SESAR DEPLOYMENT MANAGER

SESAR Deployment Programme

MONITORING VIEW 2021

Delivering ATM modernisation in Europe together

Funded by the European Union

SDP Monitoring View 2021

Guidance Material for SESAR Deployment Programme Implementation

Proposal for European Commission

FPA MOVE/E2/2014-717/SESAR FPA
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Control

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Introduction

What is the Monitoring View?

Since its first edition, the yearly releases of the SESAR Deployment Programme Monitoring View have represented the single point of truth for collecting and reporting the most detailed information on the status of the Common Projects, the cornerstone of SESAR Deployment in Europe since 2014, supporting the implementation of the European Air Traffic Management Master Plan.

The Pilot Common Project (PCP) Regulation (EU) 716/2014 was the reference for the elaboration of the SDP Monitoring View reports until its 2020 Edition. The adoption by European Commission in February 2021 of the Implementing Regulation no. 2021/116, Common Project One (CP1), amending Commission Implementing Regulation (EU) 409/2013 and repealing PCP Commission Implementing Regulation (EU) 716/2014, as well as the subsequent elaboration of the SESAR Deployment Programme (SDP) 2021, mark all together a key step towards a new Deployment Phase of SESAR.

The SDP 2021 acts as the common reference workplan to ensure local investments are fully coordinated and harmonised at European level, encompassing all information, roadmaps, references and guidance for stakeholders involved in the CP1 implementation. It was delivered, after a long and extensive consultation with the ATM community, to DG MOVE in July 2021. The formal approval from the EU College of Commissionaires is expected in 2022.

CP1 and the SDP 2021 are the references for this edition of the SDP Monitoring View 2021. In fact, this SDP Monitoring View 2021 is of particular importance, as it shows, for the very first time, the status of implementation of CP1 Regulation as of December 2021.

This report:

- **helps stakeholders to coordinate their future investments, whilst also identifying potential delays and avoiding significant gaps towards the full CP1 implementation;**
- **brings together ground and airborne-related information, providing an updated snapshot of the current status of implementation;**
- **provides several views to show the overall progress of deployment, the progress of specific technological or operational elements, the status of individual stakeholders and detailed overviews on a country-basis.**

More than seven years after the beginning of this Deployment Phase, the modernisation of the European ATM systems and infrastructure is progressing towards an operational reality. More importantly, it is already delivering its expected performance benefits to the Aviation community, to its stakeholders and in turn to European passengers. The continuous commitment of the operational stakeholders on this modernisation journey, attested by the deployment progress achieved within the new CP1 regulatory framework, is decisive also considering that the COVID-19 crisis has continued to significantly impact the deployment activities in the analysed monitoring period.

In order to better streamline and synchronise 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 SDP, allowing for a comprehensive understanding of how deployment is moving, and tracking the overall progress of the CP1 implementation.

More specifically, any effective effort towards synchronisation of the CP1 deployment has to rely on the monitoring of all implementation initiatives launched by operational stakeholders impacted by the CP1: such monitoring is not only limited to Implementation Projects performed under SDM coordination and benefitting of EU funding support, but also involves any other deployment activities undertaken by local stakeholders and aiming at implementing technological and/or operational elements within the SESAR Deployment Programme scope, helping to comply with the requirements set forth by the Regulation (EU) n. 2021/116.

Figure 1 - The SESAR Deployment Programme and the associated Guidance Material

Monitoring the full picture of the SDP deployment also allows the identification of those activities that still need to be undertaken to achieve the full CP1 implementation across Europe, also ensuring the adequate level of involvement of the requested stakeholder categories. Finally, a continuous analysis of the implementation progress allows to further investigate and evaluate the impact of external factors and crisis like the one endured by the Aviation sector in 2020 as well as in 2021, as a result of the COVID-19 pandemic.

Collecting information from the relevant operational stakeholders allows to build dedicated views per stakeholder (i.e., what's left for each stakeholder to do to comply with the CP1 Regulation), and the overall status of the implementation gap (what's left in the specific airport or country to fully implement the Family).

The 2021 Monitoring View is therefore organised into the following sections:

- **Section 1, which provides a high-level overview of the status of CP1 deployment in Europe**. Specifically, it identifies all activities that have already been completed, those currently in progress and/or planned, as well as the main implementation areas that still need to start. On the basis of the inputs gathered during the Monitoring Exercise from the operational stakeholders, this section also provides the expected deployment roadmap towards the full CP1 implementation;
- **Section 2, which provides the full detailed picture of the implementation status of CP1 – clustered by Family – in each airport or country, whilst also presenting a dedicated view per stakeholder category for ground stakeholders**;
- the document is finally 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 CP1 Implementation within each country included in the geographical scope of Regulation (EU) n. 2021/116;
- the Appendix also lists the relevant **SDM-coordinated Implementation Projects** contributing to move the deployment forward within each country.

Considering the massive impact of COVID-19 crisis upon European ATM stakeholders and on their capability to invest and carry on the modernisation activities required by the Common Project 1, the Monitoring Exercise entailed the request to provide information related to the COVID-19 to track the evolution and status of the impacts. **The main outcomes are included within section "COVID-19 impacts on CP1 deployment".**

These inputs support the preparation of the overall roadmap toward full deployment, at Family, AF, and CP1 level, thus building a high-level plan to meet the Regulation deadline and timely detect any deviation from the optimum planning or potential implementation delays.

Finally, **stakeholders have been asked for additional information on technological elements considered as more strategic or deserving particular attention due to their features or characteristics**. Such integrations focus on the following Families:

- **1.1.1** – Arrival Management Extended to en-route Airspace – view per ACC involved;
- **3.2.2** – Enhanced Free Route Airspace Operations – details on FRA implementation;
- AF5 Families addressing the implementation of SWIM-based services, namely:
  - **5.3.1** – Aeronautical Information Exchange services:
    - Airspace Structure Service;
    - Airspace Availability Service;
    - ARES;
    - Digital NOTAM Service;
    - Digital Aerodrome Mapping information Exchange;
    - Aeronautical Information Features Exchange.
  - **5.4.1** – Meteorological Information Exchange services:
    - Volcanic Ash Mass Concentration Information Service;
    - Aerodrome Meteorological Information Service;
    - En-Route and Approach Meteorological information Service;
    - Network Meteorological Information Service.
  - **5.5.1** – Cooperative Network Information Exchange services:
    - ATFCM Tactical Updates Service (Airport Capacity and Enroute);
    - Flight Management Service;
    - Measures Service;
    - Short Term ATFCM Measures Services (MCDM, eHelpdesk, STAM measures);
    - Counts service (ATFCM congestion points).
  - **5.6.1** – Flight Information Exchange services:
    - Filing Service;
    - Flight Data Request Service;
    - Notification Service;
    - Data Publication Service;
    - Trial Service.

As a result, specific tables complement the charts at Family level included in Section 2.

Key principles underpinning the SDM Monitoring Exercise

The elaboration, maintenance and periodic update of a consistent view on the status of implementation of all technological and operational elements included within the CP1 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.

In fact, a dedicated exercise is required to support the gathering of such an extensive amount of data and ensuring the adequate level of detail to support and steer the synchronisation of the deployment efforts and investments across Europe. This exercise was carefully designed to be performed on a yearly basis, to engage all operational stakeholders, making sure that all relevant information is correctly harnessed and considered.

With the aim to monitor all CP1 implementation activities in Europe, either with or without CEF funding support, information has been collected and assessed from all operational stakeholders (ANSPs, AISPs, Airport Operators, Airspace Users, Network Manager, MET providers and Military), on the status of the relevant Deployment Milestones as defined by the SDP 2021.

The technical/operational elements to be deployed, as well as the geographical location (e.g. airport or country[1]) where the Family shall be deployed are defined as *implementation gaps* - representing what is deemed necessary to ensure the complete and timely implementation of the related Family, Sub-AF, AF and then of the overall CP1. An implementation gap is defined by the combination of the technical / operational elements to be deployed (i.e. the Families) and the geographical location where it shall be deployed (i.e., an airport or a country). According to the provisions of CP1 Regulation and of the SESAR Deployment Programme, there are also specific Families whose implementation is also mandatory for Airspace Users and for the Network Manager.

According to the scope and provisions of the SESAR Deployment Programme, the CP1 implementation gaps are clustered into 2 key categories, on the basis of their geographical scopes: the ground gaps (airport gaps, country gaps, NM gaps and EU-wide gaps) and airborne gaps for Airspace Users.

Due to the specific features of the SDP Family 5.1.1 - Common SWIM PKI and cybersecurity and their purpose of deploying SWIM Common components, the monitoring of the related deployment activities is reported with a single and coordinated EU-wide approach.

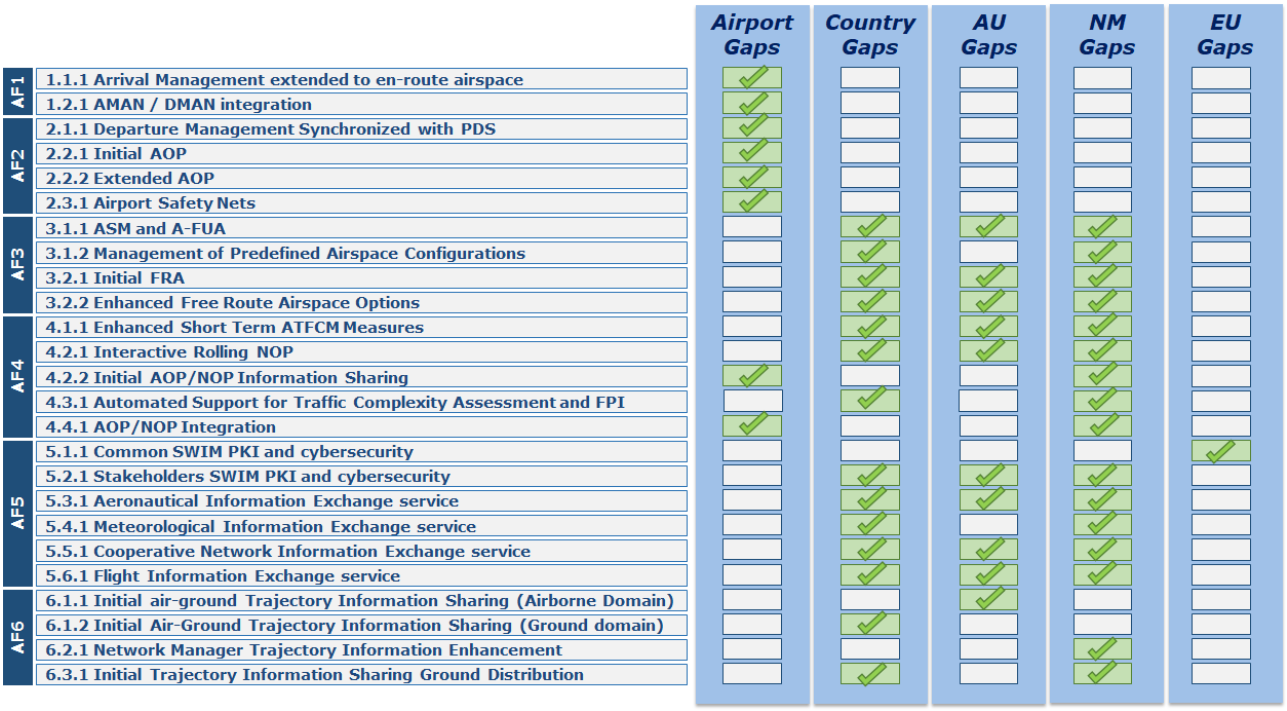


Figure 2 - Impacted stakeholder Category for each ATM functionality

To measure the status of each CP1 gap, the status of specific Deployment Milestones (DMs) that would lead to the full deployment of a specific Family is monitored and assessed. Thanks to the updated edition of the SESAR Deployment Programme and the cooperation with EUROCONTROL, these Deployment Milestones are now fully matching with the stakeholders' Lines of Action (SLOAs), as included in the latest edition of the ATM MP Level 3. Depending on its nature, scope and relevance, each milestone has been assigned with a specific weight to ensure progress is adequately tracked.

It has to be noted that the current monitoring exercise process of data collection has been simplified to reduce the work on stakeholders' side. The usage of the Local Single Sky ImPlementation (LSSIP+) tool on ground side and the renovated templates for Airspace Users have both increased the quality of the data gathered and simplified the reporting duties for operational stakeholders.

The need for operational stakeholders to participate to multiple reporting cycles has been a long-standing issue for several years. From this last monitoring exercise, thanks to the adoption of the Common Project

[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.

1, the elaboration of the new SESAR Deployment Programme 2021 and the intense cooperation between EUROCONTROL and the SDM, the issue has finally been overcome for all ground gaps achieving a single unified reporting via the use of LSSIP+ tool.

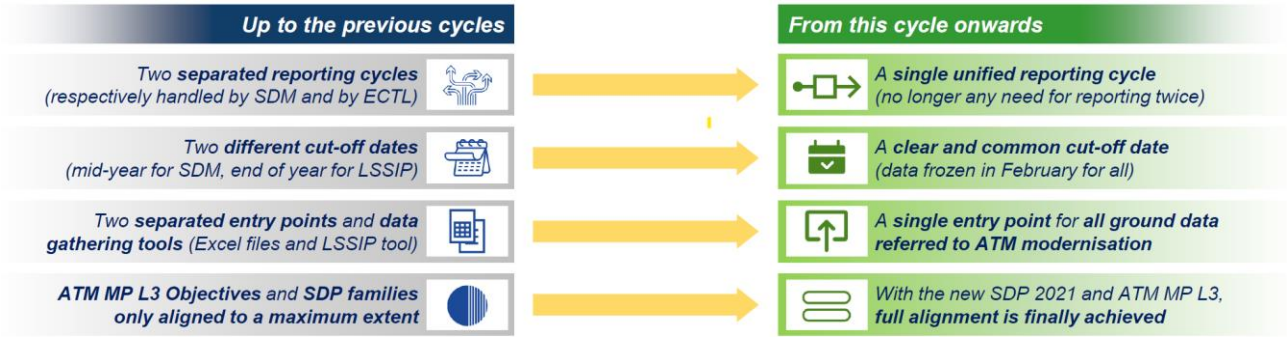


Figure 3 - Key enhancements occurred in the current Monitoring Exercise

Building on the work started in the last years, SDM and EUROCONTROL will continue to perform their own tasks, producing their respective documents (namely, SDP Monitoring View and LSSIP documents) but stakeholders will now report only once, saving time and resources and ensuring full consistency of data across all reports.

As a key result, for the monitoring of CP1, the SDP Monitoring View is fed by the same data of the LSSIP reports.

To ensure the reporting activities linked to the CP1 and SESAR Deployment Programme are smoothly and easily manageable on LSSIP+, the associated taxonomy has been fully integrated into the LSSIP+ database:

- matching Families and Objectives are clearly shown in the tool, both with regard to titles and numbering;
- thanks to the alignment between SDP and ATM MP L3, every DM has a corresponding SLOA;
- codes and names of the Deployment Milestones are also clearly visible on the tool.

To increase the quality and reliability of collected data, stakeholders had the possibility to mark on the LSSIP+ tool the connection between the SDM coordinated projects and the SDP Families, bridging the CP1 implementation monitoring and the CEF-funded projects coordination.

As the implementation of the SESAR Deployment Programme goes beyond the local ground deployment but it also requires the contribution of Civil and Military Airspace Users and the Network Manager, the CP1 monitoring activities performed on the LSSIP+ tool have been complemented with additional data gathering tools and instruments with the objective to involve all required operational stakeholders and organisations:

- Network Manager; according to the SESAR Deployment Programme, the Network Manager is required to upgrade its systems and procedures to enable the full implementation of CP1 requirements across Europe (especially for AF3 to AF6). Thanks to its strict long-standing cooperation with the SDM, NM has continued to directly provide the relevant information about its CP-related modernisation activities via a dedicated template;

- Civil and Military Airspace Users; AUs are actively contributing to the implementation of, AF3, AF4, AF5 and AF6; the synchronisation between ground and airborne investments is a key enabler for accelerating deployment and improving performances; data and information about current and planned activities from AUs have been collected through dedicated templates. With regards to Military AUs, the European Defence Agency has facilitated the collection of data.

Considering the role of SDM as coordinator of 8[2] Implementation Actions directly contributing to the deployment of the former Pilot Common Project and current Common Project One under the SESAR Deployment Framework Partnership Agreement, the data gathered from stakeholders is complemented with information and updates stemming from 341 Implementation Projects currently under SDM direct oversight and coordination. This results in a thorough consistency assessment and cross-check of information received, to be performed cooperatively with the involved operational stakeholders.

[2] Including the following four Actions which came to their contractual ends: 2015 CEF Call – Cluster 1 on 31/12/2019, 2014 CEF Call on 31/12/2020, 2015 CEF Call – Cluster 3 and 2016 CEF Call – Cluster 2 on 31/12/2021,

The following Figure shows the timeline of the gathering and validation process of the data provided by the operational stakeholders in the current Monitoring Exercise.

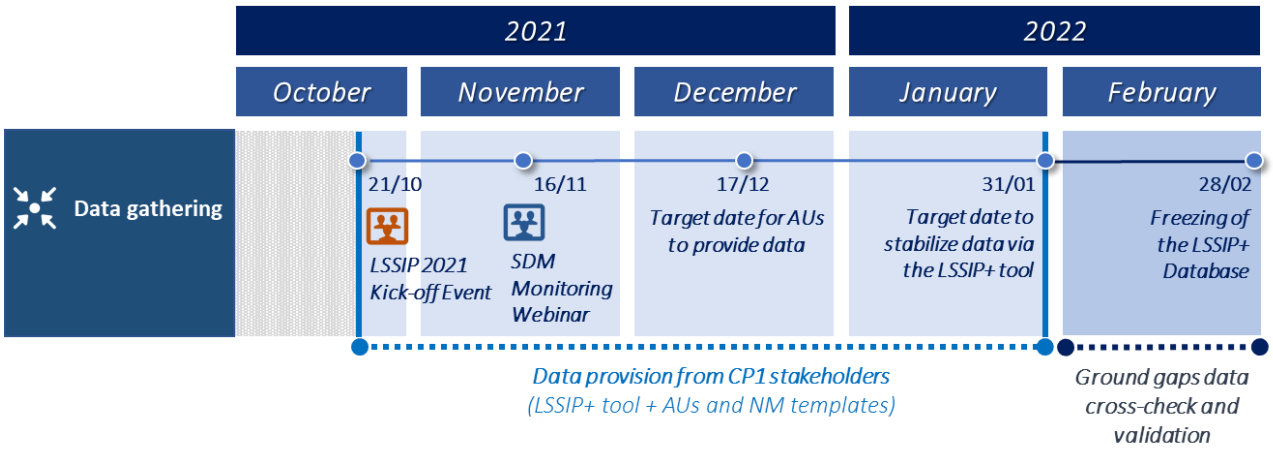


Figure 4 - Timeline of the data gathering and validation

With the aim to support the operational stakeholders in their reporting efforts through this more efficient approach, a webinar has been organised on the 16th of November 2021 to explain the 2021 Monitoring Exercise. The webinar consisted in the presentations by SDM members, with support from EUROCONTROL, of the overall process, the data gathering for the ground gaps via LSSIP+ with practical examples, the template details for Airspace Users and the final elaboration process of this document. It was concluded with a session of Questions and Answers to solve the outstanding concerns and followed by the distribution of Guidance Material to all stakeholders involved in the reporting for additional support.

Performance benefits delivered by SDM-coordinated Implementation Projects

SDM currently coordinates the execution of **341 Implementation Projects** (**229 already closed** at the current date), spread over **the 6 ATM functionalities** of the **Common Project One** plus other technical functionalities removed from the scope of the Regulation, which were present in the Pilot Common Project, such as Performance Based Navigation (PBN) or Trajectory Based Separation (TBS). The deployment activities engage 93 beneficiaries, across 26 EU Member States and 7 Third Countries.

Thanks to this coordination role, the SDM is in the position of assessing and evaluating how these Implementation Projects support the progress of CP1 implementation as a whole by closing specific implementation gaps. The availability of such information – directly coming from the coordination and synchronisation of the actual implementation initiatives – supports the definition of a more reliable picture of the current deployment status, as well as its constant update to reflect the latest deployment achievements.

Moreover, this detailed information and the granularity of the collected data allows to measure the direct performance contribution to ATM brought by the deployment of the CP1, especially for SDM coordinated activities. Performance improvements stemming from the first 229 Implementation Projects closed have been measured, in particular with regards to key performance areas: capacity, operational efficiency, service costs, environment, safety and security.

The charts below provide a quick overview of the most relevant **performance benefits for the first 229 Implementation Projects, in terms of passenger´s time and on the environment**: they sum up to a total of **€4.7 billion until 2030**. **Cumulated benefits until 2030** for the 341 Implementation Projects **(€12 billion estimated**, to be updated in the next Execution Progress Report by the end of 2022) and for the **CP1** (**€15.7 billion** as referenced in the CP1 CBA from February 2021) are also represented on the chart.

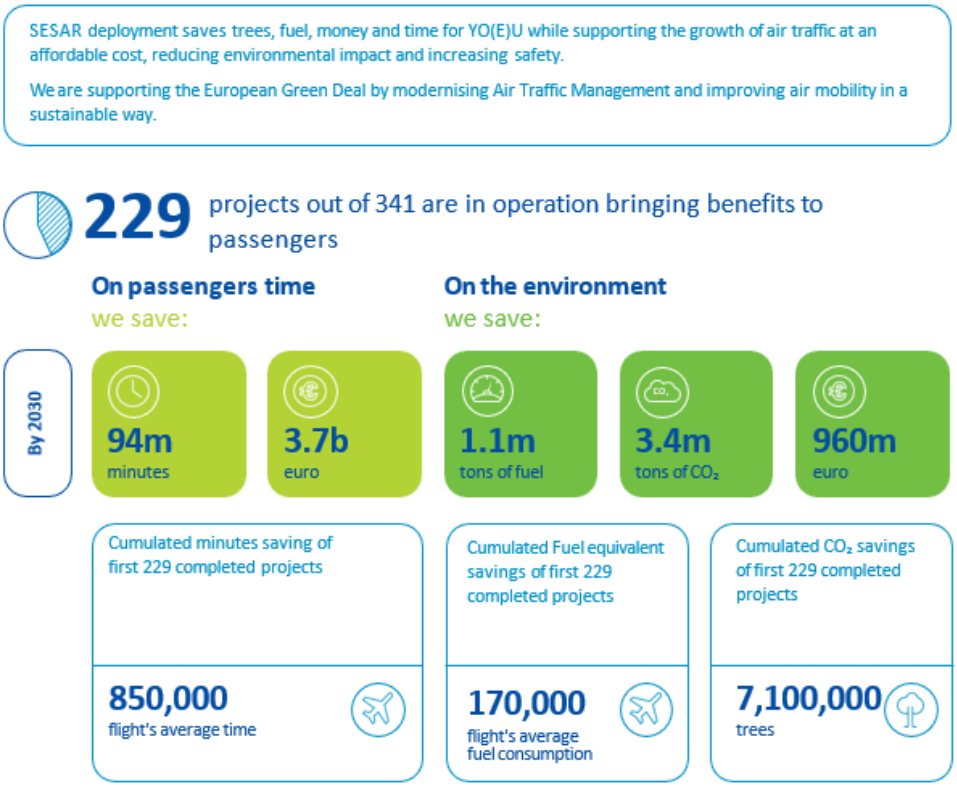


Figure 5 - Fact sheet performance benefits of CP1 Implementation Status

1.CP1 Implementation Status

Current status of CP1 deployment

As anticipated in the introduction, the concept of the coverage of the implementation gaps has been defined as a suitable indicator to define the status of CP1 deployment, as well as to measure the progress of the associated implementation activities. Tracking the evolution of gap coverage during the years allows for 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 CP1.

A "*completed gap*" implies that the deployment of a Family within a specific geographical location (airport or country, plus Network Manager and MUAC, when applicable) has been finalised, and no further activities are necessary to ensure the operational use of the elements included in the SDP Family scope. On the contrary, an "*open gap*", which could be on-going, planned or not yet planned, indicates the existence of activities that still need to be performed to ensure the complete implementation of the related Family.

The overall number of ground gaps has been defined by taking into account all implementation activities needed to deploy the SDP Families within the applicable ground geographical applicability areas. This means that whenever a Family has been declared as not applicable at a certain country/airport by the relevant operational stakeholders on the basis of local and/or operational considerations, no gap has been considered.

The following SDP Families are considered not applicable for specific geographical scopes and therefore no gap is considered:

- **Family 3.1.1** - ASM and A-FUA is not applicable to Netherlands because of local limitations[3];
- **Family 3.1.2** - Management of Predefined Airspace Configurations is not applicable to Luxembourg (Air Traffic Service provision in Luxembourg airspace above FL 145/165 is delegated to Belgium and as of FL245 to MUAC);
- **Families 3.2.1** - Initial Free Route Airspace **and 3.2.2** - Enhanced Free Route Airspace Operations are not applicable to Belgium, Luxembourg and Netherlands, due to the fact that operations above FL 305 within the Benelux region are managed by the Maastricht Upper Area Control Center (MUAC);
- **Family 5.5.1** - Cooperative Network Information Exchange service is not applicable to Cyprus, Estonia, Finland, Latvia, Lithuania, Luxembourg, Malta Slovenia, as Traffic Complexity is managed in these geographical scopes using NM tool thus with a manual process which does not require the implementation of SWIM Services in Family 5.5.1;
- **Families 6.1.2** - Initial Air-Ground Trajectory Information Sharing (Ground Domain) **and 6.3.1** - Initial Trajectory Information Sharing ground distribution are not applicable to Belgium, Luxembourg and Netherlands due to the fact that trajectory information data is distributed to and processed at all ATS units providing air traffic services above FL 285 while ATS in this area is delegated to Maastricht Upper Area Control Center (MUAC).

Besides, implementation activities linked to Airspace Users related to the following Families are not included in the general count of gaps, as airline activities cannot be isolated to a specific ground gap. The following Families are, however, considered applicable to the Airspace Users and their progress is assessed in Section 2:

- 3.1.1 - ASM and A-FUA;
- 3.2.1 - Initial FRA;
- 3.2.2 - Enhanced Free Route Airspace Operations;
- 4.1.1 - Enhanced Short Term ATFCM Measures;
- 4.2.1 - Interactive rolling NOP;
- 5.2.1 - Stakeholders' SWIM PKI and cyber security;
- 5.3.1 - Upgrade / Implement Aeronautical Information Exchange system / service;

[3] SESAR Deployment Programme, page 81 "ASM and A-FUA must be provided and operated in the Single European Sky airspace as defined in Article 3(33) of Regulation (EU) 2018/1139 with the following local limitations: the Dutch airspace below FL245 (LVNL)"

- 5.5.1 - Upgrade / Implement Cooperative Network Information Exchange system / service;
- 5.6.1 - Flight Information Exchange;
- 6.1.1 - Initial Air-Ground Trajectory Information Sharing (Airborne Domain).

Finally, please note that Family 5.1.1 - Common SWIM PKI and cyber security – given the specific features of the activities linked to the establishment of a common SWIM PKI and their dimension expanding beyond national borders – has been treated following a different approach, detailed as well within Section 2 (see paragraph related to Family 5.1.1 - Common SWIM PKI and cybersecurity).

As a result of these assumptions and evaluations, the overall number of ground gaps illustrated within the Monitoring View is **561**.

According to the results of the Monitoring Exercise, these 561 gaps have been clustered into the following categories:

- ***"Completed with CEF"***, when all achievement conditions are respected and have been met, with some support of CEF Funding and under the direct coordination of the SESAR Deployment Manager;
- ***"Completed without CEF",*** when all achievement conditions are respected and have been met, through deployment activities performed by local stakeholders without the coordination of SDM;
- **"On-going with CEF",** when activities have already started with some support of CEF Funding and under the direct coordination of the SESAR Deployment Manager;
- **"On-going without CEF"** when activities have already started, through deployment activities performed by local stakeholders without the coordination of SDM;
- **"Planned",** when activities have not started yet, but there are plans to execute them;
- **"Not Yet Planned",** when there are no specific plans to perform the activities required. When the status is Not Yet Planned, no completion date is provided.

CP1 implementation: a general view

The SESAR Deployment Phase can be considered well underway. It was launched in 2014 by the Pilot Common Project and continues to progress through the implementation of the updated ATM Functionalities of CP1 and their revised content. It is worth noting that due to the overall restructuring of the technical elements of each ATM Sub-Functionality introduced by CP1, it is not possible to perform an effective comparison with data reported in the past according to PCP.

Despite the significant impact of COVID-19 crisis, which resulted into postponements and re-scheduling of some stakeholders' investments, **72 of the 561 gaps composing the SESAR Deployment Programme scope are already closed**. This means that the associated technological and operational elements are already in use by the relevant stakeholders, with positive outcomes on the overall performance of ATM operations.

In the framework of the new regulatory environment, thanks to the work performed by the stakeholders, additional **311 gaps are considered on-going**. In total, it means that the percentage of **gaps currently completed or on-going** corresponds to **68%**.

It is worth mentioning that activities currently completed, on-going or planned are spread across all 6 ATM Functionalities and well-distributed amongst the 25 SESAR Deployment Programme Families: this demonstrates the wide-ranging and far-reaching effort from all involved stakeholders. In particular, it is worth noting that for **12 Families at least one local implementation has been completed**.

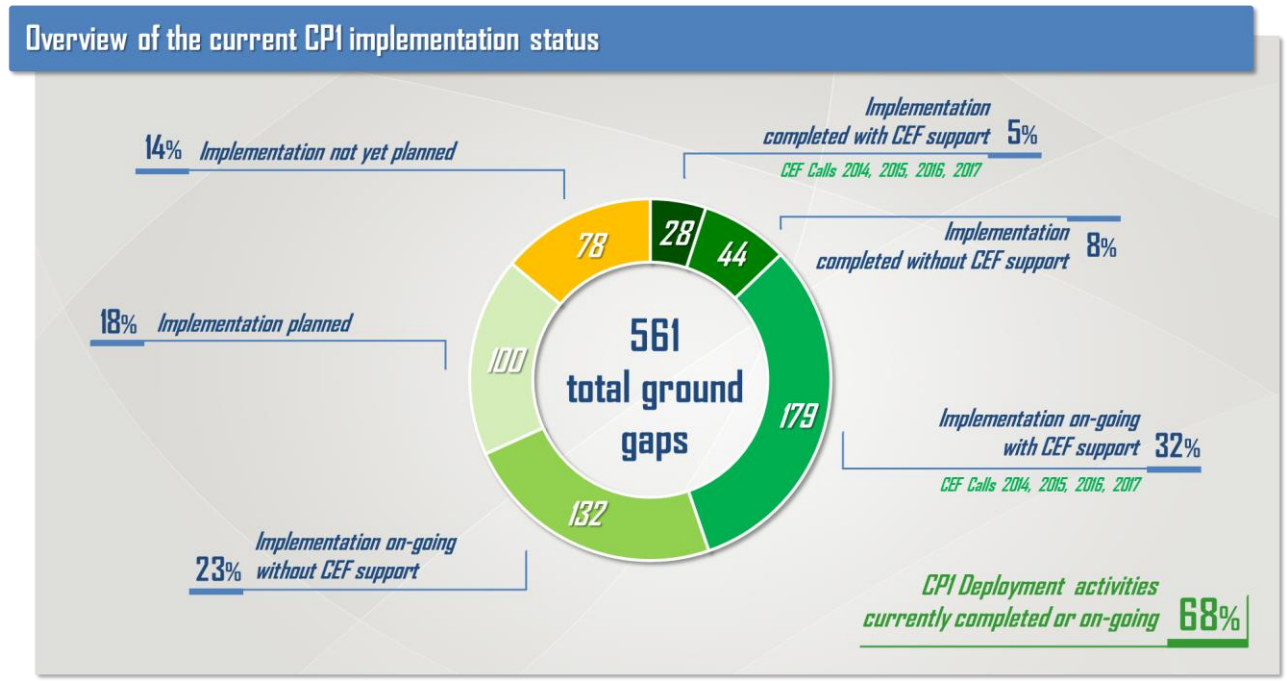


Figure 6 - Current CP1 Implementation Status - Overview

Figure 6 further illustrates that the **implementation activities are progressing well, as they are addressing additional 311 gaps (On-going), which amounts to around 55% of the total**. More specifically, operational stakeholders **are in the progress of closing 179** gaps benefitting from the outcomes of SDM-coordinated Implementation Projects, supported by EU public funding via CEF Calls 2014, 2015, 2016 and 2017. In addition, for **132** gaps, the implementation is **in progress with stakeholders' own resources** and/or through other means of funding / financing, without direct coordination from the SESAR Deployment Manager.

In other words, around **68% of the identified gaps are either closed, or in the process of being deployed** by the relevant operational stakeholders. Considering the revision of the regulatory framework, such monitoring results imply that operational stakeholders are enlarging their deployment focus on additional Families, addressing the new system requirements introduced by the CP1.

Furthermore, around **18% of the total gaps are planned to be deployed**, according to the information provided by stakeholders during the Monitoring Exercise: this brings the **total number of gaps already completed, on-going or planned to 483, which means around 86% of the total ground gaps**. Conversely, there is a lack of specific plans only for the remaining 14%, which does not necessarily entail a non-compliance with CP1 but only the fact that there are no specific plans yet to perform these activities.

These good results are due to the strong commitment of operational stakeholders to implement the SESAR Deployment Programme, as demonstrated both by individual initiatives from local stakeholders and by their massive participation to the Calls launched under the CEF Framework.

All presented figures support the notion that – despite the current challenges and uncertainties linked to the COVID-19 crisis – the **SESAR deployment is still moving forward and delivering the expected performance improvements, translating the Common Project One into an operational reality**.

However, attention should be still drawn to the lack of plans or delays associated to specific implementation activities:

- in the SESAR Deployment Programme, there are 6 Families with an implementation target date set on the 31st December 2022, where the required technical elements to be deployed in specific geographical scopes are currently **not expected to meet the regulatory target dates or are still not yet planned;**
- **for some Families only preliminary planning and preparatory activities could be performed**. This is the case for the new CP1 Family 2.2.2 - Extended Airport Operations Plan whose target date is 31/12/2027 (10 gaps out of 30 with no dedicated plans) and Family 1.2.1 - AMAN/DMAN Integration (4 gaps out of 5 for which stakeholders have not elaborated any plan);

- **the potential uncertainties affecting the implementation of SWIM-Services**, linked to the understanding of the requirements, new competencies needed and the timely availability of required resources for Family 5.2.1 - Stakeholders' SWIM PKI and cyber security (3 gaps with no dedicated plans), Family 5.3.1 - Aeronautical Information Exchange (3 gaps with no dedicated plans), Family 5.4.1 - Meteorological Information Exchange (6 gaps with no dedicated plans), Family 5.5.1 - Cooperative Network Information Exchange (3 gaps with no dedicated plans) and Family 5.6.1 - Flight Information Exchange (14 gaps with no dedicated plans);
- **the lack of maturity of "Initial trajectory information sharing"**, in AF6 activities is linked to the on-going R&D work to be finalised by the industrialisation target date (December 2023) when the standardisation processes is expected to be completed as well as the final assessment from EASA. For this reason, a considerable number of gaps are not yet planned, i.e. in Family 6.1.2 - Initial Air-Ground Trajectory Information Sharing (Ground Domain) (5 gaps) and Family 6.3.1 - Initial Trajectory Information Sharing ground distribution (6 gaps);
- **implementation of specific functions linked to the new ATC systems** (iCAS, iTEC, 4-FLIGHT, etc.) or necessary upgrades of existing systems (e.g. COOPANS for a necessary interface to communicate with ASM systems), had a significant impact on the delayed implementation of Airspace Management and Advanced Flexible Use of Airspace for 12 gaps related to Families 3.1.1 - ASM and A-FUA and 3.1.2 - Management of Predefined Airspace Configurations whose implementation dates are currently set beyond the CP1 target date; for the same reasons, the implementation of Sub-AF 3.1 - Airspace Management and Advanced Flexible Use of Airspace is not yet planned for 4 gaps (Family 3.1.1 is not yet planned in Malta, Family 3.1.2 is not yet planned in Malta, Netherlands and Portugal);
- **the sequencing of some Families implementation**, which require preceding deployments. Such is the case of the integration of the AOP-NOP, which relies on the implementation of the local Initial Airport Operations Plans first, and resulted in 11 airports for which stakeholders have not elaborated any plan for Family 4.4.1 - AOP/NOP integration;
- **the development of the technical requirements and procurement of local tools** had a significant impact on the delayed implementation of "Automated Support for Traffic Complexity Assessment and Flight Planning interfaces" (Family 4.3.1) in Romania, Estonia, Hungary, Netherlands and Slovak Republic, even if it's worth mentioning that in some cases the compliance will be ensured through the use of NM CHMI. For all these gaps, the implementation dates have been set beyond the CP1 target date;
- **the impact of the COVID-19 crisis determining technical shortcomings and staff reductions** that impacted on the progress of "Arrival Manager extended to en-route airspace" (Family 1.1.1) in Brussels Airport and "Departure Management Synchronised with Pre-departure sequencing" (Family 2.1.1) in Copenhagen Airport, whose implementation dates are currently set beyond the CP1 target date;
- **the phased approach of the implementation of DMAN** impacted on the development of enhanced measuring (dynamic) of variable taxi times, thus the implementation of "Departure Management Synchronised with Pre-departure sequencing" (Family 2.1.1) in Amsterdam Airport is currently planned beyond the CP1 target date.

Some of these concerns have been identified as risks in the SESAR Deployment Programme that can threaten the timely CP1 implementation, along with the potential misalignments between the SDP itself and the stakeholders' investment plans. A yearly Risk Assessment process has been established for specific gaps which might pose a threat to the effective implementation and is supporting the local stakeholders in the preparation and implementation of the identified mitigation actions.

Detailed view per ATM Functionality

The following picture and the associated paragraphs provide a more detailed view per each CP1 AF.

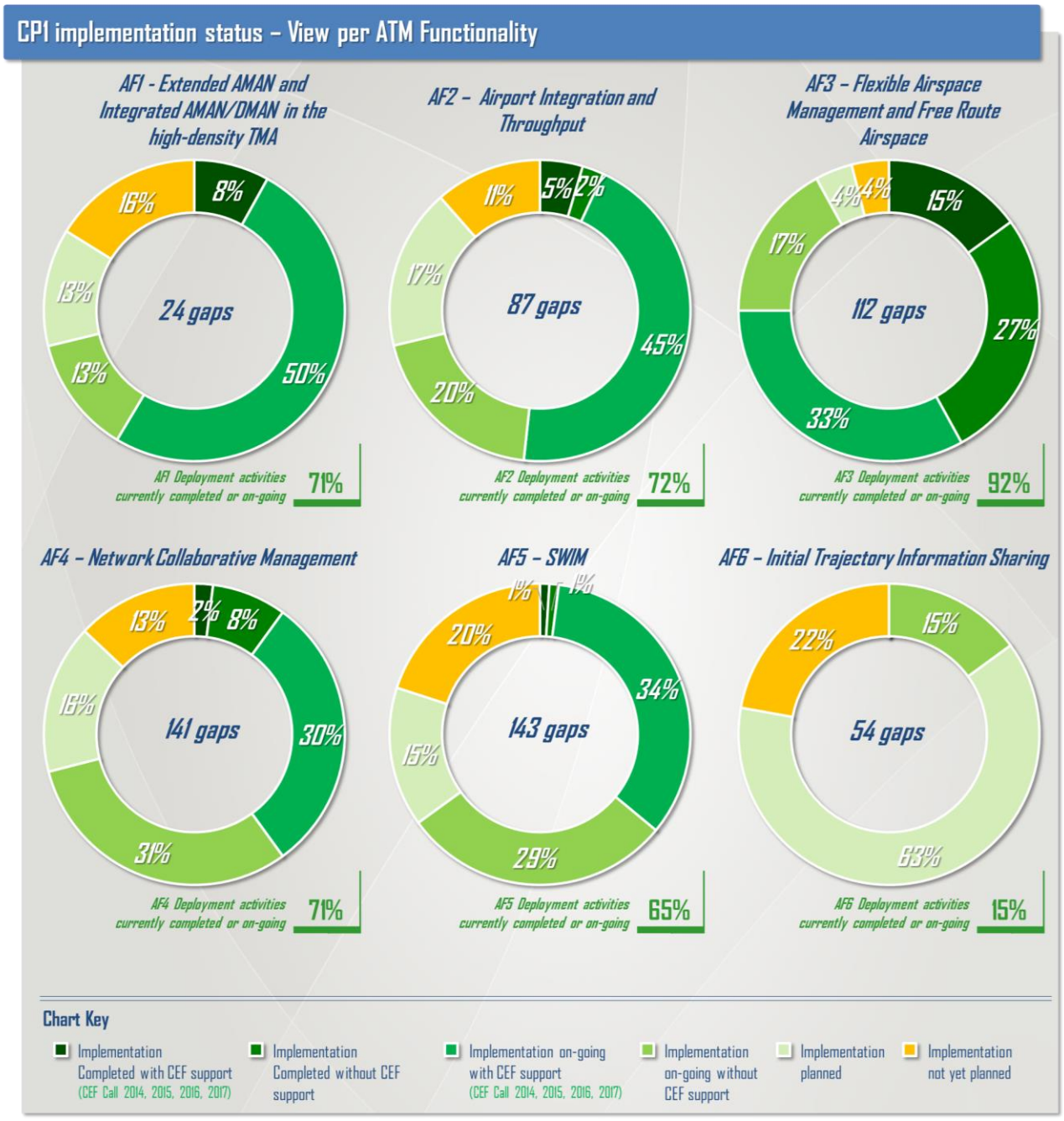


Figure 7 - CP1 Implementation Status: view per AF

The following detailed views per each ATM Functionality are complemented with charts aiming at representing gaps whose CP1 compliance is threatened since their implementation dates are set either beyond CP1 target dates or, for Families with imminent target dates (31st December 2022), are not yet planned.

AF1 - Extended AMAN and Integrated AMAN/DMAN in the high-density TMA

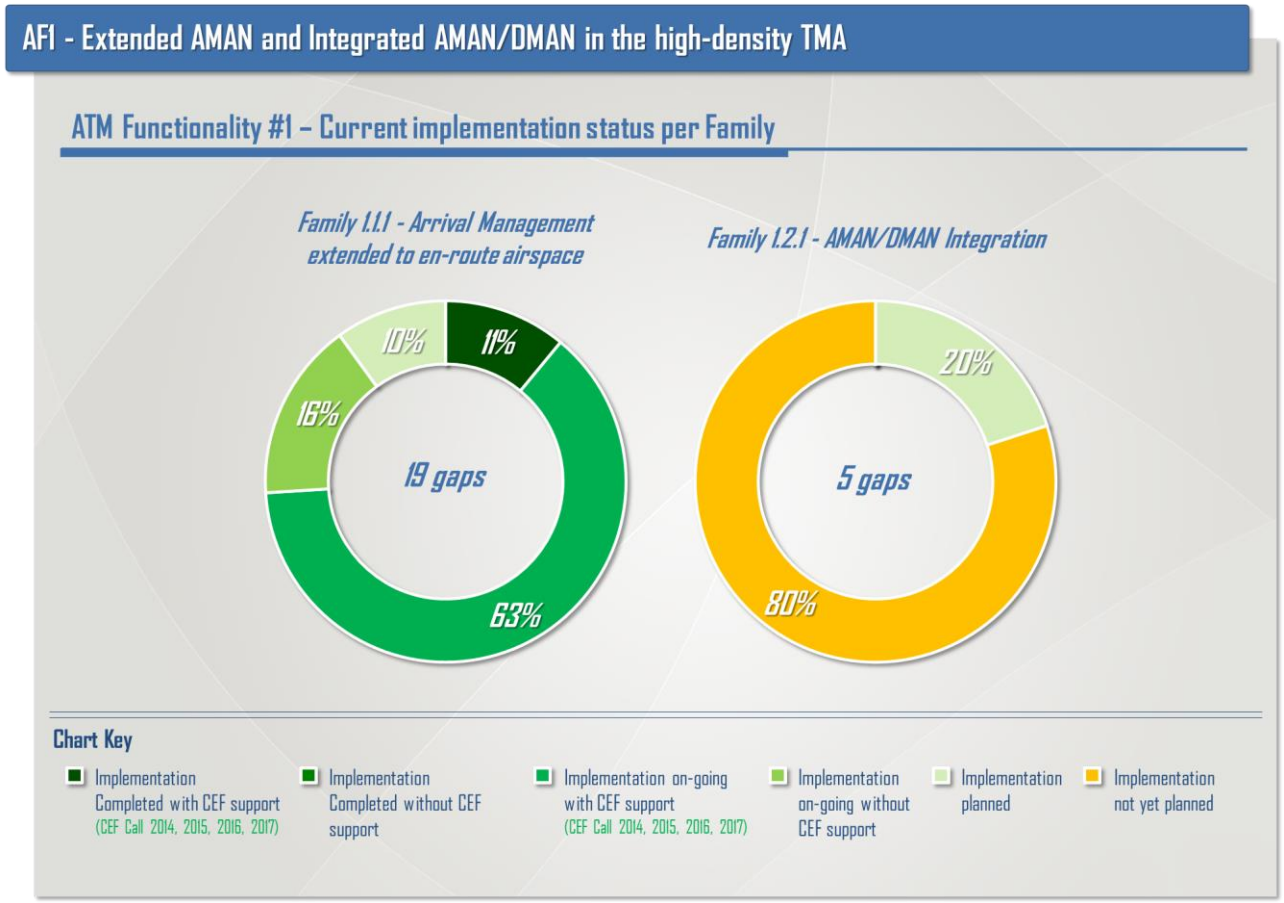


Figure 8 - AF1: current implementation status per Family

8% of the existing implementation gaps associated to AF1 Families have already been closed by local stakeholders. Around 63% 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 29% of the cases, with only 4 gaps for which no specific plans have been defined by the relevant stakeholders and 1 gap whose implementation date is currently set beyond CP1 Target date.

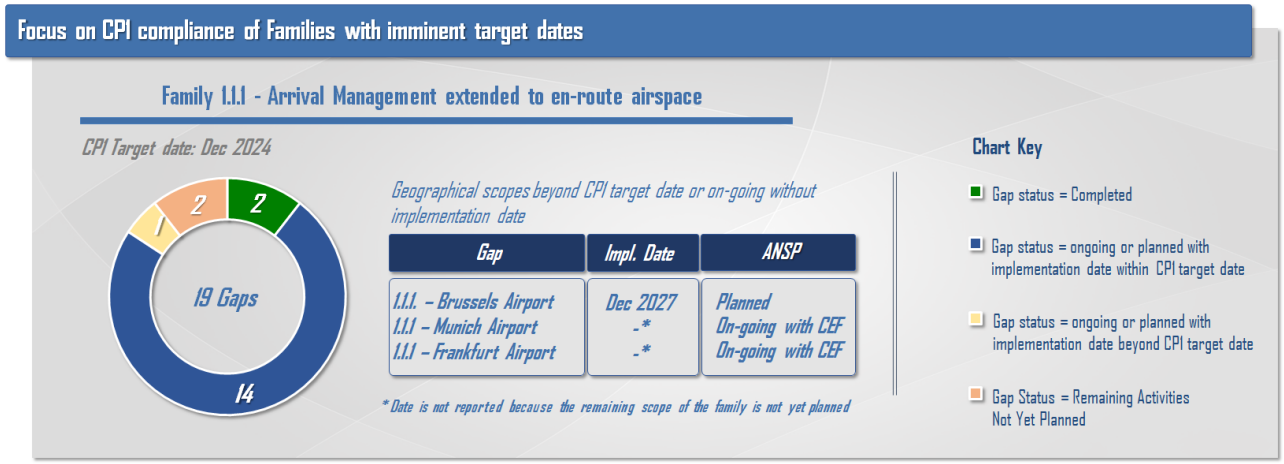


Figure 9 - Focus on CP1 compliance for Family 1.1.1

Concerning the implementation of extended arrival management by the en-route ATS units feeding the traffic to the busiest airports in Europe (Family 1.1.1), ANSPs have achieved significant results during 2021

and this Family is now fully implemented within 2 of the airports listed in the Regulation. Besides, the implementation of the required technical elements is on-going or planned for all the remaining CP1 airports. It is worth mentioning that, as presented in the table within Figure 9, the implementation of this Family has CEF funding support for the gaps of Frankfurt and Munich airports.

On the other hand, it is worth mentioning that for Family 1.2.1 - AMAN/DMAN Integration, which applies only to airports that have single runway or dependent runways which may operate in mixed-mode or have departure runway linked with dependency to an arrival runway, deployment uptake has been slower. Since the integration of AMAN and DMAN is based on the optimised pre-departure sequence, its implementation is linked to the deployment of AMAN extended horizon for the arrival traffic, thus only 20% of the stakeholders have dedicated plans for Family 1.2.1.

AF2 - Airport Integration Throughput

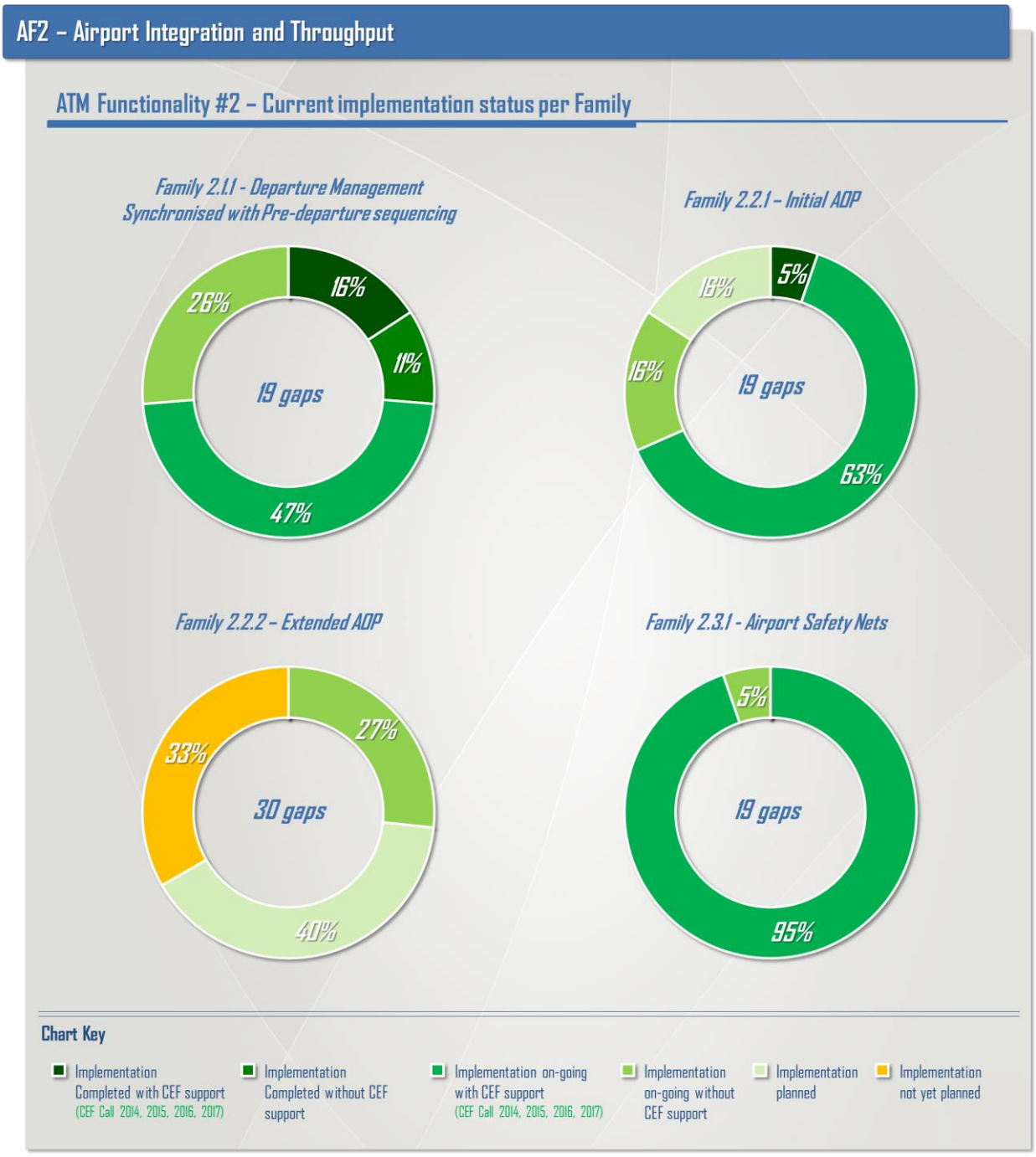


Figure 10 - AF2: current implementation status per Family

Around 72% of the gaps associated to ATM Functionality 2 is either completed or the associated deployment activities are already in progress. 50% of all AF2 gaps are coordinated and synchronised by SDM.

The implementation of Family 2.1.1 - Departure Management Synchronised with Pre-departure sequencing, is well progressing, as the number of closed gaps amounts to 27% and the remaining gaps are all on-going and considerable progress is still expected for the near future. Nevertheless, it is worth noting that the implementation of this Family is delayed beyond relevant CP1 target date for 2 of the involved CP1 airports and it has received CEF funds.

Figure 11 - Focus on CP1 compliance for Family 2.1.1

Concerning Family 2.2.1 - Initial AOP, the common and collaboratively agreed rolling plan used by all involved airport stakeholders to provide common situational awareness and process optimisation, the implementation has been already completed for 1 gap and is on-going for 79% of the remaining CP1 airports.

With regards to Family 2.2.2 - Extended AOP, the 33% of the gaps have no plans declared by stakeholders. The implementation of this Family depends on the deployment of Initial AOP (Family 2.2.1), since Extended AOP increases the iAOP scope beyond the airside operating environment and addresses processes within the landside and terminal infrastructure that have a performance impact on airport operations, flight predictability and efficiency. For Family 2.2.2 plans have already been declared by stakeholders for 20 airport gaps out of the 30 for which the deployment is required.

Concerning Family 2.3.1 - Airport Safety Nets, which covers the A-SMGCS Airport Safety Support Service, the implementation is on-going and aligned with the CP1 target date for all the gaps.

AF3 – Flexible Airspace Management and Free Route Airspace

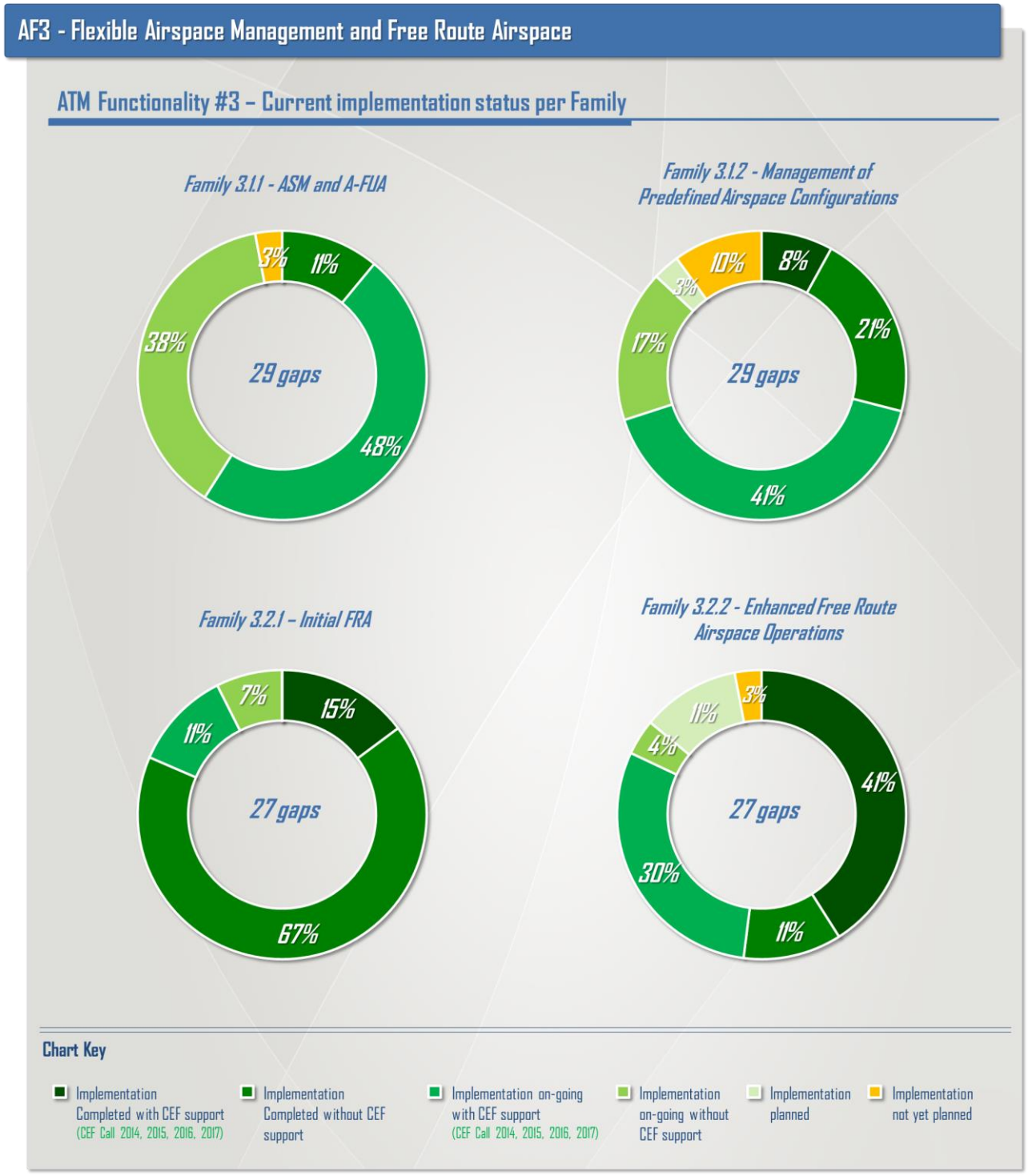


Figure 12 - AF3: current implementation status per Family

Around 42% of the implementation gaps associated to AF3 have already been completed by operational stakeholders, making it the most advanced ATM functionality within the scope of the CP1 from a deployment-extent perspective. Furthermore, 56 gaps (around 50% of the AF scope) are in the process of being implemented – both within and beyond the umbrella of the Framework Partnership Agreement (FPA) and the associated coordination of SDM – impacting all Families of the ATM Functionality.

It is worth mentioning that the implementation of "ASM and A-FUA", aiming at providing the most efficient airspace organisation and management, addressed by Family 3.1.1, is currently implemented by three stakeholders, whereas the implementation is still on-going for 86% of CP1 geographical scopes.

Considerable delays beyond CP1 target date are already envisaged by 7 stakeholders, mainly caused by later implementation of the required connectivity between local ASM systems and ATC systems which depends on the provision of respective interfaces by the (renewed/upgraded) main ATC systems. It is worth noting that the implementation in Austria, Germany, Greece, Portugal and Slovenia has received CEF Funds. No dedicated plans have been set for 2 countries: Malta, which was not part of the applicability area in the former versions of the ATM MP L3, and Lithuania, where part of the implementation activities have not been planned yet.

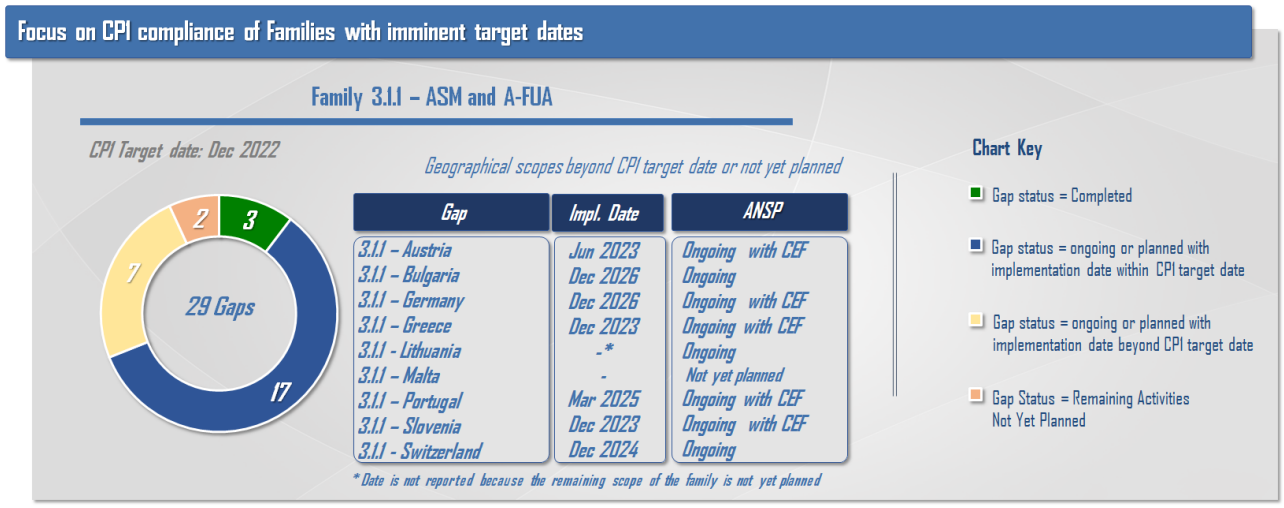


Figure 13 - Focus on CP1 compliance for Family 3.1.1

The deployment of "Management of Predefined Airspace configurations", addressed by Family 3.1.2, is in many cases dependant on the necessary upgrades or renewal of existing ATC systems. Thus the implementation of the Family is delayed or not yet planned for 8 countries, whereas it is supported by CEF funds in Greece and Sweden. On the other hand, it is worth mentioning that this Family has been already completed by 8 countries.

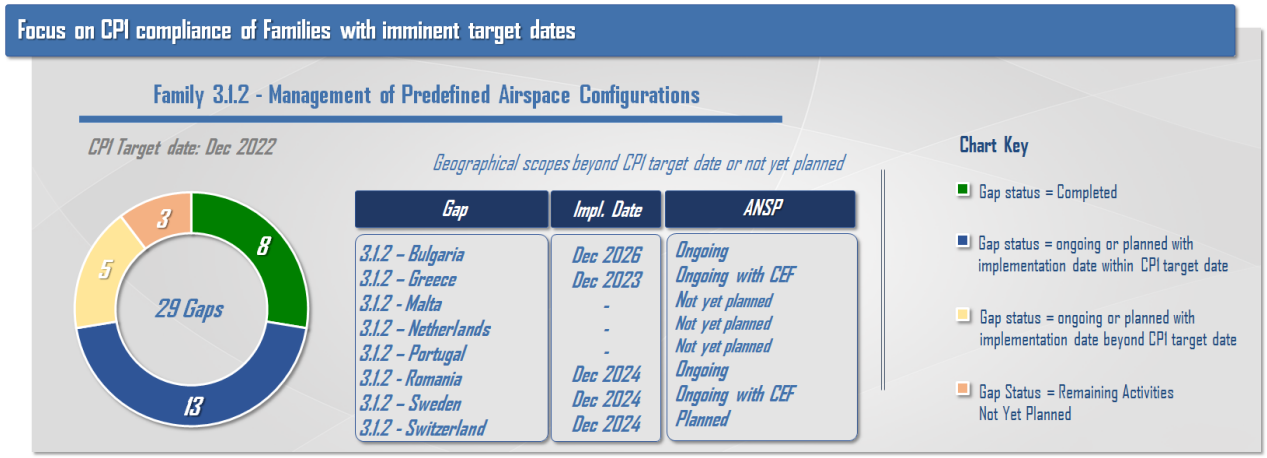


Figure 14 - Focus on CP1 compliance for Family 3.1.2

The deployment of "Initial Free Route Airspace" (Family 3.2.1) is well progressing, with a continuous increase of countries where Airspace Users are now able to fly FRA. The number of countries having implemented Initial FRA now amounts to 22, with remaining countries committed to a timely deployment.

The technical requirements for the implementation of "Enhanced Free Route Airspace Operations", addressed by Family 3.2.2 are already implemented in 14 countries, thus ensuring Cross-border FRA with at least one neighbouring State and FRA connectivity with TMAs enabling significant performance benefits, both in terms of reduction of jet fuel consumption and of CO_2 emissions.

AF4 – Network Collaborative Management

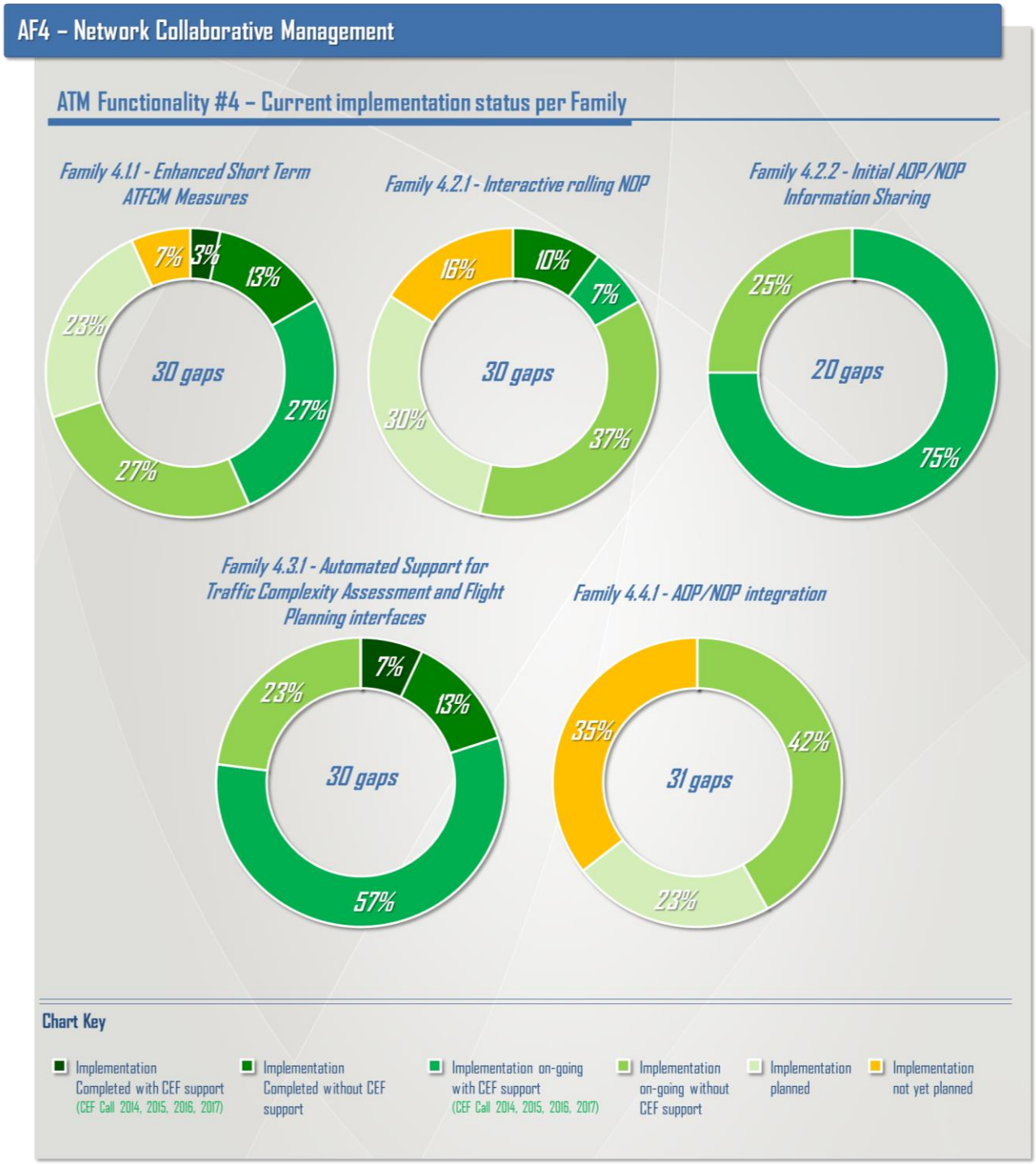


Figure 15 - AF4: current implementation status per Family

Around 10% of AF4 gaps has been already closed by operational stakeholders. The currently on-going implementation activities roughly cover 61% of the existing gaps, while plans have been declared for around 16% of the total number of existing gaps, leaving only around 13% of the AF-related gaps without any associated specific implementation plans.

