Profile
- 48,4%
- 32,3%
- 16,1%
- 3,2%
- 31 gaps

Data collected and elaborated as of May 2017

Chart Key
- Implementation completed
- Implementation in progress with CEF support
- Implementation in progress without CEF support
- Implementation planned
- Implementation not currently planned

Fig. 15 - AF5: current implementation status per Family

SESAR DEPLOYMENT MANAGER

AF #6 – Initial Trajectory Information Sharing

ATM Functionality #6 – Current implementation status per Family

Family 6.1.1 – ATN B1 based services in ATSP domain

- 37,9%
- 3,4%
- 17,2%
- 27,6%
- 13,8%
- **29 gaps**
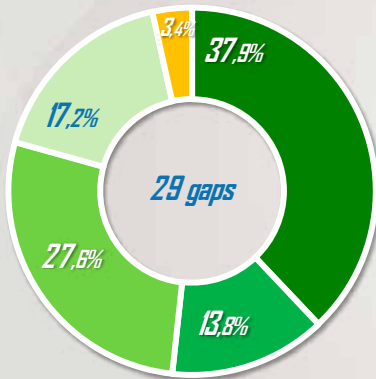
Family 6.1.2 – ATN B2 based services in ATSP domain
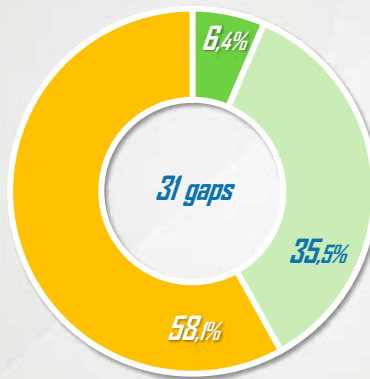
- 6,4%
- 35,5%
- 58,1%
- **31 gaps**

Family 6.1.3 – A/G and G/G Multi Frequency DL Network in defined European Service Areas

- 10%
- 73,3%
- 10%
- 6,7%
- **30 gaps**
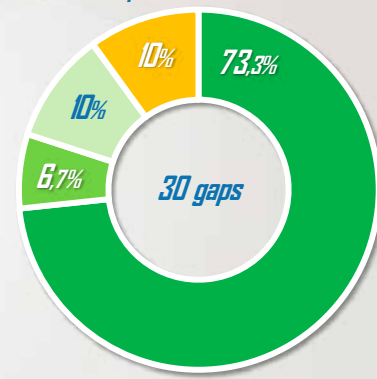
Data collected and elaborated as of May 2017

Chart Key

- ■ Implementation completed
- ■ Implementation in progress with CEF support
- ■ Implementation in progress without CEF support
- ■ Implementation planned
- ■ Implementation not currently planned

Fig. 16 - AF6: current implementation status per Family

DETAILED VIEWS PER FAMILY

2. Detailed Views per Family

Complementing the overall picture of the deployment at global level, the engagement of all operational stakeholders impacted by Regulation (EU) n. 716/2014 in the yearly SDM Monitoring Exercise also allows to outline **detailed views at local level**, providing an **accurate representation of the implementation progresses within each Country or Airport** included within the PCP geographical scope. To this end, the Family-based charts included within the present Chapter report on the overall **status of implementation** of technological and operational elements **associated to each Family at local level**, whilst also identifying the **expected date of completion of such Family** within the relevant countries or airports. Such detailed outlook helps the **identification of the main implementation areas to be tackled** by future investments to avoid gaps and delays in the Programme's implementation. Furthermore, the information gathered from each organization engaged in the Exercise results into dedicated *views per stakeholder*, which outlines how they are involved in tackling the existing implementation gaps. The overall picture of geography-based ground gaps is complemented by the overview on the **Airspace Users gaps**, defined on a fleet centric approach, due to the fact that **AU operations** typically expands beyond national and regional borders and affect **the whole geographical scope defined by the Pilot Common Project**. Specific surveys – associated to **Airborne capabilities** and to the **Flight Planning capabilities** – have been distributed to Airlines headquartered within the European Union, in order to build a representative view of the current status of implementation of PCP-related technologies and operational elements.

Ground gaps – Monitoring Overview

A generic **mock-up of the charts used to outline and provide for a representation of the result of the SDM Monitoring Exercise** is proposed hereafter for illustrative purposes. The structure of such chart has been developed with the specific objective of providing the reader with a **wide set of data and information** within a single snapshot: the following paragraphs include an overall explanation on how such information is presented.
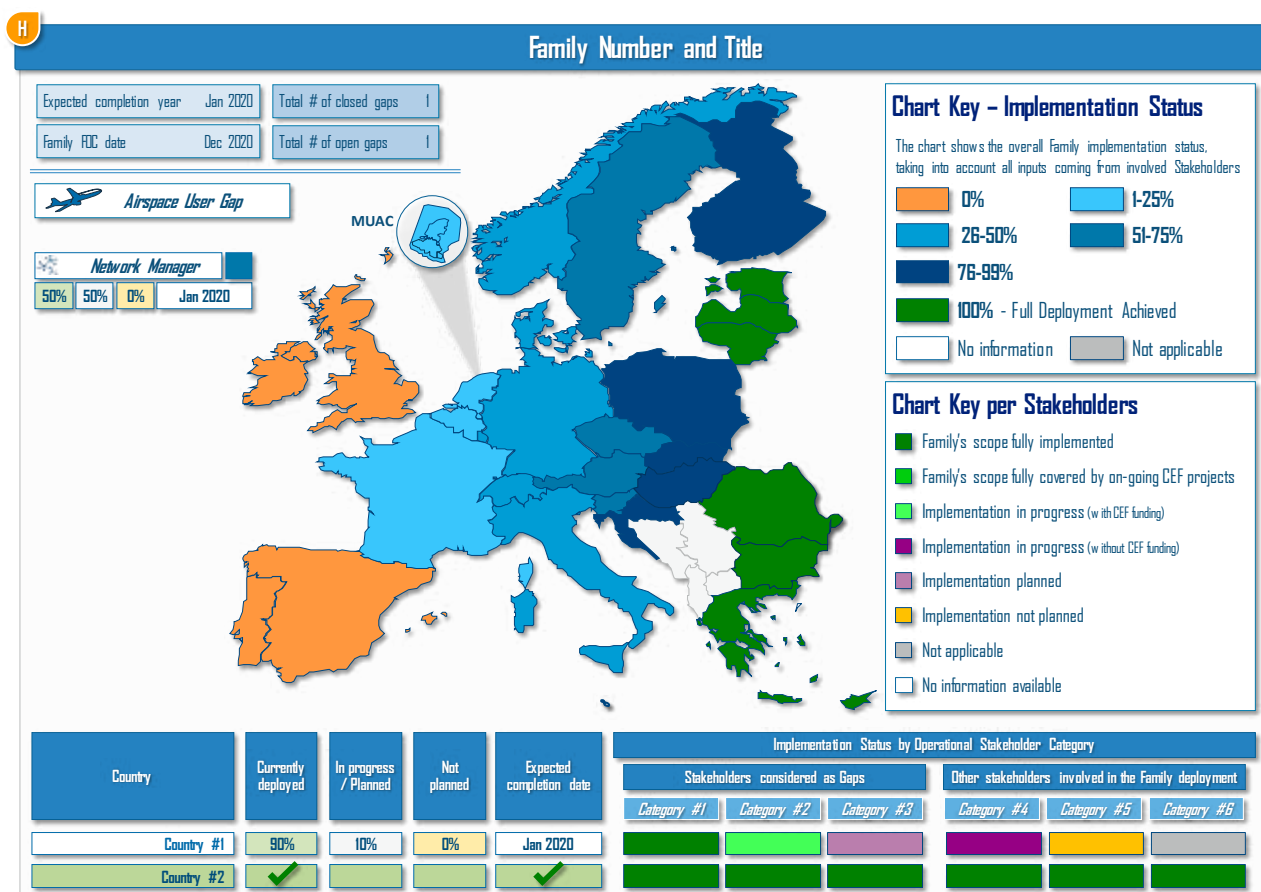
H **Family Number and Title**

Each chart is dedicated to a specific Family: its **number and title** are identified within the header of the charts. Furthermore, the **level of readiness for implementation** (High/Medium/Low) is mentioned, listing the readiness of the technological and operational elements included in the Family scope. The color of the banner indicates the category of the family (blue for Core PCP families, green for facilitating families, light red for complementary families).

The Europe chart shows **different colors for each country included within the geographical scope** of Regulation (EU) n. 716/2014; in addition, the **Network Manager** and **Maastricht Upper Area Control** (MUAC) are represented, as their specific activities expand beyond national borders. For **ATM Functionalities #1 and #2**, whose geographical scope is structured on an airport basis, the **25 PCP airports** are indicated, complemented – where applicable – by the Network Manager.

Chart Key – Implementation Status
The chart shows the overall Family implementation status, taking into account all inputs coming from involved Stakeholders

▭	0%	▭	1-25%
▭	26-50%	▭	51-75%
▭	76-99%		
▭	100% - Full Deployment Achieved		
▭	No information	▭	Not applicable
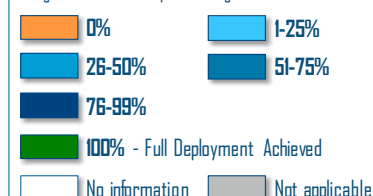
Such colors provide a quick and effective **indication of the overall implementation status of the Family**, as each of them represents a different percentage of completion of the Family, corresponding to the **current percentage of implementation** (i.e. what has been already deployed by the relevant operational stakeholders).

Country	Currently deployed	In progress / Planned	Not planned	Expected completion date
Country #1	70%	20%	10%	Jan 2020
Country #2	✓			✓

This percentage is also **explicitly reported** – within a green box - in the **table on the left**, for applicable country or airport. The current status of implementation is then complemented by **two additional percentages**:

- the **"in progress / planned" percentage**, included in the grey boxes, which identifies the percentage of the Family that is covered by on-going activities and/or is planned to be covered by future initiatives (both within and beyond the SDM coordination);
- the **"not planned" percentage**, included within the light-yellow boxes, which corresponds to the percentage of the Family for which no specific plan has been elaborated by the relevant operational stakeholders.

Whenever a **Family has been fully deployed** at local level, the **whole row is covered in green**.

In addition, thanks to the information gathered from the organizations consulted through the Monitoring Exercise, an **expected completion date is provided** for each gap: this date represents the date of achievement of the full deployment, i.e. the date in which all operational stakeholders operating within a certain country/airport plan to complete the implementation of the Family.

All information stemming from local deployment initiatives will be summarized within the boxes included in the upper left corner of the chart, which report – at Family level – the following information:

Expected completion year	Total # of closed gaps
Family FOC date	Total # of open gaps

- the **expected completion year**, i.e. when the Family will be implemented within its whole geographical scope (e.g. all countries and airports), in comparison with the Full Operational Capability date, as identified in the SESAR Deployment Programme;
- the **total number of gaps which have already been closed** by operational stakeholders;
- the **total number of gaps which remain open**, thus needing additional deployment activities before the full implementation is achieved at local level.

DETAILED VIEWS PER FAMILY

Implementation Status by Operational Stakeholder Category	
Stakeholders considered as Gaps	Other stakeholders involved in the Family deployment

For each country, the **right section of the table** allows readers to check the **status of implementation for each category of stakeholders** impacted by the Regulation and/or involved in the Family full deployment. Specifically, building on the clustering included in the Family descriptions from the Planning View, two kinds of involvement per stakeholder category is envisaged:

- **Stakeholders considered as gaps** – including those stakeholder categories that are requested by the Pilot Common Project regulatory framework to directly invest to fill-in the implementation gaps and are therefore potentially eligible for co-funding under the upcoming CEF Transport Calls;

- **Other stakeholders involved in the Family deployment**, including those categories that shall be considered as contributors to the full operational deployment of the Family itself, without being necessarily requested by the PCP regulatory framework to invest.

Building and further refining the clustering used in the previous releases of the Deployment Programme, **seven categories of implementation status** have been identified **for each involved stakeholder**, plus an eighth one in case of missing information. Such information will be featured in the right section of the table at the bottom of the chart and will be populated **on the basis of inputs provided by operational stakeholders** through the Monitoring Exercise and – for the SDM-coordinated implementation activities – on the basis of the outcomes of SDM coordination. The following chart key / categories are represented:

Chart Key per Stakeholders

- ■ Family's scope fully implemented
- ■ Family's scope fully covered by on-going CEF projects
- ■ Implementation in progress (with CEF funding)
- ■ Implementation in progress (without CEF funding)
- ■ Implementation planned
- ■ Implementation not planned
- ■ Not applicable
- ☐ No information available
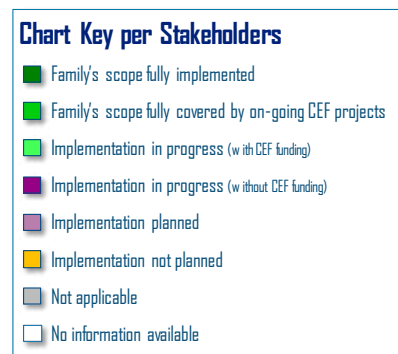
1. **Family's scope fully implemented**, thus no additional activities to fully deploy the Family scope is expected by the operational stakeholder;
2. **Family's scope fully covered by on-going CEF projects**, thus the current SDM-coordinated Implementation Projects are expected to lead to the full deployment of the technological and operational elements associated to the Family from the operational stakeholder's perspective;
3. **Implementation in progress (with CEF funding)**: in this case, the operational stakeholder is directly involved in one or more CEF-funded and SDM-coordinated Implementation Projects that are contributing to the deployment of the Family;
4. **Implementation in progress (without CEF funding)**: the operational stakeholder is currently deploying the technological and/or operational elements within the Family scope's, without the CEF funding support and beyond the SDM remit;
5. **Implementation planned**: the operational stakeholder has plans to deploy the Family, although the associated implementation activities have not started yet;
6. **Implementation not planned:** in this case, no actual plans to implement the Family have been prepared by the operational stakeholder;
7. **Not applicable**: in this case, taking into account the specific features and the local arrangements of the geographical scope of the implementation, the operational stakeholder is not expected to be involved in the Family deployment activities.
8. **No information available**.

✈ *Airspace User Gap*

Whenever the specific features of Family (as described within the Planning View 2017) require for an **active involvement of the Airspace Users** to achieve its full deployment and the realization of the related performance benefits, **a dedicated label** has been added. Due to the nature of the AU stakeholders, which are not strictly connected to an EU State but are rather operating beyond national borders and across the whole PCP geographical scope, such label highlights the identification of **a dedicated Airspace Users gap for the Family**.

Furthermore, the proposed charts also mark those **implementation initiatives / gaps which are deemed crucial for the improvement of the current performance levels at Network level**, identified in cooperation with the Network Manager in accordance with the latest available version of the European Network Operations Plan and with the European Route Network Improvement Plan (ERNIP) Database. The relevance of such specific implementation gaps – labelled with a dedicated "*N*" symbol - has been identified by applying a family-tailored approach, aiming at ascertaining which **technological and/or operational elements shall be deployed and where**, in order to positively impact on the overall performance of the Network.

AF #1– Extended AMAN and PBN in high density TMA

DETAILED VIEWS PER FAMILY

1.1.1 Basic AMAN

| Expected completion year | Dec 2021 |
| Family FOC date | Jan 2020 |

| Total # of closed gaps | 13 |
| Total # of open gaps | 11 |

Chart Key – Implementation Status

The chart shows the overall Family implementation status, taking into account all inputs coming from involved Stakeholders

- 0%
- 1-25%
- 26-50%
- 51-75%
- 76-99%
- 100% - Full Deployment Achieved
- No information
- Not applicable

Chart Key per Stakeholders

- Family's scope fully implemented
- Family's scope fully covered by on-going CEF projects
- Implementation in progress (with CEF funding)
- Implementation in progress (without CEF funding)
- Implementation planned
- Implementation not planned
- Not applicable
- No information available

Airport	Currently deployed	In progress / Planned	Not planned	Expected completion date	Implementation Status by Operational Stakeholder Category	
					Stakeholders considered as Gaps — ANSPs	Other stakeholders involved in the Family deployment — Airport Operators
Amsterdam Schiphol	30%	70%	0%	Dec 2020		
Barcelona El Prat	✔			✔		
Berlin Brandenburg Airport	10%	90%	0%	Dec 2019		
Brussels National	55%	45%	0%	Dec 2017		
Copenhagen Kastrup	80%	20%	0%	Jun 2018		
Dublin Airport	95%	0%	5%	Dec 2019		
Dusseldorf International	10%	90%	0%	Dec 2019		
Frankfurt International	✔			✔		
London Gatwick	✔			✔		
London Heathrow	✔			✔		
London Stansted	0%	60%	40%	Dec 2021		
Madrid Barajas	✔			✔		
Manchester Ringway	0%	100%	0%	Dec 2021		
Milan Malpensa	10%	90%	0%	Dec 2018		
Munich Franz Josef Strauss	✔			✔		
Nice Cote D'Azur	✔			✔		
Oslo Gardermoen	✔			✔		
Palma de Mallorca Son San Juan	✔			✔		
Paris Charles De Gaulle	✔			✔		
Paris Orly	✔			✔		
Rome Fiumicino	10%	90%	0%	Dec 2018		
Stockholm Arlanda	✔			✔		
Vienna Schwechat	25%	75%	0%	Dec 2019		
Zurich Kloten	✔			✔		

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SESAR DEPLOYMENT MANAGER

1.1.2 AMAN Upgrade to include Extended Horizon function

Expected completion year	Dec 2023
Family FOC date	Jan 2024
Total # of closed gaps	1
Total # of open gaps	24

Chart Key – Implementation Status

The chart shows the overall Family implementation status, taking into account all inputs coming from involved Stakeholders

- 0%
- 1-25%
- 26-50%
- 51-75%
- 76-99%
- 100% - Full Deployment Achieved
- No information
- Not applicable

Chart Key per Stakeholders

- Family's scope fully implemented
- Family's scope fully covered by on-going CEF projects
- Implementation in progress (with CEF funding)
- Implementation in progress (without CEF funding)
- Implementation planned
- Implementation not planned
- Not applicable
- No information available

Network Manager — 10% 90% 0% Dec 2023

Airport	Currently deployed	In progress / Planned	Not planned	Expected completion date	Implementation Status by Operational Stakeholder Category			
					Stakeholders considered as Gaps		Other stakeholders involved	
					ANSPs	Network Manager	Military Authorities	Airport Operators
Amsterdam Schiphol	0%	100%	0%	Dec 2023				
Barcelona El Prat	15%	85%	0%	Dec 2023				
Berlin Brandenburg Airport	10%	90%	0%	Dec 2023				
Brussels National	0%	0%	100%	Dec 2023				
Copenhagen Kastrup	0%	100%	0%	Feb 2022				
Dublin Airport	0%	100%	0%	Dec 2023				
Dusseldorf International	5%	95%	0%	Dec 2023				
Frankfurt International	45%	55%	0%	Dec 2023				
London Gatwick	0%	100%	0%	Dec 2023				
London Heathrow	✓			✓				
London Stansted	0%	0%	100%	Dec 2023				
Madrid Barajas	50%	50%	0%	Dec 2023				
Manchester Ringway	0%	0%	100%	Dec 2023				
Milan Malpensa	10%	90%	0%	Dec 2018				
Munich Franz Josef Strauss	50%	50%	0%	Dec 2023				
Nice Cote D'Azur	25%	75%	0%	Dec 2023				
Oslo Gardermoen	50%	0%	50%	Dec 2023				
Palma de Mallorca Son San Juan	0%	100%	0%	Dec 2023				
Paris Charles De Gaulle	25%	75%	0%	Dec 2023				
Paris Orly	25%	75%	0%	Dec 2023				
Rome Fiumicino	10%	90%	0%	Dec 2018				
Stockholm Arlanda	0%	100%	0%	Dec 2022				
Vienna Schwechat	0%	0%	100%	Dec 2023				
Zurich Kloten	0%	100%	0%	Oct 2017				

DETAILED VIEWS PER FAMILY

SESAR DEPLOYMENT MANAGER

H 1.2.1 RNP APCH with vertical guidance

Expected completion year	Dec 2023
Family FOC date	Jan 2021

Total # of closed gaps	5
Total # of open gaps	19

✈ *Airspace User Gap**

* Through the update of Computer Flight Planning Systems

Chart Key – Implementation Status

The chart shows the overall Family implementation status, taking into account all inputs coming from involved Stakeholders

- 0%
- 1-25%
- 26-50%
- 51-75%
- 76-99%
- 100% - Full Deployment Achieved
- No information
- Not applicable

Chart Key per Stakeholders

- Family's scope fully implemented
- Family's scope fully covered by on-going CEF projects
- Implementation in progress (with CEF funding)
- Implementation in progress (without CEF funding)
- Implementation planned
- Implementation not planned
- Not applicable
- No information available

DETAILED VIEWS PER FAMILY

Airport	Currently deployed	In progress / Planned	Not planned	Expected completion date	ANSPs	Airport Operators	Military Authorities
Amsterdam Schiphol	0%	100%	0%	Dec 2023			
Barcelona El Prat	0%	100%	0%	Dec 2020			
Berlin Brandenburg Airport	0%	50%	50%	Dec 2020			
Brussels National	75%	25%	0%	Sep 2018			
Copenhagen Kastrup	0%	100%	0%	Dec 2019			
Dublin Airport	90%	10%	0%	Dec 2018			
Dusseldorf International	50%	0%	50%	Dec 2020			
Frankfurt International	50%	50%	0%	Dec 2020			
London Gatwick	50%	0%	50%	Dec 2020			
London Heathrow	0%	100%	0%	Dec 2019			
London Stansted	50%	0%	50%	Dec 2019			
Madrid Barajas	0%	100%	0%	Dec 2020			
Manchester Ringway	0%	100%	0%	Dec 2020			
Milan Malpensa	40%	60%	0%	Dec 2019			
Munich Franz Josef Strauss	50%	0%	50%	Dec 2020			
Nice Cote D'Azur	✔			✔			
Oslo Gardermoen	✔			✔			
Palma de Mallorca Son San Juan	85%	15%	0%	Jan 2018			
Paris Charles De Gaulle	70%	30%	0%	Dec 2017			
Paris Orly	✔			✔			
Rome Fiumicino	65%	35%	0%	Dec 2019			
Stockholm Arlanda	0%	100%	0%	Dec 2022			
Vienna Schwechat	✔			✔			
Zurich Kloten	✔			✔			

SESAR DEPLOYMENT MANAGER

H 1.2.2 Geographic Database for Procedure design

| Expected completion year | Dec 2020 | Total # of closed gaps | 13 |
| Family FOC date | Jan 2019 | Total # of open gaps | 11 |

Chart Key – Implementation Status

The chart shows the overall Family implementation status, taking into account all inputs coming from involved Stakeholders

- 0%
- 1-25%
- 26-50%
- 51-75%
- 76-99%
- 100% - Full Deployment Achieved
- No information
- Not applicable

Chart Key per Stakeholders

- Family's scope fully implemented
- Family's scope fully covered by on-going CEF projects
- Implementation in progress (with CEF funding)
- Implementation in progress (without CEF funding)
- Implementation planned
- Implementation not planned
- Not applicable
- No information available

Airport	Currently deployed	In progress / Planned	Not planned	Expected completion date	Implementation Status by Operational Stakeholder Category		
					Stakeholders considered as Gaps		Other stakeholders involved
					ANSPs	Airport Operators	Military Authorities
Amsterdam Schiphol	0%	100%	0%	Dec 2018			
Barcelona El Prat	85%	15%	0%	Dec 2017			
Berlin Brandenburg Airport	✓			✓			
Brussels National	70%	30%	0%	Dec 2018			
Copenhagen Kastrup	0%	0%	100%	-			
Dublin Airport	✓			✓			
Dusseldorf International	✓			✓			
Frankfurt International	✓			✓			
London Gatwick	✓			✓			
London Heathrow	✓			✓			
London Stansted	✓			✓			
Madrid Barajas	85%	15%	0%	Dec 2017			
Manchester Ringway	✓			✓			
Milan Malpensa	✓			✓			
Munich Franz Josef Strauss	✓			✓			
Nice Cote D'Azur	15%	55%	30%	-			
Oslo Gardermoen	✓			✓			
Palma de Mallorca Son San Juan	85%	15%	0%	Dec 2017			
Paris Charles De Gaulle	15%	85%	0%	Dec 2020			
Paris Orly	15%	85%	0%	Dec 2020			
Rome Fiumicino	✓			✓			
Stockholm Arlanda	65%	35%	0%	Dec 2019			
Vienna Schwechat	0%	100%	0%	Dec 2018			
Zurich Kloten	✓			✓			

SESAR DEPLOYMENT MANAGER

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1.2.3 RNP 1 Operations in high density TMAs (ground capabilities)

Expected completion year	Dec 2023
Family FOC date	Jan 2024

Total # of closed gaps	2
Total # of open gaps	22

Chart Key – Implementation Status

The chart shows the overall Family implementation status, taking into account all inputs coming from involved Stakeholders

- 0%
- 1-25%
- 26-50%
- 51-75%
- 76-99%
- 100% - Full Deployment Achieved
- No information
- Not applicable

Chart Key per Stakeholders

- Family's scope fully implemented
- Family's scope fully covered by on-going CEF projects
- Implementation in progress (with CEF funding)
- Implementation in progress (without CEF funding)
- Implementation planned
- Implementation not planned
- Not applicable
- No information available

Airport	Currently deployed	In progress / Planned	Not planned	Expected completion date	Stakeholders considered as Gaps — ANSPs	Stakeholders considered as Gaps — Airport Operators	Other stakeholders involved — Military Authorities
Amsterdam Schiphol	0%	100%	0%	Dec 2023			
Barcelona El Prat	0%	100%	0%	Dec 2023			
Berlin Brandenburg Airport	0%	100%	0%	Dec 2023			
Brussels National	0%	100%	0%	Dec 2023			
Copenhagen Kastrup	0%	100%	0%	Dec 2019			
Dublin Airport	0%	100%	0%	Dec 2018			
Dusseldorf International	0%	100%	0%	Dec 2023			
Frankfurt International	0%	100%	0%	Dec 2023			
London Gatwick	0%	100%	0%	Dec 2023			
London Heathrow	50%	50%	0%	Dec 2023			
London Stansted	50%	50%	0%	Dec 2023			
Madrid Barajas	0%	100%	0%	Dec 2023			
Manchester Ringway	0%	100%	0%	Dec 2023			
Milan Malpensa	0%	100%	0%	Mar 2019			
Munich Franz Josef Strauss	0%	100%	0%	Dec 2023			
Nice Cote D'Azur	0%	0%	100%	-			
Oslo Gardermoen	✔			✔			
Palma de Mallorca Son San Juan	0%	100%	0%	Dec 2023			
Paris Charles De Gaulle	0%	0%	100%	-			
Paris Orly	0%	0%	100%	-			
Rome Fiumicino	0%	100%	0%	Mar 2019			
Stockholm Arlanda	0%	100%	0%	Dec 2020			
Vienna Schwechat	0%	100%	0%	Dec 2023			
Zurich Kloten	✔			✔			

SESAR
DEPLOYMENT MANAGER

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1.2.5 RNP routes connecting Free Route Airspace (FRA) with TMA

Expected completion year	-
Family FOC date	Jan 2024

Network Manager

35%	65%	0%	Dec 2023

Chart Key – Implementation Status

The chart shows the overall Family implementation status, taking into account all inputs coming from involved Stakeholders

- 0%
- 1-25%
- 26-50%
- 51-75%
- 76-99%
- 100% - Full Deployment Achieved
- No information
- Not applicable

Chart Key per Stakeholders

- Family's scope fully implemented
- Family's scope fully covered by on-going CEF projects
- Implementation in progress (with CEF funding)
- Implementation in progress (without CEF funding)
- Implementation planned
- Implementation not planned
- Not applicable
- No information available

Airport	Currently deployed	In progress / Planned	Not planned	Expected completion date	Implementation Status by Operational Stakeholder Category — Stakeholders considered as Gaps		
					ANSPs	Network Manager	Military Authorities
Amsterdam Schiphol	0%	20%	80%	-			
Barcelona El Prat							
Berlin Brandenburg Airport	0%	20%	80%	-			
Brussels National	0%	0%	100%	-			
Copenhagen Kastrup							
Dublin Airport							
Dusseldorf International	0%	20%	80%	-			
Frankfurt International	0%	20%	80%	-			
London Gatwick	0%	0%	100%	-			
London Heathrow	0%	0%	100%	-			
London Stansted	0%	0%	100%	-			
Madrid Barajas							
Manchester Ringway	0%	0%	100%	-			
Milan Malpensa	0%	100%	0%	-			
Munich Franz Josef Strauss	0%	20%	80%	-			
Nice Cote D'Azur	0%	0%	100%	-			
Oslo Gardermoen	0%	0%	100%	-			
Palma de Mallorca Son San Juan							
Paris Charles De Gaulle	0%	0%	100%	-			
Paris Orly	0%	0%	100%	-			
Rome Fiumicino	0%	100%	0%	-			
Stockholm Arlanda	0%	0%	100%	-			
Vienna Schwechat							
Zurich Kloten	0%	0%	100%	-			

DETAILED VIEWS PER FAMILY

SESAR DEPLOYMENT MANAGER

AF #2 – Airport Integration and Throughput

2.1.1 Initial DMAN

Expected completion year	Dec 2023
Family FOC date	Jan 2021

Total # of closed gaps	12
Total # of open gaps	12

Chart Key – Implementation Status

The chart shows the overall Family implementation status, taking into account all inputs coming from involved Stakeholders

- 0%
- 1-25%
- 26-50%
- 51-75%
- 76-99%
- 100% - Full Deployment Achieved
- No information
- Not applicable

Chart Key per Stakeholders

- Family's scope fully implemented
- Family's scope fully covered by on-going CEF projects
- Implementation in progress (with CEF funding)
- Implementation in progress (without CEF funding)
- Implementation planned
- Implementation not planned
- Not applicable
- No information available

Airport	Currently deployed	In progress / Planned	Not planned	Expected completion date	Implementation Status by Operational Stakeholder Category		
					Stakeholders considered as Gaps		Other stakeholders involved
					ANSPs	Airport Operators	Military Authorities
Amsterdam Schiphol	0%	100%	0%	Dec 2020			
Barcelona El Prat	✔			✔			
Berlin Brandenburg Airport	95%	5%	0%	Dec 2020			
Brussels National	✔			✔			
Copenhagen Kastrup	30%	70%	0%	Dec 2018			
Dublin Airport	0%	100%	0%	Dec 2020			
Dusseldorf International	✔			✔			
Frankfurt International	✔			✔			
London Gatwick	✔			✔			
London Heathrow	✔			✔			
London Stansted	0%	100%	0%	Dec 2023			
Madrid Barajas	✔			✔			
Manchester Ringway	0%	0%	100%	-			
Milan Malpensa	0%	0%	100%	-			
Munich Franz Josef Strauss	✔			✔			
Nice Cote D'Azur	35%	65%	0%	Dec 2020			
Oslo Gardermoen	✔			✔			
Palma de Mallorca Son San Juan	✔			✔			
Paris Charles De Gaulle	0%	100%	0%	Dec 2020			
Paris Orly	0%	100%	0%	Dec 2020			
Rome Fiumicino	0%	0%	100%	-			
Stockholm Arlanda	0%	100%	0%	Dec 2018			
Vienna Schwechat	✔			✔			
Zurich Kloten	✔			✔			

DETAILED VIEWS PER FAMILY

SESAR DEPLOYMENT MANAGER

2.1.2 Electronic Flight Strips (EFS)

| Expected completion year | Dec 2020 | Total # of closed gaps | 13 |
| Family FOC date | Jan 2021 | Total # of open gaps | 11 |

Chart Key – Implementation Status

The chart shows the overall Family implementation status, taking into account all inputs coming from involved Stakeholders

- 0%
- 1-25%
- 26-50%
- 51-75%
- 76-99%
- 100% - Full Deployment Achieved
- No information
- Not applicable

Chart Key per Stakeholders

- Family's scope fully implemented
- Family's scope fully covered by on-going CEF projects
- Implementation in progress (with CEF funding)
- Implementation in progress (without CEF funding)
- Implementation planned
- Implementation not planned
- Not applicable
- No information available

Airport	Currently deployed	In progress / Planned	Not planned	Expected completion date	ANSPs	Airport Operators	Military Authorities
Amsterdam Schiphol	0%	100%	0%	Dec 2020			
Barcelona El Prat	20%	80%	0%	Dec 2019			
Berlin Brandenburg Airport	95%	5%	0%	Dec 2020			
Brussels National	✓			✓			
Copenhagen Kastrup	✓			✓			
Dublin Airport	✓			✓			
Dusseldorf International	✓			✓			
Frankfurt International	✓			✓			
London Gatwick	30%	70%	0%	Sep 2019			
London Heathrow	30%	70%	0%	Sep 2019			
London Stansted	30%	70%	0%	Sep 2019			
Madrid Barajas	20%	80%	0%	Dec 2019			
Manchester Ringway	✓			✓			
Milan Malpensa	✓			✓			
Munich Franz Josef Strauss	✓			✓			
Nice Cote D'Azur	0%	100%	0%	Dec 2020			
Oslo Gardermoen	✓			✓			
Palma de Mallorca Son San Juan	20%	80%	0%	Dec 2019			
Paris Charles De Gaulle	0%	100%	0%	Dec 2020			
Paris Orly	0%	100%	0%	Dec 2020			
Rome Fiumicino	✓			✓			
Stockholm Arlanda	✓			✓			
Vienna Schwechat	✓			✓			
Zurich Kloten	✓			✓			

2.1.3 Basic A-CDM

Expected completion year	Dec 2020
Family FOC date	Jan 2021
Total # of closed gaps	14
Total # of open gaps	10

Chart Key – Implementation Status

The chart shows the overall Family implementation status, taking into account all inputs coming from involved Stakeholders

- 0%
- 1-25%
- 26-50%
- 51-75%
- 76-99%
- 100% - Full Deployment Achieved
- No information
- Not applicable

Chart Key per Stakeholders

- Family's scope fully implemented
- Family's scope fully covered by on-going CEF projects
- Implementation in progress (with CEF funding)
- Implementation in progress (without CEF funding)
- Implementation planned
- Implementation not planned
- Not applicable
- No information available

Airport	Currently deployed	In progress / Planned	Not planned	Expected completion date	Implementation Status by Operational Stakeholder Category			
					Stakeholders considered as Gaps		Other stakeholders involved in the Family deployment	
					ANSPs	Airport Operators	Network Manager	Military Authorities
(N) Amsterdam Schiphol	35%	65%	0%	Dec 2020				
Barcelona El Prat	✓			✓				
Berlin Brandenburg Airport	0%	100%	0%	Dec 2020				
Brussels National	✓			✓				
Copenhagen Kastrup	✓			✓				
Dublin Airport	0%	100%	0%	Jun 2018				
Dusseldorf International	✓			✓				
Frankfurt International	✓			✓				
London Gatwick	✓			✓				
London Heathrow	✓			✓				
London Stansted	0%	100%	0%	Dec 2020				
Madrid Barajas	✓			✓				
Manchester Ringway	0%	100%	0%	Dec 2020				
Milan Malpensa	✓			✓				
Munich Franz Josef Strauss	✓			✓				
Nice Cote D'Azur	0%	100%	0%	Dec 2020				
Oslo Gardermoen	✓			✓				
Palma de Mallorca Son San Juan	✓			✓				
Paris Charles De Gaulle	35%	65%	0%	Dec 2020				
(N) Paris Orly	25%	75%	0%	Dec 2020				
Rome Fiumicino	✓			✓				
Stockholm Arlanda	45%	55%	0%	Dec 2018				
Vienna Schwechat	30%	70%	0%	Dec 2020				
Zurich Kloten	✓			✓				

SESAR
DEPLOYMENT MANAGER

2.1.4 Initial Airport Operations Plan (AOP)

Expected completion year	Dec 2024
Family FOC date	Jan 2021

Total # of closed gaps	1
Total # of open gaps	23

Chart Key – Implementation Status

The chart shows the overall Family implementation status, taking into account all inputs coming from involved Stakeholders

- 0%
- 1-25%
- 26-50%
- 51-75%
- 76-99%
- 100% - Full Deployment Achieved
- No information
- Not applicable

Chart Key per Stakeholders

- Family's scope fully implemented
- Family's scope fully covered by on-going CEF projects
- Implementation in progress (with CEF funding)
- Implementation in progress (without CEF funding)
- Implementation planned
- Implementation not planned
- Not applicable
- No information available

Airport	Currently deployed	In progress / Planned	Not planned	Expected completion date	ANSPs	Airport Operators	Military Authorities	MET Providers
(N) Amsterdam Schiphol	0%	100%	0%	Dec 2020	Implementation planned	Implementation in progress (with CEF funding)	No information	Implementation in progress (with CEF funding)
Barcelona El Prat	0%	100%	0%	Dec 2021	Not applicable	Implementation planned	Not applicable	Implementation not planned
Berlin Brandenburg Airport	45%	45%	10%	May 2018	Not applicable	Implementation in progress (without CEF funding)	No information	Implementation not planned
Brussels National	0%	100%	0%	Nov 2020	Implementation planned	Implementation in progress (with CEF funding)	Not applicable	Implementation planned
Copenhagen Kastrup	0%	100%	0%	Dec 2019	Not applicable	Implementation in progress (with CEF funding)	Not applicable	Implementation not planned
Dublin Airport	0%	0%	100%	-	Implementation not planned	Implementation not planned	Implementation not planned	Implementation planned
Dusseldorf International	0%	100%	0%	Dec 2020	Not applicable	Implementation in progress (with CEF funding)	No information	Implementation not planned
Frankfurt International	0%	85%	15%	-	Not applicable	Implementation in progress (with CEF funding)	Not applicable	Implementation not planned
(N) London Gatwick	0%	100%	0%	Dec 2021	Not applicable	Implementation in progress (with CEF funding)	Not applicable	Family's scope fully implemented
London Heathrow	95%	5%	0%	Jul 2017	Not applicable	Family's scope fully covered by on-going CEF projects	Not applicable	Family's scope fully implemented
London Stansted	0%	100%	0%	Dec 2021	Not applicable	Implementation planned	Not applicable	Family's scope fully implemented
Madrid Barajas	0%	100%	0%	Dec 2021	Not applicable	Implementation planned	Not applicable	Implementation not planned
Manchester Ringway	0%	100%	0%	Dec 2020	Not applicable	Implementation planned	Not applicable	Family's scope fully implemented
Milan Malpensa	0%	100%	0%	Dec 2024	Implementation planned	Implementation planned	Implementation not planned	Implementation planned
Munich Franz Josef Strauss	0%	85%	15%	Dec 2020	Not applicable	Implementation in progress (with CEF funding)	Implementation not planned	Implementation not planned
Nice Cote D'Azur	0%	100%	0%	Dec 2021	Implementation not planned	Implementation in progress (with CEF funding)	Not applicable	Family's scope fully implemented
Oslo Gardermoen	0%	0%	100%	-	Implementation not planned	Implementation in progress (with CEF funding)	Not applicable	Implementation not planned
Palma de Mallorca Son San Juan	0%	100%	0%	Dec 2021	Not applicable	Implementation planned	No information	Implementation not planned
Paris Charles De Gaulle	0%	100%	0%	Dec 2020	Implementation in progress (without CEF funding)	Implementation in progress (with CEF funding)	Not applicable	Family's scope fully implemented
(N) Paris Orly	0%	100%	0%	Dec 2020	Implementation in progress (without CEF funding)	Implementation in progress (with CEF funding)	Not applicable	Family's scope fully implemented
Rome Fiumicino	0%	100%	0%	Dec 2020	Implementation planned	Implementation in progress (with CEF funding)	Not applicable	Implementation planned
Stockholm Arlanda	0%	100%	0%	Dec 2020	Not applicable	Implementation planned	No information	Implementation not planned
Vienna Schwechat	0%	100%	0%	Dec 2021	Not applicable	Implementation planned	Not applicable	Implementation not planned
Zurich Kloten	✔		✔		Not applicable	Family's scope fully implemented	Family's scope fully implemented	Not applicable

Implementation Status by Operational Stakeholder Category — Stakeholders considered as Gaps (ANSPs, Airport Operators); Other stakeholders involved in the Family deployment (Military Authorities, MET Providers)

DETAILED VIEWS PER FAMILY

SESAR DEPLOYMENT MANAGER

2.2.1 A-SMGCS Level 1 and 2

Expected completion year	Dec 2020	
Family FOC date	Jan 2021	

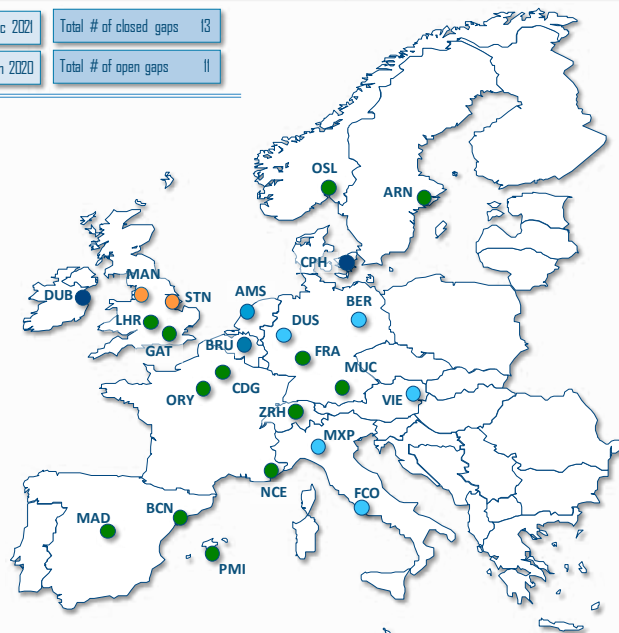|		
Total # of closed gaps	9	
Total # of open gaps	15	

Chart Key – Implementation Status

The chart shows the overall Family implementation status, taking into account all inputs coming from involved Stakeholders
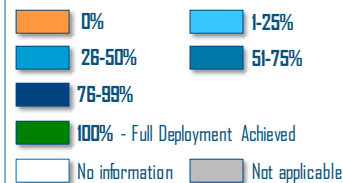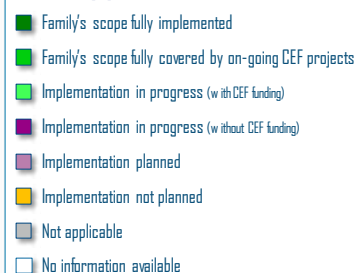
- 0%
- 1-25%
- 26-50%
- 51-75%
- 76-99%
- 100% - Full Deployment Achieved
- No information
- Not applicable

Chart Key per Stakeholders

- Family's scope fully implemented
- Family's scope fully covered by on-going CEF projects
- Implementation in progress (with CEF funding)
- Implementation in progress (without CEF funding)
- Implementation planned
- Implementation not planned
- Not applicable
- No information available

Airport	Currently deployed	In progress / Planned	Not planned	Expected completion date	Implementation Status by Operational Stakeholder Category		
					Stakeholders considered as Gaps		Other stakeholders involved
					ANSPs	Airport Operators	Military Authorities
Amsterdam Schiphol	0%	100%	0%	Dec 2020			
Barcelona El Prat	30%	70%	0%	Dec 2019			
Berlin Brandenburg Airport	0%	100%	0%	Dec 2020			
Brussels National	✓			✓			
Copenhagen Kastrup	✓			✓			
Dublin Airport	✓			✓			
Dusseldorf International	70%	30%	0%	Dec 2020			
Frankfurt International	0%	100%	0%	Dec 2020			
London Gatwick	✓			✓			
London Heathrow	30%	70%	0%	May 2018			
London Stansted	✓			✓			
Madrid Barajas	30%	70%	0%	Dec 2019			
Manchester Ringway	0%	100%	0%	Dec 2020			
Milan Malpensa	0%	100%	0%	Dec 2020			
Munich Franz Josef Strauss	✓			✓			
Nice Cote D'Azur	30%	70%	0%	Dec 2020			
Oslo Gardermoen	✓			✓			
Palma de Mallorca Son San Juan	30%	70%	0%	Dec 2019			
Paris Charles De Gaulle	50%	50%	0%	Dec 2019			
Paris Orly	50%	50%	0%	Dec 2019			
Rome Fiumicino	0%	100%	0%	Dec 2019			
Stockholm Arlanda	0%	100%	0%	Dec 2019			
Vienna Schwechat	✓			✓			
Zurich Kloten	✓			✓			

DETAILED VIEWS PER FAMILY

SESAR DEPLOYMENT MANAGER

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2.3.1 Time Based Separation (TBS)

Expected completion year	Dec 2024
Family FOC date	Jan 2024

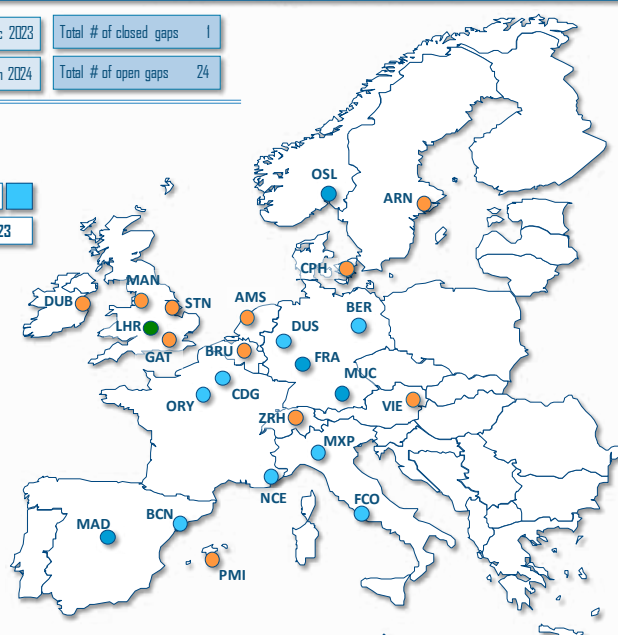|	
Total # of closed gaps	1
Total # of open gaps	15

Chart Key – Implementation Status

The chart shows the overall Family implementation status, taking into account all inputs coming from involved Stakeholders
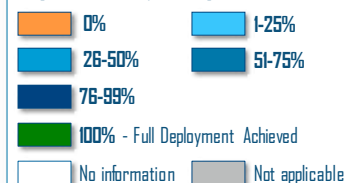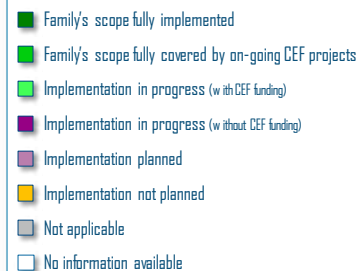
- 0%
- 1-25%
- 26-50%
- 51-75%
- 76-99%
- 100% - Full Deployment Achieved
- No information
- Not applicable

Chart Key per Stakeholders

- Family's scope fully implemented
- Family's scope fully covered by on-going CEF projects
- Implementation in progress (with CEF funding)
- Implementation in progress (without CEF funding)
- Implementation planned
- Implementation not planned
- Not applicable
- No information available

