

# SDP Monitoring View 2023



20th June 2024



# **SDP Monitoring View 2023**

20th June 2024

# **Control sheet**

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Executive Summary6
Introduction
1. CP1 Implementation Status12
Current status of CP1 deployment
Detailed view per ATM Functionality18
AF1 - Extended AMAN and Integrated AMAN/DMAN in the high-density TMA19
AF2 - Airport Integration Throughput21
AF3 - Flexible Airspace Management and Free Route Airspace24
AF4 - Network Collaborative Management
AF5 - SWIM
AF6 – Initial Trajectory Information Sharing
2. Detailed Views per SDP Family and per SWIM services42
Structure and layout of the detailed Views43
Ground Gaps – Family and Service View47
AF1 - Extended AMAN and Integrated AMAN/DMAN in the high-density TMA47
Family 1.1.1 – Arrival Manager extended to en-route airspace47
Family 1.2.1 - AMAN/DMAN Integration48
Focus on Extended AMAN implementation48
AF2 - Airport Integration and Throughput56
Family 2.1.1 - Departure Management Synchronised with Pre-Departure Sequencing56
Family 2.2.1 – Initial AOP57
Family 2.2.2 – Extended AOP58
Family 2.3.1 – Airport Safety Nets59
AF3 - Flexible Airspace Management and Free Route Airspace60
Family 3.1.1 - ASM and A-FUA60
Family 3.1.2 - Management of Predefined Airspace Configurations61
Family 3.2.1 – Initial FRA62
Family 3.2.2 – Enhanced Free Route Airspace Operations63
Focus on Free Route implementation64
AF4 - Network Collaborative Management
Family 4.1.1 – Enhanced Short Term ATFCM Measures68
Family 4.2.1 – Interactive Rolling NOP69
Family 4.2.2 - Initial AOP/NOP Information Sharing70
Family 4.3.1 – Automated Support for Traffic Complexity Assessment and Flight Planning Interface
71
Family 4.4.1 - AOP/NOP Integration72
AF5 - SWIM73
Family 5.1.1 - Common SWIM PKI and cyber security73
Family 5.2.1 - Stakeholders SWIM PKI and cybersecurity74
Family 5.3.1 – Aeronautical Information Exchange75
Family 5.4.1 – Meteorological Information Exchange76
Family 5.5.1 – Cooperative Network Information Exchange
Family 5.6.1 - Flight Information Exchange78



AF5 - SWIM Service View	79
Family 5.3.1 - SWIM Services	81
Family 5.4.1 - SWIM Services	87
Family 5.5.1 - SWIM Services	91
Family 5.6.1 – SWIM Services	96
AF6 - Initial Trajectory Information Sharing	102
Family 6.1.2 – Initial Air-Ground Trajectory Information Sharing (Ground Domain)	
Family 6.2.1 – Network Manager Trajectory Information Enhancement	103
Family 6.3.1 – Initial Trajectory Information Sharing ground distribution	104
3. Outlook on CP1 deployment for Airspace Users	
Appendix - Current status of CP1 deployment - Aggregated view per Applicability Are	
Austria	
Belgium	
Bulgaria	
Croatia	
Cyprus	
Czech Republic	
Denmark	121
Estonia	123
Finland	125
France	127
Germany	130
Greece	133
Hungary	134
Ireland	136
Italy	138
Latvia	140
Lithuania	141
Luxembourg	142
Maastricht Upper Area Control Center	143
Malta	144
Netherlands	146
Network Manager	148
Norway	150
Poland	151
Portugal	153
Romania	155
Slovak Republic	156
Slovenia	158
Spain	160
Sweden	162
Switzerland	164
List of Acronyms	165



# **Executive Summary**

The SDP Monitoring View represents the single point of reference for reporting the most detailed information on the status of the CP1 Regulation. In this 2023 edition, the document presents the status as of December 2023, bringing together ground and airborne-related information received from the CP1 Operational Stakeholders: ANSPs, Airport Operators, MET Providers, Airspace Users and Network Manager. It 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.

The report shows that 42% of CP1 Regulation is already implemented and an additional 43% on-going, totalling an amount of 85% of the entire CP1. The deployment status has increased from the 2022 figures, when 76% of the activities were either completed or on-going. The implementations with no specific deployment plans have also decreased in the last year from 9% to 6%.

On top of the 6 SDP Families with a regulatory deadline set in December 2022, 3 additional SDP Families have reached their regulatory deadline in December 2023. As a matter of fact, 89% of gaps which had to be addressed by 2022 and 2023 were completed. Out of the 28 gaps exceeding the target dates, 23 of them are expected to be completed by December 2024, reaching 98% for those 9 SDP Families.

Moreover, the following facts can be highlighted:

- 5 SDP Families are fully deployed by 31st December 2023:
  - o Family 3.1.1 Airspace Management and Advanced Flexible Use of Airspace
  - o Family 3.1.2 Management of Predefined Airspace Configurations
  - o Family 3.2.1 Initial Free Route Airspace
  - Family 4.1.1 Enhanced Short Term ATFCM Measures
  - Family 4.2.1 Interactive Rolling NOP
- Regarding the two Families with an upcoming implementation target date set in December 2024:
  - Family 1.1.1 Arrival Management Extended to En-route Airspace It is expected that the implementation will be fully completed in 7 Airports by the end of 2024, with a potential completion rate of 35%.
  - Family 5.1.1 Common SWIM PKI and cyber security It is expected to be timely completed by December 2024. In fact, the call for tender was launched in 2023 to select a contractor to perform day-to-day EACP operations.
- With regard to AF5 Families, even if most of the implementations have been reported ongoing and the provision of vast majority of NM services has already been completed, the implementation of AF5 – SWIM presents the highest number of gaps foreseen to be completed beyond the CP1 regulatory deadline (31st December 2025).
- The implementation of AF6 started to be monitored from this Monitoring Exercise following the positive assessment of the industrial readiness. Half of the countries have no dedicated plans yet, however one third of the gaps is expected to be completed within the CP1 target date by 2027, thanks also to the ADS-C Common Service Initiative.

The information contained in the report confirms that the SESAR Deployment Phase can be considered well underway. Based on these results and in order to continue this steady pace, the implementation of the following SDP Families must be considered a priority:

- o Family 1.2.1 AMAN/DMAN integration
- o Family 2.2.2 Extended AOP
- Family 4.4.1 AOP/NOP Integration
- Family 6.1.1 / 6.1.2 Initially A/G Trajectory Information Sharing (Airborne / Ground)
- o Family 6.3.1 Initially Trajectory Information Sharing Ground Distribution

To get an overview of the CP1 implementation for each applicable area, refer to the Appendix "Current status of CP1 deployment – Aggregated View per Applicability Area".



### **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 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) 2022, marked all together a key step towards a new Deployment Phase of SESAR.

The SDP 2022 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 approved on 12/08/2022 by the College – Decision C(2022)5748 – in accordance with Articles 11 and 12 of Regulation (EU) 409/2013.

The CP1 Regulation and the SDP 2022 are the references for this edition of the SDP Monitoring View 2023, which is presenting the status of implementation of CP1 as of December 2023.

### 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 CP1 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.

Close to ten years after the beginning of this Deployment Phase, the modernisation of the European ATM systems and infrastructure is 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 CP1 regulatory framework, is decisive.

In order to better streamline and synchronise the implementation activities across Europe, the SESAR

SESAR Deployment
Programme (SDP)

Including the
Standardisation and
Regulation support to
CP1 development

Supporting
Material
to the SDP
implementation

Figure 1 - The SESAR Deployment

**Programme and the associated Guidance** 

**SDP Monitoring** 

progress in the

implementation

instrument to track

View 2022 The reporting

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 deployed 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.



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.

Collecting information from the relevant operational Stakeholders allows to build dedicated views per Stakeholder (i.e., what is 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 2023 Monitoring View is therefore organised into the following sections:

- Section 1, which provides a high-level overview of the status of CP1 ground deployment in Europe.
  Specifically, it identifies all activities that have already been completed, those currently in progress
  and/or planned, as well as the implementation areas that have not been planned yet. On the basis
  of the inputs gathered during the Monitoring Exercise from the operational Stakeholders, this
  section also provides the overall roadmap towards full deployment, at Family, AF, and CP1 level,
  thus building a high-level plan to meet the Regulation deadline;
- Section 2, which provides the full detailed picture of the implementation status of CP1 clustered by SDP Family in each airport or country, whilst also presenting a dedicated view per Stakeholder category for ground Stakeholders;
- Section 3, which provides the implementation status of CP1 with regard to Airspace Users;
- the document is finally complemented by a dedicated Appendix, which building on the same input underpinning the view per Family and Services included in Section 2 provides a view per Applicability Area, illustrating the status of the SDP Families and SWIM-based services within each country included in the geographical scope of Regulation (EU) n. 2021/116 and with regard to Network Manager and to Maastricht Upper Area Control Centre (MUAC). The Appendix also lists the relevant SDM-coordinated Implementation Projects contributing to move the deployment forward within each country.

Finally, Stakeholders have been asked for additional information on technological elements when the specifics of their technical implementation required so. Such integrations focus on the following Families:

- Family 1.1.1 Arrival Management Extended to en-route Airspace Thanks to the additional
  information provided by ANSPs through the dedicated Extended AMAN Questionnaire, detailed
  maps were built to display the implementation status of the connections established with the ACCs
  within the 180 nm at FL245 and FL315 from the arrival airports;
- Family 3.2.2 *Enhanced Free Route Airspace Operations* ANSPs provided specific data on FRA implementation, shown on the dedicated tables per Country;
- Family 5.6.1 Flight Information Exchange services: in the framework of the NM / SDM FF-ICE initiative, ANSPs were requested to provide additional information (through a dedicated FF-ICE-R1 Questionnaire) on the implementation plans for the provision of ATS services in ACCs, Approach control units and Aerodrome Control Towers, in order to build an overall European Roadmap for the FF-ICE-R1 implementation. These additional inputs were used to align the reporting of FF-ICE services accordingly.

As a result, specific charts complement the Family Views 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 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 and expected completion dates of the relevant Deployment Milestones as defined by the SDP 2022.

The technical/operational elements to be deployed, as well as the geographical location (e.g., airport or country¹) where the Family shall be deployed are defined as <u>implementation gaps</u> - 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 SDP 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 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 gap) 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.