However, it needs to be noted that AF4 is currently progressing at a slightly slower pace, when compared to AF1, AF2, and AF3. The reason is mainly due to the lower level of readiness of some of the elements linked to specific Families or to the expected sequencing of the implementation, which requires the achievement of specific milestones or intermediate steps in order for local stakeholders to proceed in their deployment efforts.

Concerning Family 4.1.1 - Enhanced Short Term ATFCM Measures, for which ANSPs and AUs may use either NM provided STAM application, or may deploy local tools, the implementation is already completed in 5 countries and has successfully started in 54% of the countries included in the scope of the Family. On the other hand, the implementation is not yet planned for Cyprus and Malta, whereas in Slovenia implementation activities have received CEF funds and are currently planned beyond the CP1 target date.

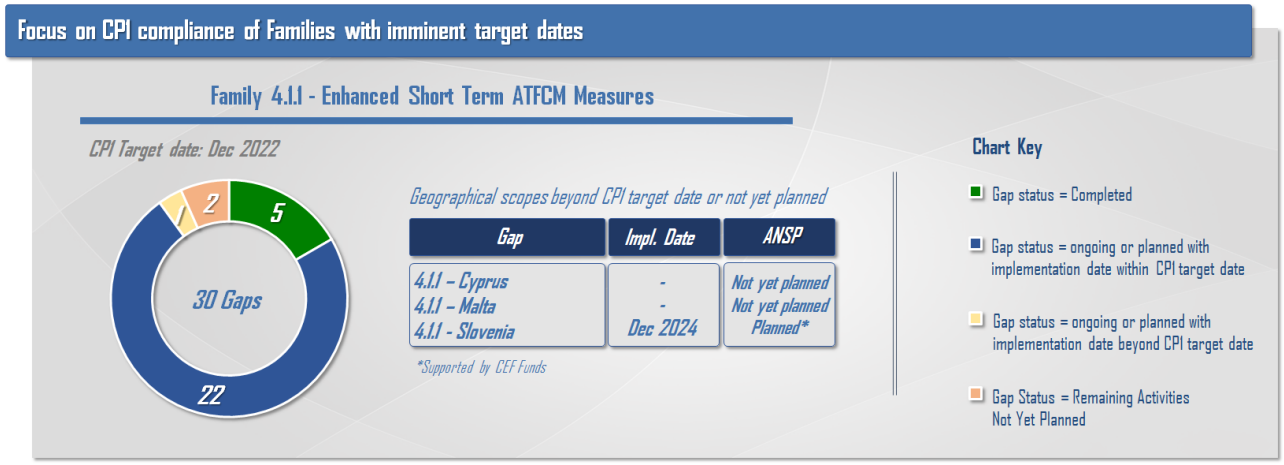


Figure 16 - Focus on CP1 compliance for Family 4.1.1

It is worth mentioning that the deployment of STAM phase 2 is linked to the full availability of the new nConnect platform (currently under development by the Network Manager) in order to start the implementation at local side.

The implementation of Family 4.2.1 regarding the "Interactive Rolling NOP", linked to the deployment of the NOP Portal by Network Manager, has been completed in 3 countries, while activities are on-going for the 44% of the applicable countries. 16% of the stakeholders have no dedicated plans yet.

On the other hand, the implementation of Family 4.2.2 - Initial AOP/NOP Information Sharing, focusing on exchanging the Arrival Planning Information (API) and Departure Planning Information (DPI) messages between AOP and NM, is still on-going for all the applicable CP1 airport gaps, where implementation activities are planned to be completed on-time and in the wide majority of cases, the implementation activities are also coordinated and synchronised by SDM.

The implementation of Family 4.3.1 - Automated Support for Traffic Complexity Assessment and Flight Planning interfaces is well progressing, since 6 ANSPs result compliant with the existing requirements and have now fully implemented the Family. All remaining stakeholders have already successfully started the implementation activities, either implementing a local traffic complexity tool and connect with NM via the NM B2B Services or using NM tools and systems. Nevertheless, the implementation is either On-going without an estimated implementation date or with an implementation date beyond the CP1 target date for 7 countries, in Czech Republic, Estonia, Hungary, Netherlands and Slovak Republic, whose implementations have received CEF Funds.

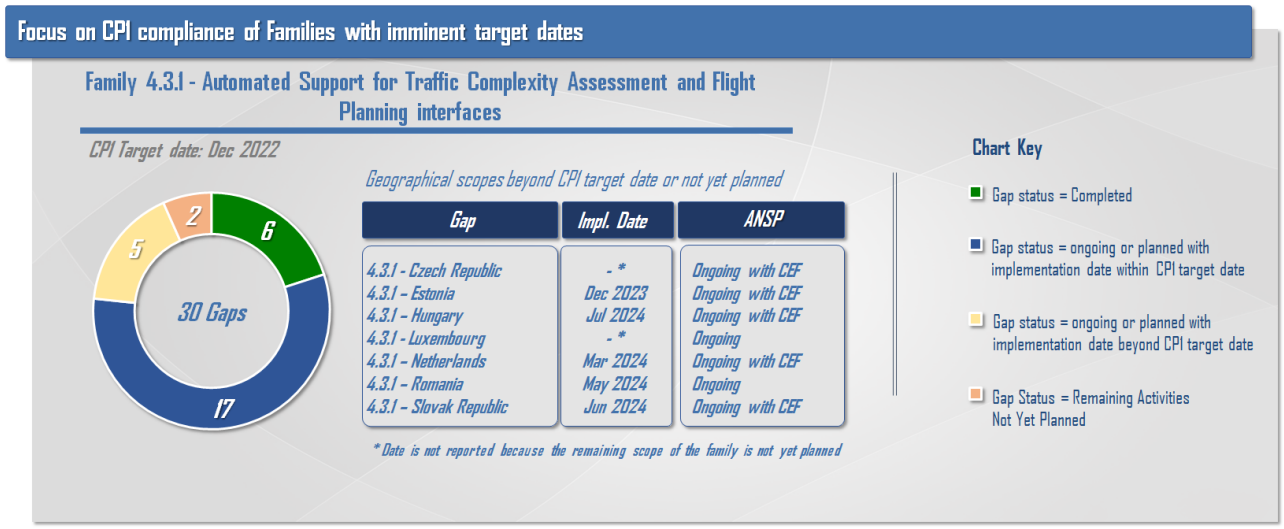


Figure 17 - Focus on CP1 compliance for Family 4.3.1

Most of the gaps without any associated specific implementation plans are linked to Family 4.4.1 - AOP/NOP integration, whose implementation is dependent on the deployment of Family 4.2.2 - Initial AOP/NOP Information Sharing. For Family 4.4.1 currently no dedicated plans have been identified by stakeholders for 11 airport gaps. On the other hand, 42% of the Stakeholders have already started the implementation activities and 23% of the stakeholders plan to complete the implementation on time.

AF5 –SWIM

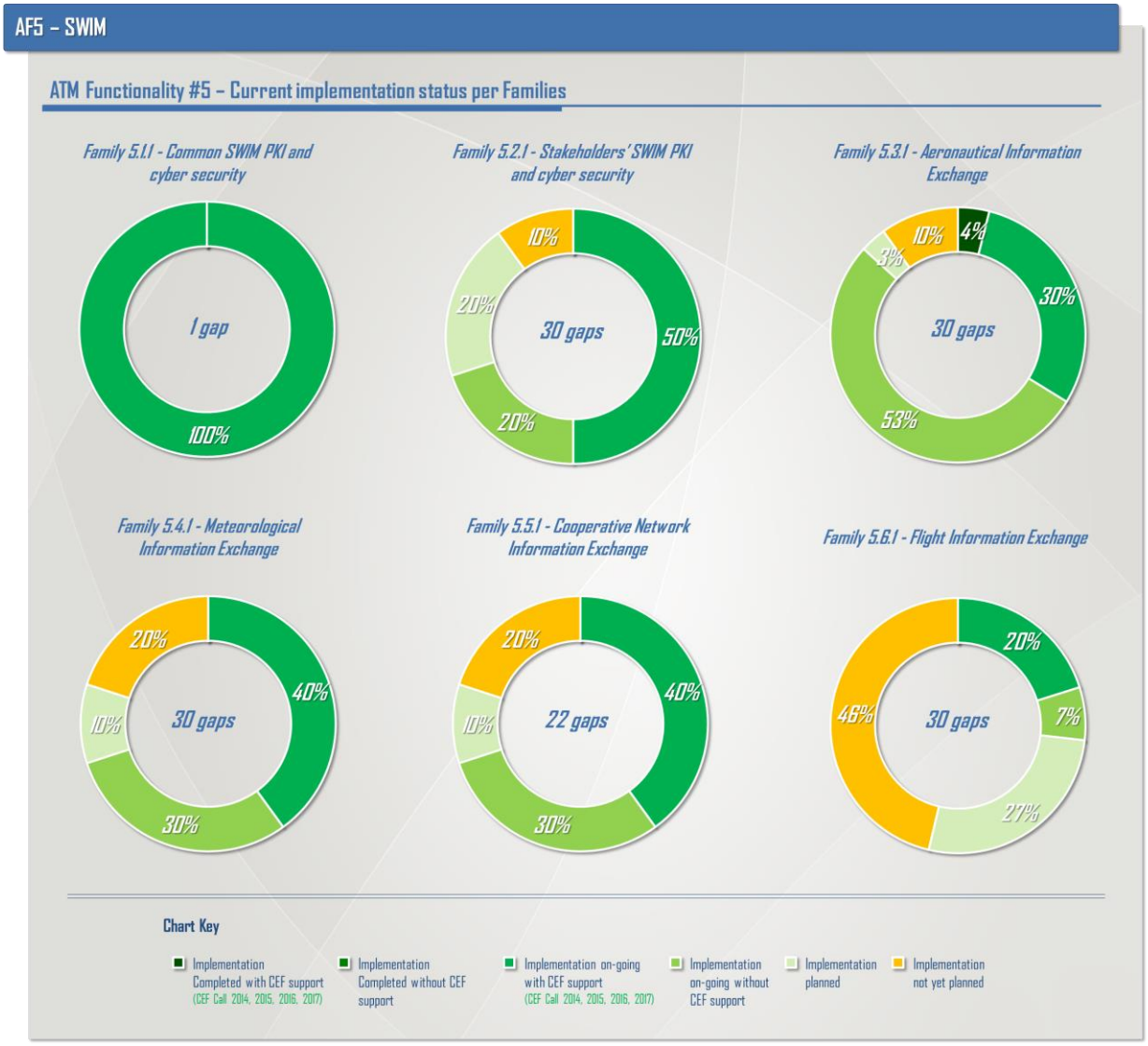


Figure 18 - AF5: current implementation status per Family

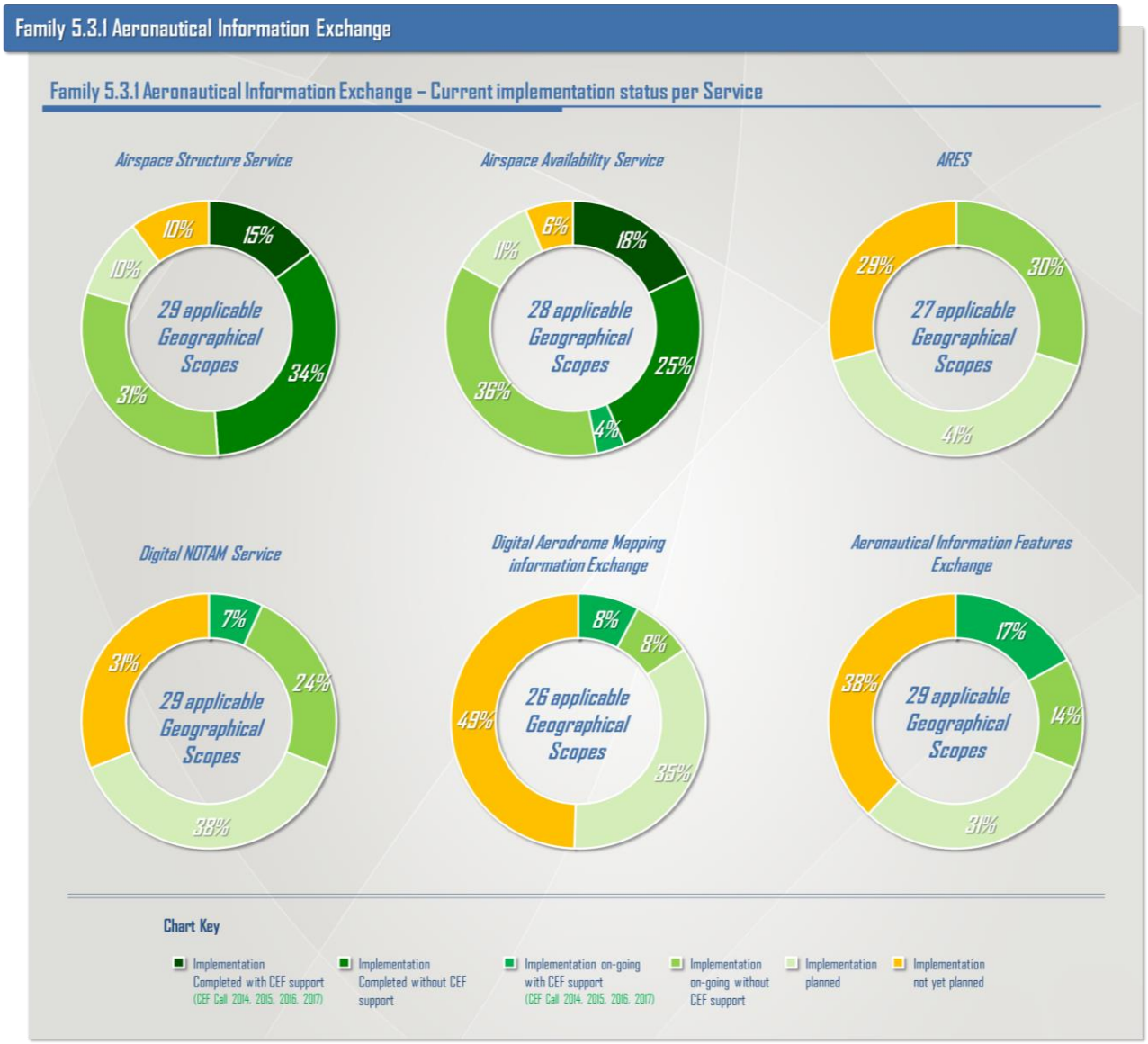


Figure 19 - Family 5.3.1: current implementation status per Service

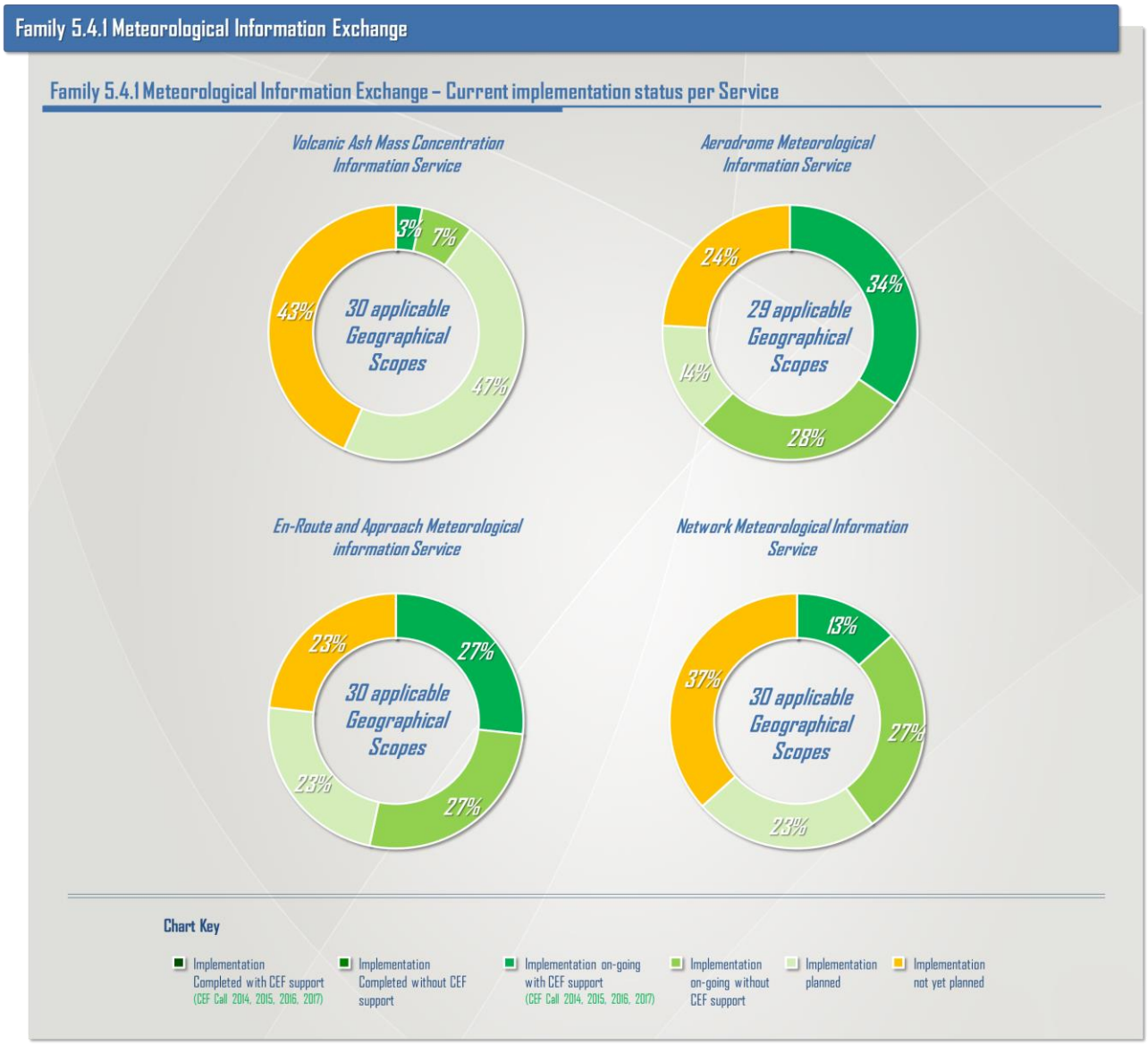


Figure 20 - Family 5.4.1: current implementation status per Service

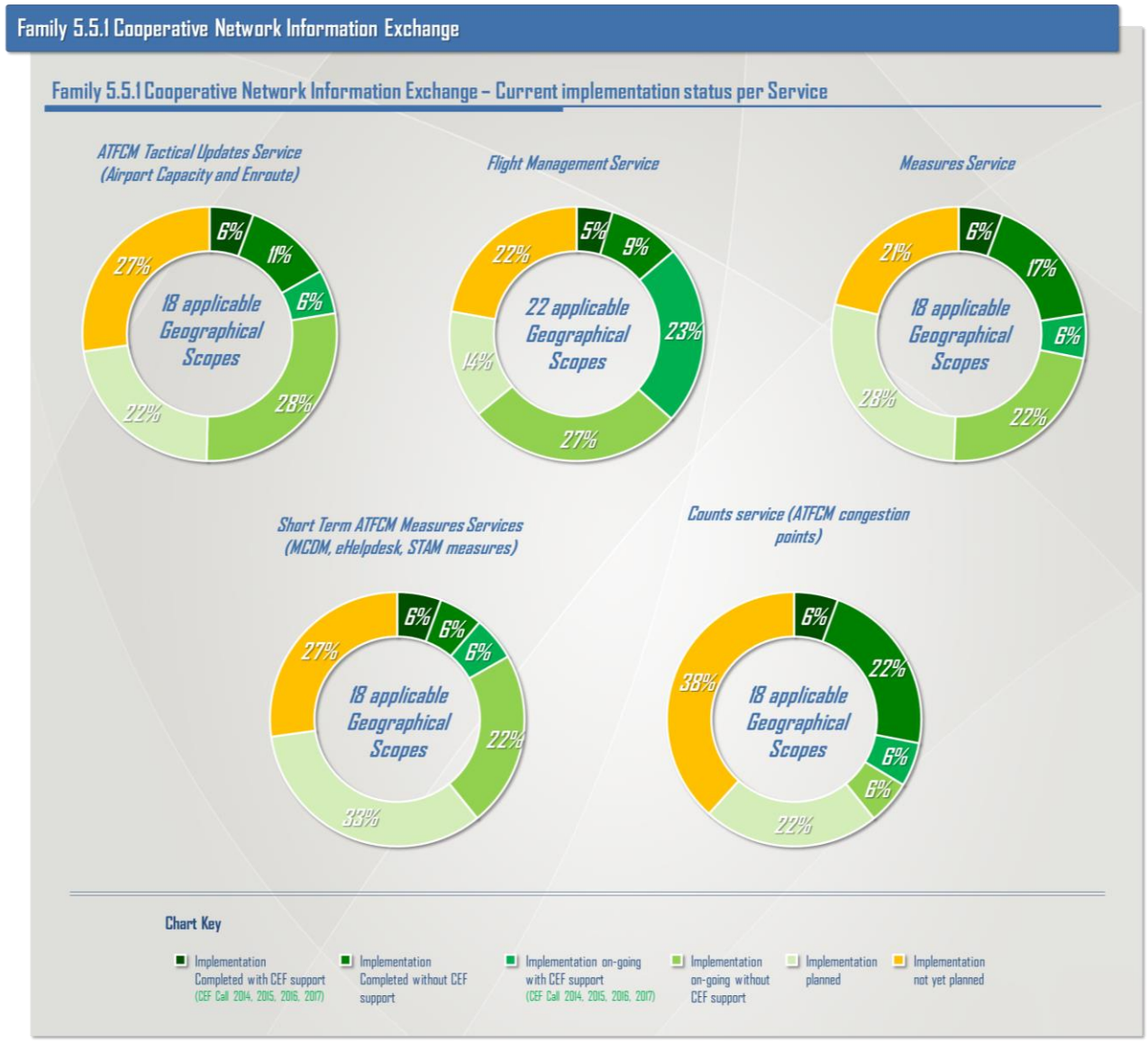


Figure 21 - Family 5.5.1: current implementation status per Service

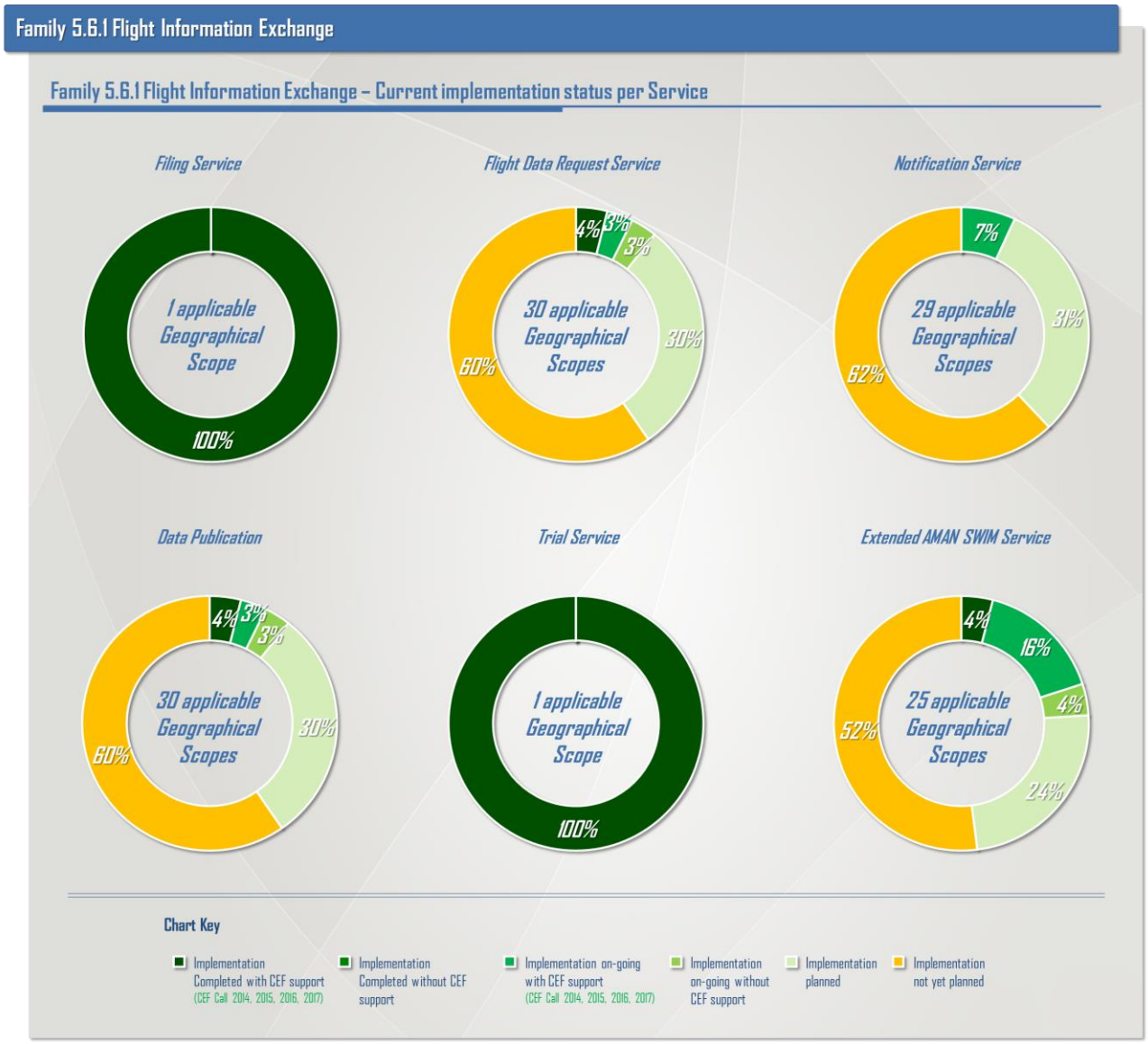


Figure 22 - Family 5.6.1: current implementation status per Service

The overall implementation of the ATM Functionality 5 is well progressing even if, together with AF6, shows the largest portion of gaps for which no dedicated plans have been identified yet. This is mainly due to some technological elements, for which the specifications are not fully developed yet, as well as to the fact that others will be ready for their implementation and subsequent full CP1 compliance after the implementation of common components supporting SWIM adoption across Europe.

Currently 65% of the AF5 gaps have been addressed by the operational stakeholders either through their full closure or through deployment activities currently on-going. More in detail, 93 out of the 143 gaps to be covered by the implementation of technological elements linked to the deployment of Initial SWIM have been closed, or are in the process of being addressed, 21 are associated with future plans and 29 are not yet planned.

The implementation of Family 5.2.1 - Stakeholders' SWIM PKI and cyber security, which may differ depending on whether the stakeholders will become a CA (Certificate Authority) themselves or use the European Common Aviation PKI (EACP) as developed by Family 5.1.1, is currently on-going for 70% of the CP1 countries, while for 6 countries the implementation activities haven't started yet and for 3 countries plans have not been identified.

Concerning the Service Families, the implementation of "Aeronautical Information Exchange", addressed by Family 5.3.1, has been completed for 1 gap and is currently on-going for 83% of the countries. Similarly,

the implementation of "Meteorological Information Exchange", addressed by Family 5.4.1, is showing positive results with 70% of countries where implementation activities are already on-going. On the other hand, the implementation of Family 5.5.1 - Cooperative Network Information Exchange has been completed for 2 gaps and is currently on-going for 14 gaps, corresponding to 63% of the CP1 countries. Finally, the implementation of f Family 5.6.1 - Flight Information Exchange is proceeding at a lower pace, since 54% of the countries have started the implementation activities or plan to start them, while 46% haven't identified any implementation plan yet.

The global AF5 situation is expected to improve in the near future, as all preparatory work now is demonstrating significant progress and especially thanks to the multi-stakeholder initiatives and to their contribution to overall deployment. Furthermore, thanks to a major coordination effort, bilaterally reaching out to all CP1 mandated stakeholders to create awareness and share best practices, substantial improvements are expected to be tangible soon.

AF6 – Initial Trajectory Information Sharing

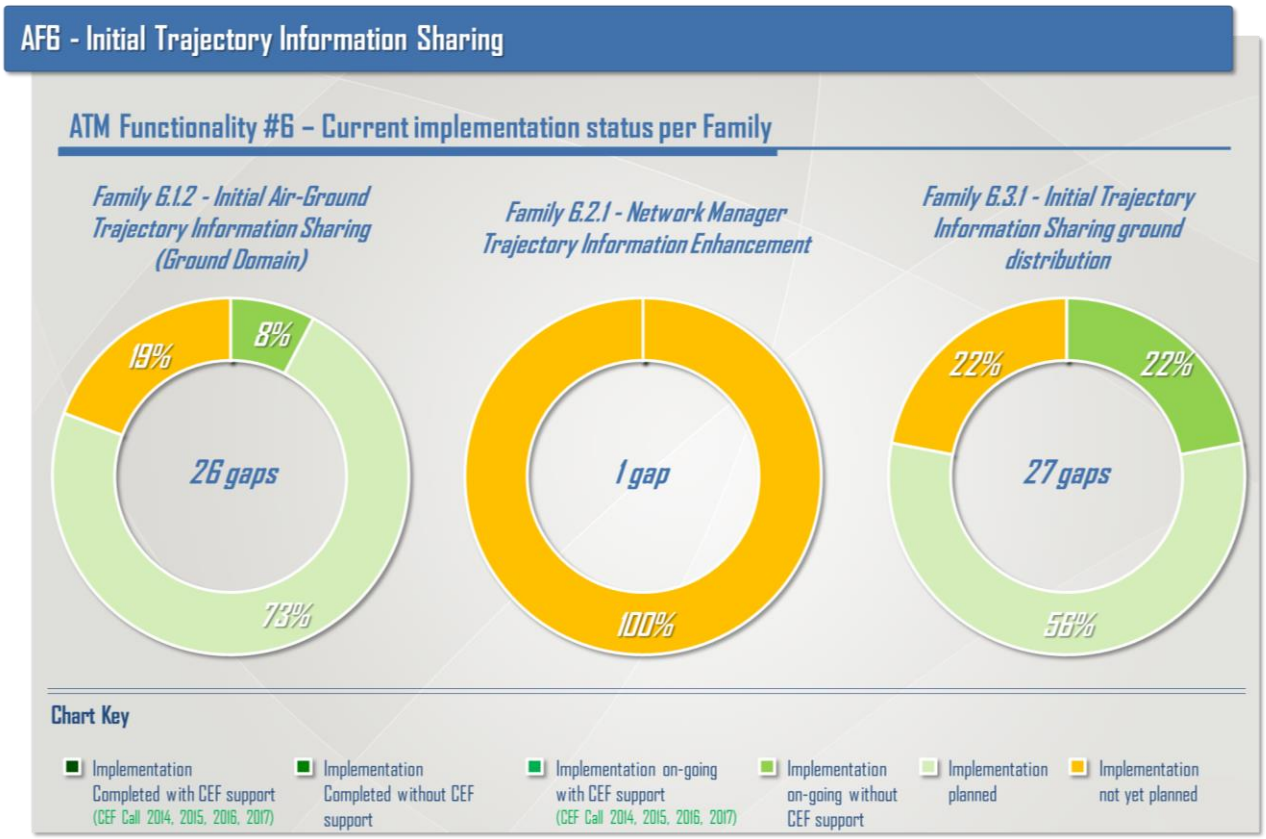


Figure 23 - AF6: current implementation status per Family

The implementation of the three ground families associated to ATM Functionality 6 is tightly linked to the Trajectory information sharing whose technical requirements are identified from the point of view of Ground systems (Family 6.1.2 - Initial Air-Ground Trajectory Information Sharing (Ground Domain)), NM Systems (Family 6.2.1 - Network Manager Trajectory Information Enhancement) and Ground distribution (Family 6.3.1 - Initial Trajectory Information Sharing ground distribution).

All AF6 Families are still low readiness Families, so in the vast majority of cases the implementation activities are planned but have not started yet, as a higher level of maturity and readiness for the implementation is needed before starting a synchronised and effective deployment. Therefore, no gap is completed yet, whereas 8 gaps are currently on-going, mostly limited to preparatory planning activities. It is worth highlighting that the industrialisation target date (December 2023) included in the CP1 is the date

by which the ATM functionality or sub-functionality shall complete the standardisation processes to enable its procurement, installation and implementation.

In this respect, a specific document named "Assumptions for a synchronised deployment towards Initial Trajectory Information Sharing" has been elaborated, with the main objective of providing an initial integrated roadmap to implement ATM functions improved by the use of ADS-C/EPP information, considering ground and airborne domains (as part of the ATS B2 standard as defined in EUROCAE ED228A document), including financial incentives to achieve the IR requirement in an efficient manner. To do this, all the relevant and impacted stakeholders have been engaged, with a specific focus on the operational stakeholders and manufacturing industries, collecting their inputs and/or deployment plans. Based on a detailed assessment of the current situation regarding ADS-C/EPP implementation plans (air and ground), complementary technologies to alleviate VDL M2 spectrum (SatCOM, LDACS and others) and the multilink concept under development, a list of concrete actions has been proposed, from an operational and strategical perspective, in order to ensure a successful deployment of AF6. Together with EUROCONTROL the definition, assessment and analysis of different ATS B2 development and deployment scenarios characterised from a technical and operational perspective has started. According to the CP1 regulation, the chosen scenarios would be compliant with the content and with the industrialisation target date.

Expected roadmap for CP1 completion

Overall roadmap

Complementing the snapshot on the current status of implementation of Common Project One Reg. (EU) n. 2021/116, the structure and scope of the yearly Monitoring Exercise allows to develop the expected roadmap towards the full implementation of the SESAR Deployment Programme, by combining data and information provided by the relevant ATM stakeholders operating within the CP1 geographical scope.

All respondents to the Monitoring Exercise have been engaged not only asking about the current status of their deployment activities, but also requesting to identify the expected date for the complete implementation of the Family within their own geographical area of responsibility.

By combining inputs from operational stakeholders operating within the same airport or within a specific country, the expected date of each gap on which all elements linked to a specific Family will be deployed and their operational use will start can be identified. The overall outcomes of this analysis are reported within Figure 24 and are further illustrated in the following paragraphs.

Figure 24 illustrates through the green curve the expected progress in the implementation of the Common Project One.

It is worth noting that around 14% of the CP1-related ground gaps has no specific target date indicated by stakeholders, among other reasons because of the lack of readiness of the technological elements to be deployed.

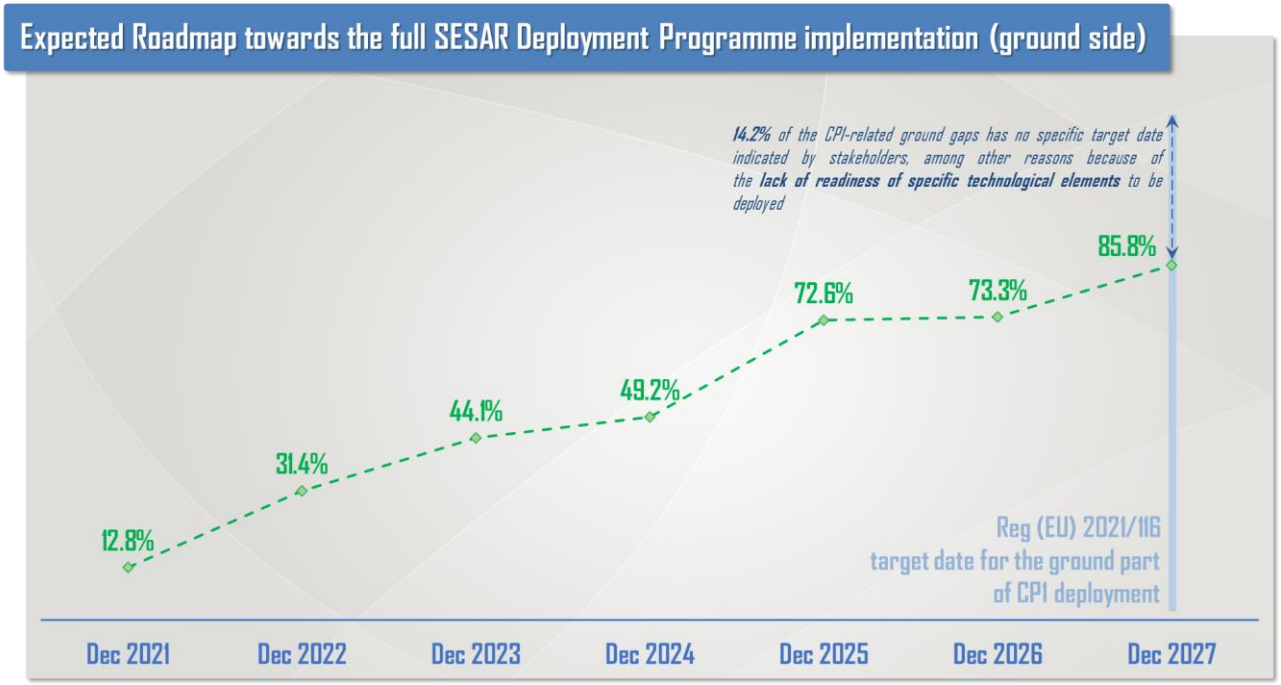


Figure 24 - Expected Roadmap towards the Full CP1 implementation

As illustrated within the previous paragraph, the current[4] status of implementation of the Common Project One includes 72 completed gaps, amounting to 13% of the total number of 561 implementation gaps.

The most significant positive results have been registered in AF1, AF3 and AF4.

By the end of 2022, an additional set of 104 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:

- the deployment of Family 2.1.1 - Departure Management Synchronised with Pre-departure sequencing, will bring a total of 17 airports closing the gap;

[4] Such status corresponds to the status of CP1 implementation as in December 2021, when the monitoring data and associated information has been submitted by the relevant ATM operational stakeholders.

- the deployment of Family 3.1.1 - ASM and A-FUA will bring the total number of CP1 countries dynamically managing airspace users' demands to 20 further building the path for the wide-scale implementation of the Family;
- the deployment of Family 3.1.2 - Management of Predefined Airspace Configurations will bring to a total of 21 out of 29 countries closing the gap;
- the deployment of Family 3.2.1 - Initial FRA will be completed by the last four countries and by the Network Manager;
- the considerable progress of Family 4.1.1 - Enhanced Short Term ATFCM Measures will bring the total number of CP1 countries to use STAM for tactical capacity management to 27;
- similarly, the progress in the implementation of Family 4.3.1 - Automated Support for Traffic Complexity Assessment and Flight Planning interfaces will bring to a total of 23 out of 30 countries closing the gap.

In 2023, the implementation activities are expected to significantly accelerate, as the percentage of closed gaps will spike to around 44%, thanks to the closure of additional 71 gaps in addition to the ones expected to be closed in 2022, leading to a total number of 247.

By the end of 2024, the number of closed gaps will still continue to grow up to 275, topping 49% of the overall implementation of the Common Project One: the constant growth (with 28 gaps closed during 2024) is explicitly led by the progress in the implementation of AF1, with 10 gaps to be closed.

Moreover, it is worth underlining that the acceleration in the deployment progress in 2025 is expected to be significantly pushed by the closure of implementation activities from AF2 (18 closed gaps) and especially AF5 (103 closed gaps).

According to information submitted by the relevant ATM stakeholders and with their currently declared plans, in the longer run (from 2026 to the end of 2027) the progress in CP1 deployment will continue at a steady pace, allowing for the closure of above 72 gaps in total, with a significant increase in closed gaps especially within AF6.

At the current time, 4% ground gaps are explicitly declared to be closed beyond the CP1 target dates set forth in the Regulation for each ATM Functionality. Moreover, the fact that the 14% of the gaps have no dedicated plans yet does not necessarily entail a non-compliance with CP1. For the sake of accuracy when adding up the expected Implementation Dates, these gaps could not be taken into account for the production of Figures 24 to 30.

SDM, together with the relevant SES bodies and in cooperation with all involved stakeholders, is carefully monitoring these potential issues and is supporting operational stakeholders in the identification, definition and implementation of the necessary mitigation actions to raise the level of readiness for deployment of the relevant technological elements. This objective is achieved through Risk Assessment process managed by SDM, complemented with the organisation of workshops, sharing of best practices and visits to stakeholders in order to raise awareness on SDP implementation.

Due to the specific requirements of Family 5.1.1 - Common SWIM PKI and cyber security, the deployment activities are following a coordinated and EU-wide approach, rather than been steered by locally-based implementation initiatives. As an example, CEF IP 2017_084_AF5 "SWIM Common PKI and policies & procedures for establishing a Trust framework" is a multi-stakeholder initiative, awarded in 2017 CEF Transport Call, aiming at deploying a common framework for both integrating local stakeholder PKI deployments in an interoperable manner, as well as providing interoperable digital certificates to the users of SWIM services.

Moreover, the new coordinated effort to deploy Data Link Services at European level is supporting 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. Particular attention is being paid towards the activities required to meet the industrialisation target date of AF6 "Initial Trajectory Information Sharing".

Detailed views per ATM Functionality

AF1 – Extended AMAN and Integrated AMAN/DMAN in the high-density TMA

The implementation activities associated to AF1 are progressing and already starting to deliver their first results in terms of operational benefits and of related performance improvements: around 8% out of the 24 gaps to be covered have already been closed, laying down the ground for the future implementation of all technological and operational elements mandated by the Common Project One.

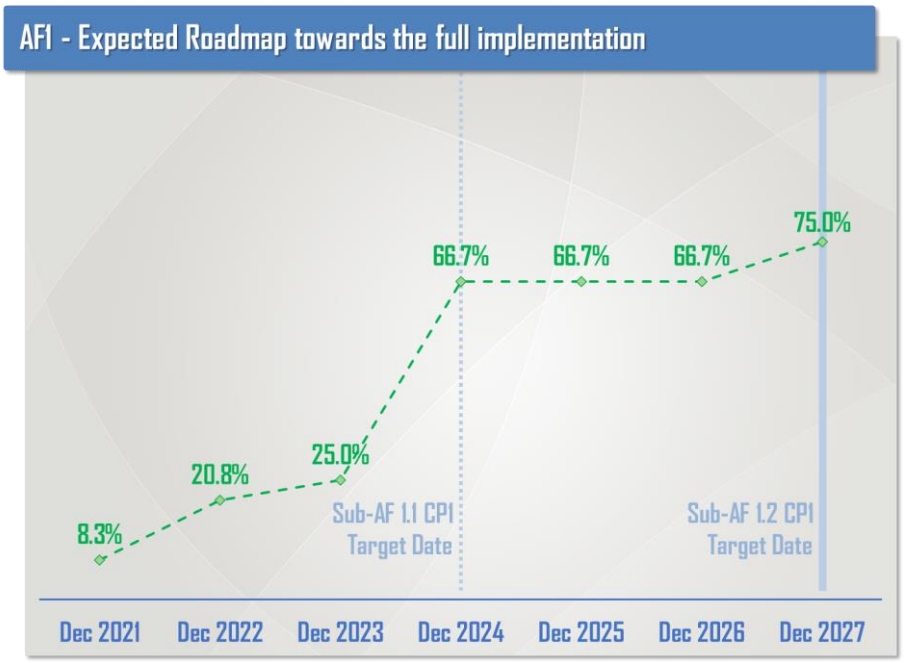


Figure 25 - AF1 Expected Roadmap for Implementation

The implementation progress rate is expected to slow down during 2022 and 2023, then experiencing a significant spike during 2024, coinciding with the target date set in the Regulation for Family 1.1.1 on December 2024, bringing the total of closed gaps to 16 (around 67% of the total) whilst the remaining 2 planned gaps are expected to be implemented between January 2025 and December 2027, target date set by the regulation for Family 1.2.1.

It is worth noting that the implementation activities have already produced their results mainly regarding Family 1.1.1 - Arrival Management extended to en-route airspace, which has been fully implemented in Copenhagen, Vienna, Frankfurt and Munich airports.

The progress achieved within the implementation of this Family is of utmost importance: the implementation of Arrival Manager extended to en-route airspace will support airport departure management systems with real time information, enabling airport stakeholders to plan and prepare for aircraft turn-around at an early stage. This supports sequencing of departing traffic respecting AMAN and DMAN constraints for an optimum utilisation of RWY(s) (Family 2.1.1 - Departure Management Synchronised with Pre-departure sequencing). Besides, Extended AMAN and integrated AMAN/DMAN would still represent a significant push towards the implementation of Collaborative Network Management (NOP) to coordinate reconciled target times for improved ATFCM and arrival sequencing set out in AF4.

AF2 – Airport Integration Throughput

The implementation of AF2 currently registers 6 gaps closed out of a total of 87, accounting for around 6% of the overall ATM Functionality. About 70% of closed gaps have been covered thanks to the coordinated effort of ANSPs and Airport Operators, supported by EU public funding and by the oversight / synchronisation of the SESAR Deployment Manager.

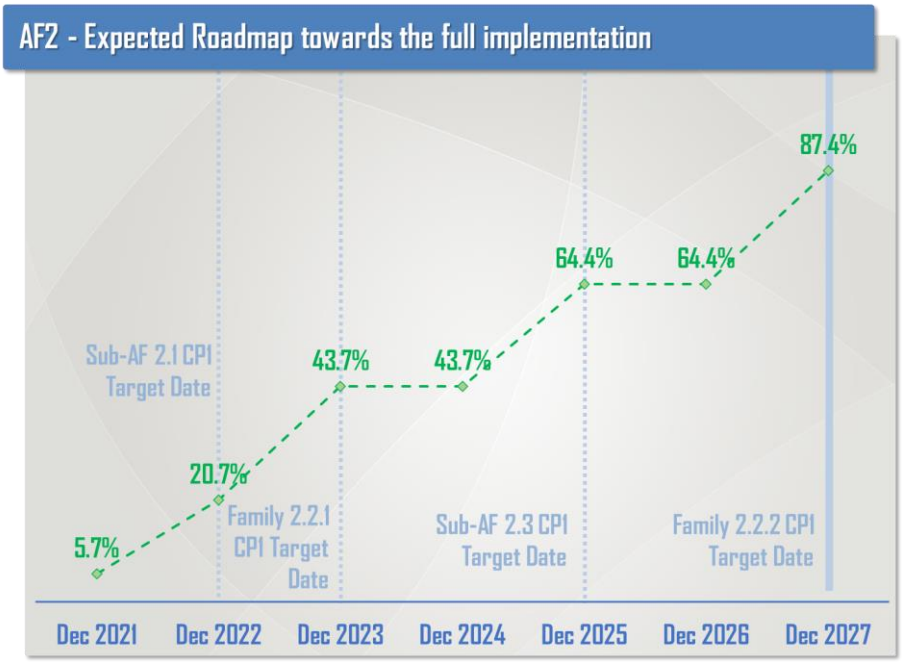


Figure 26 - AF2 Expected Roadmap for Implementation

In the next months, the progress rate of the ATM functionality is still expected to deliver results: by the end of 2022, coinciding with the target date set in the Regulation for Family 2.1.1 on December 2022, the total number of closed gaps is expected to increase to 19, amounting to around 21% of the total gaps for AF2. That is mostly due to the completion of several Implementation Projects coordinated by SDM associated to AF2, in some cases involving a wide number of operational stakeholders from different CP1 airports.

The implementation will then continue at full pace in the following years, bringing the total amount of closed gaps on December 2023 (target date set by the regulation for Family 2.2.1) to 39, representing almost 44% of total gaps.

It should be noted that, by December 2025, target date set by the regulation for Family 2.3.1 the number of closed gaps should be 57, amounting to 64% of the total existing implementation gaps, while the remaining gaps will be closed by 2027.

For 10 gaps, no specific date has been identified by the stakeholders, due to lack of detailed plans towards the full implementation.

The status of implementation of Family 2.1.1 - Departure Management Synchronised with Pre-departure sequencing is well-advanced at the current time, considering that it is already deployed respectively in 5 airports across the CP1 geographical scope: Munich, Paris-Roissy Charles de Gaulle, Paris-Orly, Zürich and Nice Côte D'Azur. Nevertheless, the implementation effort from operational stakeholders is expected to lead to the complete closure of the Family beyond the relevant implementation target dates listed in the SESAR Deployment Programme.

It is however worth emphasising that the foreseen implementation of Sub-AF 2.2 - Airport Operations Plan is well progressing, considering that "Initial AOP" is already deployed in Amsterdam Schiphol and all the remaining CP1 airports are planning to deploy the Family by the CP1 target date in 2023. As the iAOP comprises the basic elements to exchange the data elements with the NOP and paves the way to Extended AOP, positive results are expected on the future implementation of Family 2.2.2 - Extended AOP, currently on-going or planned by the majority of stakeholders and whose target date is set in December 2027.

Finally, the implementation of Family 2.3.1 - Airport Safety Nets has already started at all CP1 airports. This Family is connected to Families 1.2.1 - AMAN/DMAN Integration, 2.1.1 - Departure Management Synchronised with Pre-departure sequencing, 2.2.1 - Initial AOP and 2.2.2 - Extended AOP as well as other airport systems elements such as but not limited to A-CDM, A-SMGCS Surveillance service, airport operations status data and mobile information data ensuring better predictability of traffic movement, hence improving safety.

AF3 – Flexible Airspace Management and Free Route Airspace

The deployment of "Flexible Airspace Management and of Free Route" at European level is progressing at a notable speed, with around 43% of the identified implementation gaps already fully completed by operational stakeholders.

By the end of 2022, the overall number of closed gaps is expected to raise at 84, reaching 75% of the total, thanks to the almost full completion of Family 3.1.1 - ASM and A-FUA, 3.1.2 - Management of Predefined Airspace Configurations, and 3.2.1 - Initial FRA, in compliance with the current CP1 deadline for the ATM Functionality.

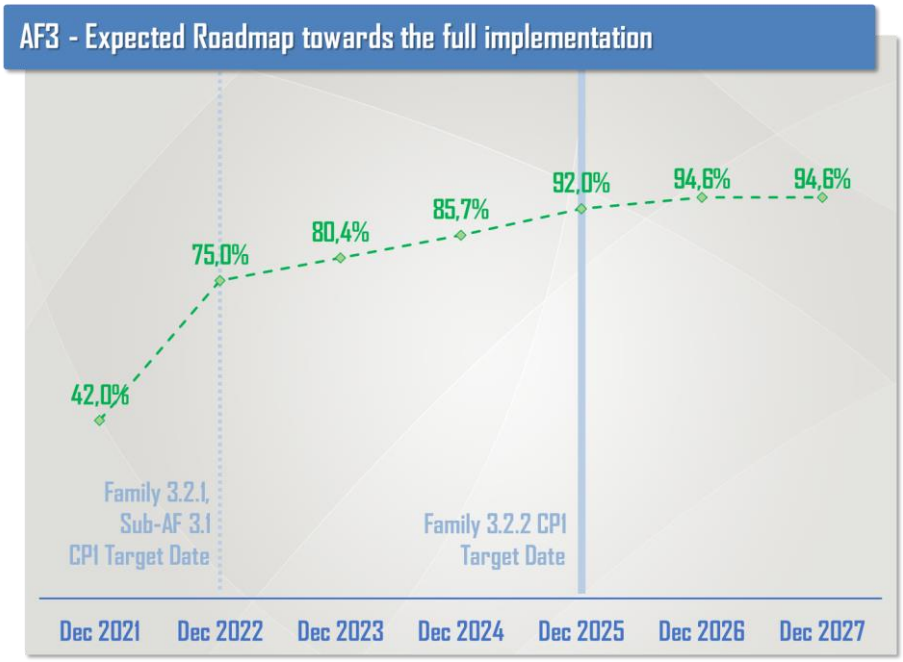


Figure 27 - AF3 Expected Roadmap for Implementation

The progress of AF3 implementation is expected to significantly accelerate in the upcoming 12 months, leading to the coverage of around 80% of the identified gaps by the end of 2023.

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 additional 7 gaps by the end of 2025, coinciding with the target date set in the Regulation for Family 3.2.2, the deployment target date of AF3, pushing the total to 103 closed gaps (around 92%).

For a limited number of gaps (about the 5% of the total), no specific date for the full implementation has been identified by operational stakeholders, while about the 3% of the gaps are planned to be completed beyond the CP1 target date. This is mostly linked to the uncertainty on the closure of already on-going and/or planned activities such as ATC system upgrades/renewals, related to activities linked to the full deployment of Families 3.1.1 - ASM and A-FUA, 3.1.2 - Management of Predefined Airspace Configurations and 3.2.2 - Enhanced Free Route Airspace operations.

AF4 – Network Collaborative Management

The implementation activities associated to ATM Functionality 4 are progressing at a slower pace, in comparison with AF1, AF2 and AF3.

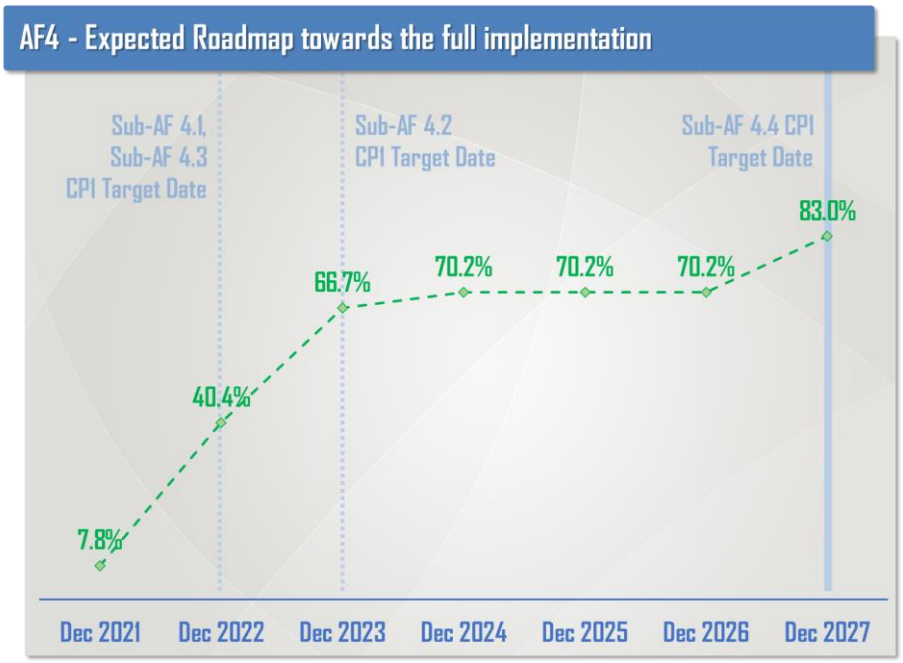


Figure 28 - AF4 Expected Roadmap for Implementation

Around 8% of the identified implementation gaps have been closed until December 2021, but significant progress rate could be expected in 2022, with 46 gaps expected to be closed. This significant step will enable the closure of around 40% of the existing gaps linked to AF4 thanks to the almost full completion of Family 4.1.1 - Enhanced Short Term ATFCM Measures and Family 4.3.1 - Automated Support for Traffic Complexity Assessment and Flight Planning interfaces.

The progress of AF4 implementation is expected to significantly accelerate in the upcoming 12 months, leading to the closure of around 67% of the identified gaps by the end of 2023.

This sudden increase in the number of closed gaps – and in the associated progress of the implementation of the ATM functionality – is closely connected with the deployment target date of Sub-AF 4.2 – Collaborative NOP.

The implementation of specific Families at local level, like Enhanced STAM and the Interactive Rolling NOP indeed require the availability of a common platform, whose development is still on-going by NM. Once the platform enters into operational use, local stakeholders (mostly ANSPs) would be able to proceed with the implementation and close the associated gaps, simply by adapting their operational procedures and training their staff.

For Family 4.3.1 - Automated Support for Traffic Complexity Assessment and Flight Planning interfaces, the responsibilities of the implementation are shared with the Network Manager, which declared plans to timely and effectively comply with the defined regulatory target date, completing the implementation by the end of December 2022. The Traffic Complexity Tools are already deployed and fully operational within Bulgaria, Poland, Switzerland, Latvia, Maastricht UAC and Malta. The implementation will continue at a regular pace until December 2022, when 23 out of 30 gaps will be closed. The deployment efforts from local stakeholders are in the majority of cases supported by SDM-coordinated and EU-funded implementation projects.

It has however to be noted that no specific date of completion has been identified by operational stakeholders for around 17% of the total number of gaps. That is mainly due to the lack of technological maturity of Family 4.4.1 - AOP/NOP integration, because of the interdependencies with "iAOP/NOP integration" (see Family 4.2.2) and with AOP (Families 2.2.1 - Initial AOP and 2.2.2 - Extended AOP). Besides, delays beyond the CP1 target date are expected for the implementation of Families 4.1.1 - Enhanced Short Term ATFCM Measures and 4.3.1 - Automated Support for Traffic Complexity Assessment and Flight Planning interfaces.

AF5 – SWIM

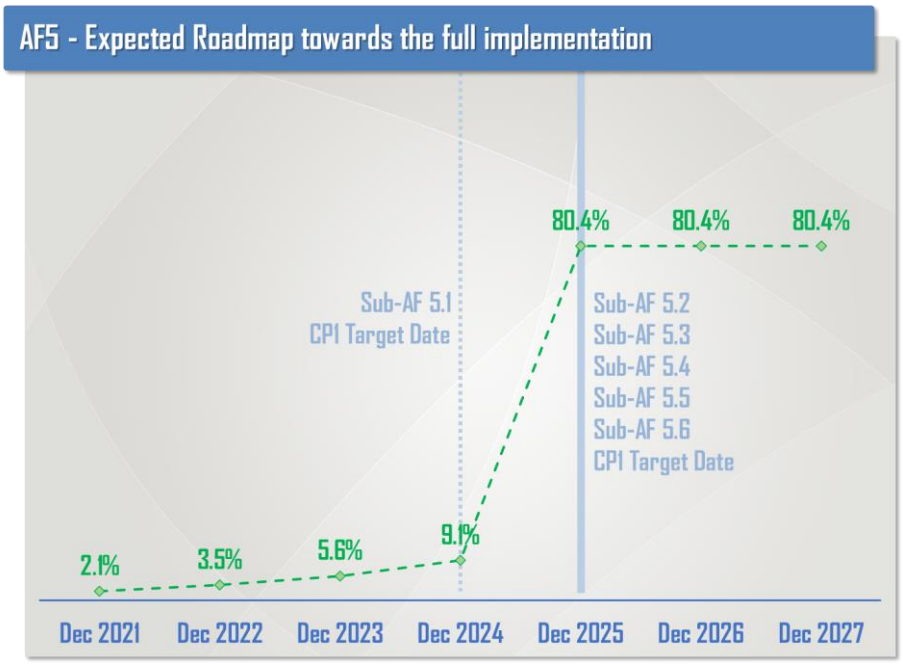


Figure 29 - AF5 Expected Roadmap for Implementation

Similarly to AF4, the implementation of ATM Functionality 5 is still 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 and of the Public Key Infrastructure (PKI), whose overall establishment has to be considered as a critical enabler for the complete implementation of the Family.

More specifically, successful implementation of Families 5.3.1 - Aeronautical Information Exchange, 5.4.1 - Meteorological Information Exchange, 5.5.1 - Cooperative Network Information Exchange, 5.6.1 - Flight Information Exchange covering the different kinds of ATM information exchanges, is 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 Family 5.1.1 - Common SWIM PKI and cyber security.

As a result, around 2% of the total number of AF5-related gaps are currently closed, and a few additional gaps are expected to be closed during 2022, 2023 and 2024. The situation is expected to greatly improve in 2025, with 103 total gaps that will be closed by the end of the year.

Stakeholders did not provide a specific target date for the completion and full implementation of around 20% of the total number of gaps. That is specifically due to the lack of clearly defined plans for the deployment of the Families addressing SWIM Yellow Profile Technical Infrastructure and Specifications and SWIM Services (several gaps associated to Sub-AFs 5.3, 5.4, 5.5 and 5.6 lacks a specific target date). It is however worth noting that for some of the Families, the associated technological elements still have to achieve the full readiness for implementation.

In parallel, the activities associated to the scope of Family 5.1.1 - Common SWIM PKI and cyber security thus the implementation of the SWIM common components covering cyber security, the overall European Aviation Common PKI (EACP) and its associated governance, which the local implementations shall comply with, are on-going with the contribution of 30 partners including Airport Operators, airlines, ANSPs, MET, Military and EUROCONTROL, benefitting of EU funding and in accordance to the specifically developed Action Plan. In particular, the Implementation Project developed a robust governance framework through a consistent set of principles, rules, processes and structure for SWIM governance, laid down in a structured set of documents (Agreement, Structure and Terms of Reference, SWIM service provision policy, etc.), providing the backbone for true ATM digitalisation.

AF6 – Initial Trajectory Information Sharing

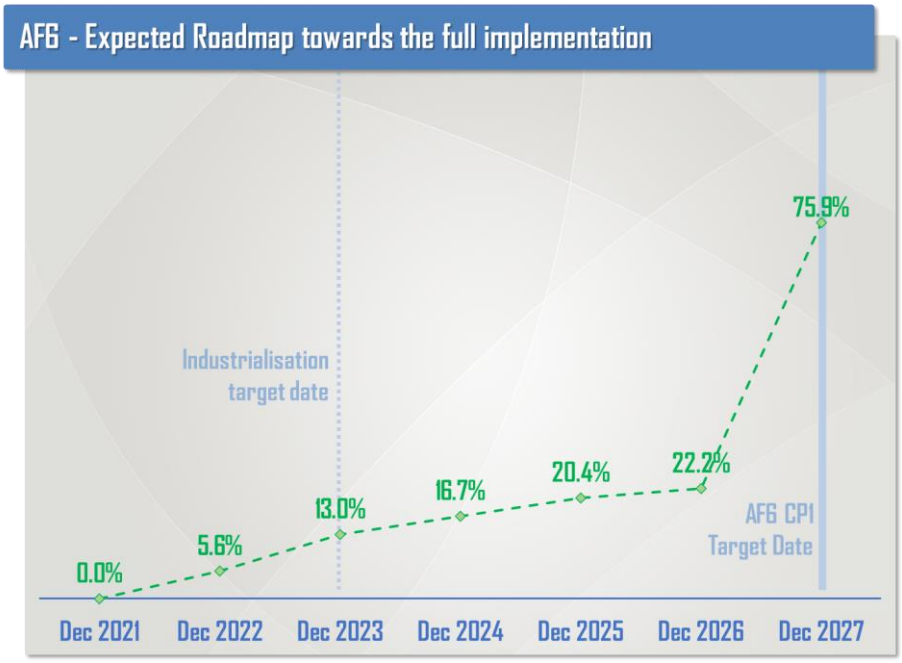


Figure 30 - AF6 Expected Roadmap for Implementation

The implementation of the ground part of ATM Functionality 6 is related to Families 6.1.2 - Initial Air-Ground Trajectory Information Sharing (Airborne Domain), 6.2.1 - Network Manager Trajectory Information Enhancement and 6.3.1 - Initial Trajectory Information Sharing ground distribution. The overall planning of the deployment of initial trajectory information sharing functionality must be synchronised among the ground and airborne systems to ensure operational benefits. In order to satisfy this synchronisation requirement, airborne and ground should provide interoperable interfaces, otherwise the European ATM network would face a lack of seamless operations due to fragmentation and the expected benefits would be jeopardised.

In accordance with the details of such plan, the implementation effort of operational stakeholders is currently focused on Family 6.1.2 and Family 6.3.1, respectively covering the implementation of "Initial Air-Ground Trajectory Information Sharing (Ground Domain)" and "Initial Trajectory Information Sharing ground distribution". The implementation of Family 6.2.1 - Network Manager Trajectory Information Enhancement is entirely dedicated to the upgrade of NM systems in order to use Extended Projected Profile (EPP) data.

The implementation of Family 6.1.2 - Initial Air-Ground Trajectory Information Sharing (Ground Domain), 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. With specific regard to this Family, it is worth recalling that the preliminary steps for the deployment of Initial Trajectory Information Sharing consists of the downlink of Extended Projected Profile (EPP) data from the aircraft and integrating/processing of this data by the ATC systems. Ground systems shall support the ADS-C/EPP application as part of ATS B2 services while retaining compatibility with ATN B1 services as required by Commission Regulation (EC) No. 29/2009 (amended by IR 310/2015) including provision of service to flights equipped only with ATN-B1 services. It's worth mentioning that Family 6.1.2 can only be implemented in conjunction with Family 6.1.1 - Initial Air-Ground Trajectory Information Sharing (Airborne Domain), which is providing the corresponding aircraft functionalities. Nevertheless, the implementation activities associated to Family 6.1.2 have not started yet, with the only exception of MUAC, which has planned a full implementation for May 2022. Besides, Czech Republic defined the requirements for ADS-C/EPP Data integration, but no specific plans are identified for the rest of the gap. The implementation of Family 6.3.1 - Initial Trajectory Information Sharing ground distribution has not started yet, with the exception of MUAC, Czech Republic, Germany, Spain, Sweden and Switzerland. Following the implementation of this Family, Trajectory information data coming from airborne systems will be distributed on the ground to ATS units and NM to minimise the air-ground data transmissions.

The implementation of this Family also benefitted 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 this framework, stakeholders are cooperating both in the implementation of the local transitional solutions and in the definition of the target solution, to be deployed in a synchronised manner at EU level.

COVID-19 impacts on CP1 deployment

Introduction

COVID-19 crisis has put the global economy to the test, with air transport being one of the hardest hit sectors by the pandemic. Containment and other restricting measures put in place to curb the spread of the virus have dealt an abrupt and brutal blow to the whole ATM sector.

In order to assess the magnitude of the COVID-19 impacts on the CP1 Gaps implementation, the information gathered by the operational stakeholders through the Monitoring Exercise process and the SDM Implementation Partners have been considered in the context of the Framework Partnership Agreement.

Methodology

The COVID-19 impacts analysis is based on the data gathered during the current Monitoring Exercise. In fact, the operational stakeholders have been requested, for the ground gaps, to provide information related to the COVID-19 impacts directly in the tool to track their status.

In this sense, the key qualitative information summarised in this analysis has been collected through the LSSIP+ tool descriptive fields populated by the operational stakeholders at gap and stakeholder level. For what concerns the performed quantitative analysis, the data related to the average delays registered at Family, Sub-AF, AF and at stakeholder category level have been derived from the status of the SDM-coordinated CEF projects addressing specific SDP Families, as identified by the operational stakeholders.

It has to be highlighted that no comparisons between the current implementation dates registered at gap level and the ones reported in the last Monitoring View 2020 can be performed because of the change in the applicable regulatory framework, resulted in the repealing of PCP and adoption of CP1 Implementing Regulation in February 2021. Indeed, such change led to the definition of the new SESAR Deployment Programme adherently to the CP1 Sub-ATM functionalities structure and revised implementation target dates, hence delays at gap level cannot be directly quantified.