Airport	Currently deployed	In progress / Planned	Not planned	Expected completion date	Implementation Status by Operational Stakeholder Category	
					Stakeholders considered as Gaps — ANSPs	Other stakeholders involved in the Family deployment — Airport Operators
(N) Amsterdam Schiphol	0%	100%	0%	Dec 2024	Implementation planned	Not applicable
Copenhagen Kastrup	0%	100%	0%	May 2022	Implementation planned	Implementation in progress (without CEF funding)
Dublin Airport	0%	100%	0%	Dec 2023	Implementation planned	Implementation planned
Dusseldorf International	0%	0%	100%	-	Implementation not planned	Not applicable
Frankfurt International	0%	0%	100%	-	Implementation not planned	Not applicable
(N) London Gatwick	90%	0%	10%	Dec 2023	Implementation not planned	Implementation in progress (with CEF funding)
London Heathrow	✔			✔	Family's scope fully implemented	Family's scope fully implemented
Madrid Barajas	0%	100%	0%	Dec 2023	Implementation planned	Not applicable
Manchester Ringway	0%	0%	100%	-	Implementation not planned	Implementation not planned
Milan Malpensa	0%	0%	100%	-	Implementation not planned	Not applicable
Munich Franz Josef Strauss	0%	0%	100%	-	Implementation not planned	Not applicable
Oslo Gardermoen	0%	0%	100%	-	Implementation not planned	Implementation not planned
(N) Paris Orly	0%	0%	100%	-	Implementation not planned	Not applicable
Rome Fiumicino	0%	0%	100%	-	Implementation not planned	Not applicable
Vienna Schwechat	0%	20%	80%	Dec 2023	Implementation in progress (with CEF funding)	Implementation planned
Zurich Kloten	0%	0%	100%	-	Implementation not planned	Implementation not planned

DETAILED VIEWS PER FAMILY

SESAR DEPLOYMENT MANAGER

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2.4.1 A-SMGCS Routing and Planning Functions

Expected completion year	Dec 2023
Family FOC date	Jan 2024

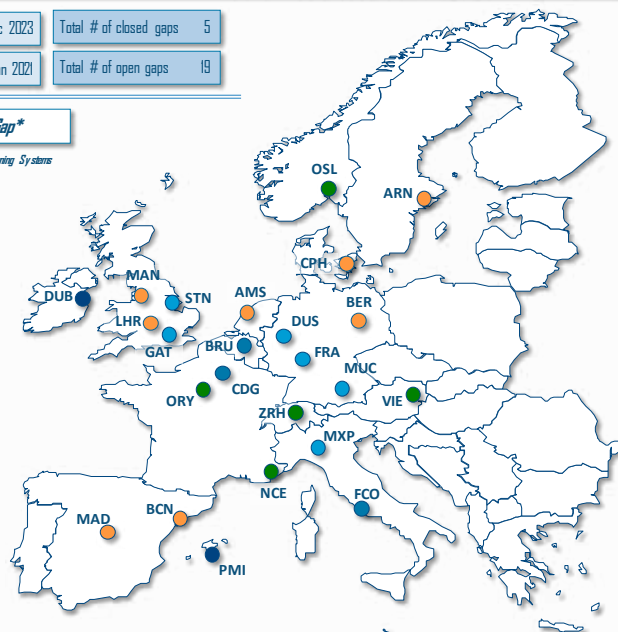| Total # of closed gaps	1
Total # of open gaps	23

Chart Key – Implementation Status

The chart shows the overall Family implementation status, taking into account all inputs coming from involved Stakeholders
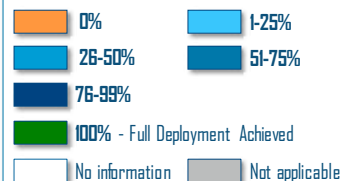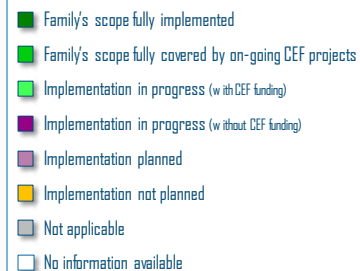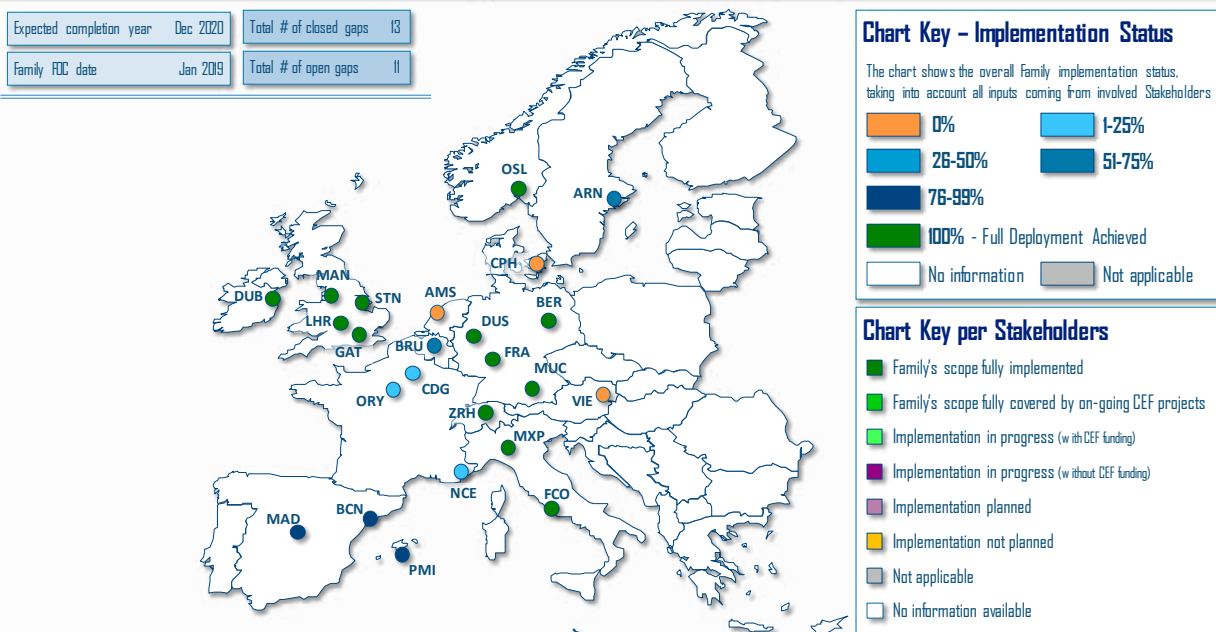
- 0%
- 1-25%
- 26-50%
- 51-75%
- 76-99%
- 100% - Full Deployment Achieved
- No information
- Not applicable

Chart Key per Stakeholders

- Family's scope fully implemented
- Family's scope fully covered by on-going CEF projects
- Implementation in progress (with CEF funding)
- Implementation in progress (without CEF funding)
- Implementation planned
- Implementation not planned
- Not applicable
- No information available

Airport	Currently deployed	In progress / Planned	Not planned	Expected completion date	Implementation Status by Operational Stakeholder Category — Stakeholders considered as Gaps: ANSPs	Airport Operators
(N) Amsterdam Schiphol	0%	100%	0%	Dec 2023	Implementation planned	Implementation in progress (with CEF funding)
Barcelona El Prat	0%	100%	0%	Dec 2023	Implementation planned	Not applicable
Berlin Brandenburg Airport	0%	100%	0%	Dec 2023	Implementation in progress (with CEF funding)	Implementation not planned
Brussels National	✔			✔	Family's scope fully implemented	Implementation in progress (with CEF funding)
Copenhagen Kastrup	0%	100%	0%	Sep 2020	Implementation in progress (with CEF funding)	Implementation in progress (with CEF funding)
Dublin Airport	0%	100%	0%	Dec 2023	Implementation in progress (without CEF funding)	Not applicable
Dusseldorf International	0%	100%	0%	Dec 2023	Implementation in progress (with CEF funding)	Not applicable
Frankfurt International	0%	100%	0%	Dec 2023	Implementation in progress (with CEF funding)	Implementation in progress (with CEF funding)
London Gatwick	0%	100%	0%	Dec 2020	Not applicable	Implementation in progress (with CEF funding)
(N) London Heathrow	0%	100%	0%	Nov 2020	Not applicable	Implementation planned
London Stansted	0%	0%	100%	-	Not applicable	Implementation not planned
Madrid Barajas	0%	100%	0%	Dec 2023	Implementation planned	Not applicable
Manchester Ringway	0%	100%	0%	Dec 2023	Not applicable	Implementation in progress (with CEF funding)
Milan Malpensa	0%	0%	100%	-	Implementation not planned	Not applicable
Munich Franz Josef Strauss	0%	100%	0%	Dec 2023	Implementation in progress (with CEF funding)	Implementation planned
Nice Cote D'Azur	0%	100%	0%	Dec 2023	Implementation in progress (with CEF funding)	Implementation in progress (with CEF funding)
Oslo Gardermoen	0%	0%	100%	-	Implementation not planned	Implementation in progress (with CEF funding)
Palma de Mallorca Son San Juan	0%	100%	0%	Dec 2023	Implementation planned	Not applicable
Paris Charles De Gaulle	0%	100%	0%	Dec 2021	Implementation in progress (with CEF funding)	Implementation in progress (with CEF funding)
(N) Paris Orly	0%	100%	0%	Dec 2021	Implementation in progress (with CEF funding)	Implementation in progress (with CEF funding)
Rome Fiumicino	0%	100%	0%	Dec 2023	Implementation not planned	Implementation in progress (with CEF funding)
Stockholm Arlanda	0%	100%	0%	Dec 2020	Not applicable	Implementation in progress (with CEF funding)
Vienna Schwechat	0%	100%	0%	Dec 2023	Implementation planned	Family's scope fully implemented
Zurich Kloten	0%	100%	0%	Dec 2020	Implementation planned	Implementation planned

SESAR DEPLOYMENT MANAGER

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2.5.1 Airport Safety Nets associated with A-SMGCS (Level 2)

Expected completion year	Dec 2023
Family FOC date	Jan 2021

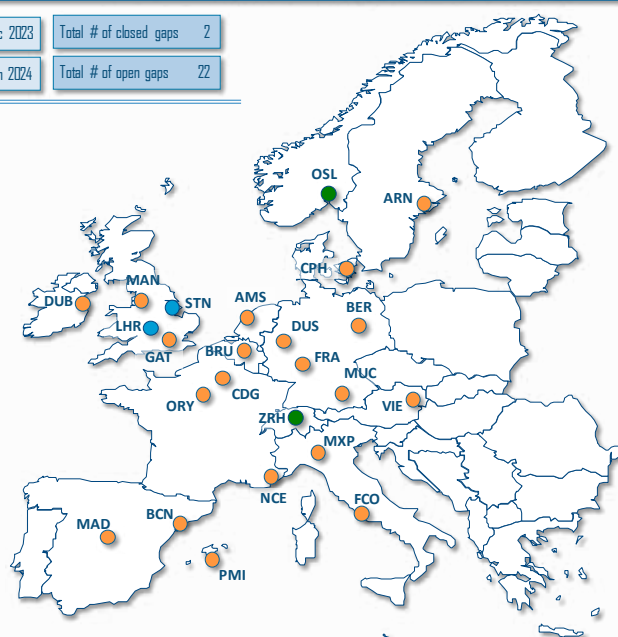|	
Total # of closed gaps	1
Total # of open gaps	23

Chart Key – Implementation Status

The chart shows the overall Family implementation status, taking into account all inputs coming from involved Stakeholders
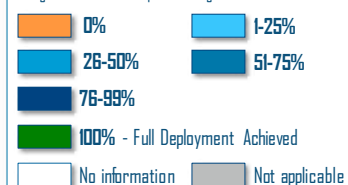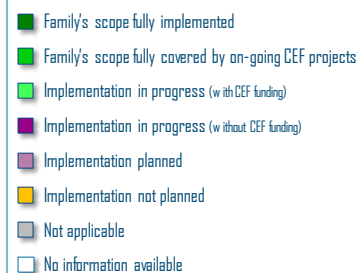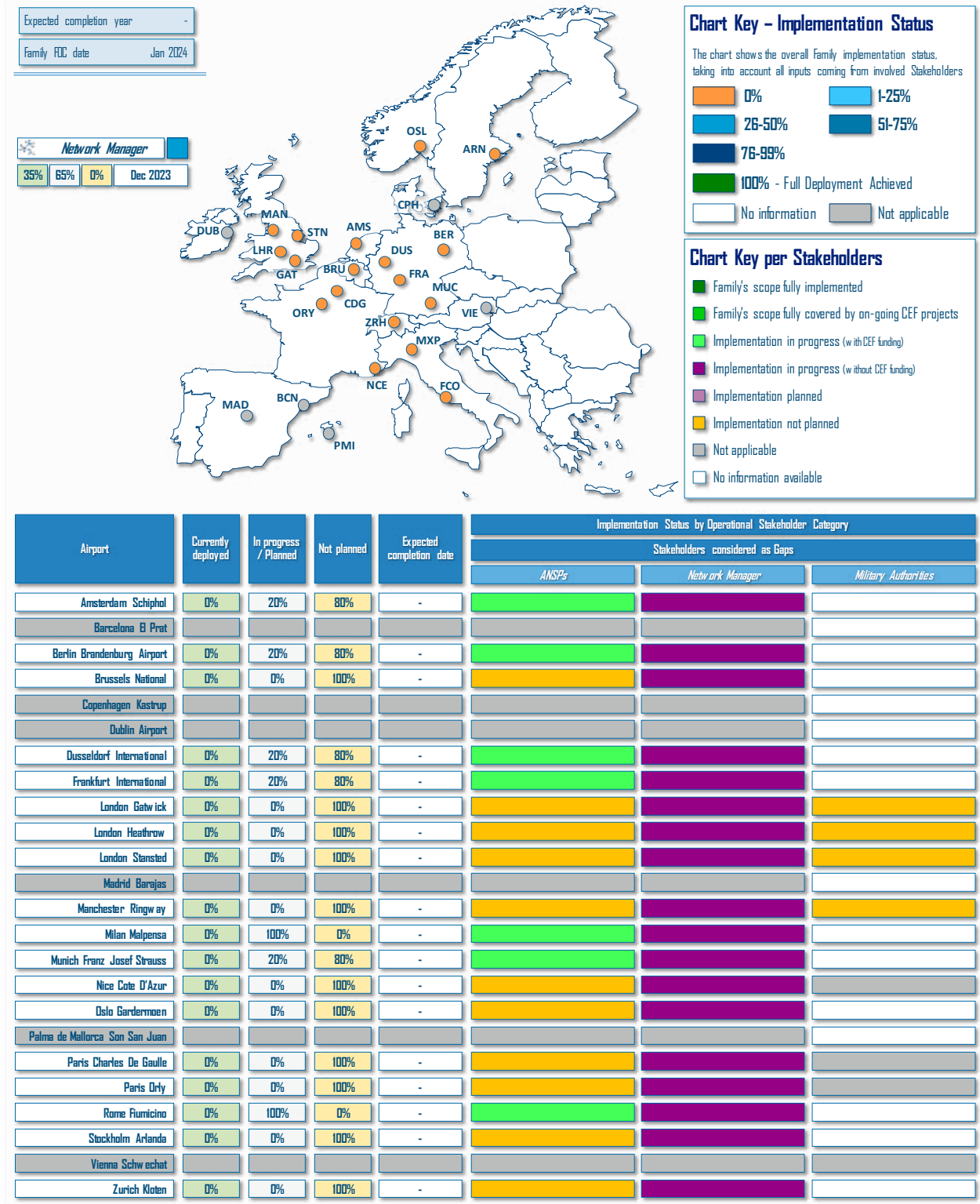
- 0%
- 1-25%
- 26-50%
- 51-75%
- 76-99%
- 100% - Full Deployment Achieved
- No information
- Not applicable

Chart Key per Stakeholders

- Family's scope fully implemented
- Family's scope fully covered by on-going CEF projects
- Implementation in progress (with CEF funding)
- Implementation in progress (without CEF funding)
- Implementation planned
- Implementation not planned
- Not applicable
- No information available
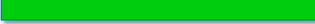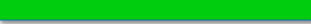
Airport	Currently deployed	In progress / Planned	Not planned	Expected completion date	Implementation Status by Operational Stakeholder Category — Stakeholders considered as Gaps — ANSPs	Airport Operators
Ⓝ Amsterdam Schiphol	0%	100%	0%	Dec 2020		
Barcelona El Prat	0%	100%	0%	Dec 2020		
Berlin Brandenburg Airport	0%	100%	0%	-		
Brussels National	✔			✔		
Copenhagen Kastrup	0%	100%	0%	Sep 2020		
Dublin Airport	0%	100%	0%	Dec 2020		
Dusseldorf International	0%	100%	0%	-		
Frankfurt International	0%	100%	0%	-		
Ⓝ London Gatwick	0%	100%	0%	Dec 2020		
Ⓝ London Heathrow	0%	100%	0%	Dec 2018		
London Stansted	0%	15%	85%	-		
Madrid Barajas	0%	100%	0%	Dec 2020		
Manchester Ringway	0%	100%	0%	Dec 2020		
Milan Malpensa	0%	100%	0%	Dec 2021		
Munich Franz Josef Strauss	0%	100%	0%	-		
Nice Cote D'Azur	0%	100%	0%	Dec 2023		
Oslo Gardermoen	0%	100%	0%	Dec 2020		
Palma de Mallorca Son San Juan	0%	100%	0%	Dec 2020		
Paris Charles De Gaulle	0%	100%	0%	Dec 2021		
Ⓝ Paris Orly	0%	100%	0%	Dec 2021		
Rome Fiumicino	0%	100%	0%	Dec 2020		
Stockholm Arlanda	0%	100%	0%	Dec 2020		
Vienna Schwechat	0%	100%	0%	Dec 2020		
Ⓝ Zurich Kloten	0%	100%	0%	Dec 2018		

DETAILED VIEWS PER FAMILY

SESAR DEPLOYMENT MANAGER

2.5.2 Vehicle and aircraft systems contributing to Airport Safety Nets

Expected completion year	Dec 2023
Family FOC date	Jan 2021

Total # of closed gaps	3
Total # of open gaps	21

✈ **Airspace User Gap***

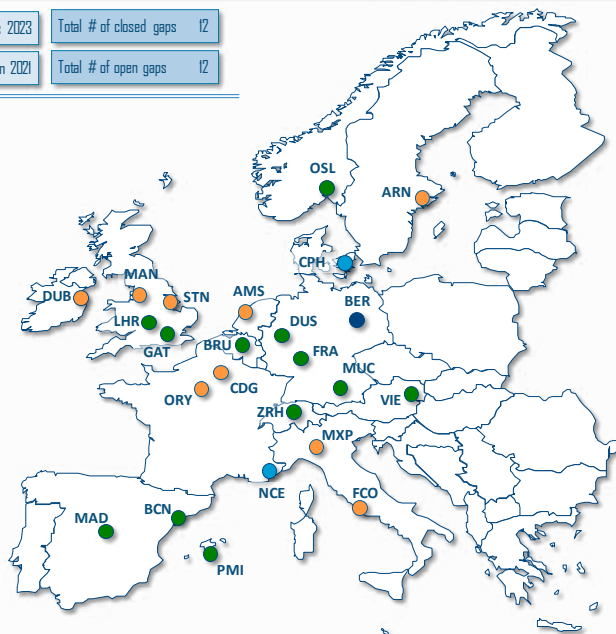* Through the update of Computer Flight Planning Systems

Chart Key – Implementation Status

The chart shows the overall Family implementation status, taking into account all inputs coming from involved Stakeholders
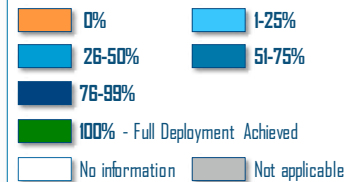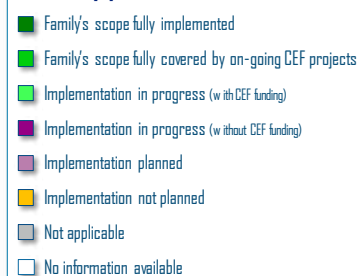
- 0%
- 1-25%
- 26-50%
- 51-75%
- 76-99%
- 100% - Full Deployment Achieved
- No information
- Not applicable

Chart Key per Stakeholders

- Family's scope fully implemented
- Family's scope fully covered by on-going CEF projects
- Implementation in progress (with CEF funding)
- Implementation in progress (without CEF funding)
- Implementation planned
- Implementation not planned
- Not applicable
- No information available

Airport	Currently deployed	In progress / Planned	Not planned	Expected completion date	Implementation Status by Operational Stakeholder Category — Stakeholders considered as Gaps		
					ANSPs	Airport Operators	Military Authorities
(N) Amsterdam Schiphol	0%	100%	0%	Dec 2020	Implementation in progress (without CEF funding)	Implementation in progress (with CEF funding)	
Barcelona El Prat	0%	100%	0%	Dec 2020	Implementation in progress (without CEF funding)	Implementation in progress (without CEF funding)	
Berlin Brandenburg Airport	0%	45%	55%	Dec 2020	Not applicable	Implementation in progress (without CEF funding)	
Brussels National	✓			✓	Not applicable	Family's scope fully implemented	
Copenhagen Kastrup	0%	100%	0%	Dec 2020	Not applicable	Implementation in progress (with CEF funding)	
Dublin Airport	0%	100%	0%	Dec 2020	Implementation planned	Implementation planned	
Dusseldorf International	0%	100%	0%	Dec 2020	Not applicable	Implementation in progress (with CEF funding)	
Frankfurt International	0%	100%	0%	Dec 2020	Not applicable	Implementation in progress (with CEF funding)	
(N) London Gatwick	0%	0%	100%	-	Not applicable	Implementation not planned	
(N) London Heathrow	0%	100%	0%	Nov 2018	Not applicable	Implementation planned	
London Stansted	0%	100%	0%	Dec 2017	Not applicable	Implementation in progress (with CEF funding)	
Madrid Barajas	0%	100%	0%	Dec 2020	Implementation in progress (without CEF funding)	Implementation in progress (without CEF funding)	
Manchester Ringway	0%	100%	0%	Dec 2020	Not applicable	Implementation in progress (with CEF funding)	
Milan Malpensa	0%	100%	0%	Dec 2021	Not applicable	Implementation planned	
Munich Franz Josef Strauss	50%	50%	0%	Dec 2020	Not applicable	Implementation in progress (without CEF funding)	
Nice Cote D'Azur	30%	0%	70%	-	Not applicable	Implementation in progress (with CEF funding)	
Oslo Gardermoen	0%	100%	0%	Dec 2023	Implementation in progress (without CEF funding)	Family's scope fully implemented	
Palma de Mallorca Son San Juan	0%	100%	0%	Dec 2020	Implementation in progress (without CEF funding)	Implementation in progress (without CEF funding)	
Paris Charles De Gaulle	✓			✓	Not applicable	Family's scope fully implemented	
Paris Orly	✓			✓	Not applicable	Family's scope fully implemented	
Rome Fiumicino	0%	100%	0%	Dec 2020	Not applicable	Family's scope fully covered by on-going CEF projects	
Stockholm Arlanda	0%	100%	0%	Dec 2020	Not applicable	Implementation in progress (with CEF funding)	
Vienna Schwechat	0%	100%	0%	Dec 2020	Implementation in progress (without CEF funding)	Family's scope fully implemented	
(N) Zurich Kloten	0%	0%	100%	-	Not applicable	Implementation not planned	

SESAR DEPLOYMENT MANAGER

AF #3 – Flexible ASM and Free Route

3.1.1 ASM Tool to support AFUA

Expected completion year	Dec 2020
Family FOC date	Jan 2019

Total # of closed gaps	11
Total # of open gaps	19

MUAC

Network Manager
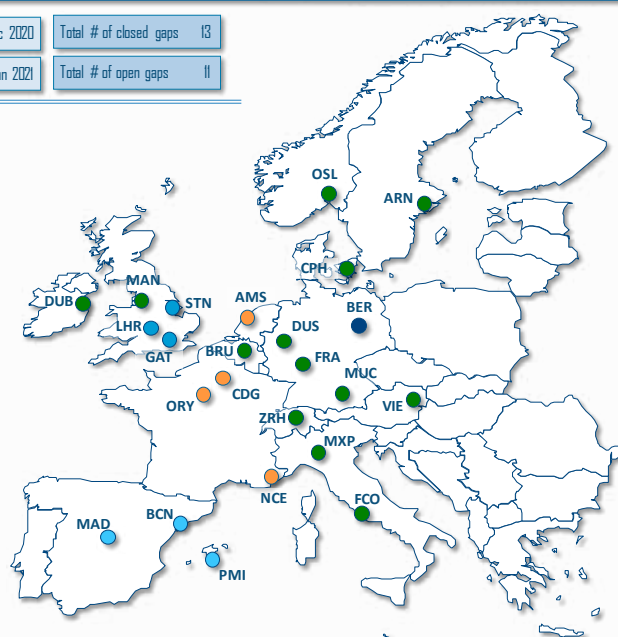
50%	50%	0%	Dec 2018

Chart Key – Implementation Status

The chart shows the overall Family implementation status, taking into account all inputs coming from involved Stakeholders
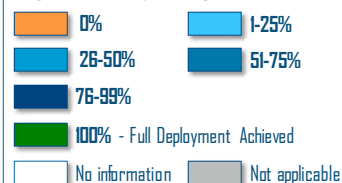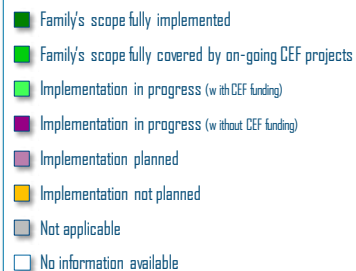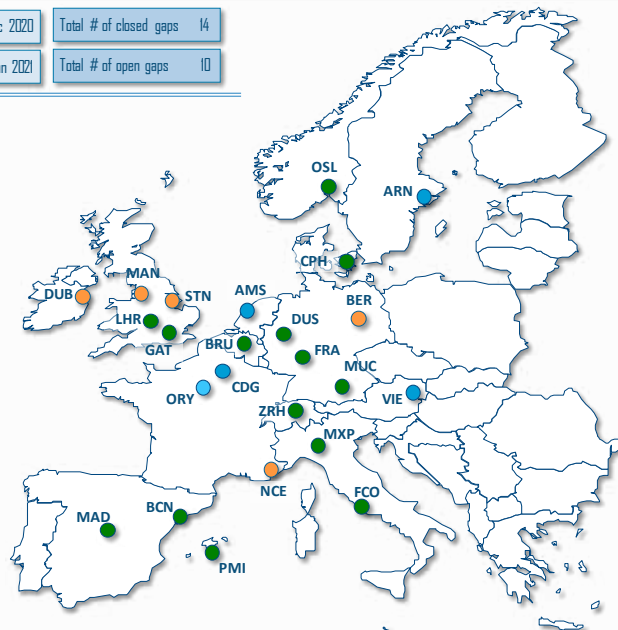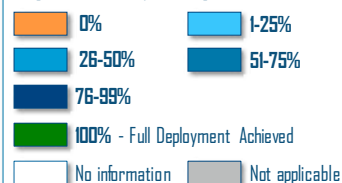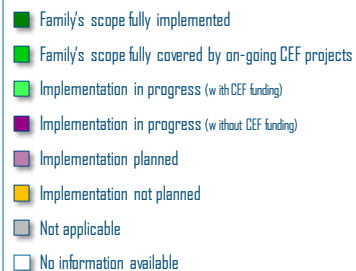
- 0%
- 1-25%
- 26-50%
- 51-75%
- 76-99%
- 100% - Full Deployment Achieved
- No information
- Not applicable

Chart Key per Stakeholders

- Family's scope fully implemented
- Family's scope fully covered by on-going CEF projects
- Implementation in progress (with CEF funding)
- Implementation in progress (without CEF funding)
- Implementation planned
- Implementation not planned
- Not applicable
- No information available

Country	Currently deployed	In progress / Planned	Not planned	Expected completion date	Implementation Status by Operational Stakeholder Category Stakeholders considered as Gaps			
					ANSPs	Network Manager	Military Authorities
Austria	0%	100%	0%	Dec 2018	Implementation planned	Implementation in progress (without CEF funding)	Implementation planned
Belgium	✔			✔	Family's scope fully implemented	Implementation in progress (without CEF funding)	Family's scope fully implemented
Bulgaria	✔			✔	Family's scope fully implemented	Implementation in progress (without CEF funding)	Family's scope fully implemented
Croatia	0%	100%	0%	Dec 2018	Implementation in progress (without CEF funding)	Implementation in progress (without CEF funding)	Implementation planned
Cyprus	✔			✔	Implementation in progress (without CEF funding)	Implementation in progress (without CEF funding)	Family's scope fully implemented
Czech Republic	0%	100%	0%	Dec 2020	Family's scope fully covered by on-going CEF projects	Implementation in progress (without CEF funding)	Family's scope fully covered by on-going CEF projects
Denmark	0%	100%	0%	Dec 2017	Implementation planned	Implementation in progress (without CEF funding)	Family's scope fully implemented
Estonia	✔			✔	Family's scope fully implemented	Implementation in progress (without CEF funding)	Family's scope fully implemented
Finland	0%	100%	0%	Dec 2020	Family's scope fully covered by on-going CEF projects	Implementation in progress (without CEF funding)	Implementation planned
France	✔			✔	Family's scope fully implemented	Implementation in progress (without CEF funding)	Implementation in progress (without CEF funding)
Germany	40%	60%	0%	Dec 2018	Implementation in progress (with CEF funding)	Implementation in progress (without CEF funding)	Implementation planned
Greece	0%	100%	0%	Dec 2018	Implementation in progress (without CEF funding)	Implementation in progress (without CEF funding)	Implementation not planned
Hungary	✔			✔	Family's scope fully implemented	Implementation in progress (without CEF funding)	Family's scope fully implemented
Ireland	0%	100%	0%	Dec 2018	Implementation planned	Implementation in progress (without CEF funding)	Implementation in progress (without CEF funding)
Italy	25%	75%	0%	Dec 2018	Family's scope fully covered by on-going CEF projects	Implementation in progress (without CEF funding)	Implementation not planned
Latvia	40%	60%	0%	Dec 2018	Implementation in progress (without CEF funding)	Implementation in progress (without CEF funding)	Implementation in progress (without CEF funding)
Lithuania	0%	100%	0%	Dec 2017	Implementation in progress (without CEF funding)	Implementation in progress (without CEF funding)	Implementation planned
Luxembourg					Not applicable	Not applicable	Not applicable
Malta	0%	0%	100%	-	Implementation not planned	Implementation in progress (without CEF funding)	Implementation not planned
MUAC	✔			✔	Family's scope fully implemented	Implementation in progress (without CEF funding)	Not applicable
Netherlands					Not applicable	Not applicable	Not applicable
Norway	0%	100%	0%	Dec 2018	Implementation in progress (without CEF funding)	Implementation in progress (without CEF funding)	Implementation in progress (without CEF funding)
Poland	0%	100%	0%	Dec 2018	Implementation in progress (without CEF funding)	Implementation in progress (without CEF funding)	Implementation in progress (without CEF funding)
Portugal	✔			✔	Family's scope fully implemented	Implementation in progress (without CEF funding)	Family's scope fully implemented
Romania	✔			✔	Family's scope fully implemented	Implementation in progress (without CEF funding)	Family's scope fully implemented
Slovak Republic	10%	90%	0%	Dec 2017	Implementation in progress (without CEF funding)	Implementation in progress (without CEF funding)	Implementation in progress (without CEF funding)
Slovenia	0%	100%	0%	Dec 2018	Implementation planned	Implementation in progress (without CEF funding)	Implementation not planned
Spain	0%	100%	0%	Dec 2018	Family's scope fully covered by on-going CEF projects	Implementation in progress (without CEF funding)	Family's scope fully covered by on-going CEF projects
Sweden	0%	100%	0%	Dec 2018	Implementation in progress (without CEF funding)	Implementation in progress (without CEF funding)	Implementation not planned
Switzerland	✔			✔	Family's scope fully implemented	Implementation in progress (without CEF funding)	Family's scope fully implemented
United Kingdom	✔			✔	Family's scope fully implemented	Implementation in progress (without CEF funding)	Family's scope fully implemented

DETAILED VIEWS PER FAMILY

SESAR
DEPLOYMENT MANAGER

3.1.2 ASM Management of real time airspace data

| Expected completion year | Dec 2021 | Total # of closed gaps | 0 |
| Family FOC date | Jan 2022 | Total # of open gaps | 31 |

MUAC

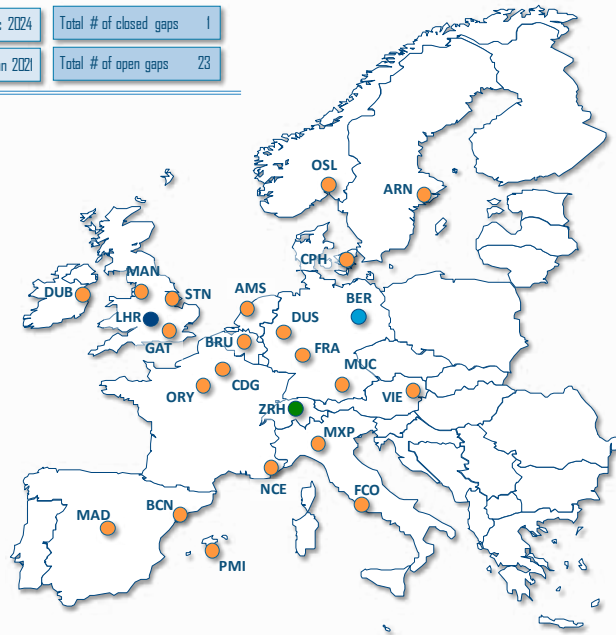**Network Manager** | 0% | 100% | 0% | Dec 2021

Chart Key – Implementation Status

The chart shows the overall Family implementation status, taking into account all inputs coming from involved Stakeholders
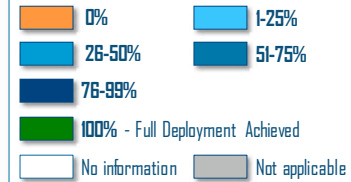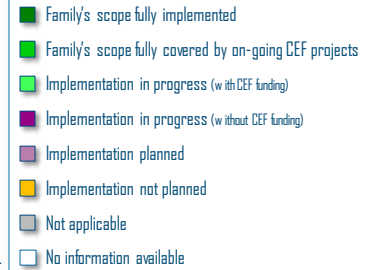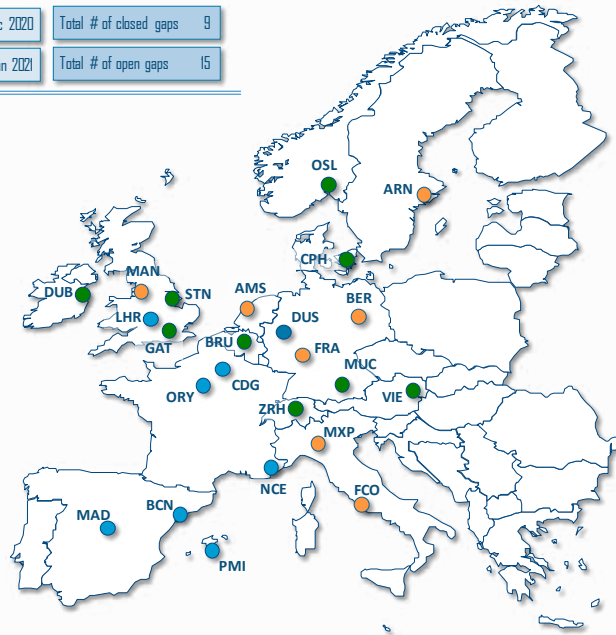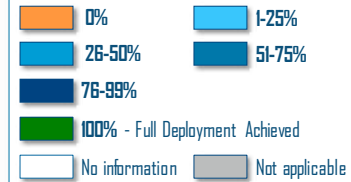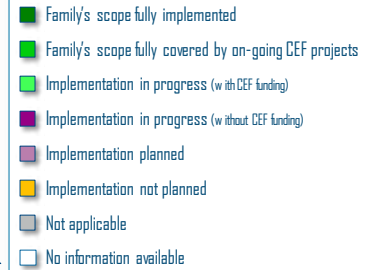
- 0%
- 1-25%
- 26-50%
- 51-75%
- 76-99%
- 100% - Full Deployment Achieved
- No information
- Not applicable

Chart Key per Stakeholders

- Family's scope fully implemented
- Family's scope fully covered by on-going CEF projects
- Implementation in progress (with CEF funding)
- Implementation in progress (without CEF funding)
- Implementation planned
- Implementation not planned
- Not applicable
- No information available

Country	Currently deployed	In progress / Planned	Not planned	Expected completion date	Implementation Status by Operational Stakeholder Category — Stakeholders considered as Gaps		
					ANSPs	Network Manager	Military Authorities
Austria	0%	100%	0%	Dec 2021			
Belgium (N)	85%	15%	0%	Dec 2021			
Bulgaria	55%	45%	0%	Dec 2021			
Croatia	0%	100%	0%	Dec 2021			
Cyprus	0%	0%	100%	-			
Czech Republic	0%	100%	0%	Dec 2020			
Denmark	0%	100%	0%	Dec 2017			
Estonia	30%	70%	0%	Dec 2020			
Finland	0%	100%	0%	Dec 2020			
France	0%	100%	0%	Dec 2021			
Germany (N)	0%	100%	0%	Dec 2021			
Greece (N)	0%	100%	0%	Dec 2021			
Hungary	50%	50%	0%	Dec 2021			
Ireland	0%	100%	0%	Dec 2021			
Italy	0%	100%	0%	Dec 2021			
Latvia	0%	0%	100%	Dec 2021			
Lithuania	0%	100%	0%	Dec 2017			
Luxembourg							
Malta	0%	0%	100%	-			
MUAC	0%	85%	15%	-			
Netherlands	0%	100%	0%	Dec 2021			
Norway	0%	100%	0%	Dec 2021			
Poland (N)	0%	100%	0%	Dec 2021			
Portugal	30%	70%	0%	Dec 2021			
Romania	30%	70%	0%	Dec 2019			
Slovak Republic	10%	90%	0%	Dec 2017			
Slovenia	0%	100%	0%	Dec 2021			
Spain (N)	0%	100%	0%	Dec 2021			
Sweden	0%	100%	0%	Dec 2021			
Switzerland	0%	100%	0%	Dec 2020			
United Kingdom	0%	100%	0%	Dec 2020			

DETAILED VIEWS PER FAMILY

SESAR DEPLOYMENT MANAGER

3.1.3 Full rolling ASM/ATFCM process and ASM information sharing

Expected completion year: Dec 2021
Family FOC date: Jan 2022
Total # of closed gaps: 0
Total # of open gaps: 30

✈ **Airspace User Gap***
* Through the update of Computer Flight Planning Systems

Network Manager
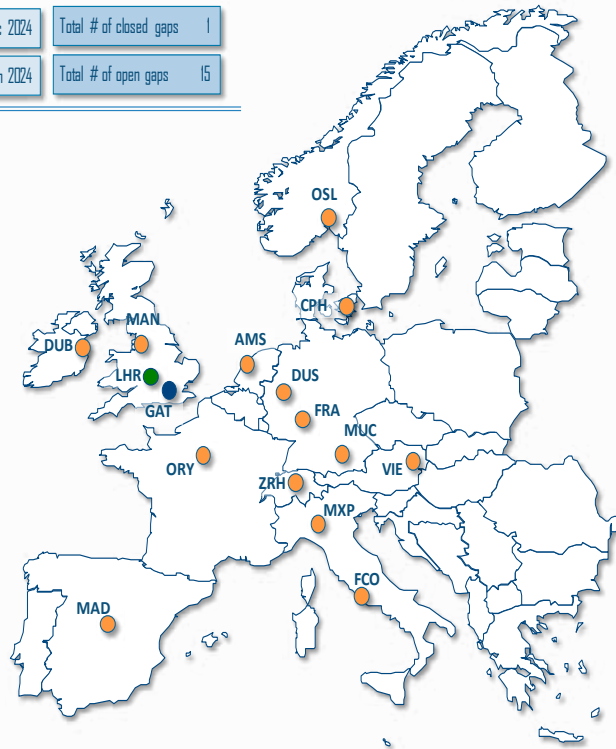| 15% | 85% | 0% | Dec 2021 |

MUAC

Chart Key – Implementation Status
The chart shows the overall Family implementation status, taking into account all inputs coming from involved Stakeholders
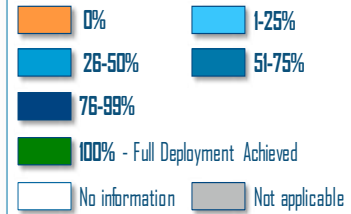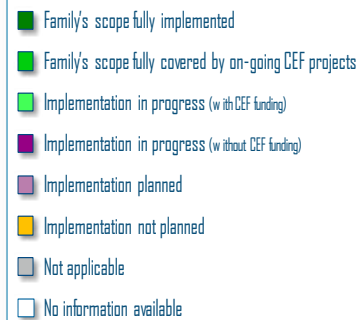
- 0%
- 1-25%
- 26-50%
- 51-75%
- 76-99%
- 100% - Full Deployment Achieved
- No information
- Not applicable

Chart Key per Stakeholders

- Family's scope fully implemented
- Family's scope fully covered by on-going CEF projects
- Implementation in progress (with CEF funding)
- Implementation in progress (without CEF funding)
- Implementation planned
- Implementation not planned
- Not applicable
- No information available

Country	Currently deployed	In progress / Planned	Not planned	Expected completion date	ANSPs	Network Manager	Military Authorities
Austria	0%	100%	0%	Dec 2021	Implementation planned	Implementation in progress (with CEF funding)	Implementation planned
Belgium (N)	0%	0%	100%	Dec 2021	Implementation not planned	Implementation in progress (with CEF funding)	Implementation planned
Bulgaria	0%	100%	0%	Dec 2021	Implementation in progress (without CEF funding)	Implementation in progress (with CEF funding)	Implementation planned
Croatia	0%	100%	0%	Dec 2021	Implementation in progress (without CEF funding)	Implementation in progress (with CEF funding)	Implementation planned
Cyprus	0%	0%	100%	-	Implementation not planned	Implementation in progress (with CEF funding)	Implementation planned
Czech Republic	0%	100%	0%	Dec 2020	Family's scope fully covered by on-going CEF projects	Implementation in progress (with CEF funding)	Family's scope fully covered by on-going CEF projects
Denmark	0%	100%	0%	Dec 2021	Implementation planned	Implementation in progress (with CEF funding)	Implementation planned
Estonia	0%	100%	0%	Dec 2021	Family's scope fully covered by on-going CEF projects	Implementation in progress (with CEF funding)	Implementation planned
Finland	0%	100%	0%	Dec 2020	Family's scope fully covered by on-going CEF projects	Implementation in progress (with CEF funding)	Not applicable
France	0%	100%	0%	Dec 2021	Implementation in progress (without CEF funding)	Implementation in progress (with CEF funding)	Implementation not planned
Germany (N)	0%	100%	0%	Dec 2021	Implementation planned	Implementation in progress (with CEF funding)	Implementation planned
Greece (N)	0%	100%	0%	Dec 2021	Implementation planned	Implementation in progress (with CEF funding)	Implementation planned
Hungary	0%	100%	0%	Dec 2021	Implementation planned	Implementation in progress (with CEF funding)	Implementation planned
Ireland	0%	100%	0%	Dec 2021	Implementation planned	Implementation in progress (with CEF funding)	Implementation planned
Italy	0%	100%	0%	Dec 2021	Implementation planned	Implementation in progress (with CEF funding)	Implementation planned
Latvia	35%	65%	0%	Dec 2021	Implementation in progress (without CEF funding)	Implementation in progress (with CEF funding)	Implementation planned
Lithuania	0%	100%	0%	Dec 2019	Implementation planned	Implementation in progress (with CEF funding)	Implementation not planned
Luxembourg					Not applicable	Not applicable	Not applicable
Malta	0%	0%	100%	-	Implementation not planned	Implementation in progress (with CEF funding)	Implementation not planned
MUAC	0%	100%	0%	Dec 2021	Implementation in progress (without CEF funding)	Implementation in progress (with CEF funding)	Implementation in progress (without CEF funding)
Netherlands					Not applicable	Not applicable	Not applicable
Norway	0%	100%	0%	Dec 2021	Implementation in progress (without CEF funding)	Implementation in progress (with CEF funding)	Implementation in progress (without CEF funding)
Poland (N)	0%	100%	0%	Dec 2021	Implementation in progress (without CEF funding)	Implementation in progress (with CEF funding)	Implementation planned
Portugal	0%	100%	0%	Dec 2021	Implementation planned	Implementation in progress (with CEF funding)	Implementation planned
Romania	0%	100%	0%	Dec 2019	Implementation in progress (without CEF funding)	Implementation in progress (with CEF funding)	Implementation planned
Slovak Republic	0%	100%	0%	Dec 2017	Implementation in progress (without CEF funding)	Implementation in progress (with CEF funding)	Implementation not planned
Slovenia	0%	100%	0%	Dec 2021	Implementation planned	Implementation in progress (with CEF funding)	Implementation not planned
Spain (N)	0%	100%	0%	Dec 2021	Implementation planned	Implementation in progress (with CEF funding)	Implementation planned
Sweden	0%	100%	0%	Dec 2021	Implementation planned	Implementation in progress (with CEF funding)	Implementation planned
Switzerland	0%	0%	100%	-	Implementation not planned	Implementation in progress (with CEF funding)	Implementation planned
United Kingdom	0%	100%	0%	Dec 2021	Implementation in progress (without CEF funding)	Implementation in progress (with CEF funding)	Implementation in progress (without CEF funding)

DETAILED VIEWS PER FAMILY

SESAR DEPLOYMENT MANAGER

3.1.4 Management of Dynamic Airspace Configurations

Expected completion year Mar 2022
Family FOC date Jan 2022
Total # of closed gaps 0
Total # of open gaps 30