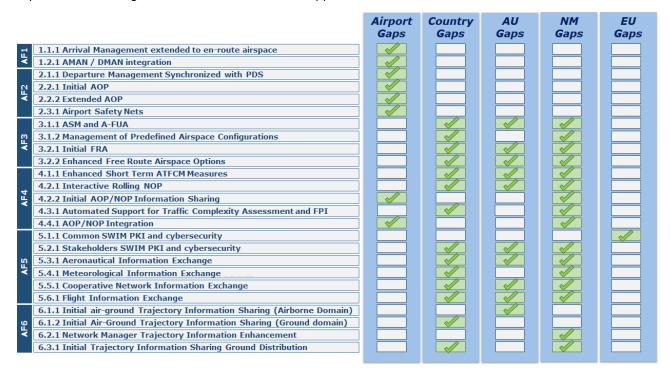


Figure 2 - Impacted stakeholder Category for each ATM functionality

To measure the progress 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. These Deployment Milestones fully match 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.

The Monitoring Exercise process of data collection is performed through the usage of the EUROCONTROL Local Single Sky ImPlementation (LSSIP+) tool on ground side and with ad-hoc templates for Airspace Users. 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

<sup>&</sup>lt;sup>1</sup> 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.



9

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 the long-standing cooperation with the SDM, also being part of the SESAR Deployment Infrastructure Partnership (SDIP), NM has continued to directly provide the relevant information about its CP1-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 9² 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 348 Implementation Projects currently under SDM direct oversight and coordination. 8 Implementation Projects entered in execution phase in 2023 following the awarding of the "CLEAN ATM" project in the frame of CEF2 2022 Call. This results in a thorough consistency assessment and cross-check of information received, to be performed cooperatively with the involved operational Stakeholders.

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.

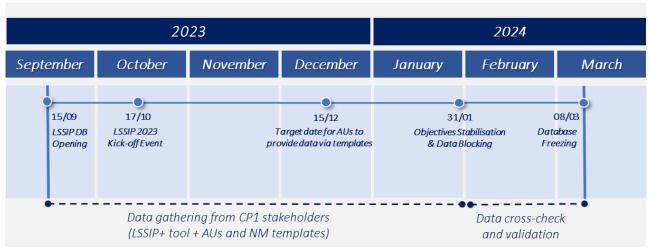


Figure 3 - Timeline of the data gathering and validation

With the aim to support the operational Stakeholders in their reporting efforts through this approach, the main elements of the 2023 Monitoring Exercise were explained during the joint SDM/EUROCONTROL LSSIP Kick-off Event, which took place on the 17<sup>th</sup> of October 2023. The provided information covered the overall process, the data gathering for the ground gaps via the LSSIP+ tool 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.

Including the following six Actions which reached their contractual ends: 2015 CEF Call - Cluster 1 on 31/12/2019, 2014 CEF Call on 31/12/2020, 2015 CEF Call - Cluster 3,2016 CEF Call - Cluster 2 on 31/12/2021, 2016 CEF Call - Cluster 1 and 2017 CEF Call Blending



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### **Performance benefits delivered by SDM-coordinated Implementation Projects**

SDM currently coordinates the execution of 348 Implementation Projects (293 already closed by December 2023), 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 Time-Based Separation (TBS). The deployment activities engage 100 beneficiaries, across 26 EU Member States and 8 Third Countries.

### MODERNISING AIR TRAFFIC MANAGEMENT AS ONE SESAR deployment benefits are being delivered thanks to thousands of people working at more than 100 European aviation partners. Airports, Airlines, Air Navigation Service Providers, Meteorological Service Providers, the Network Manager and Military stakeholders working together as one team. One team coordinated and synchronised by the SESAR Deployment Manager to timely deliver modern and digital Air Traffic Management in Europe. projects out of 348 are in operation bringing benefits to passengers\* On passengers time On the environment WE SAVE: 2.8 bn 158 m 7.2 m 7.0 bn 2.3 m Cumulated fuel equivalent savings of first 293\* completed projects Cumulated minutes saving of first 293\* completed Cumulated CO<sub>2</sub>savings of first 293\* completed 1,435,000 358,000 15 m flight's average time P (W) **EVOLUTION OF BENEFITS** € 9.6 bn € 19.4 bn € 14.2 bn

Figure 4 - Fact sheet performance benefits of CP1

Implementation Status

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 293 Implementation Projects closed have been measured, in particular with regards to key performance areas: capacity, operational efficiency, service costs, environment, safety and security.

Figure 4 provides a quick overview of the most relevant performance benefits for the 293 closed Implementation Projects, in terms of passenger's time and on the environment: they sum up to a total of  $\in$ 9.6 billion until 2030. Cumulated benefits until 2030 for the 348 Implementation Projects ( $\in$ 14.2 billion estimated), and for the CP1 ( $\in$ 19.4 billion as referenced in the CP1 CBA from Ed. 2024) are also represented on the chart.



## 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 Family is considered not applicable for 7 specific geographical scopes and therefore no gap is considered:

- Family 5.5.1 Cooperative Network Information Exchange is not applicable to Croatia, Cyprus, Estonia, Latvia, Lithuania, Portugal and Slovak Republic since
  - the implementation of ATFCM Tactical Updates Service, Measures Service, Short Term ATFCM Measures services, Counts service is not required since the relevant information is already exchanged via existing official tools provided by the NM.
  - the implementation of Flight Management Service is not required since only Countries with at least one CP1 airport in their territory, as per CP1 paragraph 1.2, are mandated to consume AOP/NOP via NM B2B service.

Besides, implementation activities linked to Airspace Users related to the following Families are not included in the 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 3:

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

Finally, 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 this Monitoring View is **596**. The variation in the number of ground gaps from previous report (from 590 to 596 gaps) is due to a combination of different factors, such as the non-applicability of Family 5.5.1 - *Cooperative Information Network Exchange* reported for two additional countries and the reporting of an active implementation status for Sub-AF 6.1- *Initial air-ground Trajectory Information Sharing* and 6.3 - *Initial Trajectory Information Sharing Ground Distribution* in Netherlands, Luxembourg, Belgium and Norway.



According to the results of the Monitoring Exercise, these 596 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 either the gap status or part of the implementation is Not Yet Planned, no completion date is provided.

### **Monitoring of AF6 – Initial Trajectory Information Sharing**

The launch of the activities to monitor the status of AF6 was pending the confirmation of its readiness by the "Industrialisation Target Date", set by CP1 regulation on 31/12/2023. The European Union Aviation Safety Agency (EASA), with the aid of a CP1 Industrialisation Forum, conducted an assessment in respect of the progress in achieving readiness for implementation. The conclusion of such assessment recognises the extensive efforts performed by the stakeholders and indicates that AF6 is ready for implementation. Based on the decision of the Single Sky Committee (23/04/2024), AF6 is considered ready for implementation following the successful verification of the Industrialization Target Date.

Consequently, the implementation of AF6 started to be monitored from this Monitoring campaign. In this regard, the status of the following SDP Families, addressing ground-based implementations, were tracked:

- 6.1.2 Initial Air-Ground Trajectory Information Sharing (Ground Domain)
- 6.2.1 Network Manager Trajectory Information Enhancement
- 6.3.1 Initial Trajectory Information Sharing ground distribution

### CP1 implementation: a general view

The SESAR Deployment Phase is progressing well. 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.

In comparison with the results stemming from previous SDM Monitoring Exercise 2022, a positive trend is observed, showing a steady improvement of the CP1 deployment status: the overall percentage of gaps composing the SESAR Deployment Programme scope and considered completed has increased from 31% in 2022 up to 42% in 2023. The total number of gaps already closed by December 2023 increased from 186 in 2022 to 250.

This means that some of 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 CP1 regulatory environment, thanks to the work performed by the Stakeholders, 254 gaps are considered on-going, bringing the total number of gaps either on-going or completed to 504, representing 85% of total ground gaps and confirming the positive trend when compared with 2022 (+9%).

The activities currently completed, on-going or planned are spread across 6 ATM Functionalities and well-distributed amongst 25 SESAR Deployment Programme Families: this demonstrates the wide-ranging and far-reaching effort from all involved Stakeholders. In particular, for 16 Families at least one local implementation has been completed.



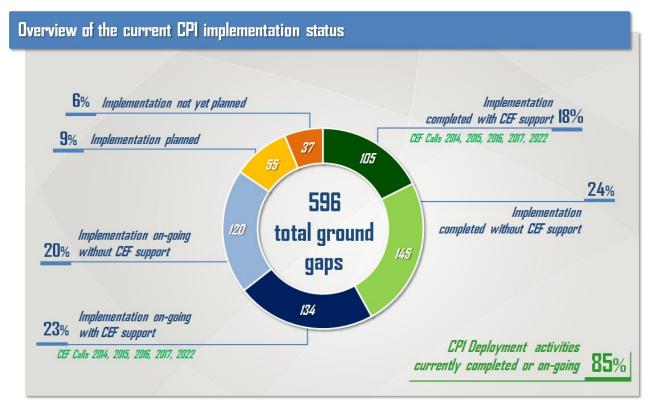


Figure 5 - Current CP1 Implementation Status - Overview

Figure 5 further illustrates that the implementation activities are progressing well, as they are addressing additional 254 gaps (On-going), which amounts to around 43% of the total. More specifically, operational Stakeholders are in the process of closing 134 gaps benefitting from the outcomes of SDM-coordinated Implementation Projects, supported by EU public funding via CEF Calls 2014, 2015, 2016, 2017 and 2022. In addition, for 120 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.

Furthermore, operational Stakeholders have plans to deploy 9% of the total gaps, 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 559, which means around 94% of the total ground gaps. Conversely, there is a lack of specific plans only for the remaining 6%, which, even if does not necessarily entail a late completion with regard to CP1 regulatory deadlines, is considered as a matter of concern taking into account the proximity of the CP1 target dates. However, the number of gaps reported not yet planned has slightly decreased from 51 in 2022 to 37 in 2023, mostly linked to AF1 and AF6 Families.

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.

The SESAR deployment is still moving forward and delivering the expected performance improvements, translating the Common Project One into an operational reality. The focus is to reach the maximum performance benefit of CP1, which takes place when the implementation occurs in a synchronised airground and timely manner. In addition to the summary provided, the following main facts can be highlighted:

- 5 SDP Families are fully deployed by 31st December 2023:
  - o Family 3.1.1 Airspace Management and Advanced Flexible Use of Airspace
  - o Family 3.1.2 Management of Predefined Airspace Configurations
  - Family 3.2.1 Initial Free Route Airspace
  - o Family 4.1.1 Enhanced Short Term ATFCM Measures
  - Family 4.2.1 Interactive Rolling NOP



- As a matter of fact, 89% of gaps which had to be addressed by the end of 2022 and 2023 were completed. The remaining 28 gaps, still to be completed, are distributed across the following Families:
  - 4 in Family 2.1.1 Departure Management Synchronised with Pre-departure sequencing (Copenhagen Kastrup; Dublin Airport; Oslo Gardermoen; Stockholm Arlanda);
  - 2 in Family 2.2.1 *Initial AOP* (Dublin Airport; Stockholm Arlanda);
  - 18 in Family 4.2.2 Initial AOP / NOP Information sharing (Amsterdam Schiphol; Barcelona El Prat; Berlin Brandenburg; Brussels National; Copenhagen Kastrup; Dublin Airport; Düsseldorf Airport; Frankfurt am Main; Madrid Barajas; Milan Malpensa; Munich Franz Josef Strauss; Nice Côte D'Azur; Palma de Mallorca Son Sant Joan; Paris Charles de Gaulle; Paris Orly; Rome Fiumicino; Stockholm Arlanda; Zürich Kloten). SDM, NM and the impacted airports are in close and regular exchange to update the iAOP / NOP implementation roadmap with the objective to have the vast majority (85%) of the Family scope implemented by 2024.
  - 4 in Family 4.3.1 Automated Support for Traffic Complexity Assessment and Flight Planning Interfaces (Germany; Hungary; Norway; Slovak Republic).