It can be assumed that the CEF projects delays caused by COVID-19 crisis are correlated to the reported foreseen implementation dates of the gaps to which the CEF projects are linked. It can be consequently deduced that if COVID-19 crisis would have not impacted the implementation activities, certain implementation dates would have been reached earlier than currently reported.

This logic cannot be applied to the following limited number of new SDP Families to which no CEF projects can be linked:

- Family 1.1.2 - AMAN/DMAN integration;
- Family 2.2.2 - Extended AOP;
- Family 4.4.1 - AOP/NOP integration.

In most of the cases, the statuses of the gaps related to the above-mentioned SDP Families are either planned or not yet planned and consequently the COVID-19 impacts at gap level cannot be measured.

With regards to AF6 - Initial Trajectory Information Sharing, the functionalities in scope need to reach their CP1 industrialisation target dates (December 2023) by which the standardisation and certification processes to enable their procurement, installation and implementation shall be completed. Hence, concrete deployment cannot be performed at this stage. For this reason, AF6 is not included in the analysis.

Analysis and results

Overview of results

66% of the gaps addressed by CEF projects have been affected by COVID-19 crisis. The **aggregated average delay** registered by the CEF projects targeting SDP implementation gaps and impacted by COVID-19 crisis **amounts to 19 months**, spread across the analysed operational stakeholders categories: Airport Operators, ANSPs, Airspace Users, MET providers, Military authorities and Network Manager.

From a general perspective, the **operational stakeholders currently show a slow recovery**, especially for Airport Operators, Airspace Users and ANSPs, who are determining the postponement of capital expenditures and the limitation of staffing cost.

Based on the qualitative information gathered by the operational stakeholders, the main factors currently affecting the timely completion of the deployment activities are summarised hereafter:

- **shortage of technical staff,** due to revised investment plans and extension of furlough schemes, added to **mobility limitations** during the first months of the crisis impacting the routine collaboration and coordination activities among operational stakeholders;
- **shift in strategic focus areas and priorities** by the operational stakeholders;
- **traffic loss** registered in 2020 and 2021 did not allow to perform testing, trials and validation activities in real environments causing the postponement of crucial tasks before the entry into operations of new ATM systems and modules;
- **shortage of electronic components** is leading to difficulties in the supply of electronic components in the global market; this situation is bringing to knock on effects resulting in the postponement of implementation activities.

Impact per stakeholder category

Among the different stakeholders' categories leading CEF projects addressing implementation gaps, the aggregate average delay caused by COVID-19 crisis amounts to **19 months,** spread as depicted in the figure below.

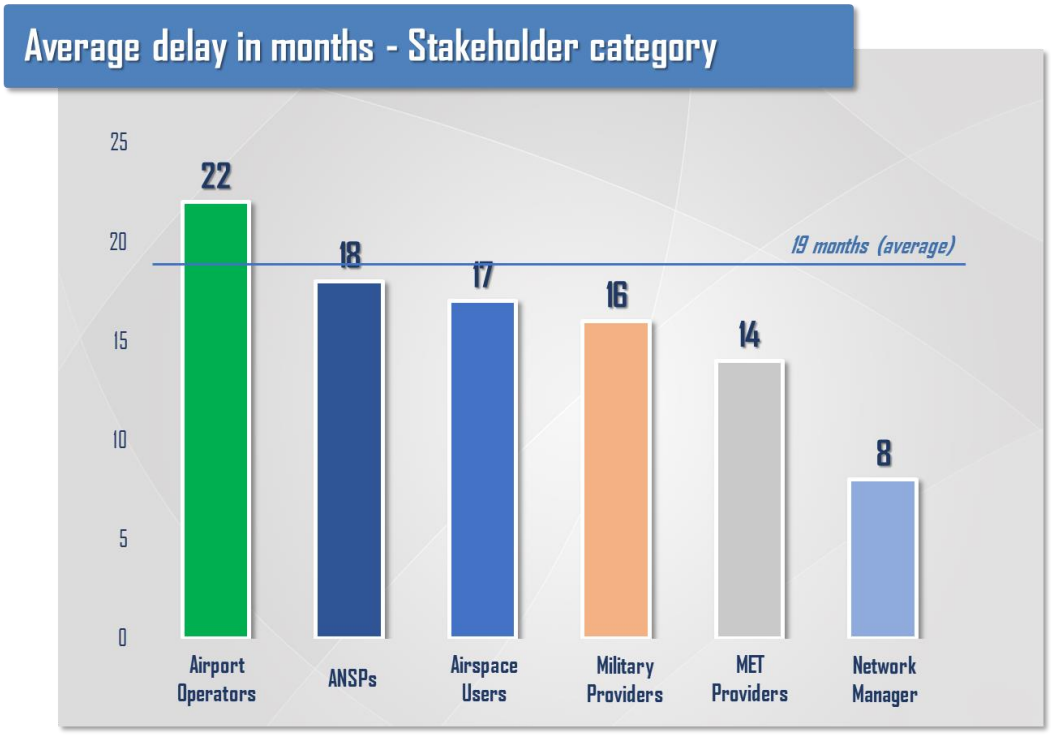


Figure 31 - Average delays caused by COVID-19 crisis per SH category

This outcome confirms the **stakeholders categories most impacted by COVID-19 crisis** continue to be **Airport Operators**, **ANSPs** and **Airspace Users**.

It can be stated that last two years have proven to be a very difficult period for all sectors of the aviation value chain. This is especially true for **Airport Operators**, **ANSPs** and **Civil Airspace Users, where after several years of growth and challenges to meet passenger demands, the global market for air travel has all but disappeared. These operational stakeholders are still currently far from operating their full potential and with the additional challenge of low passenger yields.**

During this period, Military stakeholders have been involved in the response to the COVID-19 pandemic, using their capabilities to support civil crisis management mechanisms. At this point, Military stakeholders are paying particular attention to the potential consequences of the COVID-19 crisis on defence budgets, both at national and at EU level. Consequently, **this is having some negative implications in the medium term on deployment of SES related technology.**

Finally, the **Network Manager** is the stakeholder category **less impacted by the COVID-19 crisis** in terms of registered delays. Nevertheless, a **slowdown of activities** has been flagged in the CEF projects led by NM.

Impact per ATM functionality

Out of **223 applicable gaps addressed by CEF projects**, **136** resulted as affected by COVID-19 crisis **(61%)**.

The reported **average delay ranges for the different ATM Functionalities from 13 to 23 months**, being the highest average delay at AF level reported for **AF2** - Airport Integration and Throughput with **23 months** and the lowest average delay for **AF1** - Extended AMAN and Integrated AMAN/DMAN in the high-density TMA with **13 months**. The figure for AF1 can be explained by a lower level of maturity for implementation and farther deployment target dates, especially for Family 1.2.1- AMAN/DMAN integration which, being a new functionality in scope of CP1, is not targeted by any CEF project awarded so far. In any case, **the figures illustrate that the spread of the impacts is shared across all ATM Functionalities**.

The results gathered in the Monitoring Exercise are being graphically represented in several charts below, clustered per ATM Functionality, Sub-ATM Functionality and SESAR Deployment Programme Family.

The charts titled **"Average delay in months"** depict in bar charts the average recorded delay from those cases where a delay due to COVID-19 crisis was indeed identified. The line chart in the secondary axis informs about the number of gaps affected by COVID-19 crisis and targeting the specific AFs, Sub-AFs or SDP Families for which a stakeholder has reported an incidence in the implementation due to COVID-19 crisis.

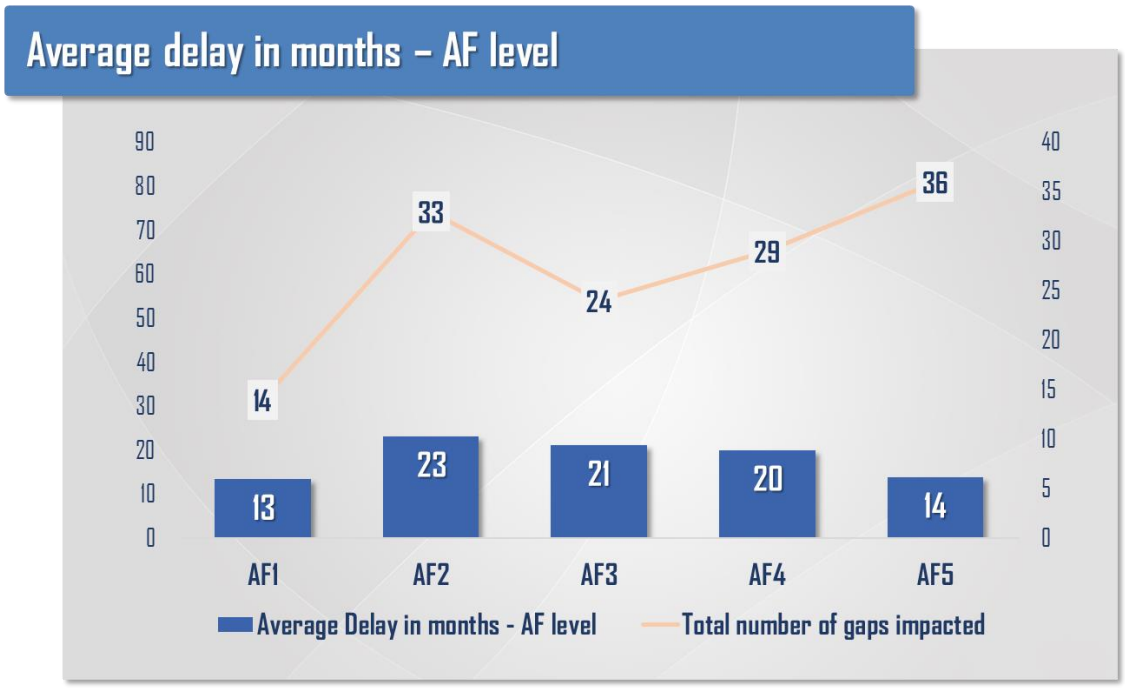


Figure 32 - Average Delay in months – AF level

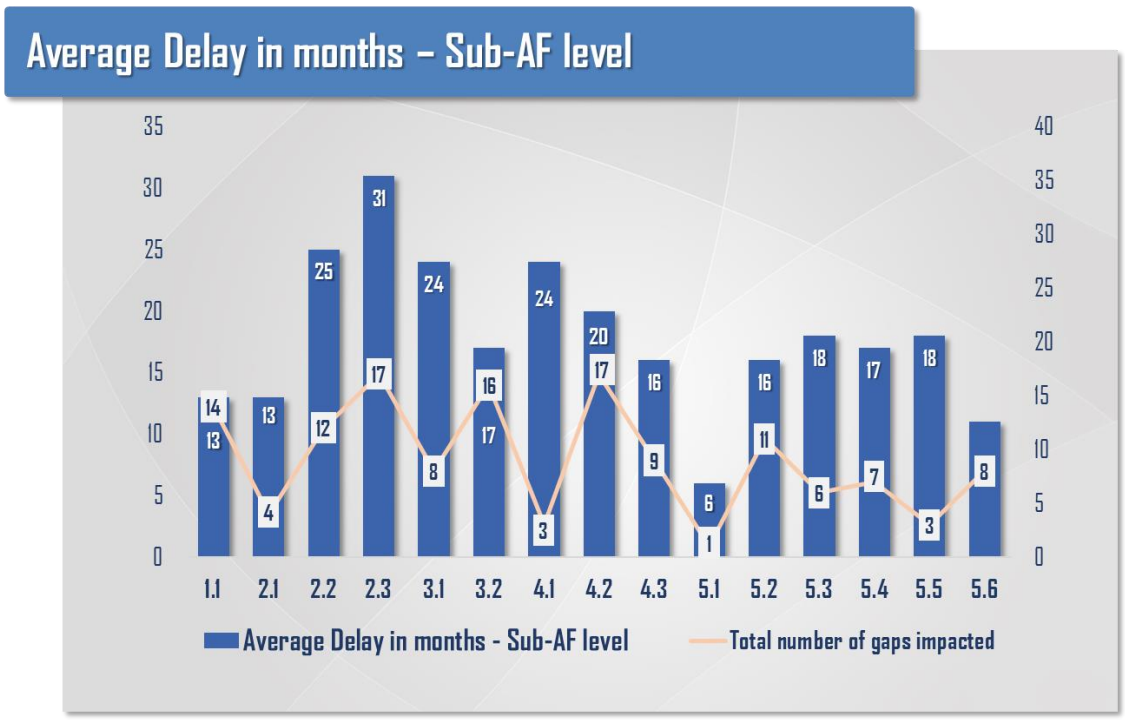


Figure 33 - Average Delay in months – Sub-AF level

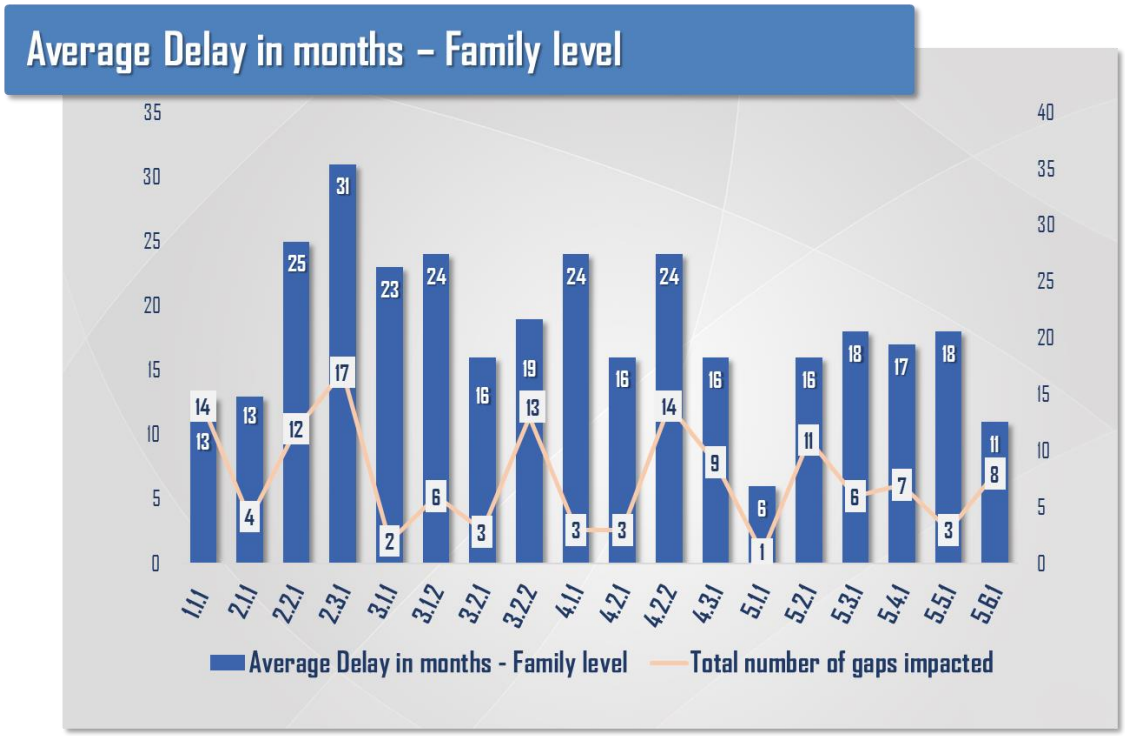


Figure 34 - Average Delay in months – Family level

The following key facts can be highlighted:

- **Sub-AF 2.1** - DMAN synchronised with Pre-departure sequencing presents a lower average delay (13 months) mainly explained by the fact that it is a Functionality where the stakeholders had their investment plans quite advanced when the crisis arrived;

- **Sub-AF 2.3** - Airport Safety Nets and **Sub-AF 2.2** - Airport Operations Plan are substantially the **most affected** especially in terms of average delay (31 months);
- the Sub-ATM Functionalities in **AF3** - Flexible Airspace Management and Free Route presents a highest average delay (24 months) in **Sub-AF 3.1** - Airspace Management and Advanced Flexible Use of Airspace that is approaching its implementation target date in December 2022. **Sub-AF 3.2** - Free Route Airspace is affected by a lower average delay (17 months) but a significant number of gaps are affected (16). However, it is worth noting that the vast majority of 3.2.1 - Initial FRA Gaps are currently either closed or about to be closed by the relevant CP1 target date (31st December 2022);
- **AF4** - Network Collaborative Management presents negative effects in line with the already indicated average values. It can be highlighted the implementation of this AF is jointly addressed by ANSPs, Airport Operators, Airspace Users and Network Manager;
- the charts regarding the effect at Family level clearly show certain Families with few reduced negative effects. This is the case, for instance, of Family 5.1.1 - Common SWIM PKI and Cyber security and Family 5.6.1 - Flight Information Exchange. It is worth noting that these statistics is also affected by the limited number of CEF projects targeting these specific gaps.

COVID-19 Analysis: Conclusions

It continues to be hard for the aviation stakeholders to continue their investments because it is predicted that the length of the recovery phase is still unclear, undoubtedly influencing the near future of CP1 implementation. **The report shows that the average delay is of about 1.5 years, similarly spread across the ATM functionalities identified in the CP1.**

Over the last years there was a significant reduction in staff numbers, especially those in the back office or not having a critical safety role. Further a high number of staff was made redundant or on short time working.

It has to be noted that the **restrictive measures have been lifted in 2021 enabling the resume of several implementation activities.** Nevertheless, when the stakeholders have restarted their initiatives, the implementation activities have been impacted by their natural evolution leading to unforeseen additional delays. As a matter of fact, **the target deployment dates of CP1 Regulation helped to mitigate the effects of these delays.**

It can be concluded that the aviation industry is in the process of recovery from the COVID-19 crisis.

2.Detailed Views per Family and per Service (AF5)

Complementing the overall picture of the deployment at global level, the specific structure of the Monitoring Exercise (and especially its engagement of all operational stakeholders impacted by Regulation (EU) n. 2021/116) 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 CP1 geographical scope. To this end, the Family-based charts included within the present Section aim at reporting on the overall status of implementation of technological and operational elements associated to each Family at local level, whilst also identifying the expected implementation date of such Family within the relevant country or airport.

This detailed outlook supports the identification of the main implementation areas to be tackled by future investments and helps avoiding any gap or critical delay in the Programme's implementation. Furthermore, the information gathered from each organisation engaged in the Exercise results into dedicated *views per stakeholder*, which outline how ANSPs, Airport Operators, MET Service Providers, AISPs and Network Manager are involved in tackling the existing implementation gaps.

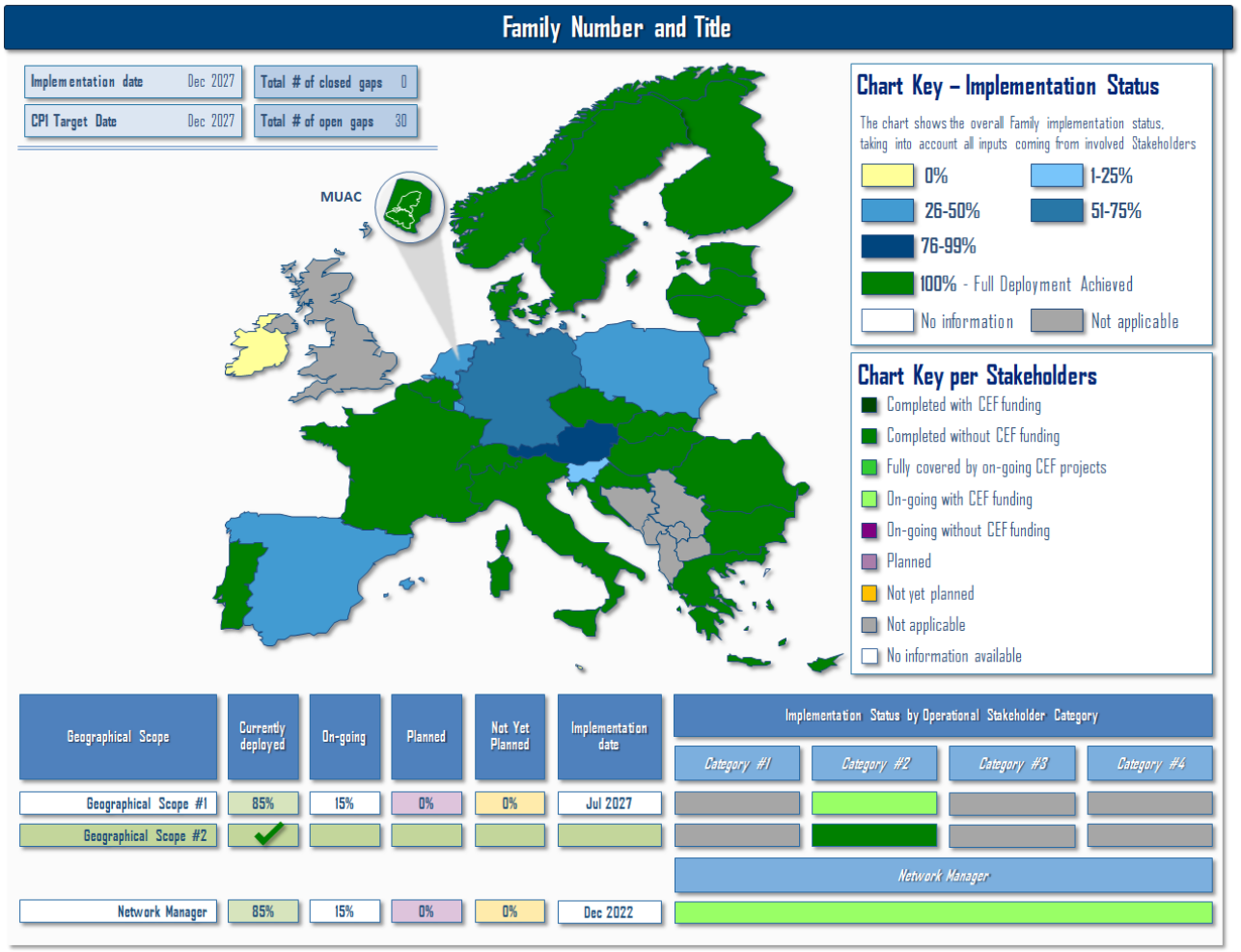
It is worth noting that Family Views of AF5 Service Families are complemented with specific Service Views, aiming at detailing the implementation status of Providers and Consumers of each Service, and the overall implementation status at Service level for each country.

The overall picture of the "geography-based" ground gaps is complemented by the overview on the Airspace Users gaps, defined instead on a fleet-centric approach, due to the fact that AU operations typically expand beyond national and regional borders and affect the whole geographical scope defined by the Common Project One. A specific template based on targeted technical questions structured with the purpose of identifying the status of the technical requirements of each applicable SDP Family has been distributed to Airlines headquartered within the European Union, in order to build a representative view of the current status of implementation.

Structure and layout of the detailed Views

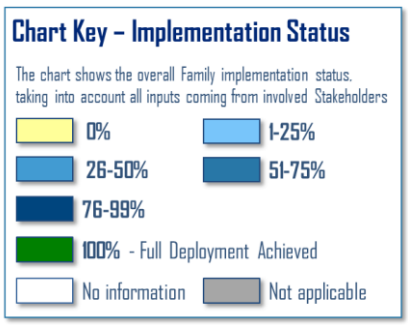
Family View

A generic mock-up of the charts used to provide a representation of the results of the Monitoring Exercise is proposed hereafter for illustrative purposes.

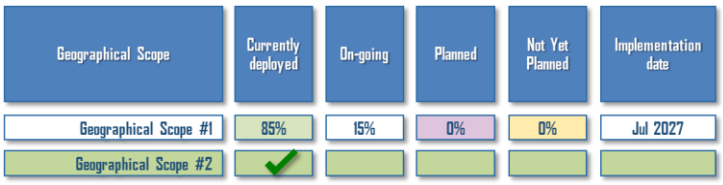


The structure of the chart has been developed with the specific objective of providing the reader with a wide set of data and information within a single snapshot: the following paragraphs include an overall explanation on how the information is presented.

The Europe chart shows different colors for each country included within the geographical scope of Regulation (EU) n. 2021/116; in addition, Maastricht Upper Area Control (MUAC) is represented, as its specific activities expand beyond national borders. For ATM Functionalities 1, 2 and 4 specifically for Families whose geographical scope is structured on an airport basis, the applicable airports are indicated.



These 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).



This percentage ("Currently deployed") is also explicitly reported – within a green box - in the table on the left, for each applicable country or airport. The current status of implementation is then complemented by three additional percentages:

- the "*On-going*" percentage, included in the white boxes, which identifies the percentage of the Family that is covered by on-going activities (both within and beyond the SDM coordination[5]);
- the "Planned" percentage, included in the light-purple boxes, which identifies the percentage of Family that is planned to be covered by future initiatives;
- the "*Not Yet 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 organisations consulted through the Monitoring Exercise, an expected implementation date is provided for each gap: this date represents the expected 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 summarised within the boxes included in the upper left corner of the chart, which report – at Family level – the following information:

- the expected implementation date, i.e. when the Family will be implemented within its whole geographical scope (e.g. all countries and airports), in comparison with the CP1 target 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.

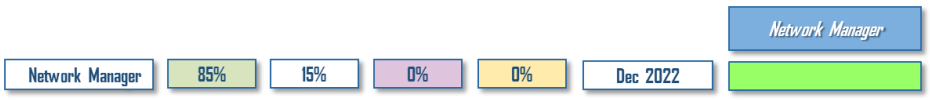
For each country or airport, the right section of the table allows readers to check the status of implementation for each category of stakeholders impacted by the Regulation and involved in the Family full deployment. According to the SESAR Deployment Programme, the following stakeholders' categories are requested by the Common Project One 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:

- ANSPs;
- MET providers;
- AISPs;
- Airport Operators.

At National level (Country gaps), Civil and Military stakeholders were asked to coordinate a single input on the deployment status for each SDP Family in LSSIP+, notably due to the high interdependency of military and civil projects in this domain. For this reason, the category Military Authority is no longer present in the document.

[5] For gaps addressed by initiatives under its specific coordination, SDM is also able to perform an additional cross-check and consistency assessment of the information gathered from stakeholders vis-à-vis the actual progress of the Implementation Projects. For gaps outside SDM direct coordination, the scope of local initiatives and plans is evaluated only on the basis of information declarations provided by operational stakeholders.

The Network Manager implementation status, its percentages of completion and related implementation date are presented – when applicable – in a dedicated section at the bottom of the table.



Building and further refining the clustering used in the previous releases of the Deployment Programme, eight categories of implementation status have been identified for each involved stakeholder, plus a nineth one in case of missing information.

This information is 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.

The following chart key / categories are represented:

- Family's scope *Completed with CEF funding,* when all achievement conditions are respected and have been met, with the support of CEF Funding and under the direct coordination of the SESAR Deployment Manager;
- Family's scope *Completed without CEF funding*, when all achievement conditions are respected and have been met, through deployment activities performed by local stakeholders without the coordination of SDM;
- Family's scope *Fully covered by on-going CEF projects*, when 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;
- Implementation *On-going with CEF funding:* when activities have already started with the support of CEF Funding and under the direct coordination of the SESAR Deployment Manager;
- Implementation *On-going (without CEF funding*: when activities have already started, through deployment activities performed by local stakeholders without the coordination of SDM;
- Implementation *Planned*: when activities have not started yet, but there are plans to execute them;
- Implementation *Not yet planned*: when there are no specific plans to perform the activities required;
- *Not applicable*: in this case, taking into account the specific features and the local arrangements of the geographical scope of the implementation, the activities are considered to be not within the stakeholders' responsibilities;
- *No information available*.

It is worth noting that – having regard to *Completed with CEF*, *Fully covered by on-going* projects and *On-going with CEF* status – the Monitoring View takes into account all Implementation Projects awarded within the framework of CEF Calls 2014, 2015, 2016 and 2017.

The scope of the local initiatives or plans (i.e. the percentage of the gap that will be addressed) is evaluated and assessed on the basis of stakeholders' declarations.

Service View

In order to provide a comprehensive view on AF5 implementation status, a dedicated chart, with same structure as described above, is provided for each single SWIM service constituting Families 5.3.1, 5.4.1, 5.5.1 and 5.6.1.

At this level the boxes included in the upper left corner of the chart represent the geographical scopes to which the service is applicable and their related implementation dates.

Ground Gaps – Family and Service View

AF1 – Extended AMAN and Integrated AMAN/DMAN in the high-density TMA

Family 1.1.1 – Arrival Manager extended to en-route airspace

1.1.1 Arrival Management extended to en-route airspace

Implementation date	Dec 2027	Total # of closed gaps	2
CPI Target Date	Dec 2024	Total # of open gaps	17

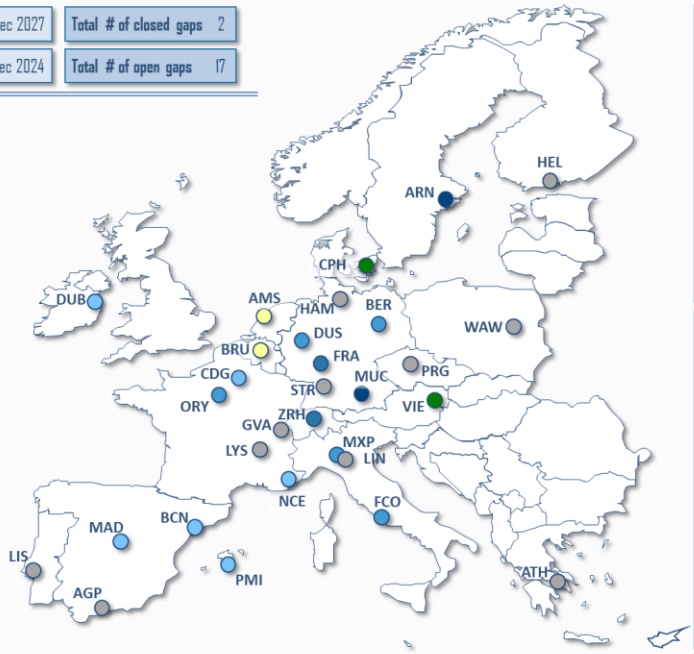


Chart Key – Implementation Status

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

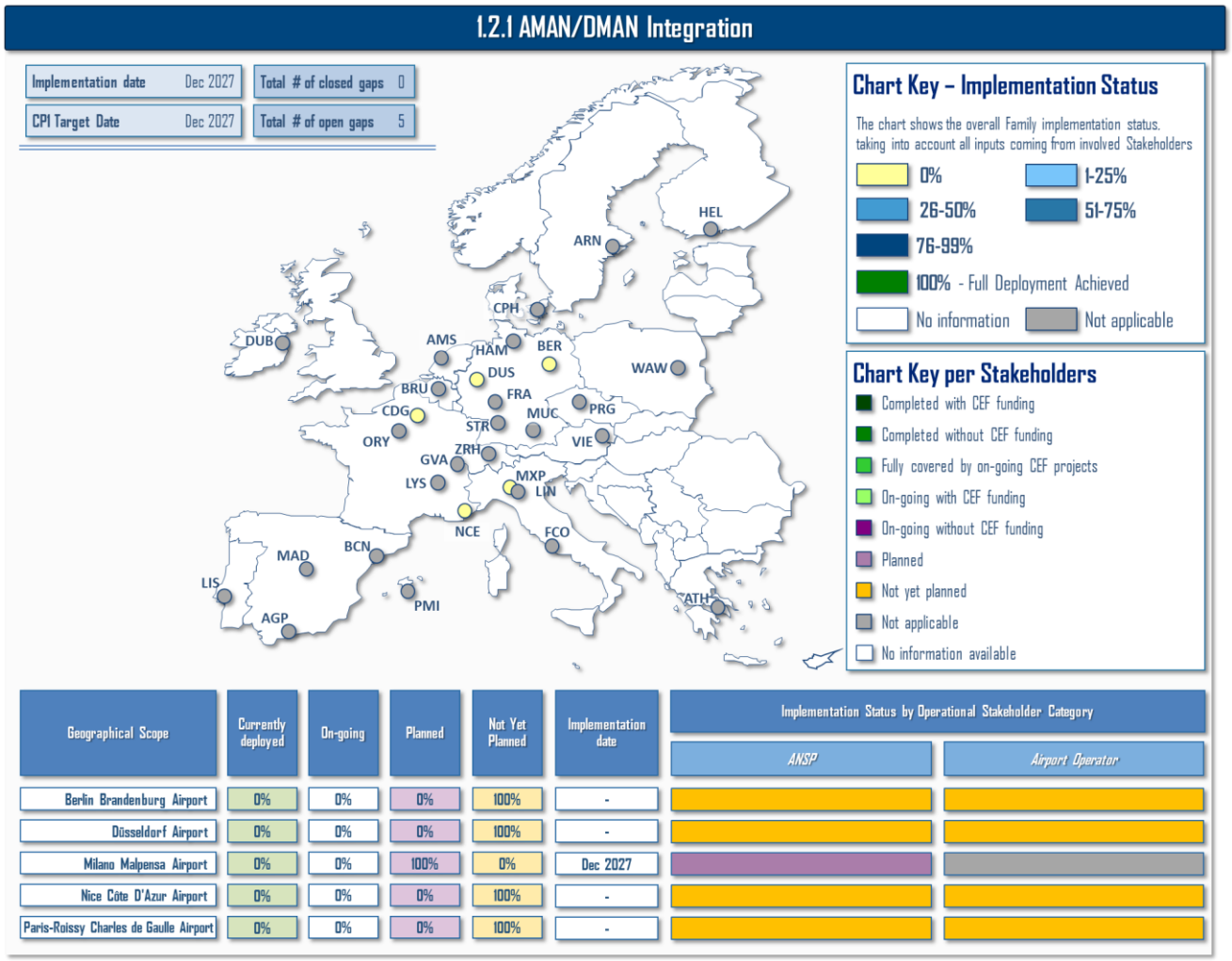
- Completed with CEF funding
- Completed without CEF funding
- Fully covered by on-going CEF projects
- On-going with CEF funding
- On-going without CEF funding
- Planned
- Not yet planned
- Not applicable
- No information available

Geographical Scope	Currently deployed	On-going	Planned	Not Yet Planned	Implementation date	Implementation Status by Operational Stakeholder Category
						ANSP
Adolfo Suarez Madrid Barajas Airport	7%	10%	83%	0%	Dec 2024	
Amsterdam Schiphol	0%	0%	100%	0%	Dec 2024	**
Barcelona-El Prat Airport	8%	25%	67%	0%	Dec 2024	
Berlin Brandenburg Airport	34%	15%	20%	31%	Dec 2024	
Brussels National Airport	0%	0%	100%	0%	Dec 2027	
Copenhagen Kastrup Airport	✓					
Dublin Airport	13%	67%	20%	0%	Dec 2024	
Düsseldorf Airport	39%	10%	0%	51%	Dec 2024	
Fiumicino – L. da Vinci Int. Airport	30%	35%	35%	0%	Dec 2022	
Frankfurt am Main Airport	61%	0%	0%	39%	*	
Milano Malpensa Airport	30%	35%	35%	0%	Dec 2022	
Munich Airport	83%	0%	0%	17%	*	
Nice Côte D'Azur Airport	7%	10%	83%	0%	Dec 2024	
Palma de Mallorca Airport Son S. Joan	7%	10%	83%	0%	Dec 2024	
Paris-Orly Airport	30%	50%	20%	0%	Dec 2022	
Paris-Roissy Charles de Gaulle Airport	24%	56%	20%	0%	Dec 2024	
Stockholm Arlanda Airport	77%	3%	20%	0%	Dec 2024	
Vienna International Airport	✓					
Zürich Airport	66%	34%	0%	0%	Dec 2023	

** Date is not reported as the remaining scope of the family is not yet planned*

*** Supported by CEF Funds*

Family 1.2.1 – AMAN/DMAN Integration



Geographical Scope	Currently deployed	On-going	Planned	Not Yet Planned	Implementation date	Implementation Status by Operational Stakeholder Category	
						ANSP	Airport Operator
Berlin Brandenburg Airport	0%	0%	0%	100%	-		
Düsseldorf Airport	0%	0%	0%	100%	-		
Milano Malpensa Airport	0%	0%	100%	0%	Dec 2027		
Nice Côte D'Azur Airport	0%	0%	0%	100%	-		
Paris-Roissy Charles de Gaulle Airport	0%	0%	0%	100%	-		

Focus on Extended AMAN implementation

The Arrival Manager extended to en-route airspace requires an extension of AMAN advisories up to a minimum of 180 nautical miles from the arrival airport. Shorter horizon distance shall be considered when, due to the geographical location of the arrival airport, the extension of the AMAN horizon does not provide additional performance benefits. Taking into account these specific requirements, operational stakeholders were requested to report the implementation status of the relevant ACCs for each applicable airport.

Therefore, the monitoring of Family 1.1.1 is further detailed, and is organised on the basis of the Area Control Centers potentially impacted by the extension of the horizon of the Arrival Manager system.

Information on the status of implementation of the Family have been requested to operational stakeholders and – when possible – cross-checked with input and data stemming from SDM-coordinated Implementation Projects.

In this perspective, the following tables report on the status of implementation of Extended AMAN in the 19 TMAs, providing specific information on the Area Control Centers impacted by the deployment activities (within 180 nautical miles).

Adolfo S. Madrid-Barajas Airport — Dec 2024

	Status of implementation
Madrid ACC	On-going with CEF
Barcelona ACC	On-going with CEF
Seville ACC	On-going with CEF
Lisboa ACC	Planned
Bordeaux ACC	Planned

Amsterdam Schiphol — Dec 2024

	Status of implementation
Amsterdam ACC	On-going with CEF
MUAC ACC	Planned
Bremen ACC	Planned
Langen UAC	Planned
Karlsruhe UAC	Planned
Brussels ACC	Planned
London ACC	Planned
Paris ACC	Planned
Reims ACC	Planned

Barcelona-El Prat Airport — Dec 2024

	Status of implementation
Barcelona ACC	On-going with CEF
Palma ACC	On-going with CEF
Madrid ACC	On-going with CEF
Bordeaux ACC	On-going with CEF
Marseille ACC	On-going with CEF

Berlin Brandenburg Airport — Dec 2024

	Status of implementation
Bremen ACC	Not Applicable
Karlsruhe UAC	On-going with CEF
Munich ACC	On-going with CEF
Warsaw ACC	Not Yet Planned
Copenhagen ACC	Not Yet Planned
Maastricht UAC	Not Yet Planned
Prague ACC	Not Yet Planned
Malmo ACC	Not Yet Planned
Langen ACC	Not Yet Planned

Brussels National Airport — Dec 2027

	Status of implementation
Brussels ACC	Planned
Maastricht UAC	Planned
Amsterdam ACC	Planned
Brest ACC	Planned
Langen ACC	Planned
Karlsruhe UAC	Planned
Paris ACC	Planned
Reims ACC	Planned
London ACC	Planned

Copenhagen Kastrup Airport — ✓

	Status of implementation
Amsterdam ACC	Not Applicable
Copenhagen ACC	Already Implemented
Malmo ACC	Already Implemented
Maastricht UAC	Not Applicable
Bremen ACC	Not Applicable

Dublin Airport — Dec 2024

	Status of implementation
Dublin ACC	On-going with CEF
Shannon ACC	On-going with CEF
Prestwick ACC	Not Yet Planned
London ACC	Not Yet Planned

Dusseldorf Airport — Dec 2024

	Status of implementation
Langen ACC	Not Applicable
Bremen ACC	On-going with CEF
Karlsruhe UAC	On-going with CEF
Maastricht UAC	Not Yet Planned
Amsterdam ACC	Not Yet Planned
Brussels ACC	Not Yet Planned
Reims ACC	Not Yet Planned
London ACC	Not Yet Planned

Frankfurt am Main Airport — -*

	Status of implementation
Bremen ACC	Already implemented
Karlsruhe UAC	Already implemented
Munich ACC	Already implemented
Langen ACC	Not Applicable
Maastricht UAC*	On-going with CEF
Brussels ACC	Not Yet Planned
Reims ACC*	On-going with CEF

** Date is not reported because the remaining implementation activities for Maastricht UAC and Reims ACC are not yet planned*

Milano Malpensa Airport — Dec 2022

	Status of implementation
Milan ACC	On-going
Rome ACC	On-going
Brindisi ACC	On-going
Zurich and Geneva ACCs	On-going
Vienna ACC	On-going
Zagreb ACC	On-going
Ljubljana ACC	On-going
Marseille ACC	On-going
Reims ACC	On-going
Karlsruhe UAC	On-going
Munich ACC	On-going
Langen ACC	On-going

Munich Airport — -*

	Status of implementation
Munich ACC	Not Applicable
Langen ACC	Already implemented
Prague ACC	Already implemented
Zurich ACC	Already implemented
Geneva ACC	Not Applicable
Vienna ACC	Already implemented
Karlsruhe UAC	Already implemented
Milan ACC	Not Applicable
Padua ACC	Not Yet Planned
Ljubljana ACC	Not Applicable

** Date is not reported because the remaining implementation activities for Padua ACC are not yet planned*

Nice Côte D'Azur Airport — Dec 2024

	Status of implementation
Marseille ACC	Already implemented
Bordeaux ACC	Not Applicable
Palma ACC	Not Applicable
Milan ACC	On-going
Rome ACC	Not Applicable
Geneva ACC	Not Yet Planned
Zurich ACC	Not Applicable

Palma de Mallorca Son S. Joan — Dec 2024

	Status of implementation
Palma ACC	On-going with CEF
Barcelona ACC	On-going with CEF
Madrid ACC	On-going with CEF
Seville ACC	On-going with CEF
Marseille ACC	On-going
Bordeaux ACC	Planned
Alger ACC	Planned

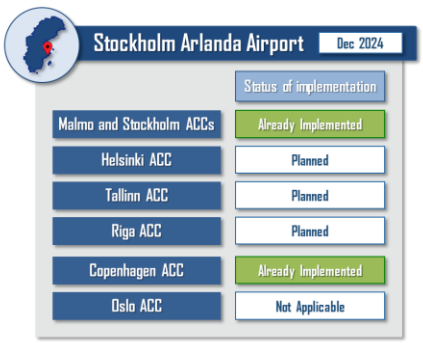
Paris-R.Charles de Gaulle Airport — Dec 2024

	Status of implementation
Paris ACC	Already Implemented
Bordeaux ACC	On-going with CEF
Brest ACC	On-going with CEF
Marseille ACC	On-going with CEF
Reims ACC	On-going with CEF
Brussels ACC	Not Applicable
Maastricht UAC	Already Implemented
Amsterdam ACC	Not Applicable
Langen ACC	Not Applicable
Karlsruhe UAC	Planned
London ACC	Planned

Paris-Orly Airport — Dec 2022

	Status of implementation
Paris ACC	Already Implemented
Bordeaux ACC	On-going with CEF
Brest ACC	On-going with CEF
Marseille ACC	On-going with CEF
Reims ACC	Not Applicable
Brussels ACC	Not Applicable
Maastricht UAC	Not Applicable
Amsterdam ACC	Not Applicable
Langen ACC	Not Applicable
Karlsruhe UAC	Not Applicable
London ACC	Not Applicable


Fiumicino International Airport
Dec 2022
Status of implementation
Rome ACC
On-going
Brindisi ACC
On-going
Milan ACC
On-going
Marseille ACC
On-going
Zagreb ACC
On-going

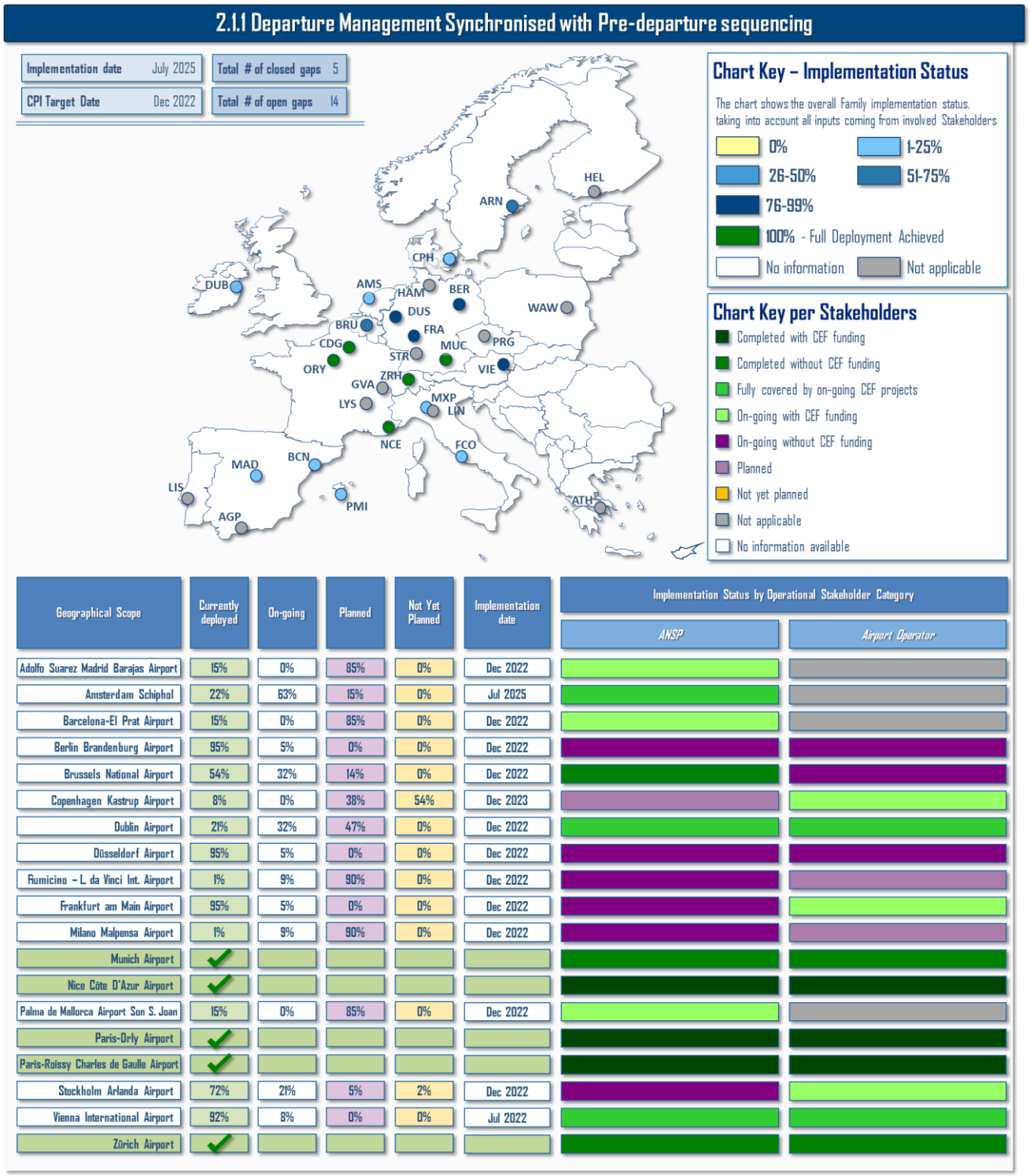

Stockholm Arlanda Airport
Dec 2024
Status of implementation
Malmo and Stockholm ACCs
Already Implemented
Helsinki ACC
Planned
Tallinn ACC
Planned
Riga ACC
Planned
Copenhagen ACC
Already Implemented
Oslo ACC
Not Applicable


Vienna International Airport
Status of implementation
Vienna ACC
Already Implemented
Milan ACC
Not Applicable
Prague ACC
Already Implemented
Bratislava ACC
Already Implemented
Budapest ACC
Already Implemented
Zagreb ACC
Not Applicable
Ljubjana ACC
Not Applicable
Munich ACC
Not Applicable


Zürich Airport
Dec 2023
Status of implementation
Zurich ACC
Already Implemented
Geneva ACC
Planned
Milan ACC
Planned
Maastricht UAC
Planned
Marseille ACC
Planned
Reims ACC
Already Implemented
Karlsruhe UAC
Planned
Langen ACC
Already Implemented
Munich ACC
Already Implemented

AF2 – Airport Integration and Throughput

Family 2.1.1 – Departure Management Synchronised with Pre-Departure Sequencing



Geographical Scope	Currently deployed	On-going	Planned	Not Yet Planned	Implementation date	Implementation Status by Operational Stakeholder Category	
						ANSP	Airport Operator
Adolfo Suarez Madrid Barajas Airport	15%	0%	85%	0%	Dec 2022		
Amsterdam Schiphol	22%	63%	15%	0%	Jul 2025		
Barcelona-El Prat Airport	15%	0%	85%	0%	Dec 2022		
Berlin Brandenburg Airport	95%	5%	0%	0%	Dec 2022		
Brussels National Airport	54%	32%	14%	0%	Dec 2022		
Copenhagen Kastrup Airport	8%	0%	38%	54%	Dec 2023		
Dublin Airport	21%	32%	47%	0%	Dec 2022		
Düsseldorf Airport	95%	5%	0%	0%	Dec 2022		
Fiumicino – L da Vinci Int. Airport	1%	9%	90%	0%	Dec 2022		
Frankfurt am Main Airport	95%	5%	0%	0%	Dec 2022		
Milano Malpensa Airport	1%	9%	90%	0%	Dec 2022		
Munich Airport	✓						
Nice Côte D'Azur Airport	✓						
Palma de Mallorca Airport Son S. Joan	15%	0%	85%	0%	Dec 2022		
Paris-Orly Airport	✓						
Paris-Roissy Charles de Gaulle Airport	✓						
Stockholm Arlanda Airport	72%	21%	5%	2%	Dec 2022		
Vienna International Airport	92%	8%	0%	0%	Jul 2022		
Zürich Airport	✓						

Family 2.2.1 – Initial AOP

2.2.1 Initial AOP

Implementation date	Dec 2023	Total # of closed gaps	1
CPI Target Date	Dec 2023	Total # of open gaps	18

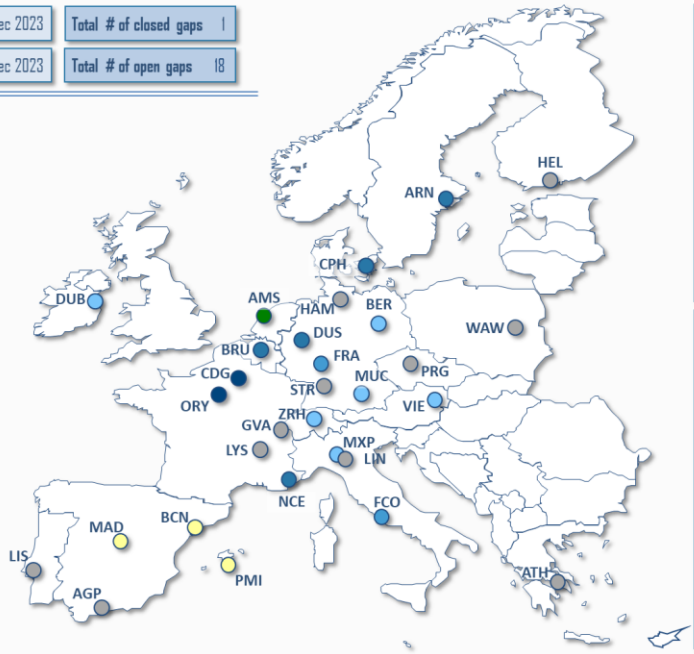


Chart Key – Implementation Status

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

- Completed with CEF funding
- Completed without CEF funding
- Fully covered by on-going CEF projects
- On-going with CEF funding
- On-going without CEF funding
- Planned
- Not yet planned
- Not applicable
- No information available

Geographical Scope	Currently deployed	On-going	Planned	Not Yet Planned	Implementation date	Implementation Status by Operational Stakeholder Category	
						ANSP	Airport Operator
Adolfo Suarez Madrid Barajas Airport	0%	0%	100%	0%	Dec 2023		
Amsterdam Schiphol	✔						
Barcelona-El Prat Airport	0%	0%	100%	0%	Dec 2023		
Berlin Brandenburg Airport	14%	38%	48%	0%	Dec 2023		
Brussels National Airport	65%	15%	20%	0%	Dec 2023		
Copenhagen Kastrup Airport	74%	11%	15%	0%	Dec 2023		
Dublin Airport	21%	64%	15%	0%	Dec 2023		
Düsseldorf Airport	63%	27%	10%	0%	Dec 2023		
Fiumicino – L da Vinci Int. Airport	40%	15%	45%	0%	Dec 2023		
Frankfurt am Main Airport	33%	43%	24%	0%	Dec 2023		
Milano Malpensa Airport	5%	47%	48%	0%	Dec 2023		
Munich Airport	15%	47%	38%	0%	Dec 2023		
Nice Côte D'Azur Airport	54%	38%	8%	0%	Dec 2023		
Palma de Mallorca Airport Son S. Joan	0%	0%	100%	0%	Dec 2023		
Paris-Orly Airport	78%	13%	9%	0%	Dec 2023		
Paris-Roissy Charles de Gaulle Airport	78%	13%	9%	0%	Dec 2023		
Stockholm Arlanda Airport	54%	38%	8%	0%	Dec 2023		
Vienna International Airport	19%	67%	14%	0%	Dec 2023		
Zürich Airport	3%	23%	74%	0%	Dec 2023		

Family 2.2.2 – Extended AOP

2.2.2 Extended AOP

Implementation date	Dec 2027	Total # of closed gaps	0
CPI Target Date	Dec 2027	Total # of open gaps	30

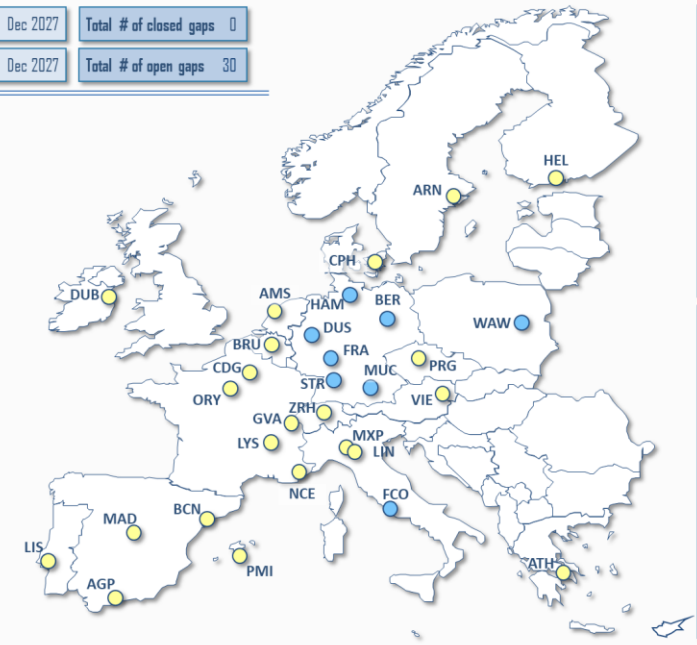


Chart Key – Implementation Status

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

- Completed with CEF funding
- Completed without CEF funding
- Fully covered by on-going CEF projects
- On-going with CEF funding
- On-going without CEF funding
- Planned
- Not yet planned
- Not applicable
- No information available

Geographical Scope	Currently deployed	On-going	Planned	Not Yet Planned	Implementation date	Implementation Status by Operational Stakeholder Category	
						ANSP	Airport Operator
Adolfo Suarez Madrid-Barajas Airport	0%	0%	100%	0%	Dec 2027		
Amsterdam Schiphol	0%	0%	0%	100%	-		
Athens International Airport E. Venizelos	0%	0%	0%	100%	-		
Barcelona-El Prat Airport	0%	0%	100%	0%	Dec 2027		
Berlin Brandenburg Airport	1%	7%	92%	0%	Dec 2027		
Brussels National Airport	0%	0%	0%	100%	-		
Copenhagen Kastrup Airport	0%	0%	0%	100%	-		
Dublin Airport	0%	0%	0%	100%	-		
Düsseldorf Airport	3%	5%	92%	0%	Dec 2027		
Fiumicino – L. da Vinci Int. Airport	3%	5%	92%	0%	Dec 2027		
Frankfurt am Main Airport	1%	7%	92%	0%	Dec 2027		
Geneva Airport	0%	0%	0%	100%	-		
Hamburg Airport	1%	7%	50%	42%	Dec 2027		
Helsinki-Vantaan lentoasema Airport	0%	0%	100%	0%	Dec 2027		
Lisbon Portela Airport	0%	0%	100%	0%	Dec 2027		
Lyon Saint-Exupery Airport	0%	0%	0%	100%	-		
Malaga - Costa Del Sol Airport	0%	0%	100%	0%	Dec 2027		
Milano Linate Airport	0%	0%	100%	0%	Dec 2027		
Milano Malpensa Airport	0%	0%	100%	0%	Dec 2027		
Munich Airport	1%	7%	43%	49%	Dec 2027		
Nice Côte D'Azur Airport	0%	0%	0%	100%	-		
Palma de Mallorca Airport Son S. Joan	0%	0%	100%	0%	Dec 2027		
Paris-Orly Airport	0%	0%	0%	100%	-		
Paris-Roissy Charles de Gaulle Airport	0%	0%	0%	100%	-		
Stockholm Arlanda Airport	0%	0%	50%	50%	Dec 2027		
Stuttgart Airport	1%	7%	50%	42%	Dec 2027		
Vaclav Havel Airport Prague	0%	0%	100%	0%	Dec 2027		
Vienna International Airport	0%	0%	100%	0%	Dec 2027		
Warsaw Chopin Airport	1%	7%	92%	0%	Dec 2027		
Zürich Airport	0%	0%	50%	50%	Dec 2027		

Family 2.3.1 – Airport Safety Nets

2.3.1 Airport Safety Nets

Implementation date	Dec 2025	Total # of closed gaps	0
CPI Target Date	Dec 2025	Total # of open gaps	19

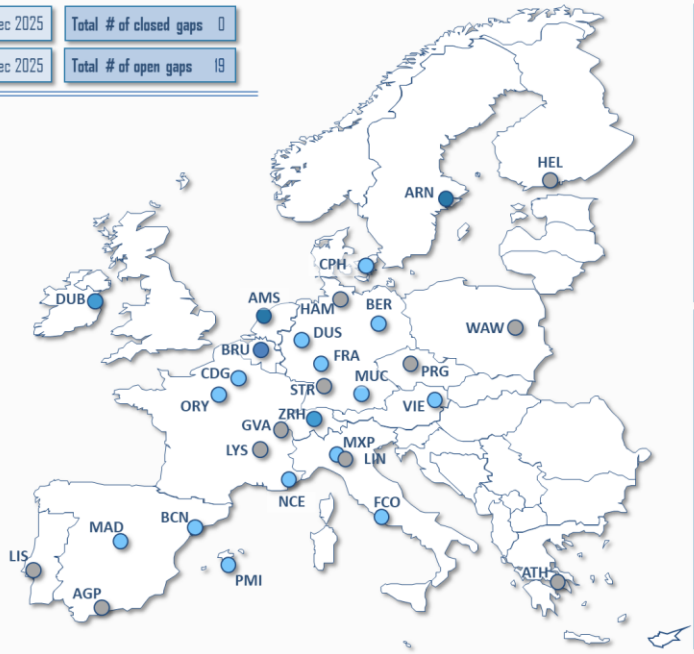


Chart Key – Implementation Status

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

- Completed with CEF funding
- Completed without CEF funding
- Fully covered by on-going CEF projects
- On-going with CEF funding
- On-going without CEF funding
- Planned
- Not yet planned
- Not applicable
- No information available

Geographical Scope	Currently deployed	On-going	Planned	Not Yet Planned	Implementation date	Implementation Status by Operational Stakeholder Category	
						ANSP	Airport Operator
Adolfo Suarez Madrid Barajas Airport	6%	9%	85%	0%	Dec 2025		
Amsterdam Schiphol	61%	39%	0%	0%	Dec 2025		
Barcelona-El Prat Airport	15%	0%	85%	0%	Dec 2025		
Berlin Brandenburg Airport	11%	20%	35%	34%	Dec 2025		
Brussels National Airport	55%	45%	0%	0%	Dec 2023		
Copenhagen Kastrup Airport	24%	33%	13%	30%	Dec 2025		
Dublin Airport	31%	24%	23%	22%	Dec 2025		
Düsseldorf Airport	2%	20%	0%	78%	Dec 2025		
Fiumicino – L da Vinci Int. Airport	3%	27%	70%	0%	Dec 2025		
Frankfurt am Main Airport	12%	36%	18%	34%	Dec 2025		
Milano Malpensa Airport	14%	86%	0%	0%	Dec 2025		
Munich Airport	9%	14%	0%	77%	Dec 2025		
Nice Côte D'Azur Airport	2%	14%	35%	49%	Dec 2025		
Palma de Mallorca Airport Son S. Joan	15%	0%	85%	0%	Dec 2025		
Paris-Orly Airport	15%	29%	15%	41%	Dec 2025		
Paris-Roissy Charles de Gaulle Airport	10%	27%	23%	40%	Dec 2025		
Stockholm Arlanda Airport	52%	38%	10%	0%	Dec 2022		
Vienna International Airport	2%	20%	78%	0%	Dec 2025		
Zürich Airport	27%	59%	14%	0%	Dec 2025		

AF3 – Flexible Airspace Management and Free Route Airspace

Family 3.1.1 – ASM and A-FUA

3.1.1 ASM and A-FUA

Implementation date	Dec 2026	Total # of closed gaps	3
CPI Target Date	Dec 2022	Total # of open gaps	26

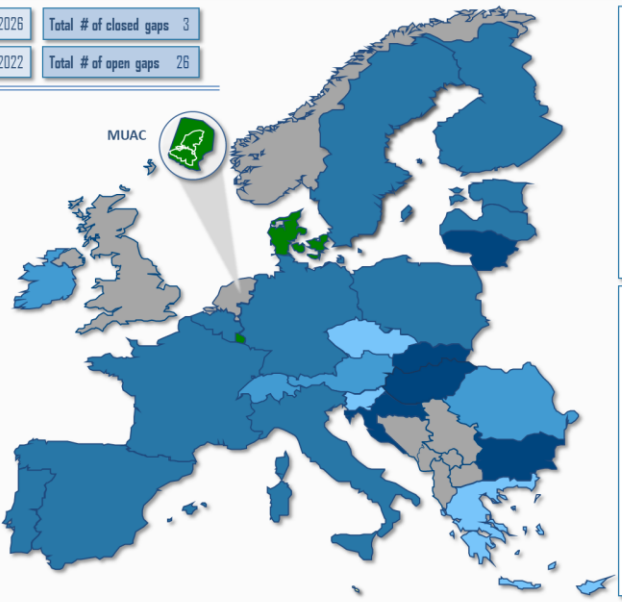


Chart Key – Implementation Status

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

- Completed with CEF funding
- Completed without CEF funding
- Fully covered by on-going CEF projects
- On-going with CEF funding
- On-going without CEF funding
- Planned
- Not yet planned
- Not applicable
- No information available

Geographical Scope	Currently deployed	On-going	Planned	Not Yet Planned	Implementation date	Implementation Status by Operational Stakeholder Category
						ANSP
Austria	29%	61%	10%	0%	Jun 2023	
Belgium	67%	16%	9%	8%	Dec 2022	
Bulgaria	90%	0%	10%	0%	Dec 2026	
Croatia	87%	4%	9%	0%	Dec 2022	
Cyprus	16%	75%	9%	0%	Dec 2022	
Czech Republic	15%	59%	26%	0%	Dec 2022	
Denmark	✓					
Estonia	67%	24%	9%	0%	Dec 2022	
Finland	53%	38%	9%	0%	Dec 2022	
France	61%	30%	9%	0%	Dec 2022	
Germany	58%	25%	17%	0%	Dec 2026	
Greece	8%	74%	18%	0%	Dec 2023	
Hungary	98%	2%	0%	0%	Dec 2022	
Ireland	37%	45%	14%	4%	Dec 2022	
Italy	51%	33%	16%	0%	Dec 2022	
Latvia	64%	18%	10%	8%	Dec 2022	
Lithuania	91%	0%	0%	9%	*	
Luxembourg	✓					
Maastricht UAC	✓					
Malta	0%	0%	0%	100%	-	
Netherlands						
Poland	63%	28%	9%	0%	Dec 2022	
Portugal	73%	2%	17%	8%	Mar 2025	
Romania	50%	7%	0%	43%	Dec 2022	
Slovak Republic	84%	0%	8%	8%	Dec 2022	
Slovenia	1%	11%	12%	76%	Dec 2023	
Spain	65%	26%	9%	0%	Dec 2022	
Sweden	61%	29%	10%	0%	Dec 2022	
Switzerland	38%	13%	49%	0%	Dec 2024	
						Network Manager
Network Manager	80%	20%	0%	0%	Dec 2022	

** Date is not reported as the remaining scope of the family is not yet planned*

Family 3.1.2 – Management of Predefined Airspace Configurations

3.1.2 Management of Predefined Airspace Configurations

Implementation date	Dec 2026	Total # of closed gaps	8
CPI Target Date	Dec 2022	Total # of open gaps	21

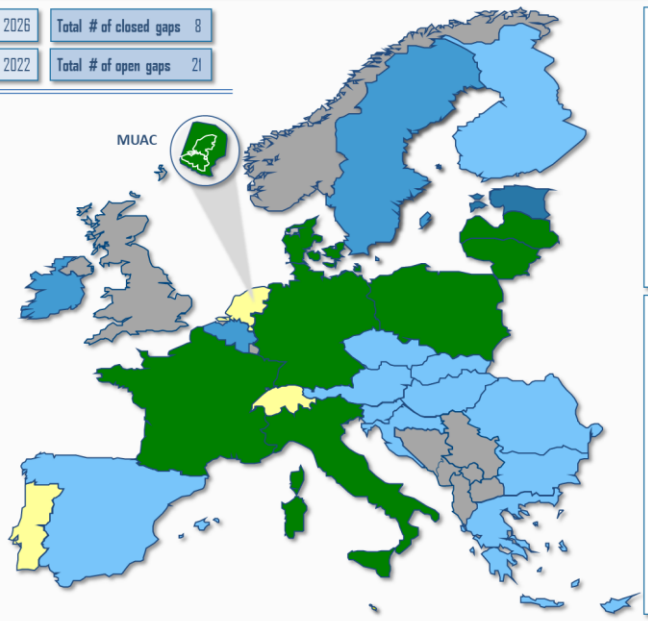


Chart Key – Implementation Status

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

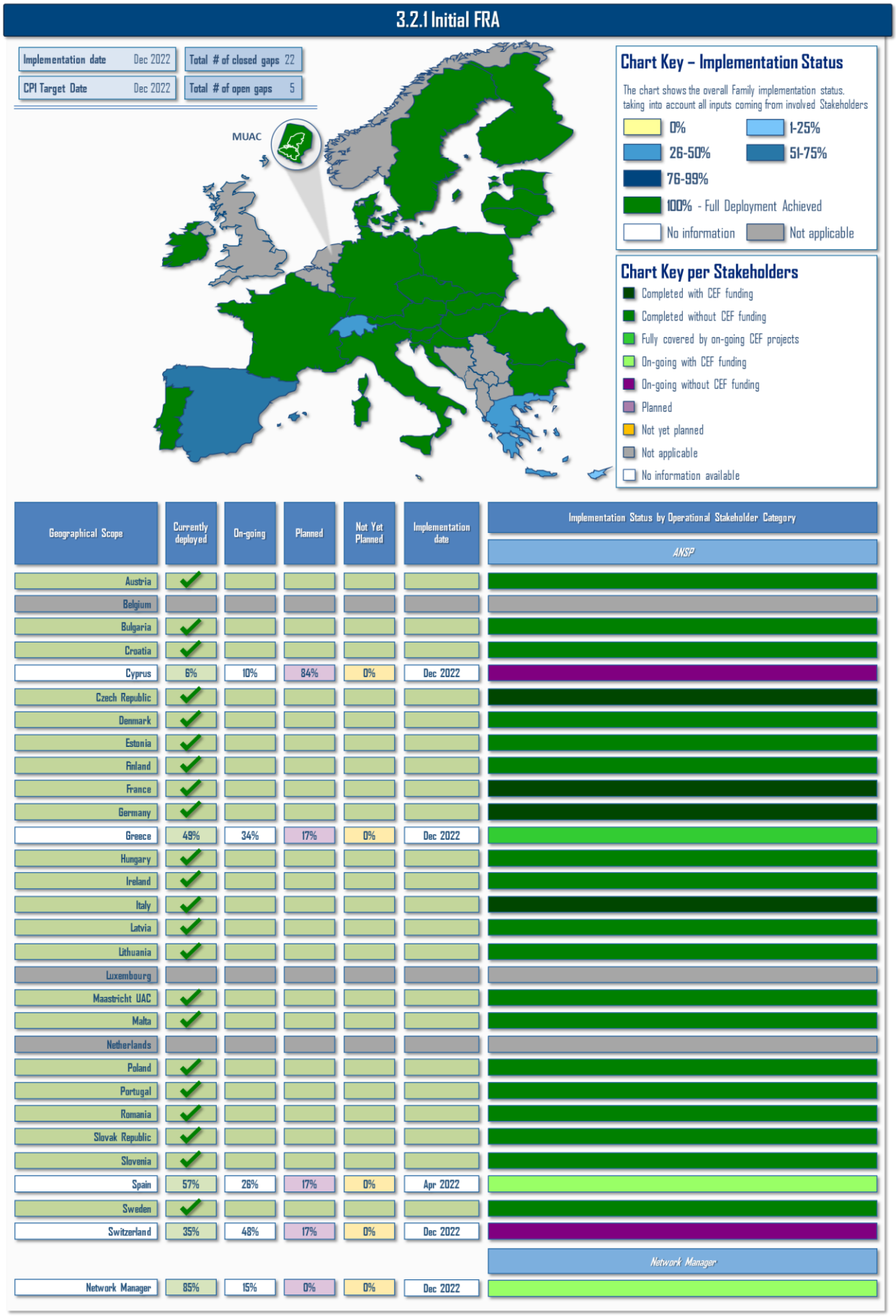
- 0%
- 1-25%
- 26-50%
- 51-75%
- 76-99%
- 100% - Full Deployment Achieved
- No information
- Not applicable

Chart Key per Stakeholders

- Completed with CEF funding
- Completed without CEF funding
- Fully covered by on-going CEF projects
- On-going with CEF funding
- On-going without CEF funding
- Planned
- Not yet planned
- Not applicable
- No information available

Geographical Scope	Currently deployed	On-going	Planned	Not Yet Planned	Implementation date	Implementation Status by Operational Stakeholder Category
						ANSP
Austria	20%	60%	20%	0%	Dec 2022	
Belgium	28%	12%	60%	0%	Dec 2022	
Bulgaria	4%	36%	60%	0%	Dec 2026	
Croatia	4%	36%	60%	0%	Dec 2022	
Cyprus	2%	18%	80%	0%	Dec 2022	
Czech Republic	12%	48%	40%	0%	Dec 2022	
Denmark	✓					
Estonia	63%	17%	20%	0%	Jan 2022	
Finland	16%	24%	60%	0%	Dec 2022	
France	✓					
Germany	✓					
Greece	4%	36%	60%	0%	Dec 2023	
Hungary	20%	60%	20%	0%	Dec 2022	
Ireland	31%	44%	25%	0%	Dec 2022	
Italy	✓					
Latvia	✓					
Lithuania	✓					
Luxembourg						
Maastricht UAC	✓					
Malta	0%	0%	0%	100%	-	
Netherlands	0%	0%	0%	100%	-	
Poland	✓					
Portugal	0%	0%	0%	100%	-	
Romania	6%	54%	40%	0%	Dec 2024	
Slovak Republic	25%	0%	75%	0%	Dec 2022	
Slovenia	4%	36%	60%	0%	Dec 2022	
Spain	8%	12%	80%	0%	Dec 2022	
Sweden	49%	31%	20%	0%	Dec 2024	
Switzerland	0%	0%	100%	0%	Dec 2024	
						Network Manager
Network Manager	70%	30%	0%	0%	Dec 2022	

Family 3.2.1 – Initial FRA



Geographical Scope	Currently deployed	On-going	Planned	Not Yet Planned	Implementation date	Implementation Status by Operational Stakeholder Category
						ANSP
Austria	✓					
Belgium						
Bulgaria	✓					
Croatia	✓					
Cyprus	6%	10%	84%	0%	Dec 2022	
Czech Republic	✓					
Denmark	✓					
Estonia	✓					
Finland	✓					
France	✓					
Germany	✓					
Greece	49%	34%	17%	0%	Dec 2022	
Hungary	✓					
Ireland	✓					
Italy	✓					
Latvia	✓					
Lithuania	✓					
Luxembourg						
Maastricht UAC	✓					
Malta	✓					
Netherlands						
Poland	✓					
Portugal	✓					
Romania	✓					
Slovak Republic	✓					
Slovenia	✓					
Spain	57%	26%	17%	0%	Apr 2022	
Sweden	✓					
Switzerland	35%	48%	17%	0%	Dec 2022	
						Network Manager
Network Manager	85%	15%	0%	0%	Dec 2022	

Family 3.2.2 – Enhanced Free Route Airspace Operations

3.2.2 Enhanced Free Route Airspace Operations

Implementation date	Dec 2025	Total # of closed gaps	14
CPI Target Date	Dec 2025	Total # of open gaps	13

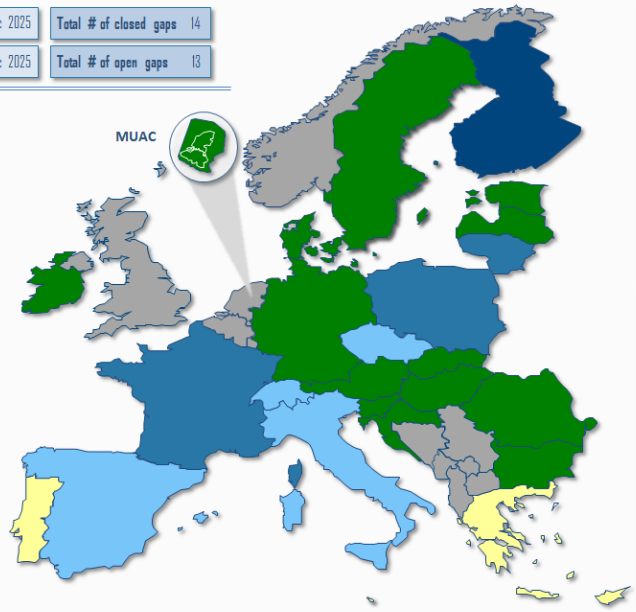


Chart Key – Implementation Status

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

- Completed with CEF funding
- Completed without CEF funding
- Fully covered by on-going CEF projects
- On-going with CEF funding
- On-going without CEF funding
- Planned
- Not yet planned
- Not applicable
- No information available

Geographical Scope	Currently deployed	On-going	Planned	Not Yet Planned	Implementation date	Implementation Status by Operational Stakeholder Category
						ANSP
Austria	✓					
Belgium						
Bulgaria	✓					
Croatia	✓					
Cyprus	0%	0%	0%	100%	-	
Czech Republic	7%	59%	34%	0%	Mar 2023	
Denmark	✓					
Estonia	✓					
Finland	85%	15%	0%	0%	Dec 2025	
France	58%	33%	9%	0%	Dec 2025	
Germany	✓					
Greece	0%	0%	100%	0%	Dec 2025	*
Hungary	✓					
Ireland	✓					
Italy	13%	70%	17%	0%	Dec 2023	
Latvia	✓					
Lithuania	58%	25%	17%	0%	Mar 2022	
Luxembourg						
Maastricht UAC	✓					
Malta	0%	0%	100%	0%	Dec 2024	
Netherlands						
Poland	53%	30%	17%	0%	Feb 2022	
Portugal	0%	0%	100%	0%	Dec 2025	
Romania	✓					
Slovak Republic	✓					
Slovenia	✓					
Spain	6%	10%	84%	0%	Dec 2025	
Sweden	✓					
Switzerland	7%	59%	34%	0%	Dec 2024	
						Network Manager
Network Manager	50%	50%	0%	0%	Dec 2025	

** Supported by CEF Funds*

Focus on Free Route implementation

Free Route is an operational concept that enables airspace users to fly as close as possible to what they consider their optimal trajectory without the constraints of a fixed route network structure. Free Route Airspace (FRA) is a specified airspace within which users may freely plan a route between a defined FRA entry point and defined FRA exit point, with the possibility to route via intermediate (published or unpublished) waypoints, without reference to the ATS route network, subject to airspace availability. Within this airspace, flights remain subject to air traffic control. With Enhanced Free Route implementation, the connectivity with TMA's is ensured and Cross-border is implemented with at least one neighboring State.