MUAC

Network Manager
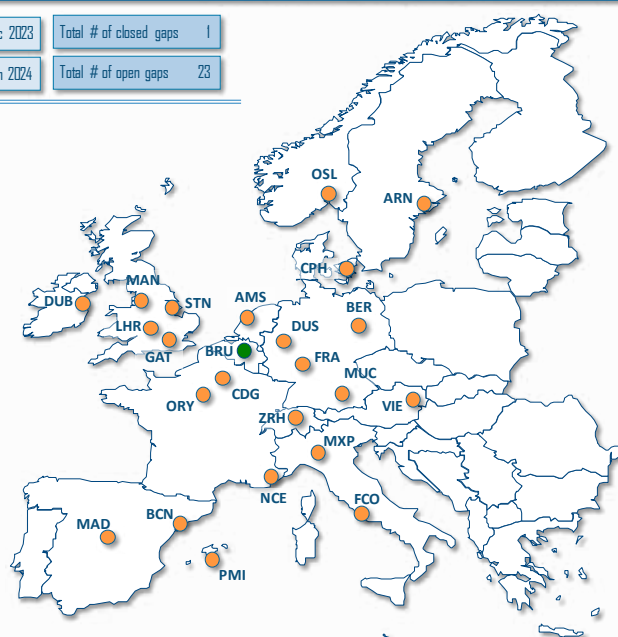0% 100% 0% Dec 2021

Chart Key – Implementation Status

The chart shows the overall Family implementation status, taking into account all inputs coming from involved Stakeholders
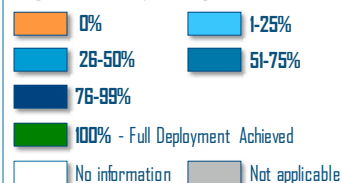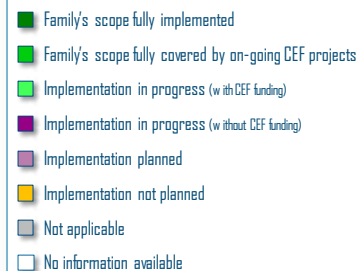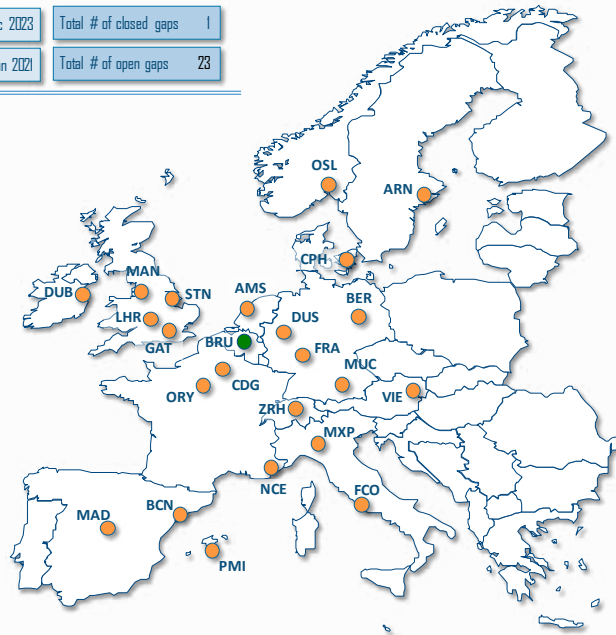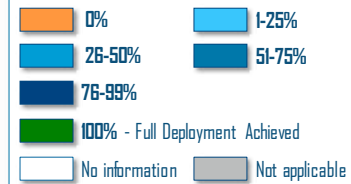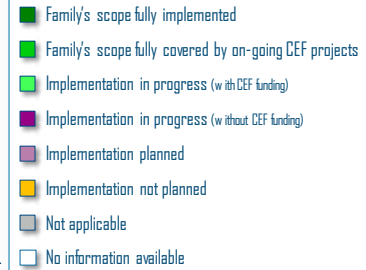
- 0%
- 1-25%
- 26-50%
- 51-75%
- 76-99%
- 100% - Full Deployment Achieved
- No information
- Not applicable

Chart Key per Stakeholders

- Family's scope fully implemented
- Family's scope fully covered by on-going CEF projects
- Implementation in progress (with CEF funding)
- Implementation in progress (without CEF funding)
- Implementation planned
- Implementation not planned
- Not applicable
- No information available

Country	Currently deployed	In progress / Planned	Not planned	Expected completion date	ANSPs	Network Manager	Military Authorities
Austria	90%	10%	0%	Dec 2021			
Belgium	0%	10%	90%	Dec 2021			
Bulgaria	5%	35%	60%	Dec 2021			
Croatia	0%	100%	0%	Dec 2021			
Cyprus	0%	10%	90%	Dec 2021			
Czech Republic	0%	100%	0%	Dec 2021			
Denmark	90%	10%	0%	Dec 2018			
Estonia	0%	100%	0%	Dec 2021			
Finland	0%	100%	0%	Dec 2020			
France	90%	10%	0%	Dec 2018			
Germany	0%	100%	0%	Dec 2021			
Greece	0%	100%	0%	Dec 2020			
Hungary	0%	100%	0%	Dec 2021			
Ireland	35%	65%	0%	Dec 2020			
Italy	0%	100%	0%	Dec 2021			
Latvia	90%	10%	0%	Dec 2020			
Lithuania	0%	100%	0%	Jun 2021			
Luxembourg							
Malta	0%	0%	100%	-			
MUAC	55%	40%	5%	Dec 2021			
Netherlands							
Norway	0%	100%	0%	Dec 2021			
Poland	5%	95%	0%	Dec 2021			
Portugal	0%	100%	0%	Dec 2021			
Romania	0%	85%	15%	Mar 2022			
Slovak Republic	75%	25%	0%	Dec 2020			
Slovenia	0%	10%	90%	Dec 2020			
Spain	0%	100%	0%	Dec 2021			
Sweden	90%	10%	0%	Dec 2020			
Switzerland	55%	0%	45%	-			
United Kingdom	0%	100%	0%	Dec 2021			

DETAILED VIEWS PER FAMILY

Implementation Status by Operational Stakeholder Category — Stakeholders considered as Gaps (ANSPs, Network Manager) — Other stakeholders involved (Military Authorities)

SESAR DEPLOYMENT MANAGER

H 3.2.1 Upgrade of ATM systems (NM, ANSPs, AUs) to support Direct Routings (DCTs) and Free Routing Airspace (FRA)

Expected completion year	Dec 2025	Total # of closed gaps	4
Family FOC date	Jan 2022	Total # of open gaps	26

Airspace User Gap*

* Through the update of Computer Flight Planning Systems

Network Manager

| 50% | 30% | 20% | Dec 2021 |

MUAC

Chart Key – Implementation Status

The chart shows the overall Family implementation status, taking into account all inputs coming from involved Stakeholders
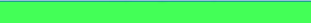
- 0%
- 1-25%
- 26-50%
- 51-75%
- 76-99%
- 100% - Full Deployment Achieved
- No information
- Not applicable

Chart Key per Stakeholders

- Family's scope fully implemented
- Family's scope fully covered by on-going CEF projects
- Implementation in progress (with CEF funding)
- Implementation in progress (without CEF funding)
- Implementation planned
- Implementation not planned
- Not applicable
- No information available

Country	Currently deployed	In progress / Planned	Not planned	Expected completion date	Implementation Status by Operational Stakeholder Category — Stakeholders considered as Gaps — ANSPs	Network Manager	Military Authorities
Austria	75%	25%	0%	Dec 2021			
Belgium							
Bulgaria	65%	25%	10%	Dec 2021			
Croatia	75%	25%	0%	Dec 2020			
Cyprus	65%	35%	0%	Dec 2021			
Czech Republic	0%	100%	0%	Dec 2021			
Denmark	75%	15%	10%	Dec 2021			
Estonia	30%	70%	0%	Dec 2020			
Finland	75%	25%	0%	Dec 2020			
France	30%	60%	10%	Dec 2021			
Germany	35%	65%	0%	Dec 2021			
Greece	0%	100%	0%	Dec 2020			
Hungary	35%	65%	0%	Mar 2019			
Ireland	✔			✔			
Italy	50%	50%	0%	Dec 2020			
Latvia	55%	0%	45%	-			
Lithuania	30%	70%	0%	Jun 2020			
Luxembourg							
Malta	60%	40%	0%	Jun 2018			
MUAC	✔			✔			
Netherlands	0%	85%	15%	Dec 2021			
Norway	0%	100%	0%	Dec 2021			
Poland	0%	85%	15%	Dec 2022			
Portugal	✔			✔			
Romania	✔			✔			
Slovak Republic	35%	40%	25%	Dec 2025			
Slovenia	15%	85%	0%	Dec 2021			
Spain	15%	85%	0%	Dec 2021			
Sweden	75%	15%	10%	Dec 2021			
Switzerland	50%	25%	25%	-			
United Kingdom	0%	100%	0%	Dec 2021			

DETAILED VIEWS PER FAMILY

SESAR DEPLOYMENT MANAGER

3.2.3 Implement Published Direct Routings (DCTs)

Expected completion year	Jan 2018	
Family FOC date	Jan 2018	

Total # of closed gaps	25
Total # of open gaps	4

MUAC

Network Manager

| 75% | 25% | 0% | Dec 2017 |

Chart Key – Implementation Status

The chart shows the overall Family implementation status, taking into account all inputs coming from involved Stakeholders

■ 0%		■ 1-25%
■ 26-50%		■ 51-75%
■ 76-99%		
■ 100% - Full Deployment Achieved		
□ No information		■ Not applicable

Chart Key per Stakeholders

- ■ Family's scope fully implemented
- ■ Family's scope fully covered by on-going CEF projects
- ■ Implementation in progress (with CEF funding)
- ■ Implementation in progress (without CEF funding)
- ■ Implementation planned
- ■ Implementation not planned
- ■ Not applicable
- □ No information available

Country	Currently deployed	In progress / Planned	Not planned	Expected completion date	Implementation Status by Operational Stakeholder Category		
					Stakeholders considered as Gaps		Other stakeholders involved
					ANSPs	Network Manager	Military Authorities
Austria	✔			✔			
Belgium							
Bulgaria	✔			✔			
Croatia	✔			✔			
Cyprus	0%	100%	0%	Jan 2018			
Czech Republic	✔			✔			
Denmark	✔			✔			
Estonia	✔			✔			
Finland	✔			✔			
France	✔			✔			
Germany	✔			✔			
Greece	0%	100%	0%	Dec 2017			
Hungary	✔			✔			
Ireland	✔			✔			
Italy	✔			✔			
Latvia	✔			✔			
Lithuania	✔			✔			
Luxembourg							
Malta	✔			✔			
MUAC	✔			✔			
Netherlands							
Norway	✔			✔			
Poland	✔			✔			
Portugal	✔			✔			
Romania	✔			✔			
Slovak Republic	✔			✔			
Slovenia	✔			✔			
Spain	0%	100%	0%	Dec 2017			
Sweden	✔			✔			
Switzerland	✔			✔			
United Kingdom	✔			✔			

DETAILED VIEWS PER FAMILY

SESAR
DEPLOYMENT MANAGER

53

3.2.4 Implement Free Route Airspace

Expected completion year	Dec 2023
Family FOC date	Jan 2022
Total # of closed gaps	14
Total # of open gaps	15

MUAC

Network Manager
| 30% | 70% | 0% | Dec 2023 |

Chart Key – Implementation Status

The chart shows the overall Family implementation status, taking into account all inputs coming from involved Stakeholders

- 0%
- 1-25%
- 26-50%
- 51-75%
- 76-99%
- 100% - Full Deployment Achieved
- No information
- Not applicable

Chart Key per Stakeholders

- Family's scope fully implemented
- Family's scope fully covered by on-going CEF projects
- Implementation in progress (with CEF funding)
- Implementation in progress (without CEF funding)
- Implementation planned
- Implementation not planned
- Not applicable
- No information available

Country	Currently deployed	In progress / Planned	Not planned	Expected completion date	Implementation Status by Operational Stakeholder Category		
					Stakeholders considered as Gaps		Other stakeholders involved
					ANSPs	Network Manager	Military Authorities
Austria	90%	10%	0%	Dec 2021			
Belgium							
Bulgaria	✓			✓			
Croatia	✓			✓			
Cyprus	0%	100%	0%	Jan 2021			
Czech Republic	45%	55%	0%	Dec 2021			
Denmark	✓			✓			
Estonia	✓			✓			
Finland	✓			✓			
France	15%	85%	0%	Dec 2021			
Germany	15%	85%	0%	Dec 2021			
Greece	0%	100%	0%	Dec 2021			
Hungary	✓			✓			
Ireland	✓			✓			
Italy	95%	5%	0%	Dec 2018			
Latvia	✓			✓			
Lithuania	✓			✓			
Luxembourg							
Malta	0%	100%	0%	Dec 2018			
MUAC	0%	100%	0%	Mar 2020			
Netherlands							
Norway	✓			✓			
Poland	0%	100%	0%	Dec 2021			
Portugal	✓			✓			
Romania	✓			✓			
Slovak Republic	0%	100%	0%	Jun 2019			
Slovenia	✓			✓			
Spain	0%	100%	0%	Dec 2021			
Sweden	✓			✓			
Switzerland	0%	100%	0%	Dec 2022			
United Kingdom	0%	100%	0%	Dec 2021			

SESAR DEPLOYMENT MANAGER

Focus on Free Route implementation

Due to the specific relevance of a **coordinated and synchronized implementation of Free Route** across Europe, the SESAR Deployment Manager has gathered additional information from the local Air Navigation Service Providers. Such in-depth analysis, which is based on **data directly provided by ANSPs**, has been performed with a two-fold objective:

- Having a **clear picture of the Free Route deployment approach currently followed**;
- Identifying the stakeholders' planning **by January 1st, 2022**, the PCP Regulation target date for deploying and operating FRA.

In the following pages, a specific table for each country within the PCP Geographical Scope is included, detailing the following information:

- The **Time limitations** set for the Free Route implementation;
- The **Flight Level** limit;
- The **published constraints**;
- The **Area of Responsibility (AoR)** where Free Route is implemented;
- The **cross-border**, indicating if the deployment of cross-border FRA initiatives has been completed or is planned.

It has to be noted that the current text of Regulation (EU) No. 716/2014 does not explicitly include cross-border, neither specifies a clear requirement in terms of time implementation.

<div style="writing-mode: vertical-rl">DETAILED VIEWS PER FAMILY</div>

Austria – Free Route implementation

	Current status (Summer 2017)	Target (January 2022)
Time limitations	FRA H 24 / 7	FRA H 24 / 7
Flight Level	Unlimited	Unlimited
Pub. Constraints	According to RAD	According to RAD
Area of Responsibility	Full AoR	Full AoR
Cross-border	Slovenia Control	FAB CE

Belgium – Free Route implementation

Air Traffic Control in the upper airspace of the Benelux is managed by the Maastricht Upper Area Control Center (MUAC). Please see the dedicated table.

Bulgaria – Free Route implementation

	Current status (Summer 2017)	Target (January 2022)
Time limitations	Night FRA	FRA H 24 / 7
Flight Level	Above Flight Level 175	Above Flight Level 105
Pub. Constraints	According to RAD	According to RAD
Area of Responsibility	Full AoR	Full AoR
Cross-border	Danube FAB	Danube FAB

Croatia – Free Route implementation

	Current status (Summer 2017)	Target (January 2022)
Time limitations	FRA H24 / 7	FRA H24 / 7
Flight Level	Above Flight Level 310	Above Flight Level 310
Pub. Constraints	No published constraint	No published constraint
Area of Responsibility	Full AoR	Full AoR
Cross-border	Cross-border in place	Austrocontrol, BHANSA, ENAV, Slovenia Control, SMATSA

Cyprus – Free Route implementation

	Current status (Summer 2017)	Target (January 2022)
Time limitations	Direct Routings (DCT) in place	Under definition
Flight Level	Under development	Above Flight Level 285
Pub. Constraints	Under development	No published constraints
Area of Responsibility	Full AoR	Full AoR
Cross-border	Planned	HCAA and DHMI

Czech Republic – Free Route implementation

	Current status (Summer 2017)	Target (January 2022)
Time limitations	Direct Routings (DCT) in place	FRA H 24 / 7
Flight Level	Above Flight Level 245	Above Flight Level 245
Pub. Constraints	According to RAD	According to RAD
Area of Responsibility	Full AoR	Full AoR
Cross-border	Planned	FAB CE (under review)

SESAR
DEPLOYMENT MANAGER

Denmark – Free Route implementation

	Current status (Summer 2017)	Target (January 2022)
Time limitations	FRA H 24 / 7	FRA H 24 / 7
Flight Level	Above Flight Level 285	Above Flight Level 285
Pub. Constraints	No constraints	No constraints
Area of Responsibility	Full AoR	Full AoR
Cross-border	Avinor; LFV	Avinor; LFV, MUAC; NATS

Estonia – Free Route implementation

	Current status (Summer 2017)	Target (January 2022)
Time limitations	FRA H 24 / 7	FRA H 24 / 7
Flight Level	Above Flight Level 285	Above Flight Level 95
Pub. Constraints	No published constraint	No published constraint
Area of Responsibility	Full AoR	Full AoR
Cross-border	NEFAB and DKSE FAB	NEFAB, DKSE FAB, UK/IE FAB

Finland – Free Route implementation

	Current status (Summer 2017)	Target (January 2022)
Time limitations	FRA H 24 / 7	FRA H 24 / 7
Flight Level	Above Flight Level 310	Above Flight Level 95
Pub. Constraints	No published constraints	No published constraints
Area of Responsibility	Full AoR	Full AoR
Cross-border	NEFAB	NEFAB and DK SE FAB

France – Free Route implementation

	Current status (Summer 2017)	Target (January 2022)
Time limitations	Under development	FRA H 24 / 7
Flight Level	Under development	Above Flight Level 310
Pub. Constraints	Under development	According to RAD
Area of Responsibility	Under development	Full AoR
Cross-border	Under development	FABEC + Italy, Spain and UK

Germany – Free Route implementation

	Current status (Summer 2017)	Target (January 2022)
Time limitations	Deployment in progress	FRA H 24 / 7
Flight Level	Deployment in progress	Above Flight Level 245
Pub. Constraints	Deployment in progress	No published constraints
Area of Responsibility	Deployment in progress	Three ACCs (EDUU, EDWW, EDMM)
Cross-border	Not planned	Not applicable

Greece – Free Route implementation

	Current status (Summer 2017)	Target (January 2022)
Time limitations	Deployment in progress	FRA H 24 / 7
Flight Level	Deployment in progress	Between FL 355 and FL 460
Pub. Constraints	Deployment in progress	No published constraints
Area of Responsibility	Deployment in progress	Full AoR
Cross-border	Deployment in progress	Blue MED FAB

Hungary – Free Route implementation

	Current status (Summer 2017)	Target (January 2022)
Time limitations	FRA H 24 / 7	FRA H 24 / 7
Flight Level	Above Flight Level 310	Above Flight Level 310
Pub. Constraints	No published constraints	No published constraints
Area of Responsibility	Full AoR	Full AoR
Cross-border	Romania (Night FRA)	FAB CE

Ireland – Free Route implementation

	Current status (Summer 2017)	Target (January 2022)
Time limitations	FRA H 24 / 7	FRA H 24 / 7
Flight Level	Above Flight Level 245	Above Flight Level 95
Pub. Constraints	No published constraints	No published constraints
Area of Responsibility	Full AoR	Full AoR
Cross-border	Planned	UK – Ireland FAB

Italy – Free Route implementation

	Current status (Summer 2017)	Target (January 2022)
Time limitations	FRA H 24 / 7	FRA H 24 / 7
Flight Level	Above Flight Level 335	Above Flight Level 305
Pub. Constraints	No published constraints	No published constraints
Area of Responsibility	Full AoR	Full AoR
Cross-border	Under development	Blue MED FAB + other adjacent ACCs

Latvia – Free Route implementation

	Current status (Summer 2017)	Target (January 2022)
Time limitations	FRA H 24 / 7	FRA H 24 / 7
Flight Level	Above FL 95	Above FL 95
Pub. Constraints	No published constraints	No published constraints
Area of Responsibility	Full AoR	Full AoR
Cross-border	EANS, Finavia, LFV, Naviair	Borealis Alliance

Lithuania – Free Route implementation

	Current status (Summer 2017)		Target (January 2022)
Time limitations	FRA H 24 / 7	▷	FRA H 24 / 7
Flight Level	Above Flight Level 310	▷	Above Flight Level 95
Pub. Constraints	No published constraints	▷	No published constraints
Area of Responsibility	Full AoR	▷	Full AoR
Cross-border	No	▷	PANSA

Luxembourg – Free Route implementation

Air Traffic Control in the upper airspace of the Benelux is managed by the Maastricht Upper Area Control Center (MUAC). Please see the dedicated table.

Malta – Free Route implementation

	Current status (Summer 2017)		Target (January 2022)
Time limitations	FRA H 24 / 7	▷	FRA H 24 / 7
Flight Level	Above Flight Level 335	▷	Above Flight Level 310
Pub. Constraints	Only operational constraints	▷	As published on the AIP
Area of Responsibility	Full AoR	▷	Full AoR
Cross-border	Planned	▷	HCAA, ENAV

MUAC Region – Free Route implementation

	Current status (Summer 2017)		Target (January 2022)
Time limitations	Planned	▷	FRA H 24 / 7
Flight Level	Planned	▷	Above Flight Level 245
Pub. Constraints	Planned	▷	No published constraints
Area of Responsibility	Planned	▷	Full AoR
Cross-border	Planned	▷	DFS, Naviair

Netherlands – Free Route implementation

Air Traffic Control in the upper airspace of the Benelux is managed by the Maastricht Upper Area Control Center (MUAC). Please see the dedicated table.

Norway – Free Route implementation

	Current status (Summer 2017)		Target (January 2022)
Time limitations	FRA H 24 / 7	▷	FRA H 24 / 7
Flight Level	Above Flight Level 310	▷	Above Flight Level 310
Pub. Constraints	No published constraints	▷	No published constraints
Area of Responsibility	Full AoR	▷	Full AoR
Cross-border	EANS, Finavia LFV, LGS, Naviair	▷	Borealis Alliance

Poland – Free Route implementation

	Current status (Summer 2017)		Target (January 2022)
Time limitations	DCT routings in place	▷	FRA H 24 / 7
Flight Level	Under development	▷	Above Flight Level 95
Pub. Constraints	Some constraints for a better distribution of traffic flows	▷	Some constraints for a better distribution of traffic flows
Area of Responsibility	Full AoR	▷	Full AoR
Cross-border	Under development	▷	Gate One ANSPs, DFS, LFV, Oro Navigacija

Portugal – Free Route implementation

	Current status (Summer 2017)		Target (January 2022)
Time limitations	FRA H 24 / 7	▷	FRA H 24 / 7
Flight Level	Above Flight Level 310	▷	Above Flight Level 310
Pub. Constraints	No published constraints	▷	No published constraints
Area of Responsibility	Full AoR	▷	Full AoR
Cross-border	ENAIRE (Madrid FIR)	▷	ENAIRE (Madrid FIR)

Romania – Free Route implementation

	Current status (Summer 2017)		Target (January 2022)
Time limitations	Night FRA	▷	FRA H 24 / 7
Flight Level	Above Flight Level 105	▷	Above Flight Level 105
Pub. Constraints	According to RAD	▷	According to RAD
Area of Responsibility	Full AoR	▷	Full AoR
Cross-border	BULATSA and Hungarocontrol	▷	BULATSA and Hungarocontrol

Slovak Republic – Free Route implementation

	Current status (Summer 2017)		Target (January 2022)
Time limitations	Planned	▷	FRA H 24 / 7
Flight Level	Planned	▷	Above Flight Level 245
Pub. Constraints	Planned	▷	No published constraints
Area of Responsibility	Planned	▷	Full AoR
Cross-border	Planned	▷	Separate cross-border activities

Slovenia – Free Route implementation

	Current status (Summer 2017)		Target (January 2022)
Time limitations	Full FRA H 24 / 7	▷	Full FRA H 24 / 7
Flight Level	Above Flight Level 310	▷	Ground to Flight Level 660
Pub. Constraints	Some constraints due to sector clipping	▷	Some constraints due to sector clipping
Area of Responsibility	Full AoR	▷	Full AoR
Cross-border	Austrocontrol	▷	Austrocontrol, BHANSA, Croatia Control, SMATSA

Spain – Free Route implementation

	Current status (Summer 2017)		Target (January 2022)
Time limitations	Limited to specific segments	▷	Under development
Flight Level	Above FL245, only for FRASAI Airspace	▷	Above Flight Level 345
Pub. Constraints	Limited to specific segments	▷	According to RAD
Area of Responsibility	Only FRASAI Airspace	▷	Full AoR (but Oceanic airspace in GCCC)
Cross-border	NAV Portugal (FRASAI)	▷	NAV Portugal (FRASAI)

Sweden – Free Route implementation

	Current status (Summer 2017)		Target (January 2022)
Time limitations	FRA H 24 / 7	▷	FRA H 24 / 7
Flight Level	Above FL 285	▷	Above Flight Level 245*
Pub. Constraints	According to RAD	▷	According to RAD
Area of Responsibility	Full AoR	▷	Full AoR
Cross-border	Avinor, EANS, Finavia, Naviair, LGS	▷	Avinor, DFS, EANS, Finavia, Naviair, LGS, PANSA

* Above Flight Level 95 from 2024

Switzerland – Free Route implementation

	Current status (Summer 2017)		Target (January 2022)
Time limitations	Direct Routes partially implemented	▷	FRA H 24 / 7
Flight Level	Above Flight Level 245	▷	Above Flight Level 195
Pub. Constraints	According to RAD	▷	According to RAD
Area of Responsibility	Full AoR	▷	Full AoR
Cross-border	Cross-border routes with French and German airspace delegated to Switzerland	▷	Under development

United Kingdom – Free Route implementation

	Current status (Summer 2017)		Target (January 2022)
Time limitations	DCT routings in place	▷	FRA H 24 / 7
Flight Level	Under development	▷	Above Flight Level 310 (above FL 255 in Prestwick ACC)
Pub. Constraints	Under development	▷	No published constraints
Area of Responsibility	Full AoR	▷	Full AoR
Cross-border	Deployment in progress	▷	Borealis Alliance

SESAR
DEPLOYMENT MANAGER

DETAILED VIEWS PER FAMILY

AF #4 – Network Collaborative Management

DETAILED VIEWS PER FAMILY

4.1.1 STAM phase 1

| Expected completion year | Jun 2018 |
| Family FOC date | Jan 2017 |

| Total # of closed gaps | 15 |
| Total # of open gaps | 4 |

MUAC

Network Manager

Chart Key – Implementation Status

The chart shows the overall Family implementation status, taking into account all inputs coming from involved Stakeholders
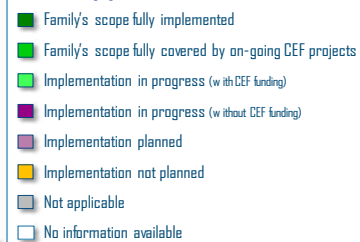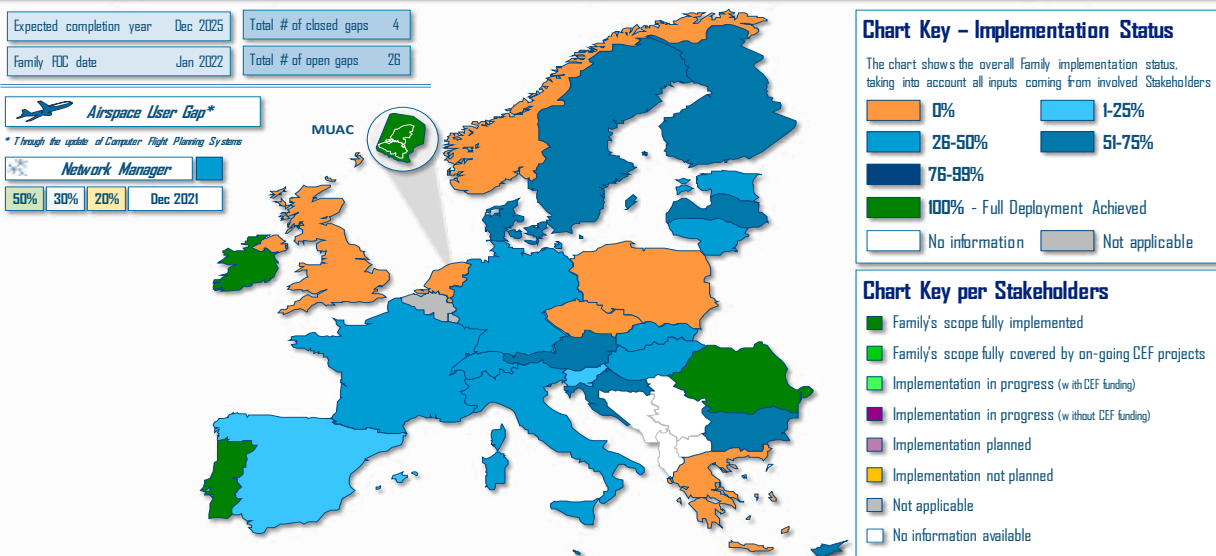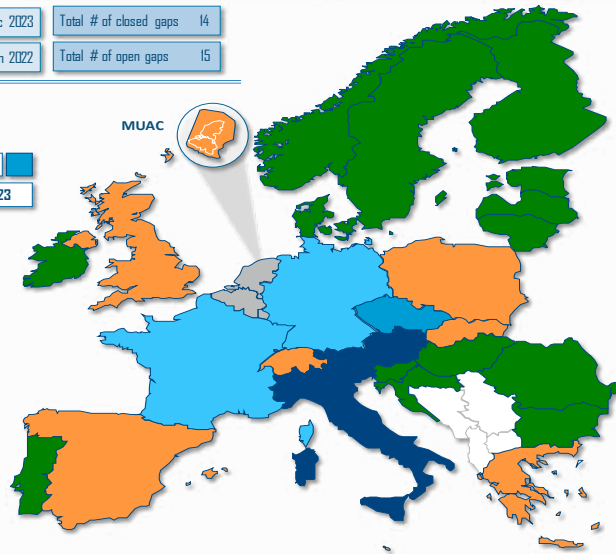
- 0%
- 1-25%
- 26-50%
- 51-75%
- 76-99%
- 100% - Full Deployment Achieved
- No information
- Not applicable

Chart Key per Stakeholders

- Family's scope fully implemented
- Family's scope fully covered by on-going CEF projects
- Implementation in progress (with CEF funding)
- Implementation in progress (without CEF funding)
- Implementation planned
- Implementation not planned
- Not applicable
- No information available

Country	Currently deployed	In progress / Planned	Not planned	Expected completion date	Implementation Status by Operational Stakeholder Category	
					Stakeholders considered as Gaps	Other stakeholders involved in the Family deployment
					ANSPs	*Network Manager*
Austria	✔			✔		
Belgium	0%	100%	0%	Oct 2017		
Bulgaria						
Croatia	✔			✔		
Cyprus						
Czech Republic	✔			✔		
Denmark						
Estonia						
Finland						
France	✔			✔		
Germany	✔			✔		
Greece						
Hungary	✔			✔		
Ireland	✔			✔		
Italy	✔			✔		
Latvia						
Lithuania						
Luxembourg						
Malta	0%	20%	80%	-		
MUAC	✔			✔		
Netherlands						
Norway						
Poland	✔			✔		
Portugal	✔			✔		
Romania						
Slovak Republic	✔			✔		
Slovenia	95%	5%	0%	May 2017		
Spain	0%	100%	0%	Jun 2018		
Sweden						
Switzerland	✔			✔		
United Kingdom	✔			✔		

4.1.2 STAM Phase 2

Expected completion year	Dec 2022
Family FOC date	Jan 2022

Total # of closed gaps	0
Total # of open gaps	31

Airspace User Gap*

* Through the update of Computer Flight Planning Systems

Network Manager	
10%	90%	0%	Dec 2021

MUAC

Chart Key – Implementation Status

The chart shows the overall Family implementation status, taking into account all inputs coming from involved Stakeholders
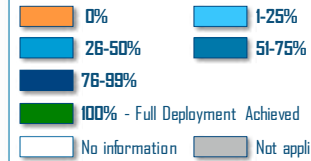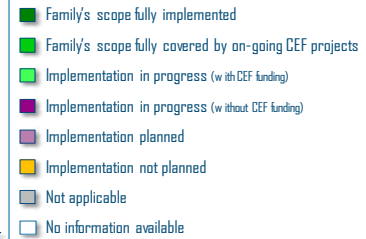
- 0%
- 1-25%
- 26-50%
- 51-75%
- 76-99%
- 100% - Full Deployment Achieved
- No information
- Not applicable

Chart Key per Stakeholders

- Family's scope fully implemented
- Family's scope fully covered by on-going CEF projects
- Implementation in progress (with CEF funding)
- Implementation in progress (without CEF funding)
- Implementation planned
- Implementation not planned
- Not applicable
- No information available

(*) The ANSP is currently waiting for further clarifications on the implementation of the Family in its area of responsibility

Country	Currently deployed	In progress / Planned	Not planned	Expected completion date	Implementation Status by Operational Stakeholder Category				Other stakeholders involved
					Stakeholders considered as Gaps				
					ANSPs	Airport Operators	Network Manager		Military Authorities
Austria	0%	100%	0%	Dec 2021					
Belgium	0%	0%	100%	Dec 2021					
Bulgaria*	0%	0%	100%	-					
Croatia	0%	100%	0%	Dec 2021					
Cyprus	0%	100%	0%	Dec 2021					
Czech Republic	0%	100%	0%	May 2018					
Denmark	0%	100%	0%	Dec 2021					
Estonia	0%	100%	0%	Dec 2020					
Finland	0%	100%	0%	Dec 2018					
France	0%	100%	0%	Dec 2021					
Germany	0%	100%	0%	Dec 2021					
Greece	0%	100%	0%	Dec 2021					
Hungary	0%	100%	0%	Dec 2021					
Ireland	0%	0%	100%	-					
Italy	0%	100%	0%	Dec 2021					
Latvia	0%	0%	100%	Dec 2021					
Lithuania	0%	100%	0%	Dec 2022					
Luxembourg									
Malta	0%	0%	100%	-					
MUAC	0%	100%	0%	Dec 2021					
Netherlands	0%	0%	100%	-					
Norway	0%	0%	100%	-					
Poland	0%	100%	0%	Dec 2021					
Portugal	0%	100%	0%	Dec 2021					
Romania	0%	0%	100%	-					
Slovak Republic	0%	100%	0%	Dec 2018					
Slovenia	0%	100%	0%	Dec 2021					
Spain	0%	100%	0%	Dec 2021					
Sweden	0%	0%	100%	Dec 2021					
Switzerland	0%	100%	0%	Dec 2021					
United Kingdom	0%	100%	0%	Dec 2021					

DETAILED VIEWS PER FAMILY

SESAR DEPLOYMENT MANAGER

60

4.2.2 Interactive Rolling NOP

| Expected completion year | Dec 2022 | Total # of closed gaps | 3 |
| Family FOC date | Jan 2022 | Total # of open gaps | 26 |

Airspace User Gap*

* Through the update of Computer Flight Planning Systems

Network Manager

| 10% | 90% | 0% | Dec 2021 |

MUAC

Chart Key – Implementation Status

The chart shows the overall Family implementation status, taking into account all inputs coming from involved Stakeholders

- 0%
- 1-25%
- 26-50%
- 51-75%
- 76-99%
- 100% - Full Deployment Achieved
- No information
- Not applicable

Chart Key per Stakeholders

- Family's scope fully implemented
- Family's scope fully covered by on-going CEF projects
- Implementation in progress (with CEF funding)
- Implementation in progress (without CEF funding)
- Implementation planned
- Implementation not planned
- Not applicable
- No information available

Country	Currently deployed	In progress / Planned	Not planned	Expected completion date	Stakeholders considered as Gaps		Other stakeholders involved in the Family deployment	
					ANSPs	Network Manager	Airport Operators	Military Authorities
Austria	(n/a)	(n/a)	(n/a)	(n/a)	(n/a)	(n/a)	(n/a)	(n/a)
Belgium (N)	0%	100%	0%	Dec 2021	in progress (no CEF)	in progress (CEF)	(n/a)	(no info)
Bulgaria	0%	0%	100%	-	not planned	in progress (CEF)	(n/a)	(no info)
Croatia	0%	100%	0%	Dec 2021	planned	in progress (CEF)	(n/a)	(no info)
Cyprus	0%	100%	0%	Dec 2021	planned	in progress (CEF)	(n/a)	(no info)
Czech Republic (N)	0%	100%	0%	Dec 2021	planned	in progress (CEF)	(n/a)	planned
Denmark	0%	0%	100%	-	not planned	in progress (CEF)	(n/a)	(no info)
Estonia	0%	100%	0%	Dec 2020	planned	in progress (CEF)	(n/a)	(no info)
Finland	0%	100%	0%	Dec 2021	in progress (CEF)	in progress (CEF)	(n/a)	(no info)
France	0%	100%	0%	Dec 2021	fully implemented	in progress (CEF)	not planned	not planned
Germany (N)	0%	100%	0%	Dec 2021	in progress (CEF)	in progress (CEF)	(no info)	(no info)
Greece (N)	0%	0%	100%	-	not planned	in progress (CEF)	(n/a)	(no info)
Hungary	0%	100%	0%	Dec 2021	planned	in progress (CEF)	(n/a)	(no info)
Ireland	0%	100%	0%	-	not planned	in progress (CEF)	fully implemented	(no info)
Italy	0%	100%	0%	Dec 2021	planned	in progress (CEF)	not planned	(no info)
Latvia	✓			✓	fully implemented	in progress (CEF)	(n/a)	(no info)
Lithuania	0%	100%	0%	Dec 2022	planned	in progress (CEF)	(n/a)	(no info)
Luxembourg	(n/a)	(n/a)	(n/a)	(n/a)	(n/a)	(n/a)	(n/a)	(n/a)
Malta	0%	0%	100%	-	not planned	in progress (CEF)	(n/a)	(no info)
MUAC	(n/a)	(n/a)	(n/a)	(n/a)	(n/a)	(n/a)	(n/a)	(n/a)
Netherlands	0%	100%	0%	Dec 2021	not planned	in progress (CEF)	in progress (CEF)	planned
Norway	0%	100%	0%	Dec 2021	planned	in progress (CEF)	not planned	in progress (no CEF)
Poland (N)	0%	100%	0%	-	planned	in progress (CEF)	(n/a)	(no info)
Portugal	0%	100%	0%	Dec 2021	planned	in progress (CEF)	(n/a)	(no info)
Romania	0%	100%	0%	Dec 2021	planned	in progress (CEF)	(n/a)	(no info)
Slovak Republic	0%	100%	0%	Dec 2021	planned	in progress (CEF)	(n/a)	not planned
Slovenia	0%	0%	100%	-	not planned	in progress (CEF)	(n/a)	(no info)
Spain (N)	0%	100%	0%	Dec 2021	planned	in progress (CEF)	planned	(no info)
Sweden	0%	0%	100%	-	not planned	not planned	not planned	(no info)
Switzerland	✓			✓	fully implemented	in progress (CEF)	(n/a)	fully implemented
United Kingdom	✓			✓	fully implemented	in progress (CEF)	(n/a)	(no info)

DETAILED VIEWS PER FAMILY

SESAR DEPLOYMENT MANAGER

H

4.2.3 Interface ATM systems to NM systems

| Expected completion year | Dec 2022 | Total # of closed gaps | 0 |
| Family FOC date | Jan 2022 | Total # of open gaps | 32 |

✈ *Airspace User Gap**

* Through the update of Computer Flight Planning Systems

Network Manager

| 40% | 60% | 0% | Dec 2021 |

MUAC

Chart Key – Implementation Status

The chart shows the overall Family implementation status, taking into account all inputs coming from involved Stakeholders

- 0%
- 1-25%
- 26-50%
- 51-75%
- 76-99%
- 100% - Full Deployment Achieved
- No information
- Not applicable

Chart Key per Stakeholders

- Family's scope fully implemented
- Family's scope fully covered by on-going CEF projects
- Implementation in progress (with CEF funding)
- Implementation in progress (without CEF funding)
- Implementation planned
- Implementation not planned
- Not applicable
- No information available

Country	Currently deployed	In progress / Planned	Not planned	Expected completion date	Implementation Status by Operational Stakeholder Category		
					Stakeholders considered as Gaps		
					ANSPs	Network Manager	Military Authorities
Austria	65%	30%	5%	Dec 2021	Implementation planned	Implementation in progress (with CEF funding)	
Belgium (N)	50%	0%	50%	Dec 2021	Implementation in progress (without CEF funding)	Implementation in progress (with CEF funding)	
Bulgaria	75%	0%	25%	Dec 2021	Implementation in progress (without CEF funding)	Implementation in progress (with CEF funding)	
Croatia	75%	0%	25%	Dec 2021	Implementation in progress (without CEF funding)	Implementation in progress (with CEF funding)	
Cyprus	40%	35%	25%	-	Implementation planned	Implementation in progress (with CEF funding)	
Czech Republic (N)	0%	100%	0%	Dec 2021	Implementation planned	Implementation in progress (with CEF funding)	Implementation planned
Denmark	45%	0%	55%	Dec 2021	Implementation in progress (without CEF funding)	Implementation in progress (with CEF funding)	
Estonia	0%	100%	0%	Dec 2020	Family's scope fully covered by on-going CEF projects	Implementation in progress (with CEF funding)	
Finland	0%	100%	0%	Dec 2020	Family's scope fully covered by on-going CEF projects	Implementation in progress (with CEF funding)	
France	0%	75%	25%	Dec 2021	Implementation in progress (with CEF funding)	Implementation in progress (with CEF funding)	Implementation not planned
Germany (N)	0%	50%	50%	-	Implementation planned	Implementation in progress (with CEF funding)	
Greece	0%	100%	0%	Dec 2020	Family's scope fully covered by on-going CEF projects	Implementation in progress (with CEF funding)	
Hungary	25%	75%	0%	Dec 2021	Implementation in progress (without CEF funding)	Implementation in progress (with CEF funding)	
Ireland	0%	100%	0%	Dec 2021	Implementation planned	Implementation in progress (with CEF funding)	
Italy	0%	100%	0%	Dec 2020	Family's scope fully covered by on-going CEF projects	Implementation in progress (with CEF funding)	
Latvia	50%	0%	50%	Dec 2021	Implementation in progress (without CEF funding)	Implementation in progress (with CEF funding)	
Lithuania	0%	100%	0%	Jun 2021	Implementation planned	Implementation in progress (with CEF funding)	
Luxembourg	0%	0%	100%	-	Implementation not planned	Implementation in progress (with CEF funding)	
Malta	75%	0%	25%	Dec 2021	Implementation in progress (without CEF funding)	Implementation in progress (with CEF funding)	
MUAC	35%	45%	20%	Dec 2021	Implementation in progress (without CEF funding)	Implementation in progress (with CEF funding)	Not applicable
Netherlands	0%	65%	35%	Dec 2021	Implementation in progress (with CEF funding)	Implementation in progress (with CEF funding)	Not applicable
Norway	50%	50%	0%	Dec 2021	Implementation in progress (without CEF funding)	Implementation in progress (with CEF funding)	Implementation in progress (without CEF funding)
Poland (N)	55%	10%	35%	Dec 2022	Implementation in progress (with CEF funding)	Implementation in progress (with CEF funding)	
Portugal	40%	35%	25%	Dec 2021	Implementation in progress (with CEF funding)	Implementation in progress (with CEF funding)	
Romania	45%	10%	45%	-	Implementation in progress (without CEF funding)	Implementation in progress (with CEF funding)	
Slovak Republic	0%	10%	90%	Dec 2022	Implementation in progress (without CEF funding)	Implementation in progress (with CEF funding)	Implementation not planned
Slovenia	0%	100%	0%	Dec 2019	Implementation planned	Implementation in progress (with CEF funding)	
Spain (N)	35%	65%	0%	Dec 2021	Implementation in progress (without CEF funding)	Implementation in progress (with CEF funding)	Not applicable
Sweden	75%	0%	25%	Dec 2021	Implementation in progress (without CEF funding)	Implementation in progress (with CEF funding)	
Switzerland	75%	0%	25%	Dec 2019	Implementation in progress (without CEF funding)	Implementation in progress (with CEF funding)	Family's scope fully implemented
United Kingdom	75%	0%	25%	Dec 2021	Implementation in progress (without CEF funding)	Implementation in progress (with CEF funding)	

DETAILED VIEWS PER FAMILY

SESAR DEPLOYMENT MANAGER

4.2.4 AOP/NOP information sharing

Expected completion year	Dec 2021
Family FOC date	Jan 2022

Total # of closed gaps	0
Total # of open gaps	25

Network Manager

0%	50%	50%	Dec 2021

Chart Key – Implementation Status

The chart shows the overall Family implementation status, taking into account all inputs coming from involved Stakeholders

- 0%
- 1-25%
- 26-50%
- 51-75%
- 76-99%
- 100% - Full Deployment Achieved
- No information
- Not applicable

Chart Key per Stakeholders

- Family's scope fully implemented
- Family's scope fully covered by on-going CEF projects
- Implementation in progress (with CEF funding)
- Implementation in progress (without CEF funding)
- Implementation planned
- Implementation not planned
- Not applicable
- No information available

Airport	Currently deployed	In progress / Planned	Not planned	Expected completion date	Stakeholders considered as Gaps		Other stakeholders involved in the Family deployment		
					Network Manager	Airport Operators	ANSPs	Military Authorities	MET Providers
Amsterdam Schiphol	0%	100%	0%	Dec 2021	green	green	orange		green
Barcelona El Prat	0%	100%	0%	Dec 2021	green	green	dark green	grey	grey
Berlin Brandenburg Airport	0%	100%	0%	Jun 2018	green	purple	purple-pink		grey
Brussels National	0%	100%	0%	Dec 2021	green	green	orange		grey
Copenhagen Kastrup	0%	100%	0%	Dec 2018	green	purple-pink	orange		orange
Dublin Airport	0%	100%	0%	Dec 2018	green	orange	purple-pink		grey
Dusseldorf International	0%	100%	0%	Dec 2021	green	purple-pink	purple-pink		grey
Frankfurt International	0%	100%	0%	Dec 2021	green	green	purple-pink		
London Gatwick	0%	0%	100%	-	green	orange	grey	grey	grey
London Heathrow	0%	100%	0%	Dec 2021	green	green	grey		grey
London Stansted	0%	0%	100%	-	green	orange	grey		grey
Madrid Barajas	0%	100%	0%	Dec 2021	green	green	dark green	grey	grey
Manchester Ringway	0%	0%	100%	-	green	orange	grey		grey
Milan Malpensa	0%	55%	45%	-	green	orange	purple-pink		purple-pink
Munich Franz Josef Strauss	0%	100%	0%	Dec 2021	green	purple-pink	purple-pink		grey
Nice Cote D'Azur	0%	0%	100%	-	green	orange	orange	orange	grey
Oslo Gardermoen	0%	0%	100%	-	green	orange	grey	purple	grey
Palma de Mallorca Son San Juan	0%	100%	0%	Dec 2021	green	green	dark green		grey
Paris Charles De Gaulle	0%	100%	0%	Dec 2021	green	green	orange	orange	
Paris Orly	0%	100%	0%	Dec 2021	green	green	orange	orange	
Rome Fiumicino	0%	100%	0%	Dec 2020	green	green	purple-pink		purple-pink
Stockholm Arlanda	0%	100%	0%	Dec 2020	green	green	orange		orange
Vienna Schwechat	0%	100%	0%	Dec 2021	green	purple-pink	grey	orange	
Zurich Kloten	0%	100%	0%	-	green	purple-pink	grey	dark green	grey

SESAR DEPLOYMENT MANAGER

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4.3.1 Target Time for ATFCM purposes

Expected completion year	Dec 2021
Family FOC date	Jan 2022

Total # of closed gaps	0
Total # of open gaps	1

Airspace User Gap*

* Through the update of Computer Flight Planning Systems

Network Manager

50%	50%	0%	Dec 2021

MUAC

Chart Key – Implementation Status

The chart shows the overall Family implementation status, taking into account all inputs coming from involved Stakeholders

- 0%
- 1-25%
- 26-50%
- 51-75%
- 76-99%
- 100% - Full Deployment Achieved
- No information
- Not applicable

Chart Key per Stakeholders

- Family's scope fully implemented
- Family's scope fully covered by on-going CEF projects
- Implementation in progress (with CEF funding)
- Implementation in progress (without CEF funding)
- Implementation planned
- Implementation not planned
- Not applicable
- No information available

The Stakeholders considered as Gaps in Family 4.3.1 are the **Network Manager** and the **Airspace Users**.
All the others Stakeholder Categories, namely the ANSPs, the Airport Operators and the Military Authorities, are considered as involved in the Family deployment.