23 out of these 28 gaps are expected to be completed by December 2024, reaching 98% for those 9 SDP Families

- Assessment on the implementation of SDP Families with an implementation target date set in December 2024:
  - Family 1.1.1 Arrival Management Extended to En-route Airspace It is expected that the implementation will be fully completed in 7 Airports by the end of 2024, with a potential completion rate of 35%. Additionally, the implementation will be completed for 5 gaps by 2025 and no foreseen implementation date is provided for 8 gaps, since the implementation of this functionality in some of the ACCs within the 180 nm AMAN horizon extension is not yet planned.
  - Family 5.1.1 Common SWIM PKI and cyber security It is expected to be timely completed by December 2024. In fact, the call for tender was launched in 2023 to select a contractor to perform day-to-day EACP operations, which will start in 2024, in line with the deployment deadline of CP1 Sub AF 5.1 - Common infrastructure components. Currently 43 organisations (ANSPs, airports, airspace users, manufacturers and aviation MET service providers) have responded positively to using the EACP.

The current<sup>3</sup> status of implementation of the Common Project One includes 250 completed gaps, being the most significant results registered in AF2, AF3 and AF4. The progress in CP1 deployment has evolved at a steady pace (18 percentage points increase from 2021 and 11 from 2022) and will continue to do so with 33 gaps expected to achieve their full coverage by the end of 2024 and additional 84 gaps in 2025.

- With regard to Family 1.1.1 Arrival Manager extended to en-route airspace, the implementation was already completed in two airports (Vienna Schwechat and Copenhagen Kastrup<sup>4</sup>), whereas for the remaining 18 airports the implementation is ongoing. However, for 65% of the cases, this Family is expected to be completed beyond the CP1 target date or no implementation date can be reported since part of the scope is not yet planned.
  - For 15 Airports, an horizon distance shorter than the mandated 180 nm was reported, since the extension of the AMAN horizon does not provide additional performance benefits. These cases will be assessed according to the criteria agreed within the SDM AF1 Coordination Platform.
  - Furthermore, interoperability issues might affect the full deployment considering the different implementation methods (OLDI and SWIM) permitted in the CP1 Regulation. Therefore, during the one-year transition period, from end 2024 to end 2025, interoperability issues might arise in case neighbouring Countries use different methods, albeit both locally adherent with the CP1 Regulation and the SDP.

<sup>&</sup>lt;sup>4</sup> As depicted in the Focus on Extended AMAN implementation, the non-applicability of specific ACCs connections within the 180NM horizon is under review by SDM in the framework of AF1 Coordination Platform activities.



<sup>&</sup>lt;sup>3</sup> Such status corresponds to the status of CP1 implementation as by December 2023

- With regard to Family 2.3.1 Airport Safety Nets, all gaps are either completed or ongoing. However, 7 gaps are expected to exceed the CP1 target date (Berlin, Dusseldorf, Frankfurt, Munich, Oslo, Vienna and Zurich airports) whereas for additional two gaps no implementation date can be shown as part of the implementations are currently not yet planned (Nice and Paris CDG airports). While the RMCA functionality is already in place in most of the mandated airports, the reported delays are mainly caused by the implementation of CATC and CMAC alerts which are linked to the deployment of new Tower systems.
- The implementation of Family 3.1.1 Airspace Management and Advanced Flexible Use of Airspace and Family 3.1.2 Management of Predefined Airspace Configurations has been completed by all mandated countries, MUAC and NM within the CP1 regulatory date (31st December 2022); for most countries, the completion was achieved through the adoption of available NM systems (CIAM, CHMI), whereas local ASM tools continue to be deployed. The transition to a local ASM tool represents a pivotal turning point to meet the AF5 deadline coming in 2025. In this respect, in 2022 the deployment of a local ASM tool was completed by 70% of the countries whereas in 2023 this value has increased to 87%. It is expected that the remaining countries will complete the implementation of the local ASM tool within 2025.
- With regard to Family 3.2.2 Enhanced Free Route Airspace, the implementation has been reported completed or ongoing by all mandated countries. However, for one country (Cyprus) the final implementation date cannot be shown as part of the scope is not yet planned, whereas in France the enhanced FRA implementation is planned for 2026, one year beyond the CP1 target date (2025). Despite the fact that the cross-border dimension will be established with Switzerland by 2025, the full coverage is expected to be delayed because of the late deployment of 4-FLIGHT ATM system.
- The implementation of Family 4.1.1 Enhanced STAM has also been completed by all the mandated countries, MUAC and NM. The majority of stakeholders has completed the local implementations through the adoption of available NM systems (NMP Flow). In some cases, the implementation of a local STAM tool is being performed.
- For Family 4.2.2 Initial AOP / NOP Information Sharing, the integration of airports data exchange to enable the Initial AOP-NOP information sharing was reported completed for Vienna Airport and Network Manager, whereas it was delayed for the other 18 airports in scope, due to the bottleneck on the testing and validation activities between NM and each single airport. 15 out of 18 (83%) airports implemented the Network Manager B2B services and were ready for iAOP-NOP testing validation activities with NM by December 2023. Three airports (Stockholm Airport; Dublin Airport and Zurich Airport) are not ready to start validation activities yet since they are still working on the requirements. For mitigating this risk, actions are taking place between SDM, NM and the impacted airports to tackle the implementation delay. Specifically, SDM, NM and CP1 mandated Airports are jointly collaborating to define and speed up the workplan, taking into account that the work between NM and each CP1 airport takes approximately 5-6 months and cannot be performed in parallel for all cases. The objective is to have this Family scope fully implemented for all CP1 applicable airports as soon as possible, currently estimating mid-2025. The workplan will be structured to avoid a knock-on effect on Family 4.4.1 - AOP/NOP Integration. In this respect, three Airports for which no implementation plans have been defined yet for Family 4.4.1 (Lyon Airport; Stockholm Arlanda; Geneva Airport) are actively involved in the recovery plan to mitigate the risk.
- The completion of Family 4.3.1 Automated Support for Traffic Complexity Assessment and Flight Plan interfaces has not been achieved for 4 out of 30 gaps (Germany, Hungary, Norway and Slovak Republic). However, Germany and Hungary are planning to complete the implementation of the local traffic complexity tool within 2024, while Slovak Republic and Norway are expected to finalise the implementation once the automatic provision of AFP for airborne flights is completed by 2024 and 2025, respectively.
- With regard to AF5 Families, even if most of the implementations have been reported ongoing and
  the provision of NM services has already been completed, considerable delays are affecting the
  implementation of SWIM. Therefore, coordination and support to the Stakeholders has already been
  initiated from the SESAR Deployment Manager. The progress made to date in SWIM implementation



is quite advanced, compared to what was reported last year (81% of the gaps are either completed or ongoing in comparison with 72% in December 2022), however several gaps will be completed beyond the CP1 target date or no implementation date can be shown as part of their scope is not yet planned. In particular:

- Family 5.2.1 Stakeholders' SWIM PKI and cyber security, for 10 gaps no implementation date can be shown as part of the implementation is not yet planned;
- Family 5.3.1 Aeronautical Information Exchange, 8 gaps are planned to be implemented beyond the CP1 regulatory date and for 12 gaps no implementation date can be shown as part of the implementation is not yet planned;
- Family 5.4.1 Meteorological Information Exchange, 6 gaps are planned to be implemented beyond the CP1 regulatory date and for 15 gaps no implementation date can be shown as part of the implementation is not yet planned;
- Family 5.5.1 Cooperative Network Information Exchange, 1 gap is planned to be implemented beyond the CP1 regulatory date and for 4 gaps no implementation date can be shown as part pf the implementation is not yet planned;
- Family 5.6.1 Flight Information Exchange, 15 gaps are planned to be implemented beyond the CP1 regulatory date and for 11 gaps no implementation date can be shown as part of the implementation is not yet planned.
- With regard to AF6 implementation, half of the countries have no dedicated plans yet, as the
  commitment of several Stakeholders was linked to the positive assessment of AF6 readiness by the
  "Industrialisation Target Date", set by CP1 regulation on 31/12/2023. However, one third of the
  gaps are expected to be completed within the CP1 target date by 2027, thanks also to the ADS-C
  Common Service Initiative aiming at harmonising the provision of ATM datalink services in Europe
  through the set-up of a unique certified ATM Datalink Service Provider (ADS-C/EPP).
- Special attention must be paid to those Families where only preliminary planning and preparatory activities have been performed. In Family 1.2.1 *AMAN/DMAN Integration*, the impacted Stakeholders have not yet planned the implementation for 5 out of 6 gaps (Berlin, Dusseldorf, Nice, Oslo, Paris CDG). Furthermore, in Family 2.2.2 *Extended Airport Operations Plan*, with a target date on 31<sup>st</sup> December 2027, no implementation date can be shown for 5 out of 31 gaps since part of the local scopes are not yet planned (Amsterdam, Copenhagen, Geneva, Lyon and Stuttgart airports). Similarly, in Family 4.4.1 *AOP NOP Integration*, for 5 out of 32 gaps no implementation date is defined as part of the scope has not been planned yet (Amsterdam, Dublin, Geneva, Lyon, and Stockholm airports). However, for most of these airports a multi-stakeholder initiative (EXOPAN) has been submitted in the frame of CEF 2 Call 2023 to address the implementation of Family 2.2.2 and Family 4.4.1. Moreover, a multi-stakeholders Implementation Project (BEACON) has been awarded in the frame of CLEAN ATM Project (CEF 2 Call 2022) and is already supporting the implementation of Family 2.2.2 and Family 4.4.1 in 7 different airports.
- It is important to highlight the relevance of the support provided by the Connecting Europe Facility (CEF) funds in the implementation of the CP1 Regulation. For instance, several Families show a substantial majority of the implementation taking place thanks to those. This is the case of several CEF initiatives supporting the implementation of Sub-AF 2.2, 3.2, 4.2 and 4.3.
- 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. This objective is achieved through the Risk Assessment process managed by SDM, complemented with the organisation of workshops, sharing of best practices and visits to the Stakeholders in order to raise awareness and provide technical clarifications on SDP implementation.
- Based on the results of the Monitoring Exercise, the implementation of the following SDP Families is to be considered prioritised in accordance with the SDP Short Term Deployment Approach:
  - o Family 1.2.1 AMAN/DMAN integration
  - Family 2.2.2 Extended AOP
  - o Family 4.4.1 AOP/NOP Integration
  - Family 6.1.1 / 6.1.2 Initially A/G Trajectory Information Sharing (Airborne / Ground)
  - Family 6.3.1 Initially Trajectory Information Sharing Ground Distribution