Due to the specific relevance of a **coordinated and synchronised implementation of Free Route** across Europe, the SESAR Deployment Manager has gathered additional information from the local Air Navigation Service Providers. This 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 to cover all technical requirements **by 31st December 2025**, the CP1 Regulation target date for deploying and operating Final FRA.

In the following pages, a specific table for each country within the CP1 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 initiative has been completed or is planned.

Austria – Free Route implementation

	Current status	Target (December 2025)
Time limitations	FRA H 24 / 7	FRA H 24 / 7
Flight Level	From FL 205 to FL 660	From FL 205 to FL 660
Pub. Constraints	According to RAD	According to RAD
Area of Responsibility	Full AoR	Full AoR
Cross-border	Slovenia, Croatia, Bosnia, Herzegovina, Serbia, Montenegro	Albania, Republic of North Macedonia

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	Target (December 2025)
Time limitations	FRA H 24 / 7	FRA H 24 / 7
Flight Level	From FL 175 to FL 660	From FL 175 to FL 660
Pub. Constraints	According to RAD	According to RAD
Area of Responsibility	Full AoR	Full AoR
Cross-border	Romania, Hungary, Slovak Republic	-

Croatia – Free Route implementation

	Current status	Target (December 2025)
Time limitations	FRA H24 / 7	FRA H24 / 7
Flight Level	From FL 205 to FL 660	From FL 205 to FL 660
Pub. Constraints	According to RAD	According to RAD
Area of Responsibility	Full AoR	Full AoR
Cross-border	Austria, Bosnia, Herzegovina, Slovenia, Serbia, Montenegro	-

Cyprus – Free Route implementation

	Current status	Target (December 2025)
Time limitations	Under development	FRA H 24 / 7
Flight Level	Under development	From FL205 to FL660
Pub. Constraints	According to RAD	According to RAD
Area of Responsibility	Full AoR	Full AoR
Cross-border	Not yet planned	Not yet planned

Czech Republic – Free Route implementation

	Current status	Target (December 2025)
Time limitations	FRA H 24 / 7	FRA H 24 / 7
Flight Level	From FL095 to FL660	From FL095 to FL660
Pub. Constraints	According to RAD	According to RAD
Area of Responsibility	Full AoR	Full AoR
Cross-border	Under development	Austria, Bosnia-Herzegovina, Croatia, Hungary, Slovakia and Slovenia

Denmark – Free Route implementation

	Current status	Target (December 2025)
Time limitations	FRA H 24 / 7	FRA H 24 / 7
Flight Level	From FL285 to FL 660	From FL285 to FL 660
Pub. Constraints	From Maastrich UAC and Karlsruhe UAC only TFC departing or arriving in DK/SE FAB are eligible for cross-border FRA flightplanning.	From Maastrich UAC and Karlsruhe UAC only TFC departing or arriving in DK/SE FAB are eligible for cross-border FRA flightplanning.
Area of Responsibility	Full AoR	Full AoR
Cross-border	Norway, Sweden, MUAC, Germany (Karlsruhe UAC), UK (Scottish ACC)	-

Estonia – Free Route implementation

	Current status	Target (December 2025)
Time limitations	FRA H 24 / 7	FRA H 24 / 7
Flight Level	From FL095 to FL660 (excl Tallinn TMA and Helsinki TMA)	From FL095 to FL660 (excl Tallinn TMA and Helsinki TMA)
Pub. Constraints	Restrictions Estonian AIP ENR3.3, ENR1 FRA General procedures, ENR 3.5, ENR4.4 (FRA relevance)	Restrictions Estonian AIP ENR3.3, ENR1 FRA General procedures, ENR 3.5, ENR4.4 (FRA relevance)
Area of Responsibility	Tallinn FIR, NEFRA	Tallinn FIR, NEFRA
Cross-border	Latvia, Finland, Sweden	-

Finland – Free Route implementation

	Current status	Target (December 2025)
Time limitations	FRA H 24 / 7	FRA H 24 / 7
Flight Level	From FL095 to FL660	From FL095 to FL660
Pub. Constraints	According to RAD	According to RAD
Area of Responsibility	Full AoR	Full AoR
Cross-border	Norway, Estonia, Latvia	FAB FRA Borealis

France – Free Route implementation

	Current status	Target (December 2025)
Time limitations	FRA H 24 / 7	FRA H 24 / 7
Flight Level	From FL195 to FL660	From FL195 to FL660
Pub. Constraints	According to RAD	According to RAD
Area of Responsibility	Brest atl, Bordeaux, Paris	Brest atl, Bordeaux, Paris
Cross-border	Under development	Switzerland, Spain, Portugal Skyguide, Madrid FIR and Brest FIR as a continuation of (FRAL) in Lisboa FIR

Germany – Free Route implementation

	Current status	Target (December 2025)
Time limitations	FRA H 24 / 7	FRA H 24 / 7
Flight Level	From FL245 to FL660	From FL245 to FL660
Pub. Constraints	According to RAD	According to RAD
Area of Responsibility	Full AoR	Full AoR
Cross-border	Denmark, Sweden	Austria, Switzerland, MUAC

Greece – Free Route implementation

	Current status	Target (December 2025)
Time limitations	Night FRA implemented	FRA H 24 / 7
Flight Level	From FL305 to FL660	From FL305 to FL660
Pub. Constraints	According to RAD	According to RAD
Area of Responsibility	Full AoR	Full AoR
Cross-border	Under development	Italy, Cyprus, Malta, Austria, Bosnia-Herzegovina, Croatia, Albania, Republic of North Macedonia, Serbia, Slovenia

Hungary – Free Route implementation

	Current status	Target (December 2025)
Time limitations	FRA H 24 / 7	FRA H 24 / 7
Flight Level	From FL 095 to FL660	From FL 095 to FL660
Pub. Constraints	According to RAD	According to RAD
Area of Responsibility	Full AoR	Full AoR
Cross-border	Romania, Bulgaria, Slovakia	Moldova, Poland, Lithuania, Ukraine

Ireland – Free Route implementation

	Current status	Target (December 2025)
Time limitations	FRA H 24 / 7	FRA H 24 / 7
Flight Level	From FL075 to FL660	From FL075 to FL660
Pub. Constraints	According to RAD	According to RAD
Area of Responsibility	Shannon FIR	Shannon FIR
Cross-border	United Kingdom (Prestwick ACC)	Denmark, Estonia, Finland, Iceland, Latvia, Norway, Sweden FRA with the other Borealis States

Italy – Free Route implementation

	Current status	Target (December 2025)
Time limitations	FRA H 24 / 7	FRA H 24 / 7
Flight Level	From FL305 to FL660	From FL305 to FL660
Pub. Constraints	According to RAD	According to RAD
Area of Responsibility	Full AoR	Full AoR
Cross-border	Under development	Neighbouring States

Latvia – Free Route implementation

	Current status	Target (December 2025)
Time limitations	FRA H 24 / 7	FRA H 24 / 7
Flight Level	From FL095 to FL660	From FL095 to FL660
Pub. Constraints	According to RAD	According to RAD
Area of Responsibility	Full AoR	Full AoR
Cross-border	Finland, Estonia, Sweden	Ireland, Norway, UK, Iceland

Lithuania – Free Route implementation

	Current status	Target (December 2025)
Time limitations	FRA H 24 / 7	FRA H 24 / 7
Flight Level	From FL095 to FL660	From FL095 to FL660
Pub. Constraints	According to RAD	According to RAD
Area of Responsibility	Full AoR	Full AoR
Cross-border	Under development	Poland, Lithuania, Norway, Estonia, Finland, Latvia

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	Target (December 2025)
Time limitations	FRA H 24 / 7	FRA H 24 / 7
Flight Level	From FL195 to FL660	From FL195 to FL660
Pub. Constraints	According to RAD	According to RAD
Area of Responsibility	Full AoR	Full AoR
Cross-border	Under development	Italy

MUAC Region – Free Route implementation

	Current status	Target (December 2025)
Time limitations	FRA H 24 / 7	FRA H 24 / 7
Flight Level	FL245/FL660	FL245/FL660
Pub. Constraints	According to RAD	According to RAD
Area of Responsibility	MUAC AoR (except French del. Airspace)	MUAC AoR (except French del. Airspace)
Cross-border	Denmark, Sweden	Germany, France, UK

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.

Poland – Free Route implementation

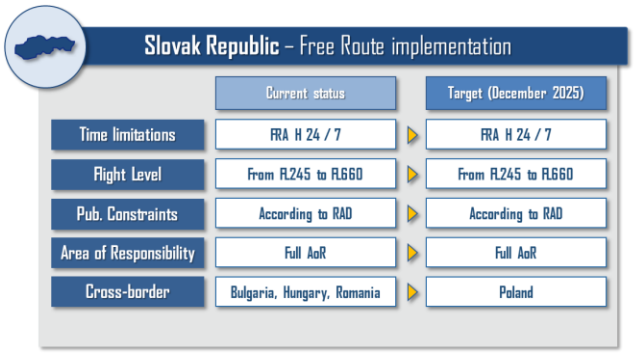
	Current status	Target (December 2025)
Time limitations	FRA H 24 / 7	FRA H 24 / 7
Flight Level	From FL095 to FL660	From FL095 to FL660
Pub. Constraints	According to RAD	According to RAD
Area of Responsibility	Full AoR	Full AoR
Cross-border	Under development	Lithuania, Slovakia, Denmark, Sweden, Ukraine

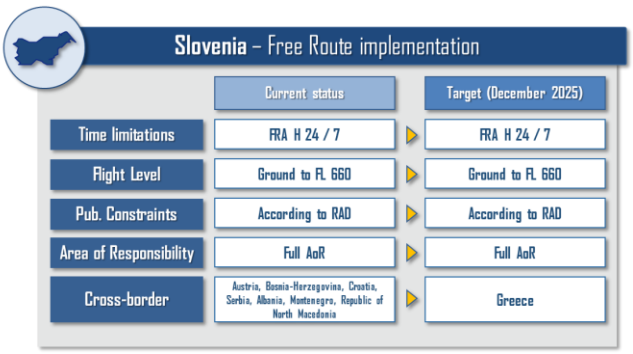
Portugal – Free Route implementation

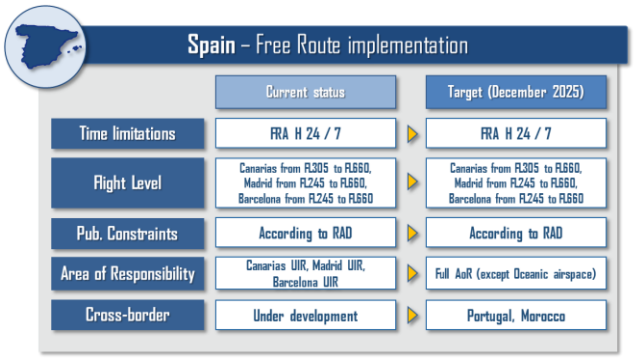
	Current status	Target (December 2025)
Time limitations	FRA H 24 / 7	FRA H 24 / 7
Flight Level	From FL245 to FL660	From FL245 to FL660
Pub. Constraints	According to RAD	According to RAD
Area of Responsibility	Lisboa FIR	Lisboa FIR
Cross-border	Under development	Spain, Morocco

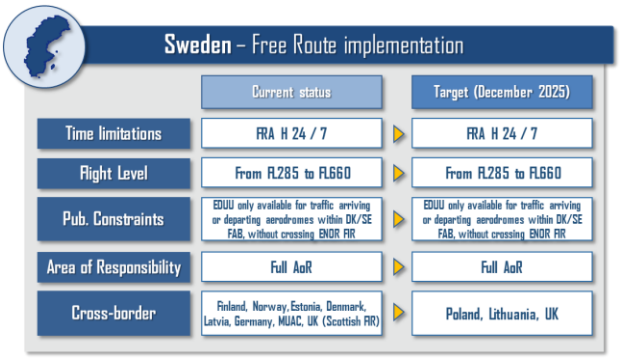
Romania – Free Route implementation

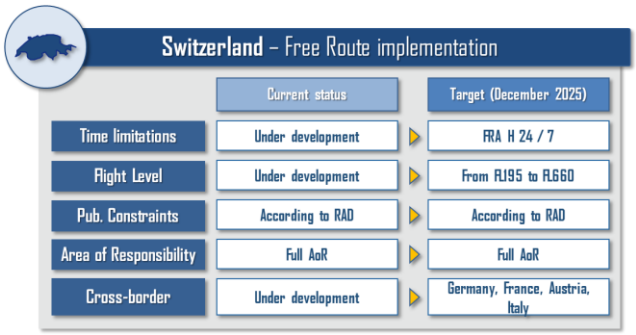
	Current status	Target (December 2025)
Time limitations	FRA H 24 / 7	FRA H 24 / 7
Flight Level	From FL105 to FL660	From FL105 to FL660
Pub. Constraints	According to RAD	According to RAD
Area of Responsibility	Full AoR	Full AoR
Cross-border	Bulgaria, Hungary, Slovakia	Moldova


Slovak Republic – Free Route implementation
Current status
Target (December 2025)
Time limitations
FRA H 24 / 7
FRA H 24 / 7
Flight Level
From FL245 to FL660
From FL245 to FL660
Pub. Constraints
According to RAD
According to RAD
Area of Responsibility
Full AoR
Full AoR
Cross-border
Bulgaria, Hungary, Romania
Poland


Slovenia – Free Route implementation
Current status
Target (December 2025)
Time limitations
FRA H 24 / 7
FRA H 24 / 7
Flight Level
Ground to FL 660
Ground to FL 660
Pub. Constraints
According to RAD
According to RAD
Area of Responsibility
Full AoR
Full AoR
Cross-border
Austria, Bosnia-Herzegovina, Croatia, Serbia, Albania, Montenegro, Republic of North Macedonia
Greece


Spain – Free Route implementation
Current status
Target (December 2025)
Time limitations
FRA H 24 / 7
FRA H 24 / 7
Flight Level
Canarias from FL305 to FL660, Madrid from FL245 to FL660, Barcelona from FL245 to FL660
Canarias from FL305 to FL660, Madrid from FL245 to FL660, Barcelona from FL245 to FL660
Pub. Constraints
According to RAD
According to RAD
Area of Responsibility
Canarias UIR, Madrid UIR, Barcelona UIR
Full AoR (except Oceanic airspace)
Cross-border
Under development
Portugal, Morocco


Sweden – Free Route implementation
Current status
Target (December 2025)
Time limitations
FRA H 24 / 7
FRA H 24 / 7
Flight Level
From FL285 to FL660
From FL285 to FL660
Pub. Constraints
EDUU only available for traffic arriving or departing aerodromes within DK/SE FAB, without crossing ENOR FIR
EDUU only available for traffic arriving or departing aerodromes within DK/SE FAB, without crossing ENOR FIR
Area of Responsibility
Full AoR
Full AoR
Cross-border
Finland, Norway, Estonia, Denmark, Latvia, Germany, MUAC, UK (Scottish FIR)
Poland, Lithuania, UK


Switzerland – Free Route implementation
Current status
Target (December 2025)
Time limitations
Under development
FRA H 24 / 7
Flight Level
Under development
From FL195 to FL660
Pub. Constraints
According to RAD
According to RAD
Area of Responsibility
Full AoR
Full AoR
Cross-border
Under development
Germany, France, Austria, Italy

AF4 – Network Collaborative Management

Family 4.1.1 – Enhanced Short Term ATFCM Measures

4.1.1 Enhanced Short Term ATFCM Measures

Implementation date	Dec 2024	Total # of closed gaps	5
CPI Target Date	Dec 2022	Total # of open gaps	25

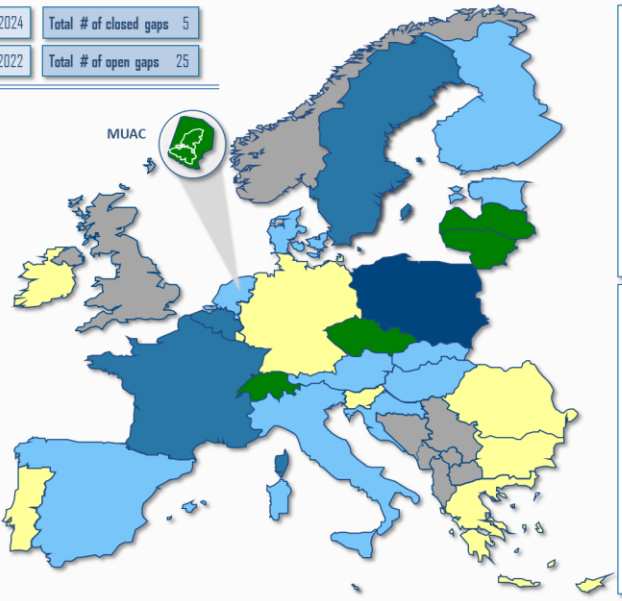


Chart Key – Implementation Status

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

- Completed with CEF funding
- Completed without CEF funding
- Fully covered by on-going CEF projects
- On-going with CEF funding
- On-going without CEF funding
- Planned
- Not yet planned
- Not applicable
- No information available

Geographical Scope	Currently deployed	On-going	Planned	Not Yet Planned	Implementation date	Implementation Status by Operational Stakeholder Category
						ANSP
Austria	10%	86%	4%	0%	Dec 2022	
Belgium	73%	23%	4%	0%	Dec 2022	
Bulgaria	0%	0%	80%	20%	Dec 2022	
Croatia	8%	72%	20%	0%	Dec 2022	
Cyprus	0%	0%	0%	100%	-	
Czech Republic	✓					
Denmark	6%	54%	0%	40%	Dec 2022	
Estonia	4%	36%	60%	0%	Dec 2022	
Finland	2%	18%	80%	0%	Dec 2022	
France	74%	22%	4%	0%	Dec 2022	
Germany	0%	0%	100%	0%	Dec 2022	
Greece	0%	0%	100%	0%	Dec 2022	
Hungary	6%	54%	40%	0%	Dec 2022	
Ireland	35%	61%	4%	0%	Dec 2022	
Italy	20%	60%	20%	0%	Dec 2022	
Latvia	✓					
Lithuania	✓					
Luxembourg	0%	0%	100%	0%	Dec 2022	
Maastricht UAC	✓					
Malta	0%	0%	0%	100%	-	
Netherlands	16%	44%	40%	0%	Dec 2022	
Poland	85%	15%	0%	0%	Dec 2022	
Portugal	0%	0%	100%	0%	Dec 2022	
Romania	0%	0%	100%	0%	Dec 2022	
Slovak Republic	2%	18%	0%	80%	Dec 2022	
Slovenia	0%	0%	100%	0%	Dec 2024	*
Spain	2%	18%	80%	0%	Dec 2022	
Sweden	62%	14%	24%	0%	Dec 2022	
Switzerland	✓					
						Network Manager
Network Manager	80%	20%	0%	0%	Dec 2022	

*Supported by CEF Funds

Family 4.2.1 – Interactive Rolling NOP

4.2.1 Interactive rolling NOP

Implementation date	Dec 2023	Total # of closed gaps	3
CPI Target Date	Dec 2023	Total # of open gaps	27

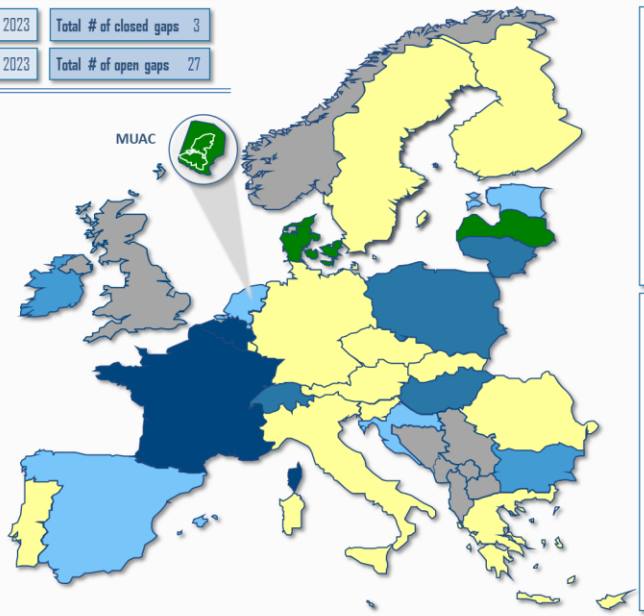


Chart Key – Implementation Status

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

- Completed with CEF funding
- Completed without CEF funding
- Fully covered by on-going CEF projects
- On-going with CEF funding
- On-going without CEF funding
- Planned
- Not yet planned
- Not applicable
- No information available

Geographical Scope	Currently deployed	On-going	Planned	Not Yet Planned	Implementation date	Implementation Status by Operational Stakeholder Category
						ANSP
Austria	0%	0%	100%	0%	Dec 2023	
Belgium	77%	18%	5%	0%	Dec 2022	
Bulgaria	30%	0%	70%	0%	Dec 2023	
Croatia	25%	30%	0%	45%	Dec 2023	
Cyprus	0%	0%	100%	0%	Dec 2023	
Czech Republic	0%	0%	0%	100%	-	
Denmark	✓					
Estonia	15%	10%	75%	0%	Dec 2022	
Finland	0%	0%	100%	0%	Dec 2023	
France	83%	12%	5%	0%	Dec 2023	
Germany	0%	0%	75%	25%	Dec 2023	
Greece	0%	0%	0%	100%	-	
Hungary	58%	28%	14%	0%	Dec 2023	
Ireland	35%	60%	5%	0%	Dec 2023	
Italy	0%	0%	100%	0%	Dec 2023	
Latvia	✓					
Lithuania	55%	0%	0%	45%	*	
Luxembourg	0%	0%	0%	100%	-	
Maastricht UAC	✓					
Malta	0%	0%	100%	0%	Dec 2023	
Netherlands	6%	50%	25%	19%	Dec 2023	
Poland	60%	7%	33%	0%	Dec 2023	
Portugal	0%	0%	90%	10%	Dec 2023	
Romania	0%	0%	0%	100%	-	
Slovak Republic	0%	0%	0%	100%	-	
Slovenia	0%	0%	100%	0%	Dec 2023	
Spain	20%	0%	80%	0%	Dec 2023	
Sweden	0%	0%	100%	0%	Dec 2023	
Switzerland	68%	7%	25%	0%	Dec 2023	
						Network Manager
Network Manager	70%	30%	0%	0%	Dec 2023	

** Date is not reported as the remaining scope of the family is not yet planned*

Family 4.2.2 – Initial AOP/NOP Information Sharing

4.2.2 Initial AOP/NOP Information Sharing

Implementation date	Dec 2023	Total # of closed gaps	0
CPI Target Date	Dec 2023	Total # of open gaps	20

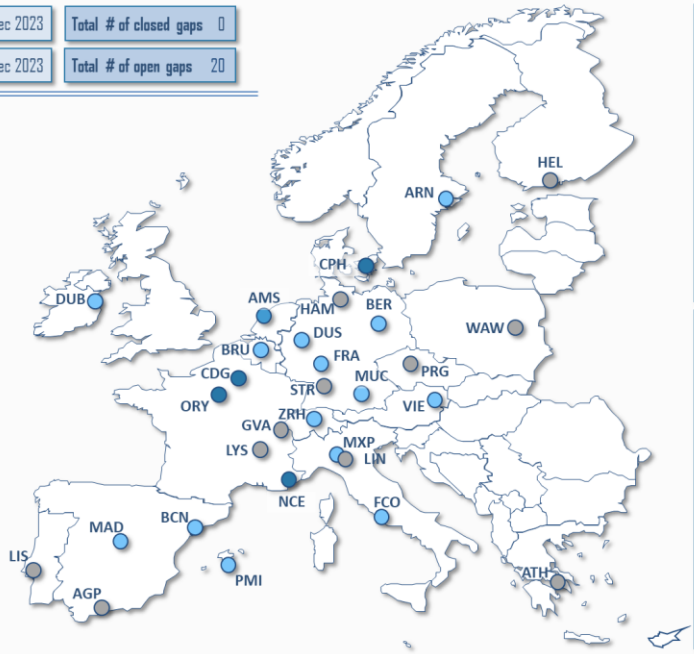


Chart Key – Implementation Status

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

- Completed with CEF funding
- Completed without CEF funding
- Fully covered by on-going CEF projects
- On-going with CEF funding
- On-going without CEF funding
- Planned
- Not yet planned
- Not applicable
- No information available

Geographical Scope	Currently deployed	On-going	Planned	Not Yet Planned	Implementation date	Implementation Status by Operational Stakeholder Category	
						ANSP	Airport Operator
Adolfo Suarez Madrid Barajas Airport	14%	29%	57%	0%	Dec 2023		
Amsterdam Schiphol	28%	72%	0%	0%	May 2022		
Barcelona-El Prat Airport	8%	30%	62%	0%	Dec 2023		
Berlin Brandenburg Airport	3%	23%	0%	74%	Dec 2023		
Brussels National Airport	4%	34%	62%	0%	Dec 2023		
Copenhagen Kastrup Airport	53%	25%	22%	0%	Dec 2023		
Dublin Airport	9%	81%	5%	5%	Dec 2023		
Düsseldorf Airport	5%	45%	13%	37%	Dec 2023		
Fiumicino – L da Vinci Int. Airport	8%	30%	62%	0%	Dec 2023		
Frankfurt am Main Airport	3%	23%	0%	74%	Dec 2023		
Milano Malpensa Airport	3%	23%	74%	0%	Dec 2023		
Munich Airport	1%	11%	50%	38%	Dec 2023		
Nice Côte D'Azur Airport	51%	11%	38%	0%	Dec 2023		
Palma de Mallorca Airport Son S. Joan	8%	30%	62%	0%	Dec 2023		
Paris-Orly Airport	60%	38%	2%	0%	Dec 2022		
Paris-Roissy Charles de Gaulle Airport	60%	38%	2%	0%	Dec 2022		
Stockholm Arlanda Airport	6%	54%	15%	25%	Dec 2023		
Vienna International Airport	3%	23%	74%	0%	Dec 2023		
Zürich Airport	4%	34%	62%	0%	Dec 2023		
						Network Manager	
Network Manager	65%	35%	0%	0%	Dec 2023		

Family 4.3.1 – Automated Support for Traffic Complexity Assessment and Flight Planning Interfaces

4.3.1 Automated Support for Traffic Complexity Assessment and Flight Planning interfaces

Implementation date	July 2024	Total # of closed gaps	6
CPI Target Date	Dec 2022	Total # of open gaps	24

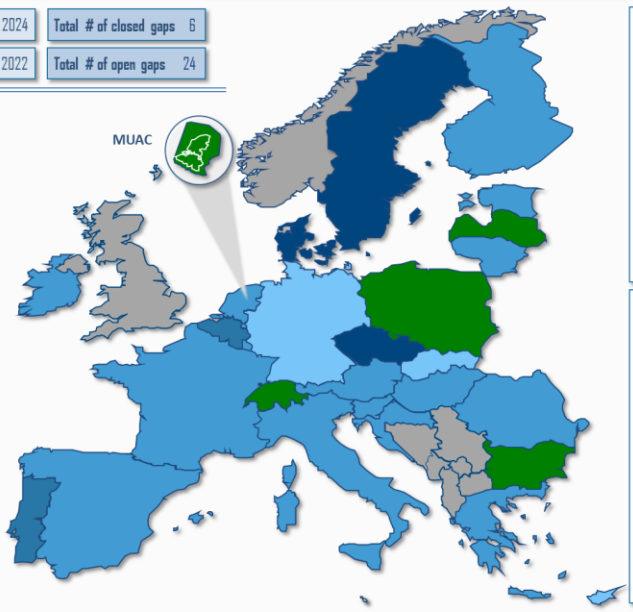


Chart Key – Implementation Status

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

- Completed with CEF funding
- Completed without CEF funding
- Fully covered by on-going CEF projects
- On-going with CEF funding
- On-going without CEF funding
- Planned
- Not yet planned
- Not applicable
- No information available

Geographical Scope	Currently deployed	On-going	Planned	Not Yet Planned	Implementation date	Implementation Status by Operational Stakeholder Category
						ANSP
Austria	41%	20%	39%	0%	Dec 2022	
Belgium	65%	30%	5%	0%	Dec 2022	
Bulgaria	✓					
Croatia	34%	37%	29%	0%	Dec 2022	
Cyprus	20%	0%	80%	0%	Dec 2022	
Czech Republic	95%	5%	0%	0%	*	
Denmark	79%	21%	0%	0%	Dec 2022	
Estonia	47%	18%	35%	0%	Dec 2023	
Finland	50%	5%	45%	0%	Dec 2022	
France	43%	52%	5%	0%	Dec 2022	
Germany	21%	29%	50%	0%	Dec 2022	
Greece	35%	0%	65%	0%	Dec 2022	
Hungary	29%	66%	5%	0%	Jul 2024	
Ireland	41%	44%	15%	0%	Dec 2022	
Italy	34%	62%	4%	0%	Dec 2022	
Latvia	✓					
Lithuania	39%	16%	0%	45%	Dec 2022	
Luxembourg	35%	0%	0%	65%	*	
Maastricht UAC	✓					
Malta	✓					
Netherlands	34%	31%	35%	0%	Mar 2024	
Poland	✓					
Portugal	51%	9%	40%	0%	Dec 2022	
Romania	37%	18%	45%	0%	May 2024	
Slovak Republic	19%	36%	45%	0%	Jun 2024	
Slovenia	30%	5%	65%	0%	Dec 2022	
Spain	42%	14%	44%	0%	Dec 2022	
Sweden	93%	7%	0%	0%	Dec 2022	
Switzerland	✓					

** Date is not reported as the remaining scope of the family is not yet planned*

						Network Manager
Network Manager	85%	15%	0%	0%	Dec 2022	

Family 4.4.1 – AOP/NOP Integration

4.4.1 AOP/NOP integration

Implementation date	Dec 2027	Total # of closed gaps	0
CPI Target Date	Dec 2027	Total # of open gaps	31

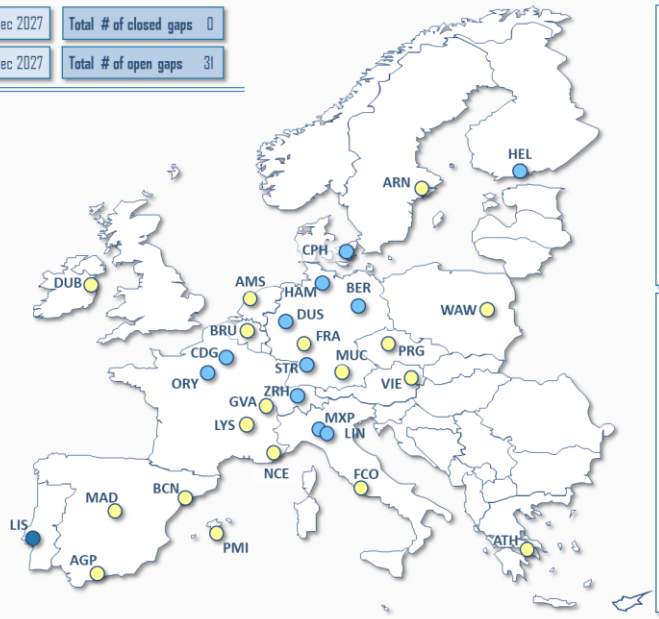


Chart Key – Implementation Status

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

- Completed with CEF funding
- Completed without CEF funding
- Fully covered by on-going CEF projects
- On-going with CEF funding
- On-going without CEF funding
- Planned
- Not yet planned
- Not applicable
- No information available

Geographical Scope	Currently deployed	On-going	Planned	Not Yet Planned	Implementation date	Implementation Status by Operational Stakeholder Category	
						ANSP	*Airport Operator*
Adolfo Suarez Madrid-Barajas Airport	0%	0%	100%	0%	Dec 2027		
Amsterdam Schiphol	0%	0%	0%	100%	-		
Athens International Airport E Venizelos	0%	0%	0%	100%	-		
Barcelona-El Prat Airport	0%	0%	100%	0%	Dec 2027		
Berlin Brandenburg Airport	3%	25%	0%	72%	Dec 2027		
Brussels National Airport	0%	0%	0%	100%	-		
Copenhagen Kastrup Airport	16%	60%	24%	0%	Dec 2027		
Dublin Airport	0%	0%	0%	100%	-		
Düsseldorf Airport	6%	50%	24%	20%	Dec 2022		
Fiumicino – L. da Vinci Int. Airport	0%	0%	20%	80%	Dec 2027		
Frankfurt am Main Airport	0%	0%	0%	100%	-		
Geneva Airport	0%	0%	0%	100%	-		
Hamburg Airport	11%	17%	0%	72%	Dec 2027		
Helsinki-Vantaan lentoasema Airport	10%	86%	4%	0%	Dec 2027		
Lisbon Portela Airport	56%	19%	25%	0%	Dec 2022		
Lyon Saint-Exupery Airport	0%	0%	0%	100%	-		
Malaga - Costa Del Sol Airport	0%	0%	100%	0%	Dec 2027		
Milano Linate Airport	3%	25%	72%	0%	Dec 2027		
Milano Malpensa Airport	3%	25%	72%	0%	Dec 2027		
Munich Airport	0%	0%	0%	100%	-		
Nice Côte D'Azur Airport	0%	0%	0%	100%	-		
Palma de Mallorca Airport Son S. Joan	0%	0%	100%	0%	Dec 2027		
Paris-Orly Airport	3%	25%	0%	72%	Dec 2027		
Paris-Roissy Charles de Gaulle Airport	3%	25%	0%	72%	Dec 2027		
Stockholm Arlanda Airport	0%	0%	0%	100%	-		
Stuttgart Airport	11%	17%	0%	72%	Dec 2027		
Vaclav Havel Airport Prague	0%	0%	0%	100%	-		
Vienna International Airport	0%	0%	100%	0%	Dec 2027		
Warsaw Chopin Airport	0%	0%	100%	0%	Dec 2027		
Zürich Airport	3%	25%	52%	20%	Dec 2027		
						Network Manager	
Network Manager	5%	0%	0%	95%	Dec 2027		

AF5 – SWIM

Family 5.1.1 - Common SWIM PKI and cyber security

The **Public Key Infrastructure (PKI)** and **cyber security** are dealt with in two separate Families, **Family 5.1.1** for the common part covering PKI governance, common PKI infrastructure ensuring regional and global interoperability and, in this context, appropriate cyber security objectives, while **Family 5.2.1** addresses the stakeholder implementation. **The scope of Family 5.1.1 is the implementation of the SWIM common components covering common PKI and its governance**. This Family addresses the solution to be deployed: the overall European Aviation Common PKI (EACP) and its associated governance, which the local implementations shall comply with.

Due to the specific features of the Families and their purpose of deploying **SWIM Common components**, the **deployment activities are following a coordinated and EU-wide approach**, rather than been steered by locally-based implementation initiatives. To this end, the following section reports on the latest developments and results stemming from multi-stakeholder initiative, coordinated by SDM under the Framework Partnership Agreement[6].

2017 084 AF5 - SWIM Common PKI and policies & procedures for establishing a Trust framework

This multi-stakeholder initiative, awarded in 2017 CEF Transport Call, was kicked-off in November 2018.

The project aims to deploy a common framework for both integrating local stakeholder PKI deployments in an interoperable manner, as well as providing interoperable digital certificates to the users of SWIM services. The resulting PKI and its associated trust framework, so-called European Aviation Common PKI (EACP), are required to sign, emit and maintain digital certificates and validation services, either implemented locally or as a common service. Other exchanges of aviation information than SWIM services, will benefit from this EACP solution (e.g. surveillance, aeronautical information, document, maintenance), but are not in the scope of the project.

The project has progressed in 2021:

- the **trust framework has been developed** by detailing the business model, the membership and interoperability criteria;
- the **test campaign for interoperability with the US FAA was completed**;
- the **definition of the high-level architecture and technical requirements were completed**;
- the **initial SWIM interfaces to the common PKI were released**;
- the **initial CFT to address the future solution to be deployed has been defined**.

The **Final trust framework** of the "SWIM Common PKI and policies & procedures for establishing trust framework" key deliverables are being subject to the **SDM stakeholders consultation process**. **The released material will be subject to two cycles of consultation until June 2022**, making use of the **SDM stakeholder Consultation Platform**. Main concerns discussed during the consultation is linked to the future operation of the EACP; the governance, the final technical solutions and the financial aspects of the solution. After the consultation the call for tender should be launched in order to start the deployment of the operational solution that will ensure CP1 compliance in Family 5.1.1.

[6] *For further information see contract No. MOVE/E2-2014-717/SESAR FPA*

Family 5.2.1 – Stakeholders SWIM PKI and cybersecurity

5.2.1 Stakeholders' SWIM PKI and cyber security

Implementation date	Dec 2025	Total # of closed gaps	0
CPI Target Date	Dec 2025	Total # of open gaps	30

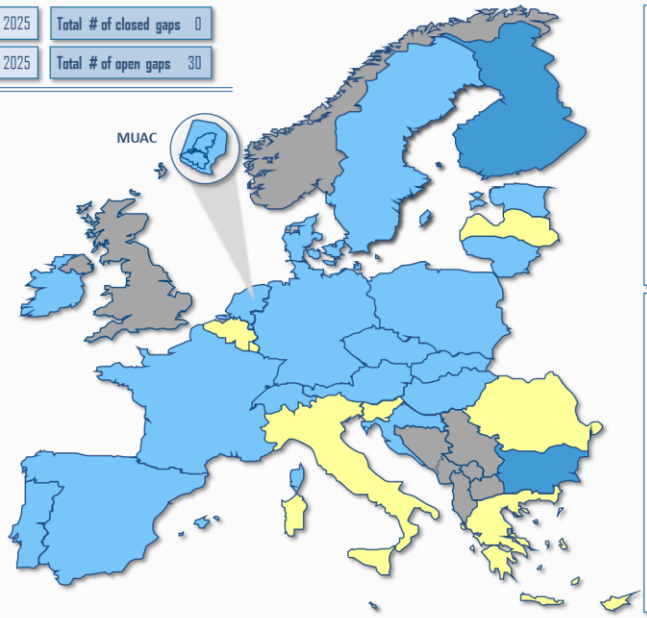


Chart Key – Implementation Status

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

- Completed with CEF funding
- Completed without CEF funding
- Fully covered by on-going CEF projects
- On-going with CEF funding
- On-going without CEF funding
- Planned
- Not yet planned
- Not applicable
- No information available

Geographical Scope	Currently deployed	On-going	Planned	Not Yet Planned	Implementation date	Implementation Status by Operational Stakeholder Category		
						ANSP	Airport Operator	MET Provider
Austria	1%	10%	89%	0%	Dec 2025			
Belgium	0%	0%	67%	33%	Dec 2025	*		
Bulgaria	48%	2%	50%	0%	Dec 2025			
Croatia	1%	8%	0%	91%	Dec 2025			
Cyprus	0%	0%	100%	0%	Dec 2025	*		*
Czech Republic	0%	0%	50%	50%	Dec 2025	*		
Denmark	12%	32%	6%	50%	Dec 2025			
Estonia	5%	45%	0%	50%	Dec 2025			
Finland	20%	0%	80%	0%	Dec 2025	*		
France	8%	25%	0%	67%	Dec 2025			
Germany	17%	11%	11%	61%	Dec 2025			
Greece	0%	0%	50%	50%	Dec 2025			
Hungary	6%	4%	90%	0%	Dec 2025			
Ireland	8%	32%	0%	60%	Dec 2025			
Italy	0%	3%	84%	13%	Dec 2025	*		
Latvia	0%	0%	0%	100%	-			
Lithuania	1%	7%	0%	92%	Dec 2025			*
Luxembourg	0%	0%	0%	100%	-			
Maastricht UAC	10%	90%	0%	0%	Dec 2025			
Malta	0%	0%	100%	0%	Dec 2025	*		*
Netherlands	2%	10%	44%	44%	Dec 2025			*
Poland	1%	8%	91%	0%	Dec 2025	*		
Portugal	28%	22%	0%	50%	Dec 2025			
Romania	0%	0%	0%	100%	-			
Slovak Republic	1%	7%	0%	92%	Dec 2023			
Slovenia	0%	0%	50%	50%	Dec 2024	*		
Spain	1%	5%	94%	0%	Dec 2025			
Sweden	19%	14%	28%	39%	Dec 2025			
Switzerland	22%	11%	0%	67%	Dec 2024			
						Network Manager		
Network Manager	90%	10%	0%	0%	Dec 2022			

** Supported by CEF Funds*

Family 5.3.1 – Aeronautical Information Exchange service

5.3.1 Aeronautical Information Exchange

Implementation date	Dec 2025	Total # of closed gaps	1
CPI Target Date	Dec 2025	Total # of open gaps	29

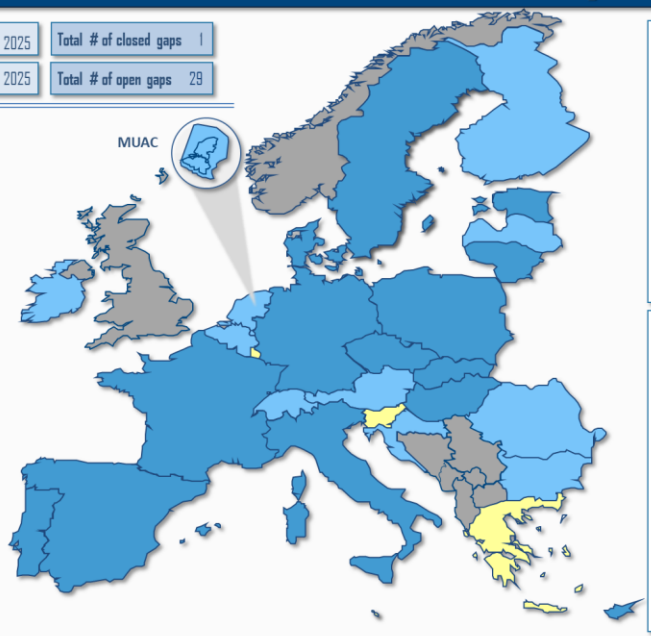


Chart Key – Implementation Status

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

- Completed with CEF funding
- Completed without CEF funding
- Fully covered by on-going CEF projects
- On-going with CEF funding
- On-going without CEF funding
- Planned
- Not yet planned
- Not applicable
- No information available

Geographical Scope	Currently deployed	On-going	Planned	Not Yet Planned	Implementation date	Implementation Status by Operational Stakeholder Category	
						AISP	ANSP
Austria	3%	27%	53%	17%	Dec 2025		
Belgium	11%	23%	0%	66%	Dec 2022		
Bulgaria	21%	0%	79%	0%	Dec 2025		
Croatia	2%	15%	67%	16%	Dec 2025		
Cyprus	30%	3%	0%	67%	Dec 2025		
Czech Republic	33%	0%	67%	0%	Dec 2025	**	
Denmark	26%	34%	0%	40%	Dec 2025		
Estonia	39%	38%	18%	5%	Dec 2025		
Finland	22%	25%	50%	3%	Dec 2025		
France	37%	31%	13%	19%	Dec 2025		
Germany	38%	0%	13%	49%	Dec 2025		
Greece	0%	0%	0%	100%	-		
Hungary	33%	0%	67%	0%	Dec 2025		
Ireland	17%	71%	1%	11%	Dec 2025		
Italy	35%	16%	49%	0%	Dec 2025		
Latvia	21%	4%	46%	29%	Dec 2025		
Lithuania	47%	40%	7%	6%	Dec 2025		
Luxembourg	0%	0%	0%	100%	-		
Maastricht UAC	23%	27%	10%	40%	Dec 2025		
Malta	0%	0%	25%	75%	Dec 2025		
Netherlands	1%	12%	87%	0%	Dec 2025		
Poland	33%	0%	67%	0%	Dec 2025		
Portugal	40%	0%	40%	20%	Dec 2025		
Romania	11%	23%	35%	31%	Dec 2025		
Slovak Republic	33%	0%	0%	67%	*		
Slovenia	0%	0%	0%	100%	-		
Spain	38%	39%	23%	0%	Dec 2025		
Sweden	36%	26%	37%	1%	Dec 2025		
Switzerland	24%	10%	13%	53%	Dec 2025		
						Network Manager	
Network Manager	✓						

* Date is not reported as the remaining scope of the family is not yet planned

** Supported by CEF funds

Family 5.4.1 – Meteorological Information Exchange service

5.4.1 Meteorological Information Exchange

Implementation date	Dec 2025	Total # of closed gaps	0
CPI Target Date	Dec 2025	Total # of open gaps	30

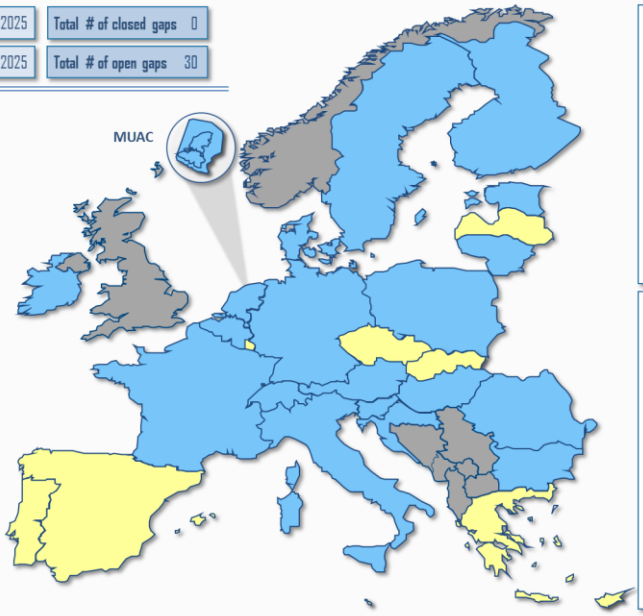


Chart Key – Implementation Status

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

- Completed with CEF funding
- Completed without CEF funding
- Fully covered by on-going CEF projects
- On-going with CEF funding
- On-going without CEF funding
- Planned
- Not yet planned
- Not applicable
- No information available

Geographical Scope	Currently deployed	On-going	Planned	Not Yet Planned	Implementation date	Implementation Status by Operational Stakeholder Category		
						MET Provider	*ANSP*	*Airport Operator*
Austria	2%	18%	80%	0%	Dec 2025			
Belgium	2%	19%	8%	71%	Dec 2025			
Bulgaria	12%	9%	79%	0%	Dec 2025			
Croatia	16%	36%	20%	28%	Dec 2025			
Cyprus	0%	0%	0%	100%	-			
Czech Republic	0%	3%	70%	27%	Dec 2025	*		
Denmark	11%	3%	0%	86%	Dec 2025			
Estonia	2%	18%	0%	80%	Dec 2025			
Finland	18%	4%	78%	0%	Dec 2025			
France	8%	64%	18%	10%	Dec 2024			
Germany	3%	14%	9%	74%	Dec 2025			
Greece	0%	0%	0%	100%	-			
Hungary	7%	19%	67%	7%	Dec 2025			
Ireland	7%	60%	13%	20%	Dec 2025			
Italy	7%	64%	28%	0%	Dec 2025			
Latvia	0%	0%	0%	100%	-			
Lithuania	3%	25%	23%	49%	Dec 2025			
Luxembourg	0%	0%	0%	100%	-			
Maastricht UAC	2%	20%	33%	45%	Dec 2025			
Malta	0%	0%	0%	100%	-			
Netherlands	4%	51%	43%	2%	Dec 2025			
Poland	2%	13%	85%	0%	Dec 2025			
Portugal	0%	7%	69%	24%	Dec 2025			
Romania	3%	24%	0%	73%	Dec 2025			
Slovak Republic	0%	0%	60%	40%	Dec 2025			
Slovenia	2%	18%	7%	73%	Dec 2024			
Spain	0%	0%	100%	0%	Dec 2025			
Sweden	3%	26%	35%	36%	Dec 2025			
Switzerland	19%	28%	20%	33%	Dec 2025			
						Network Manager		
Network Manager	0%	0%	0%	100%	-			

**Supported by CEF Funds*

Family 5.5.1 – Cooperative Network Information Exchange service

5.5.1 Cooperative Network Information Exchange

Implementation date	Dec 2025	Total # of closed gaps	2
CPI Target Date	Dec 2025	Total # of open gaps	20

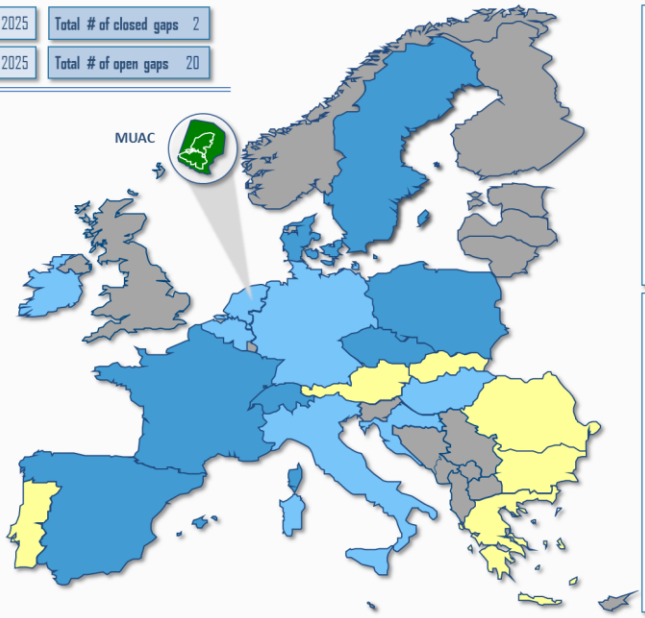


Chart Key – Implementation Status

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

- Completed with CEF funding
- Completed without CEF funding
- Fully covered by on-going CEF projects
- On-going with CEF funding
- On-going without CEF funding
- Planned
- Not yet planned
- Not applicable
- No information available

Geographical Scope	Currently deployed	On-going	Planned	Not Yet Planned	Implementation date	Implementation Status by Operational Stakeholder Category	
						ANSP	Airport Operator
Austria	0%	0%	100%	0%	Dec 2025		
Belgium	8%	2%	8%	82%	Dec 2025		
Bulgaria	0%	0%	100%	0%	Dec 2025		
Croatia	2%	18%	40%	40%	Dec 2024		
Cyprus							
Czech Republic	50%	11%	39%	0%	Dec 2025		
Denmark	30%	70%	0%	0%	Dec 2025		
Estonia							
Finland							
France	48%	10%	41%	1%	Dec 2025		
Germany	25%	32%	13%	30%	Dec 2025		
Greece	0%	0%	0%	100%	-		
Hungary	3%	27%	70%	0%	Jun 2023		
Ireland	25%	0%	75%	0%	Dec 2025		
Italy	1%	3%	96%	0%	Dec 2025		
Latvia							
Lithuania							
Luxembourg							
Maastricht UAC	✓						
Malta							
Netherlands	3%	0%	93%	4%	Dec 2025		
Poland	28%	3%	50%	19%	Dec 2025		
Portugal	0%	0%	0%	100%	-		
Romania	0%	0%	40%	60%	Dec 2025		
Slovak Republic	0%	0%	0%	100%	-		
Slovenia							
Spain	34%	21%	45%	0%	Dec 2025		
Sweden	34%	41%	25%	0%	Dec 2025		
Switzerland	42%	24%	5%	29%	Dec 2025		
						Network Manager	
Network Manager	✓						

Family 5.6.1 – Flight Information Exchange

5.6.1 Flight Information Exchange

Implementation date	Dec 2025	Total # of closed gaps	0
CPI Target Date	Dec 2025	Total # of open gaps	30

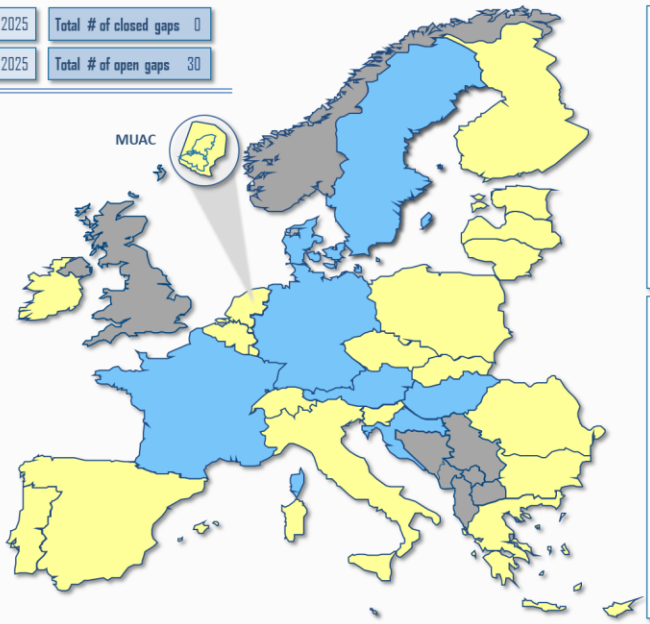


Chart Key – Implementation Status

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

- Completed with CEF funding
- Completed without CEF funding
- Fully covered by on-going CEF projects
- On-going with CEF funding
- On-going without CEF funding
- Planned
- Not yet planned
- Not applicable
- No information available

Geographical Scope	Currently deployed	On-going	Planned	Not Yet Planned	Implementation date	Implementation Status by Operational Stakeholder Category – ANSP
Austria	8%	92%	0%	0%	Dec 2025	
Belgium	0%	0%	0%	100%	-	
Bulgaria	0%	0%	100%	0%	Dec 2025	
Croatia	1%	7%	75%	17%	Dec 2025	
Cyprus	0%	0%	0%	100%	-	
Czech Republic	0%	0%	100%	0%	Dec 2025	**
Denmark	3%	5%	0%	92%	Dec 2025	
Estonia	0%	0%	0%	100%	-	
Finland	0%	0%	100%	0%	Dec 2025	
France	25%	0%	0%	75%	*	
Germany	1%	7%	0%	92%	Dec 2025	
Greece	0%	0%	0%	100%	-	
Hungary	12%	22%	33%	33%	Dec 2025	
Ireland	0%	0%	50%	50%	Dec 2025	**
Italy	0%	0%	100%	0%	Dec 2025	**
Latvia	0%	0%	0%	100%	-	
Lithuania	0%	0%	0%	100%	-	
Luxembourg	0%	0%	0%	100%	-	
Maastricht UAC	0%	0%	0%	100%	-	
Malta	0%	0%	0%	100%	-	
Netherlands	0%	0%	100%	0%	Dec 2025	
Poland	0%	0%	100%	0%	Dec 2025	
Portugal	0%	0%	0%	100%	-	
Romania	0%	0%	0%	100%	-	
Slovak Republic	0%	0%	0%	100%	-	
Slovenia	0%	0%	0%	100%	-	
Spain	0%	0%	100%	0%	Dec 2025	
Sweden	3%	5%	42%	50%	Dec 2025	
Switzerland	0%	0%	0%	100%	-	

** Date is not reported as the remaining scope of the family is not yet planned*

						Network Manager
Network Manager	90%	10%	0%	0%	Dec 2023	

*** Supported by CEF Funds*

SWIM Services Implementation – Overview of deployment activities

While acknowledging some progress achieved in 2021 in the deployment of AF5 functionality, this progress does not always match the plans reported in the previous period. The ambition of CP1 deadlines remains challenging. The commitment of the operational stakeholders on AF5 implementation differs from State to State. The COVID-19 crisis severely affected the entire aviation sector. Long-lasting drop in traffic has consequences for the economic viability of companies.
Differences between the various AF5 Families dealing with SWIM services can be observed as follows:

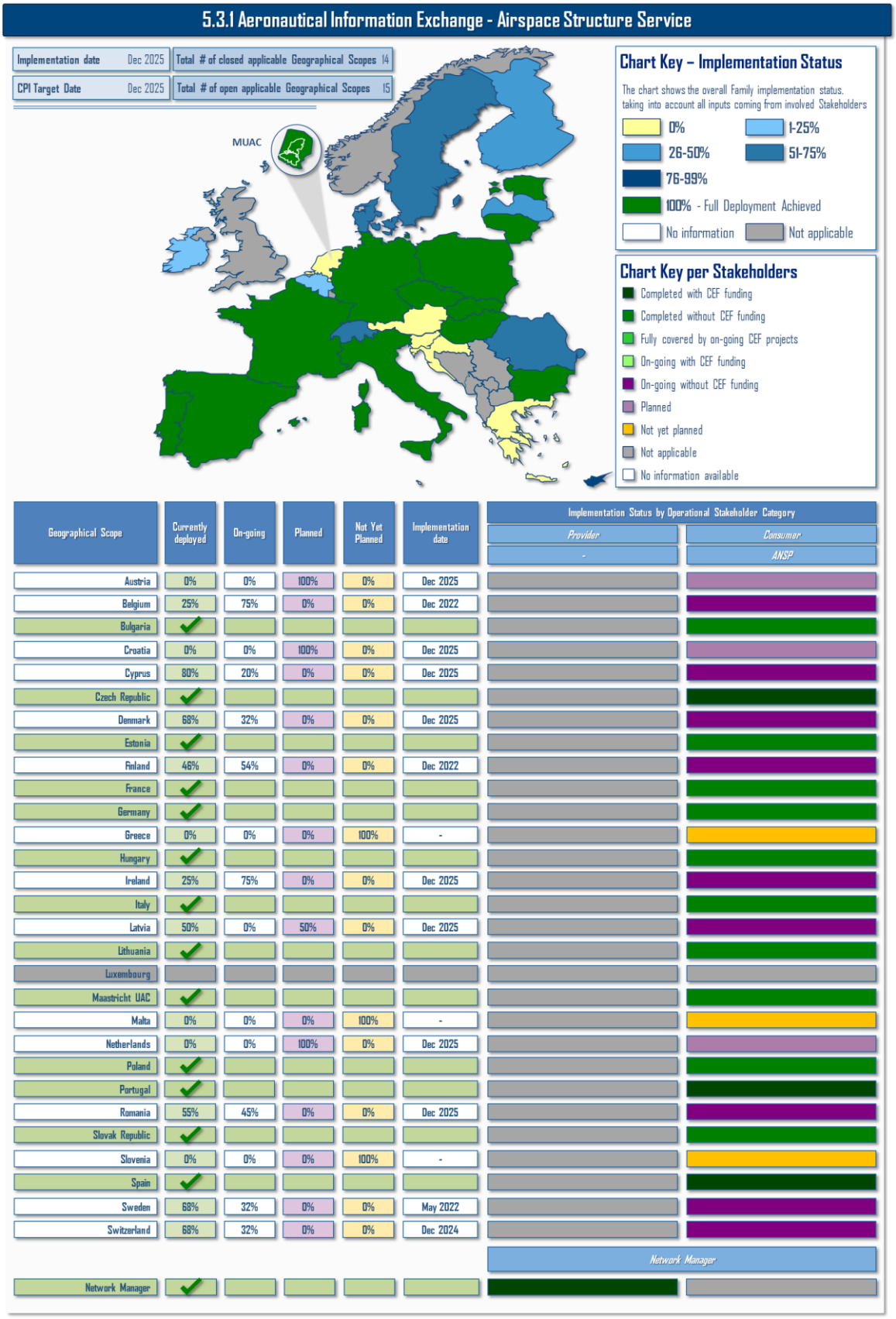
- **In Family 5.3.1**, the progress is not improved with regards to AIM SWIM services due to lack of clarity on implementation and insufficient technical coordination with AIM system providers. These issues were addressed with EUROCONTROL, to start a joint provision of support to AIM community in this regard. Family 5.3.1 ASM services progress status is improved except ARES service implementation for which SWIM specification work is on-going.
- **Family 5.4.1** is steadily progressing by MET service providers where number of SWIM services are already published in SWIM registry. Little or no progress is seen regarding MET service consumers. The core issue is identified as required capability of ATM systems to 'consume digital MET information'. Stakeholder's systems shall be upgraded. It should be born in mind that translation digital data into legacy TAC format brings no benefits for ATM modernisation and is not in line with SWIM concept. This issue was addressed jointly with EUROCONTROL to start a joint provision of support to the MET community.
- **Family 5.5.1** can be considered mature regarding SWIM services provision. This maturity is owed to the advanced stage of NM B2B services provision. Nevertheless, service consumers (ANSP, AO, AU) keep their options open (not eager) to transit from existing flow data exchange with NM via CHMI to SWIM service-oriented data exchange.
- **Family 5.6.1**, beyond NM implementation of all mandated services, no additional progress has been achieved. This Family is the most complex because it requires transition from ICAO FPL2012 to FF-ICE flight plan (eFPL) and involves the ATC systems. Europe is pioneering the deployment of FF-ICE concept starting with Release1. This transition foresees multi-stakeholders involvement (NM, AU, ANSP) from flight plan origination to its distribution to ATSU concerned. ANSPs are affected by its change which requires changes in ATC operations, procedures, ATM system upgrade. Legacy ATM systems are not capable to process eFPL data, therefore ANSPs have started development activities regarding new ATM system procurement, thus they reported progress status as planned. However, considering that more work is needed for the full understanding of the requirements, an awareness campaign started together with EUROCONTROL and a first Workshop was held on 15th March 2022.