SESAR DEPLOYMENT MANAGER

DETAILED VIEWS PER FAMILY

4.3.2 Reconciled target times for ATFCM and arrival sequencing

| Expected completion year | Dec 2022 | Total # of closed gaps | 0 |
| Family FOC date | Jan 2022 | Total # of open gaps | 31 |

Airspace User Gap*

* Through the update of Computer Flight Planning Systems

Network Manager
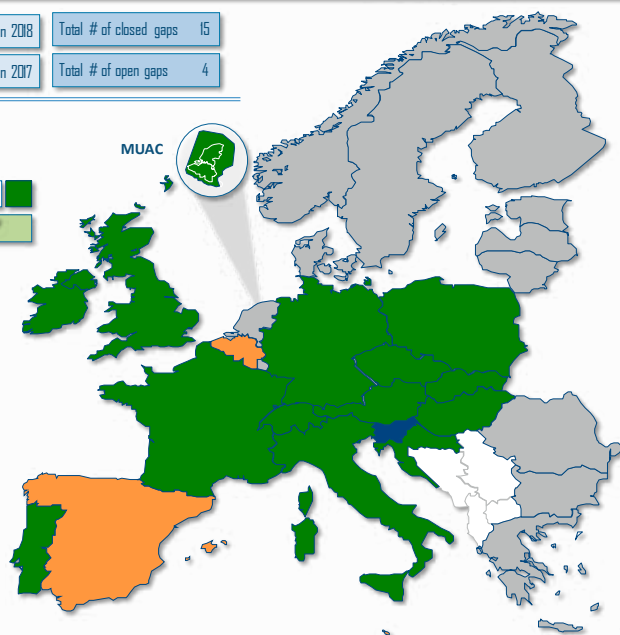
| 0% | 15% | 85% | Dec 2021 |

MUAC

Chart Key – Implementation Status

The chart shows the overall Family implementation status, taking into account all inputs coming from involved Stakeholders

0%	1-25%
26-50%	51-75%
76-99%	
100% - Full Deployment Achieved	
No information	Not applicable

Chart Key per Stakeholders

- Family's scope fully implemented
- Family's scope fully covered by on-going CEF projects
- Implementation in progress (with CEF funding)
- Implementation in progress (without CEF funding)
- Implementation planned
- Implementation not planned
- Not applicable
- No information available

| Country | Currently deployed | In progress / Planned | Not planned | Expected completion date | Implementation Status by Operational Stakeholder Category | | | |
| | | | | | Stakeholders considered as Gaps | | | Other stakeholders involved |
					ANSPs	Airport Operators	Network Manager	Military Authorities
Austria	0%	0%	100%	Dec 2021	not planned	not applicable	in progress	
Belgium	0%	0%	100%	-	not planned	not applicable	in progress	
Bulgaria	0%	0%	100%	-	not planned	not applicable	in progress	
Croatia	0%	0%	100%	-	not planned	not applicable	in progress	
Cyprus	0%	0%	100%	-	not planned	not applicable	in progress	
Czech Republic	0%	0%	100%	-	not planned	not applicable	in progress	not planned
Denmark	0%	0%	100%	-	not planned	not applicable	in progress	
Estonia	0%	0%	100%	-	not planned	not applicable	in progress	
Finland	0%	100%	0%	-	planned	not applicable	in progress	
France	0%	100%	0%	Dec 2020	in progress	planned	in progress	not planned
Germany	0%	0%	100%	-	not planned	not planned	in progress	
Greece	0%	100%	0%	Dec 2020	in progress CEF	not applicable	in progress	
Hungary	0%	100%	0%	Dec 2021	planned	not applicable	in progress	
Ireland	0%	0%	100%	-	not planned	not applicable	in progress	
Italy	0%	100%	0%	Dec 2021	planned	not planned	in progress	
Latvia	0%	0%	100%	Dec 2021	not planned	not applicable	in progress	
Lithuania	0%	100%	0%	Dec 2022	planned	not applicable	in progress	
Luxembourg					not applicable	not applicable	not applicable	not applicable
Malta	0%	0%	100%	-	not planned	not applicable	in progress	
MUAC	0%	0%	100%	-	not planned	not applicable	in progress	
Netherlands	0%	0%	100%	-	not planned	not planned	not applicable	
Norway	0%	0%	100%	-	not planned	not applicable	in progress	
Poland	0%	0%	100%	-	not planned	not applicable	in progress	
Portugal	0%	100%	0%	Dec 2021	planned	not applicable	in progress	
Romania	0%	0%	100%	-	not planned	not applicable	in progress	
Slovak Republic	0%	0%	100%	-	not planned	not applicable	in progress	
Slovenia	0%	0%	100%	-	not planned	not applicable	in progress	
Spain	0%	100%	0%	Dec 2021	planned	not planned	in progress	
Sweden	0%	0%	100%	-	not planned	not applicable	in progress	
Switzerland	0%	0%	100%	-	not planned	not applicable	in progress	not applicable
United Kingdom	0%	100%	0%	-	planned	not planned	in progress	

SESAR
DEPLOYMENT MANAGER

4.4.2 Traffic Complexity tools

| Expected completion year | Dec 2022 | Total # of closed gaps | 4 |
| Family FOC date | Jan 2022 | Total # of open gaps | 25 |

Network Manager

| 15% | 85% | 0% | Dec 2021 |

MUAC

Chart Key – Implementation Status

The chart shows the overall Family implementation status, taking into account all inputs coming from involved Stakeholders
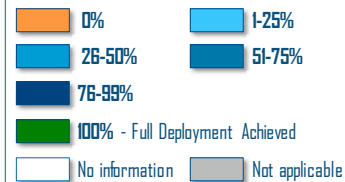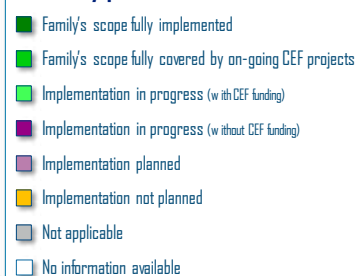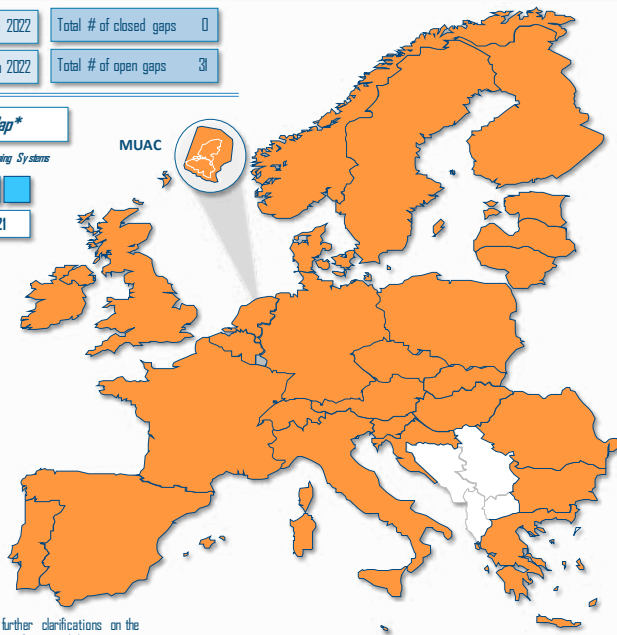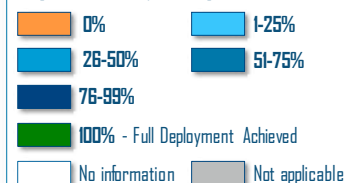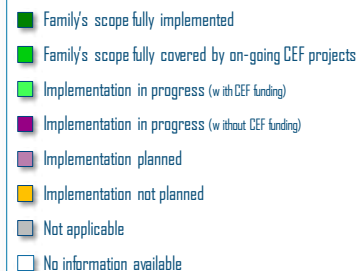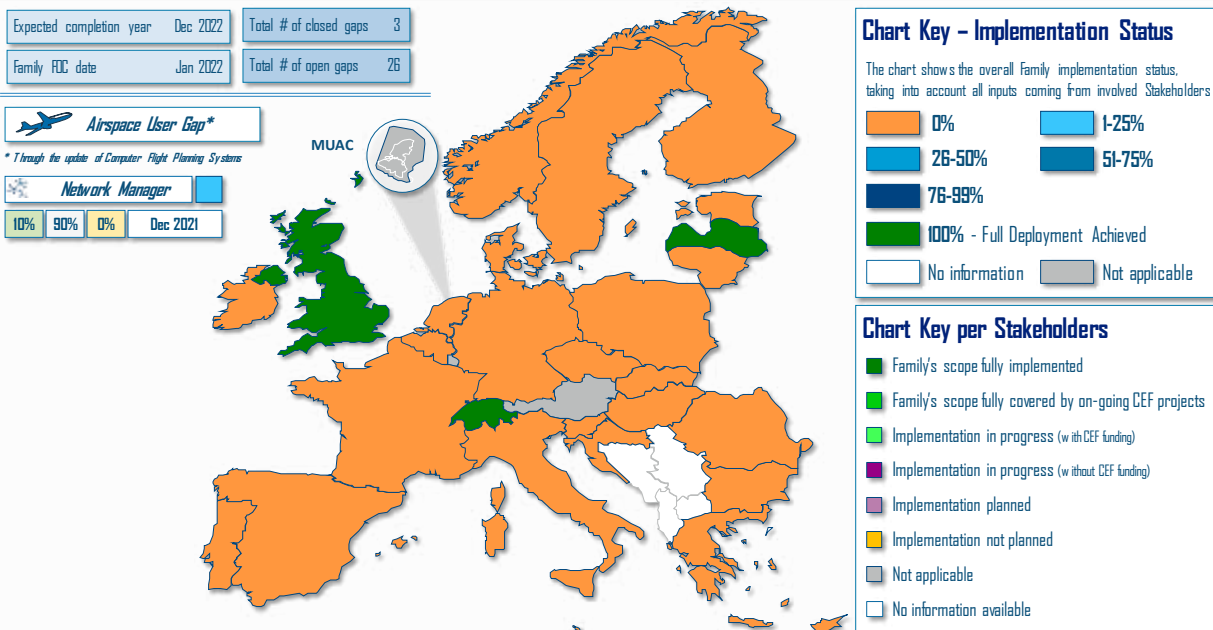
- 0%
- 1-25%
- 26-50%
- 51-75%
- 76-99%
- 100% - Full Deployment Achieved
- No information
- Not applicable

Chart Key per Stakeholders

- Family's scope fully implemented
- Family's scope fully covered by on-going CEF projects
- Implementation in progress (with CEF funding)
- Implementation in progress (without CEF funding)
- Implementation planned
- Implementation not planned
- Not applicable
- No information available

(*) The implementation of additional tools is not deemed necessary to manage traffic complexity in their respective Areas of Responsibility

| Country | Currently deployed | In progress / Planned | Not planned | Expected completion date | Implementation Status by Operational Stakeholder Category | | Other stakeholders involved |
| | | | | | Stakeholders considered as Gaps | | |
					ANSPs	Network Manager	Military Authorities
Austria	✔			✔			
Belgium	0%	100%	0%	Dec 2018			
Bulgaria	15%	85%	0%	Sep 2020			
Croatia	0%	100%	0%	Dec 2021			
Cyprus	0%	100%	0%	Dec 2021			
Czech Republic	55%	45%	0%	Apr 2018			
Denmark*							
Estonia	0%	0%	100%	-			
Finland	0%	100%	0%	Dec 2022			
France	40%	60%	0%	Mar 2020			
Germany	0%	75%	25%	Dec 2021			
Greece	0%	100%	0%	Dec 2021			
Hungary	0%	100%	0%	Dec 2021			
Ireland	0%	100%	0%	Dec 2021			
Italy	0%	100%	0%	Dec 2020			
Latvia	0%	0%	100%	Dec 2021			
Lithuania	0%	100%	0%	Dec 2022			
Luxembourg							
Malta*							
MUAC	✔			✔			
Netherlands	25%	75%	0%	Dec 2021			
Norway	0%	100%	0%	Dec 2021			
Poland	0%	100%	0%	Dec 2021			
Portugal	0%	100%	0%	Dec 2021			
Romania	0%	0%	100%	-			
Slovak Republic	0%	50%	50%	-			
Slovenia	0%	50%	50%	-			
Spain	0%	100%	0%	Dec 2021			
Sweden	✔			✔			
Switzerland	✔			✔			
United Kingdom	0%	100%	0%	Dec 2020			

DETAILED VIEWS PER FAMILY

SESAR DEPLOYMENT MANAGER

AF #5 – Initial SWIM

5.1.1 PENS 1: Pan-European Network Service version 1

Expected completion year	Dec 2019
Family FOC date	Dec 2019

Total # of closed gaps	29
Total # of open gaps	2

MUAC

Network Manager ✔ ✔

Chart Key – Implementation Status

The chart shows the overall Family implementation status, taking into account all inputs coming from involved Stakeholders

🟧	0%	🟦	1-25%
🟦	26-50%	🟦	51-75%
🟦	76-99%		
🟩	100% - Full Deployment Achieved		
⬜	No information	⬜	Not applicable

Chart Key per Stakeholders

- 🟩 Family's scope fully implemented
- 🟩 Family's scope fully covered by on-going CEF projects
- 🟩 Implementation in progress (with CEF funding)
- 🟪 Implementation in progress (without CEF funding)
- 🟪 Implementation planned
- 🟨 Implementation not planned
- ⬜ Not applicable
- ⬜ No information available
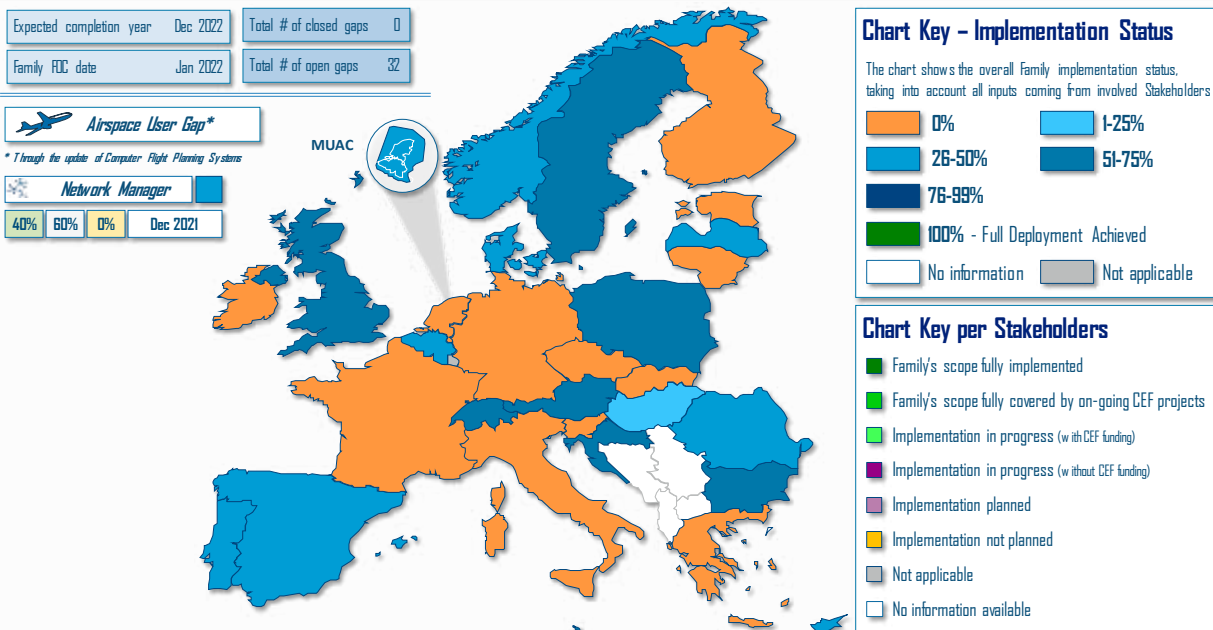
Country	Currently deployed	In progress / Planned	Not planned	Expected completion date	Implementation Status by Operational Stakeholder Category	
					Stakeholders considered as Gaps	
					ANSPs	Network Manager
Austria	✔			✔	🟩	🟩
Belgium	✔			✔	🟩	🟩
Bulgaria	10%	90%	0%	Dec 2017	🟪	🟩
Croatia	✔			✔	🟩	🟩
Cyprus	✔			✔	🟩	🟩
Czech Republic	✔			✔	🟩	🟩
Denmark	✔			✔	🟩	🟩
Estonia	✔			✔	🟩	🟩
Finland	✔			✔	🟩	🟩
France	✔			✔	🟩	🟩
Germany	✔			✔	🟩	🟩
Greece	0%	100%	0%	Dec 2019	🟪	🟩
Hungary	✔			✔	🟩	🟩
Ireland	✔			✔	🟩	🟩
Italy	✔			✔	🟩	🟩
Latvia	✔			✔	🟩	🟩
Lithuania	✔			✔	🟩	🟩
Luxembourg	✔			✔	🟩	🟩
Malta	✔			✔	🟩	🟩
MUAC	✔			✔	🟩	🟩
Netherlands	✔			✔	🟩	🟩
Norway	✔			✔	🟩	🟩
Poland	✔			✔	🟩	🟩
Portugal	✔			✔	🟩	🟩
Romania						
Slovak Republic	✔			✔	🟩	🟩
Slovenia	✔			✔	🟩	🟩
Spain	✔			✔	🟩	🟩
Sweden	✔			✔	🟩	🟩
Switzerland	✔			✔	🟩	🟩
United Kingdom	✔			✔	🟩	🟩

SESAR DEPLOYMENT MANAGER

5.1.2 NewPENS: New Pan-European Network Service

Expected completion year — Dec 2024
Family FOC date — Jan 2025
Total # of closed gaps — 0
Total # of open gaps — 32

Airspace User Gap*
* Through the update of Computer Flight Planning Systems

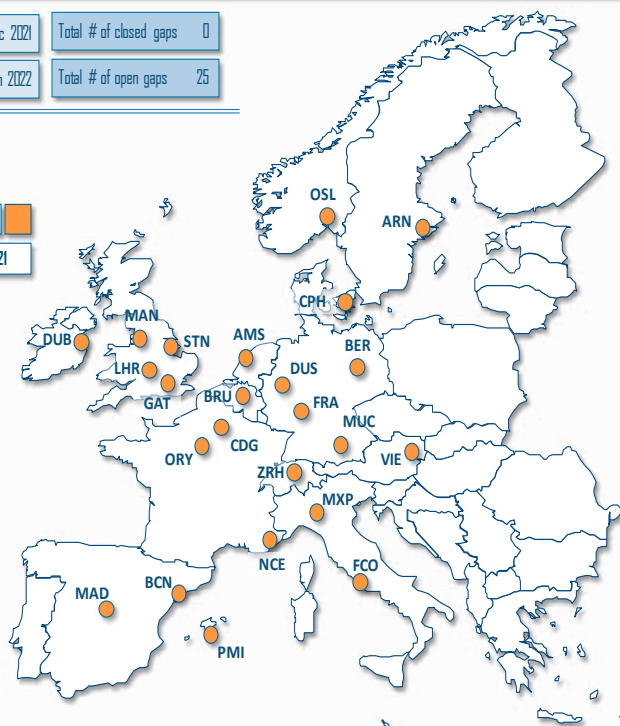**Network Manager** — 20% | 80% | 0% | Dec 2024

MUAC

Chart Key – Implementation Status

The chart shows the overall Family implementation status, taking into account all inputs coming from involved Stakeholders
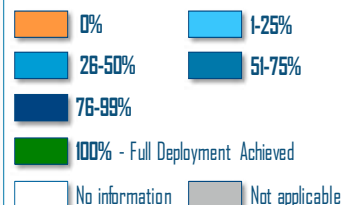
- 0%
- 1-25%
- 26-50%
- 51-75%
- 76-99%
- 100% - Full Deployment Achieved
- No information
- Not applicable

Chart Key per Stakeholders

- Family's scope fully implemented
- Family's scope fully covered by on-going CEF projects
- Implementation in progress (with CEF funding)
- Implementation in progress (without CEF funding)
- Implementation planned
- Implementation not planned
- Not applicable
- No information available

Country	Currently deployed	In progress / Planned	Not planned	Expected completion date	ANSPs	Airport Operators	Network Manager	Military Authorities	MET Providers
Austria	20%	80%	0%	Dec 2020					
Belgium	20%	80%	0%	Dec 2020					
Bulgaria	20%	80%	0%	Dec 2020					
Croatia	20%	80%	0%	Dec 2020					
Cyprus	10%	90%	0%	Dec 2021					
Czech Republic	20%	80%	0%	Dec 2020					
Denmark	20%	80%	0%	Dec 2020					
Estonia	0%	100%	0%	Dec 2020					
Finland	20%	80%	0%	Dec 2020					
France	20%	80%	0%	Dec 2020					
Germany	0%	100%	0%	Dec 2024					
Greece	0%	100%	0%	Dec 2020					
Hungary	0%	100%	0%	Dec 2024					
Ireland	20%	80%	0%	Dec 2020					
Italy	0%	100%	0%	Dec 2024					
Latvia	0%	100%	0%	Dec 2024					
Lithuania	0%	100%	0%	Jun 2020					
Luxembourg	20%	80%	0%	Mar 2020					
Malta	0%	100%	0%	Dec 2019					
MUAC	20%	80%	0%	Dec 2020					
Netherlands	20%	80%	0%	Dec 2020					
Norway	0%	100%	0%	Dec 2024					
Poland	0%	100%	0%	Dec 2024					
Portugal	20%	80%	0%	Dec 2020					
Romania	20%	80%	0%	Dec 2020					
Slovak Republic	20%	80%	0%	Dec 2020					
Slovenia	20%	80%	0%	Dec 2020					
Spain	20%	80%	0%	Dec 2020					
Sweden	20%	80%	0%	Dec 2020					
Switzerland	0%	100%	0%	Dec 2019					
United Kingdom	20%	80%	0%	Dec 2020					

SESAR DEPLOYMENT MANAGER

SWIM Governance – covering 5.1.3 Common SWIM Infrastructure Components and 5.1.4 Common SWIM KPI and Cybersecurity

Considering the relevance of all activities underpinning the establishment of a common SWIM Governance, as well as the need to speed up the set-up of one of the key enablers towards the full PCP implementation, SDM issued a **dedicated survey on SWIM Governance and its *status quo*** in order to build a deeper knowledge on the **ATM stakeholders' awareness on the topic**.

More in detail, SDM Monitoring Exercise 2017 had the main objective of ascertaining how **ATM Stakeholders intend to take part to the entire process**, through *ad hoc* questions. The survey was distributed to all relevant Stakeholders, namely 31 ANSPs, 24 Airport Operators, 31 Military Authorities, 30 MET Service Providers, and the Network Manager. The number of respondents allowed SDM the interpretation of the answers in a comprehensive manner, finding the **final results as representative of the overall ATM community consulted**.

The table below provides a **focus on each of the questions included in the SWIM Governance questionnaire**, as embedded within SDM Monitoring Exercise 2017.

SWIM Governance Action Plan

86%   100%

The wide majority of responding ATM operational stakeholders (66 out of 77, with 6 stakeholders who didn't provide any input) declared their **awareness with regard to the SWIM Governance Action Plan**, as included in the SESAR Deployment Programme in 2016. Additional efforts might however still be needed to promote the Action Plan and engage all stakeholder categories – SDM is currently evaluating whether to repeat on a yearly basis the SWIM Workshop initially held in 2016, focused on Deployment.

Multi-Stakeholder project establishing the SWIM Governance Framework

75%   100%

59 stakeholders out of 77 respondents declared that they are **aware of the multistakeholder Implementation Initiative** initiated earlier this year and submitted in the Framework of CEF Call 2016, aiming at **establishing an agreed and shared SWIM Governance Framework**. SDM clearly sees the need to raise the awareness regarding this core part of SWIM and stands ready to support and foster the participation of the ATM community to such initiative.

Adherence to the SWIM Governance Framework

74%   100%

50 stakeholders (including the vast majority of ANSPs and MET providers and the Network Manager) have declared to have **plans to adhere to the SWIM Governance framework** in the future, indicating in several cases **a target date for such adherence**. A relevant number of stakeholders also declared that they are waiting for further progress of the initiative to define a specific date. One quarter of stakeholders probably not planning to adhere to the SWIM Governance framework is considered an issue by SDM, since SWIM can only work with one Governance controlling its evolution. SDM will work with regulatory authorities on the one hand and stakeholders on the other hand to ensure a commonly agreed and applied SWIM Governance framework.

Definition of the main principles of SWIM Governance structure and process

72%   100%

71% of the respondents are willing to participate (directly or indirectly) to the **definition of the main principles** associated to the SWIM Governance structure and process. SDM fully supports the **participation of the widest range of stakeholders** to the SWIM Governance activities, either by active participation or by exploiting the consultation mechanisms that the started implementation initiative will establish for including the stakeholders not directly participating in the definition.

Standardization of SWIM output

48%   100%

Less than 50% of the respondents (30 stakeholders out of 65) plan to **contribute to the standardization activities of SWIM outputs**; given the relevance of such activity to enable and support the establishment of a common and interoperable infrastructure, SDM strives to ensure stakeholders' participation to such standardization activities at least through the established consultation mechanisms of the different Standardisation Bodies.

Definition of the SWIM Registry

74%   100%

73% of the respondents – including a wide majority of the European Air Navigation Service Providers – plans to participate to the activities linked to the **definition of the SWIM Registry**, which will provide **access to documents, information and descriptions** related to service instances, SWIM standards, reference materials and the relevant organizations. SDM sees a need to raise the awareness for this important tool of SWIM Governance, which is also mandated by the PCP regulation.

Definition of the SWIM Security requirements

75%   100%

75% of the respondents (with no significant differences across operational stakeholders' category) are willing or at least interested to **participate to the definition of the SWIM security requirements**, which would ensure the most appropriate standards requirements and functions to ensure secure and reliable information exchanges among relevant stakeholders. SDM considers the number of intended participants low due to the important nature of security in SWIM. Thus, there is an urgent need to raise the awareness for this issue, which is also mandated by the PCP regulation.

5.2.1 Stakeholders Internet Protocol Compliance

Expected completion year — Dec 2024
Family FOC date — Jan 2018
Total # of closed gaps — 10
Total # of open gaps — 22

Airspace User Gap*
* Through the update of Computer Flight Planning Systems

Network Manager
75% | 25% | 0% | Dec 2017

MUAC

Chart Key – Implementation Status
The chart shows the overall Family implementation status, taking into account all inputs coming from involved Stakeholders
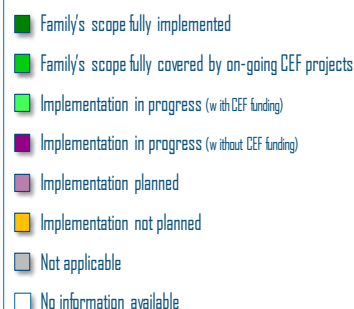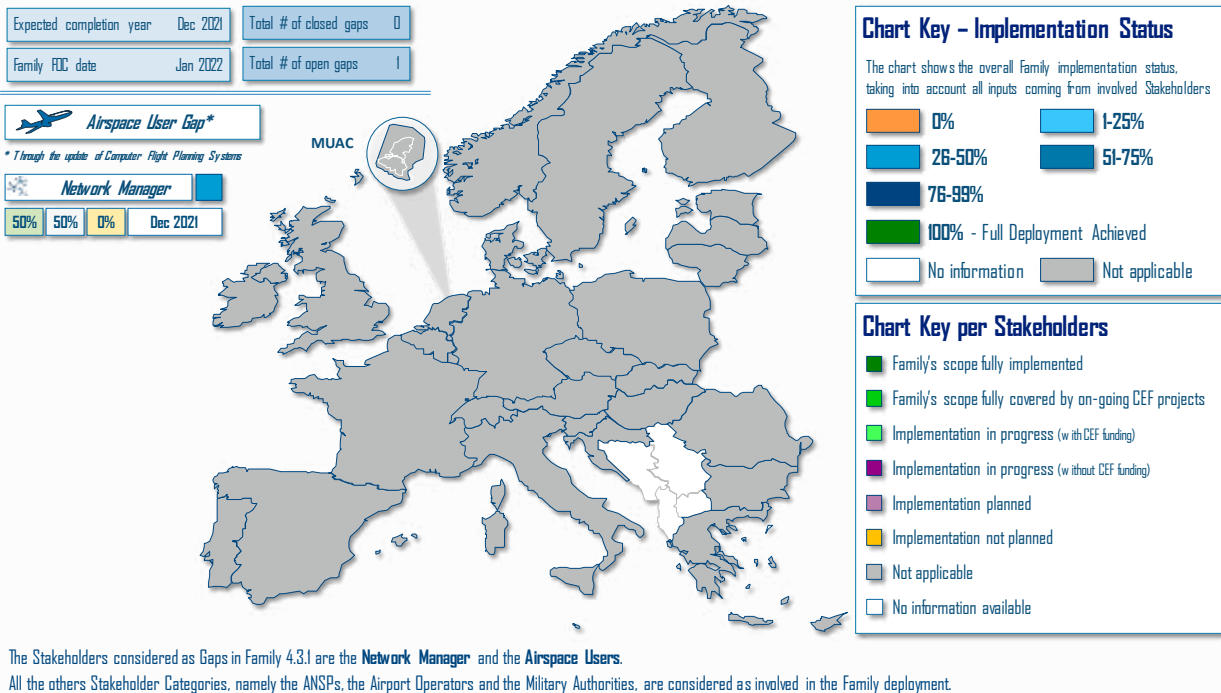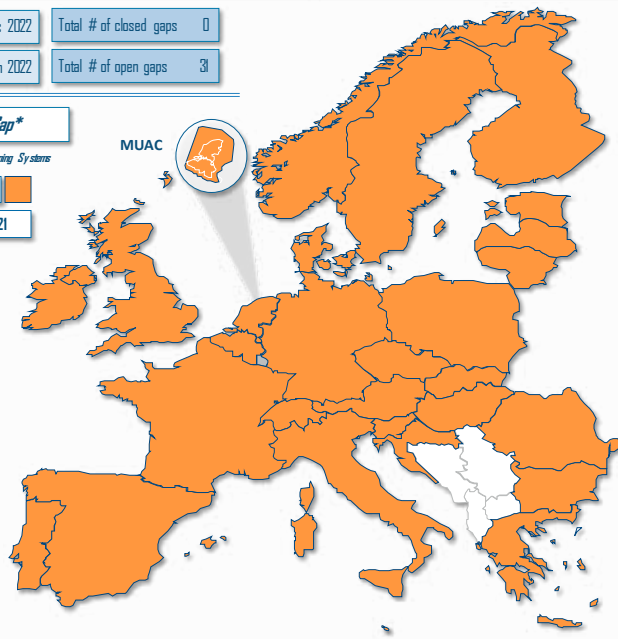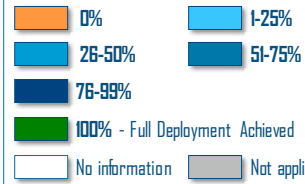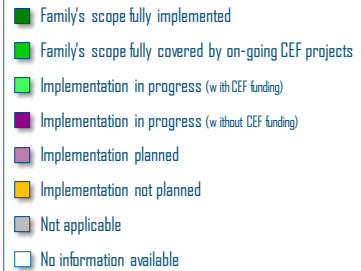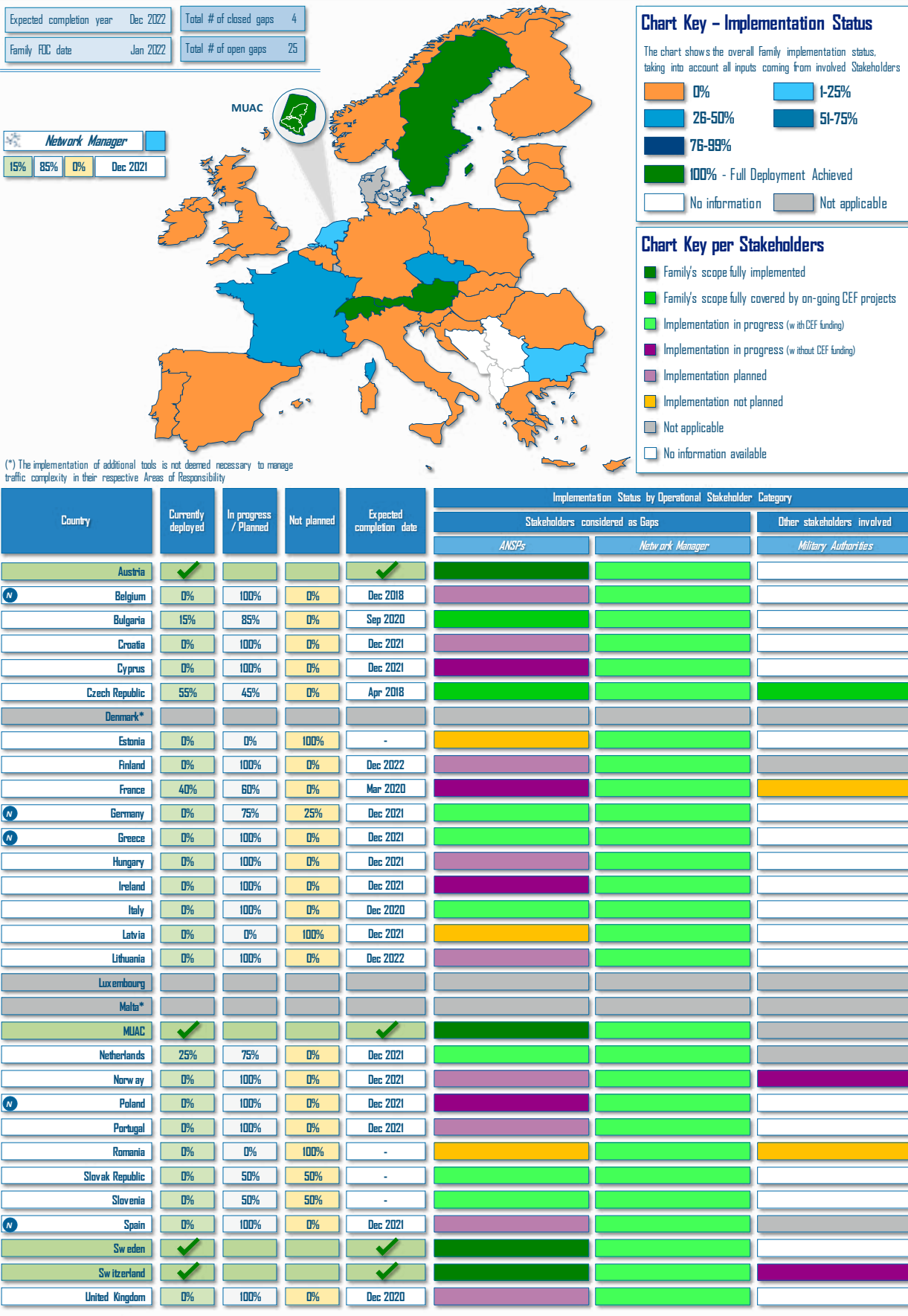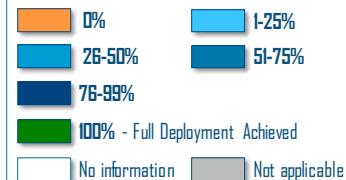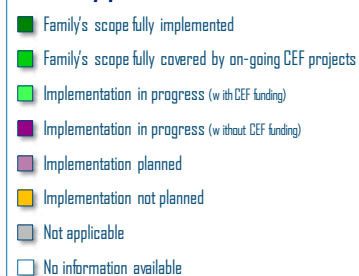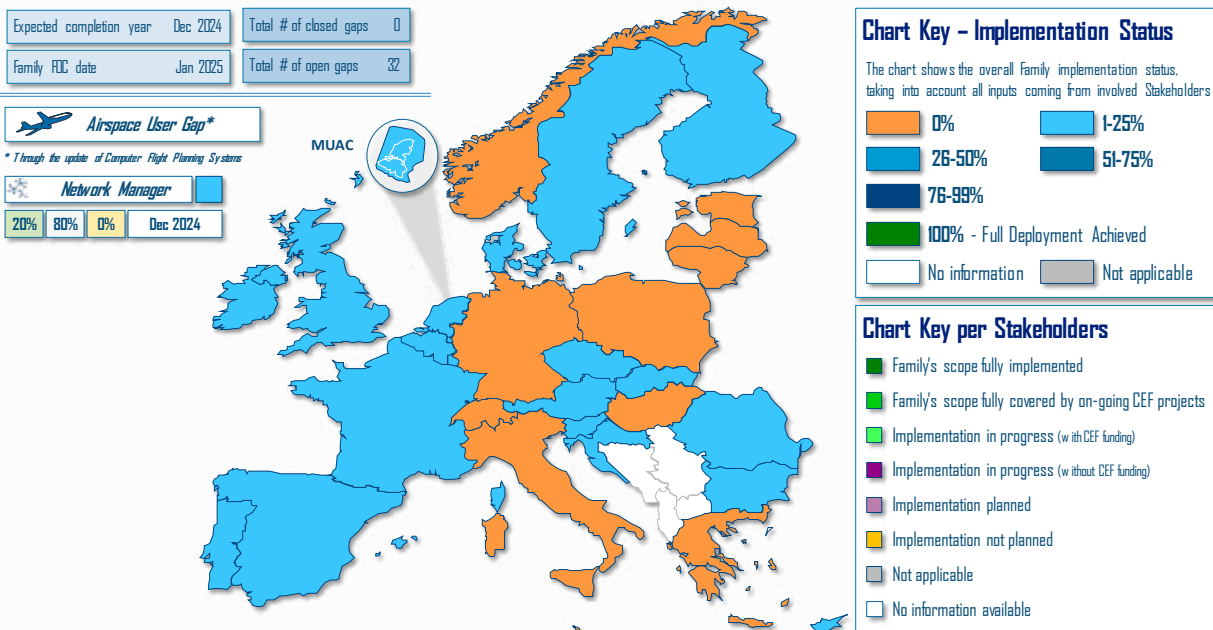
- 0%
- 1-25%
- 26-50%
- 51-75%
- 76-99%
- 100% - Full Deployment Achieved
- No information
- Not applicable

Chart Key per Stakeholders
- Family's scope fully implemented
- Family's scope fully covered by on-going CEF projects
- Implementation in progress (with CEF funding)
- Implementation in progress (without CEF funding)
- Implementation planned
- Implementation not planned
- Not applicable
- No information available

Country	Currently deployed	In progress / Planned	Not planned	Expected completion date	Implementation Status by Operational Stakeholder Category — Stakeholders considered as Gaps				
					ANSPs	Airport Operators	Network Manager	Military Authorities	MET Providers
Austria	✔			✔					
Belgium	35%	65%	0%	Dec 2019					
Bulgaria	40%	60%	0%	Nov 2024					
Croatia	0%	100%	0%	Dec 2017					
Cyprus	0%	100%	0%	Dec 2020					
Czech Republic	✔			✔					
Denmark	50%	50%	0%	Dec 2024					
Estonia	0%	0%	100%	-					
Finland	0%	100%	0%	Dec 2024					
France	0%	100%	0%	Dec 2024					
Germany	45%	55%	0%	Dec 2018					
Greece	0%	100%	0%	Dec 2022					
Hungary	✔			✔					
Ireland	0%	100%	0%	Dec 2020					
Italy	✔			✔					
Latvia	40%	0%	60%	Dec 2024					
Lithuania	0%	100%	0%	Dec 2021					
Luxembourg	0%	100%	0%	Dec 2021					
Malta	0%	100%	0%	Dec 2020					
MUAC	✔			✔					
Netherlands	0%	100%	0%	Dec 2024					
Norway	0%	0%	100%	Dec 2024					
Poland	0%	100%	0%	Dec 2017					
Portugal	0%	60%	40%	Dec 2019					
Romania	✔			✔					
Slovak Republic	✔			✔					
Slovenia	✔			✔					
Spain	0%	100%	0%	Dec 2020					
Sweden	55%	45%	0%	Dec 2020					
Switzerland	✔			✔					
United Kingdom	✔			✔					

DETAILED VIEWS PER FAMILY

SESAR DEPLOYMENT MANAGER

H

5.2.2 Stakeholders SWM Infrastructures Components

Expected completion year	Dec 2024
Family FOC date	Jan 2025

Total # of closed gaps	0
Total # of open gaps	32

✈ Airspace User Gap*

* Through the update of Computer Flight Planning Systems

Network Manager

15%	85%	0%	Dec 2024

MUAC

Chart Key – Implementation Status

The chart shows the overall Family implementation status, taking into account all inputs coming from involved Stakeholders

0%		1-25%	
26-50%		51-75%	
76-99%			
100% - Full Deployment Achieved			
No information		Not applicable	

Chart Key per Stakeholders

- Family's scope fully implemented
- Family's scope fully covered by on-going CEF projects
- Implementation in progress (with CEF funding)
- Implementation in progress (without CEF funding)
- Implementation planned
- Implementation not planned
- Not applicable
- No information available

Country	Currently deployed	In progress / Planned	Not planned	Expected completion date	Implementation Status by Operational Stakeholder Category — Stakeholders considered as Gaps				
					ANSPs	Airport Operators	Network Manager	Military Authorities	MET Providers
Austria	0%	60%	40%	Dec 2024					
Belgium	0%	0%	100%	-					
Bulgaria	0%	75%	25%	Nov 2024					
Croatia	0%	100%	0%	Dec 2024					
Cyprus	0%	100%	0%	Dec 2021					
Czech Republic	0%	100%	0%	Dec 2024					
Denmark	0%	80%	20%	Dec 2024					
Estonia	0%	50%	50%	-					
Finland	0%	100%	0%	Dec 2024					
France	0%	100%	0%	Dec 2024					
Germany	0%	60%	40%	-					
Greece	0%	100%	0%	Dec 2022					
Hungary	0%	100%	0%	Dec 2024					
Ireland	0%	100%	0%	Jan 2020					
Italy	0%	100%	0%	Dec 2024					
Latvia	0%	100%	0%	Dec 2024					
Lithuania	0%	100%	0%	Dec 2019					
Luxembourg	0%	100%	0%	Dec 2021					
Malta	0%	100%	0%	Dec 2021					
MUAC	0%	100%	0%	Dec 2024					
Netherlands	0%	30%	70%	Dec 2024					
Norway	0%	0%	100%	-					
Poland	0%	100%	0%	Dec 2024					
Portugal	0%	50%	50%	Dec 2019					
Romania	0%	0%	100%	Dec 2024					
Slovak Republic	0%	0%	100%	-					
Slovenia	0%	0%	100%	-					
Spain	0%	100%	0%	Dec 2024					
Sweden	0%	100%	0%	Dec 2024					
Switzerland	0%	100%	0%	Sep 2017					
United Kingdom	0%	100%	0%	Dec 2020					

DETAILED VIEWS PER FAMILY

SESAR DEPLOYMENT MANAGER

M

5.2.3 Stakeholders SWM PKI and Cybersecurity

| Expected completion year | Dec 2024 | Total # of closed gaps | 0 |
| Family FOC date | Jan 2025 | Total # of open gaps | 32 |

Airspace User Gap*

* Through the update of Computer Flight Planning Systems

Network Manager

| 60% | 40% | 0% | Dec 2024 |

MUAC

Chart Key – Implementation Status

The chart shows the overall Family implementation status, taking into account all inputs coming from involved Stakeholders

- 0%
- 1-25%
- 26-50%
- 51-75%
- 76-99%
- 100% - Full Deployment Achieved
- No information
- Not applicable

Chart Key per Stakeholders

- Family's scope fully implemented
- Family's scope fully covered by on-going CEF projects
- Implementation in progress (with CEF funding)
- Implementation in progress (without CEF funding)
- Implementation planned
- Implementation not planned
- Not applicable
- No information available

Country	Currently deployed	In progress / Planned	Not planned	Expected completion date	Implementation Status by Operational Stakeholder Category — Stakeholders considered as Gaps — ANSPs	Airport Operators	Network Manager	Military Authorities	MET Providers
Austria	0%	95%	5%	Dec 2024					
Belgium	0%	0%	100%	-					
Bulgaria	0%	100%	0%	Dec 2024					
Croatia	0%	100%	0%	Dec 2020					
Cyprus	0%	100%	0%	Dec 2021					
Czech Republic	0%	100%	0%	Dec 2024					
Denmark	0%	100%	0%	Dec 2020					
Estonia	0%	60%	40%	-					
Finland	0%	100%	0%	Dec 2024					
France	0%	100%	0%	Dec 2024					
Germany	0%	100%	0%	Dec 2024					
Greece	0%	100%	0%	Dec 2022					
Hungary	0%	100%	0%	Jun 2018					
Ireland	0%	100%	0%	-					
Italy	0%	100%	0%	Dec 2024					
Latvia	0%	100%	0%	Dec 2024					
Lithuania	0%	100%	0%	Jun 2021					
Luxembourg	0%	100%	0%	Mar 2021					
Malta	0%	100%	0%	Dec 2020					
MUAC	0%	100%	0%	Dec 2024					
Netherlands	0%	0%	100%	Dec 2024					
Norway	0%	0%	100%	-					
Poland	0%	100%	0%	Dec 2024					
Portugal	0%	0%	100%	-					
Romania	0%	0%	100%	-					
Slovak Republic	0%	0%	100%	-					
Slovenia	0%	0%	100%	-					
Spain	0%	100%	0%	Dec 2024					
Sweden	0%	100%	0%	Dec 2024					
Switzerland	0%	100%	0%	Sep 2017					
United Kingdom	0%	100%	0%	Dec 2020					

DETAILED VIEWS PER FAMILY

SESAR DEPLOYMENT MANAGER

5.3.1 Upgrade / Implement Aeronautical Information Exchange system / service

| Expected completion year | Dec 2024 |
| Family FOC date | Jan 2025 |

| Total # of closed gaps | 0 |
| Total # of open gaps | 32 |

Airspace User Gap*

* Through the update of Computer Flight Planning Systems

Network Manager

| 60% | 40% | 0% | Dec 2024 |

MUAC

Chart Key – Implementation Status

The chart shows the overall Family implementation status, taking into account all inputs coming from involved Stakeholders

- 0%
- 1-25%
- 26-50%
- 51-75%
- 76-99%
- 100% - Full Deployment Achieved
- No information
- Not applicable