### **Detailed view per ATM Functionality**

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

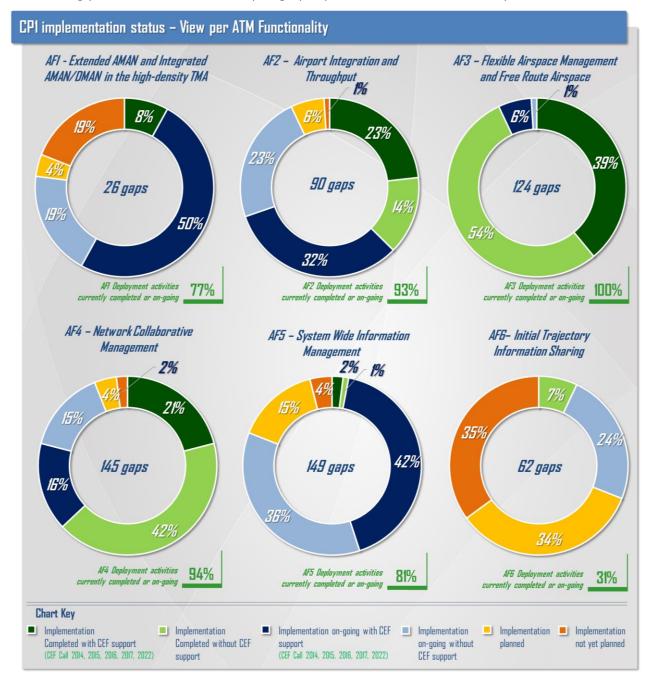


Figure 6 - CP1 Implementation Status: view per AF

The following detailed views per each ATM Functionality (AF1, AF2, AF3, AF4, AF5 and AF6) are complemented with charts aiming at representing the gaps whose CP1 timely completion is threatened since their implementation dates are set beyond CP1 target dates.



# AFI - Extended AMAN and Integrated AMAN/DMAN in the high-density TMA ATM Functionality #1 - Gurrent implementation status per Family Family 1.11 - Arrival Management extended to en-route airspace Family 1.21 - AMAN/DMAN Integration 10% 5 gaps 6 gaps

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

Figure 7 - AF1: current implementation status per Family

support

Implementation on-going with CEF

(CEF Call 2014, 2015, 2016, 2017, 2022)

Implementation

**CEF** support

on-going without

Implementation

planned

Implementation

not yet planned

Implementation

Completed without CEF

8% of the existing implementation gaps associated to AF1 have already been closed by local Stakeholders, all of them in Family 1.1.1. 69% of the ATM Functionality is in the process of being implemented (in most cases benefitting of EU funding support and of the SDM coordination activities). This implies that the deployment of AF1 is not currently on-going in 23% of the cases, which corresponds entirely to Family 1.2.1, with 5 out of these 6 gaps for which no specific plans have been defined by the relevant Stakeholders.

Regarding 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), this Family is already implemented for 2 of the airports (Vienna Schwechat and Copenhagen Kastrup) <sup>5</sup> listed in the Regulation. Besides, the implementation of the required technical elements is on-going for the remaining CP1 airports. As presented in Figure 8, the implementation of this Family in Brussels National, Barcelona El Prat, Madrid Barajas, Oslo Gardermoen, Palma de Mallorca and Zurich Kloten is foreseen to be completed beyond the CP1 target date, whereas part of the extended AMAN connections of Amsterdam Schiphol, Berlin Brandenburg, Dusseldorf, Frankfurt, Munich, Nice and Paris CDG are still not yet planned.

In accordance with the Regulation and the SESAR Deployment Programme, a horizon distance shorter than the mandated 180 nm can be considered when, due to the geographical location of the arrival airport, the extension of the AMAN horizon does not provide additional performance benefits. To date, this has been identified as the case for 15 Airports, on the basis of stakeholders asserting a local lack of benefit. To ensure a consistent assessment of these assertions, SDM with the support of the AF1 Coordination Platform

<sup>&</sup>lt;sup>5</sup> As depicted in the Focus on Extended AMAN implementation, the non-applicability of specific ACCs connections within the 180NM horizon is under review by SDM in the frame of AF1 Coordination Platform activities.



Chart Key

Implementation

Completed with CEF support

(CEF Call 2014, 2015, 2016, 2017, 2022)

19

recently published a guidance on the process through which the non-applicability of specified fragments of the mandated scope can be assessed.

Furthermore, the different implementation methods (OLDI and SWIM), permitted in the CP1 Regulation, could lead to interoperability issues. In fact, "An ATSU operating an Extended AMAN shall be able to communicate with the relevant sectors (...) by SWIM service when it is available. Until SWIM is available, ATSUs may send and receive the OLDI AMA message to and from adjacent sectors and forward OLDI AMA messages further upstream to communicate with the relevant sectors (...)". Noting that a means of compliance fully consistent with SWIM YP has been available since June 2018, it follows that a stakeholder is not prevented from deploying the SWIM method in advance of the general 2025 SWIM availability deadline. As a consequence, a scenario is expected to materialize throughout the deployment landscape during the one-year transition period, from end 2024 to end 2025, interoperability issues might arise in case neighbouring Countries use different methods, albeit both locally adherent with the methods prescribed by the CP1 Regulation and the SDP. With the support of the AF1 Coordination Platform, SDM is working to facilitate a harmonised and interoperable implementation with the objective to achieve the full interoperability.



Figure 8 - Potential issues on CP1 deadlines in Family 1.1.1.

For Family 1.2.1 - AMAN/DMAN Integration, only one Stakeholder has planned the implementation. This functionality 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. Its implementation is achieved through the integration of both the AMAN extended horizon for the arrival traffic and to the optimised pre-departure sequence provided by DMAN.



### **AF2 - Airport Integration Throughput**

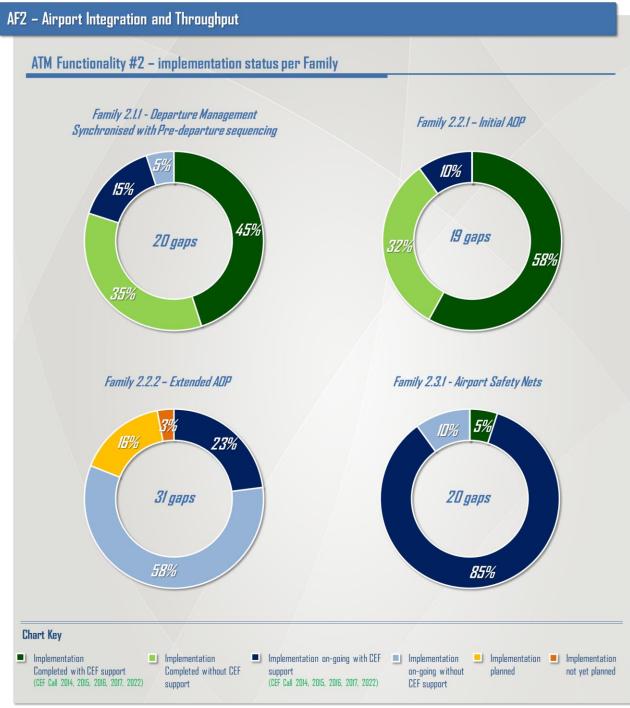


Figure 9 - AF2: current implementation status per Family



93% of the gaps associated to ATM Functionality 2 are either completed or the associated deployment activities are already in progress. 55% of all AF2 gaps are contributed by projects coordinated and synchronised by SDM.

Family 2.1.1 - Departure Management Synchronised with Pre-departure sequencing, reached the CP1 regulatory target date on 31<sup>st</sup> December 2022. 16 out of 20 gaps were closed, whereas the full implementation of 4 gaps is planned to be achieved beyond the CP1 target date, as shown in Figure 10.

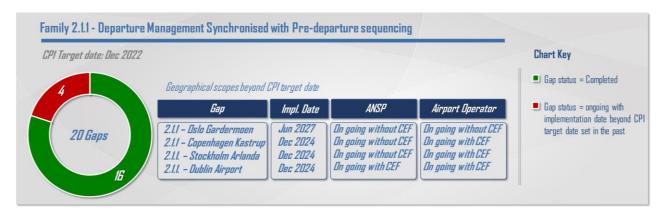


Figure 10 - Issues on CP1 deadlines in Family 2.1.1

The following cases in the domain of Family 2.1.1 have been reported completed by the concerned stakeholders, however the following elements should be considered:

- For Rome Fiumicino and Milan Malpensa, ENAV declared that the automated update of TSAT and TTOT, through the connection between A-SMGCS and DMAN, implied that the Routing Functionality should be activated. This functionality is on a voluntary basis, consequently the calculation of TSAT and TTOT is based on static tables. ENAV has also planned to install a system that recognises when an aircraft has reached a certain point on the airfield, to guarantee the accuracy in TTOT calculation. ATCOs manually modify Departure Sequence also taking into account different types of aircraft, different time intervals between departing aircraft and different applicable airport scenarios, to have accurate TTOT which is not dynamically updated by surveillance data yet -. At the same time, ATCOs can adjust the TTOT for unplanned delay or for unplanned earlier departing aircrafts. ENAV is implementing a project to make the computation of VTT and TTOT automatic by 2025, resulting in a reduction of ATCOs workload. The SDM indicated that the System Requirements of the CP1 Annex in paragraph 2.1.1 point (b) say: "DMAN systems must elaborate and calculate a collaborative sequencing and provide both TSAT and TTOT. TSAT and TTOT must take into account variable taxi times and must be updated according to the actual aircraft take-off.";
- For Amsterdam Schiphol, LVNL declared that the calculation of TSAT and TTOT is based on static taxi timetable values considering the characteristics of the airfield configuration. The automatic update of TTOT can only be implemented when the A-SMGCS routing & planning functions will be in place. This will be done as one of the functional modules of the new TWR system, whose deployment is supported by an ongoing CEF project. As a follow up, it was clarified that wake vortex categories are taken into account in the TTOT computation and LVNL expressed the willingness to use A-SMGCS surveillance data to feed the DMAN dynamically in the future. The SDM indicated that the System Requirements of the CP1 Annex in paragraph 2.1.1 point (b) say: "DMAN systems must elaborate and calculate a collaborative sequencing and provide both TSAT and TTOT. TSAT and TTOT must take into account variable taxi times and must be updated according to the actual aircraft take-off."