As an overall view on SWIM implementation, it is observed that the not yet planned activities prevail among ANSPs. Nevertheless, there is a decent rate of planned and on-going activities which can be considered as a positive element.

AF5 - Service View

Family 5.3.1 - Services

Airspace Structure Service



Geographical Scope	Currently deployed	On-going	Planned	Not Yet Planned	Implementation date	Implementation Status by Operational Stakeholder Category	
						Provider	*Consumer*
						-	*ANSP*
Austria	0%	0%	100%	0%	Dec 2025		
Belgium	25%	75%	0%	0%	Dec 2022		
Bulgaria	✓						
Croatia	0%	0%	100%	0%	Dec 2025		
Cyprus	80%	20%	0%	0%	Dec 2025		
Czech Republic	✓						
Denmark	68%	32%	0%	0%	Dec 2025		
Estonia	✓						
Finland	46%	54%	0%	0%	Dec 2022		
France	✓						
Germany	✓						
Greece	0%	0%	0%	100%	-		
Hungary	✓						
Ireland	25%	75%	0%	0%	Dec 2025		
Italy	✓						
Latvia	50%	0%	50%	0%	Dec 2025		
Lithuania	✓						
Luxembourg							
Maastricht UAC	✓						
Malta	0%	0%	0%	100%	-		
Netherlands	0%	0%	100%	0%	Dec 2025		
Poland	✓						
Portugal	✓						
Romania	55%	45%	0%	0%	Dec 2025		
Slovak Republic	✓						
Slovenia	0%	0%	0%	100%	-		
Spain	✓						
Sweden	68%	32%	0%	0%	May 2022		
Switzerland	68%	32%	0%	0%	Dec 2024		
						Network Manager	
Network Manager	✓						

Airspace Availability Service

5.3.1 Aeronautical Information Exchange - Airspace Availability Service

Implementation date	Dec 2025	Total # of closed applicable Geographical Scopes	12
CPI Target Date	Dec 2025	Total # of open applicable Geographical Scopes	16

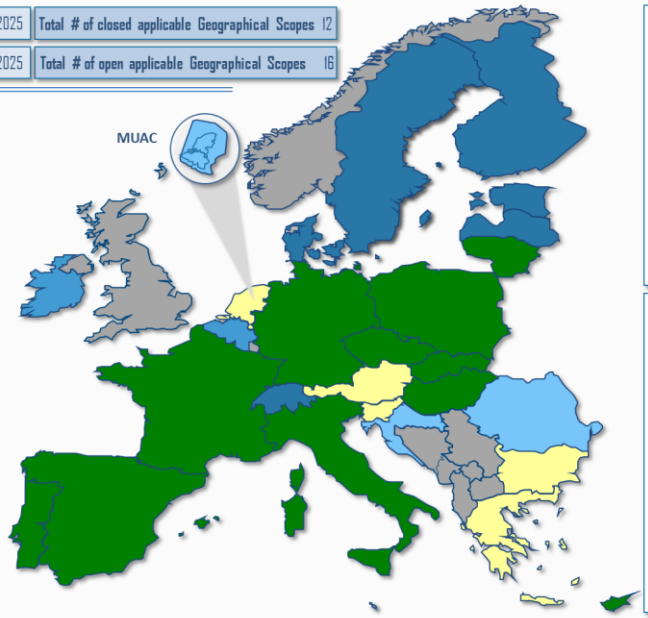


Chart Key – Implementation Status

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

- Completed with CEF funding
- Completed without CEF funding
- Fully covered by on-going CEF projects
- On-going with CEF funding
- On-going without CEF funding
- Planned
- Not yet planned
- Not applicable
- No information available

Geographical Scope	Currently deployed	On-going	Planned	Not Yet Planned	Implementation date	Implementation Status by Operational Stakeholder Category	
						Provider	*Consumer*
						-	*ANSP*
Austria	0%	0%	100%	0%	Dec 2025		*
Belgium	40%	60%	0%	0%	Dec 2022		
Bulgaria	0%	0%	100%	0%	Dec 2025		
Croatia	10%	90%	0%	0%	Dec 2025		
Cyprus	✓						
Czech Republic	✓						
Denmark	75%	25%	0%	0%	Dec 2025		
Estonia	75%	25%	0%	0%	Dec 2022		
Finland	75%	25%	0%	0%	Apr 2022		
France	✓						
Germany	✓						
Greece	0%	0%	0%	100%	-		
Hungary	✓						
Ireland	40%	60%	0%	0%	Dec 2025		
Italy	✓						
Latvia	75%	25%	0%	0%	Dec 2025		
Lithuania	✓						
Luxembourg							
Maastricht UAC	10%	90%	0%	0%	Dec 2025		
Malta							
Netherlands	0%	0%	100%	0%	Dec 2025		
Poland	✓						
Portugal	✓						
Romania	10%	90%	0%	0%	Dec 2025		
Slovak Republic	✓						
Slovenia	0%	0%	0%	100%	-		
Spain	✓						
Sweden	75%	25%	0%	0%	Dec 2022		
Switzerland	75%	25%	0%	0%	Dec 2024		
						Network Manager	
Network Manager	✓						

** Supported by CEF Funds*

Airspace Reservation (ARES) Service

5.3.1 Aeronautical Information Exchange - ARES

Implementation date	Dec 2025	Total # of closed applicable Geographical Scopes	0
CPI Target Date	Dec 2025	Total # of open applicable Geographical Scopes	27

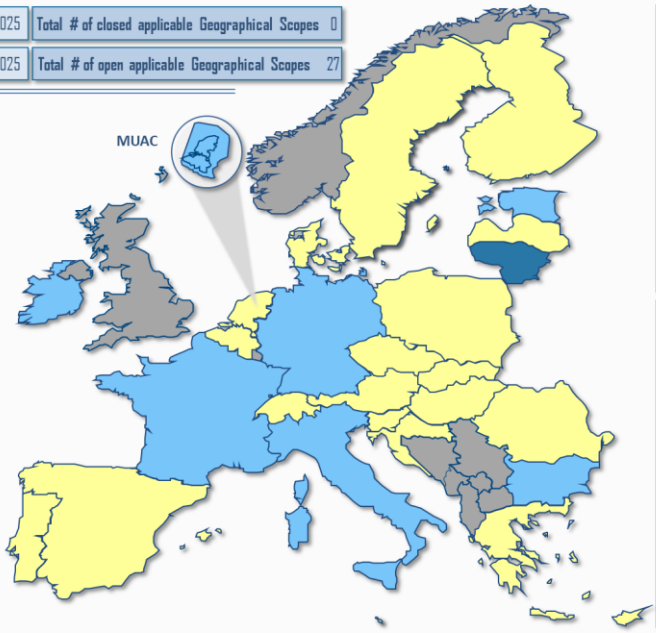


Chart Key – Implementation Status

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

- Completed with CEF funding
- Completed without CEF funding
- Fully covered by on-going CEF projects
- On-going with CEF funding
- On-going without CEF funding
- Planned
- Not yet planned
- Not applicable
- No information available

Geographical Scope	Currently deployed	On-going	Planned	Not Yet Planned	Implementation date	Implementation Status by Operational Stakeholder Category	
						Provider	Consumer
						ANSP	ANSP
Austria	0%	0%	100%	0%	Dec 2025		
Belgium	0%	0%	0%	100%	-		
Bulgaria	25%	0%	75%	0%	Dec 2025		
Croatia	0%	0%	100%	0%	Dec 2025		
Cyprus	0%	0%	0%	100%	-		
Czech Republic	0%	0%	100%	0%	Dec 2024	*	*
Denmark	0%	0%	0%	100%	-		
Estonia	3%	23%	50%	24%	Dec 2022		
Finland	0%	0%	100%	0%	Dec 2022		
France	3%	23%	74%	0%	Jun 2025		
Germany	25%	0%	75%	0%	Dec 2025		
Greece	0%	0%	0%	100%	-		
Hungary	0%	0%	100%	0%	Dec 2022		
Ireland	10%	40%	0%	50%	Dec 2025		
Italy	3%	23%	74%	0%	Dec 2025		
Latvia	0%	0%	25%	75%	Dec 2025		
Lithuania	53%	0%	23%	24%	Dec 2025		
Luxembourg							
Maastricht UAC	5%	45%	50%	0%	Dec 2025		
Malta							
Netherlands	0%	0%	100%	0%	Dec 2025		
Poland	0%	0%	100%	0%	Dec 2025		
Portugal	0%	0%	0%	100%	-		
Romania	0%	0%	50%	50%	Dec 2025		
Slovak Republic	0%	0%	0%	100%	-		
Slovenia	0%	0%	0%	100%	-		
Spain	0%	0%	100%	0%	Dec 2025		
Sweden	0%	0%	100%	0%	Dec 2025		
Switzerland	0%	0%	0%	100%	-		

** Supported by CEF Funds*

Digital NOTAM Service

5.3.1 Aeronautical Information Exchange – Digital NOTAM Service

Implementation date	Dec 2025	Total # of closed applicable Geographical Scopes	0
CPI Target Date	Dec 2025	Total # of open applicable Geographical Scopes	29

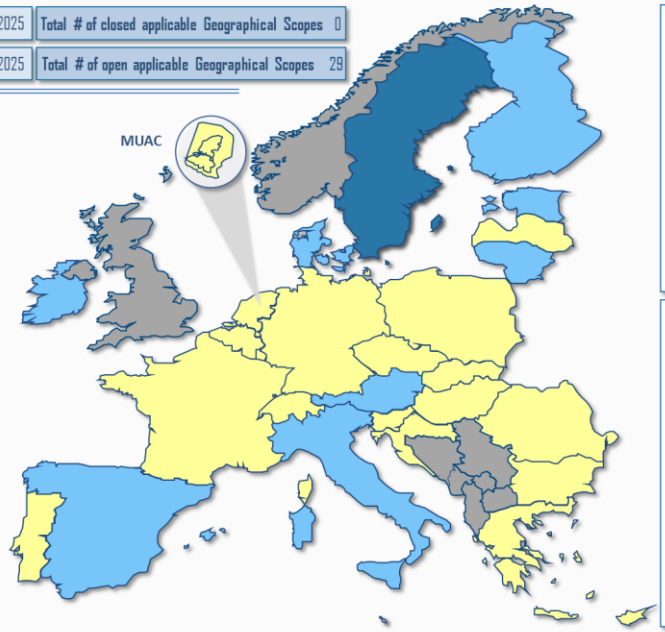


Chart Key – Implementation Status

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

- Completed with CEF funding
- Completed without CEF funding
- Fully covered by on-going CEF projects
- On-going with CEF funding
- On-going without CEF funding
- Planned
- Not yet planned
- Not applicable
- No information available

Geographical Scope	Currently deployed	On-going	Planned	Not Yet Planned	Implementation date	Implementation Status by Operational Stakeholder Category	
						Provider	*Consumer*
						AISP	*ANSP*
Austria	10%	80%	10%	0%	Dec 2025		
Belgium	0%	0%	0%	100%	-		
Bulgaria	0%	0%	100%	0%	Dec 2025		
Croatia	0%	0%	100%	0%	Dec 2025		
Cyprus	0%	0%	0%	100%	-		
Czech Republic	0%	0%	100%	0%	Dec 2025		
Denmark	8%	72%	0%	20%	Dec 2025		
Estonia	8%	72%	20%	0%	Dec 2025		
Finland	8%	72%	0%	20%	Dec 2025		
France	0%	0%	0%	100%	-		
Germany	0%	0%	0%	100%	-		
Greece	0%	0%	0%	100%	-		
Hungary	0%	0%	100%	0%	Dec 2025		
Ireland	8%	72%	5%	15%	Dec 2024		
Italy	8%	72%	20%	0%	Dec 2025		
Latvia	0%	0%	100%	0%	Dec 2025		
Lithuania	10%	80%	0%	10%	Dec 2025		
Luxembourg	0%	0%	0%	100%	-		
Maastricht UAC	0%	0%	0%	100%	-		
Malta	0%	0%	100%	0%	Dec 2025		
Netherlands	0%	0%	100%	0%	Dec 2025		
Poland	0%	0%	100%	0%	Dec 2025		
Portugal	0%	0%	100%	0%	Dec 2025		
Romania	0%	0%	80%	20%	Dec 2025		
Slovak Republic	0%	0%	0%	100%	-		
Slovenia	0%	0%	0%	100%	-		
Spain	8%	72%	20%	0%	Dec 2025		
Sweden	64%	16%	20%	0%	Dec 2025		
Switzerland	0%	0%	80%	20%	Dec 2025		

Digital Aerodrome Mapping information Exchange Service

5.3.1 Aeronautical Information Exchange - Digital Aerodrome Mapping information Exchange Service

Implementation date	Dec 2025	Total # of closed applicable Geographical Scopes	0
CPI Target Date	Dec 2025	Total # of open applicable Geographical Scopes	26

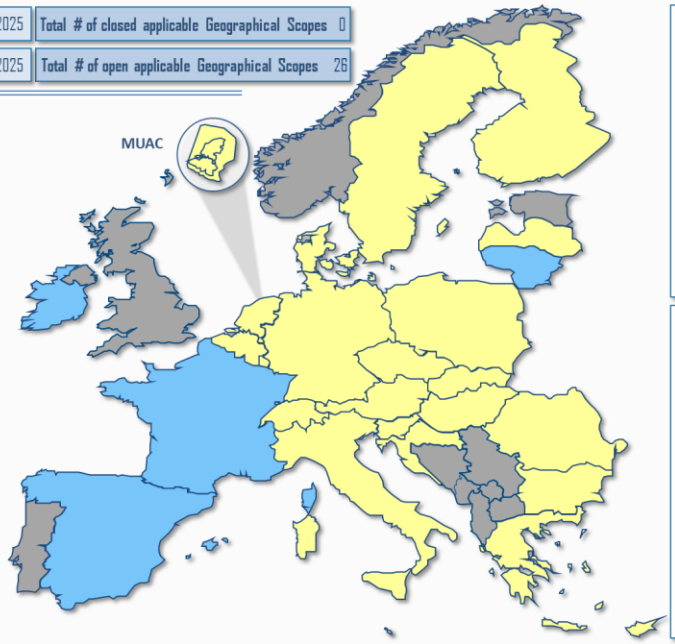


Chart Key – Implementation Status

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

- Completed with CEF funding
- Completed without CEF funding
- Fully covered by on-going CEF projects
- On-going with CEF funding
- On-going without CEF funding
- Planned
- Not yet planned
- Not applicable
- No information available

Geographical Scope	Currently deployed	On-going	Planned	Not Yet Planned	Implementation date	Implementation Status by Operational Stakeholder Category
						Provider
						AISP
Austria	0%	0%	0%	100%	-	
Belgium	0%	0%	0%	100%	-	
Bulgaria	0%	0%	100%	0%	Dec 2025	
Croatia	0%	0%	0%	100%	-	
Cyprus	0%	0%	0%	100%	-	
Czech Republic	0%	0%	100%	0%	Jun 2025	
Denmark	0%	0%	0%	100%	-	
Estonia						
Finland	0%	0%	100%	0%	Dec 2025	
France	10%	90%	0%	0%	Dec 2025	
Germany	0%	0%	0%	100%	-	
Greece	0%	0%	0%	100%	-	
Hungary	0%	0%	100%	0%	Dec 2025	
Ireland	10%	90%	0%	0%	Dec 2025	
Italy	0%	0%	100%	0%	Dec 2025	
Latvia	0%	0%	100%	0%	Dec 2025	
Lithuania	10%	90%	0%	0%	Dec 2025	
Luxembourg	0%	0%	0%	100%	-	
Maastricht UAC						
Malta	0%	0%	0%	100%	-	
Netherlands	0%	0%	100%	0%	Dec 2025	
Poland	0%	0%	100%	0%	Dec 2025	
Portugal						
Romania	0%	0%	0%	100%	-	
Slovak Republic	0%	0%	0%	100%	-	
Slovenia	0%	0%	0%	100%	-	
Spain	10%	90%	0%	0%	Dec 2025	
Sweden	0%	0%	100%	0%	Dec 2025	
Switzerland	0%	0%	0%	100%	-	

Aeronautical Information Features Exchange Service

5.3.1 Aeronautical Information Exchange - Aeronautical Information Features Exchange Service

Implementation date	Dec 2025	Total # of closed applicable Geographical Scopes	0
CPI Target Date	Dec 2025	Total # of open applicable Geographical Scopes	29

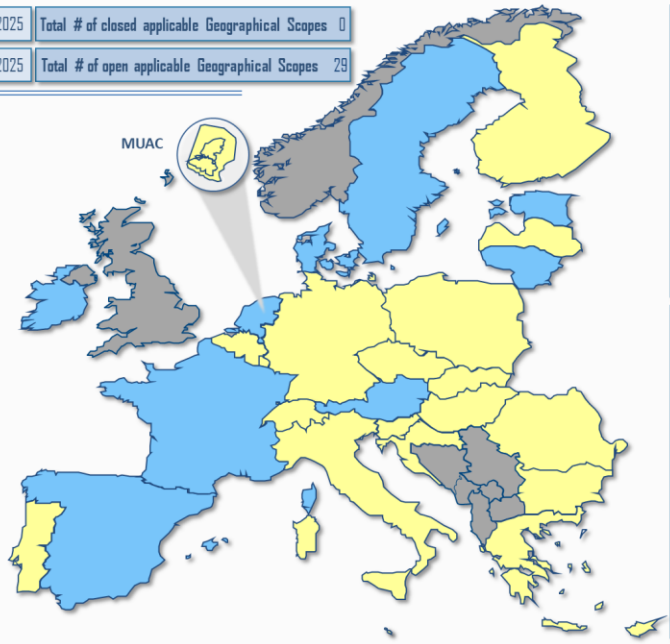


Chart Key – Implementation Status

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

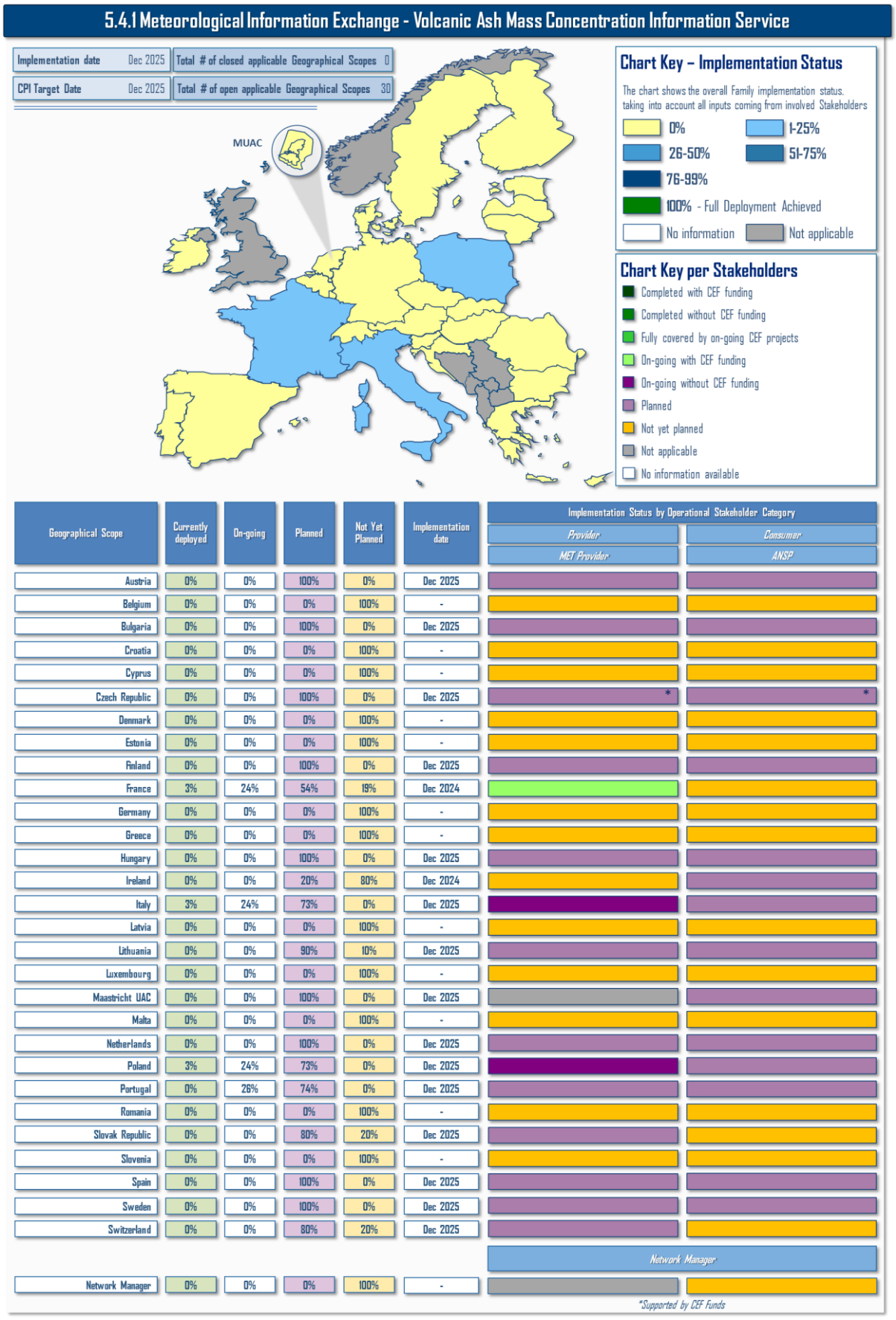
- Completed with CEF funding
- Completed without CEF funding
- Fully covered by on-going CEF projects
- On-going with CEF funding
- On-going without CEF funding
- Planned
- Not yet planned
- Not applicable
- No information available

Geographical Scope	Currently deployed	On-going	Planned	Not Yet Planned	Implementation date	Implementation Status by Operational Stakeholder Category	
						Provider	*Consumer*
						AISP	*ANSP*
Austria	10%	80%	10%	0%	Dec 2025		
Belgium	0%	0%	0%	100%	-		
Bulgaria	0%	0%	100%	0%	Dec 2025		
Croatia	0%	0%	100%	0%	Dec 2025		
Cyprus	0%	0%	0%	100%	-		
Czech Republic	0%	0%	100%	0%	Dec 2025	*	*
Denmark	8%	72%	0%	20%	Dec 2025		
Estonia	8%	72%	20%	0%	Dec 2025		
Finland	0%	0%	100%	0%	Dec 2025		
France	8%	72%	0%	20%	Dec 2025		
Germany	0%	0%	0%	100%	-		
Greece	0%	0%	0%	100%	-		
Hungary	0%	0%	100%	0%	Dec 2025		
Ireland	10%	90%	0%	0%	Dec 2025		
Italy	0%	0%	100%	0%	Dec 2025	*	*
Latvia	0%	0%	0%	100%	-		
Lithuania	8%	72%	20%	0%	Dec 2025		
Luxembourg	0%	0%	0%	100%	-		
Maastricht UAC	0%	0%	0%	100%	-		
Malta	0%	0%	0%	100%	-		
Netherlands	8%	72%	20%	0%	Dec 2025		
Poland	0%	0%	100%	0%	Dec 2025		
Portugal	0%	0%	100%	0%	Dec 2025		
Romania	0%	0%	80%	20%	Dec 2025		
Slovak Republic	0%	0%	0%	100%	-		
Slovenia	0%	0%	0%	100%	-		
Spain	8%	72%	20%	0%	Dec 2025		
Sweden	10%	80%	0%	10%	Dec 2024		
Switzerland	0%	0%	0%	100%	-		

*Supported by CEF Funds

Family 5.4.1 - Services

Volcanic Ash Mass Concentration Information Service



Geographical Scope	Currently deployed	On-going	Planned	Not Yet Planned	Implementation date	Implementation Status by Operational Stakeholder Category	
						Provider	Consumer
						MET Provider	ANSP
Austria	0%	0%	100%	0%	Dec 2025		
Belgium	0%	0%	0%	100%	-		
Bulgaria	0%	0%	100%	0%	Dec 2025		
Croatia	0%	0%	0%	100%	-		
Cyprus	0%	0%	0%	100%	-		
Czech Republic	0%	0%	100%	0%	Dec 2025	*	*
Denmark	0%	0%	0%	100%	-		
Estonia	0%	0%	0%	100%	-		
Finland	0%	0%	100%	0%	Dec 2025		
France	3%	24%	54%	19%	Dec 2024		
Germany	0%	0%	0%	100%	-		
Greece	0%	0%	0%	100%	-		
Hungary	0%	0%	100%	0%	Dec 2025		
Ireland	0%	0%	20%	80%	Dec 2024		
Italy	3%	24%	73%	0%	Dec 2025		
Latvia	0%	0%	0%	100%	-		
Lithuania	0%	0%	90%	10%	Dec 2025		
Luxembourg	0%	0%	0%	100%	-		
Maastricht UAC	0%	0%	100%	0%	Dec 2025		
Malta	0%	0%	0%	100%	-		
Netherlands	0%	0%	100%	0%	Dec 2025		
Poland	3%	24%	73%	0%	Dec 2025		
Portugal	0%	26%	74%	0%	Dec 2025		
Romania	0%	0%	0%	100%	-		
Slovak Republic	0%	0%	80%	20%	Dec 2025		
Slovenia	0%	0%	0%	100%	-		
Spain	0%	0%	100%	0%	Dec 2025		
Sweden	0%	0%	100%	0%	Dec 2025		
Switzerland	0%	0%	80%	20%	Dec 2025		
						Network Manager	
Network Manager	0%	0%	0%	100%	-		

Aerodrome Meteorological Information

5.4.1 Meteorological Information Exchange - Aerodrome Meteorological Information Service

Implementation date	Dec 2025	Total # of closed applicable Geographical Scopes	0
CPI Target Date	Dec 2025	Total # of open applicable Geographical Scopes	29

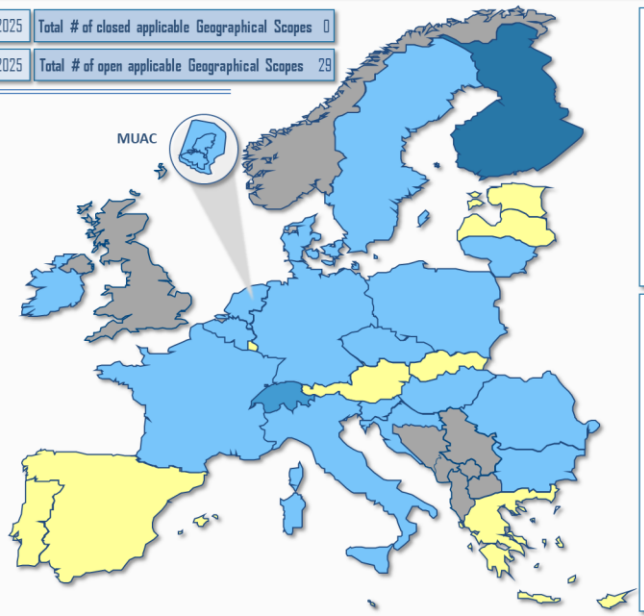


Chart Key – Implementation Status

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

- Completed with CEF funding
- Completed without CEF funding
- Fully covered by on-going CEF projects
- On-going with CEF funding
- On-going without CEF funding
- Planned
- Not yet planned
- Not applicable
- No information available

Geographical Scope	Currently deployed	On-going	Planned	Not Yet Planned	Implementation date	Implementation Status by Operational Stakeholder Category		
						Provider	Consumer	
						MET Provider	ANSP	Airport Operator
Austria	0%	0%	100%	0%	Dec 2025			
Belgium	6%	50%	34%	10%	Dec 2025			
Bulgaria	23%	6%	71%	0%	Dec 2025			
Croatia	7%	53%	27%	13%	Dec 2025			
Cyprus	0%	0%	0%	100%	-			
Czech Republic	2%	11%	60%	27%	Dec 2025			
Denmark	21%	5%	0%	74%	Dec 2025			
Estonia	0%	0%	0%	100%	-			
Finland	71%	18%	11%	0%	Dec 2025			
France	11%	76%	5%	8%	Dec 2023			
Germany	4%	27%	4%	65%	Dec 2025			
Greece	0%	0%	0%	100%	-			
Hungary	24%	29%	47%	0%	Dec 2025			
Ireland	9%	78%	13%	0%	Dec 2025			
Italy	8%	75%	17%	0%	Dec 2025			
Latvia	0%	0%	0%	100%	-			
Lithuania	5%	42%	0%	53%	Dec 2025			
Luxembourg	0%	0%	0%	100%	-			
Maastricht UAC								
Malta	0%	0%	0%	100%	-			
Netherlands	3%	77%	10%	10%	Dec 2025		*	
Poland	3%	30%	67%	0%	Dec 2025			
Portugal	0%	0%	100%	0%	Dec 2025			
Romania	5%	48%	0%	47%	Dec 2025			
Slovak Republic	0%	0%	80%	20%	Dec 2025			
Slovenia	3%	24%	0%	73%	Dec 2024			
Spain	0%	0%	100%	0%	Dec 2025			
Sweden	3%	27%	7%	63%	Dec 2025			
Switzerland	46%	34%	0%	20%	Dec 2025			
						Network Manager		
Network Manager	0%	0%	0%	100%	-			

*Supported by CEF Funds

En-Route and Approach Meteorological information Service

5.4.1 Meteorological Information Exchange - En-Route and Approach Meteorological information Service

Implementation date	Dec 2025	Total # of closed applicable Geographical Scopes	0
CPI Target Date	Dec 2025	Total # of open applicable Geographical Scopes	30

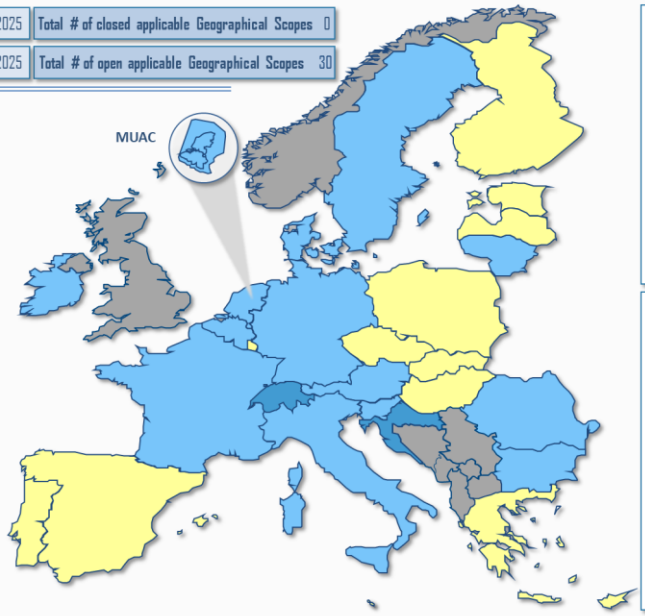


Chart Key – Implementation Status

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

- Completed with CEF funding
- Completed without CEF funding
- Fully covered by on-going CEF projects
- On-going with CEF funding
- On-going without CEF funding
- Planned
- Not yet planned
- Not applicable
- No information available

Geographical Scope	Currently deployed	On-going	Planned	Not Yet Planned	Implementation date	Implementation Status by Operational Stakeholder Category	
						Provider	*Consumer*
						MET Provider	*ANSP*
Austria	8%	72%	20%	0%	Dec 2025		
Belgium	3%	24%	0%	73%	Dec 2025		
Bulgaria	21%	5%	74%	0%	Dec 2025		
Croatia	48%	12%	40%	0%	Dec 2025		
Cyprus	0%	0%	0%	100%	-		
Czech Republic	0%	0%	73%	27%	Dec 2025		*
Denmark	21%	5%	0%	74%	Dec 2025		
Estonia	0%	0%	0%	100%	-		
Finland	0%	0%	100%	0%	Dec 2025		
France	9%	78%	7%	6%	Dec 2023		
Germany	3%	24%	20%	53%	Dec 2025		*
Greece	0%	0%	0%	100%	-		
Hungary	0%	0%	100%	0%	Dec 2025		
Ireland	9%	78%	13%	0%	Dec 2025		
Italy	9%	78%	13%	0%	Dec 2025		
Latvia	0%	0%	0%	100%	-		
Lithuania	3%	30%	0%	67%	Dec 2025		
Luxembourg	0%	0%	0%	100%	-		
Maastricht UAC	3%	30%	0%	67%	Dec 2025		
Malta	0%	0%	0%	100%	-		
Netherlands	10%	77%	13%	0%	Dec 2025		
Poland	0%	0%	100%	0%	Dec 2025		
Portugal	0%	0%	100%	0%	Dec 2025		
Romania	5%	48%	0%	47%	Dec 2025		
Slovak Republic	0%	0%	80%	20%	Dec 2025		
Slovenia	6%	48%	26%	20%	Jun 2024		
Spain	0%	0%	100%	0%	Dec 2025		
Sweden	9%	78%	13%	0%	Dec 2025		
Switzerland	26%	54%	0%	20%	Dec 2025		
						Network Manager	
Network Manager	0%	0%	0%	100%	-		

**Supported by CEF Funds*

Network Meteorological Information Service

5.4.1 Meteorological Information Exchange - Network Meteorological Information Service

Implementation date	Dec 2025	Total # of closed applicable Geographical Scopes	0
CPI Target Date	Dec 2025	Total # of open applicable Geographical Scopes	30

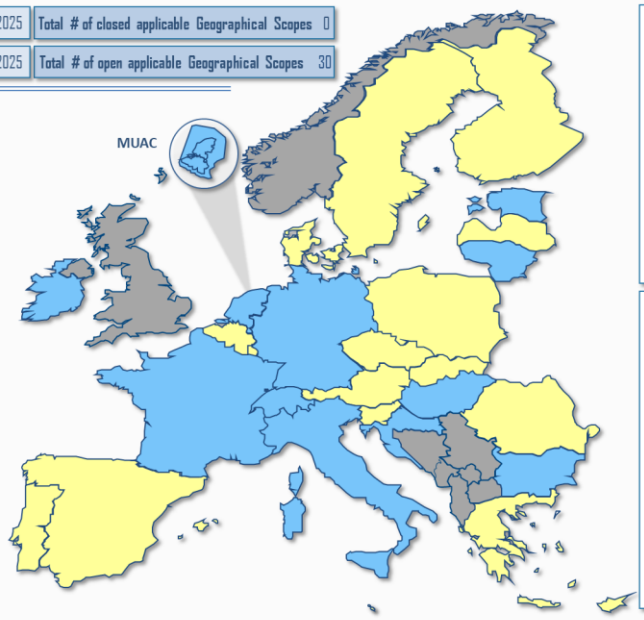


Chart Key – Implementation Status

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

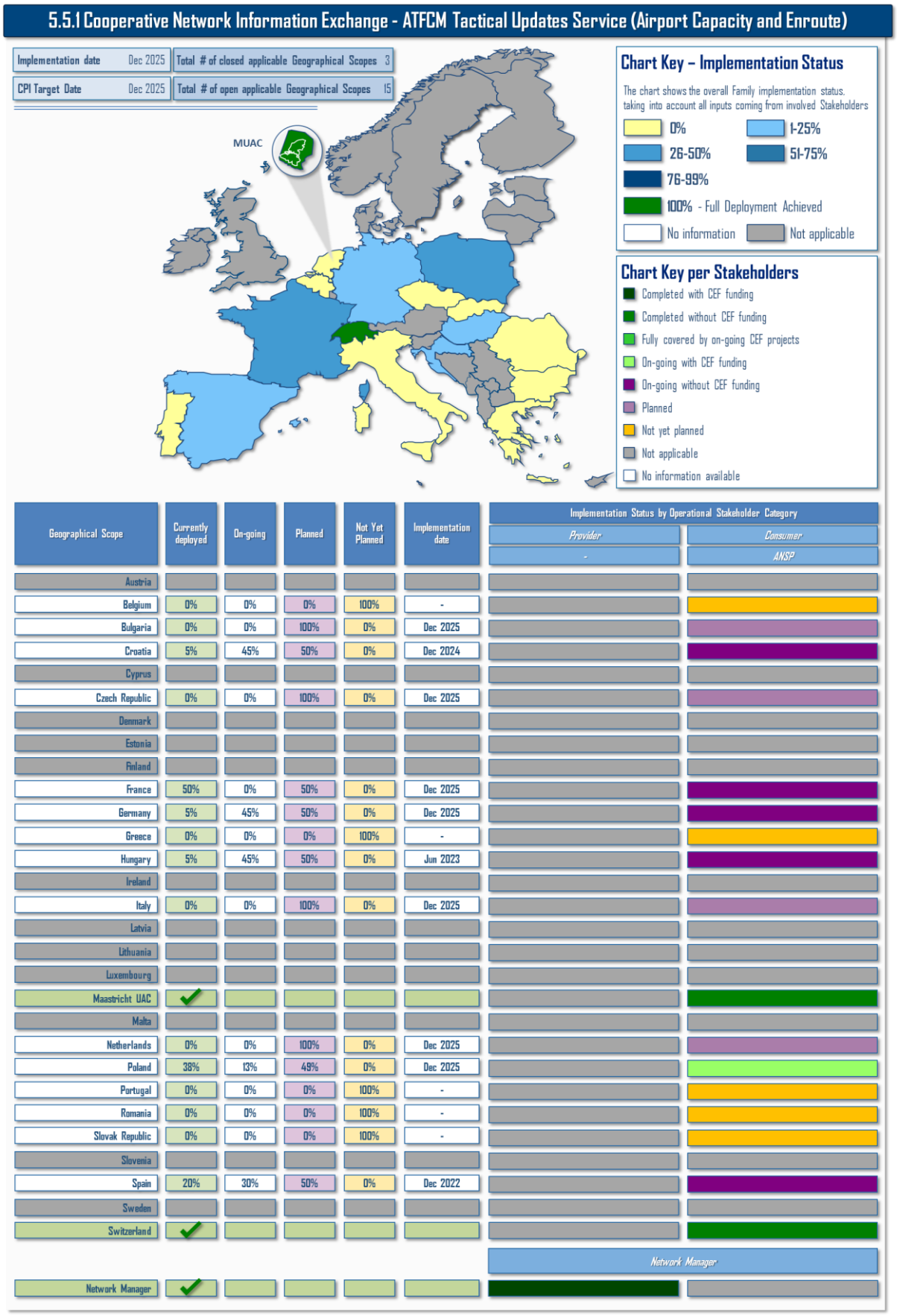
- Completed with CEF funding
- Completed without CEF funding
- Fully covered by on-going CEF projects
- On-going with CEF funding
- On-going without CEF funding
- Planned
- Not yet planned
- Not applicable
- No information available

Geographical Scope	Currently deployed	On-going	Planned	Not Yet Planned	Implementation date	Implementation Status by Operational Stakeholder Category	
						Provider	*Consumer*
						MET Provider	*ANSP*
Austria	0%	0%	100%	0%	Dec 2025		
Belgium	0%	0%	0%	100%	-		
Bulgaria	3%	24%	73%	0%	Dec 2025		
Croatia	9%	78%	13%	0%	Dec 2025		
Cyprus	0%	0%	0%	100%	-		
Czech Republic	0%	0%	46%	54%	Dec 2025		*
Denmark	0%	0%	0%	100%	-		
Estonia	8%	72%	0%	20%	Dec 2025		
Finland	0%	0%	100%	0%	Dec 2025		
France	9%	78%	7%	6%	Dec 2023		
Germany	1%	6%	13%	80%	Dec 2025		
Greece	0%	0%	0%	100%	-		
Hungary	5%	48%	20%	27%	Dec 2025		
Ireland	10%	83%	7%	0%	Dec 2025		
Italy	9%	78%	13%	0%	Dec 2025		
Latvia	0%	0%	0%	100%	-		
Lithuania	3%	30%	0%	67%	Dec 2025		
Luxembourg	0%	0%	0%	100%	-		
Maastricht UAC	3%	30%	0%	67%	Dec 2025		
Malta	0%	0%	0%	100%	-		
Netherlands	5%	48%	47%	0%	Dec 2025		
Poland	0%	0%	100%	0%	Dec 2025		
Portugal	0%	0%	100%	0%	Dec 2025		
Romania	0%	0%	0%	100%	-		
Slovak Republic	0%	0%	0%	100%	-		
Slovenia	0%	0%	0%	100%	-		
Spain	0%	0%	100%	0%	Dec 2025		
Sweden	0%	0%	20%	80%	Dec 2025		
Switzerland	3%	24%	0%	73%	Dec 2025		
						Network Manager	
Network Manager	0%	0%	0%	100%	-		

**Supported by CEF Funds*

Family 5.5.1 - Services

ATFCM Tactical Updates Service (Airport Capacity and Enroute)



Geographical Scope	Currently deployed	On-going	Planned	Not Yet Planned	Implementation date	Implementation Status by Operational Stakeholder Category	
						Provider	*Consumer*
						-	*ANSP*
Austria							
Belgium	0%	0%	0%	100%	-		
Bulgaria	0%	0%	100%	0%	Dec 2025		
Croatia	5%	45%	50%	0%	Dec 2024		
Cyprus							
Czech Republic	0%	0%	100%	0%	Dec 2025		
Denmark							
Estonia							
Finland							
France	50%	0%	50%	0%	Dec 2025		
Germany	5%	45%	50%	0%	Dec 2025		
Greece	0%	0%	0%	100%	-		
Hungary	5%	45%	50%	0%	Jun 2023		
Ireland							
Italy	0%	0%	100%	0%	Dec 2025		
Latvia							
Lithuania							
Luxembourg							
Maastricht UAC	✓						
Malta							
Netherlands	0%	0%	100%	0%	Dec 2025		
Poland	38%	13%	49%	0%	Dec 2025		
Portugal	0%	0%	0%	100%	-		
Romania	0%	0%	0%	100%	-		
Slovak Republic	0%	0%	0%	100%	-		
Slovenia							
Spain	20%	30%	50%	0%	Dec 2022		
Sweden							
Switzerland	✓						
						Network Manager	
Network Manager	✓						

Flight Management Service

5.5.1 Cooperative Network Information Exchange - Flight Management Service

Implementation date	Dec 2025	Total # of closed applicable Geographical Scopes	3
CPI Target Date	Dec 2025	Total # of open applicable Geographical Scopes	19

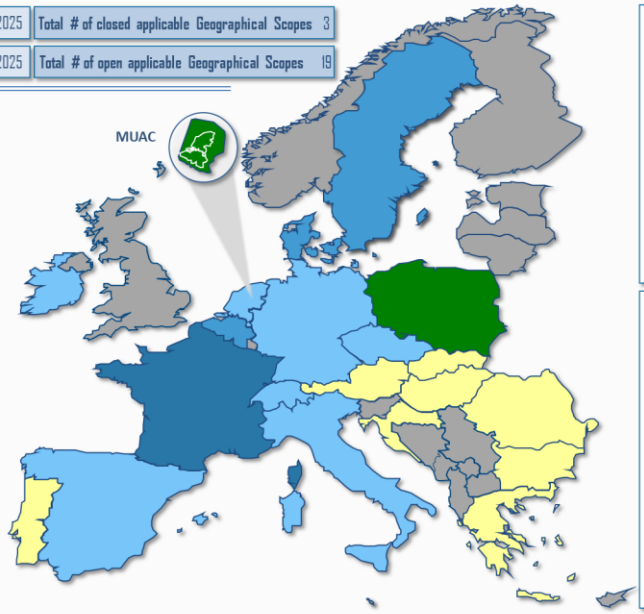


Chart Key – Implementation Status

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

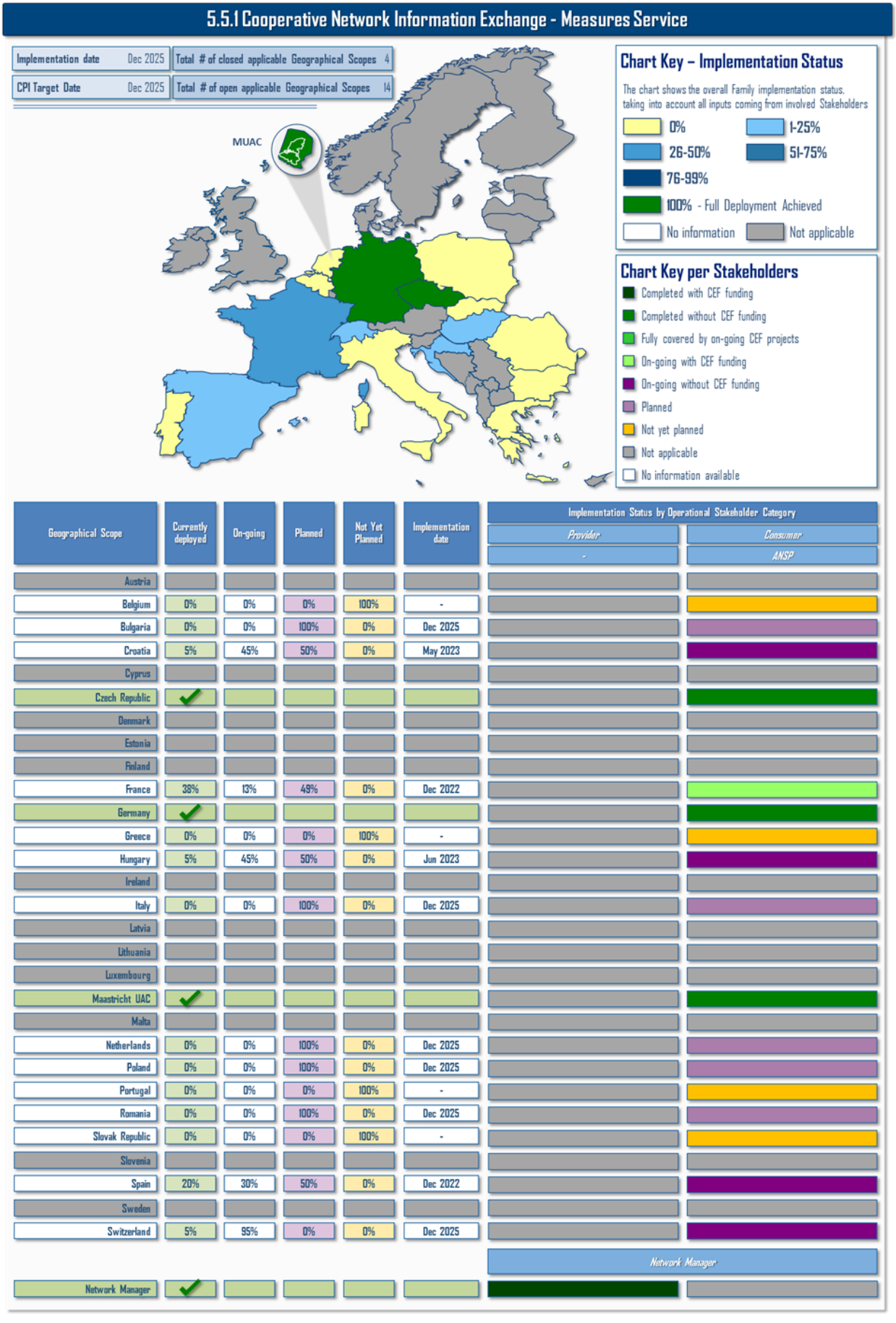
- 0%
- 1-25%
- 26-50%
- 51-75%
- 76-99%
- 100% - Full Deployment Achieved
- No information
- Not applicable

Chart Key per Stakeholders

- Completed with CEF funding
- Completed without CEF funding
- Fully covered by on-going CEF projects
- On-going with CEF funding
- On-going without CEF funding
- Planned
- Not yet planned
- Not applicable
- No information available

Geographical Scope	Currently deployed	On-going	Planned	Not Yet Planned	Implementation date	Implementation Status by Operational Stakeholder Category		
						Provider	Consumer	
						-	ANSP	Airport Operator
Austria	0%	0%	100%	0%	Dec 2025			
Belgium	39%	11%	38%	12%	Dec 2025			
Bulgaria	0%	0%	100%	0%	Dec 2025			
Croatia	0%	0%	0%	100%	-			
Cyprus								
Czech Republic	10%	40%	50%	0%	Dec 2025			
Denmark	30%	70%	0%	0%	Dec 2025			
Estonia								
Finland								
France	65%	23%	6%	6%	Dec 2023			
Germany	7%	29%	17%	47%	Dec 2025			
Greece	0%	0%	0%	100%	-			
Hungary	0%	0%	100%	0%	Jun 2023			
Ireland	25%	0%	75%	0%	Dec 2025			
Italy	3%	16%	81%	0%	Dec 2025			
Latvia								
Lithuania								
Luxembourg								
Maastricht UAC	✓							
Malta								
Netherlands	13%	0%	63%	24%	Dec 2025			
Poland	✓							
Portugal	0%	0%	0%	100%	-			
Romania	0%	0%	0%	100%	-			
Slovak Republic	0%	0%	0%	100%	-			
Slovenia								
Spain	12%	13%	75%	0%	Dec 2025			
Sweden	34%	41%	25%	0%	Dec 2025			
Switzerland	3%	23%	25%	49%	Dec 2025			
						Network Manager		
Network Manager	✓							

Measures Service



Geographical Scope	Currently deployed	On-going	Planned	Not Yet Planned	Implementation date	Implementation Status by Operational Stakeholder Category	
						Provider	Consumer
						-	ANSP
Austria							
Belgium	0%	0%	0%	100%	-		
Bulgaria	0%	0%	100%	0%	Dec 2025		
Croatia	5%	45%	50%	0%	May 2023		
Cyprus							
Czech Republic	✓						
Denmark							
Estonia							
Finland							
France	38%	13%	49%	0%	Dec 2022		
Germany	✓						
Greece	0%	0%	0%	100%	-		
Hungary	5%	45%	50%	0%	Jun 2023		
Ireland							
Italy	0%	0%	100%	0%	Dec 2025		
Latvia							
Lithuania							
Luxembourg							
Maastricht UAC	✓						
Malta							
Netherlands	0%	0%	100%	0%	Dec 2025		
Poland	0%	0%	100%	0%	Dec 2025		
Portugal	0%	0%	0%	100%	-		
Romania	0%	0%	100%	0%	Dec 2025		
Slovak Republic	0%	0%	0%	100%	-		
Slovenia							
Spain	20%	30%	50%	0%	Dec 2022		
Sweden							
Switzerland	5%	95%	0%	0%	Dec 2025		
						Network Manager	
Network Manager	✓						

Short Term ATFCM Measures Services (MCDM, eHelpdesk, STAM measures)

5.5.1 Cooperative Network Information Exchange - Short Term ATFCM Measures Services (MCDM, eHelpdesk, STAM measures)

Implementation date	Dec 2025	Total # of closed applicable Geographical Scopes	2
CPI Target Date	Dec 2025	Total # of open applicable Geographical Scopes	16

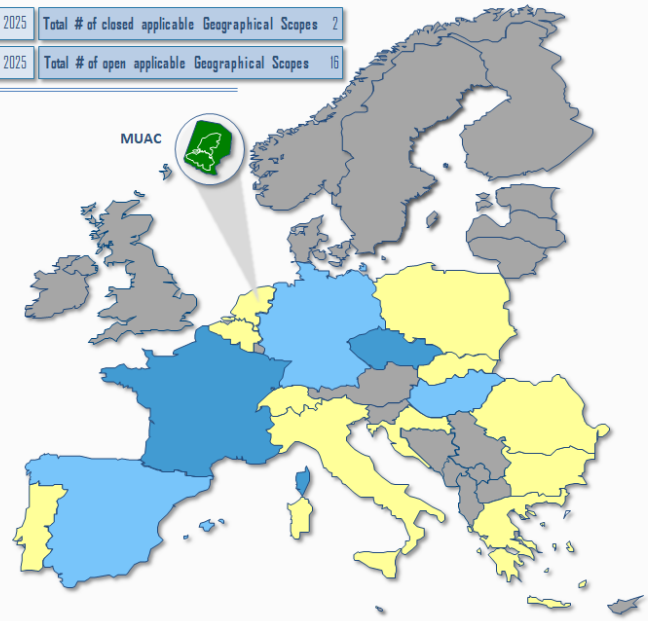


Chart Key – Implementation Status

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

- Completed with CEF funding
- Completed without CEF funding
- Fully covered by on-going CEF projects
- On-going with CEF funding
- On-going without CEF funding
- Planned
- Not yet planned
- Not applicable
- No information available

Geographical Scope	Currently deployed	On-going	Planned	Not Yet Planned	Implementation date	Implementation Status by Operational Stakeholder Category	
						Provider	Consumer
						-	ANSP
Austria							
Belgium	0%	0%	0%	100%	-		
Bulgaria	0%	0%	100%	0%	Dec 2025		
Croatia	0%	0%	100%	0%	Dec 2024		
Cyprus							
Czech Republic	38%	13%	49%	0%	Dec 2025		
Denmark							
Estonia							
Finland							
France	38%	13%	49%	0%	Dec 2023		
Germany	5%	45%	0%	50%	Dec 2025		
Greece	0%	0%	0%	100%	-		
Hungary	5%	45%	50%	0%	Jun 2023		
Ireland							
Italy	0%	0%	100%	0%	Dec 2025		
Latvia							
Lithuania							
Luxembourg							
Maastricht UAC	✓						
Malta							
Netherlands	0%	0%	100%	0%	Dec 2025		
Poland	0%	0%	100%	0%	Dec 2025		
Portugal	0%	0%	0%	100%	-		
Romania	0%	0%	100%	0%	Dec 2025		
Slovak Republic	0%	0%	0%	100%	-		
Slovenia							
Spain	20%	30%	50%	0%	Dec 2022		
Sweden							
Switzerland	0%	0%	0%	100%	-		
						Network Manager	
Network Manager	✓						

Counts service (ATFCM congestion points)

5.5.1 Cooperative Network Information Exchange - Counts service (ATFCM congestion points)

Implementation date	Dec 2025	Total # of closed applicable Geographical Scopes	5
CPI Target Date	Dec 2025	Total # of open applicable Geographical Scopes	13

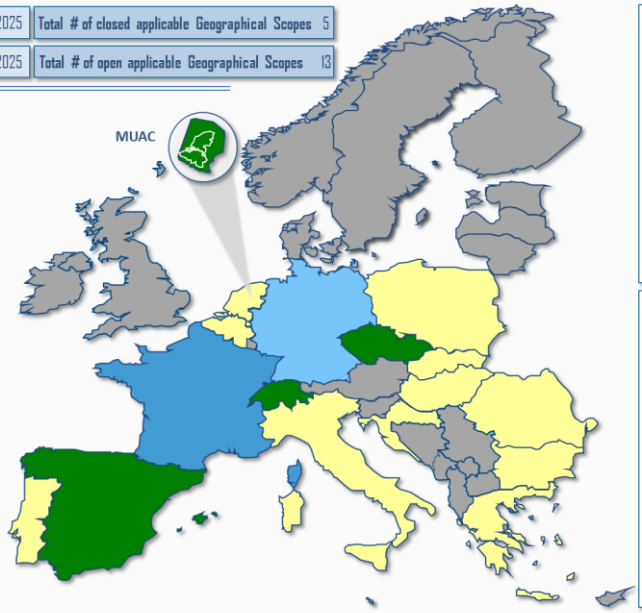


Chart Key – Implementation Status

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

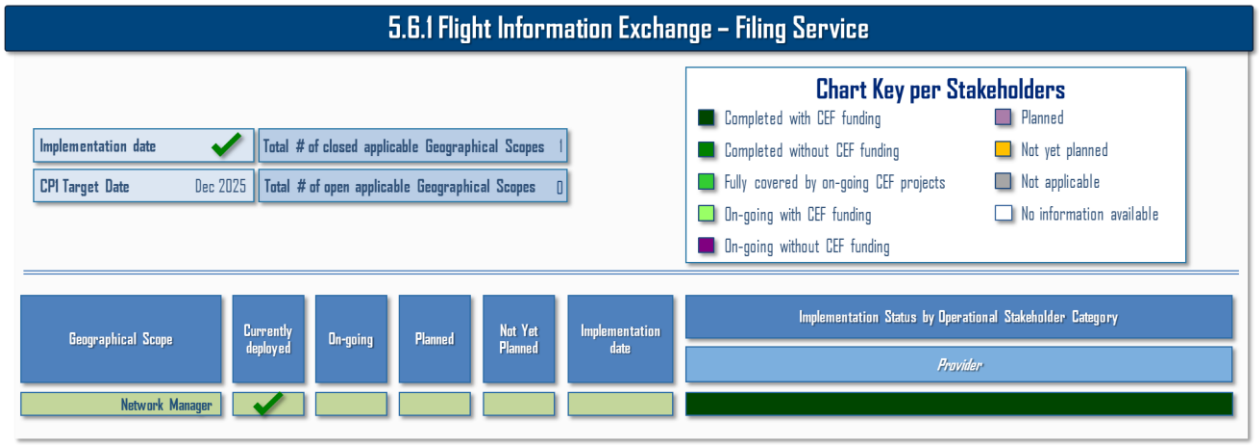
Chart Key per Stakeholders

- Completed with CEF funding
- Completed without CEF funding
- Fully covered by on-going CEF projects
- On-going with CEF funding
- On-going without CEF funding
- Planned
- Not yet planned
- Not applicable
- No information available

Geographical Scope	Currently deployed	On-going	Planned	Not Yet Planned	Implementation date	Implementation Status by Operational Stakeholder Category	
						Provider	*Consumer*
						-	*ANSP*
Austria							
Belgium	0%	0%	0%	100%	-		
Bulgaria	0%	0%	100%	0%	Dec 2025		
Croatia	0%	0%	0%	100%	-		
Cyprus							
Czech Republic	✓						
Denmark							
Estonia							
Finland							
France	50%	0%	50%	0%	Dec 2024		
Germany	10%	40%	0%	50%	Dec 2025		
Greece	0%	0%	0%	100%	-		
Hungary	0%	0%	100%	0%	Jun 2023		
Ireland							
Italy	0%	0%	100%	0%	Dec 2025		
Latvia							
Lithuania							
Luxembourg							
Maastricht UAC	✓						
Malta							
Netherlands	0%	0%	100%	0%	Dec 2025		
Poland	0%	0%	0%	100%	-		
Portugal	0%	0%	0%	100%	-		
Romania	0%	0%	0%	100%	-		
Slovak Republic	0%	0%	0%	100%	-		
Slovenia							
Spain	✓						
Sweden							
Switzerland	✓						
						Network Manager	
Network Manager	✓						

Family 5.6.1 – Services

Filing Service



Flight Data Request Service

5.6.1 Flight Information Exchange – Flight Data Request Service

Implementation date	Dec 2025	Total # of closed applicable Geographical Scopes	1
CPI Target Date	Dec 2025	Total # of open applicable Geographical Scopes	29

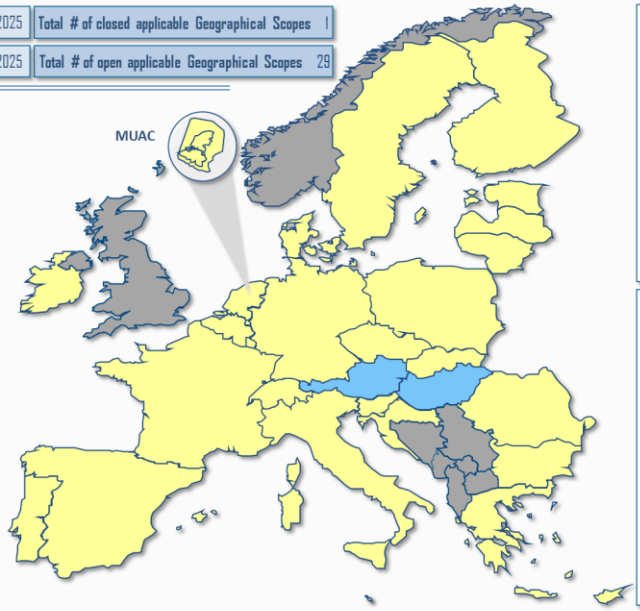


Chart Key – Implementation Status

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

- Completed with CEF funding
- Completed without CEF funding
- Fully covered by on-going CEF projects
- On-going with CEF funding
- On-going without CEF funding
- Planned
- Not yet planned
- Not applicable
- No information available

Geographical Scope	Currently deployed	On-going	Planned	Not Yet Planned	Implementation date	Implementation Status by Operational Stakeholder Category	
						Provider	*Consumer*
						-	*ANSP*
Austria	10%	90%	0%	0%	Dec 2025		
Belgium	0%	0%	0%	100%	-		
Bulgaria	0%	0%	100%	0%	Dec 2025		
Croatia	0%	0%	100%	0%	Dec 2025		
Cyprus	0%	0%	0%	100%	-		
Czech Republic	0%	0%	100%	0%	Dec 2025		
Denmark	0%	0%	0%	100%	-		
Estonia	0%	0%	0%	100%	-		
Finland	0%	0%	100%	0%	Dec 2025		
France	0%	0%	0%	100%	-		
Germany	0%	0%	0%	100%	-		
Greece	0%	0%	0%	100%	-		
Hungary	10%	40%	50%	0%	Dec 2025		
Ireland	0%	0%	100%	0%	Dec 2025		*
Italy	0%	0%	100%	0%	Dec 2025		*
Latvia	0%	0%	0%	100%	-		
Lithuania	0%	0%	0%	100%	-		
Luxembourg	0%	0%	0%	100%	-		
Maastricht UAC	0%	0%	0%	100%	-		
Malta	0%	0%	0%	100%	-		
Netherlands	0%	0%	100%	0%	Dec 2025		
Poland	0%	0%	100%	0%	Dec 2025		
Portugal	0%	0%	0%	100%	-		
Romania	0%	0%	0%	100%	-		
Slovak Republic	0%	0%	0%	100%	-		
Slovenia	0%	0%	0%	100%	-		
Spain	0%	0%	100%	0%	Dec 2025		
Sweden	0%	0%	0%	100%	-		
Switzerland	0%	0%	0%	100%	-		
						Network Manager	
Network Manager	✓						

**Supported by CEF Funds*

Notification Service

5.6.1 Flight Information Exchange – Notification Service

Implementation date	Dec 2025	Total # of closed applicable Geographical Scopes	0
CPI Target Date	Dec 2025	Total # of open applicable Geographical Scopes	29

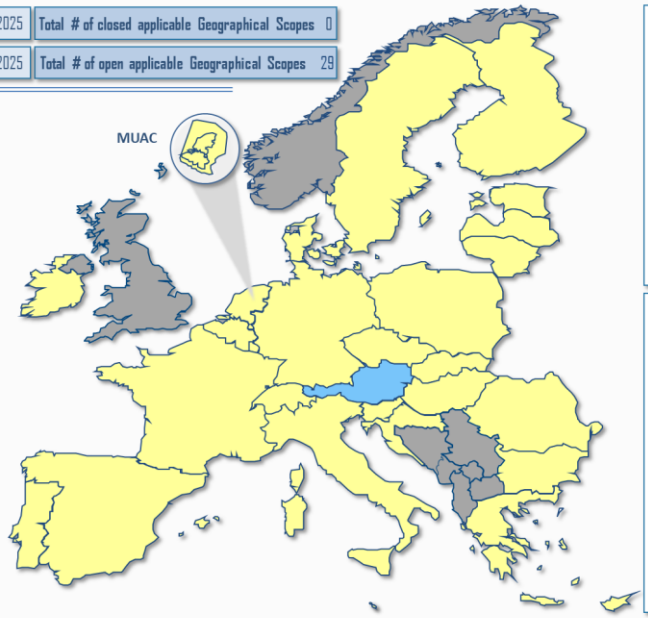


Chart Key – Implementation Status

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

- Completed with CEF funding
- Completed without CEF funding
- Fully covered by on-going CEF projects
- On-going with CEF funding
- On-going without CEF funding
- Planned
- Not yet planned
- Not applicable
- No information available

Geographical Scope	Currently deployed	On-going	Planned	Not Yet Planned	Implementation date	Implementation Status by Operational Stakeholder Category	
						Provider	Consumer
						-	ANSP
Austria	10%	90%	0%	0%	Dec 2025		
Belgium	0%	0%	0%	100%	-		
Bulgaria	0%	0%	100%	0%	Dec 2025		
Croatia	0%	0%	100%	0%	Dec 2025		
Cyprus	0%	0%	0%	100%	-		
Czech Republic	0%	0%	100%	0%	Dec 2025		
Denmark	0%	0%	0%	100%	-		
Estonia	0%	0%	0%	100%	-		
Finland	0%	0%	100%	0%	Dec 2025		
France	0%	0%	0%	100%	-		
Germany	0%	0%	0%	100%	-		
Greece	0%	0%	0%	100%	-		
Hungary	0%	0%	0%	100%	-		
Ireland	0%	0%	0%	100%	-		
Italy	0%	0%	100%	0%	Dec 2025		
Latvia	0%	0%	0%	100%	-		
Lithuania	0%	0%	0%	100%	-		
Luxembourg	0%	0%	0%	100%	-		
Maastricht UAC							
Malta	0%	0%	0%	100%	-		
Netherlands	0%	0%	100%	0%	Dec 2025		
Poland	0%	0%	100%	0%	Dec 2025		
Portugal	0%	0%	0%	100%	-		
Romania	0%	0%	0%	100%	-		
Slovak Republic	0%	0%	0%	100%	-		
Slovenia	0%	0%	0%	100%	-		
Spain	0%	0%	100%	0%	Dec 2025		
Sweden	0%	0%	100%	0%	Dec 2025		
Switzerland	0%	0%	0%	100%	-		
						Network Manager	
Network Manager	40%	60%	0%	0%	Dec 2023		