Chart Key per Stakeholders

- Family's scope fully implemented
- Family's scope fully covered by on-going CEF projects
- Implementation in progress (with CEF funding)
- Implementation in progress (without CEF funding)
- Implementation planned
- Implementation not planned
- Not applicable
- No information available

Country	Currently deployed	In progress / Planned	Not planned	Expected completion date	ANSPs	Airport Operators	Network Manager	Military Authorities
Austria	0%	100%	0%	Dec 2024				
Belgium	0%	0%	100%	-				
Bulgaria	0%	0%	100%	-				
Croatia	0%	100%	0%	Dec 2024				
Cyprus	0%	0%	100%	-				
Czech Republic	0%	100%	0%	Dec 2024				
Denmark	0%	100%	0%	Dec 2021				
Estonia	70%	30%	0%	Dec 2020				
Finland	0%	100%	0%	Dec 2018				
France	0%	10%	90%	Dec 2024				
Germany	0%	100%	0%	Dec 2024				
Greece	0%	100%	0%	Dec 2022				
Hungary	0%	0%	100%	-				
Ireland	0%	100%	0%	Dec 2024				
Italy	0%	100%	0%	Dec 2024				
Latvia	0%	100%	0%	Dec 2024				
Lithuania	0%	100%	0%	Dec 2020				
Luxembourg	0%	100%	0%	Dec 2024				
Malta	0%	100%	0%	-				
MUAC	0%	100%	0%	Dec 2024				
Netherlands	0%	20%	80%	Dec 2024				
Norway	0%	0%	100%	-				
Poland	0%	100%	0%	Dec 2024				
Portugal	0%	20%	80%	-				
Romania	0%	0%	100%	-				
Slovak Republic	0%	0%	100%	-				
Slovenia	0%	0%	100%	-				
Spain	0%	100%	0%	Dec 2024				
Sweden	0%	20%	80%	Dec 2020				
Switzerland	0%	100%	0%	-				
United Kingdom	0%	100%	0%	Dec 2020				

SESAR DEPLOYMENT MANAGER

5.4.1 Upgrade / Implement Meteorological Information Exchange system / service

| Expected completion year | Dec 2024 | Total # of closed gaps | 0 |
| Family FOC date | Jan 2025 | Total # of open gaps | 32 |

Airspace User Gap*
* Through the update of Computer Flight Planning Systems

Network Manager
| 10% | 90% | 0% | Dec 2024 |

MUAC

Chart Key – Implementation Status

The chart shows the overall Family implementation status, taking into account all inputs coming from involved Stakeholders

- 0%
- 1-25%
- 26-50%
- 51-75%
- 76-99%
- 100% - Full Deployment Achieved
- No information
- Not applicable

Chart Key per Stakeholders

- Family's scope fully implemented
- Family's scope fully covered by on-going CEF projects
- Implementation in progress (with CEF funding)
- Implementation in progress (without CEF funding)
- Implementation planned
- Implementation not planned
- Not applicable
- No information available

Country	Currently deployed	In progress / Planned	Not planned	Expected completion date	ANSPs	Airport Operators	Network Manager	Military Authorities	MET Providers
					Stakeholders considered as Gaps				
Austria	0%	100%	0%	Dec 2024					
Belgium	0%	70%	30%	Dec 2024					
Bulgaria	0%	100%	0%	Dec 2024					
Croatia	0%	0%	100%	-					
Cyprus	0%	0%	100%	-					
Czech Republic	0%	100%	0%	Dec 2020					
Denmark	0%	30%	70%	Dec 2024					
Estonia	0%	30%	70%	-					
Finland	0%	30%	70%	-					
France	0%	100%	0%	Dec 2024					
Germany	0%	20%	80%	-					
Greece	0%	100%	0%	Dec 2022					
Hungary	0%	0%	100%	-					
Ireland	0%	100%	0%	Dec 2024					
Italy	0%	100%	0%	Dec 2024					
Latvia	0%	20%	80%	Dec 2024					
Lithuania	0%	100%	0%	Dec 2024					
Luxembourg	0%	60%	40%	Dec 2024					
Malta	0%	0%	100%	-					
MUAC	0%	100%	0%	Dec 2024					
Netherlands	0%	100%	0%	Dec 2024					
Norway	0%	0%	100%	-					
Poland	0%	100%	0%	Dec 2024					
Portugal	0%	90%	10%	Dec 2019					
Romania	0%	50%	50%	Dec 2024					
Slovak Republic	0%	0%	100%	-					
Slovenia	0%	0%	100%	-					
Spain	0%	100%	0%	Dec 2024					
Sweden	0%	30%	70%	-					
Switzerland	0%	0%	100%	-					
United Kingdom	0%	100%	0%	Dec 2020					

DETAILED VIEWS PER FAMILY

SESAR DEPLOYMENT MANAGER

5.5.1 Upgrade / Implement Cooperative Network Information Exchange system/service

Expected completion year	Dec 2024	Total # of closed gaps	0
Family FOC date	Jan 2025	Total # of open gaps	32

Airspace User Gap*

* Through the update of Computer Flight Planning Systems

Network Manager

| 40% | 60% | 0% | Dec 2020 |

MUAC

Chart Key – Implementation Status

The chart shows the overall Family implementation status, taking into account all inputs coming from involved Stakeholders

- 0%
- 1-25%
- 26-50%
- 51-75%
- 76-99%
- 100% - Full Deployment Achieved
- No information
- Not applicable

Chart Key per Stakeholders

- Family's scope fully implemented
- Family's scope fully covered by on-going CEF projects
- Implementation in progress (with CEF funding)
- Implementation in progress (without CEF funding)
- Implementation planned
- Implementation not planned
- Not applicable
- No information available

Country	Currently deployed	In progress / Planned	Not planned	Expected completion date	Implementation Status by Operational Stakeholder Category — Stakeholders considered as Gaps			
					ANSPs	Airport Operators	Network Manager	Military Authorities
Austria	0%	100%	0%	Dec 2024	Impl. in progress (without CEF)	Not applicable	Family's scope fully covered	
Belgium	0%	0%	100%	-	Impl. not planned	Not applicable	Family's scope fully covered	Not applicable
Bulgaria	0%	0%	100%	-	Impl. not planned	Not applicable	Family's scope fully covered	
Croatia	0%	100%	0%	Dec 2024	Implementation planned	Not applicable	Family's scope fully covered	
Cyprus	0%	0%	100%	-	Impl. not planned	Not applicable	Family's scope fully covered	
Czech Republic	0%	100%	0%	Dec 2024	Implementation planned	Not applicable	Family's scope fully covered	Implementation planned
Denmark	0%	100%	0%	Dec 2024	Impl. not planned	Impl. in progress (with CEF)	Family's scope fully covered	
Estonia	0%	100%	0%	Dec 2024	Implementation planned	Not applicable	Family's scope fully covered	
Finland	0%	100%	0%	Dec 2024	Implementation planned	Not applicable	Family's scope fully implemented	
France	0%	100%	0%	Dec 2024	Impl. in progress (without CEF)	Impl. in progress (with CEF)	Family's scope fully covered	Impl. not planned
Germany	0%	100%	0%	-	Implementation planned	Impl. not planned	No information available	
Greece	0%	100%	0%	Dec 2022	Implementation planned	Not applicable	Family's scope fully covered	
Hungary	0%	0%	100%	-	Impl. not planned	Not applicable	Family's scope fully covered	
Ireland	0%	100%	0%	Oct 2020	Implementation planned	Impl. in progress (with CEF)	Family's scope fully covered	
Italy	0%	100%	0%	Dec 2024	Implementation planned	Impl. not planned	Family's scope fully covered	
Latvia	0%	0%	100%	Dec 2024	Impl. not planned	Not applicable	Family's scope fully implemented	
Lithuania	0%	100%	0%	Dec 2021	Implementation planned	Not applicable	Family's scope fully covered	
Luxembourg	0%	100%	0%	Dec 2024	Implementation planned	Not applicable	Family's scope fully covered	
Malta	0%	100%	0%	Dec 2020	Impl. in progress (without CEF)	Not applicable	Family's scope fully covered	
MUAC	0%	100%	0%	Dec 2024	Impl. in progress (without CEF)		Family's scope fully covered	Not applicable
Netherlands	0%	0%	100%	-	Impl. not planned	Impl. not planned	Family's scope fully covered	
Norway	0%	0%	100%	-	Impl. not planned	Impl. not planned	Family's scope fully implemented	
Poland	0%	100%	0%	Dec 2024	Implementation planned	Not applicable	Family's scope fully covered	
Portugal	0%	0%	100%	-	Impl. not planned	Not applicable	Family's scope fully covered	Implementation planned
Romania	0%	0%	100%	-	Impl. not planned	Not applicable	Family's scope fully covered	
Slovak Republic	0%	0%	100%	-	Impl. not planned	Not applicable	Family's scope fully covered	
Slovenia	0%	0%	100%	-	Impl. not planned	Not applicable	Family's scope fully covered	
Spain	0%	100%	0%	Dec 2024	Implementation planned	Implementation planned	Family's scope fully covered	
Sweden	0%	30%	70%	Dec 2024	Impl. in progress (with CEF)	Impl. not planned	Family's scope fully covered	
Switzerland	0%	0%	100%	-	Impl. not planned	Impl. not planned	Family's scope fully covered	Not applicable
United Kingdom	0%	100%	0%	Dec 2020	Implementation planned	Impl. in progress (with CEF)	Family's scope fully covered	

DETAILED VIEWS PER FAMILY

SESAR DEPLOYMENT MANAGER

5.6.1 Upgrade / Implement Flights Information Exchange system / service supported by Yellow Profile

H

Expected completion year   Dec 2024
Family FOC date   Jan 2025
Total # of closed gaps   0
Total # of open gaps   31

Airspace User Gap*
* Through the update of Computer Flight Planning Systems

Network Manager
50%   50%   0%   Dec 2024

MUAC

Chart Key – Implementation Status

The chart shows the overall Family implementation status, taking into account all inputs coming from involved Stakeholders

- 0%
- 1-25%
- 26-50%
- 51-75%
- 76-99%
- 100% - Full Deployment Achieved
- No information
- Not applicable

Chart Key per Stakeholders

- Family's scope fully implemented
- Family's scope fully covered by on-going CEF projects
- Implementation in progress (with CEF funding)
- Implementation in progress (without CEF funding)
- Implementation planned
- Implementation not planned
- Not applicable
- No information available

Country	Currently deployed	In progress / Planned	Not planned	Expected completion date	Implementation Status by Operational Stakeholder Category — Stakeholders considered as Gaps			
					ANSPs	Airport Operators	Network Manager	Military Authorities
Austria	0%	50%	50%	Dec 2024				
Belgium	0%	0%	100%	-				
Bulgaria	0%	0%	100%	-				
Croatia	0%	100%	0%	Dec 2024				
Cyprus	0%	0%	100%	-				
Czech Republic	0%	100%	0%	Nov 2020				
Denmark	0%	20%	80%	Dec 2024				
Estonia	0%	100%	0%	Dec 2021				
Finland	0%	100%	0%	Dec 2024				
France	0%	100%	0%	Dec 2024				
Germany	0%	100%	0%	-				
Greece	0%	100%	0%	Dec 2022				
Hungary	0%	0%	100%	-				
Ireland	0%	100%	0%	Dec 2024				
Italy	0%	100%	0%	Dec 2024				
Latvia	0%	0%	100%	Dec 2024				
Lithuania	0%	100%	0%	Dec 2020				
Luxembourg	0%	100%	0%	Dec 2024				
Malta								
MUAC	0%	100%	0%	Dec 2024				
Netherlands	0%	0%	100%	-				
Norway	0%	0%	100%	-				
Poland	0%	0%	100%	-				
Portugal	0%	0%	100%	-				
Romania	0%	0%	100%	-				
Slovak Republic	0%	0%	100%	-				
Slovenia	0%	0%	100%	-				
Spain	0%	100%	0%	Dec 2024				
Sweden	0%	100%	0%	Dec 2024				
Switzerland	0%	100%	0%	-				
United Kingdom	0%	100%	0%	Dec 2020				

DETAILED VIEWS PER FAMILY

SESAR DEPLOYMENT MANAGER

M

5.6.2 Upgrade / Implement Flights Information Exchange system / service supported by Blue Profile

Expected completion year	Dec 2024
Family FOC date	Jan 2025

Total # of closed gaps	0
Total # of open gaps	31

MUAC

Network Manager ▢

0%	100%	0%	-

Chart Key – Implementation Status

The chart shows the overall Family implementation status, taking into account all inputs coming from involved Stakeholders

▢	0%	▢	1-25%
▢	26-50%	▢	51-75%
▢	76-99%		
▢	100% - Full Deployment Achieved		
▢	No information	▢	Not applicable

Chart Key per Stakeholders

- ▢ Family's scope fully implemented
- ▢ Family's scope fully covered by on-going CEF projects
- ▢ Implementation in progress (with CEF funding)
- ▢ Implementation in progress (without CEF funding)
- ▢ Implementation planned
- ▢ Implementation not planned
- ▢ Not applicable
- ▢ No information available

Country	Currently deployed	In progress / Planned	Not planned	Expected completion date	Stakeholders considered as Gaps		Other stakeholders involved
					ANSPs	Network Manager	Military Authorities
Austria	0%	5%	95%	Dec 2024			
Belgium	0%	0%	100%	-			
Bulgaria	0%	0%	100%	-			
Croatia	0%	5%	95%	-			
Cyprus	0%	0%	100%	-			
Czech Republic	0%	100%	0%	Dec 2024			
Denmark	0%	5%	95%	-			
Estonia	0%	100%	0%	Dec 2024			
Finland	0%	5%	95%	-			
France	0%	30%	70%	-			
Germany	0%	5%	95%	-			
Greece	0%	100%	0%	Dec 2022			
Hungary	0%	5%	95%	-			
Ireland	0%	5%	95%	-			
Italy	0%	30%	70%	-			
Latvia	0%	0%	100%	Dec 2024			
Lithuania	0%	100%	0%	Dec 2024			
Luxembourg							
Malta	0%	0%	100%	-			
MUAC	0%	5%	95%	Dec 2024			
Netherlands	0%	0%	100%	-			
Norway	0%	0%	100%	-			
Poland	0%	5%	95%	-			
Portugal	0%	5%	95%	-			
Romania	0%	0%	100%	-			
Slovak Republic	0%	0%	100%	-			
Slovenia	0%	0%	100%	-			
Spain	0%	5%	95%	Dec 2024			
Sweden	0%	5%	95%	-			
Switzerland	0%	20%	80%	-			
United Kingdom	0%	5%	95%	-			

SESAR
DEPLOYMENT MANAGER

AF #6 – Initial Trajectory Information Sharing

6.1.1 ATN B1 based services in ATSP domain

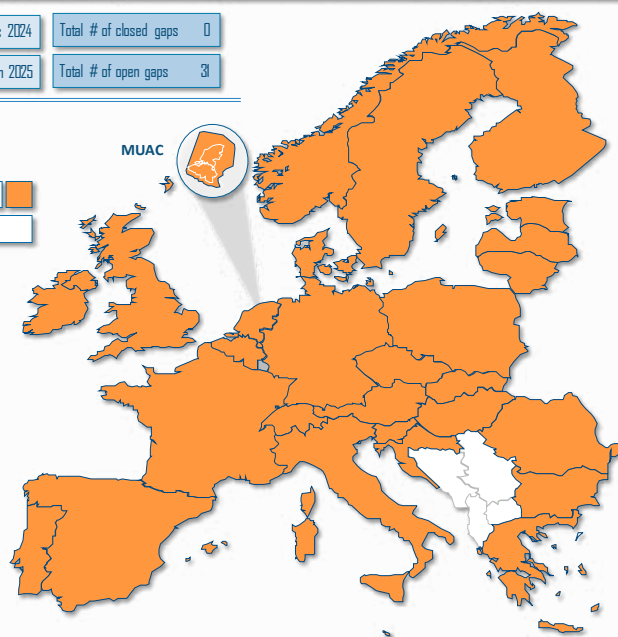| Expected completion year | Jun 2021 | Total # of closed gaps | 11 |
| Family FOC date | Feb 2018 | Total # of open gaps | 18 |

MUAC

Chart Key – Implementation Status

The chart shows the overall Family implementation status, taking into account all inputs coming from involved Stakeholders
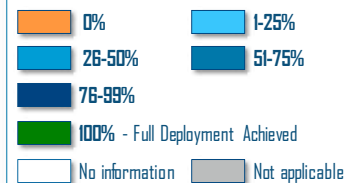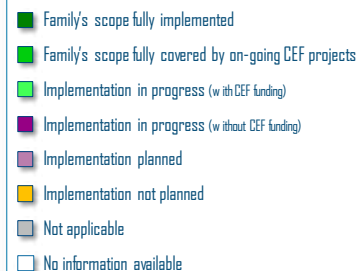
- 0%
- 1-25%
- 26-50%
- 51-75%
- 76-99%
- 100% - Full Deployment Achieved
- No information
- Not applicable

Chart Key per Stakeholders

- Family's scope fully implemented
- Family's scope fully covered by on-going CEF projects
- Implementation in progress (with CEF funding)
- Implementation in progress (without CEF funding)
- Implementation planned
- Implementation not planned
- Not applicable
- No information available

Country	Currently deployed	In progress / Planned	Not planned	Expected completion date	Implementation Status by Operational Stakeholder Category	
					Stakeholders considered as Gaps — ANSPs	Other stakeholders involved in the Family deployment — Military Authorities
Austria	✔			✔	Family's scope fully implemented	
Belgium	0%	0%	100%	-	Implementation not planned	
Bulgaria	95%	5%	0%	Feb 2018	Implementation in progress (without CEF funding)	
Croatia	✔			✔	Family's scope fully implemented	
Cyprus	0%	100%	0%	Dec 2020	Implementation planned	
Czech Republic	✔			✔	Family's scope fully implemented	Family's scope fully implemented
Denmark	✔			✔	Family's scope fully implemented	
Estonia	0%	100%	0%	Feb 2018	Implementation in progress (without CEF funding)	
Finland	40%	60%	0%	Jan 2021	Implementation in progress (without CEF funding)	
France	45%	55%	0%	Dec 2020	Implementation in progress (without CEF funding)	Implementation not planned
Germany	✔			✔	Family's scope fully implemented	
Greece	0%	100%	0%	Feb 2018	Implementation planned	
Hungary	✔			✔	Family's scope fully implemented	
Ireland	✔			✔	Family's scope fully implemented	
Italy	0%	100%	0%	Dec 2017	Implementation in progress (without CEF funding)	Implementation in progress (with CEF funding)
Latvia	30%	70%	0%	Feb 2018	Family's scope fully covered by on-going CEF projects	
Lithuania	0%	100%	0%	Jun 2021	Implementation planned	
Luxembourg					Not applicable	
Malta	0%	100%	0%	Feb 2018	Implementation planned	
MUAC	✔			✔	Family's scope fully implemented	Implementation not planned
Netherlands					Not applicable	
Norway	0%	100%	0%	Apr 2021	Implementation planned	
Poland	0%	100%	0%	Feb 2018	Family's scope fully covered by on-going CEF projects	
Portugal	0%	100%	0%	Dec 2019	Implementation in progress (without CEF funding)	
Romania	60%	40%	0%	Feb 2018	Implementation in progress (without CEF funding)	
Slovak Republic	0%	100%	0%	Dec 2019	Implementation in progress (without CEF funding)	
Slovenia	0%	100%	0%	Feb 2018	Family's scope fully covered by on-going CEF projects	
Spain	0%	100%	0%	Feb 2018	Implementation in progress (without CEF funding)	Not applicable
Sweden	✔			✔	Family's scope fully implemented	
Switzerland	✔			✔	Family's scope fully implemented	
United Kingdom	✔			✔	Family's scope fully implemented	

DETAILED VIEWS PER FAMILY

SESAR DEPLOYMENT MANAGER

6.1.2 ATN B2 based services in ATSP domain

Expected completion year	Dec 2024
Family FOC date	Jan 2025

Total # of closed gaps	0
Total # of open gaps	31

MUAC

Network Manager

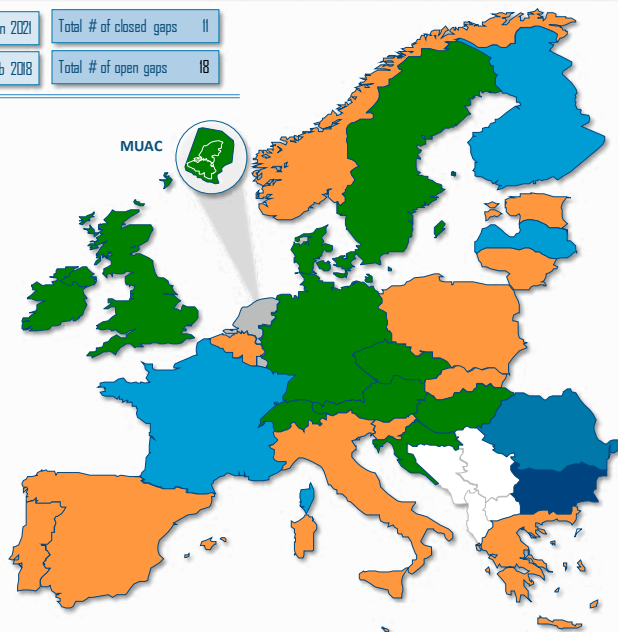| 0%	0%	100%	-

Chart Key – Implementation Status

The chart shows the overall Family implementation status, taking into account all inputs coming from involved Stakeholders
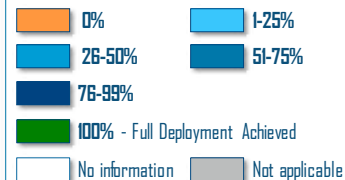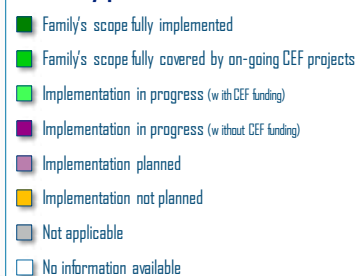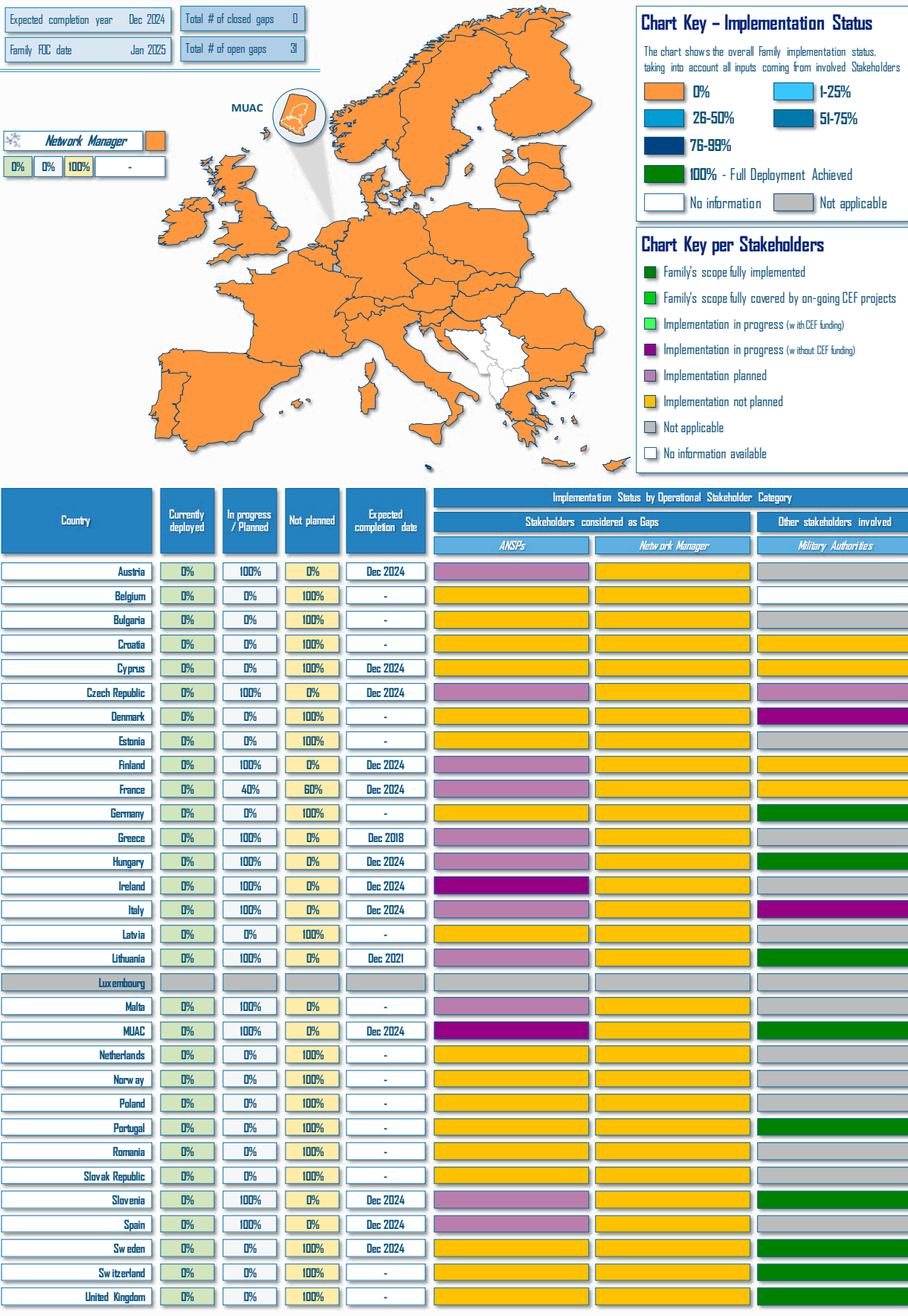
- 0%
- 1-25%
- 26-50%
- 51-75%
- 76-99%
- 100% - Full Deployment Achieved
- No information
- Not applicable

Chart Key per Stakeholders

- Family's scope fully implemented
- Family's scope fully covered by on-going CEF projects
- Implementation in progress (with CEF funding)
- Implementation in progress (without CEF funding)
- Implementation planned
- Implementation not planned
- Not applicable
- No information available

Country	Currently deployed	In progress / Planned	Not planned	Expected completion date	Implementation Status by Operational Stakeholder Category		
					Stakeholders considered as Gaps		Other stakeholders involved
					ANSPs	Network Manager	Military Authorities
Austria	0%	100%	0%	Dec 2024			
Belgium	0%	0%	100%	-			
Bulgaria	0%	0%	100%	-			
Croatia	0%	0%	100%	-			
Cyprus	0%	0%	100%	Dec 2024			
Czech Republic	0%	100%	0%	Dec 2024			
Denmark	0%	0%	100%	-			
Estonia	0%	0%	100%	-			
Finland	0%	100%	0%	Dec 2024			
France	0%	40%	60%	Dec 2024			
Germany	0%	0%	100%	-			
Greece	0%	100%	0%	Dec 2018			
Hungary	0%	100%	0%	Dec 2024			
Ireland	0%	100%	0%	Dec 2024			
Italy	0%	100%	0%	Dec 2024			
Latvia	0%	0%	100%	-			
Lithuania	0%	100%	0%	Dec 2021			
Luxembourg							
Malta	0%	100%	0%	-			
MUAC	0%	100%	0%	Dec 2024			
Netherlands	0%	0%	100%	-			
Norway	0%	0%	100%	-			
Poland	0%	0%	100%	-			
Portugal	0%	0%	100%	-			
Romania	0%	0%	100%	-			
Slovak Republic	0%	0%	100%	-			
Slovenia	0%	100%	0%	Dec 2024			
Spain	0%	100%	0%	Dec 2024			
Sweden	0%	0%	100%	Dec 2024			
Switzerland	0%	0%	100%	-			
United Kingdom	0%	0%	100%	-			

DETAILED VIEWS PER FAMILY

SESAR DEPLOYMENT MANAGER

H

6.1.3 A/G and G/G Multi Frequency DL Network in defined European Service Areas

Expected completion year	Dec 2022
Family FOC date	Dec 2022

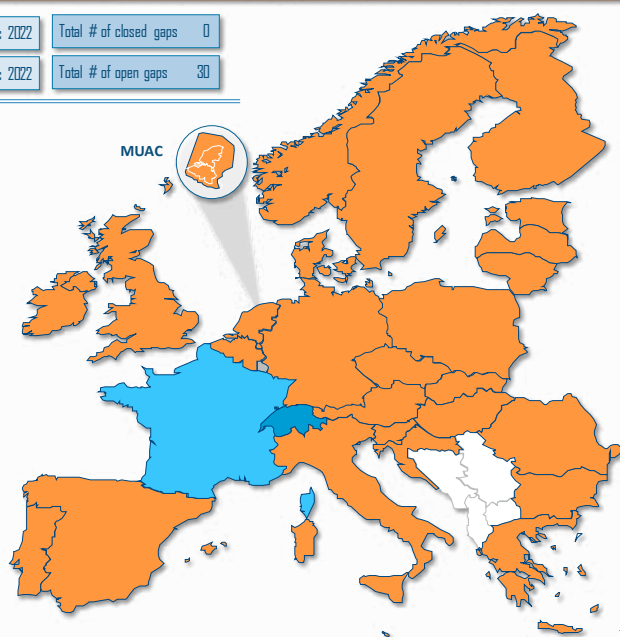|	
Total # of closed gaps	0
Total # of open gaps	30

MUAC

Chart Key – Implementation Status

The chart shows the overall Family implementation status, taking into account all inputs coming from involved Stakeholders
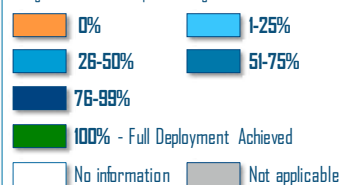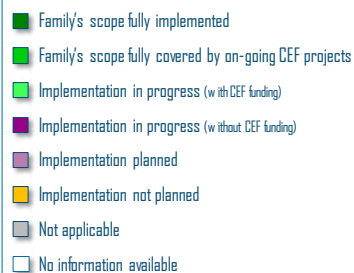
- 0%
- 1-25%
- 26-50%
- 51-75%
- 76-99%
- 100% - Full Deployment Achieved
- No information
- Not applicable

Chart Key per Stakeholders

- Family's scope fully implemented
- Family's scope fully covered by on-going CEF projects
- Implementation in progress (with CEF funding)
- Implementation in progress (without CEF funding)
- Implementation planned
- Implementation not planned
- Not applicable
- No information available

NB. Data updated as of May 2017.
Further information on the status of the Family implementation are reported in the following page.

Country	Currently deployed	In progress / Planned	Not planned	Expected completion date	Implementation Status by Operational Stakeholder Category — Stakeholders considered as Gaps — ANSPs
Austria	0%	100%	0%	Dec 2022	
Belgium	0%	0%	100%	-	
Bulgaria	0%	100%	0%	Dec 2022	
Croatia	0%	100%	0%	Dec 2020	
Cyprus	0%	100%	0%	Feb 2018	
Czech Republic	0%	100%	0%	Dec 2022	
Denmark	0%	30%	70%	Dec 2022	
Estonia	0%	100%	0%	Feb 2018	
Finland	0%	100%	0%	Feb 2018	
France	10%	50%	40%	Dec 2022	
Germany	0%	50%	50%	-	
Greece	0%	100%	0%	Dec 2018	
Hungary	0%	100%	0%	Dec 2022	
Ireland	0%	100%	0%	Dec 2021	
Italy	0%	100%	0%	Dec 2020	
Latvia	0%	100%	0%	Feb 2018	
Lithuania	0%	100%	0%	Feb 2018	
Luxembourg					
Malta	0%	100%	0%	Dec 2020	
MUAC	0%	55%	45%	-	
Netherlands	0%	0%	100%	-	
Norway	0%	100%	0%	Dec 2022	
Poland	0%	100%	0%	Dec 2022	
Portugal	0%	100%	0%	Dec 2022	
Romania	0%	100%	0%	Dec 2022	
Slovak Republic	0%	65%	35%	Dec 2022	
Slovenia	0%	0%	100%	-	
Spain	0%	100%	0%	Dec 2022	
Sweden	0%	30%	70%	Dec 2022	
Switzerland	30%	0%	70%	-	
United Kingdom	0%	100%	0%	Dec 2022	

DETAILED VIEWS PER FAMILY

SESAR DEPLOYMENT MANAGER

The previous chart provides the implementation status of Family 6.1.3 building on the data provided by the involved stakeholders by 28th April 2017 in response to the Monitoring Exercise launched by SDM in late March. The chart has been also widely consulted, engaging all relevant operational and non-operational stakeholders.

In light of the above, thus considering that the data reflects the state of the art as of May 2017, taking also into account the ongoing activities related to SDM DLS Recovery Plan on Path I, as well as the deadline set for February 2018, as laid down in Regulation EU (No) 2015/310, SDM will perform a more detailed monitoring session in October 2017. Specifically, a dedicated questionnaire will be submitted to the ANSPs, with the aim of gathering more updated information about the implementation status at country level and thus presenting a comprehensive picture regarding the current state of the art.

In addition, as reflected in the charts of Families 6.1.1 and 6.1.3, it is worth noting that the implementation of the two Families progresses at a difference pace due to their different scope and dimension: the former is related to the implementation of the ATS systems able to read VDL2 messages, whilst the latter deals with the definition and implementation of an A/G and G/G Network at Country, Service Areas, and European level. In this perspective, the activities have been defined in order to reach the full operational capability by the FOC date of the Family itself (Dec 2022).

Outlook on PCP deployment per Family – Airspace Users gaps

Since the establishment of dedicated SDM surveys in 2015, more than 40 airlines – including all major European hub carriers and point-to-point carriers – have provided targeted and up-to-date feedback on the alignment of their fleet capabilities and of their flight planning systems with the PCP requirements. With respect to the number of commercial aircraft, number of departures/arrivals and market share of the respondents, the outcome of the surveys reflects a representative snap-shot of the current state-of-play on Civil Airspace Users' side. Due to the complexity of the different types, ages, operational roles, and quantities of military aircraft, it is not possible to provide an accurate percentage of aircraft equipage levels for PCP AF capabilities.

However, SDM plans to constantly keep updating this database through the continuous synchronization activities and monitoring of the Programme implementation, also taking into duly account the inputs stemming from the military side, gathered through the support of EDA.

On the basis of Regulation (EU) n. 716/2014 and in accordance with the constantly updated operational outlook provided within the Planning View, Airspace Users have to be considered as significantly affected by the implementation activities associated to the following families:

- **1.2.1** RNP Approaches with vertical guidance
- **1.2.4** RNP1 operations in high density TMAs (aircraft capabilities)
- **2.5.2** Vehicle and aircraft systems contributing to Airport Safety Nets
- **3.1.3** Full rolling ASM/ATFCM process and ASM information sharing
- **3.2.1** Upgrade of ATM systems to support Direct Routings (DCT) and Free Route Airspace (FRA)
- **4.1.2** STAM Phase 2
- **4.2.2** Interactive Rolling NOP
- **4.2.3** Interface ATM systems to NM systems
- **4.3.1** Target Time for ATCFM purposes
- **4.3.2** Reconciled Target Times for ATFCM and Arrival Sequencing
- **5.1.2** NewPENS: New Pan-European Network Service
- **5.1.3** Common SWIM Infrastructure Components
- **5.1.4** Common SWIM PKI and Cybersecurity
- **5.2.1** Stakeholders Internet Protocol Compliance
- **5.2.2** Stakeholders SWIM Infrastructures Components
- **5.2.3** Stakeholders SWIM PKI and Cybersecurity
- **5.3.1** Upgrade/Implement Aeronautical Information Exchange System/Service
- **5.4.1** Upgrade/Implement Meteorological Information Exchange System/Service
- **5.5.1** Upgrade/Implement Cooperative Network Information Exchange System/Service
- **5.6.1** Upgrade/Implement Flight Information Exchange System/Service supported by Yellow Profile
- **6.1.4** ATN B1 capability in Multi Frequency environment in aircraft domain
- **6.1.5** ATN B2 in aircraft domain

With specific regard to the airborne capabilities, the following chart indicates the percentage of fleet operated by Airlines headquartered within Europe that – according to the information provided within the dedicated SDM survey – is already compliant with the PCP regulatory framework, in terms of aircraft equipage, operational approval and flight crew trained.

Such input is considered as resulting into a representative snap-shot of the current state-of-play on Airspace Users' side, and helps better defining and clarifying the magnitude of the associated existing gaps towards the full deployment. It is worth underlining that – according to the PCP Regulation (Article 6.3 of the Annex) – the stated objective associated to AF6 implementation is to "*develop a strategy […] to ensure that at least 20% of the aircraft operating within the airspace of ECAC countries […] are equipped with the capability to downlink aircraft trajectory using ADS-C EPP as from 1 January 2026*".

In particular, three wide-ranging Implementation Projects led by major European airlines have been submitted in the framework of the 2016 CEF Call, with the specific purpose of upgrading their fleet with "best in class" avionics. Such projects are expected to lead to the equipage of just shy of 500 additional aircraft, ensuring their compliance with Family 6.1.4 of the Programme. Additional implementation initiatives – with a similar scope – have also been submitted by Military Authorities.

Airspace Users' Gaps – Overall Outlook

Family 1.2.1 – RNP Approaches with vertical guidance

RNP APCH LNAV

Aircraft Equipped	87.8%
Oper. Approval	84.4%
Flight Crew Trained	83.8%

RNP APCH LNAV/VNAV (with APV)

Aircraft Equipped	93.5%
Oper. Approval	84.6%
Flight Crew Trained	84.2%

RF Legs

Aircraft Equipped	82.3%
Oper. Approval	63.7%
Flight Crew Trained	63.7%

Family 1.2.4 – RNP1 Operations in high density TMAs (aircraft capabilities)

RNP 1

Aircraft Equipped	89.3%
Oper. Approval	80.2%
Flight Crew Trained	79.8%

Family 6.1.4 - ATN B1 capability in Multi Frequency environment in aircraft domain

CPDLC ATN / VDL2 "best in class" in MF environment

Aircraft Equipped	19.0%
Oper. Approval	18.2%
Flight Crew Trained	18.2%

The chart takes into account inputs gathered directly from Airspace Users headquartered in Europe, through their replies to specific SDM Survey on PCP airborne capabilities; it indicates the percentage of fleet already compliant with PCP Regulation.

Taking into account the gap analysis performed on current aircraft capabilities and the associated operational readiness, the differences between the percentage of aircraft already equipped and the percentage of crews trained and their operational approvals highlights the need of considering the airlines' crew training as part of the overall PCP implementation.

The increasing pace of change that SESAR is bringing to the ATM modernization (e.g. switching from legacy radar-based navigation and radio communications environment to a new satellite-based navigation and digital communications environment), creates a need to train flight crew for what could be an extended transitional period, whereby both legacy and higher technological systems are in simultaneous operational use. With this significant step change and growing flight crew training burden on the airlines, there could also be a significant impact on the current training simulator capability and overall operational capacity across Europe. Therefore, consideration should be given to a wide ranging and careful logistical training plan, including the provision of additional simulator availability and capability.

Having in mind that crew training is a costly process for the airlines and would be only performed if the approaches / procedures can be actually used in the network wide operational environment, the synchronized implementation of the respective families together with ANSPs and airport operators included in the PCP geographical scope are key factors for successful implementation.

With regard to the PCP-associated flight planning capabilities, most of the responding Europe-headquartered airlines refer to the need for synchronized implementation of the Network Manager systems, the ANSPs systems and their Computer Flight Planning System Providers (CFSPs) systems. In this sense, the involvement of the Airspace Users to upgrade their flight plan systems capabilities is a key factor for success of the PCP implementation. Due to the nature of the Airspace Users operations, spreading across the whole European airspace, the NM system availability for AF4 and the ANSPs readiness throughout the whole network are key factors. The synchronization task of the SDM towards ANSPS, AUs and NM is therefore expected to have the highest priority in planning, executing and monitoring a harmonized implementation.

Appendix - Current status of PCP deployment – View by State

The present Appendix aims at illustrating within a single snapshot all relevant information concerning the current status of the Pilot Common Project deployment within each of the countries included in the geographical scope defined within Regulation (EU) n. 716/2014. As the AF1 and AF2 are not directly linked to States but to the 25 PCP airports, for the relevant countries, the appropriate airports will be explicitly listed and mentioned, as in Regulation (EU) n. 716/2014.

This Appendix is fed by the same data and information included within Chapter 2, gathered from operational stakeholders through the yearly SDM Monitoring Exercise, as well as by information stemming from the SDM coordination activities and oversight on CEF-funded Implementation Projects.

The following pages encompass dedicated tables per each Country included within the geographical scope of the Pilot Common Project, illustrating the following information:

- Overview of the status of the implementation gaps for the country, differentiating between those which have already been closed, those whose closure is in progress or planned, and those for which no specific plans have been elaborated by the relevant stakeholders;

Current status of implementation	Already implemented	In progress / Planned	Not planned
	#	#	#

- Status of coverage for each gap associated to a Family of the Deployment Programme, encompassing the following percentages and information:

Family	Gap coverage			Compl. Year	CEF Projects
#	70%	20%	10%	Jan 2020	Yes

  o *Current percentage of implementation*, i.e. what has been already deployed (green box);
  o *In progress / planned*, i.e. the percentage of the Family covered by on-going activities and planned to be covered by future initiatives (grey box);
  o *Not planned*, i.e. the percentage of the Family for which no specific plan has been elaborated (yellow box).
  o *Expected date of completion* of the Family deployment;
  o *CEF projects (Yes/No)*, illustrating whether one or more SDM-coordinated projects contribute to the Deployment of the Family.

Furthermore, the table at the bottom lists the SDM-coordinated and CEF-funded Implementation Projects which directly involve Stakeholders operating within the relevant Country (plus MUAC). The completed projects are also duly highlighted.