Regarding Family 2.2.1 - *Initial AOP*, with a regulatory deadline set at the end of 2023, the common and collaboratively agreed rolling plan used by all involved airport Stakeholders to provide common situational awareness and process optimisation, the implementation was completed for all airports in scope except



Dublin and Stockholm Arlanda, currently in the process of implementing the local A-CDM (a pre-requisite for iAOP).



Figure 11 - Issues on CP1 deadlines in Family 2.2.1

With regards to Family 2.2.2 - Extended AOP, only 3% of the gaps have no plans declared by Stakeholders. 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 this Family, plans have already been declared by Stakeholders for 30 out of the 31 gaps for which the deployment is required.

With reference to Family 2.3.1 - *Airport Safety Nets*, which addresses the A-SMGCS Airport Safety Support Service, the implementation is completed in Brussels National and ongoing for all the remaining gaps. However, the implementation date of 8 gaps has been reported beyond the CP1 target date and 1 gap has part of the scope not yet planned, as depicted in Figure 12.

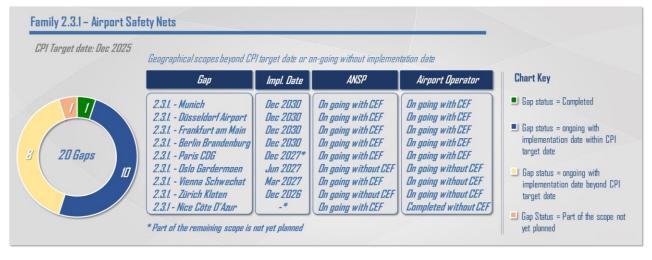


Figure 12 - Potential issues on CP1 deadlines in Family 2.3.1



### AF3 - Flexible Airspace Management and Free Route Airspace

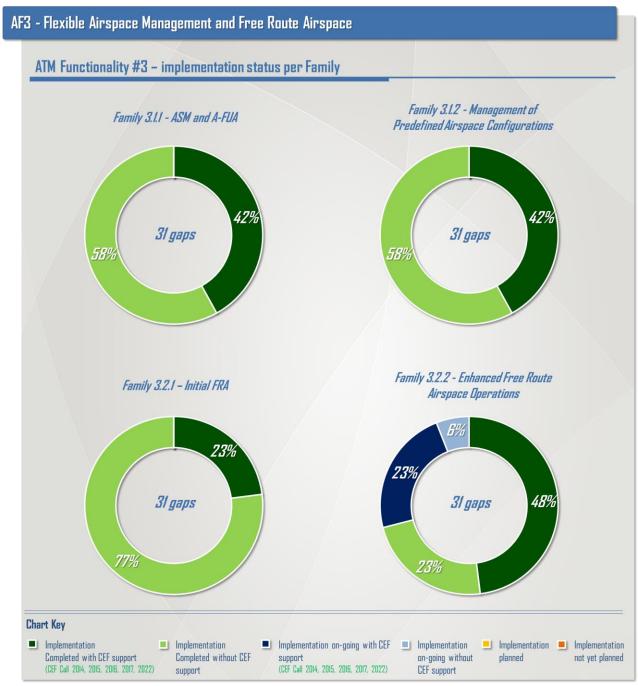


Figure 13 - AF3: current implementation status per Family

93% of the implementation gaps associated to AF3 have been completed by operational Stakeholders, making it the most progressed ATM functionality within the scope of the CP1 from a deployment-extent perspective.

Moreover, Family 3.1.1 – ASM and A-FUA, Family 3.1.2 – Management of Predefined Airspace configurations and Family 3.2.1 – Initial Free Route Airspace have also reached their CP1 regulatory target date on 31<sup>st</sup> December 2022. These implementations have been completed for all the 31 applicability areas.

The technical requirements for the implementation of "Enhanced Free Route Airspace Operations", addressed by Family 3.2.2 are already implemented in 20 out of 30 countries and by MUAC and Network Manager, 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. 1 gap is foreseen to be completed beyond the CP1 target date (2025), whereas for 1 gap



the foreseen implementation date cannot be shown since part of its scope is not yet planned, as shown in Figure 14.

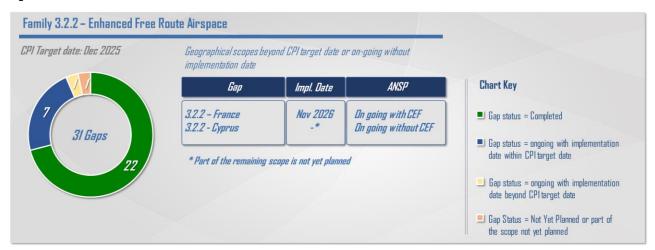


Figure 14 - Potential issues on CP1 deadlines in Family 3.2.2



### **AF4 - Network Collaborative Management**

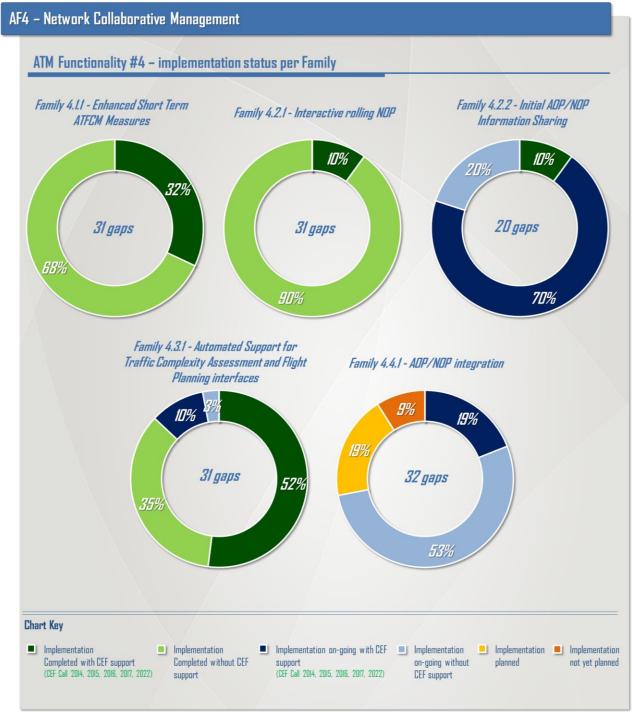


Figure 15 - AF4: current implementation status per Family

63% of AF4 gaps have been already closed by the operational Stakeholders. The currently on-going implementation activities address about 31% of the existing gaps, while plans have been declared for around 4% of the total number of existing gaps, leaving only around 2% of the AF-related gaps without any associated specific implementation plans.

Family 4.1.1 - Enhanced Short Term ATFCM Measures reached its CP1 regulatory target date on 31<sup>st</sup> December 2022. For 23 out of 30 countries and for MUAC, the implementation was completed by December 2022, whereas for the remaining 6 countries plus Network Manager, the implementation has been completed in the course of 2023, resulting in the completion of the entire Family.



The implementation of Family 4.2.1 - *Interactive Rolling NOP*, linked to the deployment of the NOP Portal by Network Manager, has been fully completed in all applicability areas by the CP1 target date (December 2023).

On the other hand, the implementation of Family 4.2.2 - *Initial AOP/NOP Information Sharing*, focused on the integration of airports data exchange to enable the Initial AOP-NOP information sharing was reported completed for Vienna Airport and Network Manager, whereas it was delayed for the other 18 airports in scope. 15 out of 18 (83%) airports implemented the Network Manager B2B services and were ready for iAOP-NOP testing validation activities with NM by CP1 deadline set in December 2023. As shown in Figure 16, three airports (Stockholm Airport; Dublin Airport; Zurich Airport) are not ready to start validation activities yet since they are still working on the requirements.

The Network Manager reported that Family 4.2.2 - Initial AOP/NOP Information sharing had been completed.

### The NM notes that:

In the SDP, the Deployment Milestones of Family 4.2.2 achievement conditions have been reached by NM at the implementation target date. At 31/12/2023, there were 2 Airports (Lisbon and Vienna Airport) exchanging data which fulfil the iAOP-NOP information sharing requirements with NM OPS systems.

CP1 Requirements states that NM needs to provide the capabilities in their system for allowing the iAOP-NOP integration data exchange and to support the airports in the integration. This has been taking place by implementing data exchange capabilities in NM systems, engaging in activities with Stakeholders for projects coordination, communication and risks reporting on validation planning, definition of implementation guidance, system requirements and execution of validation activities with Airports.

The NM meeting the requirements of CP1 cannot be dependent on the completion of all Airports deployment which involves decisions on projects execution taken by local Airport/ANSP stakeholders, outside of NM's control and responsibilities, decisions which might cause delay in deployment activities.

The relevant CP1 Annex text is within section 4.3

The following elements should also be considered:

Noting the same text in the CP1 annex in section 4.3, the SDM also indicated that the SESAR Deployment Programme 2022 defines the Geographical Scope of Family 4.2.2 and from that scope, by December 2023, only Vienna was connected whereas the remainder of the airports as shown in Figure 16 were not connected yet. At the date of publication of this report, also Paris Charles de Gaulle and Paris Orly are connected with the NOP.

For mitigating this issue, collaborative actions are taking place between SDM, NM and the impacted airports. Specifically, SDM, NM and CP1 mandated Airports together with ACI are jointly working to define and speed up an implementation roadmap, taking into account that the work between NM and each CP1 airport takes approximately 5-6 months and cannot be performed in parallel for all cases. The objective is to have this Family scope fully implemented for all CP1 applicable airports as soon as possible, currently estimating mid-2025.



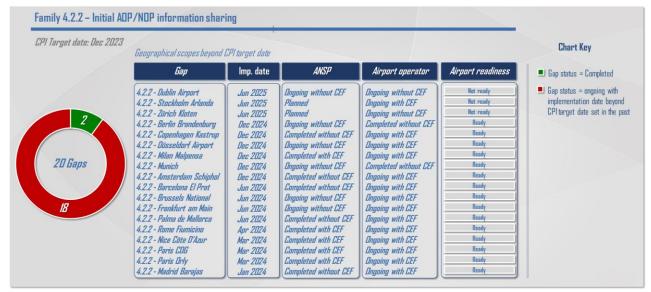


Figure 16 - Issues on CP1 deadlines in Family 4.2.2

Family 4.3.1 - Automated Support for Traffic Complexity Assessment and Flight Planning interfaces reached its CP1 regulatory target date on 31st December 2022. The implementation has been completed for 25 out of 29 countries and for MUAC and the Network Manager, whereas the implementation is still ongoing and will be completed beyond the CP1 target date for 4 countries.