Data Publication Service

5.6.1 Flight Information Exchange – Data Publication Service

Implementation date	Dec 2025	Total # of closed applicable Geographical Scopes	1
CPI Target Date	Dec 2025	Total # of open applicable Geographical Scopes	29

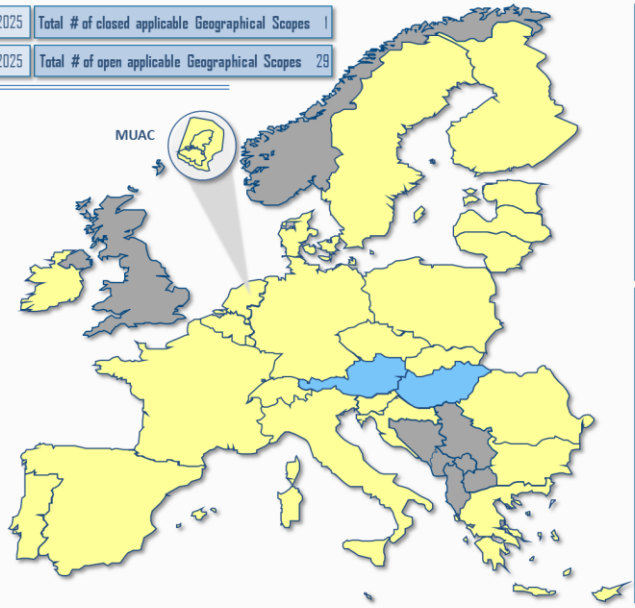


Chart Key – Implementation Status

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

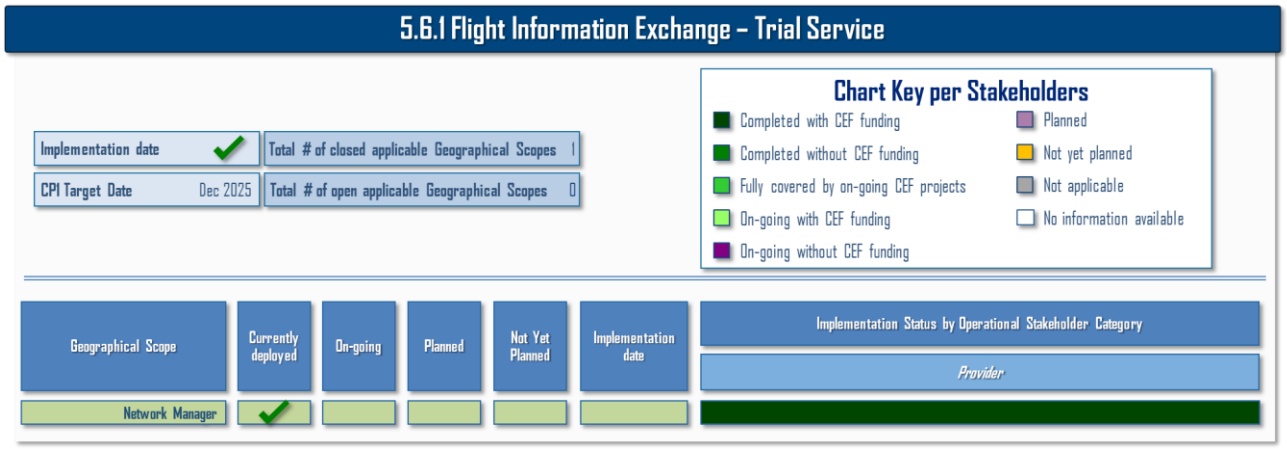
Chart Key per Stakeholders

- Completed with CEF funding
- Completed without CEF funding
- Fully covered by on-going CEF projects
- On-going with CEF funding
- On-going without CEF funding
- Planned
- Not yet planned
- Not applicable
- No information available

Geographical Scope	Currently deployed	On-going	Planned	Not Yet Planned	Implementation date	Implementation Status by Operational Stakeholder Category	
						Provider	*Consumer*
						-	*ANSP*
Austria	10%	90%	0%	0%	Dec 2025		
Belgium	0%	0%	0%	100%	-		
Bulgaria	0%	0%	100%	0%	Dec 2025		
Croatia	0%	0%	100%	0%	Dec 2025		
Cyprus	0%	0%	0%	100%	-		
Czech Republic	0%	0%	100%	0%	Dec 2025		*
Denmark	0%	0%	0%	100%	-		
Estonia	0%	0%	0%	100%	-		
Finland	0%	0%	100%	0%	Dec 2025		
France	0%	0%	0%	100%	-		
Germany	0%	0%	0%	100%	-		
Greece	0%	0%	0%	100%	-		
Hungary	25%	25%	50%	0%	Dec 2025		
Ireland	0%	0%	100%	0%	Dec 2024		
Italy	0%	0%	100%	0%	Dec 2025		
Latvia	0%	0%	0%	100%	-		
Lithuania	0%	0%	0%	100%	-		
Luxembourg	0%	0%	0%	100%	-		
Maastricht UAC	0%	0%	0%	100%	-		
Malta	0%	0%	0%	100%	-		
Netherlands	0%	0%	100%	0%	Dec 2025		
Poland	0%	0%	100%	0%	Dec 2025		
Portugal	0%	0%	0%	100%	-		
Romania	0%	0%	0%	100%	-		
Slovak Republic	0%	0%	0%	100%	-		
Slovenia	0%	0%	0%	100%	-		
Spain	0%	0%	100%	0%	Dec 2025		
Sweden	0%	0%	0%	100%	-		
Switzerland	0%	0%	0%	100%	-		
						Network Manager	
Network Manager	✓						

*Supported by CEF Funds

Trial Service



Extended AMAN SWIM Service

5.6.1 Flight Information Exchange – Extended AMAN SWIM Service

Implementation date	Dec 2025	Total # of closed applicable Geographical Scopes	1
CPI Target Date	Dec 2025	Total # of open applicable Geographical Scopes	24

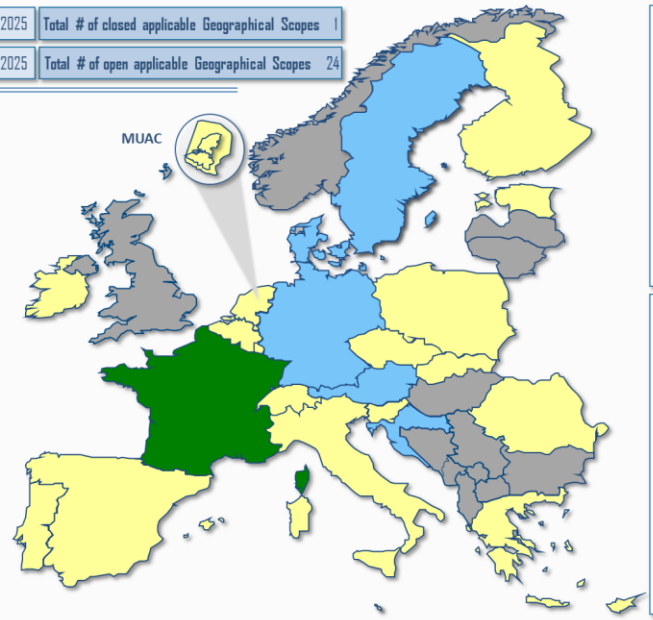


Chart Key – Implementation Status

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

- Completed with CEF funding
- Completed without CEF funding
- Fully covered by on-going CEF projects
- On-going with CEF funding
- On-going without CEF funding
- Planned
- Not yet planned
- Not applicable
- No information available

Geographical Scope	Currently deployed	On-going	Planned	Not Yet Planned	Implementation date	Implementation Status by Operational Stakeholder Category	
						Provider	Consumer
						ANSP	ANSP
Austria	3%	97%	0%	0%	Dec 2025		
Belgium	0%	0%	0%	100%	-		
Bulgaria							
Croatia	3%	30%	0%	67%	Dec 2025		
Cyprus	0%	0%	0%	100%	-		
Czech Republic	0%	0%	100%	0%	Dec 2025	*	*
Denmark	13%	20%	0%	67%	Dec 2025		
Estonia	0%	0%	0%	100%	-		
Finland	0%	0%	100%	0%	Dec 2025		
France	✓						
Germany	3%	30%	0%	67%	Dec 2025		
Greece	0%	0%	0%	100%	-		
Hungary							
Ireland	0%	0%	0%	100%	-		
Italy	0%	0%	100%	0%	Dec 2025		
Latvia							
Lithuania							
Luxembourg	0%	0%	0%	100%	-		
Maastricht UAC	0%	0%	0%	100%	-		
Malta	0%	0%	0%	100%	-		
Netherlands	0%	0%	100%	0%	Dec 2024		
Poland	0%	0%	100%	0%	Dec 2025		
Portugal	0%	0%	0%	100%	-		
Romania	0%	0%	0%	100%	-		
Slovak Republic	0%	0%	0%	100%	-		
Slovenia	0%	0%	0%	100%	-		
Spain	0%	0%	100%	0%	Dec 2025		
Sweden	13%	20%	67%	0%	Dec 2025		
Switzerland	0%	0%	0%	100%	-		

*Supported by CEF Funds

AF6 – Initial Trajectory Information Sharing

Family 6.1.2 – Initial Air-Ground Trajectory Information Sharing (ground domain)

Industrialisation Target Date: Dec 2023

6.1.2 Initial Air-Ground Trajectory Information Sharing (Ground Domain)

Implementation date	Dec 2027	Total # of closed gaps	0
CPI Target Date	Dec 2027	Total # of open gaps	26

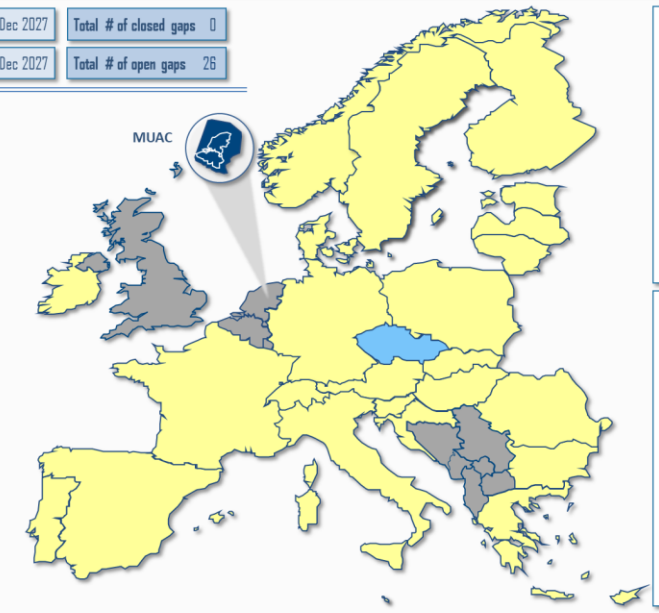


Chart Key – Implementation Status

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

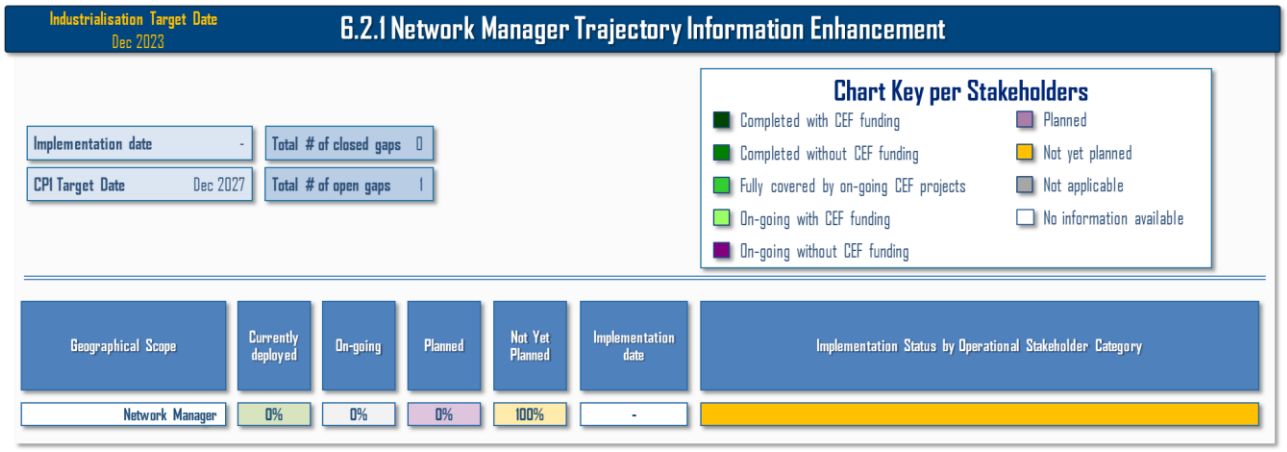
Chart Key per Stakeholders

- Completed with CEF funding
- Completed without CEF funding
- Fully covered by on-going CEF projects
- On-going with CEF funding
- On-going without CEF funding
- Planned
- Not yet planned
- Not applicable
- No information available

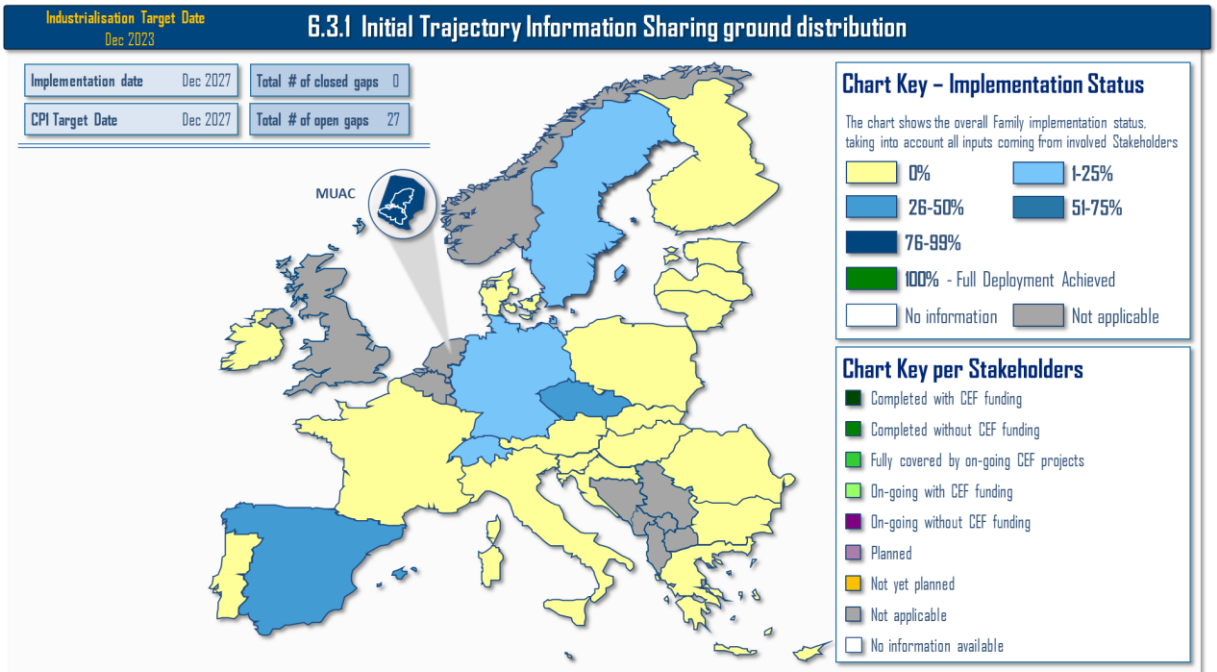
Geographical Scope	Currently deployed	On-going	Planned	Not Yet Planned	Implementation date	Implementation Status by Operational Stakeholder Category
						ANSP
Austria	0%	0%	0%	100%	-	
Belgium						
Bulgaria	0%	0%	100%	0%	Dec 2027	
Croatia	0%	0%	100%	0%	Dec 2027	
Cyprus	0%	0%	100%	0%	Dec 2023	
Czech Republic	20%	0%	0%	80%	*	
Denmark	0%	0%	0%	100%	-	
Estonia	0%	0%	0%	100%	-	
Finland	0%	0%	100%	0%	Dec 2027	
France	0%	0%	100%	0%	Dec 2027	
Germany	0%	0%	100%	0%	Dec 2027	
Greece	0%	0%	100%	0%	Dec 2024	
Hungary	0%	0%	100%	0%	Dec 2027	
Ireland	0%	0%	100%	0%	Dec 2025	
Italy	0%	0%	100%	0%	Dec 2027	
Latvia	0%	0%	100%	0%	Dec 2027	
Lithuania	0%	0%	100%	0%	Dec 2027	
Luxembourg						
Maastricht UAC	80%	0%	20%	0%	May 2022	
Malta	0%	0%	100%	0%	Dec 2023	
Netherlands						
Poland	0%	0%	40%	60%	Jan 2027	
Portugal	0%	0%	0%	100%	-	
Romania	0%	0%	0%	100%	-	
Slovak Republic	0%	0%	100%	0%	Dec 2027	
Slovenia	0%	0%	100%	0%	Dec 2027	
Spain	0%	0%	40%	60%	Dec 2027	
Sweden	0%	0%	20%	80%	Dec 2027	
Switzerland	0%	0%	100%	0%	Dec 2027	

** Date is not reported as the remaining scope of the family is not yet planned*

Family 6.2.1 – Network Manager Trajectory Information Enhancement



Family 6.3.1 – Initial Trajectory Information Sharing Ground Distribution



Geographical Scope	Currently deployed	On-going	Planned	Not Yet Planned	Implementation date	Implementation Status by Operational Stakeholder Category
						ANSP
Austria	0%	0%	0%	100%	-	
Belgium						
Bulgaria	0%	0%	84%	16%	Dec 2027	
Croatia	0%	0%	68%	32%	Dec 2027	
Cyprus	0%	0%	84%	16%	Dec 2023	
Czech Republic	49%	0%	17%	34%	Dec 2022	
Denmark	0%	0%	0%	100%	-	
Estonia	0%	0%	0%	100%	-	
Finland	0%	0%	100%	0%	Dec 2027	
France	0%	0%	34%	66%	Dec 2027	
Germany	16%	0%	68%	16%	Dec 2027	
Greece	0%	0%	84%	16%	Dec 2024	
Hungary	0%	0%	84%	16%	Dec 2027	
Ireland	0%	0%	84%	16%	Dec 2025	
Italy	0%	0%	100%	0%	Dec 2027	
Latvia	0%	0%	100%	0%	Dec 2027	
Lithuania	0%	0%	84%	16%	Dec 2027	
Luxembourg						
Maastricht UAC	83%	0%	17%	0%	May 2022	
Malta	0%	0%	84%	16%	Dec 2023	
Netherlands						
Poland	0%	0%	50%	50%	Dec 2027	
Portugal	0%	0%	0%	100%	-	
Romania	0%	0%	0%	100%	-	
Slovak Republic	0%	0%	84%	16%	Dec 2027	
Slovenia	0%	0%	84%	16%	Dec 2027	
Spain	32%	0%	34%	34%	Dec 2027	
Sweden	16%	0%	51%	33%	Dec 2027	
Switzerland	16%	0%	68%	16%	Dec 2026	
						Network Manager
Network Manager	0%	0%	0%	100%	-	

Outlook on CP1 deployment for Airspace Users

The implementation of the SESAR Deployment Programme goes beyond the local ground deployment: it also requires the contribution of Civil and Military Airspace Users. Airspace Users are actively contributing to the implementation of AF3, AF4, AF5 and AF6. The synchronisation between ground and airborne investments is a key enabler for accelerating deployment and improving performances.

For this reason, the CP1 monitoring activities have been complemented with data gathering tools and instruments that would involve all required operational stakeholders, including Airspace Users.

Since the establishment of dedicated surveys in 2015, a wide number of 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, now CP1, requirements.

In particular, as depicted in Figure 2, the Airspace Users have individual Deployment Milestones to be addressed in the SESAR Deployment Programme, hence they are considered as implementation gaps. The following Families must be considered in this category:

- Family 3.1.1 - ASM and A-FUA;
- Family 3.2.1 - Initial FRA;
- Family 3.2.2 - Enhanced FRA;
- Family 4.1.1 - Enhanced Short Term ATFCM Measures;
- Family 4.2.1 - Interactive rolling NOP;
- Family 5.2.1 - Stakeholders' SWIM PKI and cyber security;
- Family 5.3.1 - Aeronautical Information Exchange. In particular for the mandatory implementation of "Airspace Availability Service", although "Aerodrome Mapping Service" and "Aeronautical Information Feature" are recommended;
- Family 5.5.1 - Cooperative Network Information Exchange, where the implementation of "Volcanic Ash Mass Concentration information Service", "Aerodrome Meteorological information Service" and "En-route and Approach Meteorological information Service" are recommended;
- Family 5.6.1 - Flight Information Exchange". In particular for the mandatory implementation of "Flight Management Service", "Measures Service" and "Short term ATFCM measures services";
- Family 6.1.1 - Initial Air-Ground Trajectory Information Sharing (Airborne domain).

Those implementation gaps are considered to have a geographically transversal nature, hence they are not assigned to specific geographical scopes.

Key principles underpinning the SDM Monitoring Exercise for Airspace Users

Due to the COVID-19 crisis and the difficulties faced by the Airspace Users in providing relevant information to the survey, a different approach was followed this year to alleviate their reporting efforts, by simplifying and reorganising the survey. The collection of data and information from EU-headquartered airlines was organised around the distribution and collection of individual renovated monitoring templates to make sure CP1-relevant data is requested, featuring all technical and operational information to allow an easy completion.

This database is planned to be kept constantly updated through the continuous synchronisation 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.

The information gathered through the templates also led to the engagement with a relevant CFPS (Computer Flight Planning Service Provider) in order to enhance the information provided in this report.

The Monitoring Exercise related to DLS has been refined, preparing a dedicated survey for the Airspace Users (AUs) headquartered in EU/ECAC area, to gain a more detailed picture of the airborne implementation status in Europe, requesting the current datalink equipage of their fleets and future plans with regards to CP1 mandated functions and new complementary technologies.

The CP1 monitoring survey was integrated with additional sections and questions:

- questions on milestones related to the SDP 2021 – **Family 6.1.1 – Initial A/G Trajectory Information Sharing (Airborne domain);**
- details related to the current **Datalink System implementation influencing the Family 6.1.1 deployment and the improvement of the current DLS.** The results of this specific survey are

not included in this report, as the details related to the current Datalink System implementation and the improvement of the DLS are not directly related to the CP1 deployment, but they will be used for future elaboration and evolution[7] of the current Datalink System.

Results

The Airspace Users Monitoring Exercise resulted in the reception of 23 feedbacks, 17 from Civil and 6 from Military based Airspace Users, representing a fleet of 1512 Civil and 59 Military transport type aircraft.

The airline feedback on this survey has been low. We have witnessed, due to the COVID-19 crisis, over the last two years a significant reduction in staff numbers, especially those in the back office or not having a critical safety role. We have also observed a majority of staff being made redundant or are on short time working, and this restricted operation has remained in 2021, therefore greatly limiting their ability to report. Because of the low number of responding airlines and the low number of represented aircraft it has to be noted that the presented data cannot be seen as fully representative, although some important considerations can be made.

It should be emphasised that the readiness of Airspace Users in the deployment areas of Advanced Flexible Use of Airspace, Free Route, Enhanced STAM and Interactive Rolling NOP is more progressed than on the consumption of data exchanging services in the SWIM area or the Initial Air-Ground Trajectory Information Sharing in the airborne domain. This is aligned with the time horizon of the CP1 regulatory deadlines: shorter for AF3 and AF4 (2022 and 2023) than for AF5 (2025) and AF6 (2027). In no case a potential future non-compliance with the Regulation has been detected from the surveyed airlines.

It can be concluded from the replies that CP1 compliance is, in general, reliant on the developments that the CFSPs are deploying. In any case, some airlines have already developed their own tailored solutions as well, mainly to benefit from early opportunities of the NM B2B connection.

Most of the traffic generated by European airlines, as well as most of the flight plans filed in the ECAC region including non-EU airlines, is planned by means of systems supplied by a limited number of CFSPs. Among those, the most important in terms of generated flight plans, have already made significant progress in terms of the ATM Families affecting airlines' developments (e.g. on ASM and AFUA, STAM or eFPL + Filing Service consumption), including testing with NM.

Deployment of SDP related capabilities at the individual airlines can therefore occur, from a pure system perspective, in line with the CP1 deadlines provided the airlines themselves agree with their CFSP on the required scheduled system upgrades. It is a fact that with the increasing access to Free Route Airspace within States across Europe, many airlines are now working with their Flight Planning system providers to exploit the benefits. The actual implementation of the related capabilities for their usage in daily operation, will take place once the related procedures are in place and training has been completed.

[7] Thanks to continuous interactions with DLS stakeholders, even if no formal confirmation has been received in SDP2021 Monitoring Exercise, the interest in the future use of additional complementary technologies (such as SatCOM, first complementary technology expected to be implemented in the industry also for ATN use) shown by some implementers has been detected.

DLS/AF6 "Initial Trajectory Information Sharing" Update

The figure below presents the progress in implementing different milestones required to comply with the requirements addressing the Airspace Users airborne capability out of the AF6 annex of the CP1 regulation (CIR 2021/116) on air operator basis.

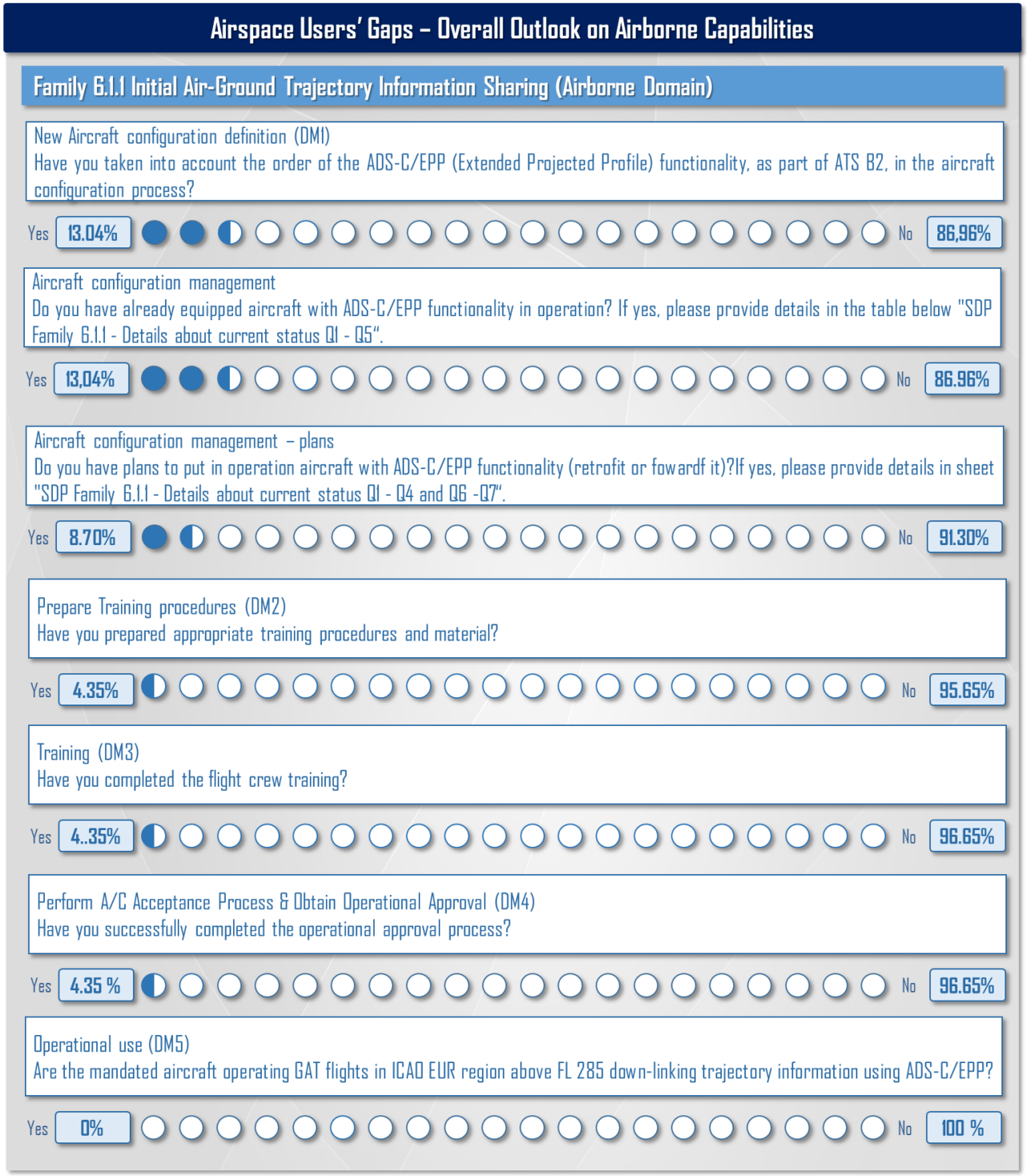


Figure 35 - Outlook on Airborne Capabilities

The milestone "New Aircraft configuration definition (DM1)" is split into three queries:

A) Did the Airline take into account the fitment of aircraft with ADS-C EPP?

Three out of 23 (13%) responded with "YES", one participated the ADS-C EPP Very Large-Scale Demonstration (VLD) "DIGITS" SJU project, and one equipped new long range aircraft with the Airbus FANS C package to comply with the dual stack, FANS 1/A plus FANS 2/B requirement for new A/C delivered after 01/2018. It has to be noted, that at the time of writing this report, the ADS-C EPP product is available for Airbus A320 family and Airbus A330 airplanes only.

B) Does the airline already operate ADS-C EPP equipped airplanes?
The same number of 23 airlines responded with "YES" for 33 aircraft. Additionally, to have a more complete picture, the Network Manager Logon List[8] (released in December 2021) has been checked that shows the overall ADS-C EPP equipage of 209 airframes for the global fleet, whereof 165 are from EU+4 based operators and 124 registered in the EU. All ADS-C EPP capable aircraft per Logon list are Airbus A320 family and A330 type.

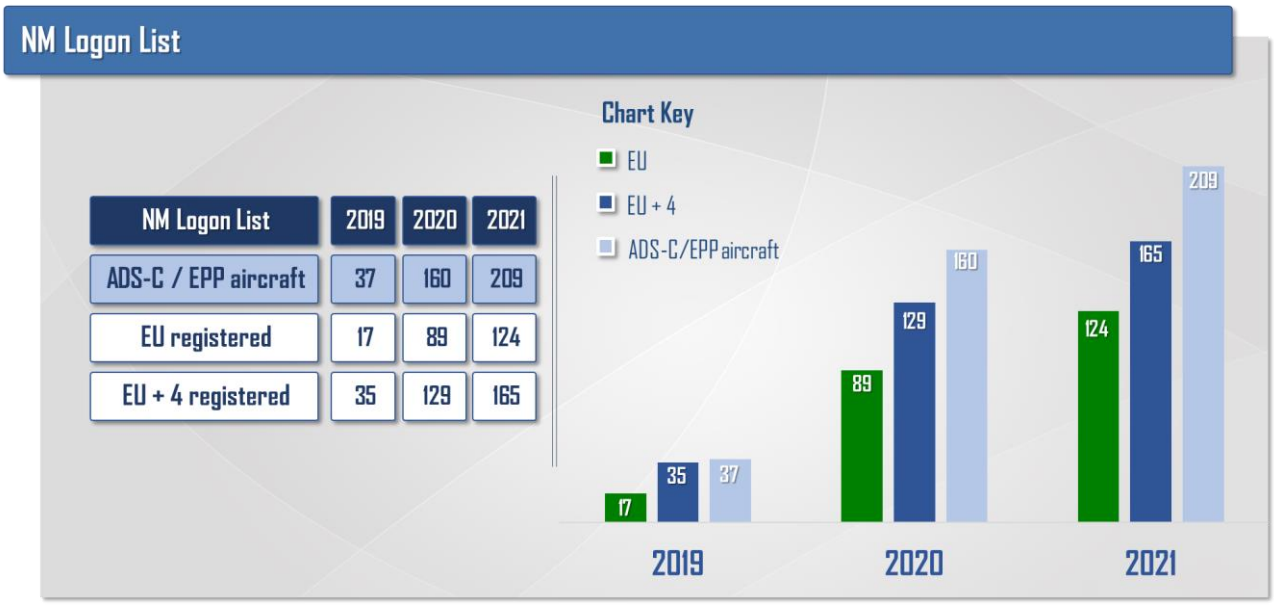


Figure 36 - NM Logon List

C) Does the airline have firm plans to equip further aircraft with ADS-C EPP?
Only two Air operators or 8.7% responded with "YES". One of the two operates a fleet for which ADS-C EPP technical solution is currently not available.

The one responding airline, which participated the DIGITS ADS-C EPP demonstration, is the only operator stating to have **ADS-C EPP crew training procedures in place** (DM2), **flight crew training performed** (DM3) and **having A/C acceptance process, obtaining the operational approval** (DM4). Currently none of the reporting airlines stated **to downlink ADS-C EPP data or were aware about the activation of ADS-C contracts for their flights**, at this point in time (DM5).

From the presented subpart of the EU fleet, it can be concluded that the progress in the AF6 airborne implementation is low because of the non-availability of technical solutions on other aircraft types than Airbus A320 and A330. The ADS-C EPP requirement is mandated as forward fit on new delivered airplanes after 31st of December 2027, five years from the time of writing the document. It can be assumed that other manufacturers will start developing solutions once the CS-ACNS standards have been updated to include the ADS-C EPP capability and the industrialisation target date in 2023 has been passed.

[8] The Logon List has been established to prevent aircraft with avionics that are known to perform poorly from being able to Logon in the control centres using the Logon List. The list is maintained by the Network Manager and aircraft data is provided and updated by air operators intending to use DLS services in Europe.

Appendix - Current status of CP1 deployment – Aggregated view per Applicability Area

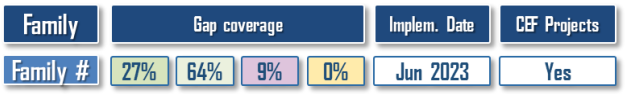
The present Appendix aims at illustrating within a single snapshot all relevant information concerning the current status of the Common Project One deployment within each of the countries included in the geographical scope defined within Regulation (EU) n. 2021/116. Gaps are differentiated between airport gaps and country gaps. It is worth mentioning that for Families in AF1 and, AF2 and Families 4.2.2 and 4.4.1 the applicable airports are explicitly listed, as per Regulation (EU) n. 2021/116.

This Appendix is fed by the same data and information included within Section 2, gathered from operational stakeholders through the 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 Common Project One, illustrating the following information:

- overview of the status of the implementation gaps for the country, differentiating between those which have already been closed, those which are on-going or planned and those for which no specific plans have been elaborated by the relevant stakeholders;

- status of coverage for each gap associated to a Family of the Deployment Programme, encompassing the following percentages and information (in case of airport gaps the airports are also listed and detailed):



  - *Currently deployed*, i.e. what has been already deployed (dark-green box);
  - *On-going*, i.e. the percentage of the Family covered by on-going activities (light-green box);
  - *Planned*, i.e. the percentage of the Family planned to be covered by future initiatives (light-purple box);
  - *Not yet planned*, i.e. the percentage of the Family for which no specific plan has been elaborated (yellow box).
  - *Implementation date* of the Family deployment;
  - *CEF projects,* illustrating whether one or more SDM-coordinated projects contribute to the deployment of the Family (if *Yes*).

Furthermore, the table at the bottom of each chart lists the SDM-coordinated and EU-funded Implementation Projects which directly involve stakeholders operating within the relevant country (plus MUAC). The completed projects are also duly highlighted.

Network Manager View

In addition to the section included at the bottom of the chart of each Family applicable, the contribution of Network Manager to the overall CP1 implementation is summarised in a dedicated view.

The table represents the implementation details of the impacted Families, in terms of percentages, implementation dates and stakeholder status, following the same logics adopted to describe the implementation at Family View.

Austria

Austria

Number of gaps: 21

Current status of implementation: 3 | 12 | 4 | 2

Completed
On-going
Planned
Not Yet Planned

Airport Gaps

AF1 - Extended AMAN and Integrated AMAN/DMAN in the high-density TMA

Family	Airport	Gap coverage				Implem. Date	CEF Projects
1.1.1	Vienna International Airport	✓					Yes
1.2.1	Vienna International Airport						

AF2 - Airport Integration Throughput

Family	Airport	Gap coverage				Implem. Date	CEF Projects
2.1.1	Vienna International Airport	92%	8%	0%	0%	Jul 2022	Yes
2.2.1	Vienna International Airport	19%	67%	14%	0%	Dec 2023	
2.2.2	Vienna International Airport	0%	0%	100%	0%	Dec 2027	
2.3.1	Vienna International Airport	2%	20%	78%	0%	Dec 2025	Yes

AF4 - Network Collaborative Management

Family	Airport	Gap coverage				Implem. Date	CEF Projects
4.2.2	Vienna International Airport	3%	23%	74%	0%	Dec 2023	Yes
4.4.1	Vienna International Airport	0%	0%	100%	0%	Dec 2027	

Country Gaps

AF3 - Flexible Airspace Management and Free Route Airspace

Family	Gap coverage				Implem. Date	CEF Projects
3.1.1	29%	61%	10%	0%	Jun 2023	Yes
3.1.2	20%	60%	20%	0%	Dec 2022	Yes
3.2.1	✓					
3.2.2	✓					Yes

AF4 - Network Collaborative Management

Family	Gap coverage				Implem. Date	CEF Projects
4.1.1	10%	86%	4%	0%	Dec 2022	Yes
4.2.1	0%	0%	100%	0%	Dec 2023	
4.3.1	41%	20%	39%	0%	Dec 2022	Yes

AF5 - SWIM

Family	Gap coverage				Implem. Date	CEF Projects
5.2.1	1%	10%	89%	0%	Dec 2025	Yes
5.3.1	3%	27%	53%	17%	Dec 2025	Yes
5.4.1	2%	18%	80%	0%	Dec 2025	Yes
5.5.1	0%	0%	100%	0%	Dec 2025	
5.6.1	8%	92%	0%	0%	Dec 2025	Yes

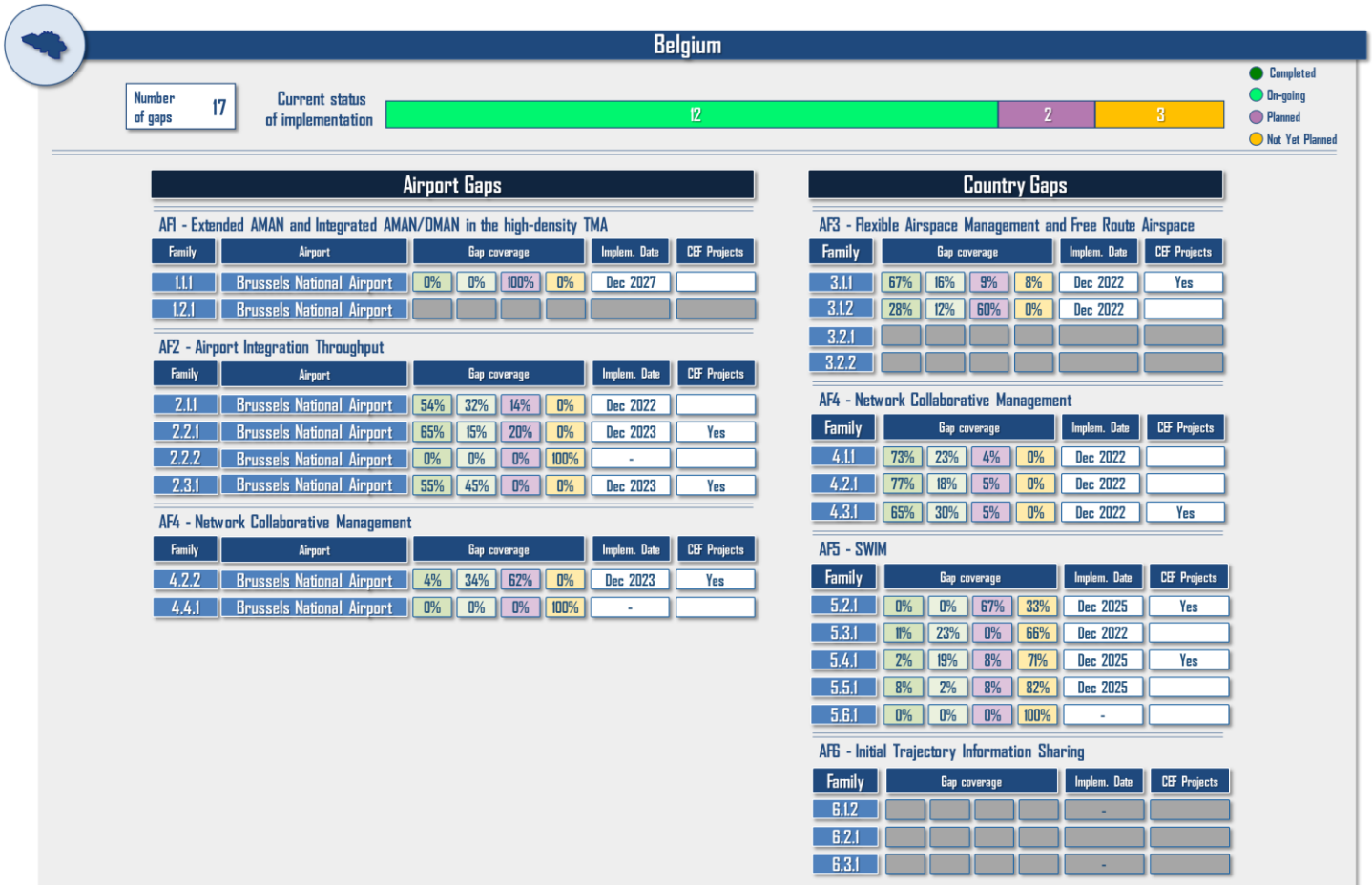
AF6 - Initial Trajectory Information Sharing

Family	Gap coverage				Implem. Date	CEF Projects
6.1.2	0%	0%	0%	100%	-	
6.2.1						
6.3.1	0%	0%	0%	100%	-	

List of CEF-funded initiatives awarded to Austrian Stakeholders

Ref. number	CEF Project Title	IPPs	Closed	Ref. number	CEF Project Title	IPPs	Closed
#006AF5	ATM Data Quality (ADQ)	Austro Control	✓	2015_236_AF3	VHF Concept Implementation 2020	Austro Control	
#007AF1	Performance Based Navigation (PBN) implementation in Vienna (LOWW)	Austro Control	✓	2016_027_AF5	European Deployment Roadmap for Flight Object Interoperability	Austro Control	✓
#008AF2	External Gateway System (EGS) implementation	Austro Control	✓	2016_075_AF3_A	FAB CE wide Study of DAM and STAM General Call	Austro Control	✓
#009AF5	Integrated Briefing System New (IBSN)	Austro Control	✓	2016_134_AF3	Implementation of rolling ASM/ATFCM	Sabre Austria	
#011AF2	Decision Management (CDM) fully implemented	Austro Control		2016_141_AF5	Deploy SWIM governance	Austrian Airlines, Austro Control	✓
#102AF3	Free Route Airspace from the Black Forest to the Black Sea	Austro Control	✓	2016_147_AF1	RNP APCH RWY 29 Vienna	Austro Control	
2015_021_AF4	Slot Manager for PCP airports	Sabre Austria	✓	2016_149_AF5	Austro Control iSWIM Capability Infrastructure	Austro Control	✓
2015_106_AF4	Flight evolution and upgrade of interfaces with NM stakeholders	Sabre Austria	✓	2016_159_AF6	DLS Implementation Project – Path 2	Austro Control	✓
2015_107_AF3	NM Systems upgrades in support of DCTs and FRA	Sabre Austria	✓	2016_161_AF6	DLS Implementation Project – Path 1 "Ground" stakeholders	Austro Control	✓
2015_110_AF4	STAM Phase 2 (NM)	Sabre Austria		2016_165_AF6	Lufthansa Group & Air France Group Datalink upgrade to "best in class" avionics	Austrian Airlines	
2015_114_AF4	Implementation of Target Times for ATFCM purposes (NM)	Sabre Austria	✓	2017_004_AF1	Flight Crew Training for RNPI Operations	Austrian Airlines	
2015_174_AF5_A	NewPENS Stakeholders contribution for the procurement and deployment of NewPENS	Austro Control	✓	2017_052_AF4	AOP-NOP Integration - Extended Implementation	Vienna Schwechat	
2015_207_AF3_A	Harmonisation of Tech ATM Platform in 5 ANSP including support of FRA and preparation of PCP	Austro Control	✓	2017_053_AF3	Implementation of rolling ASM/ATFCM	Sabre Austria	
2015_220_AF2	AF2_MET-Compliance-Programme	Austro Control	✓	2017_056_AF5	Towards Shared Business Trajectory / Trajectory Based Operations	Sabre Austria	
2015_230_AF5	AF5 AIM Compliance Program	Austro Control		2017_058_AF2	ITWP4LOWW (Integrated Tower Working Position for Vienna Schwechat)	Austro Control	✓
2015_231_AF5	METSW-DB PCP Evolution	Austro Control	✓	2017_066_AF5	Implementing harmonised SWIM (Y) solution in COOPANS ANSPs and general PCP compliance	Austro Control	
2015_232_AF2	TBS4LOWW (Time Based Separation for Vienna Airport)	Austro Control	✓	2017_084_AF5	SWIM Common PKI and policies & procedures for establishing a Trust framework	Austro Control	
2015_234_AF1_A	AMAN LOWW initial	Austro Control	✓	2017_089_AF6	IPI - DLS European Target Solution assessment	Austro Control, University of Salzburg	✓
2015_234_AF1_B	AMAN LOWW initial	Austro Control	✓				

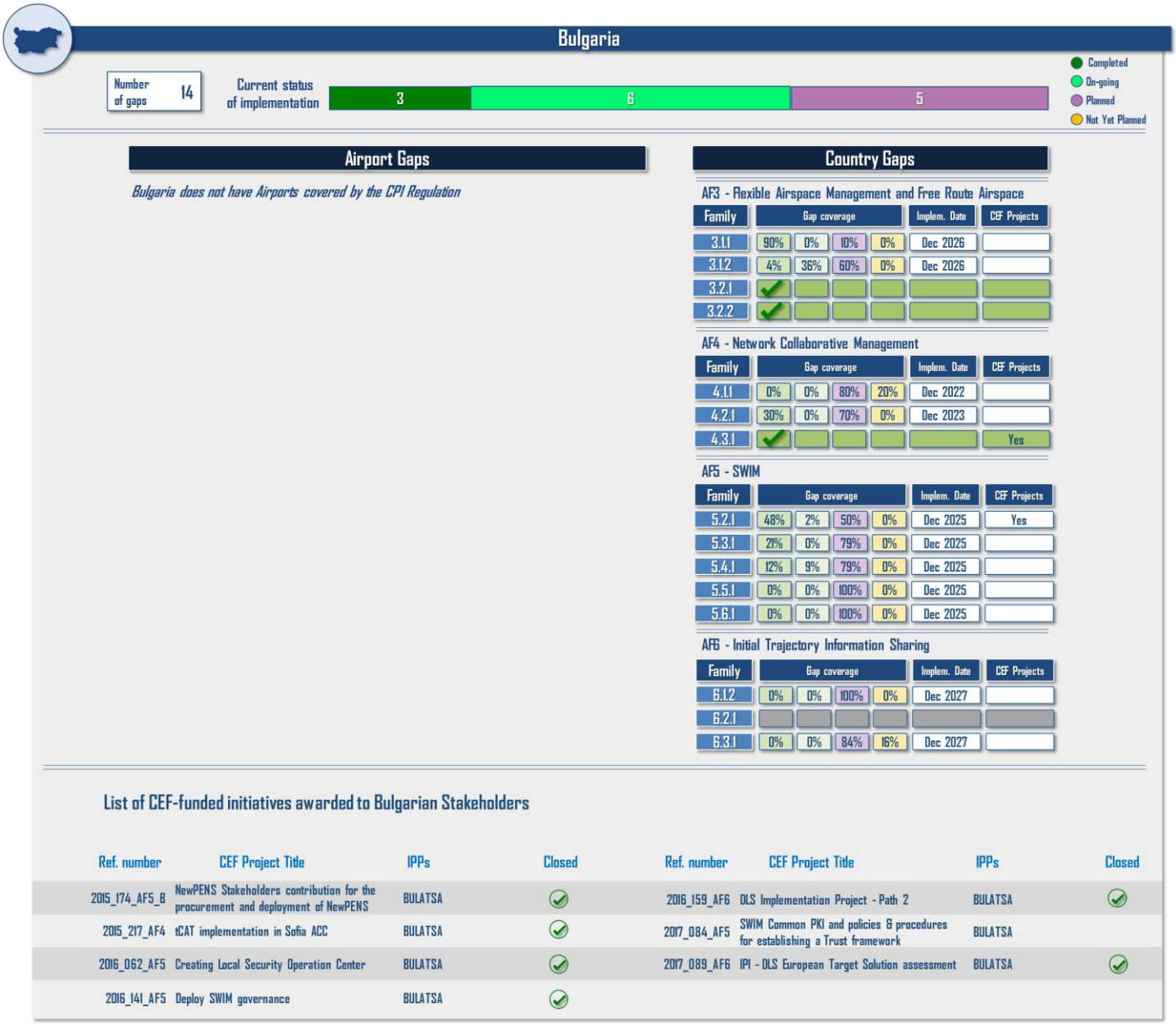
Belgium



List of CEF-funded initiatives awarded to Belgian Stakeholders

Ref. number	CEF Project Title	IPPs	Closed	Ref. number	CEF Project Title	IPPs	Closed
#013AF1	RNP Approach with Vertical Guidance at the Belgian civil aerodromes within the Brussels TMA	skeyes	✓	2015_174_AF5_A	NewPENS Stakeholders contribution for the procurement and deployment of NewPENS	skeyes	✓
#014AF5	MPLS WAN Project	skeyes		2015_244_AF2	APOC implementation	Brussels National	✓
#015AF3	LARA integration in CANAC 2	skeyes	✓	2015_245_AF2	AIRSTAT	Brussels National	✓
#016AF5	Initial WXXM Implementation on skeyes systems	skeyes	✓	2016_131_AF4	AOP-NOP Integration - Extended Implementation	Brussels National	
#018AF2	Enhancement of Airport Safety Nets for Brussels Airport (EBBR)	skeyes	✓	2016_141_AF5	Deploy SWIM governance	EUMETNET	✓
#022AF2	Vehicle Tracking System (VTS)	Brussels National	✓	2016_150_AF2_GND	Enablers for Airport Surface Movement related to Safety Nets (GND)	Brussels National	
2015_021_AF4	Slot Manager for PCP airports	Brussels Airlines	✓	2017_022_AF2	Synchronized stakeholder decision on process optimization at airport level	Brussels National, skeyes	
2015_067_AF5	European Weather Radar Composite of Convection Information Service	EUMETNET	✓	2017_062_AF4	Traffic Complexity Assessment and Simulations Tool - TCAST	skeyes	
2015_068_AF5	European Harmonised Forecasts of Adverse Weather	EUMETNET	✓	2017_084_AF5	SWIM Common PKI and policies & procedures for establishing a Trust framework	skeyes	
2015_069_AF5	European MET Information Exchange (MET-GATE)	EUMETNET	✓				

Bulgaria



List of CEF-funded initiatives awarded to Bulgarian Stakeholders

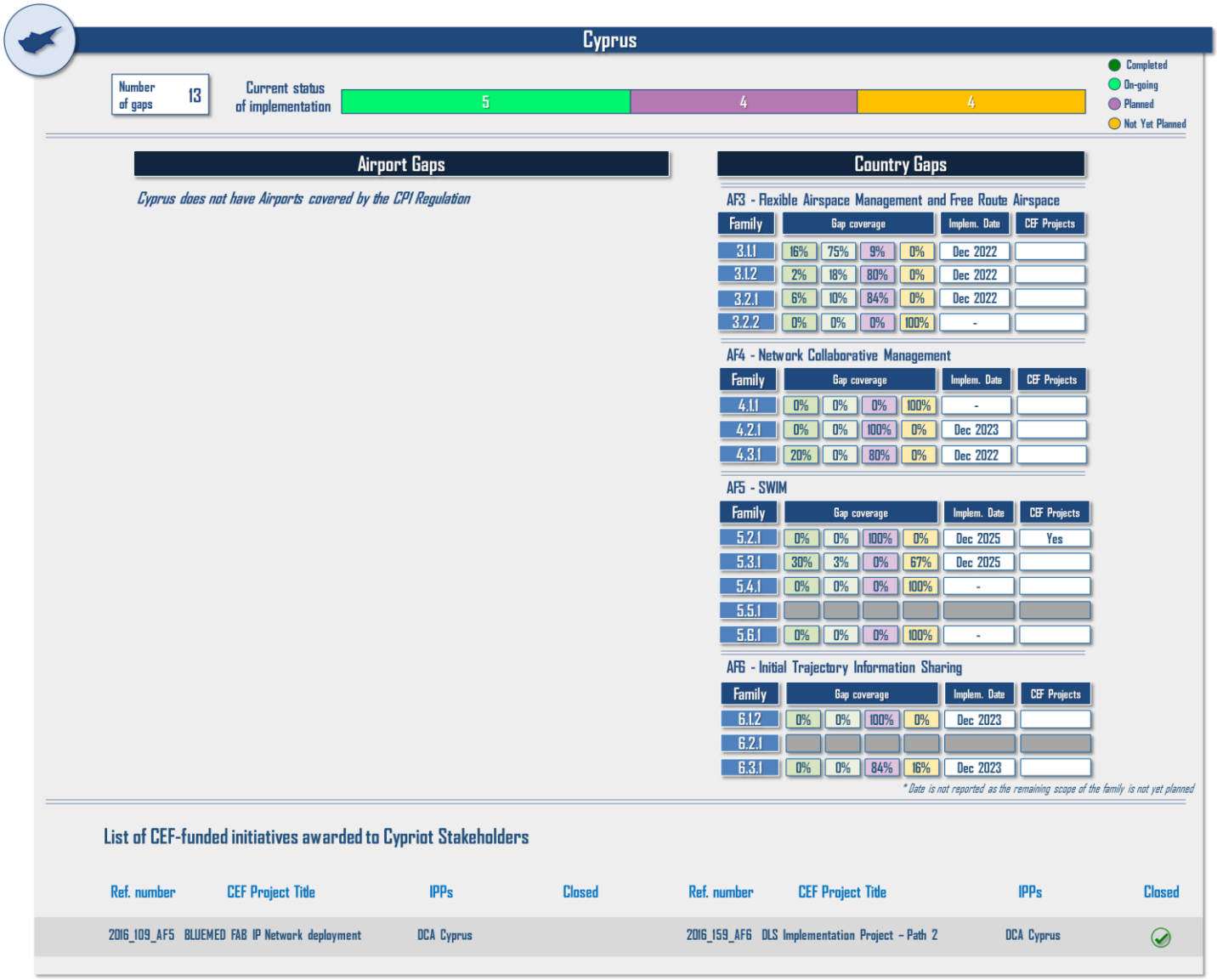
Ref. number	CEF Project Title	IPPs	Closed	Ref. number	CEF Project Title	IPPs	Closed
2015_174_AF5_B	NewPENS Stakeholders contribution for the procurement and deployment of NewPENS	BULATSA	✓	2016_159_AF6	DLS Implementation Project - Path 2	BULATSA	✓
2015_217_AF4	tCAT implementation in Sofia ACC	BULATSA	✓	2017_084_AF5	SWIM Common PKI and policies & procedures for establishing a Trust framework	BULATSA	
2016_062_AF5	Creating Local Security Operation Center	BULATSA	✓	2017_089_AF6	IPI - DLS European Target Solution assessment	BULATSA	✓
2016_141_AF5	Deploy SWIM governance	BULATSA	✓				

Croatia

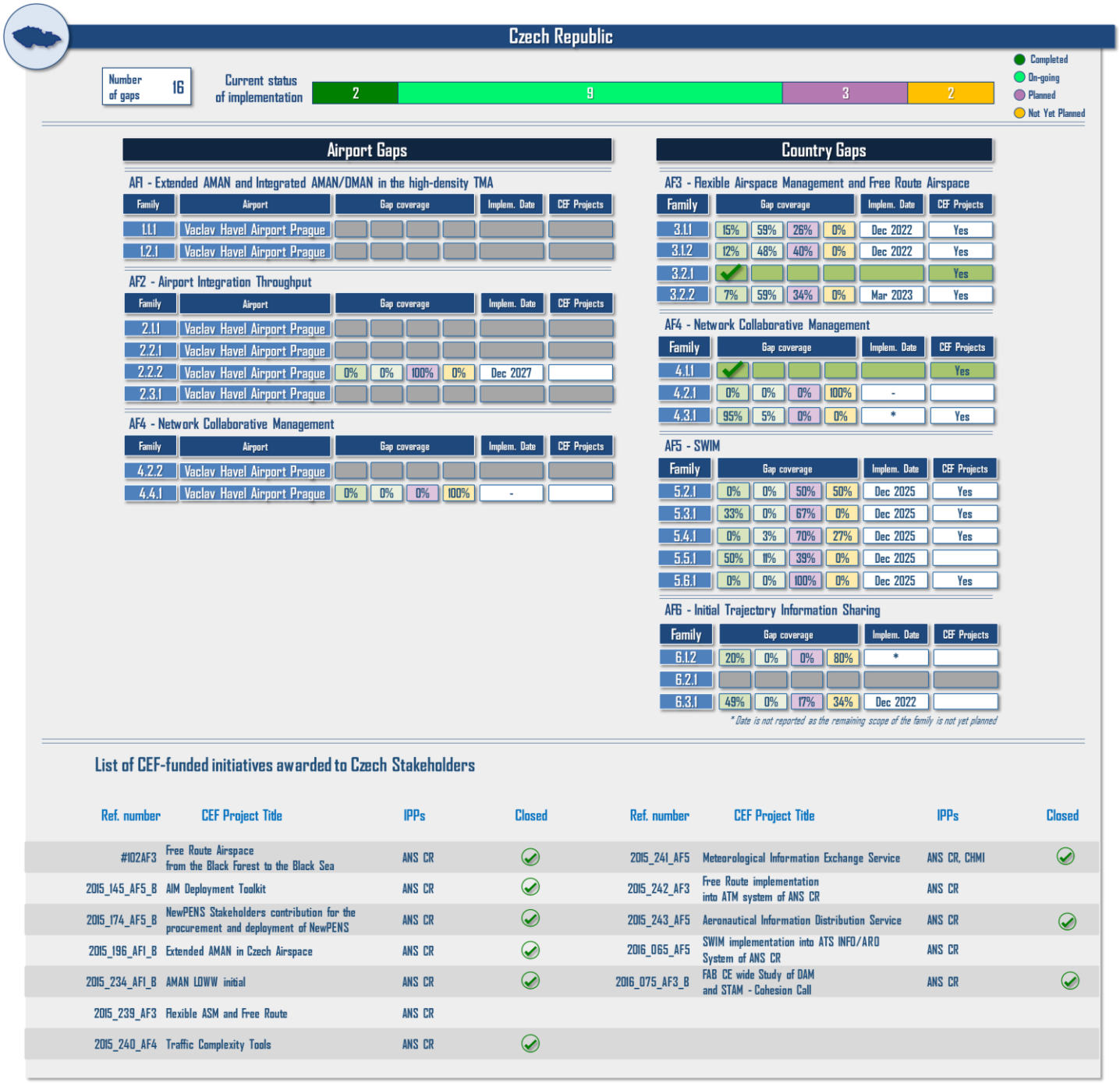
List of CEF-funded initiatives awarded to Croatian Stakeholders

Ref. number	CEF Project Title	IPPs	Closed	Ref. number	CEF Project Title	IPPs	Closed
#102AF3	Free Route Airspace from the Black Forest to the Black Sea	Croatia Control	✓	2016_043_AF3	VCS-IP - Upgrade of Voice Communication Systems to support ATM VoIP communications	Croatia Control	
2015_047_AF5	Modernisation of IP based G/G Data Network in CCL - CaRT/iWAN-NG	Croatia Control	✓	2016_044_AF5	Modernization of IP based G/G Data Network in CCL - CaRT/iWAN-NG - Phase II	Croatia Control	
2015_049_AF5	CCL cyber security architecture - ExCO-NG	Croatia Control	✓	2016_075_AF3_B	FAB CE wide Study of DAM and STAM – Cohesion Call	Croatia Control	✓
2015_050_AF3	Simulation and Implementation of SEAFRA H24	Croatia Control	✓	2016_159_AF6	DLS Implementation Project – Path 2	Croatia Control	✓
2015_051_AF3	VARP - VoIP ATC Radio Project	Croatia Control		2016_161_AF6	DLS Implementation Project – Path 1 "Ground" stakeholders	Croatia Control	✓
2015_174_AF5_B	NewPENS Stakeholders contribution for the procurement and deployment of NewPENS	Croatia Control	✓	2017_066_AF5	Implementing harmonised SWIM (Y) solution in COOPANS ANSPs and general PCP compliance	Croatia Control	
2015_207_AF3_B	Harmonisation of Tech ATM Platform in 5 ANSP including support of FRA and preparation of PCP	Croatia Control	✓	2017_089_AF6	IPI - DLS European Target Solution assessment	Croatia Control	✓
2016_027_AF5	European Deployment Roadmap for Flight Object Interoperability	Croatia Control	✓				

Cyprus


Cyprus
Number of gaps 13
Current status of implementation
5
4
4
Completed
On-going
Planned
Not Yet Planned
Airport Gaps
Cyprus does not have Airports covered by the CPI Regulation
Country Gaps
AF3 - Flexible Airspace Management and Free Route Airspace
Family | Gap coverage | Implem. Date | CEF Projects
3.1.1 | 16% | 75% | 9% | 0% | Dec 2022
3.1.2 | 2% | 18% | 80% | 0% | Dec 2022
3.2.1 | 6% | 10% | 84% | 0% | Dec 2022
3.2.2 | 0% | 0% | 0% | 100% | -
AF4 - Network Collaborative Management
Family | Gap coverage | Implem. Date | CEF Projects
4.1.1 | 0% | 0% | 0% | 100% | -
4.2.1 | 0% | 0% | 100% | 0% | Dec 2023
4.3.1 | 20% | 0% | 80% | 0% | Dec 2022
AF5 - SWIM
Family | Gap coverage | Implem. Date | CEF Projects
5.2.1 | 0% | 0% | 100% | 0% | Dec 2025 | Yes
5.3.1 | 30% | 3% | 0% | 67% | Dec 2025
5.4.1 | 0% | 0% | 0% | 100% | -
5.5.1
5.6.1 | 0% | 0% | 0% | 100% | -
AF6 - Initial Trajectory Information Sharing
Family | Gap coverage | Implem. Date | CEF Projects
6.1.2 | 0% | 0% | 100% | 0% | Dec 2023
6.2.1
6.3.1 | 0% | 0% | 84% | 16% | Dec 2023
* Date is not reported as the remaining scope of the family is not yet planned
List of CEF-funded initiatives awarded to Cypriot Stakeholders
Ref. number | CEF Project Title | IPPs | Closed | Ref. number | CEF Project Title | IPPs | Closed
2016_109_AF5 | BLUEMED FAB IP Network deployment | DCA Cyprus | | 2016_159_AF6 | DLS Implementation Project – Path 2 | DCA Cyprus

Czech Republic



List of CEF-funded initiatives awarded to Czech Stakeholders

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

Denmark

Denmark

Number of gaps: 21

Current status of implementation: 6 | 12 | 3

Completed
On-going
Planned
Not Yet Planned

Airport Gaps

AF1 - Extended AMAN and Integrated AMAN/DMAN in the high-density TMA

Family	Airport	Gap coverage				Implem. Date	CEF Projects
1.1.1	Copenhagen Kastrup Airport	✓					Yes
1.2.1	Copenhagen Kastrup Airport						

AF2 - Airport Integration Throughput

Family	Airport	Gap coverage				Implem. Date	CEF Projects
2.1.1	Copenhagen Kastrup Airport	8%	0%	38%	54%	Dec 2023	Yes
2.2.1	Copenhagen Kastrup Airport	74%	11%	15%	0%	Dec 2023	Yes
2.2.2	Copenhagen Kastrup Airport	0%	0%	0%	100%	-	
2.3.1	Copenhagen Kastrup Airport	24%	33%	13%	30%	Dec 2025	Yes

AF4 - Network Collaborative Management

Family	Airport	Gap coverage				Implem. Date	CEF Projects
4.2.2	Copenhagen Kastrup Airport	53%	25%	22%	0%	Dec 2023	
4.4.1	Copenhagen Kastrup Airport	16%	60%	24%	0%	Dec 2027	

Country Gaps

AF3 - Flexible Airspace Management and Free Route Airspace

Family	Gap coverage				Implem. Date	CEF Projects
3.1.1	✓					
3.1.2	✓					
3.2.1	✓					
3.2.2	✓					Yes

AF4 - Network Collaborative Management

Family	Gap coverage				Implem. Date	CEF Projects
4.1.1	6%	54%	0%	40%	Dec 2022	
4.2.1	✓					
4.3.1	79%	21%	0%	0%	Dec 2022	Yes

AF5 - SWIM

Family	Gap coverage				Implem. Date	CEF Projects
5.2.1	12%	32%	6%	50%	Dec 2025	Yes
5.3.1	26%	34%	0%	40%	Dec 2025	
5.4.1	11%	3%	0%	86%	Dec 2025	Yes
5.5.1	30%	70%	0%	0%	Dec 2025	Yes
5.6.1	3%	5%	0%	92%	Dec 2025	Yes