Austria

Austria				
Number of gaps	40	Current status of implementation		

Already implemented	In progress / Planned	Not planned
10	28	2

ATM Functionality #1

Family	Gap coverage			Compl. Year	CEF Projects
1.1.1	25%	75%	0%	Dec 2019	Yes
1.1.2	0%	0%	100%	Dec 2023	
1.2.1	✓		✓		
1.2.2	0%	100%	0%	Dec 2018	
1.2.3	0%	100%	0%	Dec 2023	Yes
1.2.4					
1.2.5					

ATM Functionality #2

Family	Gap coverage			Compl. Year	CEF Projects
2.1.1	✓		✓		
2.1.2	✓		✓		
2.1.3	30%	70%	0%	Dec 2020	Yes
2.1.4	0%	100%	0%	Dec 2021	
2.2.1	✓		✓		
2.3.1	0%	20%	80%	Dec 2023	Yes
2.4.1	0%	100%	0%	Dec 2023	
2.5.1	0%	100%	0%	Dec 2020	
2.5.2	0%	100%	0%	Dec 2020	

ATM Functionality #3

Family	Gap coverage			Compl. Year	CEF Projects
3.1.1	0%	100%	0%	Dec 2018	
3.1.2	0%	100%	0%	Dec 2021	
3.1.3	0%	100%	0%	Dec 2021	
3.1.4	90%	10%	0%	Dec 2021	Yes
3.2.1	75%	25%	0%	Dec 2021	Yes
3.2.3	✓		✓		
3.2.4	90%	10%	0%	Dec 2021	Yes

ATM Functionality #4

Family	Gap coverage			Compl. Year	CEF Projects
4.1.1	✓		✓		
4.1.2	0%	100%	0%	Dec 2021	
4.2.2					
4.2.3	65%	30%	5%	Dec 2021	
4.2.4	0%	100%	0%	Dec 2021	
4.3.1					
4.3.2	0%	0%	100%	Dec 2021	
4.4.2	✓		✓		

ATM Functionality #5

Family	Gap coverage			Compl. Year	CEF Projects
5.1.1	✓		✓		
5.1.2	20%	80%	0%	Dec 2020	Yes
5.2.1	✓		✓		
5.2.2	0%	60%	40%	Dec 2024	Yes
5.2.3	0%	95%	5%	Dec 2024	
5.3.1	0%	100%	0%	Dec 2024	Yes
5.4.1	0%	100%	0%	Dec 2024	Yes
5.5.1	0%	100%	0%	Dec 2024	
5.6.1	0%	50%	50%	Dec 2024	
5.6.2	0%	5%	95%	Dec 2024	Yes

ATM Functionality #6

Family	Gap coverage			Compl. Year	CEF Projects
6.1.1	✓		✓		
6.1.2	0%	100%	0%	Dec 2024	
6.1.3	0%	100%	0%	Dec 2022	Yes
6.1.4					
6.1.5					

For SWIM Governance related Families (namely 5.1.3 and 5.1.4), please refer to the outlook included in Section 2 of the Monitoring View 2017

AF1, AF2, and Family 4.2.4 to be implemented in Vienna Schwechat

List of CEF-funded initiatives awarded to Austrian Stakeholders
✓ Completed project

✓	#006AF5	ATM Data Quality (ADQ)	Austro Control	2015_232_AF2	TBS4LOWW (Time Based Separation for Vienna Airport)	Austro Control
✓	#007AF1	Performance Based Navigation (PBN) implementation in Vienna (LOWW)	Austro Control	2015_234_AF1_A	AMAN LOWW initial	Austro Control
✓	#008AF2	External Gateway System (EGS) implementation	Austro Control	2015_234_AF1_B	AMAN LOWW initial	Austro Control
	#009AF5	Integrated Briefing System New (IBSN)	Austro Control	2015_236_AF3	VHF Concept Implementation 2020	Austro Control
	#011AF2	Decision Management (CDM) fully implemented	Austro Control	2016_008_AF4	Flight evolution and upgrade of interfaces with NM stakeholders	Austrian Airlines
✓	#102AF3	Free Route Airspace from the Black Forest to the Black Sea	Austro Control	2016_010_AF4	VHF Concept Implementation 2020	Austrian Airlines
	2015_021_AF4	Slot Manager for PCP airports	Sabre	2016_027_AF5	European Deployment Roadmap for Flight Object Interoperability	Austro Control
	2015_106_AF4	Flight evolution and upgrade of interfaces with NM stakeholders	Sabre	2016_075_AF3_A	FAB CE wide Study of DAM and STAM General Call	Austro Control
	2015_107_AF3	NM Systems upgrades in support of DCTs and FRA	Sabre	2016_134_AF3	Implementation of rolling ASM/ATFCM	Sabre
	2015_110_AF4	STAM Phase 2 (NM)	Sabre	2016_141_AF5	Deploy SWIM governance	Austrian Airlines, Austro Control
	2015_114_AF4	Implementation of Target Times for ATFCM purposes (NM)	Sabre	2016_147_AF1	RNP APCH RWY 29 Vienna	Austro Control
	2015_174_AF5_A	NewPENS Stakeholders contribution for the procurement and deployment of NewPENS	Austro Control	2016_149_AF5	Austro Control iSWIM Capability Infrastructure	Austro Control
	2015_207_AF3_A	Harmonisation of Tech ATM Platform in 5 ANSP including support of FRA and preparation of PCP	Austro Control	2016_159_AF6	DLS Implementation Project – Path 2	Austro Control
	2015_220_AF2	AF2_MET-Compliance-Programme	Austro Control	2016_161_AF6	DLS Implementation Project – Path 1 "Ground" stakeholders	Austro Control
	2015_230_AF5	AF5 AIM Compliance Program	Austro Control	2016_165_AF6	Lufthansa Group & Air France Group Datalink upgrade to "best in class" avionics	Austrian Airlines
	2015_231_AF5	METSW-DB PCP Evolution	Austro Control			

Belgium

Belgium			
Number of gaps 37	**Current status of implementation**	**Already implemented** 9	**In progress / Planned** 15	**Not planned** 13

ATM Functionality #1

Family	Gap coverage			Compl. Year	CEF Projects
1.1.1	55%	45%	0%	Dec 2017	
1.1.2	0%	0%	100%	Dec 2023	
1.2.1	75%	25%	0%	Sep 2018	Yes
1.2.2	70%	30%	0%	Dec 2018	
1.2.3	0%	100%	0%	Dec 2023	
1.2.4					
1.2.5	0%	0%	100%	-	

ATM Functionality #2

Family	Gap coverage			Compl. Year	CEF Projects
2.1.1	✔			✔	
2.1.2	✔			✔	
2.1.3	✔			✔	
2.1.4	0%	100%	0%	Nov 2020	Yes
2.2.1	✔			✔	
2.3.1					
2.4.1	✔			✔	
2.5.1	✔			✔	
2.5.2	✔			✔	

ATM Functionality #3

Family	Gap coverage			Compl. Year	CEF Projects
3.1.1	✔			✔	
3.1.2	85%	15%	0%	Dec 2021	Yes
3.1.3	0%	0%	100%	Dec 2021	
3.1.4	0%	10%	90%	Dec 2021	
3.2.1					
3.2.3					
3.2.4					

ATM Functionality #4

Family	Gap coverage			Compl. Year	CEF Projects
4.1.1	0%	100%	0%	Oct 2017	
4.1.2	0%	0%	100%	Dec 2021	
4.2.2	0%	100%	0%	Dec 2021	
4.2.3	50%	0%	50%	Dec 2021	
4.2.4	0%	100%	0%	Dec 2021	Yes
4.3.1					
4.3.2	0%	0%	100%	-	
4.4.2	0%	100%	0%	Dec 2018	

ATM Functionality #5

Family	Gap coverage			Compl. Year	CEF Projects
5.1.1	✔			✔	
5.1.2	20%	80%	0%	Dec 2020	Yes
5.2.1	35%	65%	0%	Dec 2019	Yes
5.2.2	0%	0%	100%	-	
5.2.3	0%	0%	100%	-	
5.3.1	0%	0%	100%	-	
5.4.1	0%	70%	30%	Dec 2024	Yes
5.5.1	0%	0%	100%	-	
5.6.1	0%	0%	100%	-	
5.6.2	0%	0%	100%	-	

ATM Functionality #6

Family	Gap coverage			Compl. Year	CEF Projects
6.1.1	0%	0%	100%	-	
6.1.2	0%	0%	100%	-	
6.1.3	0%	0%	100%	-	
6.1.4					
6.1.5					

For SWIM Governance related Families (namely 5.1.3 and 5.1.4), please refer to the outlook included in Section 2 of the Monitoring View 2017

AF1, AF2, and Family 4.2.4 to be implemented in Brussels National

Belgium

Number of gaps	37	Current status of implementation	Already implemented	In progress / Planned	Not planned
			9	15	13

List of CEF-funded initiatives awarded to Belgian Stakeholders

✓ Completed project

	#	Initiative	Stakeholder	Code	Initiative	Stakeholder
	#013AF1	RNP Approach with Vertical Guidance at the Belgian civil aerodromes within the Brussels TMA	Belgocontrol	2015_114_AF4	Implementation of Target Times for ATFCM purposes (NM)	ECTL / Network Manager
	#014AF5	MPLS WAN Project	Belgocontrol	2015_115_AF4	Traffic Complexity Management	ECTL / Network Manager
✓	#015AF3	LARA integration in CANAC 2	Belgocontrol	2015_117_AF5	Improve NM SWIM Infrastructure	ECTL / Network Manager
	#016AF5	Initial WXXM Implementation on Belgocontrol systems	Belgocontrol	2015_141_AF5	Improve NM Flight Information Exchange Services	ECTL / Network Manager
✓	#018AF2	Enhancement of Airport Safety Nets for Brussels Airport (EBBR)	Belgocontrol	2015_143_AF5	Improve Cooperative Network Information Exchange Services	ECTL / Network Manager
✓	#022AF2	Vehicle Tracking System (VTS)	Brussels National	2015_145_AF5_A	AIM Deployment Toolkit	ECTL / Network Manager
	#073AF5	SWIM Common Components	ECTL / Network Manager	2015_145_AF5_B	AIM Deployment Toolkit	ECTL / Network Manager
✓	#077AF4	Interactive Rolling NOP	ECTL / Network Manager	2015_174_AF5_A	NewPENS Stakeholders contribution for the procurement and deployment of NewPENS	ECTL / Network Manager, ECTL / MUAC, Belgocontrol
	#078AF4	ATFCM measures (STAM)	ECTL / Network Manager	2015_174_AF5_B	NewPENS Stakeholders contribution for the procurement and deployment of NewPENS	ECTL / Network Manager
	#079AF4	Trajectory accuracy and traffic complexity	ECTL / Network Manager	2015_196_AF1_A	XMAN - Cross-centre arrival management	ECTL / MUAC
	#080AF3	ASM and AFUA Implementation	ECTL / Network Manager	2015_232_AF2	TBS4LOWW (Time Based Separation for Vienna Airport)	ECTL / Network Manager
✓	#081AF3	NM DCT/FRA Implementation and support	ECTL / Network Manager	2015_244_AF2	APOC implementation	Brussels National
✓	#082AF5	SWIM compliance of NM systems	ECTL / Network Manager	2015_245_AF2	AIRSTAT	Brussels National
✓	#083AF1	AMAN extended to en-route	ECTL / Network Manager	2015_319_AF5	SWIM Common Components - Phase 2	ECTL / Network Manager
	2015_021_AF4	Slot Manager for PCP airports	Brussels Airlines	2016_023_AF1	XMAN - Cross-center arrival management - Part 2	ECTL / MUAC
	2015_067_AF5	European Weather Radar Composite of Convection Information Service	EUMETNET EIG, ECTL / Network Manager	2016_027_AF5	European Deployment Roadmap for Flight Object	ECTL / Network Manager, ECTL / MUAC
	2015_068_AF5	European Harmonised Forecasts of Adverse Weather	EUMETNET EIG, ECTL / Network Manager	2016_100_AF4	Provision of EFPL data and initial FF-ICE/ 1	ECTL / Network Manager
	2015_069_AF5	European MET Information Exchange (MET-GATE)	EUMETNET EIG, ECTL / Network Manager	2016_129_AF5	NewPENS Stakeholders contribution for the procurement and deployment of NewPENS	ECTL / Network Manager
	2015_101_AF1	Network Support to extended Arrival Management	ECTL / Network Manager	2016_131_AF4	AOP-NOP Integration - Extended Implementation	ECTL / Network Manager, Brussels National
	2015_105_AF4	Interactive Rolling Network Operations Planning	ECTL / Network Manager	2016_133_AF3	NM system management of real time airspace data	ECTL / Network Manager
	2015_106_AF4	Flight evolution and upgrade of interfaces with NM stakeholders	ECTL / Network Manager	2016_134_AF3	Implementation of rolling ASM/ATFCM	ECTL / Network Manager
	2015_107_AF3	NM Systems upgrades in support of DCTs and FRA	ECTL / Network Manager	2016_135_AF3	Implementation of pre-defined airspace configuration	ECTL / Network Manager
	2015_110_AF4	STAM Phase 2 (NM)	ECTL / Network Manager	2016_141_AF5	Deploy SWIM governance	EUMETNET EIG, Eurocontrol
	2015_112_AF5	Integrate the Aeronautical Information Exchange Services in NM Systems	ECTL / Network Manager	2016_150_AF2	Enablers for Airport Surface Movement related to Safety Nets	Brussels National
	2015_113_AF4	AOP-NOP Integration	ECTL / Network Manager	2016_159_AF6	DLS Implementation Project – Path 2	ECTL / MUAC

Bulgaria

Bulgaria

Number of gaps	25

Current status of implementation	Already impl.	In progress / Planned	Not planned
	3	14	8

ATM Functionality #1

Family	Gap coverage			Compl. Year	CEF Projects
1.1.1					
1.1.2					
1.2.1					
1.2.2					
1.2.3					
1.2.4					
1.2.5					

ATM Functionality #2

Family	Gap coverage			Compl. Year	CEF Projects
2.1.1					
2.1.2					
2.1.3					
2.1.4					
2.2.1					
2.3.1					
2.4.1					
2.5.1					
2.5.2					

ATM Functionality #3

Family	Gap coverage			Compl. Year	CEF Projects
3.1.1	✔			✔	
3.1.2	55%	45%	0%	Dec 2021	
3.1.3	0%	100%	0%	Dec 2021	
3.1.4	5%	35%	60%	Dec 2021	
3.2.1	65%	25%	10%	Dec 2021	
3.2.3	✔			✔	
3.2.4	✔			✔	

ATM Functionality #4

Family	Gap coverage			Compl. Year	CEF Projects
4.1.1					
4.1.2	0%	0%	100%	-	
4.2.2	0%	0%	100%	-	
4.2.3	75%	0%	25%	Dec 2021	
4.2.4					
4.3.1					
4.3.2	0%	0%	100%	-	
4.4.2	15%	85%	0%	Sep 2020	Yes

ATM Functionality #5

Family	Gap coverage			Compl. Year	CEF Projects
5.1.1	10%	90%	0%	Dec 2017	
5.1.2	20%	80%	0%	Dec 2020	Yes
5.2.1	40%	60%	0%	Nov 2024	
5.2.2	0%	75%	25%	Nov 2024	
5.2.3	0%	100%	0%	Dec 2024	Yes
5.3.1	0%	0%	100%	-	
5.4.1	0%	100%	0%	Dec 2024	
5.5.1	0%	0%	100%	-	
5.6.1	0%	0%	100%	-	
5.6.2	0%	0%	100%	-	

ATM Functionality #6

Family	Gap coverage			Compl. Year	CEF Projects
6.1.1	95%	5%	0%	Feb 2018	
6.1.2	0%	0%	100%	-	
6.1.3	0%	100%	0%	Dec 2022	Yes
6.1.4					
6.1.5					

For SWIM Governance related Families (namely 5.1.3 and 5.1.4), please refer to the outlook included in Section 2 of the Monitoring View 2017

List of CEF-funded initiatives awarded to Bulgarian Stakeholders

✅ Completed project

2015_174_AF5_B	NewPENS Stakeholders contribution for the procurement and deployment of NewPENS	BULATSA	2016_141_AF5	Deploy SWIM governance	BULATSA
2015_217_AF4	iCAT implementation in Sofia ACC	BULATSA	2016_159_AF6	DLS Implementation Project - Path 2	BULATSA
2016_062_AF5	Creating Local Security Operation Center	BULATSA			

Croatia

Croatia			
Number of gaps **26**	Current status of implementation	Already implemented **5**	In progress / Planned **18** — Not planned **3**

ATM Functionality #1

Family	Gap coverage	Compl. Year	CEF Projects
1.1.1			
1.1.2			
1.2.1			
1.2.2			
1.2.3			
1.2.4			
1.2.5			

ATM Functionality #2

Family	Gap coverage	Compl. Year	CEF Projects
2.1.1			
2.1.2			
2.1.3			
2.1.4			
2.2.1			
2.3.1			
2.4.1			
2.5.1			
2.5.2			

ATM Functionality #3

Family	Gap coverage			Compl. Year	CEF Projects
3.1.1	0%	100%	0%	Dec 2018	
3.1.2	0%	100%	0%	Dec 2021	
3.1.3	0%	100%	0%	Dec 2021	
3.1.4	0%	100%	0%	Dec 2021	Yes
3.2.1	75%	25%	0%	Dec 2020	Yes
3.2.3	✓			✓	
3.2.4	✓			✓	

ATM Functionality #4

Family	Gap coverage			Compl. Year	CEF Projects
4.1.1	✓			✓	
4.1.2	0%	100%	0%	Dec 2021	
4.2.2	0%	100%	0%	Dec 2021	
4.2.3	75%	0%	25%	Dec 2021	
4.2.4					
4.3.1					
4.3.2	0%	0%	100%	-	
4.4.2	0%	100%	0%	Dec 2021	

ATM Functionality #5

Family	Gap coverage			Compl. Year	CEF Projects
5.1.1	✓			✓	
5.1.2	20%	80%	0%	Dec 2020	Yes
5.2.1	0%	100%	0%	Dec 2017	Yes
5.2.2	0%	100%	0%	Dec 2024	
5.2.3	0%	100%	0%	Dec 2020	
5.3.1	0%	100%	0%	Dec 2024	
5.4.1	0%	0%	100%		
5.5.1	0%	100%	0%	Dec 2024	
5.6.1	0%	100%	0%	Dec 2024	
5.6.2	0%	5%	95%	-	Yes

ATM Functionality #6

Family	Gap coverage			Compl. Year	CEF Projects
6.1.1	✓			✓	
6.1.2	0%	0%	100%	-	
6.1.3	0%	100%	0%	Dec 2020	Yes
6.1.4					
6.1.5					

For SWIM Governance related Families (namely 5.1.3 and 5.1.4), please refer to the outlook included in Section 2 of the Monitoring View 2017

List of CEF-funded initiatives awarded to Croatian Stakeholders ⊘ Completed project

⊘ #102AF3	Free Route Airspace from the Black Forest to the Black Sea	Croatia Control	2016_027_AF5 — European Deployment Roadmap for Flight Object Interoperability	Croatia Control
2015_047_AF5	Modernisation of IP based G/G Data Network in CCL - CaRT/iWAN-NG	Croatia Control	2016_043_AF3 — VCS-IP - Upgrade of Voice Communication Systems to support ATM VoIP communications	Croatia Control
2015_049_AF5	CCL cyber security architecture - ExCO-NG	Croatia Control	2016_044_AF5 — Modernization of IP based G/G Data Network in CCL - CaRT/iWAN-NG - Phase II	Croatia Control
⊘ 2015_050_AF3	Simulation and Implementation of SEAFRA H24	Croatia Control	2016_075_AF3_B — FAB CE wide Study of DAM and STAM – Cohesion Call	Croatia Control
2015_051_AF3	VARP - VoIP ATC Radio Project	Croatia Control	2016_159_AF6 — DLS Implementation Project – Path 2	Croatia Control
2015_174_AF5_B	NewPENS Stakeholders contribution for the procurement and deployment of NewPENS	Croatia Control	2016_161_AF6 — DLS Implementation Project – Path 1 "Ground" stakeholders	Croatia Control
2015_207_AF3_B	Harmonisation of Tech ATM Platform in 5 ANSP including support of FRA and preparation of PCP	Croatia Control		

Cyprus

	Cyprus		
Number of gaps **25**	Current status of implementation	Already impl. **2**	In progress / Planned **14**	Not planned **9**

ATM Functionality # 1

Family	Gap coverage			Compl. Year	CEF Projects
1.1.1					
1.1.2					
1.2.1					
1.2.2					
1.2.3					
1.2.4					
1.2.5					

ATM Functionality # 2

Family	Gap coverage			Compl. Year	CEF Projects
2.1.1					
2.1.2					
2.1.3					
2.1.4					
2.2.1					
2.3.1					
2.4.1					
2.5.1					
2.5.2					

ATM Functionality # 3

Family	Gap coverage			Compl. Year	CEF Projects
3.1.1	✔			✔	
3.1.2	0%	0%	100%	-	
3.1.3	0%	0%	100%	-	
3.1.4	0%	10%	90%	Dec 2021	
3.2.1	65%	35%	0%	Dec 2021	
3.2.3	0%	100%	0%	Jan 2018	
3.2.4	0%	100%	0%	Jan 2021	

ATM Functionality # 4

Family	Gap coverage			Compl. Year	CEF Projects
4.1.1					
4.1.2	0%	100%	0%	Dec 2021	
4.2.2	0%	100%	0%	Dec 2021	
4.2.3	40%	35%	25%	-	
4.2.4					
4.3.1					
4.3.2	0%	0%	100%	-	
4.4.2	0%	100%	0%	Dec 2021	

ATM Functionality # 5

Family	Gap coverage			Compl. Year	CEF Projects
5.1.1	✔			✔	
5.1.2	10%	90%	0%	Dec 2021	Yes
5.2.1	0%	100%	0%	Dec 2020	Yes
5.2.2	0%	100%	0%	Dec 2021	
5.2.3	0%	100%	0%	Dec 2021	
5.3.1	0%	0%	100%	-	
5.4.1	0%	0%	100%	-	
5.5.1	0%	0%	100%	-	
5.6.1	0%	0%	100%	-	
5.6.2	0%	0%	100%	-	

ATM Functionality # 6

Family	Gap coverage			Compl. Year	CEF Projects
6.1.1	0%	100%	0%	Dec 2020	
6.1.2	0%	0%	100%	Dec 2024	
6.1.3	0%	100%	0%	Feb 2018	Yes
6.1.4					
6.1.5					

For SWIM Governance related Families (namely 5.1.3 and 5.1.4), please refer to the outlook included in Section 2 of the Monitoring View 2017

List of CEF-funded initiatives awarded to Cypriot Stakeholders

✔ Completed project

2016_109_AF5 BLUEMED FAB IP Network deployment	DCA Cyprus	2016_161_AF6 DLS Implementation Project – Path 1 "Ground" stakeholders	DCA Cyprus
2016_159_AF6 DLS Implementation Project – Path 2	DCA Cyprus		

Czech Republic

Czech Republic							
Number of gaps	26	Current status of implementation	Already implemented: 5	In progress / Planned: 20			Not planned: 1

ATM Functionality #1

Family	Gap coverage			Compl. Year	CEF Projects
1.1.1					
1.1.2					
1.2.1					
1.2.2					
1.2.3					
1.2.4					
1.2.5					

ATM Functionality #2

Family	Gap coverage			Compl. Year	CEF Projects
2.1.1					
2.1.2					
2.1.3					
2.1.4					
2.2.1					
2.3.1					
2.4.1					
2.5.1					
2.5.2					

ATM Functionality #3

Family	Gap coverage			Compl. Year	CEF Projects
3.1.1	0%	100%	0%	Dec 2020	Yes
3.1.2	0%	100%	0%	Dec 2020	Yes
3.1.3	0%	100%	0%	Dec 2020	Yes
3.1.4	0%	100%	0%	Dec 2021	Yes
3.2.1	0%	100%	0%	Dec 2021	Yes
3.2.3	✓		✓		
3.2.4	45%	55%	0%	Dec 2021	Yes

ATM Functionality #4

Family	Gap coverage			Compl. Year	CEF Projects
4.1.1	✓			✓	
4.1.2	0%	100%	0%	May 2018	Yes
4.2.2	0%	100%	0%	Dec 2021	
4.2.3	0%	100%	0%	Dec 2021	
4.2.4					
4.3.1					
4.3.2	0%	0%	100%	-	
4.4.2	55%	45%	0%	Apr 2018	Yes

ATM Functionality #5

Family	Gap coverage			Compl. Year	CEF Projects
5.1.1	✓			✓	
5.1.2	20%	80%	0%	Dec 2020	Yes
5.2.1	✓			✓	
5.2.2	0%	100%	0%	Dec 2024	
5.2.3	0%	100%	0%	Dec 2024	
5.3.1	0%	100%	0%	Dec 2024	
5.4.1	0%	100%	0%	Dec 2020	Yes
5.5.1	0%	100%	0%	Dec 2024	
5.6.1	0%	100%	0%	Nov 2020	Yes
5.6.2	0%	100%	0%	Dec 2024	

ATM Functionality #6

Family	Gap coverage			Compl. Year	CEF Projects
6.1.1	✓			✓	
6.1.2	0%	100%	0%	Dec 2024	
6.1.3	0%	100%	0%	Dec 2022	
6.1.4					
6.1.5					

For SWIM Governance related Families (namely 5.1.3 and 5.1.4), please refer to the outlook included in Section 2 of the Monitoring View 2017

List of CEF-funded initiatives awarded to Czech Stakeholders

✓ Completed project

✓ #102AF3	Free Route Airspace from the Black Forest to the Black Sea	ANS CR	
2015_145_AF5_B	AIM Deployment Toolkit	ANS CR	
2015_174_AF5_B	NewPENS Stakeholders contribution for the procurement and deployment of NewPENS	ANS CR	
2015_196_AF1_B	Extended AMAN in Czech Airspace	ANS CR	
2015_234_AF1_B	AMAN LOWW initial	ANS CR	
2015_239_AF3	Flexible ASM and Free Route	ANS CR	
2015_240_AF4	Traffic Complexity Tools	ANS CR	
2015_241_AF5	Meteorological Information Exchange Service	ANS CR, CHMI	
2015_242_AF3	Free Route implementation into ATM system of ANS CR	ANS CR	
2015_243_AF5	Aeronautical Information Distribution Service	ANS CR	
2016_064_AF5	AIMSIL - AIM Systems Integration Layer	ANS CR	
2016_065_AF5	SWIM implementation into ATS INFO/ARO System of ANS CR	ANS CR	
2016_075_AF3_B	FAB CE wide Study of DAM and STAM - Cohesion Call	ANS CR	

SESAR DEPLOYMENT MANAGER

Denmark

Denmark						
Number of gaps	39	Current status of implementation	Already implemented: 7	In progress / Planned: 28	Not planned: 4	

ATM Functionality #1

Family	Gap coverage			Compl. Year	CEF Projects
1.1.1	80%	20%	0%	Jun 2018	
1.1.2	0%	100%	0%	Feb 2022	Yes
1.2.1	0%	100%	0%	Dec 2019	Yes
1.2.2	0%	0%	100%	-	
1.2.3	0%	100%	0%	Dec 2019	Yes
1.2.4					
1.2.5					

ATM Functionality #2

Family	Gap coverage			Compl. Year	CEF Projects
2.1.1	30%	70%	0%	Dec 2018	Yes
2.1.2	✓			✓	
2.1.3	✓			✓	
2.1.4	0%	100%	0%	Dec 2019	Yes
2.2.1	✓			✓	
2.3.1	0%	100%	0%	May 2022	
2.4.1	0%	100%	0%	Sep 2020	Yes
2.5.1	0%	100%	0%	Sep 2020	Yes
2.5.2	0%	100%	0%	Dec 2020	Yes

ATM Functionality #3

Family	Gap coverage			Compl. Year	CEF Projects
3.1.1	0%	100%	0%	Dec 2017	
3.1.2	0%	100%	0%	Dec 2017	
3.1.3	0%	100%	0%	Dec 2021	
3.1.4	90%	10%	0%	Dec 2018	Yes
3.2.1	75%	15%	10%	Dec 2021	Yes
3.2.3	✓			✓	
3.2.4	✓			✓	

ATM Functionality #4

Family	Gap coverage			Compl. Year	CEF Projects
4.1.1					
4.1.2	0%	100%	0%	Dec 2021	
4.2.2	0%	0%	100%	-	
4.2.3	45%	0%	55%	Dec 2021	
4.2.4	0%	100%	0%	Dec 2018	
4.3.1					
4.3.2	0%	0%	100%	-	
4.4.2					

ATM Functionality #5

Family	Gap coverage			Compl. Year	CEF Projects
5.1.1	✓			✓	
5.1.2	20%	80%	0%	Dec 2020	Yes
5.2.1	50%	50%	0%	Dec 2024	Yes
5.2.2	0%	80%	20%	Dec 2024	Yes
5.2.3	0%	100%	0%	Dec 2020	Yes
5.3.1	0%	100%	0%	Dec 2021	Yes
5.4.1	0%	30%	70%	Dec 2024	Yes
5.5.1	0%	100%	0%	Dec 2024	Yes
5.6.1	0%	20%	80%	Dec 2024	
5.6.2	0%	5%	95%	-	Yes

ATM Functionality #6

Family	Gap coverage			Compl. Year	CEF Projects
6.1.1	✓			✓	
6.1.2	0%	0%	100%	Dec 2020	
6.1.3	0%	30%	70%	-	
6.1.4					
6.1.5					

For SWIM Governance related Families (namely 5.1.3 and 5.1.4), please refer to the outlook included in Section 2 of the Monitoring View 2017

AF1, AF2, and Family 4.2.4 to be implemented in Copenhagen Kastrup

List of CEF-funded initiatives awarded to Danish Stakeholders

✓ Completed project

✓ #020AF3	Borealis Free Route Airspace (Part 1)	Naviair	
✓ #103AF2	Standardization of A-SMGCS	Copenhagen Airports AS, Naviair	
✓ #127AF5	National WAN Infrastructure – CANDI-IP preparation project	Naviair	
2015_025_AF5_A	Sub-regional SWIM MET deployment to support NEFRA (part A)	Danish Meteorological Institute (DM)	
2015_043_AF2	AF2.4 A-SMGCS - Routing & Planning	Copenhagen Airports AS, Naviair	
2015_044_AF2	Implementation of initial DMAN and AOP at Copenhagen Airport	Copenhagen Airports AS, Naviair	
2015_045_AF5	AF5 iSWIM	Copenhagen Airports AS	
2015_046_AF2	AF 2.5 A-SMGCS - Safety Nets	Copenhagen Airports AS, Naviair	
2015_099_AF5	DK-SE FAB Aeronautical Data Quality (ADQ)	Naviair	
2015_131_AF5	CANDI-IP (execution phase)	Naviair	
2015_132_AF3	VoIP Programme	Naviair	
2015_174_AF5_A	NewPENS Stakeholders contribution for the procurement and deployment of NewPENS	Naviair	
2015_207_AF3_A	Harmonisation of Tech ATM Platform in 5 ANSP including support of FRA and preparation of PCP	Naviair	
2015_227_AF3_A	Borealis FRA Implementation (Part 2)	Naviair	
2016_012_AF1	Synchronised PBN Implementation	Copenhagen Airports AS, Naviair	
2016_027_AF5	European Deployment Roadmap for Flight Object Interoperability	Naviair	
2016_141_AF5	Deploy SWIM governance	Copenhagen Airports	
2016_150_AF2	Enablers for Airport Surface Movement related to Safety Nets	Copenhagen Airports AS, Naviair	

Estonia

Estonia

Number of gaps	25

Current status of implementation

Already implemented	In progress / Planned	Not planned
4	17	4

ATM Functionality #1

Family	Gap coverage			Compl. Year	CEF Projects
1.1.1					
1.1.2					
1.2.1					
1.2.2					
1.2.3					
1.2.4					
1.2.5					

ATM Functionality #2

Family	Gap coverage			Compl. Year	CEF Projects
2.1.1					
2.1.2					
2.1.3					
2.1.4					
2.2.1					
2.3.1					
2.4.1					
2.5.1					
2.5.2					

ATM Functionality #3

Family	Gap coverage			Compl. Year	CEF Projects
3.1.1	✔			✔	
3.1.2	30%	70%	0%	Dec 2020	
3.1.3	0%	100%	0%	Dec 2021	Yes
3.1.4	0%	100%	0%	Dec 2021	
3.2.1	30%	70%	0%	Dec 2020	
3.2.3	✔			✔	
3.2.4	✔			✔	

ATM Functionality #4

Family	Gap coverage			Compl. Year	CEF Projects
4.1.1					
4.1.2	0%	100%	0%	Dec 2020	
4.2.2	0%	100%	0%	Dec 2020	
4.2.3	0%	100%	0%	Dec 2020	Yes
4.2.4					
4.3.1					
4.3.2	0%	0%	100%	-	
4.4.2	0%	0%	100%	-	

ATM Functionality #5

Family	Gap coverage			Compl. Year	CEF Projects
5.1.1	✔			✔	
5.1.2	0%	100%	0%	Dec 2020	
5.2.1	0%	0%	100%	-	
5.2.2	0%	50%	50%	-	Yes
5.2.3	0%	60%	40%	-	Yes
5.3.1	70%	30%	0%	Dec 2020	
5.4.1	0%	30%	70%	-	Yes
5.5.1	0%	100%	0%	Dec 2024	
5.6.1	0%	100%	0%	Dec 2021	
5.6.2	0%	100%	0%	Dec 2024	

ATM Functionality #6

Family	Gap coverage			Compl. Year	CEF Projects
6.1.1	0%	100%	0%	Feb 2018	
6.1.2	0%	0%	100%	-	
6.1.3	0%	100%	0%	Feb 2018	Yes
6.1.4					
6.1.5					

For SWIM Governance related Families (namely 5.1.3 and 5.1.4), please refer to the outlook included in Section 2 of the Monitoring View 2017

List of CEF-funded initiatives awarded to Estonian Stakeholders

✔ Completed project

#020AF3	Borealis Free Route Airspace (Part 1) ✔	EANS	
#056AF3	ASM tool implementation	EANS	
2015_025_AF5_B	Sub-regional SWIM MET deployment to support NEFRA (part B)	Estonian Environment Agency	
2015_227_AF3_B	Borealis FRA Implementation (Part 2)	EANS	
2016_159_AF6	DLS Implementation Project – Path 2	EANS	
2016_161_AF6	DLS Implementation Project – Path 1 "Ground" stakeholders	EANS	

Finland

Finland

Number of gaps	25

Current status of implementation	Already impl.	In progress / Planned
	3	22

ATM Functionality #1

Family	Gap coverage			Compl. Year	CEF Projects
1.1.1					
1.1.2					
1.2.1					
1.2.2					
1.2.3					
1.2.4					
1.2.5					

ATM Functionality #2

Family	Gap coverage			Compl. Year	CEF Projects
2.1.1					
2.1.2					
2.1.3					
2.1.4					
2.2.1					
2.3.1					
2.4.1					
2.5.1					
2.5.2					

ATM Functionality #3

Family	Gap coverage			Compl. Year	CEF Projects
3.1.1	0%	100%	0%	Dec 2020	Yes
3.1.2	0%	100%	0%	Dec 2020	Yes
3.1.3	0%	100%	0%	Dec 2020	Yes
3.1.4	0%	100%	0%	Dec 2020	Yes
3.2.1	75%	25%	0%	Dec 2020	Yes
3.2.3	✓			✓	
3.2.4	✓			✓	

ATM Functionality #4

Family	Gap coverage			Compl. Year	CEF Projects
4.1.1					
4.1.2	0%	100%	0%	Dec 2018	Yes
4.2.2	0%	100%	0%	Dec 2021	Yes
4.2.3	0%	100%	0%	Dec 2020	Yes
4.2.4					
4.3.1					
4.3.2	0%	100%	0%	-	
4.4.2	0%	100%	0%	Dec 2022	

ATM Functionality #5

Family	Gap coverage			Compl. Year	CEF Projects
5.1.1	✓			✓	
5.1.2	20%	80%	0%	Dec 2020	Yes
5.2.1	0%	100%	0%	Dec 2024	Yes
5.2.2	0%	100%	0%	Dec 2024	Yes
5.2.3	0%	100%	0%	Dec 2024	Yes
5.3.1	0%	100%	0%	Dec 2018	
5.4.1	0%	30%	70%	-	Yes
5.5.1	0%	100%	0%	Dec 2024	
5.6.1	0%	100%	0%	Dec 2024	
5.6.2	0%	5%	95%	-	Yes

ATM Functionality #6

Family	Gap coverage			Compl. Year	CEF Projects
6.1.1	40%	60%	0%	Jan 2021	
6.1.2	0%	100%	0%	Dec 2024	
6.1.3	0%	100%	0%	Feb 2018	Yes
6.1.4					
6.1.5					

For SWIM Governance related Families (namely 5.1.3 and 5.1.4), please refer to the outlook included in Section 2 of the Monitoring View 2017

List of CEF-funded initiatives awarded to Finnish Stakeholders

✓ Completed project

✓ #020AF3 Borealis Free Route Airspace (Part 1)	Finavia	2015_227_AF3_A Borealis FRA Implementation (Part 2)	Finavia
2015_025_AF5_A Sub-regional SWIM MET deployment to support NEFRA (part A)	Finnish Meteorological Institute	2016_027_AF5 European Deployment Roadmap for Flight Object	Finavia
2015_068_AF5 European Harmonised Forecasts of Adverse Weather	Finnish Meteorological Institute	2016_141_AF5 Deploy SWIM governance	Finavia
2015_174_AF5_A NewPENS Stakeholders contribution for the procurement and deployment of NewPENS	Finavia	2016_159_AF6 DLS Implementation Project – Path 2	Finavia

SESAR
DEPLOYMENT MANAGER

France

France

Number of gaps	69	Current status of implementation	Already implemented	11	In progress / Planned	53	Not planned	5

ATM Functionality #1

Family	Paris Charles de Gaulle					Paris Orly					Nice Cote d'Azur				
	Gap coverage			Compl. Year	CEF Projects	Gap coverage			Compl. Year	CEF Projects	Gap coverage			Compl. Year	CEF Projects
1.1.1	✔			✔		✔			✔		✔			✔	
1.1.2	25%	75%	0%	Dec 2023	Yes	25%	75%	0%	Dec 2023	Yes	25%	75%	0%	Dec 2023	Yes
1.2.1	70%	30%	0%	Dec 2017	Yes	✔			✔		✔			✔	
1.2.2	15%	85%	0%	Dec 2020	Yes	15%	85%	0%	Dec 2020	Yes	15%	55%	30%	-	Yes
1.2.3	0%	0%	100%	-		0%	0%	100%	-		0%	0%	100%	-	Yes
1.2.4															
1.2.5	0%	0%	100%	-		0%	0%	100%	-		0%	0%	100%	-	Yes

ATM Functionality #2

Family	Paris Charles de Gaulle					Paris Orly					Nice Cote d'Azur				
	Gap coverage			Compl. Year	CEF Projects	Gap coverage			Compl. Year	CEF Projects	Gap coverage			Compl. Year	CEF Projects
2.1.1	0%	100%	0%	Dec 2020	Yes	0%	100%	0%	Dec 2020	Yes	35%	65%	0%	Dec 2020	Yes
2.1.2	0%	100%	0%	Dec 2020	Yes	0%	100%	0%	Dec 2020	Yes	0%	100%	0%	Dec 2020	Yes
2.1.3	35%	65%	0%	Dec 2020	Yes	25%	75%	0%	Dec 2020	Yes	0%	100%	0%	Dec 2020	Yes
2.1.4	0%	100%	0%	Dec 2020	Yes	0%	100%	0%	Dec 2020	Yes	0%	100%	0%	Dec 2021	Yes
2.2.1	50%	50%	0%	Dec 2019	Yes	50%	50%	0%	Dec 2019	Yes	30%	70%	0%	Dec 2020	Yes
2.3.1						0%	0%	100%	-						
2.4.1	0%	100%	0%	Dec 2021	Yes	0%	100%	0%	Dec 2021	Yes	0%	100%	0%	Dec 2023	Yes
2.5.1	0%	100%	0%	Dec 2021	Yes	0%	100%	0%	Dec 2021	Yes	0%	100%	0%	Dec 2023	Yes
2.5.2	✔			✔		✔			✔		30%	0%	70%	-	Yes

ATM Functionality #4 (Airport Gaps)

Family	Paris Charles de Gaulle					Paris Orly					Nice Cote d'Azur				
	Gap coverage			Compl. Year	CEF Projects	Gap coverage			Compl. Year	CEF Projects	Gap coverage			Compl. Year	CEF Projects
4.2.4	0%	100%	0%	Dec 2021	Yes	0%	100%	0%	Dec 2021	Yes	0%	0%	100%	-	

ATM Functionality #3

Family	Gap coverage			Compl. Year	CEF Projects
3.1.1	✔			✔	
3.1.2	0%	100%	0%	Dec 2021	
3.1.3	0%	100%	0%	Dec 2021	
3.1.4	90%	10%	0%	Dec 2018	
3.2.1	30%	60%	10%	Dec 2021	Yes
3.2.3	✔			✔	
3.2.4	15%	85%	0%	Dec 2021	

ATM Functionality #4 (Country Gaps)

Family	Gap coverage			Compl. Year	CEF Projects
4.1.1	✔			✔	
4.1.2	0%	100%	0%	Dec 2021	
4.2.2	0%	100%	0%	Dec 2021	
4.2.3	0%	75%	25%	Dec 2021	Yes
4.3.1					
4.3.2	0%	100%	0%	Dec 2020	
4.4.2	40%	60%	0%	Mar 2020	

ATM Functionality #5

Family	Gap coverage			Compl. Year	CEF Projects
5.1.1	✔			✔	
5.1.2	20%	80%	0%	Dec 2020	Yes
5.2.1	0%	100%	0%	Dec 2024	Yes
5.2.2	0%	100%	0%	Dec 2024	Yes
5.2.3	0%	100%	0%	Dec 2024	Yes
5.3.1	0%	10%	90%	Dec 2024	Yes
5.4.1	0%	100%	0%	Dec 2024	Yes
5.5.1	0%	100%	0%	Dec 2024	Yes
5.6.1	0%	100%	0%	Dec 2024	Yes
5.6.2	0%	30%	70%	-	Yes

ATM Functionality #6

Family	Gap coverage			Compl. Year	CEF Projects
6.1.1	45%	55%	0%	Dec 2020	
6.1.2	0%	40%	60%	Dec 2024	
6.1.3	10%	50%	40%	Dec 2022	Yes
6.1.4					
6.1.5					

For SWIM Governance related Families (namely 5.1.3 and 5.1.4), please refer to the outlook included in Section 2 of the Monitoring View 2017

SESAR DEPLOYMENT MANAGER

France

Number of gaps	69	Current status of implementation	Already implemented: 11	In progress / Planned: 53	Not planned: 5

List of CEF-funded initiatives awarded to French Stakeholders

✓ Completed project

	ID	Name	Stakeholder	ID	Name	Stakeholder
	#023AF2	SMAN-Vehicle	Aéroports De Paris	2015_073_AF1	AMAN upgrade for extended horizon at DSNA airports	DSNA, Aéroports De Paris, Air France
✓	#024AF2	SAIGA	Aéroports De Paris	2015_083_AF2	iAOP implementation	Aéroports de la Côte d'Azur
	#025AF2	TSAT to the Gate	Aéroports De Paris	2015_085_AF2	DMAN and Pre-departure sequence (PDS) implementations for the CDM implementation	Aéroports de la Côte d'Azur, DSNA
	#026AF2	Evolutions CDM-CDG	Aéroports De Paris	2015_113_AF4	AOP-NOP Integration	Aéroports De Paris
	#027AF2	SMAN-Airport	Aéroports De Paris	2015_133_AF2	Initial AirPort Operational Centre (iAPOC)	Aéroports de Paris, Air France, DSNA
✓	#030AF2	Equipment of ground vehicles to supply the A-SMGCS	Aéroports de la Côte d'Azur	2015_135_AF2	CDG and ORLY - Initial Airport Operational Plan (AOP)	Aéroports de Paris, Air France
	#031AF2	Data exchanges with the Air Navigation Service Provider	Aéroports de la Côte d'Azur	2015_139_AF1	GEOGRAPHIC DATABASE – AIM TOOL	DSNA, Aéroports de Paris
✓	#032AF2	Data exchanges with the Network Manager Operations Center	Aéroports de la Côte d'Azur	2015_174_AF5_A	NewPENS Stakeholders contribution for the procurement and deployment of NewPENS	Aéroports De Paris, DSNA
	#033AF2	Data exchanges with COHOR	Aéroports de la Côte d'Azur	2015_196_AF1_A	XMAN - Cross-centre arrival management	DSNA
	#048AF2	SYSAT@CDG	DSNA	2015_247_AF3	4Flight deployment in military En-route ACC (CMCC)	French MOD
	#049AF2	SYSAT@NCE	DSNA	2015_249_AF5	PATRUS (Secured real time gateway) for data exchange between civil and military systems	French MOD
	#050AF2	SYSAT@ORY	DSNA	2016_023_AF1	XMAN - Cross-center arrival management - Part 2 (CEF2016)	DSNA
	#051AF1a	RNP Approaches at CDG Airport with vertical guidance (Part A)	DSNA, Air France	2016_027_AF5	European Deployment Roadmap for Flight Object Interoperability	DSNA
✓	#051AF1b	RNP Approaches at CDG Airport with vertical guidance (Part B)	Air France	2016_055_AF3	Upgrade of French Military CRCs for civil- military interoperability	French MOD
	#053AF3	4-Flight deployment in DSNA pilot ACCs	DSNA	2016_100_AF4	Provision of EFPL data and initial FF-ICE/ 1 readiness	Air France
✓	#054AF2	CDG 2020 Step1	DSNA, Air France	2016_121_AF3	Free Route	Air France
	#067AF5	Coflight-eFDP System Development	DSNA	2016_123_AF4	STAM Phase 2 in combination with Target Times	Air France
	#129AF2	CDM-ORLY	Aéroports De Paris	2016_134_AF3	Implementation of rolling ASM/ATFCM	Air France
	#130AF2	BOREAL-Orly	Aéroports De Paris	2016_141_AF5	Deploy SWIM governance	DSNA, Air France, French MOD
	2015_062_AF3_Phase_I	4-Flight Deployment in PARIS Area - Phase I	DSNA	2016_150_AF2	Enablers for Airport Surface Movement related to Safety Nets	ADP, Aéroports de la Côte d'Azur, Air France, DSNA
	2015_062_AF3_Phase_II	4-Flight Deployment in PARIS Area, Upgrade in Marseille and Aix ACCs - Phase II	DSNA	2016_159_AF6	DLS Implementation Project – Path 2	DSNA, ESSP
	2015_067_AF5	European Weather Radar Composite of Convection Information Service	Meteo France	2016_161_AF6	DLS Implementation Project – Path 1 "Ground" stakeholders	DSNA
	2015_068_AF5	European Harmonised Forecasts of Adverse Weather	Meteo France	2016_165_AF6	Lufthansa Group & Air France Group Datalink upgrade to "best in class" avionics	Air France, HOP
	2015_069_AF5	European MET Information Exchange (MET-GATE)	Meteo France			

SESAR DEPLOYMENT MANAGER

Germany

Germany															

Number of gaps	85	Current status of implementation	Already implemented **20**	In progress / Planned **60**	Not planned **5**

ATM Functionality #1

Family	Berlin Brandenburg Airport					Dusseldorf International					Frankfurt International					Munich Franz Josef Strauss				
	Gap coverage			Compl. Year	CEF Projects	Gap coverage			Compl. Year	CEF Projects	Gap coverage			Compl. Year	CEF Projects	Gap coverage			Compl. Year	CEF Projects
1.1.1	10%	90%	0%	Dec 2019	Yes	10%	90%	0%	Dec 2019	Yes	✓			✓		✓			✓	
1.1.2	10%	90%	0%	Dec 2023	Yes	5%	95%	0%	Dec 2023	Yes	45%	55%	0%	Dec 2023	Yes	50%	50%	0%	Dec 2023	Yes
1.2.1	0%	50%	50%	Dec 2020		50%	0%	50%	Dec 2020		50%	50%	0%	Dec 2020		50%	0%	50%	Dec 2020	
1.2.2	✓			✓		✓			✓		✓			✓		✓			✓	
1.2.3	0%	100%	0%	Dec 2023	Yes	0%	100%	0%	Dec 2023	Yes	0%	100%	0%	Dec 2023	Yes	0%	100%	0%	Dec 2023	Yes
1.2.4																				
1.2.5	0%	20%	80%	-	Yes	0%	20%	80%	-	Yes	0%	20%	80%	-	Yes	0%	20%	80%	-	Yes

ATM Functionality #2

Family	Berlin Brandenburg Airport					Dusseldorf International					Frankfurt International					Munich Franz Josef Strauss				
	Gap coverage			Compl. Year	CEF Projects	Gap coverage			Compl. Year	CEF Projects	Gap coverage			Compl. Year	CEF Projects	Gap coverage			Compl. Year	CEF Projects
2.1.1	95%	5%	0%	Dec 2020		✓			✓		✓			✓		✓			✓	
2.1.2	95%	5%	0%	Dec 2020		✓			✓		✓			✓		✓			✓	
2.1.3	0%	100%	0%	Dec 2020		✓			✓		✓			✓		✓			✓	
2.1.4	45%	45%	10%	May 2018		0%	100%	0%	Dec 2020	Yes	0%	85%	15%	-	Yes	0%	85%	15%	Dec 2020	Yes
2.2.1	0%	100%	0%	Dec 2020		70%	30%	0%	Dec 2020	Yes	0%	100%	0%	Dec 2020	Yes	✓			✓	
2.3.1						0%	0%	100%	-		0%	0%	100%	-		0%	0%	100%	-	
2.4.1	0%	100%	0%	Dec 2023	Yes	0%	100%	0%	Dec 2023	Yes	0%	100%	0%	Dec 2023	Yes	0%	100%	0%	Dec 2023	Yes
2.5.1	0%	100%	0%	-	Yes	0%	100%	0%	-	Yes	0%	100%	0%	-	Yes	0%	100%	0%	-	Yes
2.5.2	0%	45%	55%	Dec 2020		0%	100%	0%	Dec 2020	Yes	0%	100%	0%	Dec 2020	Yes	50%	50%	0%	Dec 2020	

ATM Functionality #4 (Airport Gaps)

Family	Berlin Brandenburg Airport					Dusseldorf International					Frankfurt International					Munich Franz Josef Strauss				
	Gap coverage			Compl. Year	CEF Projects	Gap coverage			Compl. Year	CEF Projects	Gap coverage			Compl. Year	CEF Projects	Gap coverage			Compl. Year	CEF Projects
4.2.4	0%	100%	0%	Jun 2018		0%	100%	0%	Dec 2021		0%	100%	0%	Dec 2021	Yes	0%	100%	0%	Dec 2021	

ATM Functionality #3

Family	Gap coverage			Compl. Year	CEF Projects
3.1.1	40%	60%	0%	Dec 2018	Yes
3.1.2	0%	100%	0%	Dec 2021	Yes
3.1.3	0%	100%	0%	Dec 2021	
3.1.4	0%	100%	0%	Dec 2021	Yes
3.2.1	35%	65%	0%	Dec 2021	Yes
3.2.3	✓			✓	
3.2.4	15%	85%	0%	Dec 2021	Yes

ATM Functionality #4 (Country Gaps)

Family	Gap coverage			Compl. Year	CEF Projects
4.1.1	✓			✓	
4.1.2	0%	100%	0%	Dec 2021	
4.2.2	0%	100%	0%	Dec 2021	Yes
4.2.3	0%	50%	50%	-	
4.3.1					
4.3.2	0%	0%	100%	-	
4.4.2	0%	75%	25%	Dec 2021	Yes

ATM Functionality #5

Family	Gap coverage			Compl. Year	CEF Projects
5.1.1	✓			✓	
5.1.2	0%	100%	0%	Dec 2024	
5.2.1	45%	55%	0%	Dec 2018	Yes
5.2.2	0%	60%	40%	-	Yes
5.2.3	0%	100%	0%	Dec 2024	Yes
5.3.1	0%	100%	0%	Dec 2024	Yes
5.4.1	0%	20%	80%	-	Yes
5.5.1	0%	100%	0%	-	Yes
5.6.1	0%	100%	0%	-	Yes
5.6.2	0%	5%	95%	-	Yes