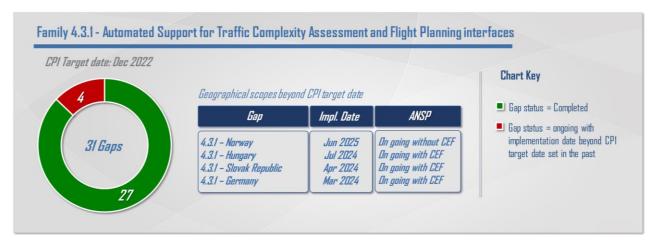


Figure 17 - issues on CP1 deadlines in Family 4.3.1

For Family 4.4.1 - *AOP/NOP integration*, three gaps are without any associated specific implementation plans. The implementation of this Family is also dependent on the deployment of Family 4.2.2 - *Initial AOP/NOP Information Sharing*. However, 90% of the Stakeholders have already started the implementation activities and all the foreseen implementation activities are expected to be completed by the CP1 target date (31st December 2027).



### AF5 - SWIM

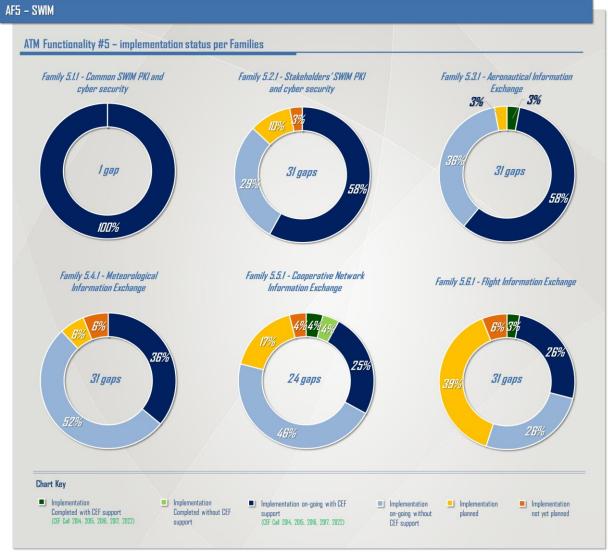


Figure 18 - AF5: current implementation status per Family



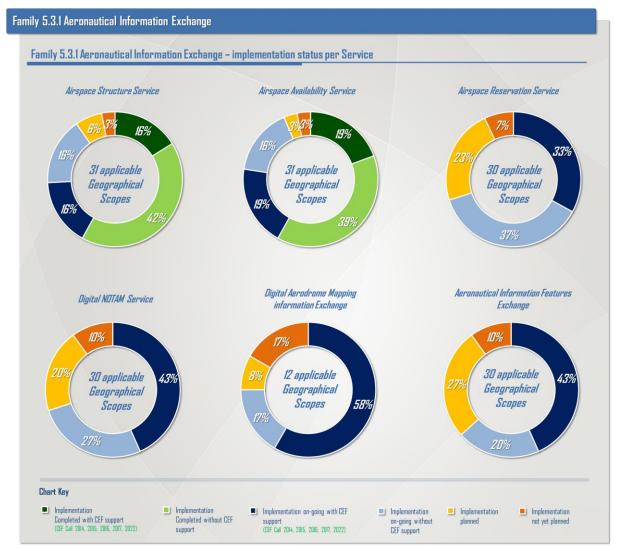


Figure 19 - Family 5.3.1: current implementation status per SWIM service



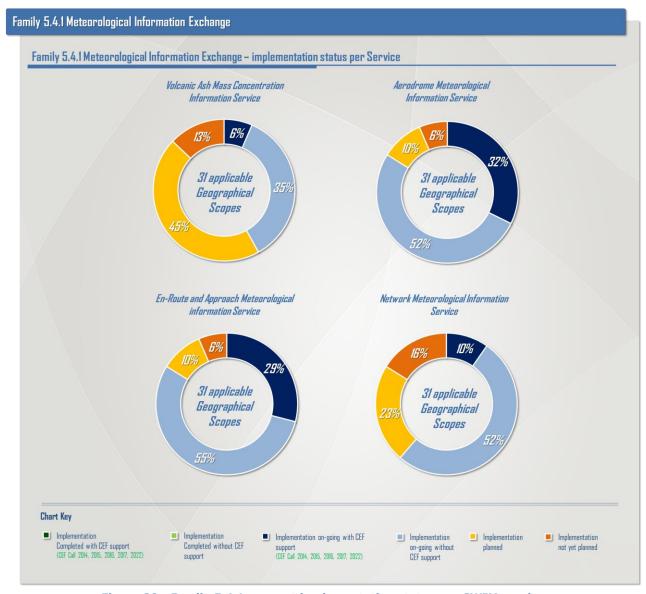


Figure 20 - Family 5.4.1: current implementation status per SWIM service



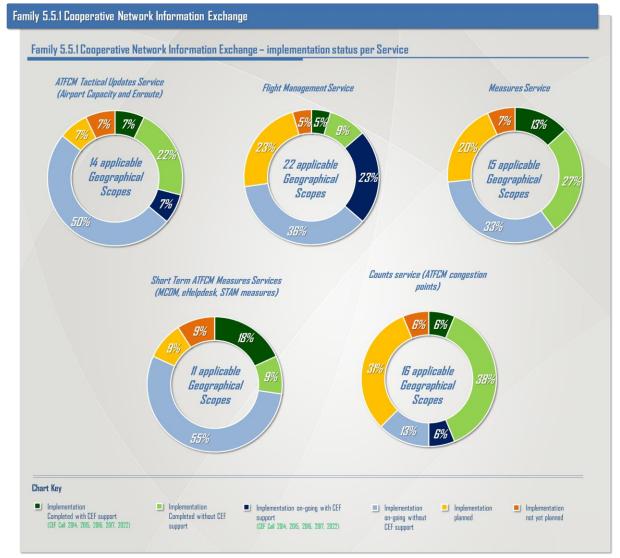


Figure 21 - Family 5.5.1: current implementation status per SWIM service



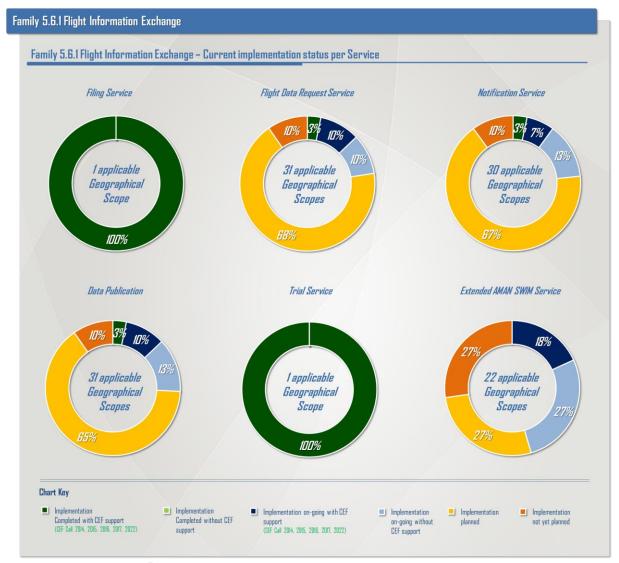


Figure 22 - Family 5.6.1: current implementation status per SWIM service

The overall implementation of the ATM Functionality 5 is progressing even if 19% of its scope is still either planned or not yet planned.

Currently 81% of the AF5 gaps have been addressed by the operational Stakeholders either through their full closure or through deployment activities currently on-going.

However, considering a total of 482 SWIM services to be implemented in each applicable area, the following facts can be highlighted:

- 64 (13%) services have been completed
- 239 (50%) services are ongoing
- 134 (28%) services are planned
- 45 (9%) services are not yet planned

Moreover, for 13% of ongoing and planned SWIM services, no foreseen implementation date can be reported since part of their remaining scope is not yet planned. In addition, 24% of the ongoing and planned services are currently expected to exceed the CP1 deadlines. Therefore, for one third of the AF5 services under implementation (i.e., either ongoing or planned), the regulatory deadline set on 31st December 2025 could not be met.

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 87% of the gaps, while for 3 countries (10%) the implementation activities have been planned, whereas plans have



not been identified for 1 country (3%). The implementation in Norway is currently foreseen to be completed in 2029, beyond the CP1 regulatory deadline (31<sup>st</sup> December 2025). Moreover, for 9 out of 27 ongoing gaps, the foreseen implementation date cannot be displayed since their local scopes are either partly or entirely not yet planned, as shown in Figure 23.

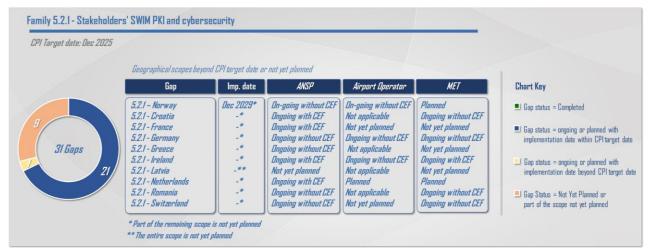


Figure 23 - Potential issues on CP1 deadlines in Family 5.2.1

Regarding the AF5 Families related to SWIM services for information exchange, the implementation of Family 5.3.1 - *Aeronautical Information Exchange* has been completed for 1 gap and is currently on-going for 94% of the gaps. The number of gaps foreseen to be closed beyond the CP1 regulatory target date (31st December 2025) has increased to 9 (30% of the Family scope) and, for additional 11 gaps (35% of the Family scope), a foreseen implementation date cannot be reported since part of their local scopes are not yet planned, as shown in Figure 24.

The registered delays are mainly due to the late implementation of the Airspace Reservation service (ARES) whose deployment is linked to the upgrade of the local ATC systems to ensure the automatic exchanges with local ASM systems.

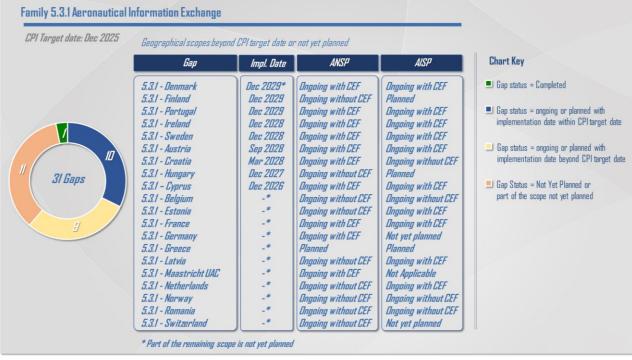


Figure 24 - Potential issues on CP1 deadlines in Family 5.3.1



The implementation of Family 5.4.1 - *Meteorological Information Exchange*, is showing criticalities since the implementation date for 11 countries has been reported beyond the CP1 regulatory target date (31<sup>st</sup> December 2025). Moreover, for 10 countries a foreseen implementation date cannot be reported since part of their local scopes are not yet planned and the local implementations are entirely not yet planned for 2 countries and Network Manager, as shown in Figure 25.