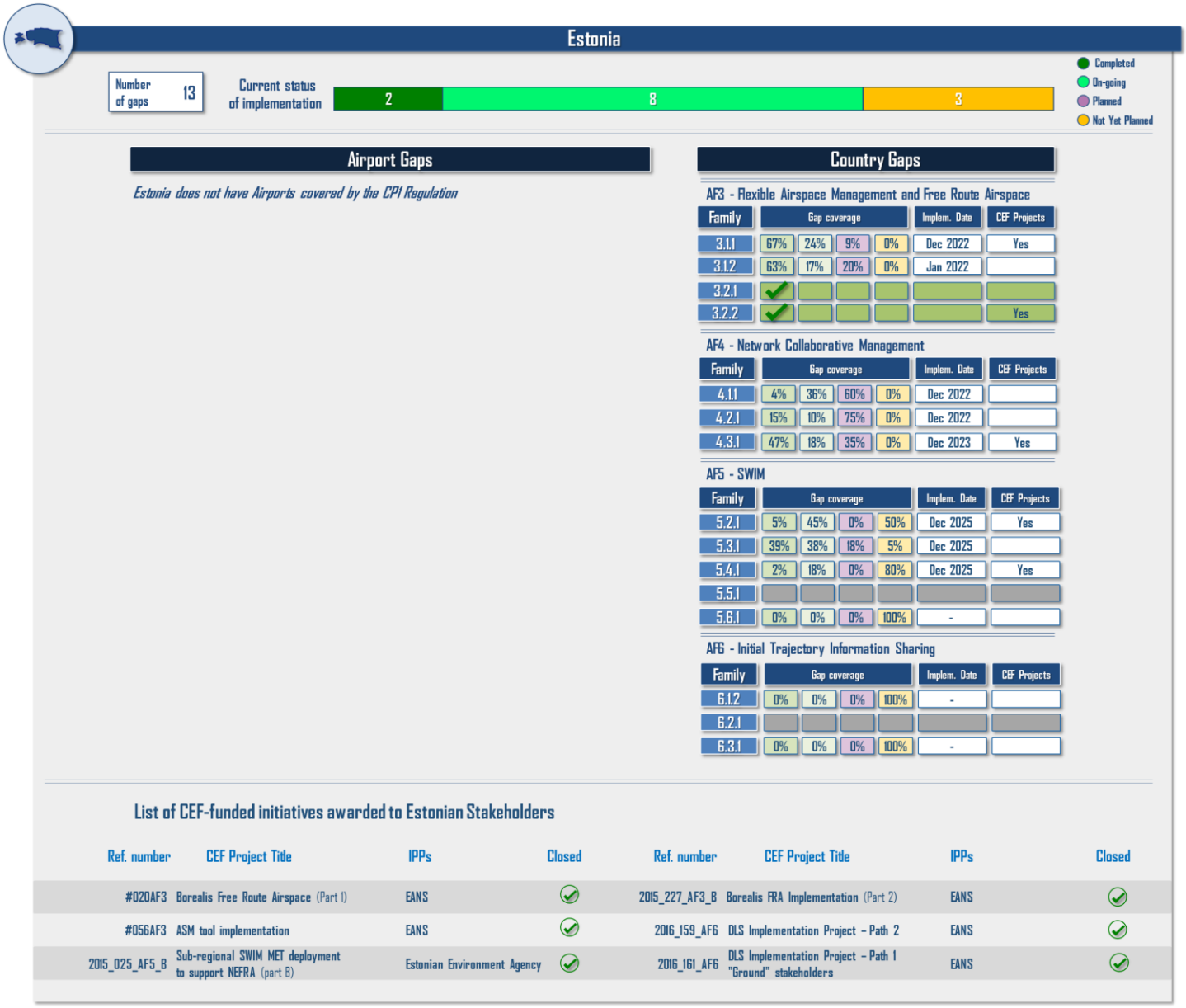
AF6 - Initial Trajectory Information Sharing

Family	Gap coverage				Implem. Date	CEF Projects
6.1.2	0%	0%	0%	100%	-	
6.2.1						
6.3.1	0%	0%	0%	100%	-	

List of CEF-funded initiatives awarded to Danish Stakeholders

Ref. number	CEF Project Title	IPPs	Closed	Ref. number	CEF Project Title	IPPs	Closed
#020AF3	Borealis Free Route Airspace (Part I)	Naviair	✓	2015_207_AF3_A	Harmonisation of Tech ATM Platform in 5 ANSP including support of FRA and preparation of PCP	Naviair	✓
#103AF2	Standardization of A-SMGCS	Copenhagen Airports, Naviair	✓	2015_227_AF3_A	Borealis FRA Implementation (Part 2)	Naviair	
#127AF5	National WAN Infrastructure – CANDI-IP preparation project	Naviair	✓	2016_012_AF1	Synchronised PBN Implementation	Copenhagen Airports, Naviair	
2015_025_AF5_A	Sub-regional SWIM MET deployment to support NEFRA (part A)	Danish Meteorological Institute (DM)	✓	2016_027_AF5	European Deployment Roadmap for Flight Object Interoperability	Naviair	✓
2015_043_AF2	AF2.4 A-SMGCS - Routing & Planning	Copenhagen Airports, Naviair		2016_141_AF5	Deploy SWIM governance	Copenhagen Airports	✓
2015_044_AF2	Implementation of initial DMAN and AOP at Copenhagen Airport	Copenhagen Airports, Naviair	✓	2016_150_AF2	Enablers for Airport Surface Movement related to Safety Nets	Copenhagen Airports, Naviair	
2015_045_AF5	AF5 iSWIM	Copenhagen Airports		2017_022_AF2	Synchronized stakeholder decision on process optimization at airport level	Copenhagen Airports	
2015_046_AF2	AF 2.5 A-SMGCS - Safety Nets	Copenhagen Airports, Naviair		2017_026_AF5	PKI and Cybersecurity	Copenhagen Airports	
2015_099_AF5	DK-SE FAB Aeronautical Data Quality (ADQ)	Naviair	✓	2017_060_AF5	ADQ Components in the SWIM Infrastructure - upstream data inclusion in the full data chain	Naviair	
2015_131_AF5	CANDI-IP (Execution phase)	Naviair	✓	2017_066_AF5	Implementing harmonised SWIM (Y) solution in COOPANS ANSPs and general PCP compliance	Naviair	
2015_132_AF3	VoIP Programme	Naviair	✓	2017_084_AF5	SWIM Common PKI and policies & procedures for establishing a Trust framework	Copenhagen Airports, Naviair	
2015_174_AF5_A	NewPENS Stakeholders contribution for the procurement and deployment of NewPENS	Naviair	✓				

Estonia



List of CEF-funded initiatives awarded to Estonian Stakeholders

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

Finland

Finland

Number of gaps: 15

Current status of implementation: 1 | 9 | 5

Completed
On-going
Planned
Not Yet Planned

Airport Gaps

AF1 - Extended AMAN and Integrated AMAN/DMAN in the high-density TMA

Family	Airport	Gap coverage	Implem. Date	CEF Projects
1.1.1	Helsinki Vantaan Airport			
1.2.1	Helsinki Vantaan Airport			

AF2 - Airport Integration Throughput

Family	Airport	Gap coverage	Implem. Date	CEF Projects
2.1.1	Helsinki Vantaan Airport			
2.2.1	Helsinki Vantaan Airport			
2.2.2	Helsinki Vantaan Airport	0% 0% 100% 0%	Dec 2027	
2.3.1	Helsinki Vantaan Airport			

AF4 - Network Collaborative Management

Family	Airport	Gap coverage	Implem. Date	CEF Projects
4.2.2	Helsinki Vantaan Airport			
4.4.1	Helsinki Vantaan Airport	10% 86% 4% 0%	Dec 2027	

Country Gaps

AF3 - Flexible Airspace Management and Free Route Airspace

Family	Gap coverage	Implem. Date	CEF Projects
3.1.1	53% 38% 9% 0%	Dec 2022	
3.1.2	16% 24% 60% 0%	Dec 2022	Yes
3.2.1	✓		
3.2.2	85% 15% 0% 0%	Dec 2025	Yes

AF4 - Network Collaborative Management

Family	Gap coverage	Implem. Date	CEF Projects
4.1.1	2% 18% 80% 0%	Dec 2022	
4.2.1	0% 0% 100% 0%	Dec 2023	
4.3.1	50% 5% 45% 0%	Dec 2022	Yes

AF5 - SWIM

Family	Gap coverage	Implem. Date	CEF Projects
5.2.1	20% 0% 80% 0%	Dec 2025	Yes
5.3.1	22% 25% 50% 3%	Dec 2025	
5.4.1	18% 4% 78% 0%	Dec 2025	Yes
5.5.1			
5.6.1	0% 0% 100% 0%	Dec 2025	

AF6 - Initial Trajectory Information Sharing

Family	Gap coverage	Implem. Date	CEF Projects
6.1.2	0% 0% 100% 0%	Dec 2027	
6.2.1			
6.3.1	0% 0% 100% 0%	Dec 2027	

List of CEF-funded initiatives awarded to Finnish Stakeholders

Ref. number	CEF Project Title	IPPs	Closed	Ref. number	CEF Project Title	IPPs	Closed
#020AF3	Borealis Free Route Airspace (Part I)	Finavia	✓	2016_027_AF5	European Deployment Roadmap for Flight Object	ANS Finland	✓
2015_025_AF5_A	Sub-regional SWIM MET deployment to support NEFRA (part A)	Finnish Meteorological Institute	✓	2016_141_AF5	Deploy SWIM governance	ANS Finland	✓
2015_068_AF5	European Harmonised Forecasts of Adverse Weather	Finnish Meteorological Institute	✓	2016_159_AF6	DLS Implementation Project – Path 2	ANS Finland	✓
2015_174_AF5_A	NewPENS Stakeholders contribution for the procurement and deployment of NewPENS	ANS Finland, Finavia	✓	2017_084_AF5	SWIM Common PKI and policies & procedures for establishing a Trust framework	ANS Finland	
2015_227_AF3_A	Borealis FRA Implementation (Part 2)	ANS Finland, Finavia					

France

France

Number of gaps: 39

Current status of implementation: 5 | 24 | 2 | 8

Completed
On-going
Planned
Not Yet Planned

Airport Gaps

AF1 - Extended AMAN and Integrated AMAN/DMAN in the high-density TMA

Family	Airport	Gap coverage				Implem. Date	CEF Projects
1.1.1	Paris-R. C. de Gaulle Airport	24%	56%	20%	0%	Dec 2024	Yes
1.1.1	Paris-Orly Airport	30%	50%	20%	0%	Dec 2022	Yes
1.1.1	Nice Côte D'Azur Airport	7%	10%	83%	0%	Dec 2024	Yes
1.1.1	Lyon Saint-Exupery Airport						
1.2.1	Paris-R. C. de Gaulle Airport	0%	0%	0%	100%	-	
1.2.1	Paris-Orly Airport						
1.2.1	Nice Côte D'Azur Airport	0%	0%	0%	100%	-	
1.2.1	Lyon Saint-Exupery Airport						

AF2 - Airport Integration Throughput

Family	Airport	Gap coverage				Implem. Date	CEF Projects
2.1.1	Paris-R. C. de Gaulle Airport	✓					Yes
2.1.1	Paris-Orly Airport	✓					Yes
2.1.1	Nice Côte D'Azur Airport	✓					Yes
2.1.1	Lyon Saint-Exupery Airport						
2.2.1	Paris-R. C. de Gaulle Airport	78%	13%	9%	0%	Dec 2023	Yes
2.2.1	Paris-Orly Airport	78%	13%	9%	0%	Dec 2023	Yes
2.2.1	Nice Côte D'Azur Airport	54%	38%	8%	0%	Dec 2023	Yes
2.2.1	Lyon Saint-Exupery Airport						
2.2.2	Paris-R. C. de Gaulle Airport	0%	0%	0%	100%	-	
2.2.2	Paris-Orly Airport	0%	0%	0%	100%	-	
2.2.2	Nice Côte D'Azur Airport	0%	0%	0%	100%	-	
2.2.2	Lyon Saint-Exupery Airport	0%	0%	0%	100%	-	
2.3.1	Paris-R. C. de Gaulle Airport	10%	27%	23%	40%	Dec 2025	Yes
2.3.1	Paris-Orly Airport	15%	29%	15%	41%	Dec 2025	Yes
2.3.1	Nice Côte D'Azur Airport	2%	14%	35%	49%	Dec 2025	Yes
2.3.1	Lyon Saint-Exupery Airport						

AF4 - Network Collaborative Management

Family	Airport	Gap coverage				Implem. Date	CEF Projects
4.2.2	Paris-R. C. de Gaulle Airport	60%	38%	2%	0%	Dec 2022	Yes
4.2.2	Paris-Orly Airport	60%	38%	2%	0%	Dec 2022	Yes
4.2.2	Nice Côte D'Azur Airport	51%	11%	38%	0%	Dec 2023	Yes
4.2.2	Lyon Saint-Exupery Airport						
4.4.1	Paris-R. C. de Gaulle Airport	3%	25%	0%	72%	Dec 2027	
4.4.1	Paris-Orly Airport	3%	25%	0%	72%	Dec 2027	
4.4.1	Nice Côte D'Azur Airport	0%	0%	0%	100%	-	
4.4.1	Lyon Saint-Exupery Airport	0%	0%	0%	100%	-	

Country Gaps

AF3 - Flexible Airspace Management and Free Route Airspace

Family	Gap coverage				Implem. Date	CEF Projects
3.1.1	61%	30%	9%	0%	Dec 2022	
3.1.2	✓					
3.2.1	✓					Yes
3.2.2	58%	33%	9%	0%	Dec 2025	Yes

AF4 - Network Collaborative Management

Family	Gap coverage				Implem. Date	CEF Projects
4.1.1	74%	22%	4%	0%	Dec 2022	Yes
4.2.1	83%	12%	5%	0%	Dec 2023	Yes
4.3.1	43%	52%	5%	0%	Dec 2022	Yes

AF5 - SWIM

Family	Gap coverage				Implem. Date	CEF Projects
5.2.1	8%	25%	0%	67%	Dec 2025	Yes
5.3.1	37%	31%	13%	19%	Dec 2025	Yes
5.4.1	8%	64%	18%	10%	Dec 2024	Yes
5.5.1	48%	10%	41%	1%	Dec 2025	Yes
5.6.1	25%	0%	0%	75%	*	Yes

AF6 - Initial Trajectory Information Sharing

Family	Gap coverage				Implem. Date	CEF Projects
6.1.2	0%	0%	100%	0%	Dec 2027	
6.2.1						
6.3.1	0%	0%	34%	66%	Dec 2027	

** Date is not reported as the remaining scope of the family is not yet planned*

France

Number of gaps: 39

Current status of implementation: 5 | 24 | 2 | 8

Completed
On-going
Planned
Not Yet Planned

List of CEF-funded initiatives awarded to French Stakeholders

Ref. number	CEF Project Title	IPPs	Closed	Ref. number	CEF Project Title	IPPs	Closed
#023AF2	SMAN-Vehicle	Aéroports De Paris	✓	2015_196_AF1_A	XMAN - Cross-centre arrival management	DSNA	
#024AF2	SAIGA	Aéroports De Paris	✓	2015_247_AF3	4Flight deployment in military En-route ACC (CMCC)	French MOD	
#025AF2	TSAT to the Gate	Aéroports De Paris	✓	2015_249_AF5	PATRUS (Secured real time gateway) for data exchange between civil and military systems	French MOD	
#026AF2	Evolutions CDM-CDG	Aéroports De Paris	✓	2016_023_AF1	XMAN - Cross-center arrival management - Part 2 (CEF2016)	DSNA	
#027AF2	SMAN-Airport	Aéroports De Paris	✓	2016_027_AF5	European Deployment Roadmap for Flight Object Interoperability	DSNA	✓
#030AF2	Equipment of ground vehicles to supply the A-SMGCS	Aéroports de la Côte d'Azur	✓	2016_055_AF3	Upgrade of French Military CRCs for civil- military interoperability	French MOD	✓
#031AF2	Data exchanges with the Air Navigation Service Provider	Aéroports de la Côte d'Azur	✓	2016_100_AF4	Provision of EFPL data and initial FF-ICE/ 1 readiness	Air France	
#032AF2	Data exchanges with the Network Manager Operations Center	Aéroports de la Côte d'Azur	✓	2016_121_AF3	Free Route	Air France	
#033AF2	Data exchanges with COHOR	Aéroports de la Côte d'Azur		2016_123_AF4	STAM Phase 2 in combination with Target Times	Air France	
#048AF2	SYSAT@CDG	DSNA		2016_134_AF3	Implementation of rolling ASM/ATFCM	Air France, Sabre France	
#050AF2	SYSAT@ORY	DSNA		2016_141_AF5	Deploy SWIM governance	DSNA, Air France, French MOD	✓
#051AF1a	RNP Approaches at CDG Airport with vertical guidance (Part A)	DSNA, Air France	✓	2016_150_AF2_AIR	Enablers for Airport Surface Movement related to Safety Nets (AIR)	Aéroports De Paris, Air France	✓
#051AF1b	RNP Approaches at CDG Airport with vertical guidance (Part B)	Air France	✓	2016_150_AF2_GND	Enablers for Airport Surface Movement related to Safety Nets (GND)	ADP, Aéroports de la Côte d'Azur, Air France, DSNA	
#053AF3	4-Flight deployment in DSNA pilot ACCs	DSNA	✓	2016_159_AF6	DLS Implementation Project – Path 2	DSNA, ESSP, SITA IT services France, SITA SC France	✓
#054AF2	CDG 2020 Step 1	DSNA, Air France	✓	2016_161_AF6	DLS Implementation Project – Path 1 "Ground" stakeholders	DSNA, SITA IT services France, SITA SC France	✓
#067AF5	Coflight-eFDP System Development	DSNA	✓	2016_165_AF6_AIR	Lufthansa Group & Air France Group Datalink upgrade to "best in class" avionics (AIR)	Air France, HOP	
#129AF2	CDM-ORLY	Aéroports De Paris	✓	2016_165_AF6_GND	Lufthansa Group & Air France Group Datalink upgrade to "best in class" avionics (GND)	Air France, HOP	
#130AF2	BOREAL-Orly	Aéroports De Paris	✓	2017_002_AF5	Aeronautical Information Exchange system for Airlines FOC at Lufthansa & Air France	Air France	
2015_021_AF4	Slot Manager for PCP airports	Sabre France	✓	2017_008_AF6_AIR	Air France Group Datalink upgrade to best in class avionics - Lot2 (AIR)	Air France, Transavia	✓
2015_062_AF3_Ph_1	4-Flight Deployment in PARIS Area - Phase 1	DSNA	✓	2017_008_AF6_GND	Air France Group Datalink upgrade to best in class avionics - Lot2 (GND)	Air France, Transavia	✓
2015_067_AF5	European Weather Radar Composite of Convection Information Service	Meteo France	✓	2017_022_AF2	Synchronized stakeholder decision on process optimization at airport level	Aéroports De Paris, Aéroports de la Côte d'Azur	
2015_068_AF5	European Harmonised Forecasts of Adverse Weather	Meteo France	✓	2017_034_AF5	Deploying Cyber Infrastructure at DSNA	DSNA	
2015_069_AF5	European MET Information Exchange (MET-GATE)	Meteo France	✓	2017_035_AF5	Deploying SWIM infrastructure at DSNA	DSNA	
2015_073_AF1	AMAN upgrade for extended horizon at DSNA airports	DSNA, Aéroports De Paris, Air France	✓	2017_037_AF2	TBS deployment at Paris CDG	DSNA, Meteo France	
2015_083_AF2	iAOP implementation	Aéroports de la Côte d'Azur		2017_038_AF4	Enablers of Network Collaborative Management for En Route and Airports at DSNA	Aéroports De Paris, Air France, DSNA	
2015_085_AF2	DMAN and Pre-departure sequence (PDS) implementations for the CDM implementation	Aéroports de la Côte d'Azur, DSNA	✓	2017_039_AF5	SEPIA - Deploying SWIM based AIM services in French Airspace	DSNA	
2015_106_AF4	Flight evolution and upgrade of interfaces with NM stakeholders	Sabre France	✓	2017_043_AF3	Coflight-eFDP Development (Step 2)	DSNA	✓
2015_107_AF3	NM Systems upgrades in support of DCTs and FRA	Sabre France	✓	2017_052_AF4	AOP-NOP Integration - Extended Implementation	Aéroports de la Côte d'Azur	
2015_110_AF4	STAM Phase 2 (NM)	Sabre France		2017_053_AF3	Implementation of rolling ASM/ATFCM	Air France, Sabre France	
2015_113_AF4	AOP-NOP Integration	Aéroports De Paris		2017_056_AF5	Towards Shared Business Trajectory / Trajectory Based Operations	Sabre France	
2015_114_AF4	Implementation of Target Times for ATFCM purposes (NM)	Sabre France	✓	2017_076_AF5	Meteorological Information Exchange service for Airlines FOC at Lufthansa & Air France	Air France	
2015_133_AF2	Initial AirPort Operational Centre (iAPOC)	Aéroports de Paris, Air France, DSNA	✓	2017_080_AF5	PATRUS niveau 2 - Gateway Updgrade for 4Flight compliance	French MOD	✓
2015_135_AF2	CDG and ORLY - Initial Airport Operational Plan (AOP)	Aéroports de Paris, Air France		2017_084_AF5	SWIM Common PKI and policies & procedures for establishing a Trust framework	ALTYS, DNSA, ESSP, SITA IT Services France, Thales	
2015_139_AF1	Geographic Database – AIM TOOL	DSNA, Aéroports de Paris		2017_089_AF6	IPI - DLS European Target Solution assessment	Aéroports De Paris, Air France, DSNA, French MOD	✓
2015_174_AF5_A	NewPENS Stakeholders contribution for the procurement and deployment of NewPENS	DSNA	✓				

Germany

Germany

Number of gaps: 48

Current status of implementation: 4 | 37 | 3 | 4

Completed
On-going
Planned
Not Yet Planned

Airport Gaps

AF1 - Extended AMAN and Integrated AMAN/DMAN in the high-density TMA

Family	Airport	Gap coverage				Implem. Date	CEF Projects
1.1.1	Berlin Brandenburg Airport	34%	15%	20%	31%	Dec 2024	Yes
1.1.1	Düsseldorf Airport	39%	10%	0%	51%	Dec 2024	Yes
1.1.1	Frankfurt am Main Airport	61%	0%	0%	39%	*	Yes
1.1.1	Munich Airport	83%	0%	0%	17%	*	Yes
1.1.1	Hamburg Airport						
1.1.1	Stuttgart Airport						
1.2.1	Berlin Brandenburg Airport	0%	0%	0%	100%	-	
1.2.1	Düsseldorf Airport	0%	0%	0%	100%	-	
1.2.1	Frankfurt am Main Airport						
1.2.1	Munich Airport						
1.2.1	Hamburg Airport						
1.2.1	Stuttgart Airport						

AF2 - Airport Integration Throughput

Family	Airport	Gap coverage				Implem. Date	CEF Projects
2.1.1	Berlin Brandenburg Airport	95%	5%	0%	0%	Dec 2022	
2.1.1	Düsseldorf Airport	95%	5%	0%	0%	Dec 2022	
2.1.1	Frankfurt am Main Airport	95%	5%	0%	0%	Dec 2022	Yes
2.1.1	Munich Airport	✓					
2.1.1	Hamburg Airport						
2.1.1	Stuttgart Airport						
2.2.1	Berlin Brandenburg Airport	14%	38%	48%	0%	Dec 2023	
2.2.1	Düsseldorf Airport	63%	27%	10%	0%	Dec 2023	Yes
2.2.1	Frankfurt am Main Airport	33%	43%	24%	0%	Dec 2023	Yes
2.2.1	Munich Airport	15%	47%	38%	0%	Dec 2023	
2.2.1	Hamburg Airport						
2.2.1	Stuttgart Airport						

AF4 - Network Collaborative Management

Family	Airport	Gap coverage				Implem. Date	CEF Projects
4.2.2	Berlin Brandenburg Airport	3%	23%	0%	74%	Dec 2023	
4.2.2	Düsseldorf Airport	5%	45%	13%	37%	Dec 2023	Yes
4.2.2	Frankfurt am Main Airport	3%	23%	0%	74%	Dec 2023	Yes
4.2.2	Munich Airport	1%	11%	50%	38%	Dec 2023	
4.2.2	Hamburg Airport						
4.2.2	Stuttgart Airport						
4.4.1	Berlin Brandenburg Airport	3%	25%	0%	72%	Dec 2027	
4.4.1	Düsseldorf Airport	6%	50%	24%	20%	Dec 2022	
4.4.1	Frankfurt am Main Airport	0%	0%	0%	100%	-	
4.4.1	Munich Airport	0%	0%	0%	100%	-	
4.4.1	Hamburg Airport	11%	17%	0%	72%	Dec 2027	
4.4.1	Stuttgart Airport	11%	17%	0%	72%	Dec 2027	
2.2.2	Berlin Brandenburg Airport	1%	7%	92%	0%	Dec 2027	
2.2.2	Düsseldorf Airport	3%	5%	92%	0%	Dec 2027	
2.2.2	Frankfurt am Main Airport	1%	7%	92%	0%	Dec 2027	
2.2.2	Munich Airport	1%	7%	43%	49%	Dec 2027	
2.2.2	Hamburg Airport	1%	7%	50%	42%	Dec 2027	
2.2.2	Stuttgart Airport	1%	7%	50%	42%	Dec 2027	
2.3.1	Berlin Brandenburg Airport	11%	20%	35%	34%	Dec 2025	Yes
2.3.1	Düsseldorf Airport	2%	20%	0%	78%	Dec 2025	Yes
2.3.1	Frankfurt am Main Airport	12%	36%	18%	34%	Dec 2025	Yes
2.3.1	Munich Airport	9%	14%	0%	77%	Dec 2025	Yes
2.3.1	Hamburg Airport						
2.3.1	Stuttgart Airport						

Country Gaps

AF3 - Flexible Airspace Management and Free Route Airspace

Family	Gap coverage				Implem. Date	CEF Projects
3.1.1	58%	25%	17%	0%	Dec 2026	Yes
3.1.2	✓					Yes
3.2.1	✓					Yes
3.2.2	✓					Yes

AF4 - Network Collaborative Management

Family	Gap coverage				Implem. Date	CEF Projects
4.1.1	0%	0%	100%	0%	Dec 2022	
4.2.1	0%	0%	75%	25%	Dec 2023	
4.3.1	21%	29%	50%	0%	Dec 2022	Yes

AF5 - SWIM

Family	Gap coverage				Implem. Date	CEF Projects
5.2.1	17%	11%	11%	61%	Dec 2025	
5.3.1	38%	0%	13%	49%	Dec 2025	Yes
5.4.1	3%	14%	9%	74%	Dec 2025	Yes
5.5.1	25%	32%	13%	30%	Dec 2025	Yes
5.6.1	1%	7%	0%	92%	Dec 2025	

AF6 - Initial Trajectory Information Sharing

Family	Gap coverage				Implem. Date	CEF Projects
6.1.2	0%	0%	100%	0%	Dec 2027	
6.2.1						
6.3.1	16%	0%	68%	16%	Dec 2027	

** Date is not reported as the remaining scope of the family is not yet planned*

Germany

Number of gaps: 48

Current status of implementation: 4 | 37 | 3 | 4

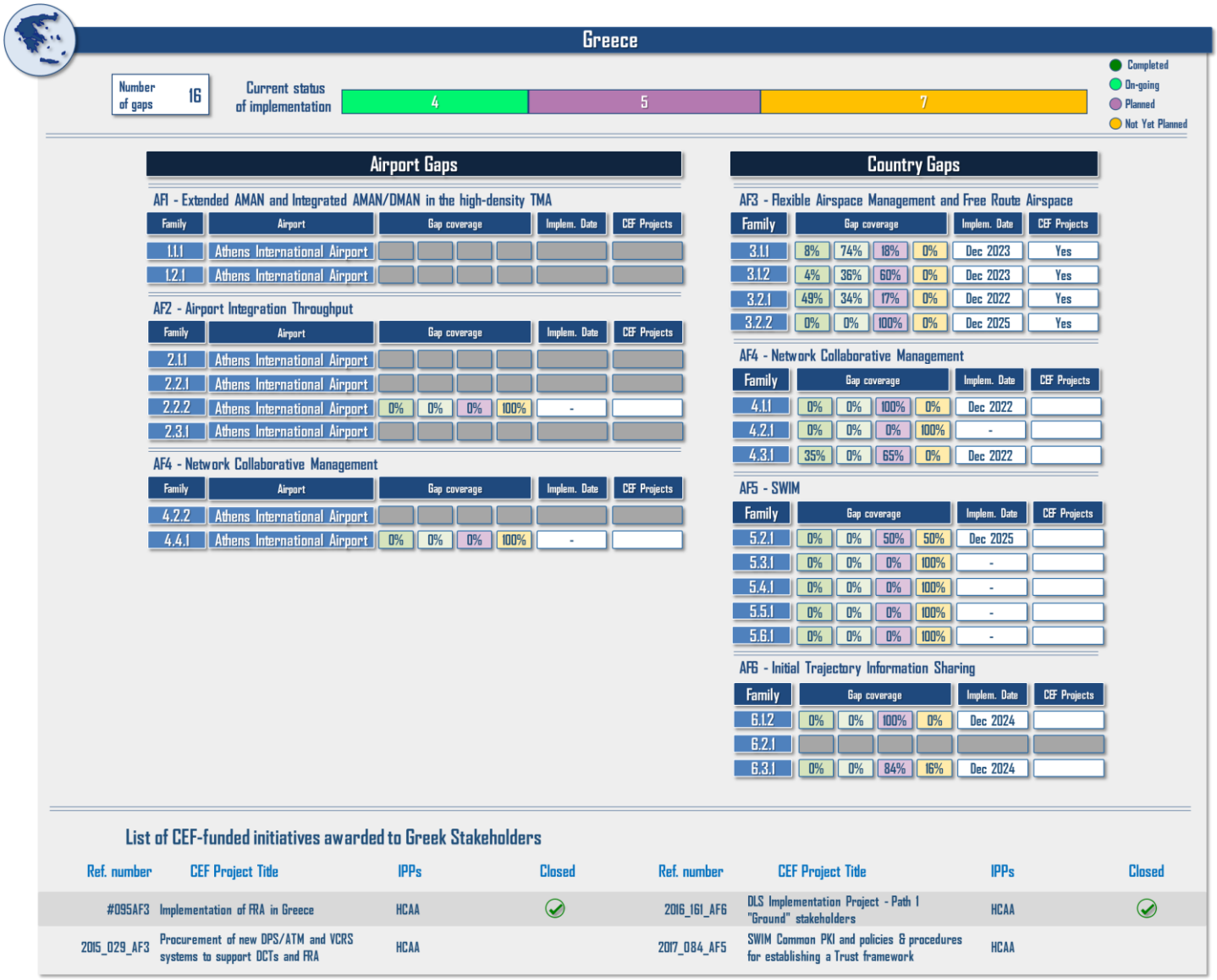
Completed
On-going
Planned
Not Yet Planned

List of CEF-funded initiatives awarded to German Stakeholders

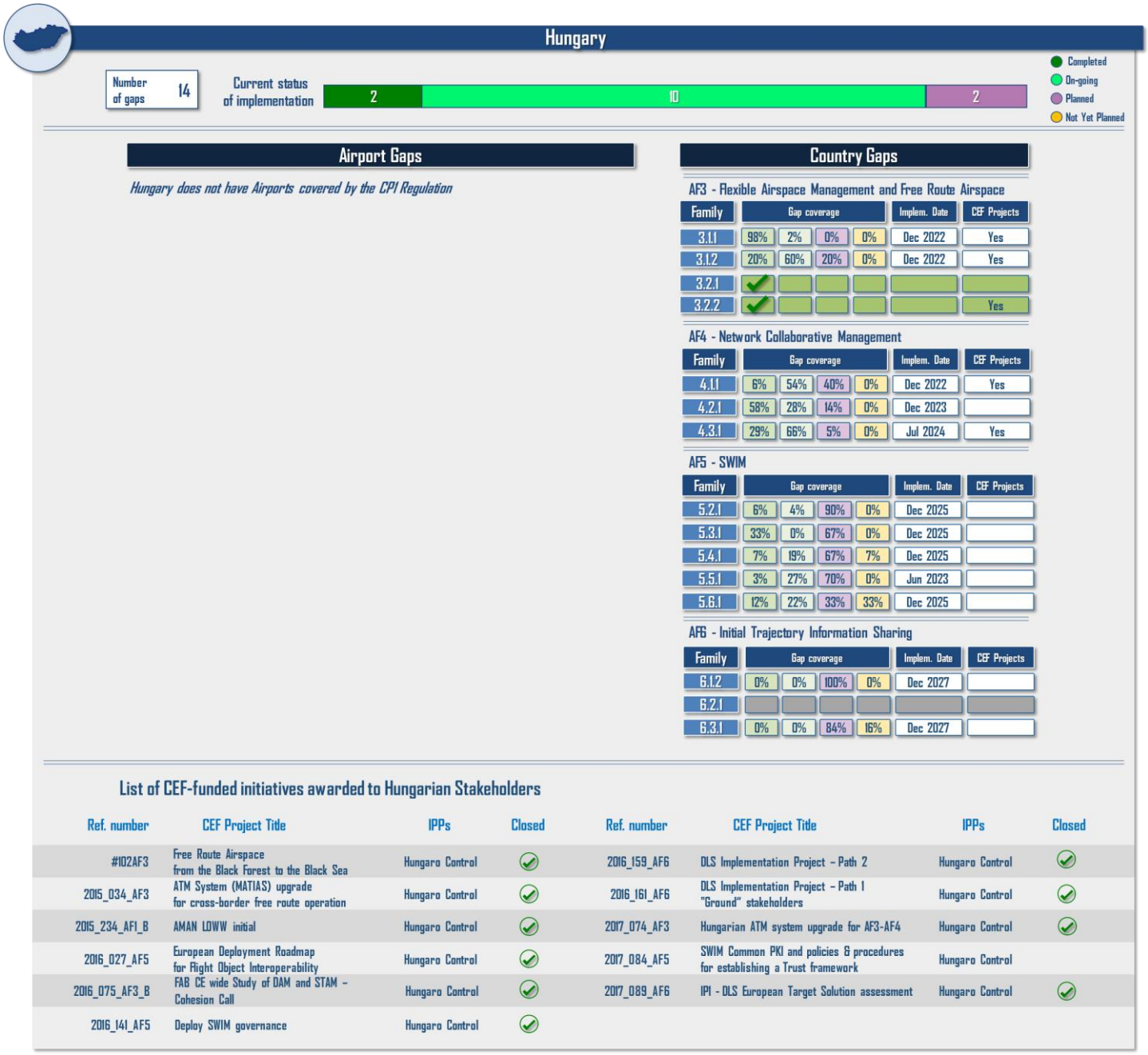
Ref. number	CEF Project Title	IPPs	Closed	Ref. number	CEF Project Title	IPPs	Closed
#040AF5	ADQ – Aeronautical Data Quality	DFS	✓	2016_008_AF4	Flight evolution and upgrade of interfaces with NM stakeholders	Deutsche Lufthansa	
#041AF5	EASI – EAD AIM System Integration	DFS	✓	2016_010_AF4	STAM Phase 2	Deutsche Lufthansa	
#042AF2a	A-SMGCS Düsseldorf	DFS, Düsseldorf International	✓	2016_021_AF2	TANGe (Tower ATS-System Next Generation) Phase 1	DFS	✓
#084AF5	Prerequisites for the Provision of Aerodrome Mapping Data and Airport Maps	Fraport	✓	2016_023_AF1	XMAN - Cross-center arrival management - Part 2 (CEF2016)	DFS	
#086AF2	A-CDM Extension	Fraport	✓	2016_024_AF4	Deployment of an Automated Support Tool for Traffic Complexity Assessment at DFS	DFS	
#087AF2	Apron Controller Working Position	Fraport	✓	2016_026_AF3	System Procurement for Deployment of PCP Air Traffic Control System iCAS at DFS and LVNL	DFS	
#088AF2	Airport Safety Net Mobile Detection of Air Crash Tenders	Fraport	✓	2016_027_AF5	European Deployment Roadmap for Flight Object Interoperability	DFS	✓
#115AF2	A-SMGCS Renewal of the Surface Movement Radar (BORA)	Munich Airport	✓	2016_100_AF4	Provision of EFPL data and initial FF-ICE/ 1 readiness	Deutsche Lufthansa, LH Systems	
2015_021_AF4	Slot Manager for PCP airports	Deutsche Lufthansa, Sabre Airline Solutions	✓	2016_121_AF3	Free Route	Deutsche Lufthansa, LH Systems	
2015_031_AF2	Vehicle Transponder A-SMGCS Düsseldorf	Düsseldorf International	✓	2016_123_AF4	STAM Phase 2 in combination with Target Times	Deutsche Lufthansa, LH Systems	
2015_067_AF5	European Weather Radar Composite of Convection Information Service	DWD	✓	2016_134_AF3	Implementation of rolling ASM/ATFCM	Deutsche Lufthansa, LH Systems	
2015_068_AF5	European Harmonised Forecasts of Adverse Weather	DWD		2016_137_AF2	Initial AOP DUS	DFS, Düsseldorf International	✓
2015_069_AF5	European MET Information Exchange (MET-GATE)	DFS, DWD	✓	2016_141_AF5	Deploy SWIM governance	Deutsche Lufthansa, DFS, Munich Airport	✓
2015_106_AF4	Flight evolution and upgrade of interfaces with NM stakeholders	Sabre Airline Solutions		2016_147_AF1	RNP APCH RWY 29 Vienna	Deutsche Lufthansa	
2015_107_AF4	NM Systems upgrades in support of DCTs and FRA	Sabre Airline Solutions		2016_150_AF2_GND	Enablers for Airport Surface Movement related to Safety Nets (GND)	Fraport, Munich Airport	
2015_110_AF4	STAM Phase 2 (NM)	Sabre Airline Solutions		2016_159_AF6	DLS Implementation Project – Path 2	Deutsche Lufthansa, DFS, SITA Inc BV Germany	✓
2015_113_AF4	AOP-NOP Integration	Fraport		2016_161_AF6	DLS Implementation Project – Path 1 "Ground" stakeholders	DFS , SITA Inc BV Germany	✓
2015_188_AF1	Deploy AMAN - Arrival Management at Düsseldorf and Berlin International	DFS	✓	2016_165_AF6_AIR	Lufthansa Group & Air France Group Datalink upgrade to "best in class" avionics (AIR)	Deutsche Lufthansa, Lufthansa CityLine, Lufthansa Cargo AG	
2015_114_AF4	Implementation of Target Times for ATFCM purposes (NM)	Sabre Airline Solutions		2016_165_AF6_GND	Lufthansa Group & Air France Group Datalink upgrade to "best in class" avionics (GND)	Deutsche Lufthansa, Lufthansa CityLine, Lufthansa Cargo AG	
2015_189_AF3	Deploy Free Route Airspace (Full FRA) in German Airspace	DFS	✓	2017_002_AF5	Aeronautical Information Exchange system for Airlines FOC at Lufthansa & Air France	Deutsche Lufthansa, LH Systems	
2015_190_AF3	Deployment of ATC System iCAS: Implementation of ATM PCP Funct. at LVNL and DFS	DFS		2017_004_AF1	Flight Crew Training for RNPI Operations	Lufthansa Group*	
2015_192_AF5	RAPNET NG	DFS	✓	2017_022_AF2	Synchronized stakeholder decision on process optimization at airport level	Fraport, Munich Airport	
2015_193_AF1	RNP Based Departure Operations in High Density TMAs in FRA, DUS, BER and MUC	DFS, Fraport, Deutsche Lufthansa	✓	2017_029_AF3	Deployment of Centralized Interoperable Center Information Service (Step 1)	DFS	
2015_194_AF5	STANLY_ACOS iSWIM for Free-Route and NM	DFS		2017_031_AF3	Procurement and Deployment of PCP ATC System iCAS at DFS Munich and Bremen and LVNL Amsterdam	DFS	
2015_195_AF3	Deployment of next Generation and VoIP Capable Centre Voice Communication System	DFS	✓	2017_032_AF2	TANGe (Tower ATS-System Next Generation) Phase I+ incl. Service Architecture	DFS	
2015_196_AF1_A	XMAN - Cross-centre arrival management	DFS		2017_052_AF4	AOP-NOP Integration - Extended Implementation	Düsseldorf International	
2015_197_AF5	Centralized DFS "Yellow Profile" SWIM Node	DFS	✓	2017_053_AF3	Implementation of rolling ASM/ATFCM	Deutsche Lufthansa, LH Systems, Sabre Airline Solutions	
2015_222_AF2	Advanced Airport Moving Map (AAMM) Prototype Implementation	Fraport, Deutsche Lufthansa	✓	2017_056_AF5	Towards Shared Business Trajectory / Trajectory Based Operations	Deutsche Lufthansa, LH Systems, Sabre Airline Solutions	
2015_225_AF2	Initial Airport Operations Plan @ FRA	Fraport	✓	2017_076_AF5	Meteorological Information Exchange service for Airlines FOC at Lufthansa & Air France	Deutsche Lufthansa, LH Systems	
2015_226_AF2	Airport Safety Net: Mobile Detection of Marshaller Vehicles	Fraport	✓	2017_084_AF5	SWIM Common PKI and policies & procedures for establishing a Trust framework	Deutsche Lufthansa, DFS	
2015_282_AF2	Initial APOC and AOP	Munich Airport	✓	2017_089_AF6	IPI - DLS European Target Solution assessment	DFS	✓

(*) as Deutsche Lufthansa, Eurowings, Eurowings Europe, Germanwings, Lufthansa Cargo AG, Lufthansa Cityline, Lufthansa Systems

Greece


Greece
Number of gaps 16
Current status of implementation
4
5
7
Completed
On-going
Planned
Not Yet Planned
Airport Gaps
AF1 - Extended AMAN and Integrated AMAN/DMAN in the high-density TMA
Family Airport Gap coverage Implem. Date CEF Projects
1.1.1 Athens International Airport
1.2.1 Athens International Airport
AF2 - Airport Integration Throughput
Family Airport Gap coverage Implem. Date CEF Projects
2.1.1 Athens International Airport
2.2.1 Athens International Airport
2.2.2 Athens International Airport 0% 0% 0% 100% -
2.3.1 Athens International Airport
AF4 - Network Collaborative Management
Family Airport Gap coverage Implem. Date CEF Projects
4.2.2 Athens International Airport
4.4.1 Athens International Airport 0% 0% 0% 100% -
Country Gaps
AF3 - Flexible Airspace Management and Free Route Airspace
Family Gap coverage Implem. Date CEF Projects
3.1.1 8% 74% 18% 0% Dec 2023 Yes
3.1.2 4% 36% 60% 0% Dec 2023 Yes
3.2.1 49% 34% 17% 0% Dec 2022 Yes
3.2.2 0% 0% 100% 0% Dec 2025 Yes
AF4 - Network Collaborative Management
Family Gap coverage Implem. Date CEF Projects
4.1.1 0% 0% 100% 0% Dec 2022
4.2.1 0% 0% 0% 100% -
4.3.1 35% 0% 65% 0% Dec 2022
AF5 - SWIM
Family Gap coverage Implem. Date CEF Projects
5.2.1 0% 0% 50% 50% Dec 2025
5.3.1 0% 0% 0% 100% -
5.4.1 0% 0% 0% 100% -
5.5.1 0% 0% 0% 100% -
5.6.1 0% 0% 0% 100% -
AF6 - Initial Trajectory Information Sharing
Family Gap coverage Implem. Date CEF Projects
6.1.2 0% 0% 100% 0% Dec 2024
6.2.1
6.3.1 0% 0% 84% 16% Dec 2024
List of CEF-funded initiatives awarded to Greek Stakeholders
Ref. number CEF Project Title IPPs Closed Ref. number CEF Project Title IPPs Closed
#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 2017_084_AF5 SWIM Common PKI and policies & procedures for establishing a Trust framework HCAA

Hungary



List of CEF-funded initiatives awarded to Hungarian Stakeholders

Ref. number	CEF Project Title	IPPs	Closed	Ref. number	CEF Project Title	IPPs	Closed
#102AF3	Free Route Airspace from the Black Forest to the Black Sea	Hungaro Control	✓	2016_159_AF6	DLS Implementation Project – Path 2	Hungaro Control	✓
2015_034_AF3	ATM System (MATIAS) upgrade for cross-border free route operation	Hungaro Control	✓	2016_161_AF6	DLS Implementation Project – Path 1 "Ground" stakeholders	Hungaro Control	✓
2015_234_AF1_B	AMAN LDWW initial	Hungaro Control	✓	2017_074_AF3	Hungarian ATM system upgrade for AF3-AF4	Hungaro Control	✓
2016_027_AF5	European Deployment Roadmap for Flight Object Interoperability	Hungaro Control	✓	2017_084_AF5	SWIM Common PKI and policies & procedures for establishing a Trust framework	Hungaro Control	
2016_075_AF3_B	FAB CE wide Study of DAM and STAM – Cohesion Call	Hungaro Control	✓	2017_089_AF6	IPI - DLS European Target Solution assessment	Hungaro Control	✓
2016_141_AF5	Deploy SWIM governance	Hungaro Control	✓				

Ireland

Ireland

Number of gaps: 21

Current status of implementation: 2 | 14 | 3 | 2

Completed
On-going
Planned
Not Yet Planned

Airport Gaps

AF1 - Extended AMAN and Integrated AMAN/DMAN in the high-density TMA

Family	Airport	Gap coverage				Implem. Date	CEF Projects
1.1.1	Dublin Airport	13%	67%	20%	0%	Dec 2024	Yes
1.2.1	Dublin Airport						

AF2 - Airport Integration Throughput

Family	Airport	Gap coverage				Implem. Date	CEF Projects
2.1.1	Dublin Airport	21%	32%	47%	0%	Dec 2022	Yes
2.2.1	Dublin Airport	21%	64%	15%	0%	Dec 2023	Yes
2.2.2	Dublin Airport	0%	0%	0%	100%	-	
2.3.1	Dublin Airport	31%	24%	23%	22%	Dec 2025	Yes

AF4 - Network Collaborative Management

Family	Airport	Gap coverage				Implem. Date	CEF Projects
4.2.2	Dublin Airport	9%	81%	5%	5%	Dec 2023	
4.4.1	Dublin Airport	0%	0%	0%	100%	-	

Country Gaps

AF3 - Flexible Airspace Management and Free Route Airspace

Family	Gap coverage				Implem. Date	CEF Projects
3.1.1	37%	45%	14%	4%	Dec 2022	
3.1.2	31%	44%	25%	0%	Dec 2022	Yes
3.2.1	✓					
3.2.2	✓					Yes

AF4 - Network Collaborative Management

Family	Gap coverage				Implem. Date	CEF Projects
4.1.1	35%	61%	4%	0%	Dec 2022	
4.2.1	35%	60%	5%	0%	Dec 2023	
4.3.1	41%	44%	15%	0%	Dec 2022	

AF5 - SWIM

Family	Gap coverage				Implem. Date	CEF Projects
5.2.1	8%	32%	0%	60%	Dec 2025	Yes
5.3.1	17%	71%	1%	11%	Dec 2025	
5.4.1	7%	60%	13%	20%	Dec 2025	Yes
5.5.1	25%	0%	75%	0%	Dec 2025	Yes
5.6.1	0%	0%	50%	50%	Dec 2025	Yes

AF6 - Initial Trajectory Information Sharing

Family	Gap coverage				Implem. Date	CEF Projects
6.1.2	0%	0%	100%	0%	Dec 2025	
6.2.1						
6.3.1	0%	0%	84%	16%	Dec 2025	

List of CEF-funded initiatives awarded to Irish Stakeholders

Ref. number	CEF Project Title	IPPs	Closed	Ref. number	CEF Project Title	IPPs	Closed
#020AF3	Borealis Free Route Airspace (Part I)	IAA	✓	2016_027_AF5	European Deployment Roadmap for Flight Object Interoperability	IAA	✓
#135AF2a	Ryanair RAAS Programme (Part A)	Ryanair	✓	2016_033_AF5	Use SWIM methods to replace AFTN feeds for A-CDM	Dublin Airport	✓
#135AF2b	Ryanair RAAS Programme (Part B)	Ryanair	✓	2016_034_AF5	Upgrade/Replace Infrastructure to facilitate SWIM	Dublin Airport	✓
2015_074_AF2	Display TOBT TSAT at the Gate	Dublin Airport	✓	2016_148_AF5	Implementation of Automated Meteorological Information Exchange	IAA, Irish Meteorological Service (Met Eireann)	
2015_076_AF2	Aerial Visual Display A-CDM Phase 2	Dublin Airport	✓	2016_150_AF2_GND	Enablers for Airport Surface Movement related to Safety Nets (GND)	Dublin Airport	
2015_077_AF2	Universal Mobile Display System (UMDS) solution to support A-CDM Implementation	Dublin Airport	✓	2016_159_AF6	DLS Implementation Project – Path 2	Ryanair	✓
2015_078_AF2	A-CDM Enhancements BDW	Dublin Airport	✓	2016_164_AF6	RYR Upgrade to ATN BI to "best in class"	Ryanair	✓
2015_159_AF3	IP/VOIP technology to enable Management of Dynamic Airspace Configurations	IAA		2017_018_AF5	SWIM-enabled OCC	Ryanair	
2015_161_AF2	Initial implementation of DMAN	IAA	✓	2017_022_AF2	Synchronized stakeholder decision on process optimization at airport level	Dublin Airport	
2015_162_AF2	Electronic Flight Strip (EFS) Implementation	IAA	✓	2017_066_AF5	Implementing harmonised SWIM (Y) solution in COOPANS ANSPs and general PCP compliance	IAA	
2015_174_AF5_A	NewPENS Stakeholders contribution for the procurement and deployment of NewPENS	IAA	✓	2017_084_AF5	SWIM Common PKI and policies & procedures for establishing a Trust framework	Ryanair	
2015_207_AF3_A	Harmonisation of Tech ATM Platform in 5 ANSP including support of FRA and preparation of PCP	IAA	✓	2017_089_AF6	IPI - DLS European Target Solution assessment	Airtel	✓
2015_227_AF3_A	Borealis FRA Implementation (Part 2)	IAA, Ryanair					

Italy

Italy

Number of gaps: 31

Current status of implementation: 2 | 21 | 8

Completed
On-going
Planned
Not Yet Planned

Airport Gaps

AF1 - Extended AMAN and Integrated AMAN/DMAN in the high-density TMA

Family	Airport	Gap coverage				Implem. Date	CEF Projects
1.1.1	Milano Malpensa Airport	30%	35%	35%	0%	Dec 2022	
1.1.1	Fiumicino International Airport	30%	35%	35%	0%	Dec 2022	
1.1.1	Milano Linate Airport						
1.2.1	Milano Malpensa Airport	0%	0%	100%	0%	Dec 2027	
1.2.1	Fiumicino International Airport						
1.2.1	Milano Linate Airport						

AF2 - Airport Integration Throughput

Family	Airport	Gap coverage				Implem. Date	CEF Projects
2.1.1	Milano Malpensa Airport	1%	9%	90%	0%	Dec 2022	
2.1.1	Fiumicino International Airport	1%	9%	90%	0%	Dec 2022	
2.1.1	Milano Linate Airport						
2.2.1	Milano Malpensa Airport	5%	47%	48%	0%	Dec 2023	Yes
2.2.1	Fiumicino International Airport	40%	15%	45%	0%	Dec 2023	Yes
2.2.1	Milano Linate Airport						
2.2.2	Milano Malpensa Airport	0%	0%	100%	0%	Dec 2027	
2.2.2	Fiumicino International Airport	3%	5%	92%	0%	Dec 2027	
2.2.2	Milano Linate Airport	0%	0%	100%	0%	Dec 2027	
2.3.1	Milano Malpensa Airport	14%	86%	0%	0%	Dec 2025	Yes
2.3.1	Fiumicino International Airport	3%	27%	70%	0%	Dec 2025	Yes
2.3.1	Milano Linate Airport						

AF4 - Network Collaborative Management

Family	Airport	Gap coverage				Implem. Date	CEF Projects
4.2.2	Milano Malpensa Airport	3%	23%	74%	0%	Dec 2023	Yes
4.2.2	Fiumicino International Airport	8%	30%	62%	0%	Dec 2023	Yes
4.2.2	Milano Linate Airport						
4.4.1	Milano Malpensa Airport	3%	25%	72%	0%	Dec 2027	
4.4.1	Fiumicino International Airport	0%	0%	20%	80%	Dec 2027	
4.4.1	Milano Linate Airport	3%	25%	72%	0%	Dec 2027	

Country Gaps

AF3 - Flexible Airspace Management and Free Route Airspace

Family	Gap coverage				Implem. Date	CEF Projects
3.1.1	51%	33%	16%	0%	Dec 2022	Yes
3.1.2	✓					
3.2.1	✓					Yes
3.2.2	13%	70%	17%	0%	Dec 2023	Yes

AF4 - Network Collaborative Management

Family	Gap coverage				Implem. Date	CEF Projects
4.1.1	20%	60%	20%	0%	Dec 2022	Yes
4.2.1	0%	0%	100%	0%	Dec 2023	
4.3.1	34%	62%	4%	0%	Dec 2022	Yes

AF5 - SWIM

Family	Gap coverage				Implem. Date	CEF Projects
5.2.1	0%	3%	84%	13%	Dec 2025	Yes
5.3.1	35%	16%	49%	0%	Dec 2025	Yes
5.4.1	7%	64%	29%	0%	Dec 2025	Yes
5.5.1	1%	3%	96%	0%	Dec 2025	
5.6.1	0%	0%	100%	0%	Dec 2025	Yes

AF6 - Initial Trajectory Information Sharing

Family	Gap coverage				Implem. Date	CEF Projects
6.1.2	0%	0%	100%	0%	Dec 2027	
6.2.1						
6.3.1	0%	0%	100%	0%	Dec 2027	

Italy

Number of gaps: 31

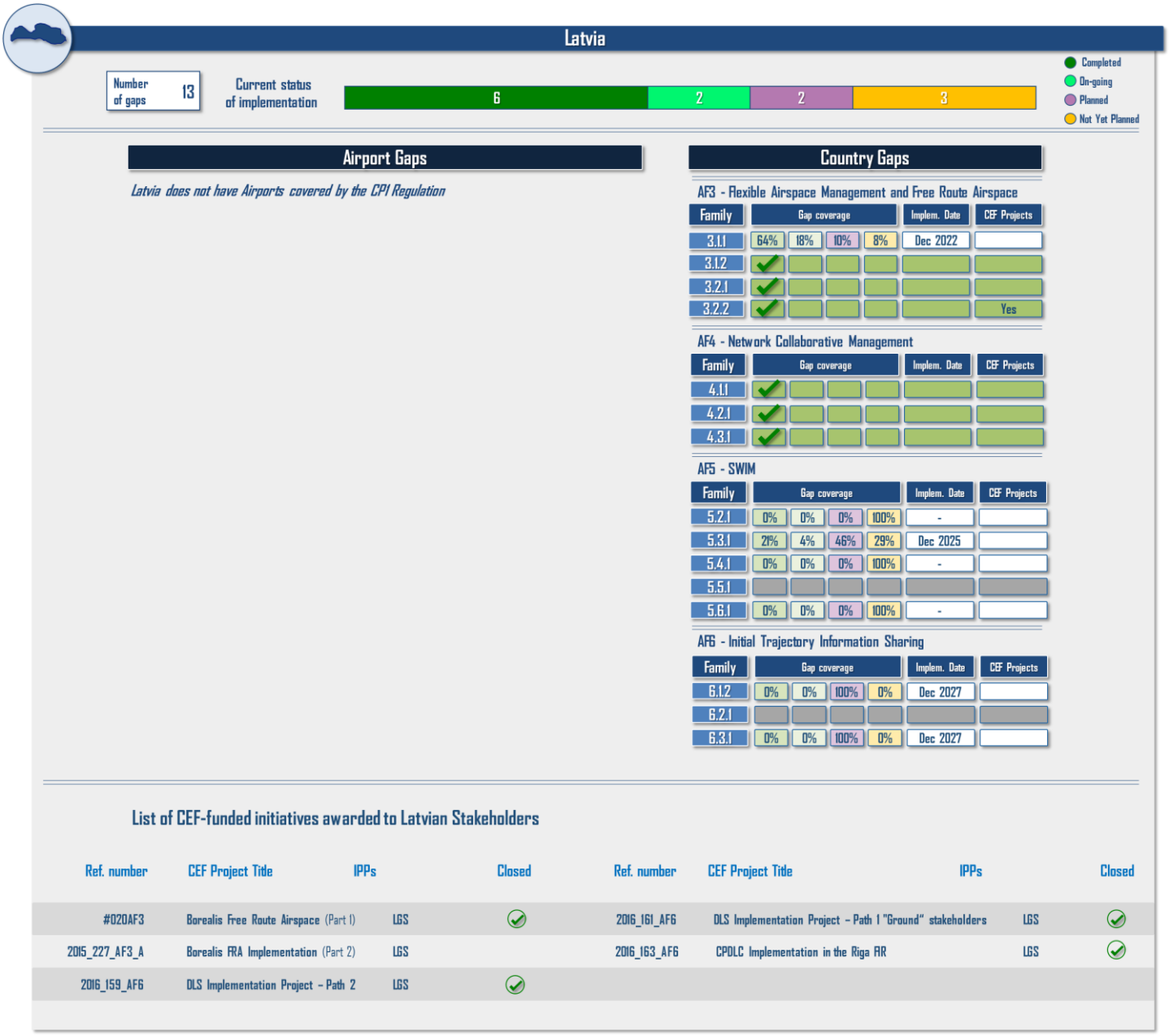
Current status of implementation: 2 | 21 | 8

Completed
On-going
Planned
Not Yet Planned

List of CEF-funded initiatives awarded to Italian Stakeholders

Ref. number	CEF Project Title	IPPs	Closed	Ref. number	CEF Project Title	IPPs	Closed
#004AF3	Traffic flow Restriction (TFR) – LIDO planning system	Alitalia	✓	2016_116_AF5	ENAV Security Operational Centre (iSOC) Upgrade	ENAV	✓
#005AF3	Free Flight – Direct Optimization	Alitalia	✓	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	
#062AF4	ENAV initiative for the identification of Network Collaborative Management requirements	ENAV	✓	2016_118_AF5	ENAV Network enhancement toward NewPENS	ENAV	✓
#063AF3	ENAV implementation of Free Route	ENAV	✓	2016_119_AF5	ENAV Airport MET System and UPM-MET database upgrade	ENAV	
#064AF2	ENAV Airport System upgrade	ENAV	✓	2016_120_AF1	ENAV Introduction of RNPI+RF and APV procedures in MXP and FCO	ENAV	✓
#065AF1	ENAV Geographic DB for Procedure Design	ENAV	✓	2016_141_AF5	Deploy SWIM governance	ENAV	✓
#066AF5	ENAV AIS system Upgrade to support AIXM 5.1	ENAV	✓	2016_150_AF2_GND	Enablers for Airport Surface Movement related to Safety Nets	Rome Fiumicino	
#067AF5	Coflight-eFDP System Development	ENAV	✓	2016_159_AF6	DLS Implementation Project – Path 2	ENAV	✓
2015_198_AF5	Implementation of ENAV "LAN Servizi"	ENAV	✓	2016_161_AF6	DLS Implementation Project – Path 1 "Ground" stakeholders	ENAV	✓
2015_201_AF5	Transition of current Aeronautical Information Management System to EAD	ENAV	✓	2017_004_AF1	Flight Crew Training for RNPI Operations	Air Dolomiti	
2015_202_AF3	ASM tool Implementation	ENAV	✓	2017_020_AF5	Initial SWIM security deployment	Rome Fiumicino	✓
2015_204_AF3	4-Flight deployment in Italy 2016-2017 (Phase I)	ENAV	✓	2017_022_AF2	Synchronized stakeholder decision on process optimization at airport level	ENAV, Rome Fiumicino, SEA Milano Airports	
2015_204_AF3	4-Flight deployment in Italy 2019-2020 (Phase II)	ENAV		2017_040_AF5	AERONET/ENET2 Interoperability	ENAV, Italian MOD	
2016_027_AF5	European Deployment Roadmap for Flight Object Interoperability	ENAV	✓	2017_041_AF3	ASM - LARA Enhancement – Implementation in Italy	ENAV, Italian MOD	
2016_089_AF6	2016_089_AF6_IT_ITAF ATC Control Systems to i4D	Italian MOD, ENAV	✓	2017_042_AF3	Automatic Tactical Controller Tool implementation	ENAV, Italian MOD	
2016_092_AF5	2016_092_AF5_ITAF WAN	Italian MOD		2017_043_AF3	Coflight-eFDP Development (Step 2)	ENAV	✓
2016_108_AF5	ENAV ADQ – Aeronautical Data Quality system interface evolution (ADQ2)	ENAV		2017_045_AF4	ENAV Deployment of traffic complexity tool and STAM phase 2	ENAV	
2016_109_AF5	BLUEMED FAB IP Network deployment	ENAV		2017_052_AF4	AOP-NOP Integration - Extended Implementation	Rome Fiumicino, SEA Milano Airports	
2016_110_AF3	ENAV Automated ENV Data Interchange for FDP/ERATO	ENAV	✓	2017_069_AF5	Italian Air Force Integrated Briefing	Italian MOD	✓
2016_114_AF4	ENAV Traffic Complexity Tool Implementation	ENAV	✓	2017_084_AF5	SWIM Common PKI and policies & procedures for establishing a Trust framework	ENAV	
2016_115_AF3	ENAV 4-Flight Deployment in Italy – Third Stage 2017-2018	ENAV	✓	2017_089_AF6	IPI - DLS European Target Solution assessment	ENAV, Leonardo – Finmeccanica	✓

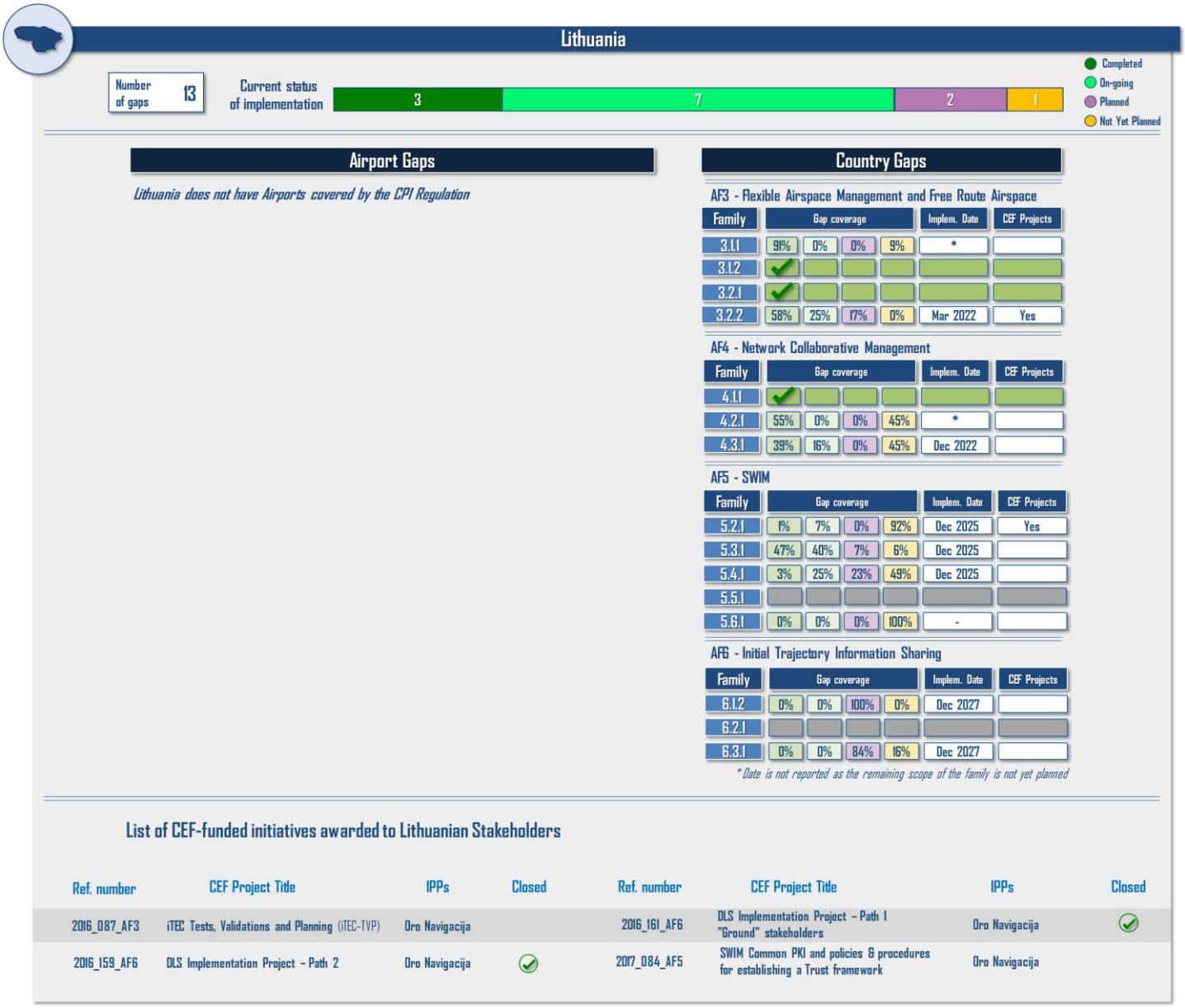
Latvia



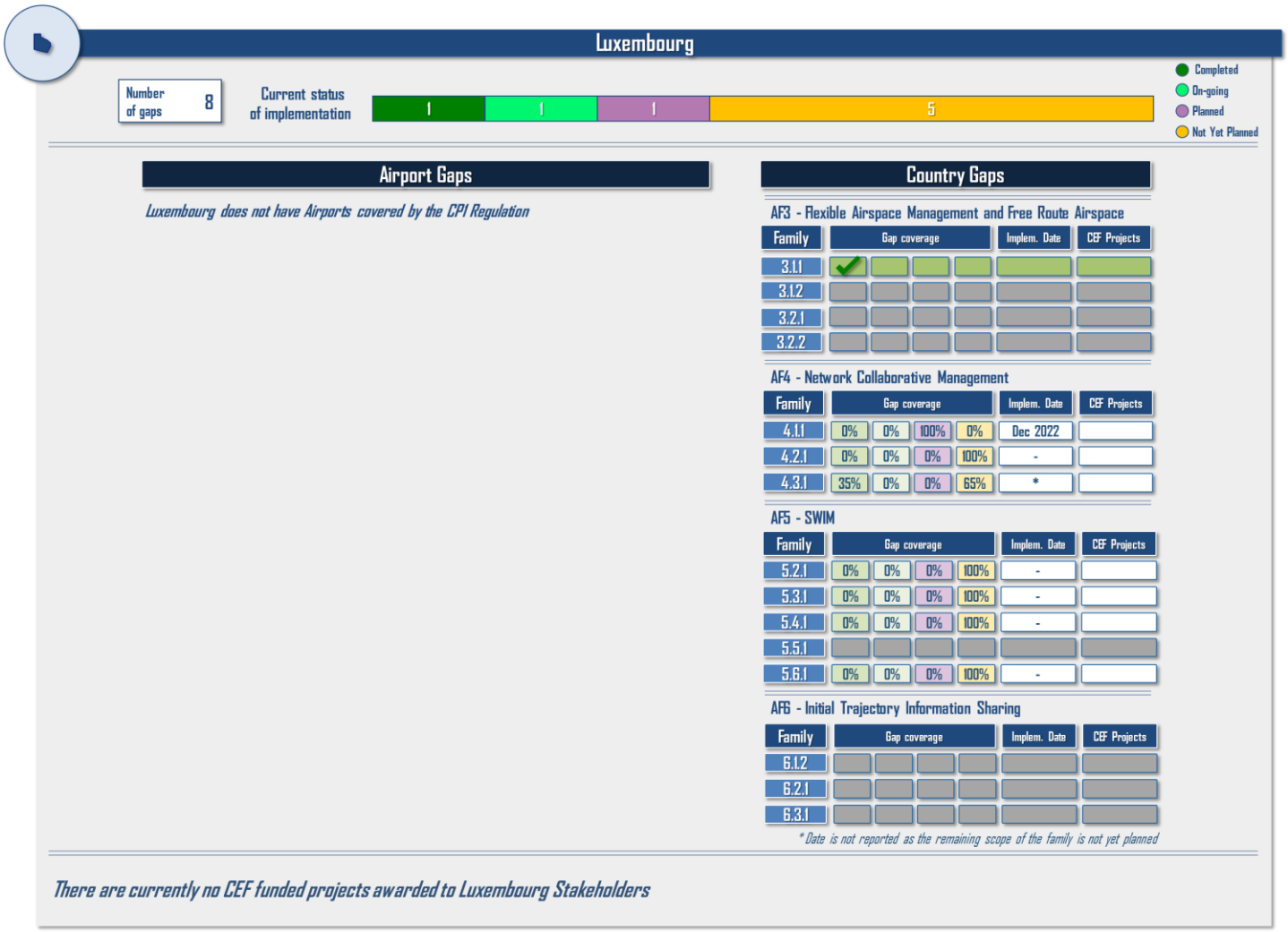
List of CEF-funded initiatives awarded to Latvian Stakeholders