ATM Functionality #6

Family	Gap coverage			Compl. Year	CEF Projects
6.1.1	✓			✓	
6.1.2	0%	0%	100%	-	
6.1.3	0%	50%	50%	-	Yes
6.1.4					
6.1.5					

For SWIM Governance related Families (namely 5.1.3 and 5.1.4), please refer to the outlook included in Section 2 of the Monitoring View 2017

Germany

Number of gaps	**85**	**Current status of implementation**	**Already implemented** 20	**In progress / Planned** 60			**Not planned** 5	

List of CEF-funded initiatives awarded to German Stakeholders

✅ Completed project

	#040AF5	ADQ – Aeronautical Data Quality	DFS		2015_222_AF2	Advanced Airport Moving Map (AAMM) Prototype Implementation	Fraport, Deutsche Lufthansa
	#041AF5	EASI – EAD AIM System Integration	DFS		2015_225_AF2	Initial Airport Operations Plan @ FRA	Fraport
	#042AF2a	A-SMGCS Düsseldorf	DFS, Duesseldorf International		2015_226_AF2	Airport Safety Net Mobile Detection of Marshaller Vehicles	Fraport
✅	#084AF5	Prerequisites for the Provision of Aerodrome Mapping Data and Airport Maps	Fraport	✅	2015_282_AF2	Initial APOC and AOP	Munich Airport
✅	#086AF2	A-CDM Extension	Fraport		2016_008_AF4	Flight evolution and upgrade of interfaces with NM stakeholders	Deutsche Lufthansa
	#087AF2	Apron Controller Working Position	Fraport		2016_010_AF4	STAM Phase 2	Deutsche Lufthansa
	#088AF2	Airport Safety Net Mobile Detection of Air Crash Tenders	Fraport		2016_021_AF2	TANGe (Tower ATS-System Next Generation) Phase 1	DFS
✅	#115AF2	A-SMGCS Renewal of the Surface Movement Radar (BORA)	Munich Airport		2016_023_AF1	XMAN - Cross-center arrival management - Part 2 (CEF2016)	DFS
	2015_031_AF2	Vehicle Transponder A-SMGCS Düsseldorf	Duesseldorf International		2016_024_AF4	Deployment of an Automated Support Tool for Traffic Complexity Assessment at DFS	DFS
	2015_067_AF5	European Weather Radar Composite of Convection Information Service	DWD		2016_026_AF3	System Procurement for Deployment of PCP Air Traffic Control System iCAS at DFS and LVNL	DFS
	2015_068_AF5	European Harmonised Forecasts of Adverse Weather	DWD		2016_027_AF5	European Deployment Roadmap for Flight Object Interoperability	DFS
	2015_069_AF5	European MET Information Exchange (MET-GATE)	DFS, DWD		2016_100_AF4	Provision of EFPL data and initial FF-ICE/ 1 readiness	Deutsche Lufthansa, LH Systems
	2015_113_AF4	AOP-NOP Integration	Fraport		2016_121_AF3	Free Route	Deutsche Lufthansa, LH Systems
	2015_188_AF1	Deploy AMAN - Arrival Management at Düsseldorf and Berlin International	DFS		2016_123_AF4	STAM Phase 2 in combination with Target Times	Deutsche Lufthansa, LH Systems
	2015_189_AF3	Deploy Free Route Airspace (Full FRA) in German Airspace	DFS		2016_134_AF3	Implementation of rolling ASM/ATFCM	Deutsche Lufthansa, LH Systems
	2015_190_AF3	Deployment of ATC System iCAS: Implementation of ATM PCP Funct. at LVNL and DFS	DFS		2016_137_AF2	Initial AOP DUS	Düsseldorf International
	2015_192_AF5	RAPNET NG	DFS		2016_141_AF5	Deploy SWIM governance	Deutsche Lufthansa, DFS, Fraport, Munich Airport
	2015_193_AF1	RNP Based Departure Operations in High Density TMAs in FRA, DUS, BER and MUC	DFS, Fraport, Deutsche Lufthansa		2016_147_AF1	RNP APCH RWY 29 Vienna	Deutsche Lufthansa
	2015_194_AF5	STANLY_ACOS iSWIM for Free-Route and NM	DFS		2016_150_AF2	Enablers for Airport Surface Movement related to Safety Nets	Fraport, Munich Airport
	2015_195_AF3	Deployment of next Generation and VoIP Capable Centre Voice Communication System	DFS		2016_159_AF6	DLS Implementation Project – Path 2	Deutsche Lufthansa, DFS
	2015_196_AF1_A	XMAN - Cross-centre arrival management	DFS		2016_161_AF6	DLS Implementation Project – Path 1 "Ground" stakeholders	DFS
	2015_197_AF5	Centralized DFS "Yellow Profile" SWIM Node	DFS		2016_165_AF6	Lufthansa Group & Air France Group Datalink upgrade to "best in class" avionics	Lufthansa Group *

(*) as Deutsche Lufthansa, Lufthansa Cargo, Lufthansa Cityline

SESAR
DEPLOYMENT MANAGER

Greece

Greece				

Number of gaps	25	Current status of implementation	In progress / Planned 24	Not planned 1

ATM Functionality #1

Family	Gap coverage			Compl. Year	CEF Projects
1.1.1					
1.1.2					
1.2.1					
1.2.2					
1.2.3					
1.2.4					
1.2.5					

ATM Functionality #2

Family	Gap coverage			Compl. Year	CEF Projects
2.1.1					
2.1.2					
2.1.3					
2.1.4					
2.2.1					
2.3.1					
2.4.1					
2.5.1					
2.5.2					

ATM Functionality #3

Family	Gap coverage			Compl. Year	CEF Projects
3.1.1	0%	100%	0%	Dec 2018	
3.1.2	0%	100%	0%	Dec 2021	Yes
3.1.3	0%	100%	0%	Dec 2021	
3.1.4	0%	100%	0%	Dec 2020	Yes
3.2.1	0%	100%	0%	Dec 2020	Yes
3.2.3	0%	100%	0%	Dec 2017	Yes
3.2.4	0%	100%	0%	Dec 2021	Yes

ATM Functionality #4

Family	Gap coverage			Compl. Year	CEF Projects
4.1.1					
4.1.2	0%	100%	0%	Dec 2021	
4.2.2	0%	0%	100%	-	
4.2.3	0%	100%	0%	Dec 2020	Yes
4.2.4					
4.3.1					
4.3.2	0%	100%	0%	Dec 2020	Yes
4.4.2	0%	100%	0%	Dec 2021	Yes

ATM Functionality #5

Family	Gap coverage			Compl. Year	CEF Projects
5.1.1	0%	100%	0%	Dec 2019	
5.1.2	0%	100%	0%	Dec 2020	
5.2.1	0%	100%	0%	Dec 2022	
5.2.2	0%	100%	0%	Dec 2022	
5.2.3	0%	100%	0%	Dec 2022	
5.3.1	0%	100%	0%	Dec 2022	
5.4.1	0%	100%	0%	Dec 2022	
5.5.1	0%	100%	0%	Dec 2022	
5.6.1	0%	100%	0%	Dec 2022	
5.6.2	0%	100%	0%	Dec 2022	

ATM Functionality #6

Family	Gap coverage			Compl. Year	CEF Projects
6.1.1	0%	100%	0%	Feb 2018	
6.1.2	0%	100%	0%	Dec 2018	
6.1.3	0%	100%	0%	Dec 2018	Yes
6.1.4					
6.1.5					

For SWIM Governance related Families (namely 5.1.3 and 5.1.4), please refer to the outlook included in Section 2 of the Monitoring View 2017

List of CEF-funded initiatives awarded to Greek Stakeholders

✅ Completed project

#095AF3	Implementation of FRA in Greece	HCAA	2016_161_AF6	DLS Implementation Project - Path 1 "Ground" stakeholders	HCAA
2015_029_AF3	Procurement of new DPS/ATM and VCRS systems to support DCTs and FRA	HCAA			

Hungary

Hungary

Number of gaps	26	Current status of implementation	Already implemented	7	In progress / Planned	15	Not planned	4

ATM Functionality #1

Family	Gap coverage			Compl. Year	CEF Projects
1.1.1					
1.1.2					
1.2.1					
1.2.2					
1.2.3					
1.2.4					
1.2.5					

ATM Functionality #2

Family	Gap coverage			Compl. Year	CEF Projects
2.1.1					
2.1.2					
2.1.3					
2.1.4					
2.2.1					
2.3.1					
2.4.1					
2.5.1					
2.5.2					

ATM Functionality #3

Family	Gap coverage			Compl. Year	CEF Projects
3.1.1	✓			✓	
3.1.2	50%	50%	0%	Dec 2021	
3.1.3	0%	100%	0%	Dec 2021	
3.1.4	0%	100%	0%	Dec 2021	Yes
3.2.1	35%	65%	0%	Mar 2019	Yes
3.2.3	✓			✓	
3.2.4	✓			✓	

ATM Functionality #4

Family	Gap coverage			Compl. Year	CEF Projects
4.1.1	✓			✓	
4.1.2	0%	100%	0%	Dec 2021	
4.2.2	0%	100%	0%	Dec 2021	
4.2.3	25%	75%	0%	Dec 2021	
4.2.4					
4.3.1					
4.3.2	0%	100%	0%	Dec 2021	
4.4.2	0%	100%	0%	Dec 2021	

ATM Functionality #5

Family	Gap coverage			Compl. Year	CEF Projects
5.1.1	✓			✓	
5.1.2	0%	100%	0%	Dec 2024	
5.2.1	✓			✓	
5.2.2	0%	100%	0%	Dec 2024	
5.2.3	0%	100%	0%	Jun 2018	
5.3.1	0%	0%	100%	-	
5.4.1	0%	0%	100%	-	
5.5.1	0%	0%	100%	-	
5.6.1	0%	0%	100%	-	
5.6.2	0%	5%	95%	-	Yes

ATM Functionality #6

Family	Gap coverage			Compl. Year	CEF Projects
6.1.1	✓			✓	
6.1.2	0%	100%	0%	Dec 2024	
6.1.3	0%	100%	0%	Dec 2022	Yes
6.1.4					
6.1.5					

For SWIM Governance related Families (namely 5.1.3 and 5.1.4), please refer to the outlook included in Section 2 of the Monitoring View 2017

List of CEF-funded initiatives awarded to Hungarian Stakeholders

✓ Completed project

✓	#102AF3	Free Route Airspace from the Black Forest to the Black Sea	Hungaro Control	2016_075_AF3_B	FAB CE wide Study of DAM and STAM – Cohesion Call	Hungaro Control	
	2015_034_AF3	ATM System (MATIAS) upgrade for cross-border free route operation	Hungaro Control	2016_141_AF5	Deploy SWIM governance	Hungaro Control	
	2015_234_AF1_B	AMAN LOWW initial	Hungaro Control	2016_159_AF6	DLS Implementation Project – Path 2	Hungaro Control	
	2016_027_AF5	European Deployment Roadmap for Flight Object Interoperability	Hungaro Control	2016_161_AF6	DLS Implementation Project – Path 1 "Ground" stakeholders	Hungaro Control	

SESAR DEPLOYMENT MANAGER

Ireland

Ireland

| Number of gaps | 41 | Current status of implementation | Already implemented | 9 | In progress / Planned | 29 | Not planned | 3 |

ATM Functionality #1

Family	Gap coverage			Compl. Year	CEF Projects
1.1.1	95%	0%	5%	Dec 2019	
1.1.2	0%	100%	0%	Dec 2023	
1.2.1	90%	10%	0%	Dec 2018	
1.2.2	✓		✓		
1.2.3	0%	100%	0%	Dec 2018	
1.2.4					
1.2.5					

ATM Functionality #2

Family	Gap coverage			Compl. Year	CEF Projects
2.1.1	0%	100%	0%	Dec 2020	Yes
2.1.2	✓		✓		
2.1.3	0%	100%	0%	Jun 2018	Yes
2.1.4	0%	0%	100%	-	
2.2.1	✓		✓		
2.3.1	0%	100%	0%	Dec 2023	
2.4.1	0%	100%	0%	Dec 2023	Yes
2.5.1	0%	100%	0%	Dec 2020	Yes
2.5.2	0%	100%	0%	Dec 2020	

ATM Functionality #3

Family	Gap coverage			Compl. Year	CEF Projects
3.1.1	0%	100%	0%	Dec 2018	
3.1.2	0%	100%	0%	Dec 2021	
3.1.3	0%	100%	0%	Dec 2021	
3.1.4	35%	65%	0%	Dec 2020	Yes
3.2.1	✓		✓		
3.2.3	✓		✓		
3.2.4	✓		✓		

ATM Functionality #4

Family	Gap coverage			Compl. Year	CEF Projects
4.1.1	✓		✓		
4.1.2	0%	0%	100%	-	
4.2.2	0%	100%	0%	-	
4.2.3	0%	100%	0%	Dec 2021	
4.2.4	0%	100%	0%	Dec 2018	
4.3.1					
4.3.2	0%	0%	100%	-	
4.4.2	0%	100%	0%	Dec 2021	

ATM Functionality #5

Family	Gap coverage			Compl. Year	CEF Projects
5.1.1	✓		✓		
5.1.2	20%	80%	0%	Dec 2020	Yes
5.2.1	0%	100%	0%	Dec 2020	
5.2.2	0%	100%	0%	Jan 2020	Yes
5.2.3	0%	100%	0%	-	Yes
5.3.1	0%	100%	0%	Dec 2024	Yes
5.4.1	0%	100%	0%	Dec 2024	Yes
5.5.1	0%	100%	0%	Oct 2020	Yes
5.6.1	0%	100%	0%	Dec 2024	
5.6.2	0%	5%	95%	-	Yes

ATM Functionality #6

Family	Gap coverage			Compl. Year	CEF Projects
6.1.1	✓		✓		
6.1.2	0%	100%	0%	Dec 2024	
6.1.3	0%	100%	0%	Dec 2021	
6.1.4					
6.1.5					

For SWIM Governance related Families (namely 5.1.3 and 5.1.4), please refer to the outlook included in Section 2 of the Monitoring View 2017

AF1, AF2, and Family 4.2.4 to be implemented in Dublin Airport

List of CEF-funded initiatives awarded to Irish Stakeholders

✓ Completed project

✓	#020AF3	Borealis Free Route Airspace (Part 1)	IAA	2015_174_AF5_A	NewPENS Stakeholders contribution for the procurement and deployment of NewPENS	IAA
✓	#135AF2a	Ryanair RAAS Programme (Part A)	Ryanair	2015_207_AF3_A	Harmonisation of Tech ATM Platform in 5 ANSP including support of FRA and preparation of PCP	IAA
✓	#135AF2b	Ryanair RAAS Programme (Part B)	Ryanair	2015_227_AF3_A	Borealis FRA Implementation (Part 2)	IAA, Ryanair
	2015_074_AF2	Display TOBT TSAT at the Gate	DAA	2016_027_AF5	European Deployment Roadmap for Flight Object Interoperability	IAA
	2015_076_AF2	Aerial Visual Display A-CDM Phase 2	DAA	2016_033_AF5	Use SWIM methods to replace AFTN feeds for A-CDM	Dublin Airport
	2015_077_AF2	Universal Mobile Display System (UMDS) solution to support A-CDM Implementation	DAA	2016_034_AF5	Upgrade/Replace Infrastructure to facilitate SWIM	Dublin Airport
	2015_078_AF2	A-CDM Enhancements BDW	DAA	2016_148_AF5	Implementation of Automated Meteorological Information Exchange	IAA, Irish Meteorological Service (Met Éireann)
	2015_159_AF3	IP/VOIP technology to enable Management of Dynamic Airspace Configurations	IAA	2016_150_AF2	Enablers for Airport Surface Movement related to Safety Nets	Dublin Airport
	2015_160_AF5	Aeronautical Information exchange and management	IAA	2016_159_AF6	DLS Implementation Project – Path 2	Ryanair
	2015_161_AF2	Initial implementation of DMAN	IAA	2016_164_AF6	RYR Upgrade to ATN B1 to "best in class"	Ryanair
	2015_162_AF2	Electronic Flight Strip (EFS) Implementation	IAA			

Italy

Italy		
Number of gaps **56**	Current status of implementation	Already implemented **10** — In progress / Planned **41** — Not planned **5**

ATM Functionality #1

Family	Milan Malpensa Gap coverage			Compl. Year	CEF Projects	Rome Fiumicino Gap coverage			Compl. Year	CEF Projects
1.1.1	10%	90%	0%	Dec 2018	Yes	10%	90%	0%	Dec 2018	Yes
1.1.2	10%	90%	0%	Dec 2018	Yes	10%	90%	0%	Dec 2018	Yes
1.2.1	40%	60%	0%	Dec 2019	Yes	65%	35%	0%	Dec 2019	Yes
1.2.2	✓			✓		✓			✓	
1.2.3	0%	100%	0%	Mar 2019	Yes	0%	100%	0%	Mar 2019	Yes
1.2.4										
1.2.5	0%	100%	0%	-	Yes	0%	100%	0%	-	Yes

ATM Functionality #2

Family	Milan Malpensa Gap coverage			Compl. Year	CEF Projects	Rome Fiumicino Gap coverage			Compl. Year	CEF Projects
2.1.1	0%	0%	100%	-		0%	0%	100%	-	
2.1.2	✓			✓		✓			✓	
2.1.3	✓			✓		✓			✓	
2.1.4	0%	100%	0%	Dec 2024	Yes	0%	100%	0%	Dec 2020	Yes
2.2.1	0%	100%	0%	Dec 2020	Yes	0%	100%	0%	Dec 2019	Yes
2.3.1	0%	0%	100%	-		0%	0%	100%	-	
2.4.1	0%	0%	100%	-		0%	100%	0%	Dec 2023	Yes
2.5.1	0%	100%	0%	Dec 2021	Yes	0%	100%	0%	Dec 2020	Yes
2.5.2	0%	100%	0%	Dec 2021		0%	100%	0%	Dec 2020	Yes

ATM Functionality #4 (Airport Gaps)

Family	Milan Malpensa Gap coverage			Compl. Year	CEF Projects	Rome Fiumicino Gap coverage			Compl. Year	CEF Projects
4.2.4	0%	55%	45%	-		0%	100%	0%	Dec 2020	Yes

ATM Functionality #3

Family	Gap coverage			Compl. Year	CEF Projects
3.1.1	25%	75%	0%	Dec 2018	Yes
3.1.2	0%	100%	0%	Dec 2021	Yes
3.1.3	0%	100%	0%	Dec 2021	
3.1.4	0%	100%	0%	Dec 2021	
3.2.1	50%	50%	0%	Dec 2020	Yes
3.2.3	✓			✓	
3.2.4	95%	5%	0%	Dec 2018	Yes

ATM Functionality #4 (Country Gaps)

Family	Gap coverage			Compl. Year	CEF Projects
4.1.1	✓			✓	
4.1.2	0%	100%	0%	Dec 2021	
4.2.2	0%	100%	0%	Dec 2021	
4.2.3	0%	100%	0%	Dec 2020	Yes
4.3.1					
4.3.2	0%	100%	0%	Dec 2021	
4.4.2	0%	100%	0%	Dec 2020	Yes

ATM Functionality #5

Family	Gap coverage			Compl. Year	CEF Projects
5.1.1	✓			✓	
5.1.2	0%	100%	0%	Dec 2024	Yes
5.2.1	✓			✓	
5.2.2	0%	100%	0%	Dec 2024	Yes
5.2.3	0%	100%	0%	Dec 2024	Yes
5.3.1	0%	100%	0%	Dec 2024	Yes
5.4.1	0%	100%	0%	Dec 2024	Yes
5.5.1	0%	100%	0%	Dec 2024	
5.6.1	0%	100%	0%	Dec 2024	Yes
5.6.2	0%	30%	70%	-	Yes

ATM Functionality #6

Family	Gap coverage			Compl. Year	CEF Projects
6.1.1	0%	100%	0%	Dec 2017	Yes
6.1.2	0%	100%	0%	Dec 2024	
6.1.3	0%	100%	0%	Dec 2020	Yes
6.1.4					
6.1.5					

For SWIM Governance related Families (namely 5.1.3 and 5.1.4), please refer to the outlook included in Section 2 of the Monitoring View 2017

Italy

| Number of gaps | 56 | Current status of implementation | Already implemented | 10 | In progress / Planned | 41 | Not planned | 5 |

List of CEF-funded initiatives awarded to Italian Stakeholders

✓ Completed project

✓	#004AF3	Traffic Flow Restriction (TFR) – LIDO planning system	Alitalia	2016_092_AF5	2016_092_AF5_ITAF WAN	Italian MOD
✓	#005AF3	Free Flight – Direct Optimization	Alitalia	2016_108_AF5	ENAV ADQ – Aeronautical Data Quality system interface evolution (ADQ2)	ENAV
	#062AF4	ENAV initiative for the identification of Network Collaborative Management requirements	Ryanair	2016_109_AF5	BLUEMED FAB IP Network deployment	ENAV
	#063AF3	ENAV implementation of Free Route	ENAV	2016_110_AF3	ENAV Automated ENV Data Interchange for FDP/ERATO	ENAV
	#064AF2	ENAV Airport System upgrade	ENAV	2016_114_AF4	ENAV Traffic Complexity Tool Implementation	ENAV
✓	#065AF1	ENAV Geographic DB for Procedure Design	ENAV	2016_115_AF3	ENAV 4-Flight Deployment in Italy – Third Stage 2017-2018	ENAV
✓	#066AF5	ENAV AIS system Upgrade to support AIXM 5.1	ENAV	2016_116_AF5	ENAV Security Operational Centre (iSOC) Upgrade	ENAV
	#067AF5	Coflight-eFDP System Development	ENAV	2016_117_AF2	ENAV Implementation of A-SMGCS Level 1 and 2 with Safety Nets in MXP and FCO	ENAV, Rome Fiumicino, SEA Milano Airports
	2015_198_AF5	Implementation of ENAV "LAN Servizi"	ENAV	2016_118_AF5	ENAV Network enhancement toward NewPENS	ENAV
	2015_201_AF5	Transition of current Aeronautical Information Management System to EAD	ENAV	2016_119_AF5	ENAV Airport MET System and UPM-MET database upgrade	ENAV
	2015_202_AF3	ASM tool Implementation	ENAV	2016_120_AF1	ENAV Introduction of RNP1+RF and APV procedures in MXP and FCO	ENAV
	2015_203_AF1	AMAN Extended Horizon	ENAV	2016_141_AF5	Deploy SWIM governance	ENAV
	2015_204_AF3_Phase_I	4-Flight deployment in Italy 2016-2017	ENAV	2016_150_AF2	Enablers for Airport Surface Movement related to Safety Nets	Rome Fiumicino
	2015_204_AF3_Phase_II	4-Flight deployment in Italy 2019-2020	ENAV	2016_159_AF6	DLS Implementation Project – Path 2	ENAV
	2016_027_AF5	European Deployment Roadmap for Flight Object Interoperability	ENAV	2016_161_AF6	DLS Implementation Project – Path 1 "Ground" stakeholders	ENAV
	2016_089_AF6	2016_089_AF6_IT_ITAF ATC Control Systems to i4D	Italian MOD, ENAV			

Latvia

Latvia			
Number of gaps 25	**Current status of implementation**	**Already implemented** 4	**In progress / Planned** 13	**Not planned** 8

ATM Functionality #1

Family	Gap coverage			Compl. Year	CEF Projects
1.1.1					
1.1.2					
1.2.1					
1.2.2					
1.2.3					
1.2.4					
1.2.5					

ATM Functionality #2

Family	Gap coverage			Compl. Year	CEF Projects
2.1.1					
2.1.2					
2.1.3					
2.1.4					
2.2.1					
2.3.1					
2.4.1					
2.5.1					
2.5.2					

ATM Functionality #3

Family	Gap coverage			Compl. Year	CEF Projects
3.1.1	40%	60%	0%	Dec 2018	
3.1.2	0%	0%	100%	Dec 2021	
3.1.3	35%	65%	0%	Dec 2021	
3.1.4	90%	10%	0%	Dec 2020	
3.2.1	55%	0%	45%	-	
3.2.3	✓			✓	
3.2.4	✓			✓	

ATM Functionality #4

Family	Gap coverage			Compl. Year	CEF Projects
4.1.1					
4.1.2	0%	0%	100%	Dec 2021	
4.2.2	✓			✓	
4.2.3	50%	0%	50%	Dec 2021	
4.2.4					
4.3.1					
4.3.2	0%	0%	100%	Dec 2021	
4.4.2	0%	0%	100%	Dec 2021	

ATM Functionality #5

Family	Gap coverage			Compl. Year	CEF Projects
5.1.1	✓			✓	
5.1.2	0%	100%	0%	Dec 2024	
5.2.1	40%	0%	60%	Dec 2024	
5.2.2	0%	100%	0%	Dec 2024	
5.2.3	0%	100%	0%	Dec 2024	
5.3.1	0%	100%	0%	Dec 2024	
5.4.1	0%	20%	80%	Dec 2024	
5.5.1	0%	0%	100%	Dec 2024	
5.6.1	0%	0%	100%	Dec 2024	
5.6.2	0%	0%	100%	Dec 2024	

ATM Functionality #6

Family	Gap coverage			Compl. Year	CEF Projects
6.1.1	30%	70%	0%	Feb 2018	Yes
6.1.2	0%	0%	100%	-	
6.1.3	0%	100%	0%	Feb 2018	Yes
6.1.4					
6.1.5					

For SWIM Governance related Families (namely 5.1.3 and 5.1.4), please refer to the outlook included in Section 2 of the Monitoring View 2017

List of CEF-funded initiatives awarded to Latvian Stakeholders

✓ Completed project

✓	#020AF3 Borealis Free Route Airspace (Part 1)	LGS	
	2015_227_AF3_A Borealis FRA Implementation (Part 2)	LGS	
	2016_159_AF6 DLS Implementation Project – Path 2	LGS	
	2016_161_AF6 DLS Implementation Project – Path 1 "Ground" stakeholders	LGS	
	2016_163_AF6 CPDLC Implementation in the Riga FIR	LGS	

Lithuania

Lithuania			

Number of gaps	25	Current status of implementation	Already impl. 3	In progress / Planned 22

ATM Functionality #1

Family	Gap coverage	Compl. Year	CEF Projects
1.1.1			
1.1.2			
1.2.1			
1.2.2			
1.2.3			
1.2.4			
1.2.5			

ATM Functionality #2

Family	Gap coverage	Compl. Year	CEF Projects
2.1.1			
2.1.2			
2.1.3			
2.1.4			
2.2.1			
2.3.1			
2.4.1			
2.5.1			
2.5.2			

ATM Functionality #3

Family	Gap coverage			Compl. Year	CEF Projects
3.1.1	0%	100%	0%	Dec 2017	
3.1.2	0%	100%	0%	Dec 2017	Yes
3.1.3	0%	100%	0%	Dec 2019	
3.1.4	0%	100%	0%	Jun 2021	Yes
3.2.1	30%	70%	0%	Jun 2020	Yes
3.2.3	✔			✔	
3.2.4	✔			✔	

ATM Functionality #4

Family	Gap coverage			Compl. Year	CEF Projects
4.1.1					
4.1.2	0%	100%	0%	Dec 2022	
4.2.2	0%	100%	0%	Dec 2022	
4.2.3	0%	100%	0%	Jun 2021	
4.2.4					
4.3.1					
4.3.2	0%	100%	0%	Dec 2022	
4.4.2	0%	100%	0%	Dec 2022	

ATM Functionality #5

Family	Gap coverage			Compl. Year	CEF Projects
5.1.1	✔			✔	
5.1.2	0%	100%	0%	Jun 2020	
5.2.1	0%	100%	0%	Dec 2021	
5.2.2	0%	100%	0%	Dec 2019	
5.2.3	0%	100%	0%	Jun 2021	
5.3.1	0%	100%	0%	Dec 2020	
5.4.1	0%	100%	0%	Dec 2024	
5.5.1	0%	100%	0%	Dec 2021	
5.6.1	0%	100%	0%	Dec 2020	
5.6.2	0%	100%	0%	Dec 2024	

ATM Functionality #6

Family	Gap coverage			Compl. Year	CEF Projects
6.1.1	0%	100%	0%	Jun 2021	
6.1.2	0%	100%	0%	Dec 2021	
6.1.3	0%	100%	0%	Feb 2018	Yes
6.1.4					
6.1.5					

For SWIM Governance related Families (namely 5.1.3 and 5.1.4), please refer to the outlook included in Section 2 of the Monitoring View 2017

List of CEF-funded initiatives awarded to Lithuanian Stakeholders

✔ Completed project

2016_087_AF3	iTEC Tests, Validations and Planning (iTEC-TVP)	Oro Navigacija	2016_161_AF6	DLS Implementation Project – Path 1 "Ground" stakeholders	Oro Navigacija
2016_159_AF6	DLS Implementation Project – Path 2	Oro Navigacija			

Luxembourg

Luxembourg			
Number of gaps	10	Current status of implementation	Already impl 1
		In progress / Planned 8	Not planned 1

ATM Functionality #1

Family	Gap coverage	Compl. Year	CEF Projects
1.1.1			
1.1.2			
1.2.1			
1.2.2			
1.2.3			
1.2.4			
1.2.5			

ATM Functionality #2

Family	Gap coverage	Compl. Year	CEF Projects
2.1.1			
2.1.2			
2.1.3			
2.1.4			
2.2.1			
2.3.1			
2.4.1			
2.5.1			
2.5.2			

ATM Functionality #3

Family	Gap coverage	Compl. Year	CEF Projects
3.1.1			
3.1.2			
3.1.3			
3.1.4			
3.2.1			
3.2.3			
3.2.4			

ATM Functionality #4

Family	Gap coverage			Compl. Year	CEF Projects
4.1.1					
4.1.2					
4.2.2					
4.2.3	0%	0%	100%	-	
4.2.4					
4.3.1					
4.3.2					
4.4.2					

ATM Functionality #5

Family	Gap coverage			Compl. Year	CEF Projects
5.1.1	✔			✔	
5.1.2	20%	80%	0%	Mar 2020	
5.2.1	0%	100%	0%	Dec 2021	
5.2.2	0%	100%	0%	Dec 2021	
5.2.3	0%	100%	0%	Mar 2021	
5.3.1	0%	100%	0%	Dec 2024	
5.4.1	0%	60%	40%	Dec 2024	
5.5.1	0%	100%	0%	Dec 2024	
5.6.1	0%	100%	0%	Dec 2024	
5.6.2					

ATM Functionality #6

Family	Gap coverage	Compl. Year	CEF Projects
6.1.1			
6.1.2			
6.1.3			
6.1.4			
6.1.5			

For SWIM Governance related Families (namely 5.1.3 and 5.1.4), please refer to the outlook included in Section 2 of the Monitoring View 2017

There are currently no CEF funded projects awarded to Luxembourg Stakeholders

Malta

Malta

Number of gaps	24	Current status of implementation	Already impl.	2	In progress / Planned	13	Not planned	9

ATM Functionality #1

Family	Gap coverage	Compl. Year	CEF Projects
1.1.1			
1.1.2			
1.2.1			
1.2.2			
1.2.3			
1.2.4			
1.2.5			

ATM Functionality #2

Family	Gap coverage	Compl. Year	CEF Projects
2.1.1			
2.1.2			
2.1.3			
2.1.4			
2.2.1			
2.3.1			
2.4.1			
2.5.1			
2.5.2			

ATM Functionality #3

Family	Gap coverage			Compl. Year	CEF Projects
3.1.1	0%	0%	100%	-	
3.1.2	0%	0%	100%	-	
3.1.3	0%	0%	100%	-	
3.1.4	0%	0%	100%	-	
3.2.1	60%	40%	0%	Jun 2018	
3.2.3	✓			✓	
3.2.4	0%	100%	0%	Dec 2018	

ATM Functionality #4

Family	Gap coverage			Compl. Year	CEF Projects
4.1.1	0%	20%	80%	-	
4.1.2	0%	0%	100%	-	
4.2.2	0%	0%	100%	-	
4.2.3	75%	0%	25%	Dec 2021	
4.2.4					
4.3.1					
4.3.2	0%	0%	100%	-	
4.4.2					

ATM Functionality #5

Family	Gap coverage			Compl. Year	CEF Projects
5.1.1	✓			✓	
5.1.2	0%	100%	0%	Dec 2019	
5.2.1	0%	100%	0%	Dec 2020	Yes
5.2.2	0%	100%	0%	Dec 2021	
5.2.3	0%	100%	0%	Dec 2020	
5.3.1	0%	100%	0%	-	
5.4.1	0%	0%	100%	-	
5.5.1	0%	100%	0%	Dec 2020	
5.6.1					
5.6.2	0%	0%	100%	-	

ATM Functionality #6

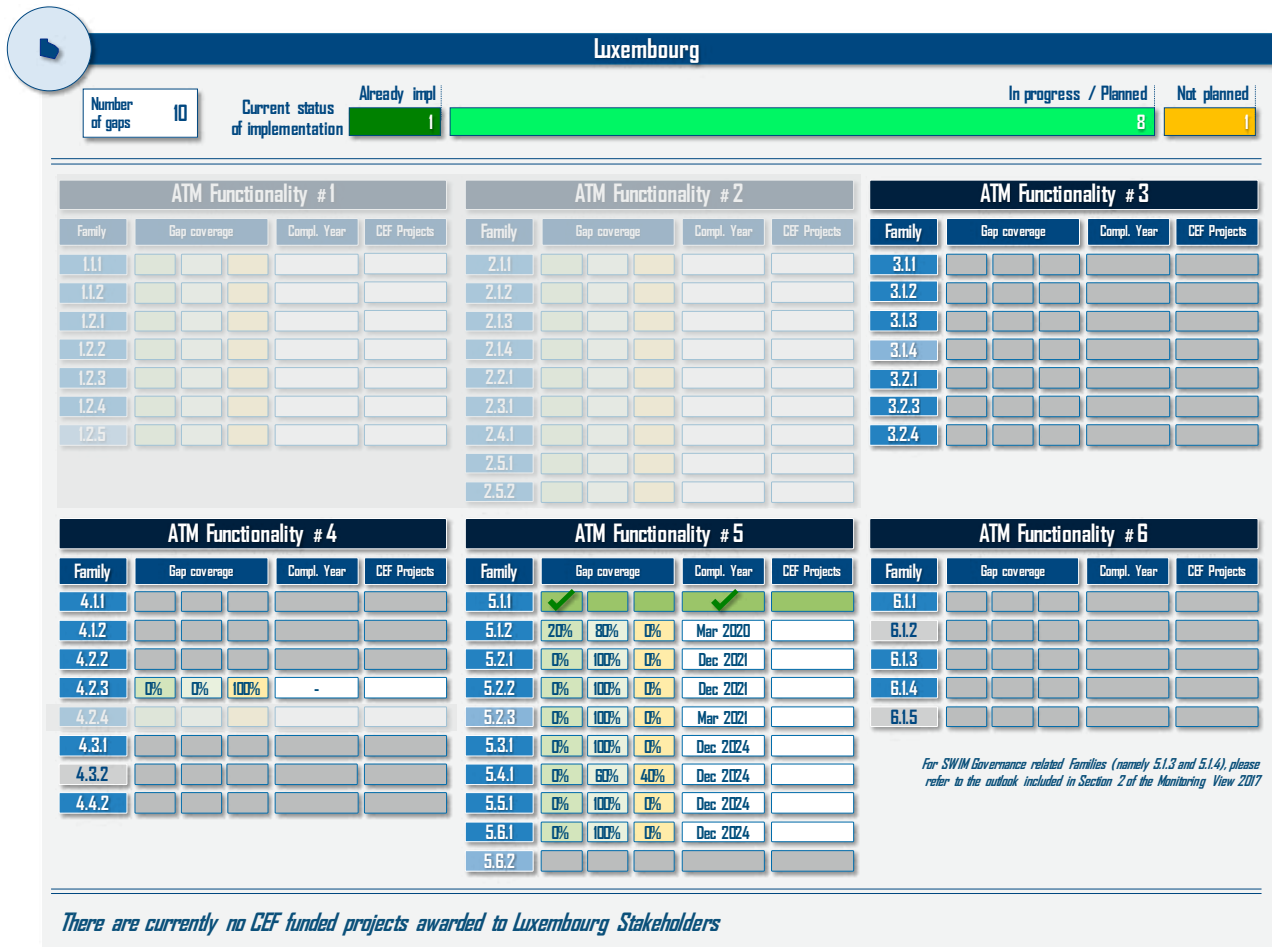| Family	Gap coverage			Compl. Year	CEF Projects
6.1.1	0%	100%	0%	Feb 2018	Yes
6.1.2	0%	100%	0%	-	
6.1.3	0%	100%	0%	Dec 2020	Yes
6.1.4					
6.1.5					

For SWIM Governance related Families (namely 5.1.3 and 5.1.4), please refer to the outlook included in Section 2 of the Monitoring View 2017

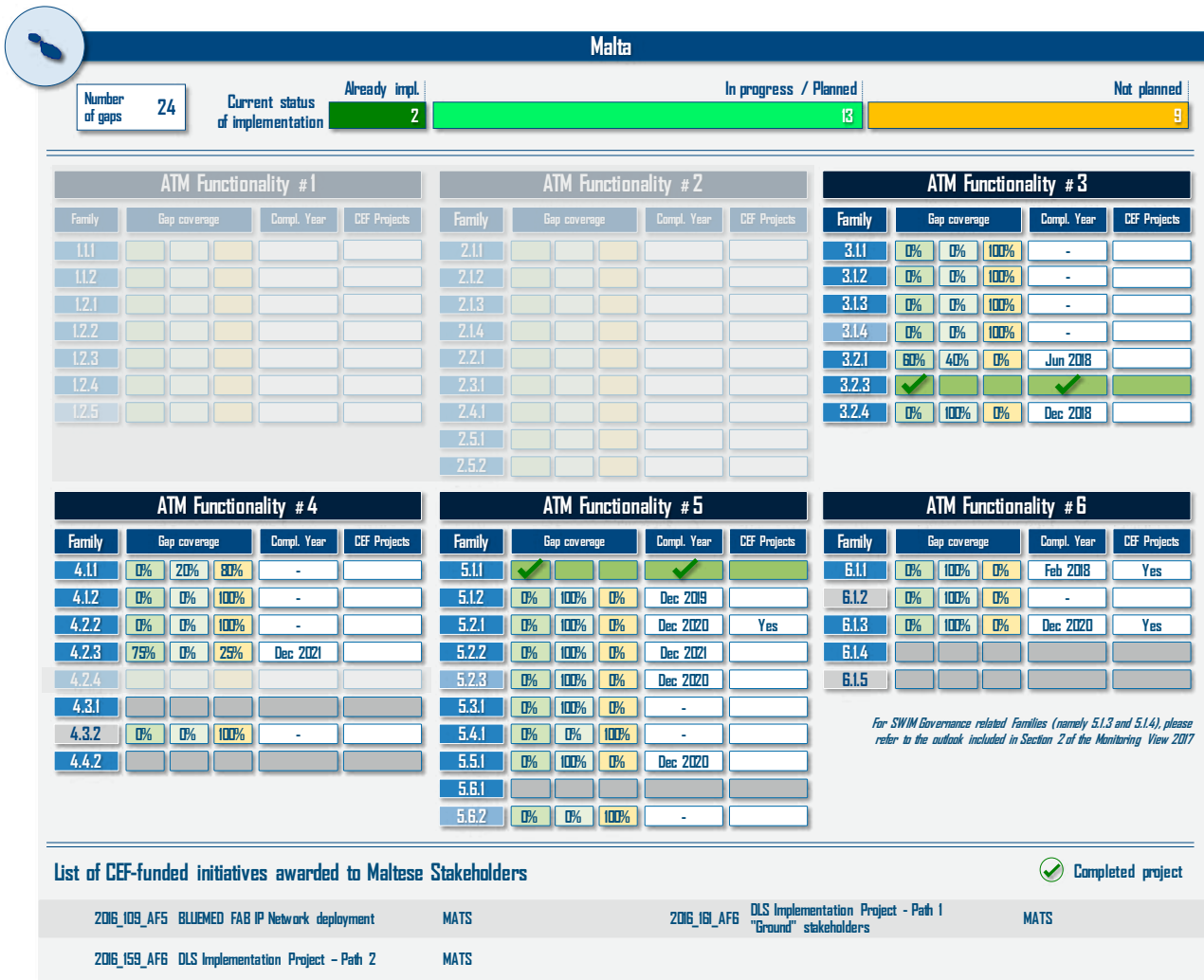### List of CEF-funded initiatives awarded to Maltese Stakeholders

✓ Completed project

2016_109_AF5	BLUEMED FAB IP Network deployment	MATS	2016_161_AF6	DLS Implementation Project - Path 1 "Ground" stakeholders	MATS
2016_159_AF6	DLS Implementation Project – Path 2	MATS			

Maastricht Upper Area Control Center

MUAC

Number of gaps	25	Current status of implementation	Already implemented	8	In progress / Planned	16	Not planned	1

ATM Functionality #1

Family	Gap coverage			Compl. Year	CEF Projects
1.1.1					
1.1.2					
1.2.1					
1.2.2					
1.2.3					
1.2.4					
1.2.5					

ATM Functionality #2

Family	Gap coverage			Compl. Year	CEF Projects
2.1.1					
2.1.2					
2.1.3					
2.1.4					
2.2.1					
2.3.1					
2.4.1					
2.5.1					
2.5.2					

ATM Functionality #3

Family	Gap coverage			Compl. Year	CEF Projects
3.1.1	✓			✓	
3.1.2	0%	85%	15%	-	
3.1.3	0%	100%	0%	Dec 2021	
3.1.4	55%	40%	5%	Dec 2021	
3.2.1	✓			✓	
3.2.3	✓			✓	
3.2.4	0%	100%	0%	Mar 2020	

ATM Functionality #4

Family	Gap coverage			Compl. Year	CEF Projects
4.1.1	✓			✓	
4.1.2	0%	100%	0%	Dec 2021	
4.2.2					
4.2.3	35%	45%	20%	Dec 2021	
4.2.4					
4.3.1					
4.3.2	0%	0%	100%	-	
4.4.2	✓			✓	

ATM Functionality #5

Family	Gap coverage			Compl. Year	CEF Projects
5.1.1	✓			✓	
5.1.2	20%	80%	0%	Dec 2020	
5.2.1	✓			✓	
5.2.2	0%	100%	0%	Dec 2024	
5.2.3	0%	100%	0%	Dec 2024	
5.3.1	0%	100%	0%	Dec 2024	
5.4.1	0%	100%	0%	Dec 2024	
5.5.1	0%	100%	0%	Dec 2024	
5.6.1	0%	100%	0%	Dec 2024	
5.6.2	0%	5%	95%	Dec 2024	

ATM Functionality #6

Family	Gap coverage			Compl. Year	CEF Projects
6.1.1	✓			✓	
6.1.2	0%	100%	0%	Dec 2024	
6.1.3	0%	55%	45%	-	
6.1.4					
6.1.5					

For SWIM Governance related Families (namely 5.1.3 and 5.1.4), please refer to the outlook included in Section 2 of the Monitoring View 2017

CEF funded projects either submitted or awarded to MUAC are listed in the chart related to Belgium, as they are managed by EUROCONTROL

Netherlands

Netherlands			
Number of gaps: **34**	Current status of implementation		

Already impl. **1** | In progress / Planned **25** | Not planned **8**

ATM Functionality #1

Family	Gap coverage			Compl. Year	CEF Projects
1.1.1	30%	70%	0%	Dec 2020	Yes
1.1.2	0%	100%	0%	Dec 2023	Yes
1.2.1	0%	100%	0%	Dec 2023	Yes
1.2.2	0%	100%	0%	Dec 2018	Yes
1.2.3	0%	100%	0%	Dec 2023	Yes
1.2.4					
1.2.5	0%	20%	80%	-	Yes

ATM Functionality #2

Family	Gap coverage			Compl. Year	CEF Projects
2.1.1	0%	100%	0%	Dec 2020	Yes
2.1.2	0%	100%	0%	Dec 2020	Yes
2.1.3	35%	65%	0%	Dec 2020	Yes
2.1.4	0%	100%	0%	Dec 2020	Yes
2.2.1	0%	100%	0%	Dec 2020	Yes
2.3.1	0%	100%	0%	Dec 2024	
2.4.1	0%	100%	0%	Dec 2023	Yes
2.5.1	0%	100%	0%	Dec 2020	Yes
2.5.2	0%	100%	0%	Dec 2020	Yes

ATM Functionality #3

Family	Gap coverage			Compl. Year	CEF Projects
3.1.1					
3.1.2	0%	100%	0%	Dec 2021	Yes
3.1.3					
3.1.4					
3.2.1	0%	85%	15%	Dec 2021	Yes
3.2.3					
3.2.4					

ATM Functionality #4

Family	Gap coverage			Compl. Year	CEF Projects
4.1.1					
4.1.2	0%	0%	100%	-	
4.2.2	0%	100%	0%	Dec 2021	Yes
4.2.3	0%	65%	35%	Dec 2021	Yes
4.2.4	0%	100%	0%	Dec 2021	Yes
4.3.1					
4.3.2	0%	0%	100%	-	
4.4.2	25%	75%	0%	Dec 2021	Yes

ATM Functionality #5

Family	Gap coverage			Compl. Year	CEF Projects
5.1.1	✓			✓	
5.1.2	20%	80%	0%	Dec 2020	Yes
5.2.1	0%	100%	0%	Dec 2024	Yes
5.2.2	0%	30%	70%	Dec 2024	Yes
5.2.3	0%	0%	100%	Dec 2024	
5.3.1	0%	20%	80%	Dec 2024	Yes
5.4.1	0%	100%	0%	Dec 2024	Yes
5.5.1	0%	0%	100%	-	
5.6.1	0%	0%	100%	-	
5.6.2	0%	0%	100%	-	Yes

ATM Functionality #6

Family	Gap coverage			Compl. Year	CEF Projects
6.1.1					
6.1.2	0%	0%	100%	-	
6.1.3	0%	0%	100%	-	
6.1.4					
6.1.5					

For SWIM Governance related Families (namely 5.1.3 and 5.1.4), please refer to the outlook included in Section 2 of the Monitoring View 2017