Delays affecting Family 5.4.1 are mainly driven by the En-Route and Approach Meteorological information service and the Network Meteorological Information service. The necessary upgrade to the FDP, a core component of each ATM system, which must have the capacity to use MET information like gridded upper wind information (trajectory or flight profile calculations) and/or local pressure measurements (QNH) represents the main delay factor.

In order to support the implementation of the Network Meteorological Information Service, a multistakeholder initiative, the CBCF (Cross Border Convection Forecast) project, was started. The project is led by EUMETNET and contributed by 24 METPs using the EuFoCS (European Forecast Collaboration System). According to the project plan, the provision of the information will be in operational use in 2024 and it is expected that Network Manager will have the technical capability to consume the information within the CP1 target date in 2025.

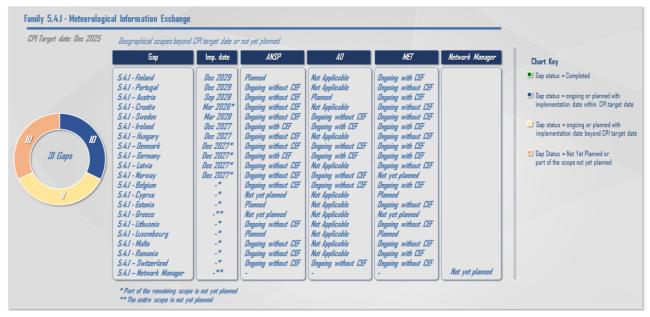


Figure 25 - Potential issues on CP1 deadlines in Family 5.4.1

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 17 gaps. 1 gap (Norway) has been reported beyond



the CP1 target date (31st December 2025), whereas for 4 countries, the final foreseen implementation date cannot be reported since part of the local scopes are not yet planned, as shown in Figure 26.

Family 5.5.1 has been reported not applicable for 7 countries (Croatia, Cyprus, Estonia, Latvia, Lithuania, Portugal and Slovak Republic) since:

- the set of information included in ATFCM Tactical Updates Service, Measures Service, Short Term ATFCM Measures services, Counts service is already exchanged via existing official tools provided by the NM.
- the implementation of Flight Management Service is not required since only Countries with at least one CP1 airport in their territory, as per CP1 paragraph 1.2, are mandated to consume AOP/NOP via NM B2B service.



Figure 26 - Potential issues on CP1 deadlines in Family 5.5.1

Finally, the implementation of Family 5.6.1 - *Flight Information Exchange* is also proceeding at a slower pace, mainly due to the complexities linked to the transition from ICAO FPL2012 to FF-ICE flight plan (eFPL) and impacts on the ATC systems. Thus, the consumption of those services is currently very limited. To mitigate the low progress, SDM together with NM, launched an FF-ICE deployment supporting initiative to push forward this deployment. Currently, the implementation date for 21 countries and MUAC has been reported beyond the CP1 regulatory target date (31st December 2025) and is currently not yet planned for 2 countries and a foreseen implementation date cannot be shown for additional 2 countries since, despite the implementation is on-going, part of their scope is not yet planned.



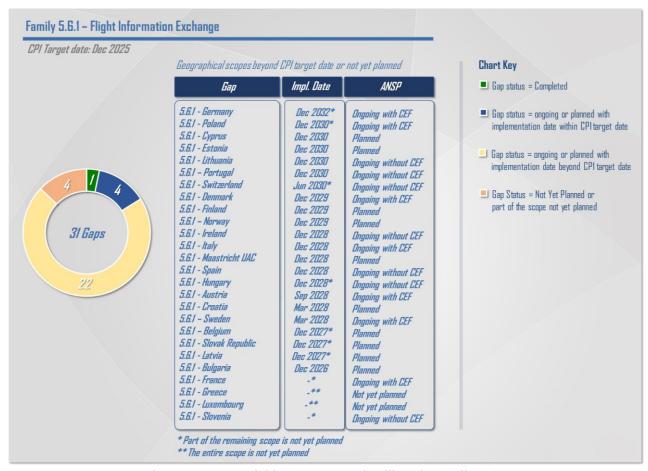


Figure 27 - Potential issues on CP1 deadlines in Family 5.6.1

In the framework of the FF-ICE/R1 deployment initiative, during the last monitoring exercise all implementing Stakeholders were approached to report on their implementation plans. A dedicated questionnaire was built to capture specific information with regard to the individual stakeholders' plans and the impacts on the local systems, at ACC, APP and Aerodrome Control Tower level. Thanks to the ANSPs' contributions gathered through the dedicated questionnaire, the overall FF-ICE/R1 Implementation Roadmap was elaborated and consulted with the impacted stakeholders.

According to the Roadmap, the implementation of FF-ICE/R1 in Europe will be substantially delayed beyond the CP1 regulatory deadline (31st December 2025). The full implementation is expected by 2032. As a matter of fact, FF-ICE/R1 implementation entails an essential transformational step forward for the ground systems. ANSPs are evaluating alternatives to either adapt their existing ATM systems or to invest in new ones with native SWIM features and new generation Flight Data Processing (FDP) capabilities, specifically designed for future Trajectory Based Operation (TBO).

Nonetheless, 25% of the mandated ANSPs will be able to provide specific initial FF-ICE operational capability by the end of 2025, even if full completion will not be achieved until all ATM systems in scope are upgraded. SDM and NM will continue supporting the operational stakeholders, on one side elaborating use case scenarios to assess the implementation benefits and providing the needed technical support, and on the other side, facilitating the engagement of the ATM systems' manufacturers to frame the technical solutions.

Figure 28 shows the dates reported by the mandated stakeholders for the FF-ICE/R1 Initial and Full Operational Capability (FOC). It has to be noted that, few misalignments were identified between the reporting of FF-ICE services in the LSSIP+ tool (namely, Flight Data Request Service, Notification Service and Data Publication Service) and the FOC dates reported in the FF-ICE/R1 questionnaire. Those



misalignments will be further assessed in the occasion of the upcoming SDP Risk Management Plan and the next Monitoring Exercise 2024.

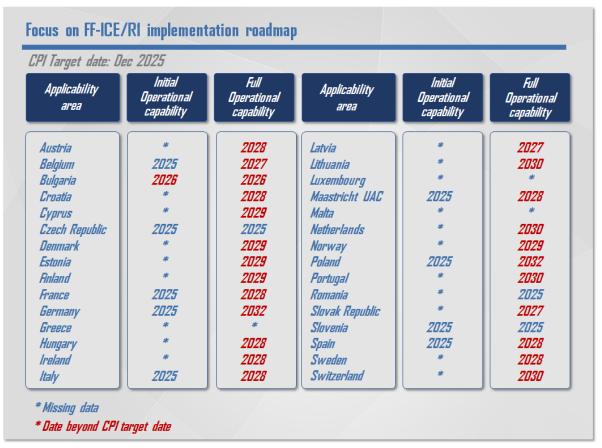


Figure 28 - Focus on FF-ICE SWIM service implementation target dates

The global AF5 situation is expected to improve in the near future, as all preparatory work is demonstrating significant progress and especially thanks to the multi-stakeholder initiatives and to their contribution to overall deployment of SWIM. Furthermore, thanks to a major coordination effort, bilaterally reaching out to all CP1 mandated Stakeholders to create awareness and share best practices, substantial improvements continue to be tangible even if the number of gaps expected to be closed beyond the AF5 CP1 target date (31st December 2025) has increased, especially in Family 5.3.1 – Aeronautical Information Exchange, Family 5.4.1 – Meteorological Information Exchange and Family 5.6.1 – Flight Information Exchange.



# AFG - Initial Trajectory Information Sharing ATM Functionality #6 - implementation status per Family Family 6.1.2- Initial Air-Ground Trajectory Information Family 6.2.1 - Network Manager Sharing (Ground Domain) Trajectory information Enhancement 13% 204 30 gaps 1 gap 100% Family 6.3.1- Initial Trajectory Information Sharing around distribution 31 gaps **Chart Key**

# **AF6 – Initial Trajectory Information Sharing**

Figure 29 - AF6: current implementation status per Family

(CEF Call 2014, 2015, 2016, 2017, 2022)

support

Implementation on-going with CEF Implementation

on-going without

**CEF** support

The overall implementation of the ATM Functionality 6 is in the process to be addressed by the operational Stakeholders. In fact, 58% of the Family scope is either ongoing (24%) or has been planned (34%). However, AF6 shows the largest portion of gaps (35% of the Family scope) for which no dedicated plans have been identified.

The commitment of several Stakeholders was linked to the confirmation of AF6 readiness by the "Industrialisation Target Date", set by CP1 regulation on 31/12/2023. The European Union Aviation Safety Agency (EASA), with the aid of a CP1 Industrialisation Forum, conducted an assessment in respect of the progress in achieving readiness for implementation. The conclusion of such assessment indicates that AF6 is ready for implementation. Thus, the progress of AF6 is expected to ramp up starting from the next monitoring cycle.

The implementation of Family 6.1.2 - Initial Air-Ground Trajectory Information Sharing (Ground Domain), is already completed for 13% of the gaps, while 20% of the gaps is ongoing and the remaining 67% of the



Implementation

Completed with CEF support

(CEF Call 2014, 2015, 2016, 2017, 2022)

Implementation

support

Completed without CEF

Implementation
Implementation

planned

not yet planned

gaps is either planned or not yet planned. This implementation in Lithuania, Norway, Denmark, Finland, Austria, Sweden and Croatia is currently foreseen to be completed beyond the CP1 regulatory deadline (31<sup>st</sup> December 2027). No plans have been identified yet for 14 gaps, and for 1 gap the foreseen implementation date cannot be displayed since part of its local scope is not yet planned, as shown in Figure 30.