Ref. number	CEF Project Title	IPPs	Closed	Ref. number	CEF Project Title	IPPs	Closed
#020AF3	Borealis Free Route Airspace (Part I)	LGS	✓	2016_161_AF6	DLS Implementation Project – Path I "Ground" stakeholders	LGS	✓
2015_227_AF3_A	Borealis FRA Implementation (Part 2)	LGS		2016_163_AF6	CPDLC Implementation in the Riga FIR	LGS	✓
2016_159_AF6	DLS Implementation Project – Path 2	LGS	✓				

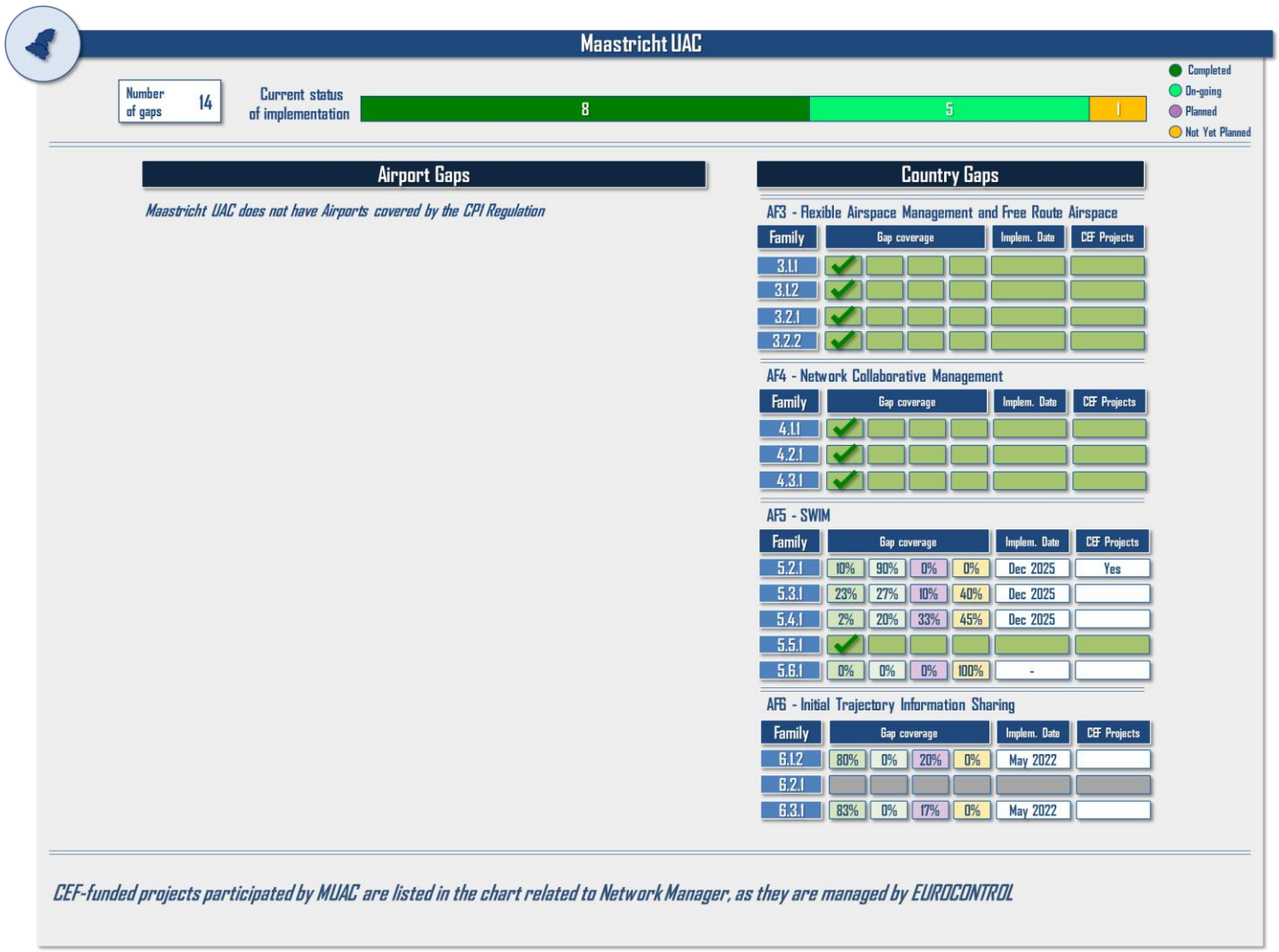
Lithuania


Lithuania
Number of gaps 13
Current status of implementation
3
7
2
1
Completed
On-going
Planned
Not Yet Planned
Airport Gaps
Lithuania does not have Airports covered by the CPI Regulation
Country Gaps
AF3 - Flexible Airspace Management and Free Route Airspace
Family | Gap coverage | Implem. Date | CEF Projects
3.1.1 | 91% | 0% | 0% | 9% | *
3.1.2 | ✓
3.2.1 | ✓
3.2.2 | 58% | 25% | 17% | 0% | Mar 2022 | Yes
AF4 - Network Collaborative Management
Family | Gap coverage | Implem. Date | CEF Projects
4.1.1 | ✓
4.2.1 | 55% | 0% | 0% | 45% | *
4.3.1 | 39% | 16% | 0% | 45% | Dec 2022
AF5 - SWIM
Family | Gap coverage | Implem. Date | CEF Projects
5.2.1 | 1% | 7% | 0% | 92% | Dec 2025 | Yes
5.3.1 | 47% | 40% | 7% | 6% | Dec 2025
5.4.1 | 3% | 25% | 23% | 49% | Dec 2025
5.5.1
5.6.1 | 0% | 0% | 0% | 100% | -
AF6 - Initial Trajectory Information Sharing
Family | Gap coverage | Implem. Date | CEF Projects
6.1.2 | 0% | 0% | 100% | 0% | Dec 2027
6.2.1
6.3.1 | 0% | 0% | 84% | 16% | Dec 2027
* Date is not reported as the remaining scope of the family is not yet planned
List of CEF-funded initiatives awarded to Lithuanian Stakeholders
Ref. number | CEF Project Title | IPPs | Closed | Ref. number | CEF Project Title | IPPs | Closed
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 | ✓ | 2017_084_AF5 | SWIM Common PKI and policies & procedures for establishing a Trust framework | Oro Navigacija |

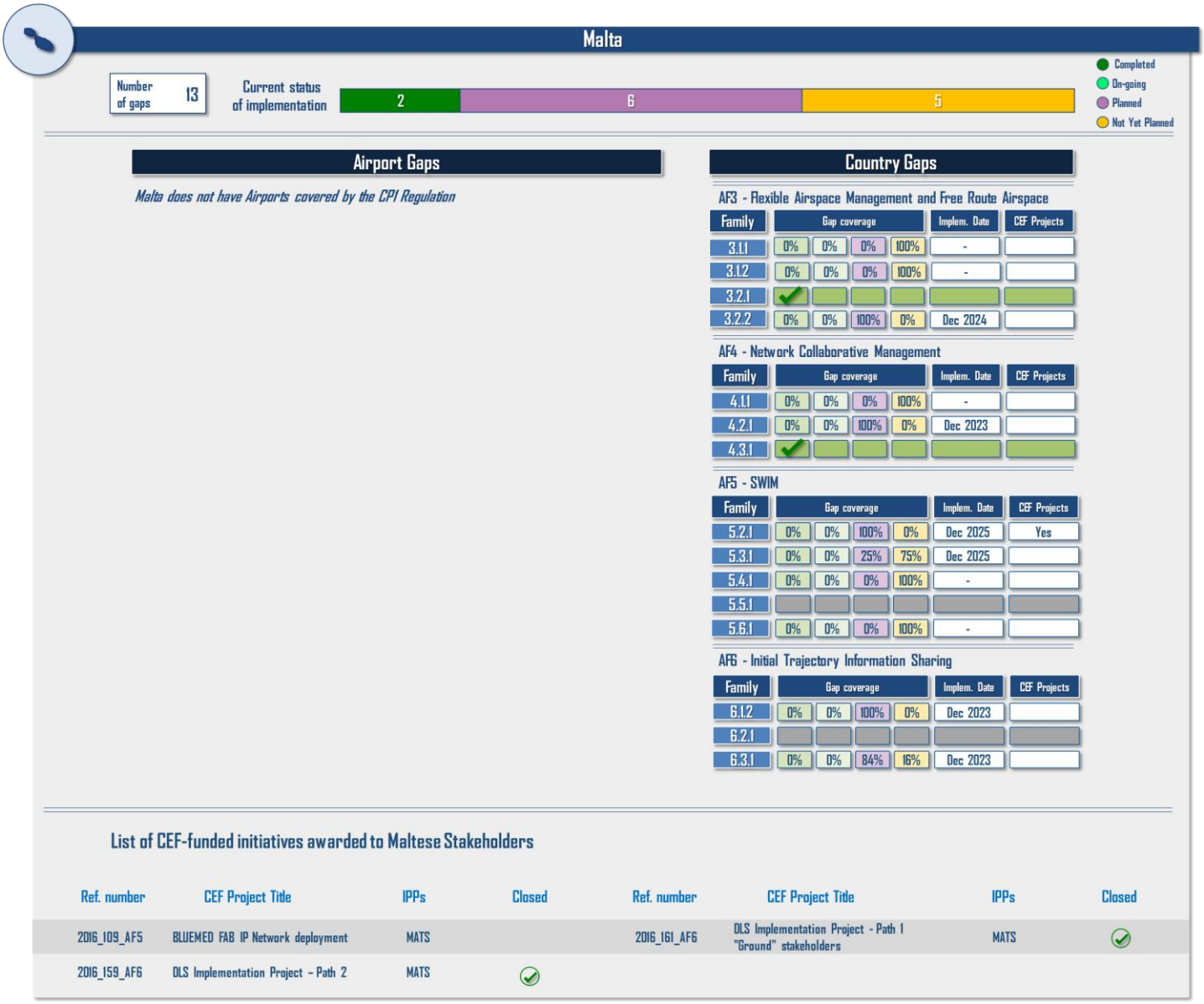
Luxembourg


Luxembourg
Number of gaps 8
Current status of implementation
1
1
1
5
Completed
On-going
Planned
Not Yet Planned
Airport Gaps
Luxembourg does not have Airports covered by the CPI Regulation
Country Gaps
AF3 - Flexible Airspace Management and Free Route Airspace
Family
Gap coverage
Implem. Date
CEF Projects
3.1.1
3.1.2
3.2.1
3.2.2
AF4 - Network Collaborative Management
4.1.1 0% 0% 100% 0% Dec 2022
4.2.1 0% 0% 0% 100% -
4.3.1 35% 0% 0% 65% *
AF5 - SWIM
5.2.1 0% 0% 0% 100% -
5.3.1 0% 0% 0% 100% -
5.4.1 0% 0% 0% 100% -
5.5.1
5.6.1 0% 0% 0% 100% -
AF6 - Initial Trajectory Information Sharing
6.1.2
6.2.1
6.3.1
* Date is not reported as the remaining scope of the family is not yet planned
There are currently no CEF funded projects awarded to Luxembourg Stakeholders

Maastricht Upper Area Control Center



Malta


Malta
Number of gaps 13
Current status of implementation
2
6
5
Completed
On-going
Planned
Not Yet Planned
Airport Gaps
Malta does not have Airports covered by the CPI Regulation
Country Gaps
AF3 - Flexible Airspace Management and Free Route Airspace
Family | Gap coverage | Implem. Date | CEF Projects
3.1.1 | 0% | 0% | 0% | 100% | - |
3.1.2 | 0% | 0% | 0% | 100% | - |
3.2.1 | ✓ |
3.2.2 | 0% | 0% | 100% | 0% | Dec 2024 |
AF4 - Network Collaborative Management
Family | Gap coverage | Implem. Date | CEF Projects
4.1.1 | 0% | 0% | 0% | 100% | - |
4.2.1 | 0% | 0% | 100% | 0% | Dec 2023 |
4.3.1 | ✓ |
AF5 - SWIM
Family | Gap coverage | Implem. Date | CEF Projects
5.2.1 | 0% | 0% | 100% | 0% | Dec 2025 | Yes
5.3.1 | 0% | 0% | 25% | 75% | Dec 2025 |
5.4.1 | 0% | 0% | 0% | 100% | - |
5.5.1 |
5.6.1 | 0% | 0% | 0% | 100% | - |
AF6 - Initial Trajectory Information Sharing
Family | Gap coverage | Implem. Date | CEF Projects
6.1.2 | 0% | 0% | 100% | 0% | Dec 2023 |
6.2.1 |
6.3.1 | 0% | 0% | 84% | 16% | Dec 2023 |
List of CEF-funded initiatives awarded to Maltese Stakeholders
Ref. number | CEF Project Title | IPPs | Closed | Ref. number | CEF Project Title | IPPs | Closed
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 | ✓

Netherlands

Netherlands

Number of gaps: 16

Current status of implementation: 1 | 10 | 2 | 3

Completed
On-going
Planned
Not Yet Planned

Airport Gaps

AF1 - Extended AMAN and Integrated AMAN/DMAN in the high-density TMA

Family	Airport	Gap coverage				Implem. Date	CEF Projects
1.1.1	Amsterdam Schiphol	0%	0%	100%	0%	Dec 2024	Yes
1.2.1	Amsterdam Schiphol						

AF2 - Airport Integration Throughput

Family	Airport	Gap coverage				Implem. Date	CEF Projects
2.1.1	Amsterdam Schiphol	22%	63%	15%	0%	Jul 2025	
2.2.1	Amsterdam Schiphol	✓					Yes
2.2.2	Amsterdam Schiphol	0%	0%	0%	100%	-	
2.3.1	Amsterdam Schiphol	61%	39%	0%	0%	Dec 2025	Yes

AF4 - Network Collaborative Management

Family	Airport	Gap coverage				Implem. Date	CEF Projects
4.2.2	Amsterdam Schiphol	28%	72%	0%	0%	May 2022	Yes
4.4.1	Amsterdam Schiphol	0%	0%	0%	100%	-	

Country Gaps

AF3 - Flexible Airspace Management and Free Route Airspace

Family	Gap coverage				Implem. Date	CEF Projects
3.1.1						
3.1.2	0%	0%	0%	100%	-	
3.2.1						
3.2.2						

AF4 - Network Collaborative Management

Family	Gap coverage				Implem. Date	CEF Projects
4.1.1	16%	44%	40%	0%	Dec 2022	
4.2.1	6%	50%	25%	19%	Dec 2023	
4.3.1	34%	31%	35%	0%	Mar 2024	Yes

AF5 - SWIM

Family	Gap coverage				Implem. Date	CEF Projects
5.2.1	2%	10%	44%	44%	Dec 2025	Yes
5.3.1	1%	12%	87%	0%	Dec 2025	Yes
5.4.1	4%	51%	43%	2%	Dec 2025	Yes
5.5.1	3%	0%	93%	4%	Dec 2025	
5.6.1	0%	0%	100%	0%	Dec 2025	

AF6 - Initial Trajectory Information Sharing

Family	Gap coverage				Implem. Date	CEF Projects
6.1.2						
6.2.1						
6.3.1						

List of CEF-funded initiatives awarded to Dutch Stakeholders

Ref. number	CEF Project Title	IPPs	Closed	Ref. number	CEF Project Title	IPPs	Closed
#107AF1	First phase of RNAV1 and RNP-APCH approaches Amsterdam Schiphol (EHAM)	LVNL	✓	2015_253_AF1_A_AIR	RNP 1.0, RNP 0.3 & SBAS for E3A AWACS for CEF eligible Nations and third party	NAPMA	✓
#108AF2	Electronic Flight Strips at Schiphol TWR	LVNL	✓	2015_253_AF1_A_GND	RNP 1.0, RNP 0.3 & SBAS for E3A AWACS for CEF eligible Nations and third party	NAPMA	✓
#109AF2	Airport CDM implementation Schiphol	Amsterdam Schiphol, KLM, LVNL	✓	2015_253_AF1_B	RNP 1.0, RNP 0.3 & SBAS for E3A AWACS for Cohesion eligible States	NAPMA	✓
#110AF5	Meteorological Information Exchange by MET ANSP KNMI	KNMI		2016_023_AF1	XMAN - Cross-center arrival management - Part 2	LVNL	
2015_137_AF5	European Meteorological Aircraft Derived Data Center (EMADDC)	KNMI		2016_026_AF3	System Procurement for Deployment of PCP Air Traffic Control System iCAS at DFS and LVNL	LVNL	
2015_165_AF1	Amsterdam Schiphol AMAN 1.0	LVNL	✓	2016_027_AF5	European Deployment Roadmap for Flight Object Interoperability	LVNL	✓
2015_166_AF1	Amsterdam Schiphol AMAN 2.0	LVNL		2016_131_AF4	AOP-NOP Integration - Extended Implementation	Amsterdam Schiphol	
2015_167_AF4	Workload model for Amsterdam Area Control and Approach Control operations	LVNL		2016_143_AF5	ATM Network 2.0 Amsterdam	LVNL	
2015_168_AF5	Implementation of Aeronautical Data Quality (ADQ) at LVNL	LVNL	✓	2016_150_AF2_GND	Enablers for Airport Surface Movement related to Safety Nets	Amsterdam Schiphol	
2015_169_AF5	Initial (I)WXXM implementation on CCIS Amsterdam ACC and Schiphol	LVNL	✓	2016_159_AF6	DLS Implementation Project – Path 2	SITA	
2015_174_AF5_A	NewPENS Stakeholders contribution for the procurement and deployment of NewPENS	LVNL	✓	2016_161_AF6	DLS Implementation Project – Path 1 "Ground" stakeholders	SITA	✓
2015_178_AF2	Implementation of AOP Schiphol Airport	Amsterdam Schiphol, KNMI	✓	2017_031_AF3	Procurement and Deployment of PCP ATC System iCAS at DFS Munich and Bremen and LVNL Amsterdam	LVNL	
2015_179_AF4	Implementation of APOC Schiphol Airport	Amsterdam Schiphol, KNMI		2017_063_AF2	A-SMGCS High Performance Surveillance enhancement to support routing & planning functions	LVNL	
2015_186_AF1	RNP approaches to three main landing runways Amsterdam Schiphol	LVNL	✓	2017_064_AF1	Final phase RNP APCH procedures Amsterdam Schiphol	LVNL	
2015_187_AF2	TWR System at Amsterdam Schiphol	LVNL		2017_065_AF5	LVNL Nation wide managed network supporting SWIM	LVNL	
2015_190_AF3	Deployment of ATC System iCAS: Implementation of ATM PCP Funct. at LVNL and DFS	LVNL		2017_084_AF5	SWIM Common PKI and policies & procedures for establishing a Trust framework	LVNL	
2015_196_AF1_A	XMAN - Cross-Centre arrival management	LVNL		2017_089_AF6	IPI - DLS European Target Solution assessment	SITA	✓

Network Manager

Network Manager

Total # of closed gaps 2

Total # of open gaps 14

Chart Key per Stakeholders

- Completed with CEF funding
- Completed without CEF funding
- Fully covered by on-going CEF projects
- On-going with CEF funding
- On-going without CEF funding
- Planned
- Not yet planned
- Not applicable
- No information available

Family	Currently deployed	On-going	Planned	Not Yet Planned	Implementation date	Implementation Status by Operational Stakeholder Category
						Network Manager
3.1.1	80%	20%	0%	0%	Dec 2022	
3.1.2	70%	30%	0%	0%	Dec 2022	
3.2.1	85%	15%	0%	0%	Dec 2022	
3.2.2	50%	50%	0%	0%	Dec 2025	
4.1.1	80%	20%	0%	10%	Dec 2022	
4.2.1	70%	30%	0%	0%	Dec 2023	
4.2.2	65%	35%	0%	10%	Dec 2023	
4.3.1	85%	15%	0%	0%	Dec 2022	
4.4.1	5%	0%	0%	95%	Dec 2027	
5.2.1	90%	10%	0%	0%	Dec 2022	
5.3.1	✓					
5.4.1	0%	0%	0%	100%	-	
5.5.1	✓					
5.6.1	90%	10%	0%	0%	Dec 2023	
6.2.1	0%	0%	0%	100%	-	
6.3.1	0%	0%	0%	100%	-	

Network Manager

Number of gaps: 16

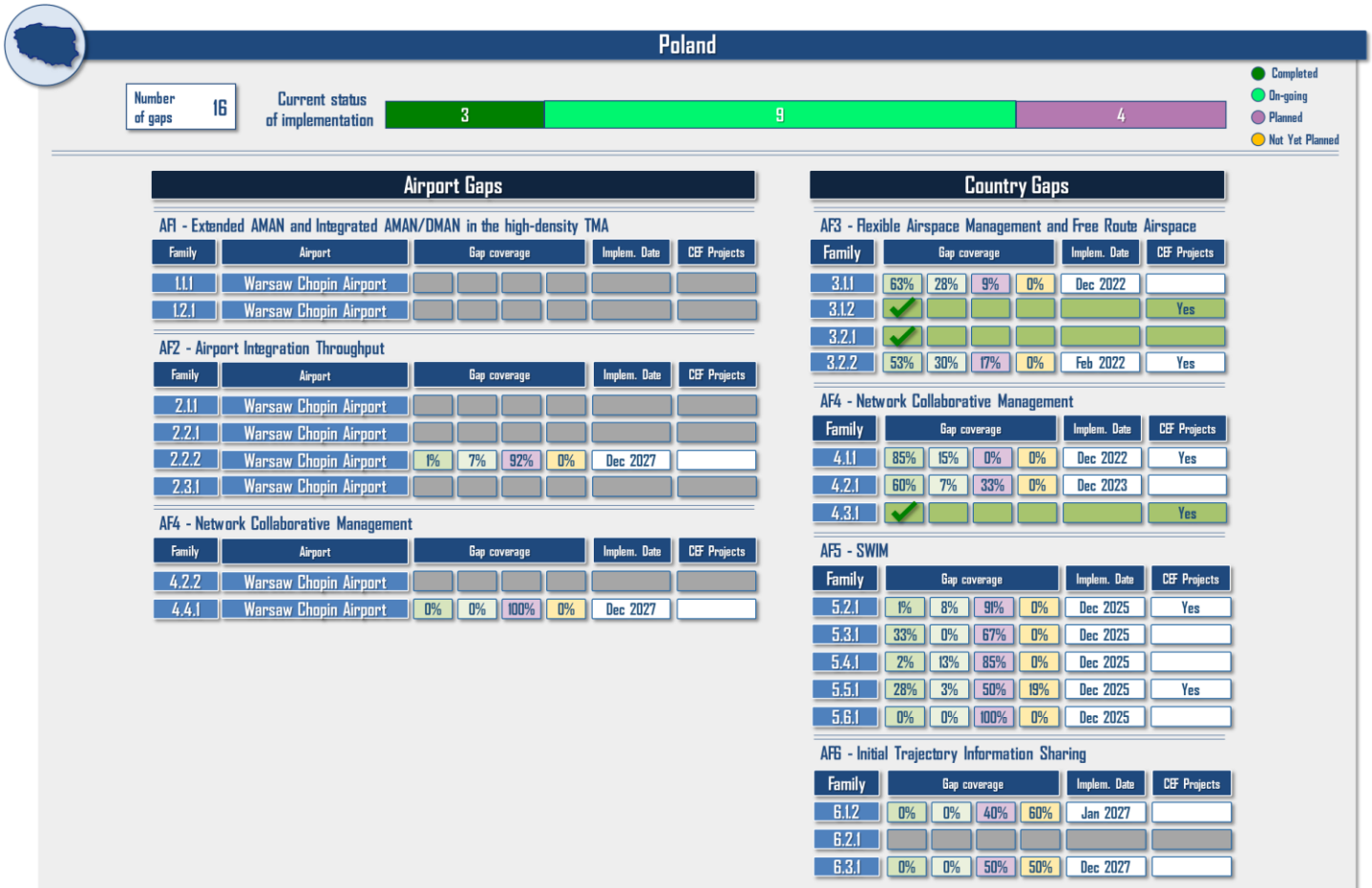
Current status of implementation: 2 | 11 | 3

Completed
On-going
Planned
Not Yet Planned

List of CEF-funded initiatives awarded to Eurocontrol/Network Manager

Ref. number	CEF Project Title	IPPs	Closed	Ref. number	CEF Project Title	IPPs	Closed
#073AF5	SWIM Common Components	ECTL / Network Manager	✓	2015_145_AF5_A	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	✓
#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 / Network Manager	
#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_319_AF5	SWIM Common Components - Phase 2	ECTL / Network Manager	
#082AF5	SWIM compliance of NM systems	ECTL / Network Manager	✓	2016_023_AF1	XMAN - Cross-center arrival management - Part 2	ECTL / Network Manager	
#083AF1	AMAN extended to en-route	ECTL / Network Manager	✓	2016_027_AF5	European Deployment Roadmap for Flight Object	ECTL / Network Manager	✓
2015_067_AF5	European Weather Radar Composite of Convection Information Service	ECTL / Network Manager	✓	2016_129_AF5	NewPENS Stakeholders contribution for the procurement and deployment of NewPENS	ECTL / Network Manager	✓
2015_068_AF5	European Harmonised Forecasts of Adverse Weather	ECTL / Network Manager	✓	2016_131_AF4	AOP-NOP Integration - Extended Implementation	ECTL / Network Manager, Brussels National	
2015_069_AF5	European MET Information Exchange (MET-GATE)	ECTL / Network Manager	✓	2016_133_AF3	NM system management of real time airspace data	ECTL / Network Manager	✓
2015_101_AF1	Network Support to extended Arrival Management	ECTL / Network Manager	✓	2016_134_AF3	Implementation of rolling ASM/ATFCM	ECTL / Network Manager	
2015_105_AF4	Interactive Rolling Network Operations Planning	ECTL / Network Manager		2016_135_AF3	Implementation of pre-defined airspace configuration	ECTL / Network Manager	✓
2015_106_AF4	Flight evolution and upgrade of interfaces with NM stakeholders	ECTL / Network Manager	✓	2016_141_AF5	Deploy SWIM governance	EUMETNET EIG, Eurocontrol	✓
2015_107_AF3	NM Systems upgrades in support of DCTs and FRA	ECTL / Network Manager	✓	2017_037_AF2	TBS deployment at Paris CDG	ECTL / Network Manager	
2015_110_AF4	STAM Phase 2 (NM)	ECTL / Network Manager		2017_052_AF4	AOP-NOP Integration - Extended Implementation	ECTL / Network Manager	
2015_112_AF5	Integrate the Aeronautical Information Exchange Services in NM Systems	ECTL / Network Manager	✓	2017_053_AF3	Implementation of rolling ASM/ATFCM	ECTL / Network Manager	
2015_113_AF4	AOP-NOP Integration	ECTL / Network Manager		2017_054_AF4	Network Collaborative Management	ECTL / Network Manager	
2015_114_AF4	Implementation of Target Times for ATFCM purposes (NM)	ECTL / Network Manager	✓	2017_055_AF3	NM Systems upgrades in support of FRA	ECTL / Network Manager	✓
2015_115_AF4	Traffic Complexity Management	ECTL / Network Manager	✓	2017_056_AF5	Towards Shared Business Trajectory / Trajectory Based Operations	ECTL / Network Manager	
2015_117_AF5	Improve NM SWIM Infrastructure	ECTL / Network Manager	✓	2017_058_AF2	ITWP4LOWW (Integrated Tower Working Position for Vienna Schwechat)	ECTL / Network Manager	✓
2015_141_AF5	Improve NM Flight Information Exchange Services	ECTL / Network Manager	✓	2017_084_AF5	SWIM Common PKI and policies & procedures for establishing a Trust framework	ECTL / Network Manager	
2015_143_AF5	Improve Cooperative Network Information Exchange Services	ECTL / Network Manager	✓	2017_089_AF6	IPI - DLS European Target Solution assessment	ECTL / Network Manager	✓

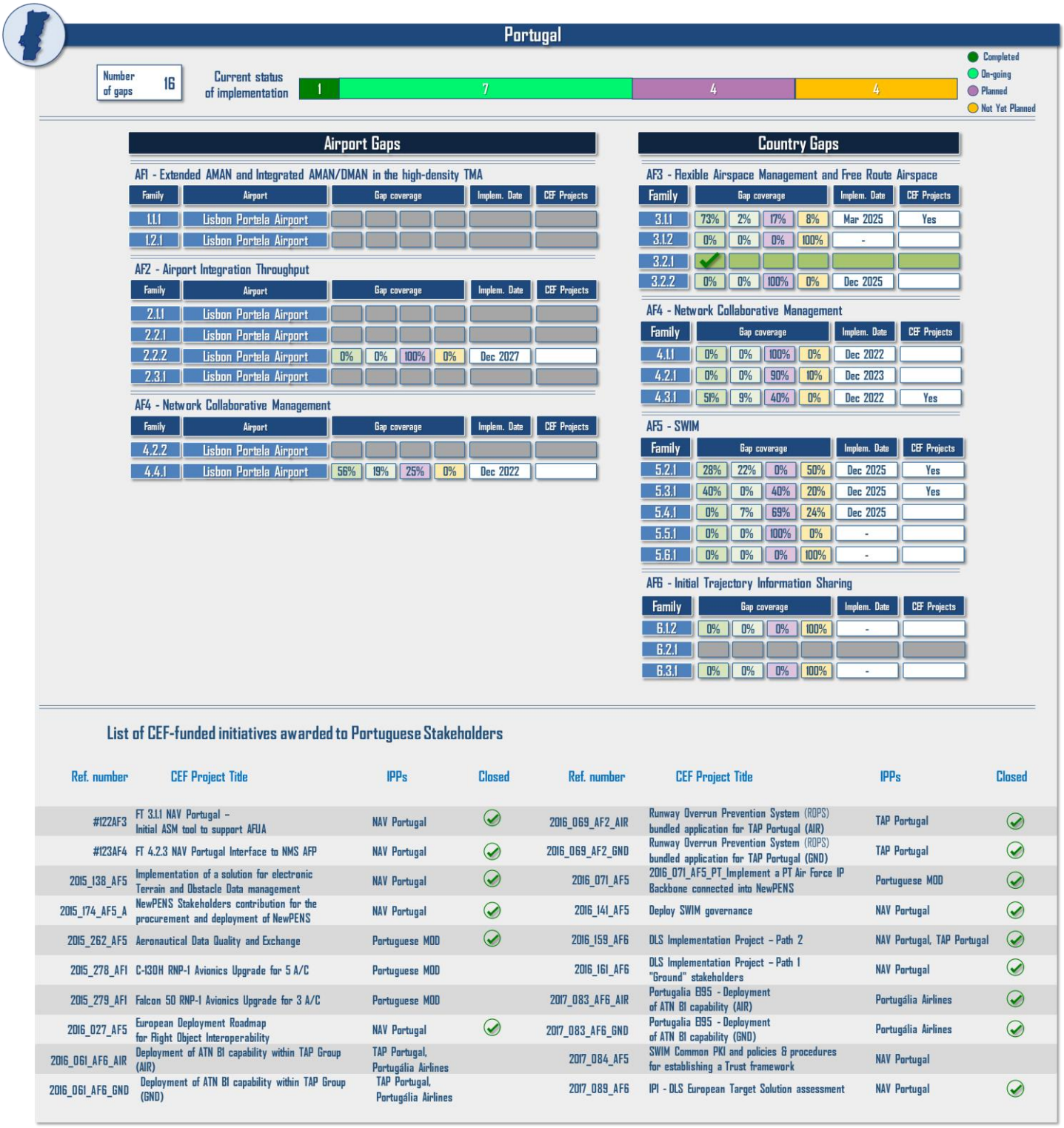
Poland



List of CEF-funded initiatives awarded to Polish Stakeholders

Ref. number	CEF Project Title	IPPs	Closed	Ref. number	CEF Project Title	IPPs	Closed
#131AF3	st part of the upgrade of the P_21 PEGASUS system to SESAR functionalities - Test and Validation Platform	PANSA	✓	2016_129_AF5	NewPENS Stakeholders contribution for the procurement and deployment of NewPENS	PANSA	✓
2015_021_AF4	Slot Manager for PCP airports	SABRE Polska	✓	2016_134_AF3	Implementation of rolling ASM/ATFCM	LH Systems Poland, SABRE Polska	
2015_035_AF5	The LAN network upgrade	PANSA	✓	2016_141_AF5	Deploy SWIM governance	PANSA	✓
2015_038_AF5	The ECG Communication System upgrade	PANSA	✓	2016_159_AF6	DLS Implementation Project – Path 2	PANSA	✓
2015_106_AF4	Flight evolution and upgrade of interfaces with NM stakeholders	SABRE Polska	✓	2016_161_AF6	DLS Implementation Project - Path 1 "Ground" stakeholders	PANSA	✓
2015_107_AF3	NM Systems upgrades in support of DCTs and FRA	SABRE Polska	✓	2016_162_AF6	IMPLEMENTATION OF DATA LINK SERVICES FOR THE ATM IN FIR WARSAW	PANSA	✓
2015_110_AF4	STAM Phase 2 (NM)	SABRE Polska		2017_002_AF5	Aeronautical Information Exchange system for Airlines FOC at Lufthansa & Air France	LH Systems Poland	
2015_114_AF4	Implementation of Target Times for ATFCM purposes (NM)	SABRE Polska	✓	2017_053_AF3	Implementation of rolling ASM/ATFCM	LH Systems Poland, SABRE Polska	
2016_027_AF5	European Deployment Roadmap for Flight Object Interoperability	PANSA	✓	2017_056_AF5	Towards Shared Business Trajectory / Trajectory Based Operations	LH Systems Poland, SABRE Polska	
2016_085_AF3	ATM System Upgrade Towards Free Route Airspace	PANSA	✓	2017_057_AF4	Local traffic complexity management	PANSA	✓
2016_087_AF3	iTEC Tests, Validations and Planning (iTEC - TVP)	PANSA		2017_076_AF5	Meteorological Information Exchange service for Airlines FOC at Lufthansa & Air France	LH Systems Poland	
2016_100_AF4	Provision of EFPL data and initial FF-ICE/ 1 readiness	LH Systems Poland		2017_084_AF5	SWIM Common PKI and policies & procedures for establishing a Trust framework	PANSA	
2016_121_AF3	Free Route	LH Systems Poland		2017_089_AF6	IPI - DLS European Target Solution assessment	PANSA	✓
2016_123_AF4	STAM Phase 2 in combination with Target Times	LH Systems Poland					

Portugal



List of CEF-funded initiatives awarded to Portuguese Stakeholders

Ref. number	CEF Project Title	IPPs	Closed	Ref. number	CEF Project Title	IPPs	Closed
#122AF3	FT 3.1.1 NAV Portugal – Initial ASM tool to support AFUA	NAV Portugal	✓	2016_069_AF2_AIR	Runway Overrun Prevention System (ROPS) bundled application for TAP Portugal (AIR)	TAP Portugal	✓
#123AF4	FT 4.2.3 NAV Portugal Interface to NMS AFP	NAV Portugal	✓	2016_069_AF2_GND	Runway Overrun Prevention System (ROPS) bundled application for TAP Portugal (GND)	TAP Portugal	✓
2015_138_AF5	Implementation of a solution for electronic Terrain and Obstacle Data management	NAV Portugal	✓	2016_071_AF5	2016_071_AF5_PT_Implement a PT Air Force IP Backbone connected into NewPENS	Portuguese MOD	✓
2015_174_AF5_A	NewPENS Stakeholders contribution for the procurement and deployment of NewPENS	NAV Portugal	✓	2016_141_AF5	Deploy SWIM governance	NAV Portugal	✓
2015_262_AF5	Aeronautical Data Quality and Exchange	Portuguese MOD	✓	2016_159_AF6	DLS Implementation Project – Path 2	NAV Portugal, TAP Portugal	✓
2015_278_AF1	C-130H RNP-1 Avionics Upgrade for 5 A/C	Portuguese MOD		2016_161_AF6	DLS Implementation Project – Path 1 "Ground" stakeholders	NAV Portugal	✓
2015_279_AF1	Falcon 50 RNP-1 Avionics Upgrade for 3 A/C	Portuguese MOD		2017_083_AF6_AIR	Portugalia E195 - Deployment of ATN B1 capability (AIR)	Portugália Airlines	✓
2016_027_AF5	European Deployment Roadmap for Flight Object Interoperability	NAV Portugal	✓	2017_083_AF6_GND	Portugalia E195 - Deployment of ATN B1 capability (GND)	Portugália Airlines	✓
2016_061_AF6_AIR	Deployment of ATN B1 capability within TAP Group (AIR)	TAP Portugal, Portugália Airlines		2017_084_AF5	SWIM Common PKI and policies & procedures for establishing a Trust framework	NAV Portugal	
2016_061_AF6_GND	Deployment of ATN B1 capability within TAP Group (GND)	TAP Portugal, Portugália Airlines		2017_089_AF6	IPI - DLS European Target Solution assessment	NAV Portugal	✓

Romania

Romania

Number of gaps: 14

Current status of implementation: 2 | 5 | 2 | 5

Completed
On-going
Planned
Not Yet Planned

Airport Gaps

Romania does not have Airports covered by the CPI Regulation

Country Gaps

AF3 - Flexible Airspace Management and Free Route Airspace

Family	Gap coverage				Implem. Date	CEF Projects
3.1.1	50%	7%	0%	43%	Dec 2022	
3.1.2	6%	54%	40%	0%	Dec 2024	
3.2.1	✓					
3.2.2	✓					

AF4 - Network Collaborative Management

Family	Gap coverage				Implem. Date	CEF Projects
4.1.1	0%	0%	100%	0%	Dec 2022	
4.2.1	0%	0%	0%	100%	-	
4.3.1	37%	18%	45%	0%	May 2024	

AF5 - SWIM

Family	Gap coverage				Implem. Date	CEF Projects
5.2.1	0%	0%	0%	100%	-	
5.3.1	11%	23%	35%	31%	Dec 2025	
5.4.1	3%	24%	0%	73%	Dec 2025	Yes
5.5.1	0%	0%	40%	60%	Dec 2025	
5.6.1	0%	0%	0%	100%	-	

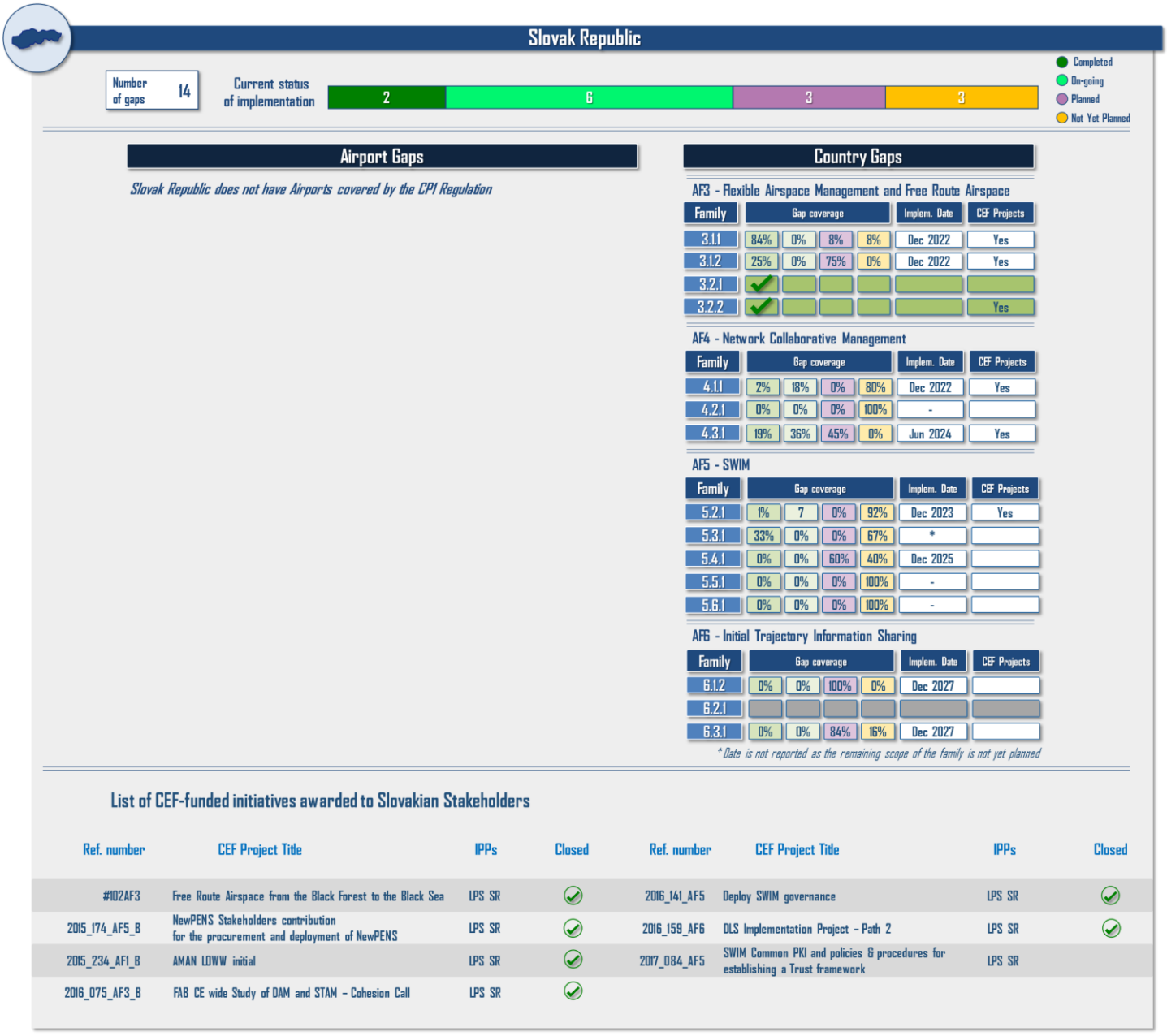
AF6 - Initial Trajectory Information Sharing

Family	Gap coverage				Implem. Date	CEF Projects
6.1.2	0%	0%	0%	100%	-	
6.2.1						
6.3.1	0%	0%	0%	100%	-	

List of CEF-funded initiatives awarded to Romanian Stakeholders

Ref. number	CEF Project Title	IPPs	Closed	Ref. number	CEF Project Title	IPPs	Closed
#134AF5	PILOT PLATFORM for access services to OPMET data (METAR, TAF, SIGMET) in WXXM format	ROMATSA	✓	2017_084_AF5	SWIM Common PKI and policies & procedures for establishing a Trust framework	ROMATSA	
2015_174_AF5_B	NewPENS Stakeholders contribution for the procurement and deployment of NewPENS	ROMATSA	✓				

Slovak Republic



List of CEF-funded initiatives awarded to Slovakian Stakeholders

Ref. number	CEF Project Title	IPPs	Closed	Ref. number	CEF Project Title	IPPs	Closed
#102AF3	Free Route Airspace from the Black Forest to the Black Sea	LPS SR	✓	2016_141_AF5	Deploy SWIM governance	LPS SR	✓
2015_174_AF5_B	NewPENS Stakeholders contribution for the procurement and deployment of NewPENS	LPS SR	✓	2016_159_AF6	DLS Implementation Project – Path 2	LPS SR	✓
2015_234_AF1_B	AMAN LDWW initial	LPS SR	✓	2017_084_AF5	SWIM Common PKI and policies & procedures for establishing a Trust framework	LPS SR	
2016_075_AF3_B	FAB CE wide Study of DAM and STAM – Cohesion Call	LPS SR	✓				

Slovenia

Slovenia

Number of gaps: 13

Current status of implementation: 2 | 4 | 5 | 2

Completed
On-going
Planned
Not Yet Planned

Airport Gaps

Slovenia does not have Airports covered by the CPI Regulation

Country Gaps

AF3 - Flexible Airspace Management and Free Route Airspace

Family	Gap coverage				Implem. Date	CEF Projects
3.1.1	1%	11%	12%	76%	Dec 2023	Yes
3.1.2	4%	36%	60%	0%	Dec 2022	Yes
3.2.1	✓					
3.2.2	✓					Yes

AF4 - Network Collaborative Management

Family	Gap coverage				Implem. Date	CEF Projects
4.1.1	0%	0%	100%	0%	Dec 2024	Yes
4.2.1	0%	0%	100%	0%	Dec 2023	
4.3.1	30%	5%	65%	0%	Dec 2022	Yes

AF5 - SWIM

Family	Gap coverage				Implem. Date	CEF Projects
5.2.1	0%	0%	50%	50%	Dec 2024	Yes
5.3.1	0%	0%	0%	100%	-	
5.4.1	2%	18%	7%	73%	Dec 2024	
5.5.1						
5.6.1	0%	0%	0%	100%	-	

AF6 - Initial Trajectory Information Sharing

Family	Gap coverage				Implem. Date	CEF Projects
6.1.2	0%	0%	100%	0%	Dec 2027	
6.2.1						
6.3.1	0%	0%	84%	16%	Dec 2027	

List of CEF-funded initiatives awarded to Slovenian Stakeholders

Ref. number	CEF Project Title	IPPs	Closed	Ref. number	CEF Project Title	IPPs	Closed
#102AF3	Free Route Airspace from the Black Forest to the Black Sea	Slovenia Control, FAB CE	✓	2016_075_AF3_A	FAB CE wide Study of DAM and STAM – General Call	Slovenia Control, FAB CE	✓
2015_174_AF5_A	NewPENS Stakeholders contribution for the procurement and deployment of NewPENS	Slovenia Control	✓	2016_075_AF3_B	FAB CE wide Study of DAM and STAM – Cohesion Call	FAB CE	✓
2016_030_AF6	Air Ground Datalink Implementation	Slovenia Control	✓	2017_084_AF5	SWIM Common PKI and policies & procedures for establishing a Trust framework	Slovenia Control	

Spain

Spain

Number of gaps: 37

Current status of implementation: 23 | 14

Completed
On-going
Planned
Not Yet Planned

Airport Gaps

AF1 - Extended AMAN and Integrated AMAN/DMAN in the high-density TMA

Family	Airport	Gap coverage				Implem. Date	CEF Projects
1.1.1	Barcelona-El Prat Airport	8%	25%	67%	0%	Dec 2024	Yes
1.1.1	Adolfo S.Madrid Barajas Airport	7%	10%	83%	0%	Dec 2024	Yes
1.1.1	Palma de Mallorca Airport	7%	10%	83%	0%	Dec 2024	Yes
1.1.1	Malaga - Costa del Sol Airport						
1.2.1	Barcelona-El Prat Airport						
1.2.1	Adolfo S.Madrid Barajas Airport						
1.2.1	Palma de Mallorca Airport						
1.2.1	Malaga - Costa del Sol Airport						

AF2 - Airport Integration Throughput

Family	Airport	Gap coverage				Implem. Date	CEF Projects
2.1.1	Barcelona-El Prat Airport	15%	0%	85%	0%	Dec 2022	Yes
2.1.1	Adolfo S.Madrid Barajas Airport	15%	0%	85%	0%	Dec 2022	Yes
2.1.1	Palma de Mallorca Airport	15%	0%	85%	0%	Dec 2022	Yes
2.1.1	Malaga - Costa del Sol Airport						
2.2.1	Barcelona-El Prat Airport	0%	0%	100%	0%	Dec 2023	
2.2.1	Adolfo S.Madrid Barajas Airport	0%	0%	100%	0%	Dec 2023	
2.2.1	Palma de Mallorca Airport	0%	0%	100%	0%	Dec 2023	
2.2.1	Malaga - Costa del Sol Airport						
2.2.2	Barcelona-El Prat Airport	0%	0%	100%	0%	Dec 2027	
2.2.2	Adolfo S.Madrid Barajas Airport	0%	0%	100%	0%	Dec 2027	
2.2.2	Palma de Mallorca Airport	0%	0%	100%	0%	Dec 2027	
2.2.2	Malaga - Costa del Sol Airport	0%	0%	100%	0%	Dec 2027	
2.3.1	Barcelona-El Prat Airport	15%	0%	85%	0%	Dec 2025	Yes
2.3.1	Adolfo S.Madrid Barajas Airport	6%	9%	85%	0%	Dec 2025	Yes
2.3.1	Palma de Mallorca Airport	15%	0%	85%	0%	Dec 2025	Yes
2.3.1	Malaga - Costa del Sol Airport						

AF4 - Network Collaborative Management

Family	Airport	Gap coverage				Implem. Date	CEF Projects
4.2.2	Barcelona-El Prat Airport	8%	30%	62%	0%	Dec 2023	Yes
4.2.2	Adolfo S.Madrid Barajas Airport	14%	29%	57%	0%	Dec 2023	Yes
4.2.2	Palma de Mallorca Airport	8%	30%	62%	0%	Dec 2023	Yes
4.2.2	Malaga - Costa del Sol Airport						
4.4.1	Barcelona-El Prat Airport	0%	0%	100%	0%	Dec 2027	
4.4.1	Adolfo S.Madrid Barajas Airport	0%	0%	100%	0%	Dec 2027	
4.4.1	Palma de Mallorca Airport	0%	0%	100%	0%	Dec 2027	
4.4.1	Malaga - Costa del Sol Airport	0%	0%	100%	0%	Dec 2027	

Country Gaps

AF3 - Flexible Airspace Management and Free Route Airspace

Family	Gap coverage				Implem. Date	CEF Projects
3.1.1	65%	26%	9%	0%	Dec 2022	Yes
3.1.2	8%	12%	80%	0%	Dec 2022	Yes
3.2.1	57%	26%	17%	0%	Apr 2022	Yes
3.2.2	6%	10%	84%	0%	Dec 2025	Yes

AF4 - Network Collaborative Management

Family	Gap coverage				Implem. Date	CEF Projects
4.1.1	2%	18%	80%	0%	Dec 2022	
4.2.1	20%	0%	80%	0%	Dec 2023	
4.3.1	42%	14%	44%	0%	Dec 2022	

AF5 - SWIM

Family	Gap coverage				Implem. Date	CEF Projects
5.2.1	1%	5%	94%	0%	Dec 2025	
5.3.1	38%	39%	23%	0%	Dec 2025	Yes
5.4.1	0%	0%	100%	0%	Dec 2025	
5.5.1	34%	21%	45%	0%	Dec 2025	
5.6.1	0%	0%	100%	0%	Dec 2025	

AF6 - Initial Trajectory Information Sharing

Family	Gap coverage				Implem. Date	CEF Projects
6.1.2	0%	0%	40%	60%	Dec 2027	
6.2.1						
6.3.1	32%	0%	34%	34%	Dec 2027	

Spain

Number of gaps 37

Current status of implementation: 23 | 14

Completed
On-going
Planned
Not Yet Planned

List of CEF-funded initiatives awarded to Spanish Stakeholders

Ref. number	CEF Project Title	IPPs	Closed	Ref. number	CEF Project Title	IPPs	Closed
#057AF2a	Fulfillment of the prerequisite EFS: Airport Integration and Throughput (Phase A)	ENAIRE	✓	2016_038_AF5	Implementation of an IP-based G/G data communication network in ENAIRE (REDAN)	ENAIRE	✓
#058AF2a	Fulfillment of the prerequisite A-SMGCS 2: Airport Integration and Throughput (Phase A)	ENAIRE	✓	2016_039_AF4	STAM Phase I Implementation in Spain	ENAIRE	✓
#059AF5	Implementation and operation of an IP-based G/G data communication network in ENAIRE	ENAIRE	✓	2016_040_AF3	Upgrade of trajectory management in SACTA-iTEC	ENAIRE	
#060AF1	ENAIRE reference geographic database (FT I.2.2)	ENAIRE	✓	2016_077_AF1	2016_077_AF1_ES_FALCON 900 compliance with RNP 1 and RNP APCH	Spanish Air Force	
#061AF1a	RNP APCH Implementation in Palma de Mallorca	ENAIRE	✓	2016_125_AF6_AIR	2016_125_AF6_ES_Airbus A310 ATN VDL2 Compliance (AIR)	Spanish Air Force	
2015_174_AF5_A	NewPENS Stakeholders contribution for the procurement and deployment of NewPENS	ENAIRE	✓	2016_125_AF6_GND	2016_125_AF6_ES_Airbus A310 ATN VDL2 Compliance (GND)	Spanish Air Force	✓
2015_210_AF5	AMHS/SWIM gateway	ENAIRE	✓	2016_126_AF6_AIR	2016_126_AF6_ES_FALCON 900 compliance with Air Ground ATN VDL2 Data Link (AIR)	Spanish Air Force	
2015_211_AF2	Fulfillment of the prerequisite A-SMGCS 2: Airport Integration and Throughput (2017-2019)	ENAIRE		2016_126_AF6_GND	2016_126_AF6_ES_FALCON 900 compliance with Air Ground ATN VDL2 Data Link (GND)	Spanish Air Force	
2015_212_AF2	Fulfillment of the prerequisite EFS: Airport Integration and Throughput (2017-2019)	ENAIRE	✓	2016_131_AF4	AOP-NOP Integration - Extended Implementation	AENA	
2015_215_AF1	RNP APCH Implementation in Madrid and Barcelona	ENAIRE		2016_141_AF5	Deploy SWIM governance	ENAIRE	✓
2015_221_AF3	Implementation of Voice over IP (VoIP) systems and services in ENAIRE	ENAIRE		2016_159_AF6	DLS Implementation Project – Path 2	ENAIRE	✓
2015_271_AF1	CECAF RNP Procedures Design	Spanish Air Force	✓	2016_161_AF6	DLS Implementation Project – Path 1 "Ground" stakeholders	ENAIRE	✓
2015_272_AF1_AIR	CECAF RNP Procedures Implementation (Pilots and Flight operators courses)	Spanish Air Force	✓	2017_018_AF5	SWIM-enabled OCC	Boeing	
2015_272_AF1_GND	CECAF RNP Procedures Implementation (Pilots and Flight operators courses)	Spanish Air Force	✓	2017_049_AF3	Electronic Flight Strip (EFS) in En-Route and TMA in SACTA system	ENAIRE	
2016_027_AF5	European Deployment Roadmap for Flight Object Interoperability	ENAIRE	✓	2017_050_AF3	Controller Working Position (CWP) upgrade	ENAIRE	
2016_035_AF5	ENAIRE exchange of Aeronautical Information Data in AIXM5.1	ENAIRE		2017_084_AF5	SWIM Common PKI and policies & procedures for establishing a Trust framework	Spanish Air Force	
2016_036_AF3	Deployment of SACTA-iTEC	ENAIRE		2017_089_AF6	IPI - DLS European Target Solution assessment	ENAIRE	✓
2016_037_AF3	Deployment of LARA System in Spain	ENAIRE, Spanish Air Force		2017_400_BLD	Implementation of Voice over IP (VoIP) in Barcelona ACC	ENAIRE	

Sweden

Sweden

Number of gaps: 21

Current status of implementation: 2 | 15 | 3 | 1

Completed
On-going
Planned
Not Yet Planned

Airport Gaps

AF1 - Extended AMAN and Integrated AMAN/DMAN in the high-density TMA

Family	Airport	Gap coverage				Implem. Date	CEF Projects
1.1.1	Stockholm Arlanda Airport	77%	3%	20%	0%	Dec 2024	Yes
1.2.1	Stockholm Arlanda Airport						

AF2 - Airport Integration Throughput

Family	Airport	Gap coverage				Implem. Date	CEF Projects
2.1.1	Stockholm Arlanda Airport	72%	21%	5%	2%	Dec 2022	Yes
2.2.1	Stockholm Arlanda Airport	54%	38%	8%	0%	Nov 2023	Yes
2.2.2	Stockholm Arlanda Airport	0%	0%	50%	50%	Dec 2027	
2.3.1	Stockholm Arlanda Airport	52%	38%	10%	0%	Dec 2022	Yes

AF4 - Network Collaborative Management

Family	Airport	Gap coverage				Implem. Date	CEF Projects
4.2.2	Stockholm Arlanda Airport	6%	54%	15%	25%	Dec 2023	Yes
4.4.1	Stockholm Arlanda Airport	0%	0%	0%	100%	-	

Country Gaps

AF3 - Flexible Airspace Management and Free Route Airspace

Family	Gap coverage				Implem. Date	CEF Projects
3.1.1	61%	29%	10%	0%	Dec 2022	
3.1.2	49%	31%	20%	0%	Dec 2024	Yes
3.2.1	✓					
3.2.2	✓					Yes

AF4 - Network Collaborative Management

Family	Gap coverage				Implem. Date	CEF Projects
4.1.1	62%	14%	24%	0%	Dec 2022	
4.2.1	0%	0%	100%	0%	Dec 2023	
4.3.1	93%	7%	0%	0%	Dec 2022	Yes

AF5 - SWIM

Family	Gap coverage				Implem. Date	CEF Projects
5.2.1	19%	14%	28%	39%	Dec 2025	Yes
5.3.1	36%	26%	37%	1%	Dec 2025	Yes
5.4.1	3%	26%	35%	36%	Dec 2025	
5.5.1	34%	41%	25%	0%	Dec 2025	Yes
5.6.1	3%	5%	42%	50%	Dec 2025	Yes

AF6 - Initial Trajectory Information Sharing

Family	Gap coverage				Implem. Date	CEF Projects
6.1.2	0%	0%	20%	80%	Dec 2027	
6.2.1						
6.3.1	16%	0%	51%	33%	Dec 2027	

List of CEF-funded initiatives awarded to Swedish Stakeholders

Ref. number	CEF Project Title	IPPs	Closed	Ref. number	CEF Project Title	IPPs	Closed
#020AF3	Borealis Free Route Airspace (Part I)	LFV	✓	2015_309_AF1_GND	Implementation of GBAS (operation in the Flights Operations Dept and training of flight crew)	Nova Airlines AB	✓
#104AF1	Lower Airspace Optimization	LFV	✓	2015_320_AF3	Implementation of VoIP	LFV	
#136AF2	A-CDM Optimization	Swedavia	✓	2016_027_AF5	European Deployment Roadmap for Flight Object Interoperability	LFV	✓
#137AF2	Enhancement of Airport Safety Nets at Stockholm Arlanda Airport	Swedavia	✓	2016_131_AF4	AOP-NOP Integration - Extended Implementation	Swedavia	
2015_025_AF5_A	Sub-regional SWIM MET deployment to support NEFRA (part A)	SMHI	✓	2016_141_AF5	Deploy SWIM governance	LFV	✓
2015_098_AF5	Implementing redundant WAN	LFV	✓	2016_150_AF2_GND	Enablers for Airport Surface Movement related to Safety Nets	Swedavia	
2015_099_AF5	DK-SE FAB Aeronautical Data Quality (ADQ)	LFV	✓	2016_159_AF6	DLS Implementation Project – Path 2	LFV	✓
2015_118_AF5	More efficient Flight Planning	LFV	✓	2016_161_AF6	DLS Implementation Project – Path 1 "Ground" stakeholders	LFV	✓
2015_174_AF5_A	NewPENS Stakeholders contribution for the procurement and deployment of NewPENS	LFV	✓	2016_166_AF1	Stockholm Arlanda Airport RNP Project (SAARP)	Swedavia, Nova Airlines AB	✓
2015_207_AF3_A	Harmonisation of Tech ATM Platform in 5 ANSP including support of FRA and preparation of PCP	LFV	✓	2017_022_AF2	Synchronized stakeholder decision on process optimization at airport level	Swedavia	
2015_227_AF3_A	Borealis FRA Implementation (Part 2)	LFV		2017_060_AF5	ADQ Components in the SWIM Infrastructure - upstream data inclusion in the full data chain	Aviseq, LFV, Swedavia	
2015_288_AF5	ADQ implementation Stockholm Arlanda	Swedavia	✓	2017_061_AF5	Application of cyber security to ANSP and SWIM services at LFV	Aviseq, LFV	
2015_290_AF2	Initial AOP	Swedavia	✓	2017_066_AF5	Implementing harmonised SWIM (Y) solution in COOPANS ANSPs and general PCP compliance	Aviseq, LFV	
2015_291_AF2	A-SMGCS Level 2 implementation	Swedavia	✓	2017_075_AF5	SWIMARN - SWIM with Cyber Security at Stockholm Arlanda Airport	Swedavia	
2015_292_AF2	DMAN Stockholm Arlanda Airport	Swedavia	✓	2017_084_AF5	SWIM Common PKI and policies & procedures for establishing a Trust framework	Aviseq, LFV	
2015_294_AF2	Implementation of OTP	Swedavia	✓	2017_089_AF6	IPI - DLS European Target Solution assessment	LFV	✓
2015_309_AF1_AIR	Implementation of GBAS (operation in the Flights Operations Dept and training of flight crew)	Nova Airlines AB	✓				

Switzerland

Switzerland

Number of gaps: 23

Current status of implementation: 3 | 14 | 3 | 3

Completed / On-going / Planned / Not Yet Planned

Airport Gaps

AF1 - Extended AMAN and Integrated AMAN/DMAN in the high-density TMA

Family	Airport	Gap coverage				Implem. Date	CEF Projects
1.1.1	Zürich Airport	66%	34%	0%	0%	Dec 2023	
1.1.1	Geneva Airport						
1.2.1	Zürich Airport						
1.2.1	Geneva Airport						

AF2 - Airport Integration Throughput

Family	Airport	Gap coverage				Implem. Date	CEF Projects
2.1.1	Zürich Airport	✓					
2.1.1	Geneva Airport						
2.2.1	Zürich Airport	3%	23%	74%	0%	Dec 2023	
2.2.1	Geneva Airport						
2.2.2	Zürich Airport	0%	0%	50%	50%	Dec 2027	
2.2.2	Geneva Airport	0%	0%	0%	100%	-	
2.3.1	Zürich Airport	27%	59%	14%	0%	Dec 2025	
2.3.1	Geneva Airport						

AF4 - Network Collaborative Management

Family	Airport	Gap coverage				Implem. Date	CEF Projects
4.2.2	Zürich Airport	4%	34%	62%	0%	Dec 2023	
4.2.2	Geneva Airport						
4.4.1	Zürich Airport	3%	25%	52%	20%	Dec 2027	
4.4.1	Geneva Airport	0%	0%	0%	100%	-	

Country Gaps

AF3 - Flexible Airspace Management and Free Route Airspace

Family	Gap coverage				Implem. Date	CEF Projects
3.1.1	38%	13%	49%	0%	Dec 2024	
3.1.2	0%	0%	100%	0%	Dec 2024	
3.2.1	35%	48%	17%	0%	Dec 2022	
3.2.2	7%	59%	34%	0%	Dec 2024	

AF4 - Network Collaborative Management

Family	Gap coverage				Implem. Date	CEF Projects
4.1.1	✓					
4.2.1	68%	7%	25%	0%	Dec 2023	
4.3.1	✓					

AF5 - SWIM

Family	Gap coverage				Implem. Date	CEF Projects
5.2.1	22%	11%	0%	67%	Dec 2024	
5.3.1	24%	10%	13%	53%	Dec 2025	
5.4.1	19%	28%	20%	33%	Dec 2025	
5.5.1	42%	24%	5%	29%	Dec 2025	
5.6.1	0%	0%	0%	100%	-	

AF6 - Initial Trajectory Information Sharing

Family	Gap coverage				Implem. Date	CEF Projects
6.1.2	0%	0%	100%	0%	Dec 2027	
6.2.1						
6.3.1	16%	0%	68%	16%	Dec 2026	

List of CEF-funded initiatives awarded to Swiss Stakeholders

Ref. number	CEF Project Title	IPPs	Closed	Ref. number	CEF Project Title	IPPs	Closed
2016_159_AF6	DLS Implementation Project - Path 2	SITA Switzerland	✓	2017_004_AF1	Right Crew Training for RNPI Operations	Swiss	
2016_161_AF6	DLS Implementation Project - Path 1 "Ground" stakeholders	SITA Switzerland	✓	2017_089_AF6	IPI - DLS European Target Solution assessment	SITA Switzerland	✓

List of Acronyms

Acronym	Meaning
ACC	Area Control Center
A-CDM	Airport – Collaborative Decision Making
ADS-C	Automatic Dependent Surveillance – Contract
AF	ATM Functionality
A-FUA	Advanced Flexible Use of Airspace
AMAN	Arrival Manager
ANSP	Air Navigation Service Provider
AOP	Airport Operation Plan
AoR	Area of Responsibility
API	Arrival Planning Information
ARES	Airspace Reservation
ASM	AirSpace Management
A-SMGCS	Advanced Surface Movement Guidance and Control Systems
ATC	Air Traffic Control
ATFCM	Air Traffic Flow and Capacity Management
ATM	Air Traffic Management
ATM MP	Air Traffic Management Master Plan
ATN	Aeronautical Telecommunication Network
ATS	Air Traffic Service
ATSU	Air Traffic Service Unit
AU	Airspace Users
CA	Certificate Authority
CBA	Cost Benefit Analysis
CEF	Connecting Europe Facility
CFPS	Computer Flight Plan Software Provider
CFSP	Computer Flight Planning Service Providers
CFT	Call for Tender
CHMI	Collaborative Human Machine Interface
CINEA	European Climate, Infrastructure and Environment Executive Agency
COVID-19	Corona Virus Disease
CP1	Common Project One Reg. (EU) n. 2021/116
CS-ACNS	Certification Specifications for Airborne Communications Navigation and Surveillance
DLS	Data Link Services
DMAN	Departure Management
DPI	Departure Planning Information
EACP	European Aviation Common PKI
EASA	European Union Aviation Safety Agency
ECAC	European Civil Aviation Conference
EDA	European Defence Agency

Acronym	Meaning
eFPL	Extended Flight Plan
EPP	Extended Project Profile
EUROCAE	European Organisation for Civil Aviation Equipment
EUROCONTROL	European Organisation for the Safety of Air Navigation
FF-ICE	Flight and Flow Information for a Collaborative Environment
FL	Flight Level
FOC	Full Operational Capability
FPA	Framework Partnership Agreement
FPL	Flight Plan
FRA	Free Route Airspace
FUA	Flexible Use of Airspace
iAOP	Initial Airport Operations Plan
ICAO	International Civil Aviation Organisation
IR	Implementing Regulation
IRE	Instrument Runway End
LDACS	L-Band Digital Aeronautical Communication System
LSSIP	Local Single Sky ImPlementation
MCDM	Multi-Criteria Decision-Making
MET	Meteorological
MUAC	Maastricht Upper Area Control
NM	Network Manager
NOP	Network Operations Plan
NOTAM	Notice to Airmen
PBN	Performance Based Navigation
PCP	Pilot Common Project Reg. (EU) n. 716/2014
PENS	Pan European Network Service
PKI	Public Key Infrastructure
RWY	Runway
SDM	SESAR Deployment Manager
SDP	SESAR Deployment Programme
SES	Single European Sky
SESAR	Single European Sky ATM Research
SJU	SESAR Joint Undertaking
SLOA	Stakeholders' Lines of Action
STAM	Short Term ATFCM Measures
SWIM	System Wide Information Management
TBS	Trajectory Based Separation
TMA	Terminal Manoeuvring Area
VDL	Very High-Frequency Digital Link