AF1, AF2, and Family 4.2.4 to be implemented in Amsterdam Schiphol

List of CEF-funded initiatives awarded to Dutch Stakeholders
✓ Completed project

Ref	Description	Stakeholder		Ref	Description	Stakeholder
#107AF1	First phase of RNAV1 and RNP-APCH approaches Amsterdam Schiphol (EHAM)	LVNL		2015_190_AF3	Deployment of ATC System iCAS: Implementation of ATM PCP Funct. at LVNL and DFS	LVNL
#108AF2	Electronic Flight Strips at Schiphol TWR	LVNL		2015_196_AF1_A	XMAN - Cross-Centre arrival management	LVNL
#109AF2	Airport COM implementation Schiphol	Amsterdam Schiphol, KLM, LVNL		2015_253_AF1_A_AIR	RNP 1.0, RNP 0.3 & SBAS for E3A AWACS for CEF eligible Nations and third party	NAPMA
#110AF5	Meteorological Information Exchange by MET ANSP KNMI	KNMI		2015_253_AF1_A_GND	RNP 1.0, RNP 0.3 & SBAS for E3A AWACS for CEF eligible Nations and third party	NAPMA
2015_137_AF5	European Meteorological Aircraft Derived Data Center (EMADDC)	KNMI		2015_253_AF1_B	RNP 1.0, RNP 0.3 & SBAS for E3A AWACS for Cohesion eligible States	NAPMA
2015_165_AF1	Amsterdam Schiphol AMAN 1.0	LVNL		2016_023_AF1	XMAN - Cross-center arrival management - Part 2	LVNL
2015_166_AF1	Amsterdam Schiphol AMAN 2.0	LVNL		2016_026_AF3	System Procurement for Deployment of PCP Air Traffic Control System iCAS at DFS and LVNL	LVNL
2015_167_AF4	Workload model for Amsterdam Area Control and Approach Control operations	LVNL		2016_027_AF5	European Deployment Roadmap for Flight Object Interoperability	LVNL
2015_168_AF5	Implementation of Aeronautical Data Quality (ADQ) at LVNL	LVNL		2016_131_AF4	AOP-NOP Integration - Extended Implementation	Amsterdam Schiphol
2015_169_AF5	Initial (I)WXXM implementation on CCIS Amsterdam ACC and Schiphol	LVNL		2016_143_AF5	ATM Network 2.0 Amsterdam	LVNL
2015_174_AF5_A	NewPENS Stakeholders contribution for the procurement and deployment of NewPENS	LVNL		2016_150_AF2	Enablers for Airport Surface Movement related to Safety Nets	Amsterdam Schiphol
2015_178_AF2	Implementation of AOP Schiphol Airport	Amsterdam Schiphol, KNMI		2016_159_AF6	DLS Implementation Project – Path 2	SITA
2015_179_AF4	Implementation of APOC Schiphol Airport	Amsterdam Schiphol, KNMI		2016_161_AF6	DLS Implementation Project – Path 1 "Ground" stakeholders	SITA
2015_186_AF1	RNP approaches to three main landing runways Amsterdam Schiphol	LVNL				

Norway

Norway			
Number of gaps: 40	Current status of implementation	Already implemented: 11	In progress / Planned: 14	Not planned: 15

ATM Functionality #1

Family	Gap coverage			Compl. Year	CEF Projects
1.1.1	✓		✓		
1.1.2	50%	0%	50%	Dec 2023	
1.2.1	✓		✓		
1.2.2	✓		✓		
1.2.3	✓		✓		
1.2.4					
1.2.5	0%	0%	100%	-	

ATM Functionality #2

Family	Gap coverage			Compl. Year	CEF Projects
2.1.1	✓		✓		
2.1.2	✓		✓		
2.1.3	✓		✓		
2.1.4	0%	0%	100%	-	
2.2.1	✓		✓		
2.3.1	0%	0%	100%	-	
2.4.1	0%	0%	100%	-	
2.5.1	0%	100%	0%	Dec 2020	
2.5.2	0%	100%	0%	Dec 2023	

ATM Functionality #3

Family	Gap coverage			Compl. Year	CEF Projects
3.1.1	0%	100%	0%	Dec 2018	
3.1.2	0%	100%	0%	Dec 2021	
3.1.3	0%	100%	0%	Dec 2021	
3.1.4	0%	100%	0%	Dec 2021	
3.2.1	0%	100%	0%	Dec 2021	Yes
3.2.3	✓		✓		
3.2.4	✓		✓		

ATM Functionality #4

Family	Gap coverage			Compl. Year	CEF Projects
4.1.1					
4.1.2	0%	0%	100%	-	
4.2.2	0%	100%	0%	Dec 2021	
4.2.3	50%	50%	0%	Dec 2021	
4.2.4	0%	0%	100%	-	
4.3.1					
4.3.2	0%	0%	100%	-	
4.4.2	0%	100%	0%	Dec 2021	

ATM Functionality #5

Family	Gap coverage			Compl. Year	CEF Projects
5.1.1	✓		✓		
5.1.2	0%	100%	0%	Dec 2024	
5.2.1	0%	0%	100%	Dec 2024	
5.2.2	0%	0%	100%	-	
5.2.3	0%	0%	100%	-	
5.3.1	0%	0%	100%	-	
5.4.1	0%	0%	100%	-	
5.5.1	0%	0%	100%	-	
5.6.1	0%	0%	100%	-	
5.6.2	0%	0%	100%	-	

ATM Functionality #6

Family	Gap coverage			Compl. Year	CEF Projects
6.1.1	0%	100%	0%	Apr 2021	
6.1.2	0%	0%	100%	-	
6.1.3	0%	0%	100%	Dec 2022	
6.1.4					
6.1.5					

For SWIM Governance related Families (namely 5.1.3 and 5.1.4), please refer to the outlook included in Section 2 of the Monitoring View 2017

AF1, AF2, and Family 4.2.4 to be implemented in Oslo Gardermoen

List of CEF-funded initiatives awarded to Norwegian Stakeholders

✓ Completed project

✓ #020AF3 Borealis Free Route Airspace (Part 1) Avinor

SESAR DEPLOYMENT MANAGER

Poland

Poland					
Number of gaps	26	Current status of implementation	Already impl. **3**	In progress / Planned **20**	Not planned **3**

ATM Functionality #1

Family	Gap coverage			Compl. Year	CEF Projects
1.1.1					
1.1.2					
1.2.1					
1.2.2					
1.2.3					
1.2.4					
1.2.5					

ATM Functionality #2

Family	Gap coverage			Compl. Year	CEF Projects
2.1.1					
2.1.2					
2.1.3					
2.1.4					
2.2.1					
2.3.1					
2.4.1					
2.5.1					
2.5.2					

ATM Functionality #3

Family	Gap coverage			Compl. Year	CEF Projects
3.1.1	0%	100%	0%	Dec 2018	
3.1.2	0%	100%	0%	Dec 2021	
3.1.3	0%	100%	0%	Dec 2021	
3.1.4	5%	95%	0%	Dec 2021	
3.2.1	0%	85%	15%	Dec 2022	Yes
3.2.3	✔			✔	
3.2.4	0%	100%	0%	Dec 2021	Yes

ATM Functionality #4

Family	Gap coverage			Compl. Year	CEF Projects
4.1.1	✔			✔	
4.1.2	0%	100%	0%	Dec 2021	
4.2.2	0%	100%	0%	-	
4.2.3	55%	10%	35%	Dec 2022	
4.2.4					
4.3.1					
4.3.2	0%	0%	100%	-	
4.4.2	0%	100%	0%	Dec 2021	Yes

ATM Functionality #5

Family	Gap coverage			Compl. Year	CEF Projects
5.1.1	✔			✔	
5.1.2	0%	100%	0%	Dec 2024	Yes
5.2.1	0%	100%	0%	Dec 2017	Yes
5.2.2	0%	100%	0%	Dec 2024	Yes
5.2.3	0%	100%	0%	Dec 2024	
5.3.1	0%	100%	0%	Dec 2024	
5.4.1	0%	100%	0%	Dec 2024	
5.5.1	0%	100%	0%	Dec 2024	
5.6.1	0%	0%	100%	-	
5.6.2	0%	5%	95%	-	Yes

ATM Functionality #6

Family	Gap coverage			Compl. Year	CEF Projects
6.1.1	0%	100%	0%	Feb 2018	Yes
6.1.2	0%	0%	100%	-	
6.1.3	0%	100%	0%	Dec 2022	Yes
6.1.4					
6.1.5					

For SWIM Governance related Families (namely 5.1.3 and 5.1.4), please refer to the outlook included in Section 2 of the Monitoring View 2017

List of CEF-funded initiatives awarded to Polish Stakeholders

✔ Completed project

#13IAF3	1st part of the upgrade of the P_21 PEGASUS system to SESAR functionalities	PANSA	2016_087_AF3	iTEC Tests, Validations and Planning (iTEC - TVP)	PANSA
2015_035_AF5	LAN network upgrade	PANSA	2016_129_AF5	NewPENS Stakeholders contribution for the procurement and deployment of NewPENS	PANSA
2015_038_AF5	The ECG Communication System upgrade	PANSA	2016_141_AF5	Deploy SWIM governance	PANSA
2016_027_AF5	European Deployment Roadmap for Flight Object Interoperability	PANSA	2016_159_AF6	DLS Implementation Project – Path 2	PANSA
2016_068_AF3_A	Gate One Free Route Airspace (GO FRA) Study – General Call	PANSA	2016_161_AF6	DLS Implementation Project – Path 1 "Ground" stakeholders	PANSA
2016_085_AF3	ATM System Upgrade Towards Free Route Airspace	PANSA	2016_162_AF6	Implementation off Data Link Services for the ATM in the FIR Warsaw	PANSA

SESAR DEPLOYMENT MANAGER

Portugal

Portugal

Number of gaps	26	

Current status of implementation	Already implemented	In progress / Planned	Not planned
	6	16	4

ATM Functionality #1

Family	Gap coverage			Compl. Year	CEF Projects
1.1.1					
1.1.2					
1.2.1					
1.2.2					
1.2.3					
1.2.4					
1.2.5					

ATM Functionality #2

Family	Gap coverage			Compl. Year	CEF Projects
2.1.1					
2.1.2					
2.1.3					
2.1.4					
2.2.1					
2.3.1					
2.4.1					
2.5.1					
2.5.2					

ATM Functionality #3

Family	Gap coverage			Compl. Year	CEF Projects
3.1.1	✓			✓	
3.1.2	30%	70%	0%	Dec 2021	
3.1.3	0%	100%	0%	Dec 2021	
3.1.4	0%	100%	0%	Dec 2021	
3.2.1	✓			✓	
3.2.3	✓			✓	
3.2.4	✓			✓	

ATM Functionality #4

Family	Gap coverage			Compl. Year	CEF Projects
4.1.1	✓			✓	
4.1.2	0%	100%	0%	Dec 2021	
4.2.2	0%	100%	0%	Dec 2021	
4.2.3	40%	35%	25%	Dec 2021	Yes
4.2.4					
4.3.1					
4.3.2	0%	100%	0%	Dec 2021	
4.4.2	0%	100%	0%	Dec 2021	

ATM Functionality #5

Family	Gap coverage			Compl. Year	CEF Projects
5.1.1	✓			✓	
5.1.2	20%	80%	0%	Dec 2020	Yes
5.2.1	0%	60%	40%	Dec 2019	
5.2.2	0%	50%	50%	Dec 2019	
5.2.3	0%	0%	100%	-	
5.3.1	0%	20%	80%	-	Yes
5.4.1	0%	90%	10%	Dec 2019	
5.5.1	0%	0%	100%	-	
5.6.1	0%	0%	100%	-	
5.6.2	0%	5%	95%	-	Yes

ATM Functionality #6

Family	Gap coverage			Compl. Year	CEF Projects
6.1.1	0%	100%	0%	Dec 2019	
6.1.2	0%	0%	100%	-	
6.1.3	0%	100%	0%	Dec 2022	
6.1.4					
6.1.5					

For SWIM Governance related Families (namely 5.1.3 and 5.1.4), please refer to the outlook included in Section 2 of the Monitoring View 2017

List of CEF-funded initiatives awarded to Portuguese Stakeholders

✓ Completed project

Ref	Description	Stakeholder	Ref	Description	Stakeholder
#122AF3	FT 3.1.1 NAV Portugal – Initial ASM tool to support AFUA	NAV Portugal	2016_027_AF5	European Deployment Roadmap for Flight Object Interoperability	NAV Portugal
#123AF4	FT 4.2.3 NAV Portugal Interface to NMS AFP	NAV Portugal	2016_061_AF6	Deployment of ATN B1 capability within TAP Group	TAP Portugal, PGA – Portugália Airlines
2015_138_AF5	Implementation of a solution for electronic Terrain and Obstacle Data management	NAV Portugal	2016_069_AF2	Runway Overrun Prevention System (ROPS) bundled application for TAP Portugal	TAP Portugal
2015_174_AF5_A	NewPENS Stakeholders contribution for the procurement and deployment of NewPENS	NAV Portugal	2016_071_AF5	2016_071_AF5_PT_Implement a PT Air Force IP Backbone connected into NewPENS	PT MOD
2015_262_AF5	Aeronautical Data Quality and Exchange	PT MOD	2016_141_AF5	Deploy SWIM governance	NAV Portugal
2015_278_AF1	C-130H RNP-1 Avionics Upgrade for 5 A/C	PT MOD	2016_159_AF6	DLS Implementation Project – Path 2	NAV Portugal, TAP Portugal
2015_279_AF1	Falcon 50 RNP-1 Avionics Upgrade for 3 A/C	PT MOD	2016_161_AF6	DLS Implementation Project – Path 1 "Ground" stakeholders	NAV Portugal

Romania

Romania

Number of gaps	24	Current status of implementation	Already implemented	5	In progress / Planned	9	Not planned	10

ATM Functionality #1

Family	Gap coverage			Compl. Year	CEF Projects
1.1.1					
1.1.2					
1.2.1					
1.2.2					
1.2.3					
1.2.4					
1.2.5					

ATM Functionality #2

Family	Gap coverage			Compl. Year	CEF Projects
2.1.1					
2.1.2					
2.1.3					
2.1.4					
2.2.1					
2.3.1					
2.4.1					
2.5.1					
2.5.2					

ATM Functionality #3

Family	Gap coverage			Compl. Year	CEF Projects
3.1.1	✔			✔	
3.1.2	30%	70%	0%	Dec 2019	
3.1.3	0%	100%	0%	Dec 2019	
3.1.4	0%	85%	15%	Mar 2022	
3.2.1	✔			✔	
3.2.3	✔			✔	
3.2.4	✔			✔	

ATM Functionality #4

Family	Gap coverage			Compl. Year	CEF Projects
4.1.1					
4.1.2	0%	0%	100%	-	
4.2.2	0%	100%	0%	Dec 2021	
4.2.3	45%	10%	45%	-	
4.2.4					
4.3.1					
4.3.2	0%	0%	100%	-	
4.4.2	0%	0%	100%	-	

ATM Functionality #5

Family	Gap coverage			Compl. Year	CEF Projects
5.1.1					
5.1.2	20%	80%	0%	Dec 2020	Yes
5.2.1	✔			✔	
5.2.2	0%	0%	100%	Dec 2024	
5.2.3	0%	0%	100%	-	
5.3.1	0%	0%	100%	-	
5.4.1	0%	50%	50%	Dec 2024	Yes
5.5.1	0%	0%	100%	-	
5.6.1	0%	0%	100%	-	
5.6.2	0%	0%	100%	-	

ATM Functionality #6

Family	Gap coverage			Compl. Year	CEF Projects
6.1.1	60%	40%	0%	Feb 2018	
6.1.2	0%	0%	100%	-	
6.1.3	0%	100%	0%	Dec 2022	
6.1.4					
6.1.5					

For SWIM Governance related Families (namely 5.1.3 and 5.1.4), please refer to the outlook included in Section 2 of the Monitoring View 2017

List of CEF-funded initiatives awarded to Romanian Stakeholders

✔ Completed project

#134AF5	PILOT PLATFORM for access services to OPMET data (METAR, TAF, SIGMET) in WXXM format	ROMATSA	2015_174_AF5_B	NewPENS Stakeholders contribution for the procurement and deployment of NewPENS	ROMATSA

Slovak Republic

Slovak Republic

Number of gaps	26	Current status of implementation	Already implemented	4	In progress / Planned	13	Not planned	9

ATM Functionality #1

Family	Gap coverage			Compl. Year	CEF Projects
1.1.1					
1.1.2					
1.2.1					
1.2.2					
1.2.3					
1.2.4					
1.2.5					

ATM Functionality #2

Family	Gap coverage			Compl. Year	CEF Projects
2.1.1					
2.1.2					
2.1.3					
2.1.4					
2.2.1					
2.3.1					
2.4.1					
2.5.1					
2.5.2					

ATM Functionality #3

Family	Gap coverage			Compl. Year	CEF Projects
3.1.1	10%	90%	0%	Dec 2017	
3.1.2	10%	90%	0%	Dec 2017	
3.1.3	0%	100%	0%	Dec 2017	
3.1.4	75%	25%	0%	Dec 2020	Yes
3.2.1	35%	40%	25%	Dec 2025	
3.2.3	✓			✓	
3.2.4	0%	100%	0%	Jun 2019	Yes

ATM Functionality #4

Family	Gap coverage			Compl. Year	CEF Projects
4.1.1	✓			✓	
4.1.2	0%	100%	0%	Dec 2018	Yes
4.2.2	0%	100%	0%	Dec 2021	
4.2.3	0%	10%	90%	Dec 2022	
4.2.4					
4.3.1					
4.3.2	0%	0%	100%	-	
4.4.2	0%	50%	50%	-	Yes

ATM Functionality #5

Family	Gap coverage			Compl. Year	CEF Projects
5.1.1	✓			✓	
5.1.2	20%	80%	0%	Dec 2020	Yes
5.2.1	✓			✓	
5.2.2	0%	0%	100%	-	
5.2.3	0%	0%	100%	-	
5.3.1	0%	0%	100%	-	
5.4.1	0%	0%	100%	-	
5.5.1	0%	0%	100%	-	
5.6.1	0%	0%	100%	-	
5.6.2	0%	0%	100%	-	

ATM Functionality #6

Family	Gap coverage			Compl. Year	CEF Projects
6.1.1	0%	100%	0%	Dec 2019	
6.1.2	0%	0%	100%	-	
6.1.3	0%	65%	35%	Dec 2022	Yes
6.1.4					
6.1.5					

For SWIM Governance related Families (namely 5.1.3 and 5.1.4), please refer to the outlook included in Section 2 of the Monitoring View 2017

List of CEF-funded initiatives awarded to Slovakian Stakeholders

✓ Completed project

✓	#102AF3	Free Route Airspace from the Black Forest to the Black Sea	LPS SR	2016_075_AF3_B FAB CE wide Study of DAM and STAM – Cohesion Call	LPS SR
	2015_174_AF5_B	NewPENS Stakeholders contribution for the procurement and deployment of NewPENS	LPS SR	2016_141_AF5 Deploy SWIM governance	LPS SR
	2015_234_AF1_B	AMAN LOWW initial	LPS SR	2016_159_AF6 DLS Implementation Project – Path 2	LPS SR

Slovenia

Slovenia				
Number of gaps 26	**Current status of implementation**	**Already implemented** 4	**In progress / Planned** 12	**Not planned** 10

ATM Functionality #1

Family	Gap coverage			Compl. Year	CEF Projects
1.1.1					
1.1.2					
1.2.1					
1.2.2					
1.2.3					
1.2.4					
1.2.5					

ATM Functionality #2

Family	Gap coverage			Compl. Year	CEF Projects
2.1.1					
2.1.2					
2.1.3					
2.1.4					
2.2.1					
2.3.1					
2.4.1					
2.5.1					
2.5.2					

ATM Functionality #3

Family	Gap coverage			Compl. Year	CEF Projects
3.1.1	0%	100%	0%	Dec 2018	
3.1.2	0%	100%	0%	Dec 2021	
3.1.3	0%	100%	0%	Dec 2021	
3.1.4	0%	10%	90%	Dec 2020	Yes
3.2.1	15%	85%	0%	Dec 2021	
3.2.3	✓			✓	
3.2.4	✓			✓	

ATM Functionality #4

Family	Gap coverage			Compl. Year	CEF Projects
4.1.1	95%	5%	0%	May 2017	
4.1.2	0%	100%	0%	Dec 2021	
4.2.2	0%	0%	100%	-	
4.2.3	0%	100%	0%	Dec 2019	
4.2.4					
4.3.1					
4.3.2	0%	0%	100%	-	
4.4.2	0%	50%	50%	-	Yes

ATM Functionality #5

Family	Gap coverage			Compl. Year	CEF Projects
5.1.1	✓			✓	
5.1.2	20%	80%	0%	Dec 2020	Yes
5.2.1	✓			✓	
5.2.2	0%	0%	100%	-	
5.2.3	0%	0%	100%	-	
5.3.1	0%	0%	100%	-	
5.4.1	0%	0%	100%	-	
5.5.1	0%	0%	100%	-	
5.6.1	0%	0%	100%	-	
5.6.2	0%	0%	100%	-	

ATM Functionality #6

Family	Gap coverage			Compl. Year	CEF Projects
6.1.1	0%	100%	0%	Feb 2018	Yes
6.1.2	0%	100%	0%	Dec 2024	Yes
6.1.3	0%	0%	100%	-	
6.1.4					
6.1.5					

For SWIM Governance related Families (namely 5.1.3 and 5.1.4), please refer to the outlook included in Section 2 of the Monitoring View 2017

List of CEF-funded initiatives awarded to Slovenian Stakeholders

✓ Completed project

✓ #102AF3	Free Route Airspace from the Black Forest to the Black Sea	Slovenia Control	
2015_174_AF5_A	NewPENS Stakeholders contribution for the procurement and deployment of NewPENS	Slovenia Control	
2016_030_AF6	Air Ground Datalink Implementation	Slovenia Control	
2016_075_AF3_A	FAB CE wide Study of DAM and STAM – General Call	Slovenia Control	
2016_075_AF3_B	FAB CE wide Study of DAM and STAM – Cohesion Call	Fabce Ltd.	

Spain

Spain

Number of gaps	69	Current status of implementation	Already impl. 10	In progress / Planned 59

ATM Functionality # 1

Family	Barcelona El Prat			Madrid Barajas			Palma de Mallorca Son San Juan		
	Gap coverage	Compl. Year	CEF Projects	Gap coverage	Compl. Year	CEF Projects	Gap coverage	Compl. Year	CEF Projects
1.1.1	✓	✓		✓	✓		✓	✓	
1.1.2	15% 85% 0%	Dec 2023	Yes	50% 50% 0%	Dec 2023	Yes	0% 100% 0%	Dec 2023	Yes
1.2.1	0% 100% 0%	Dec 2020	Yes	0% 100% 0%	Dec 2020	Yes	85% 15% 0%	Jan 2018	Yes
1.2.2	85% 15% 0%	Dec 2017	Yes	85% 15% 0%	Dec 2017	Yes	85% 15% 0%	Dec 2017	Yes
1.2.3	0% 100% 0%	Dec 2023		0% 100% 0%	Dec 2023		0% 100% 0%	Dec 2023	
1.2.4									
1.2.5									

ATM Functionality # 2

Family	Barcelona El Prat			Madrid Barajas			Palma de Mallorca Son San Juan		
	Gap coverage	Compl. Year	CEF Projects	Gap coverage	Compl. Year	CEF Projects	Gap coverage	Compl. Year	CEF Projects
2.1.1	✓	✓		✓	✓		✓	✓	
2.1.2	20% 80% 0%	Dec 2019	Yes	20% 80% 0%	Dec 2019	Yes	20% 80% 0%	Dec 2019	Yes
2.1.3	✓	✓		✓	✓		✓	✓	
2.1.4	0% 100% 0%	Dec 2021		0% 100% 0%	Dec 2021		0% 100% 0%	Dec 2021	
2.2.1	30% 70% 0%	Dec 2019	Yes	30% 70% 0%	Dec 2019	Yes	30% 70% 0%	Dec 2019	Yes
2.3.1				0% 100% 0%	Dec 2023				
2.4.1	0% 100% 0%	Dec 2023		0% 100% 0%	Dec 2023		0% 100% 0%	Dec 2023	
2.5.1	0% 100% 0%	Dec 2020		0% 100% 0%	Dec 2020		0% 100% 0%	Dec 2020	
2.5.2	0% 100% 0%	Dec 2020		0% 100% 0%	Dec 2020		0% 100% 0%	Dec 2020	

ATM Functionality # 4 (Airport Gaps)

Family	Barcelona El Prat			Madrid Barajas			Palma de Mallorca Son San Juan		
	Gap coverage	Compl. Year	CEF Projects	Gap coverage	Compl. Year	CEF Projects	Gap coverage	Compl. Year	CEF Projects
4.2.4	0% 100% 0%	Dec 2021	Yes	0% 100% 0%	Dec 2021	Yes	0% 100% 0%	Dec 2021	Yes

ATM Functionality # 3

Family	Gap coverage	Compl. Year	CEF Projects
3.1.1	0% 100% 0%	Dec 2018	Yes
3.1.2	0% 100% 0%	Dec 2021	
3.1.3	0% 100% 0%	Dec 2021	
3.1.4	0% 100% 0%	Dec 2021	Yes
3.2.1	15% 85% 0%	Dec 2021	Yes
3.2.3	0% 100% 0%	Dec 2017	Yes
3.2.4	0% 100% 0%	Dec 2021	

ATM Functionality # 4 (Country Gaps)

Family	Gap coverage	Compl. Year	CEF Projects
4.1.1	0% 100% 0%	Jun 2018	Yes
4.1.2	0% 100% 0%	Dec 2021	
4.2.2	0% 100% 0%	Dec 2021	
4.2.3	35% 65% 0%	Dec 2021	
4.3.1			
4.3.2	0% 100% 0%	Dec 2021	
4.4.2	0% 100% 0%	Dec 2021	

ATM Functionality # 5

Family	Gap coverage	Compl. Year	CEF Projects
5.1.1	✓	✓	
5.1.2	20% 80% 0%	Dec 2020	Yes
5.2.1	0% 100% 0%	Dec 2020	Yes
5.2.2	0% 100% 0%	Dec 2024	Yes
5.2.3	0% 100% 0%	Dec 2024	Yes
5.3.1	0% 100% 0%	Dec 2024	Yes
5.4.1	0% 100% 0%	Dec 2024	
5.5.1	0% 100% 0%	Dec 2024	
5.6.1	0% 100% 0%	Dec 2024	
5.6.2	0% 5% 95%	Dec 2024	Yes

ATM Functionality # 6

Family	Gap coverage	Compl. Year	CEF Projects
6.1.1	0% 100% 0%	Feb 2018	
6.1.2	0% 100% 0%	Dec 2024	
6.1.3	0% 100% 0%	Dec 2022	Yes
6.1.4			
6.1.5			

For SWIM Governance related Families (namely 5.1.3 and 5.1.4), please refer to the outlook included in Section 2 of the Monitoring View 2017

SESAR DEPLOYMENT MANAGER

Spain							

| Number of gaps | 69 | Current status of implementation | Already impl. | 10 | | In progress / Planned | 59 |

List of CEF-funded initiatives awarded to Spanish Stakeholders ✓ Completed project

✓	#057AF2a	Fulfillment of the prerequisite EFS: Airport Integration and Throughput (Phase A)	ENAIRE	2016_027_AF5	European Deployment Roadmap for Flight Object Interoperability	ENAIRE
✓	#058AF2a	Fulfillment of the prerequisite A-SMGCS 2: Airport Integration and Throughput (Phase A)	ENAIRE	2016_035_AF5	ENAIRE exchange of Aeronautical Information Data in AIXM5.1	ENAIRE
	#059AF5	Implementation and operation of an IP-based G/G data communication network in ENAIRE	ENAIRE	2016_036_AF3	Deployment of SACTA-iTEC	ENAIRE
	#060AF1	ENAIRE reference geographic database (FT 1.2.2)	ENAIRE	2016_037_AF3	Deployment of LARA System in Spain	ENAIRE, Spanish Air Force
	#061AF1a	RNP APCH Implementation in Palma de Mallorca	ENAIRE	2016_038_AF5	Implementation of an IP-based G/G data communication network in ENAIRE (REDAN)	ENAIRE
	2015_174_AF5_A	NewPENS Stakeholders contribution for the procurement and deployment of NewPENS	ENAIRE	2016_039_AF4	STAM Phase 1 Implementation in Spain	ENAIRE
	2015_210_AF5	AMHS/SWIM gateway	ENAIRE	2016_040_AF3	Upgrade of trajectory management in SACTA-iTEC	ENAIRE
	2015_211_AF2	Fulfillment of the prerequisite A-SMGCS 2: Airport Integration and Throughput (2017-2019)	ENAIRE	2016_077_AF1	2016_077_AF1_ES FALCON 900 compliance with RNP 1 and RNP APCH	Spanish Air force
	2015_212_AF2	Fulfillment of the prerequisite EFS: Airport Integration and Throughput (2017-2019)	ENAIRE	2016_125_AF6	2016_125_AF6_ES Airbus A310 ATN VDL2 Compliance	Spanish Air Force
	2015_215_AF1	RNP APCH Implementation in Madrid and Barcelona	ENAIRE	2016_126_AF6	2016_126_AF6_ES FALCON 900 compliance with Air Ground ATN VDL2 Data Link	Spanish Air Force
	2015_221_AF3	Implementation of Voice over IP (VoIP) systems and services in ENAIRE	ENAIRE	2016_131_AF4	AOP-NOP Integration - Extended Implementation	AENA
	2015_271_AF1	CECAF RNP Procedures Design	Spanish Air Force	2016_141_AF5	Deploy SWIM governance	ENAIRE
	2015_272_AF1_AIR	CECAF RNP Procedures Implementation (Pilots and Flight operators courses)	Spanish Air Force	2016_159_AF6	DLS Implementation Project – Path 2	ENAIRE
	2015_272_AF1_GND	CECAF RNP Procedures Implementation (Pilots and Flight operators courses)	Spanish Air Force	2016_161_AF6	DLS Implementation Project – Path 1 "Ground" stakeholders	ENAIRE

SESAR DEPLOYMENT MANAGER

Sweden

Sweden

Number of gaps	39	Current status of implementation	Already implemented: 7	In progress / Planned: 28	Not planned: 4

ATM Functionality #1

Family	Gap coverage			Compl. Year	CEF Projects
1.1.1	✔		✔		
1.1.2	0%	100%	0%	Dec 2022	Yes
1.2.1	0%	100%	0%	Dec 2022	Yes
1.2.2	65%	35%	0%	Dec 2019	Yes
1.2.3	0%	100%	0%	Dec 2020	Yes
1.2.4					
1.2.5	0%	0%	100%	-	

ATM Functionality #2

Family	Gap coverage			Compl. Year	CEF Projects
2.1.1	0%	100%	0%	Dec 2018	Yes
2.1.2	✔		✔		
2.1.3	45%	55%	0%	Dec 2018	Yes
2.1.4	0%	100%	0%	Dec 2020	Yes
2.2.1	0%	100%	0%	Dec 2019	Yes
2.3.1					
2.4.1	0%	100%	0%	Dec 2020	Yes
2.5.1	0%	100%	0%	Dec 2020	Yes
2.5.2	0%	100%	0%	Dec 2020	Yes

ATM Functionality #3

Family	Gap coverage			Compl. Year	CEF Projects
3.1.1	0%	100%	0%	Dec 2018	
3.1.2	0%	100%	0%	Dec 2021	
3.1.3	0%	100%	0%	Dec 2021	
3.1.4	90%	10%	0%	Dec 2020	Yes
3.2.1	75%	15%	10%	Dec 2021	Yes
3.2.3	✔		✔		
3.2.4	✔		✔		

ATM Functionality #4

Family	Gap coverage			Compl. Year	CEF Projects
4.1.1					
4.1.2	0%	0%	100%	Dec 2021	
4.2.2	0%	0%	100%	-	
4.2.3	75%	0%	25%	Dec 2021	
4.2.4	0%	100%	0%	Dec 2020	Yes
4.3.1					
4.3.2	0%	0%	100%	-	
4.4.2	✔		✔		

ATM Functionality #5

Family	Gap coverage			Compl. Year	CEF Projects
5.1.1	✔		✔		
5.1.2	20%	80%	0%	Dec 2020	Yes
5.2.1	55%	45%	0%	Dec 2020	Yes
5.2.2	0%	100%	0%	Dec 2024	Yes
5.2.3	0%	100%	0%	Dec 2024	Yes
5.3.1	0%	20%	80%	Dec 2020	Yes
5.4.1	0%	30%	70%	-	Yes
5.5.1	0%	30%	70%	Dec 2024	Yes
5.6.1	0%	100%	0%	Dec 2024	
5.6.2	0%	5%	95%	-	Yes

ATM Functionality #6

Family	Gap coverage			Compl. Year	CEF Projects
6.1.1	✔		✔		
6.1.2	0%	0%	100%	Dec 2024	
6.1.3	0%	30%	70%	Dec 2022	Yes
6.1.4					
6.1.5					

For SWIM Governance related Families (namely 5.1.3 and 5.1.4), please refer to the outlook included in Section 2 of the Monitoring View 2017

AF1, AF2, and Family 4.2.4 to be implemented in Stockholm Arlanda

List of CEF-funded initiatives awarded to Swedish Stakeholders

✔ Completed project

✔	#020AF3	Borealis Free Route Airspace (Part 1)	LFV	2015_291_AF2	A-SMGCS Level 2 implementation	Swedavia
	#104AF1	Lower Airspace Optimization	LFV	2015_292_AF2	DMAN Stockholm Arlanda Airport	Swedavia
	#136AF2	A-CDM Optimization	Swedavia	2015_294_AF2	Implementation of OTP	Swedavia
	#137AF2	Enhancement of Airport Safety Nets at Stockholm Arlanda Airport	Swedavia	2015_309_AF1_AIR	Implementation of GBAS (operation in the Flights Operations Dept and training of flight crew)	Nova Airlines AB
	2015_025_AF5_A	Sub-regional SWIM MET deployment to support NEFRA (part A)	Swedish Meteorological and Hydrological Institute (SMHI)	2015_309_AF1_GND	Implementation of GBAS (operation in the Flights Operations Dept and training of flight crew)	Nova Airlines AB
	2015_098_AF5	Implementing redundant WAN	LFV	2015_320_AF3	Implementation of VoIP	LFV
	2015_099_AF5	DK-SE FAB Aeronautical Data Quality (ADQ)	LFV	2016_027_AF5	European Deployment Roadmap for Flight Object Interoperability	LFV
	2015_118_AF5	More efficient Flight Planning	LFV	2016_131_AF4	AOP-NOP Integration - Extended Implementation	Swedavia
	2015_174_AF5_A	NewPENS Stakeholders contribution for the procurement and deployment of NewPENS	LFV	2016_141_AF5	Deploy SWIM governance	LFV
	2015_207_AF3_A	Harmonisation of Tech ATM Platform in 5 ANSP including support of FRA and preparation of PCP	LFV	2016_150_AF2	Enablers for Airport Surface Movement related to Safety Nets	Swedavia
	2015_227_AF3_A	Borealis FRA Implementation (Part 2)	LFV	2016_159_AF6	DLS Implementation Project – Path 2	LFV
	2015_288_AF5	ADQ implementation Stockholm Arlanda	Swedavia	2016_161_AF6	DLS Implementation Project – Path 1 "Ground" stakeholders	LFV
	2015_290_AF2	Initial AOP	Swedavia	2016_166_AF1	Stockholm Arlanda Airport RNP Project (SAARP)	Swedavia, Nova Airlines AB

SESAR DEPLOYMENT MANAGER

Switzerland

Switzerland

Number of gaps	41	Current status of implementation	Already implemented	In progress / Planned	Not planned
			17	17	7

ATM Functionality #1

Family	Gap coverage			Compl. Year	CEF Projects
1.1.1	✓			✓	
1.1.2	0%	100%	0%	Oct 2017	Yes
1.2.1	✓			✓	
1.2.2	✓			✓	
1.2.3	✓			✓	
1.2.4					
1.2.5	0%	0%	100%	-	

ATM Functionality #2

Family	Gap coverage			Compl. Year	CEF Projects
2.1.1	✓			✓	
2.1.2	✓			✓	
2.1.3	✓			✓	
2.1.4	✓			✓	
2.2.1	✓			✓	
2.3.1	0%	0%	100%	-	
2.4.1	0%	100%	0%	Dec 2020	
2.5.1	0%	100%	0%	Dec 2018	
2.5.2	0%	0%	100%	-	

ATM Functionality #3

Family	Gap coverage			Compl. Year	CEF Projects
3.1.1	✓			✓	
3.1.2	0%	100%	0%	Dec 2020	
3.1.3	0%	0%	100%	-	
3.1.4	55%	0%	45%	-	
3.2.1	50%	25%	25%	-	
3.2.3	✓			✓	
3.2.4	0%	100%	0%	Dec 2022	

ATM Functionality #4

Family	Gap coverage			Compl. Year	CEF Projects
4.1.1	✓			✓	
4.1.2	0%	100%	0%	Dec 2021	
4.2.2	✓			✓	
4.2.3	75%	0%	25%	Dec 2019	
4.2.4	0%	100%	0%	-	
4.3.1					
4.3.2	0%	0%	100%	-	
4.4.2	✓			✓	

ATM Functionality #5

Family	Gap coverage			Compl. Year	CEF Projects
5.1.1	✓			✓	
5.1.2	0%	100%	0%	Dec 2019	
5.2.1	✓			✓	
5.2.2	0%	100%	0%	Sep 2017	
5.2.3	0%	100%	0%	Sep 2017	
5.3.1	0%	100%	0%	-	
5.4.1	0%	0%	100%	-	
5.5.1	0%	0%	100%	-	
5.6.1	0%	100%	0%	-	
5.6.2	0%	20%	80%	-	

ATM Functionality #6

Family	Gap coverage			Compl. Year	CEF Projects
6.1.1	✓			✓	
6.1.2	0%	0%	100%	-	
6.1.3	30%	0%	70%	-	
6.1.4					
6.1.5					

For SWIM Governance related Families (namely 5.1.3 and 5.1.4), please refer to the outlook included in Section 2 of the Monitoring View 2017

AF1, AF2, and Family 4.2.4 to be implemented in Zurich Kloten

There are currently no CEF funded projects awarded to Swiss Stakeholders

United Kingdom

United Kingdom

Number of gaps	85	Current status of implementation	Already implemented	22	In progress / Planned	53	Not planned	10

ATM Functionality #1

Family	London Gatwick Gap coverage	Compl. Year	CEF Projects	London Heathrow Gap coverage	Compl. Year	CEF Projects	London Stansted Gap coverage	Compl. Year	CEF Projects	Manchester Ringway Gap coverage	Compl. Year	CEF Projects
1.1.1	✔	✔		✔	✔		0% 60% 40%	Dec 2021		0% 100% 0%	Dec 2021	
1.1.2	0% 100% 0%	Dec 2023		✔	✔		0% 0% 100%	Dec 2023		0% 0% 100%	Dec 2023	Yes
1.2.1	50% 0% 50%	Dec 2020		0% 100% 0%	Dec 2019		50% 0% 50%	Dec 2019		0% 100% 0%	Dec 2020	Yes
1.2.2	✔	✔		✔	✔		✔	✔		✔	✔	
1.2.3	0% 100% 0%	Dec 2023	Yes	50% 50% 0%	Dec 2023	Yes	50% 50% 0%	Dec 2023	Yes	0% 100% 0%	Dec 2023	Yes
1.2.4												
1.2.5	0% 0% 100%	-		0% 0% 100%	-		0% 0% 100%	-		0% 0% 100%	-	

ATM Functionality #2

Family	London Gatwick Gap coverage	Compl. Year	CEF Projects	London Heathrow Gap coverage	Compl. Year	CEF Projects	London Stansted Gap coverage	Compl. Year	CEF Projects	Manchester Ringway Gap coverage	Compl. Year	CEF Projects
2.1.1	✔	✔		✔	✔		0% 100% 0%	Dec 2023		0% 0% 100%	-	
2.1.2	30% 70% 0%	Sep 2019	Yes	30% 70% 0%	Sep 2019	Yes	30% 70% 0%	Sep 2019	Yes	✔	✔	
2.1.3	✔	✔		✔	✔		0% 100% 0%	Dec 2020	Yes	0% 100% 0%	Dec 2020	
2.1.4	0% 100% 0%	Dec 2021	Yes	95% 5% 0%	Jul 2017	Yes	0% 100% 0%	Dec 2021		0% 100% 0%	Dec 2020	
2.2.1	✔	✔		30% 70% 0%	May 2018	Yes	✔	✔		0% 100% 0%	Dec 2020	Yes
2.3.1	90% 0% 10%	Dec 2023	Yes	✔	✔					0% 0% 100%	-	
2.4.1	0% 100% 0%	Dec 2020	Yes	0% 100% 0%	Nov 2020		0% 0% 100%	-		0% 100% 0%	Dec 2023	Yes
2.5.1	0% 100% 0%	Dec 2020	Yes	0% 100% 0%	Dec 2018	Yes	0% 15% 85%	-		0% 100% 0%	Dec 2020	Yes
2.5.2	0% 0% 100%	-		0% 100% 0%	Nov 2018		0% 100% 0%	Dec 2017	Yes	0% 100% 0%	Dec 2020	Yes

ATM Functionality #4 (Airport Gaps)

Family	London Gatwick Gap coverage	Compl. Year	CEF Projects	London Heathrow Gap coverage	Compl. Year	CEF Projects	London Stansted Gap coverage	Compl. Year	CEF Projects	Manchester Ringway Gap coverage	Compl. Year	CEF Projects
4.2.4	0% 0% 100%	-		0% 100% 0%	Dec 2021	Yes	0% 0% 100%	-		0% 0% 100%	-	

ATM Functionality #3

Family	Gap coverage	Compl. Year	CEF Projects
3.1.1	✔	✔	
3.1.2	0% 100% 0%	Dec 2020	Yes
3.1.3	0% 100% 0%	Dec 2021	
3.1.4	0% 100% 0%	Dec 2021	Yes
3.2.1	0% 100% 0%	Dec 2021	Yes
3.2.3	✔	✔	
3.2.4	0% 100% 0%	Dec 2021	Yes

ATM Functionality #4 (Country Gaps)

Family	Gap coverage	Compl. Year	CEF Projects
4.1.1	✔	✔	
4.1.2	0% 100% 0%	Dec 2021	Yes
4.2.2	✔	✔	
4.2.3	75% 0% 25%	Dec 2021	
4.3.1			
4.3.2	0% 100% 0%	-	
4.4.2	0% 100% 0%	Dec 2020	

ATM Functionality #5

Family	Gap coverage	Compl. Year	CEF Projects
5.1.1	✔	✔	
5.1.2	20% 80% 0%	Dec 2020	Yes
5.2.1	✔	✔	
5.2.2	0% 100% 0%	Dec 2020	Yes
5.2.3	0% 100% 0%	Dec 2020	Yes
5.3.1	0% 100% 0%	Dec 2020	Yes
5.4.1	0% 100% 0%	Dec 2020	Yes
5.5.1	0% 100% 0%	Dec 2020	Yes
5.6.1	0% 100% 0%	Dec 2020	
5.6.2	0% 5% 95%	-	Yes

ATM Functionality #6

Family	Gap coverage	Compl. Year	CEF Projects
6.1.1	✔	✔	
6.1.2	0% 0% 100%	-	
6.1.3	0% 100% 0%	Dec 2022	
6.1.4			
6.1.5			

For SWIM Governance related Families (namely 5.1.3 and 5.1.4), please refer to the outlook included in Section 2 of the Monitoring View 2017

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United Kingdom

Number of gaps	85	Current status of implementation	Already implemented	In progress / Planned	Not planned
			22	53	10

List of CEF-funded initiatives awarded to British Stakeholders

✔ Completed project

✔	#020AF3	Borealis Free Route Airspace (Part 1)	NATS	2015_113_AF4	AOP-NOP Integration	London Heathrow
	#091AF1	Enhanced Terminal Airspace (TMA) using RNP- Based Operations	London Gatwick	2015_137_AF5	European Meteorological Aircraft Derived Data Center (EMADDC)	UK Met Office
	#092AF2	Enhanced Departure Management integrating airfield surface assets	London Gatwick	2015_174_AF5_A	NewPENS Stakeholders contribution for the procurement and deployment of NewPENS	NATS
✔	#094AF2	Time-based separation for Final Approach	London Gatwick	2015_227_AF3_A	Borealis FRA Implementation (Part 2)	NATS
✔	#097AF2	Time Based Separation	London Heathrow, British Airways, NATS	2015_269_AF3	Mil MTCD Advanced Controller Tools (FOURSIGHT)	UK MOD
	#099AF2	Initial Airport Operational Plan (AOP)	London Heathrow	2015_286_AF2	Introduction of Electronic Flight Strips	NATS
✔	#100AF2	Airport Safety Nets associated with A-SMGCS Level 2 – Preparation for SMAN	London Heathrow	2015_298_AF2	A-SMGCS upgrade to provide airport safety nets and routing & planning functions	London Gatwick
	#117AF5	Implementation of Initial SWIM Capability (AF5) across NATS	NATS	2015_299_AF2	Integrated Ground Management (GMAN)	London Gatwick
	#119AF1	Manchester TMA Re-Development	NATS	2016_027_AF5	European Deployment Roadmap for Flight Object Interoperability	NATS
✔	#120AF1a	London Airspace Management Programme (LAMP) (Part A)	NATS, London Heathrow	2016_041_AF2	Basic A-CDM implementation at London Stansted Airport	London Stansted
✔	#120AF1b	London Airspace Management Programme (LAMP) (Part B)	British Airways	2016_042_AF1	Enhanced Terminal Airspace using RNP Based Operations at STN	London Stansted
	2015_016_AF2	ASMGCS Level 1 & 2	London Heathrow	2016_141_AF5	Deploy SWIM governance	NATS
	2015_060_AF2	Airport Operating Plan AOP	London Heathrow	2016_150_AF2	Enablers for Airport Surface Movement related to Safety Nets	London Stansted, Manchester Ringway
	2015_067_AF5	European Weather Radar Composite of Convection Information Service	UK Met Office	2016_159_AF6	DLS Implementation Project – Path 2	Arinc, NATS
	2015_068_AF5	European Harmonised Forecasts of Adverse Weather (Icing, Turbulence, Convection and Winter weather)	UK Met Office	2016_161_AF6	DLS Implementation Project – Path 1 "Ground" stakeholders	Arinc
	2015_069_AF5	European MET Information Exchange (MET-GATE)	UK Met Office			

List of Acronyms

Acronym	Meaning
A-CDM	Airport – Collaborative Decision Making
AF	ATM Functionality
AFUA	Advanced Flexible Use of Airspace
AMAN	Arrival Manager
ANSP	Air Navigation Service Provider
ASM	AirSpace Management
A-SMGCS	Advanced Surface Movement Guidance and Control Systems
ATFCM	Air Traffic Flow and Capacity Management
ATM	Air Traffic Management
ATN	Aeronautical Telecommunication Network
ATSP	Air Traffic Service Provider
AU	Airspace Users
CEF	Connecting Europe Facility
DCT	Direct Routings
DLS	Data Link Services
DMAN	Departure Management
DP	Deployment Programme
ECAC	European Civil Aviation Conference
EDA	European Defence Agency
EFS	Electronic Flight Strips
EPP	Extended Project Profile
ERNIP	European Route Network Improvement Plan
EU	European Union
FPA	Framework Partnership Agreement
FRA	Free Route Airspace
iAOP	Initial Airport Operations Plan
NM	Network Manager
NOP	Network Operations Plan
PBN	Performance Based Navigation
PCP	Pilot Common Project
PENS	Pan European Network Service
PKI	Public Key Infrastructure
RNP	Required Navigation Performance
SESAR	Single European Sky ATM Research
SJU	SESAR Joint Undertaking
STAM	Short Term ATFCM Measures
SWIM	System Wide Information Management
TBS	Time Based Separation
TMA	Terminal Manoeuvring Area

Notes

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