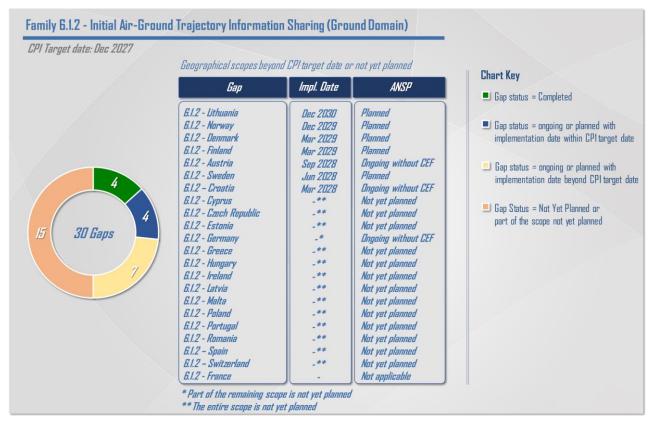


Figure 30 - Potential issues on CP1 deadlines in Family 6.1.2

With reference to the unique gap for Family 6.2.1 – *Network Manager Trajectory Information Enhancement*, identified for Network Manager, is currently not yet planned as this functionality is not yet validated.

The implementation of Family 6.3.1 – *Initial Trajectory Information Sharing Ground Distribution* is ongoing and 58% of the Family scope is foreseen to be timely completed by December 2027 (18 out of 31 gaps). This implementation in Austria, Lithuania and Croatia is currently foreseen to be completed beyond the CP1 regulatory deadline (31<sup>st</sup> December 2027). Moreover, no plans have been identified yet for 23% of the



gaps, and for 13% of the gaps the foreseen implementation date cannot be displayed since part of their local scopes are not yet planned, as shown in Figure 31.

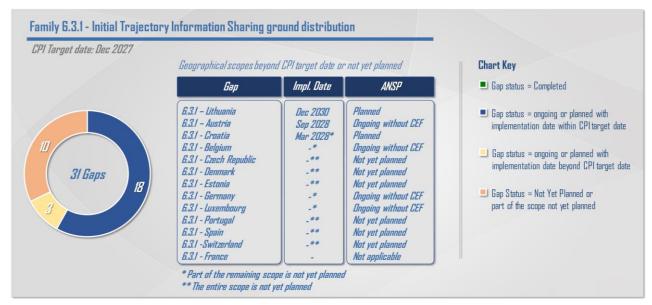


Figure 31 - Potential issues on CP1 deadlines in Family 6.3.1

The implementation of Family 6.3.1 is being supported by the ANSPs' participation to the ATS Common Datalink Services (ACDLS) Governance initiative. Its objective is to limit the number of simultaneous contracts to obtain the same ADS-C data, thanks to a single responsibility to collect ADS-C data from airborne users and distribute it to the relevant ground users.



# 2. Detailed Views per SDP Family and per SWIM services

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.

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 operating within the European Union, in order to build a representative view of the current status of implementation.

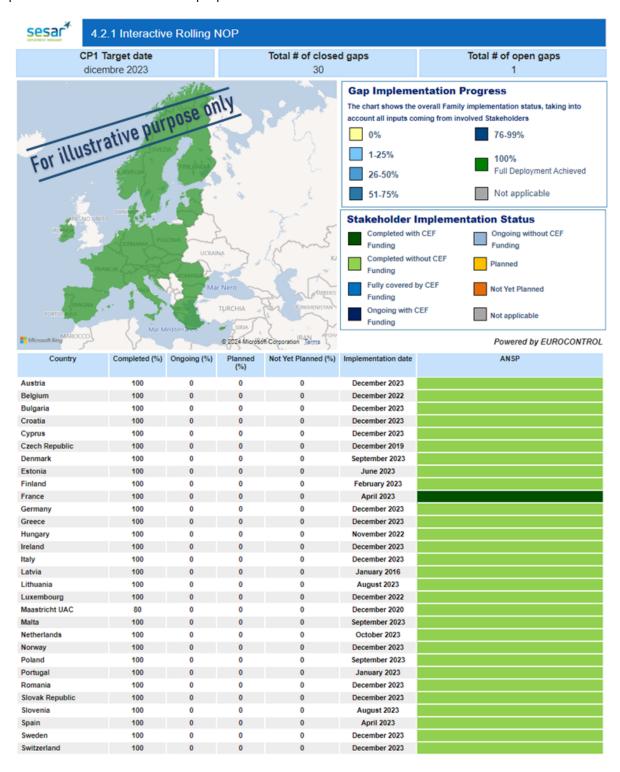
Due to the specific requirements of Family 5.1.1 - Common SWIM PKI and cyber security, the deployment activities are following a coordinated and EU-wide approach, rather than been steered by locally-based implementation initiatives. As an example, CEF IP 2017\_084\_AF5 "SWIM Common PKI and policies & 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.



# **Structure and layout of the detailed Views**

# **Family View**

An example of the charts used to provide a representation of the results of the Monitoring Exercise is proposed hereafter for illustrative purposes.



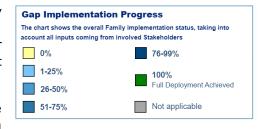




The structure of the chart has been developed with the specific objective of providing the reader with a wide set of data and information within a single snapshot: the following paragraphs include an overall explanation on how the information is presented.

The Europe map shows different colours for each country included within the geographical scope of Regulation (EU) n. 2021/116. 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 colours provide a quick and effective indication of the overall implementation status of the Family, as each of them



represents a different percentage of completion of the Family, corresponding to the current percentage of implementation (i.e. what has been already deployed by the relevant operational Stakeholders).

Country	Completed (%)	Ongoing (%)	Planned (%)	Not Yet Planned (%)	Implementation date
Austria	100	0	0	0	November 2016
Belgium	100	0	0	0	December 2022
Bulgaria	100	0	0	0	December 2021
Croatia	100	0	0	0	December 2021
Cyprus	0	0	0	100	
Czech Republic	100	0	0	0	December 2022
Denmark	100	0	0	0	June 2016
Estonia	100	0	0	0	April 2020

This percentage ("Completed") is also explicitly reported 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 <u>"Ongoing"</u> percentage, which identifies the percentage of the Family that is covered by ongoing activities (both within and beyond the SDM coordination<sup>6</sup>);
- the <u>"Planned" percentage</u>, which identifies the percentage of Family which has not started yet, but there are plans to cover them by future initiatives;
- the "Not Yet Planned" percentage, which corresponds to the percentage of the Family for which no specific plan has been elaborated by the relevant operational Stakeholders.

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. The expected implementation date is coloured in red when it is set beyond the regulatory target date. When part of the scope is not yet planed, the implementation date for the full deployment cannot be reported.

All information stemming from local deployment initiatives is summarised within the boxes included in the upper section of the chart, which report – at Family level – the following information:

- the CP1 target date;
- 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.

CP1 Target date	Total # of closed gaps	Total # of open gaps
December 2023	30	1

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 to directly invest to fill-in the implementation gaps and are therefore potentially eligible for co-funding under the upcoming CEF Transport Calls:

<sup>&</sup>lt;sup>6</sup> 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 provided by operational Stakeholders.

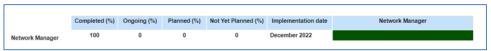


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- ANSPs;
- · MET providers;
- AISPs;
- Airport Operators.

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.

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 chart.

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.

This information is featured in the right section of the table at the bottom of the chart and is 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 *Ongoing 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 *Ongoing* (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, this status implies that the expected implementation date is unknown;
- 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;

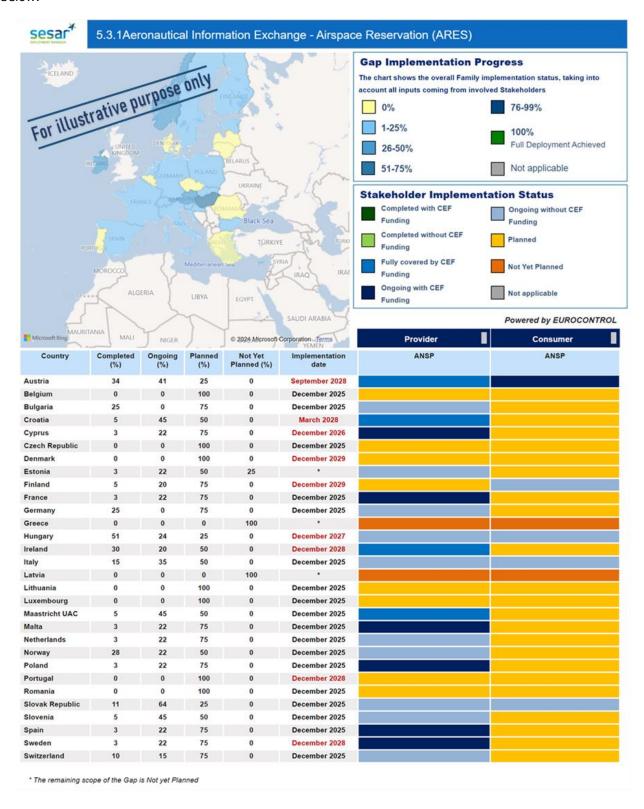
It is worth noting that – having regard to *Completed with CEF*, *Fully covered by on-going* projects and *Ongoing with CEF* status – the Monitoring View takes into account all Implementation Projects awarded within the framework of CEF Calls 2014, 2015, 2016,2017 and 2022.

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 similar 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, a clear distinction of the Stakeholder's role as Provider or Consumer of services is provided through specific labels above the Stakeholder's category name as shown in the example below.

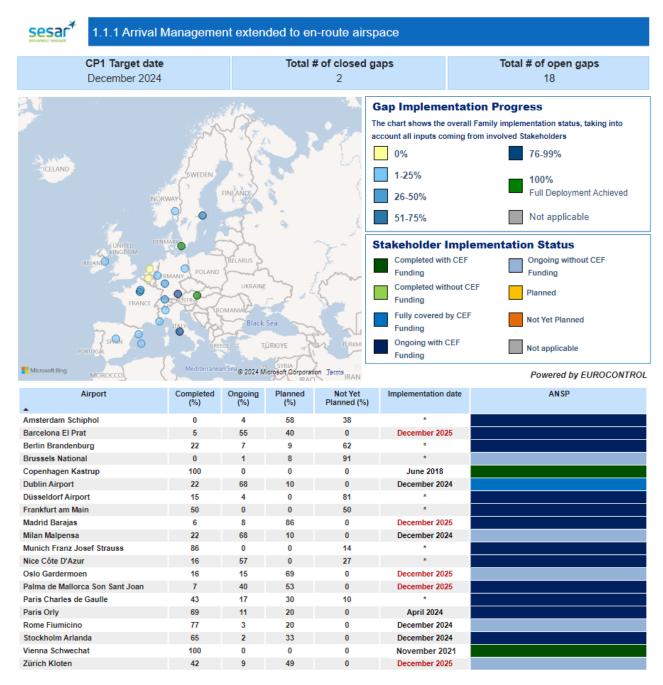




# **Ground Gaps - Family and Service View**

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

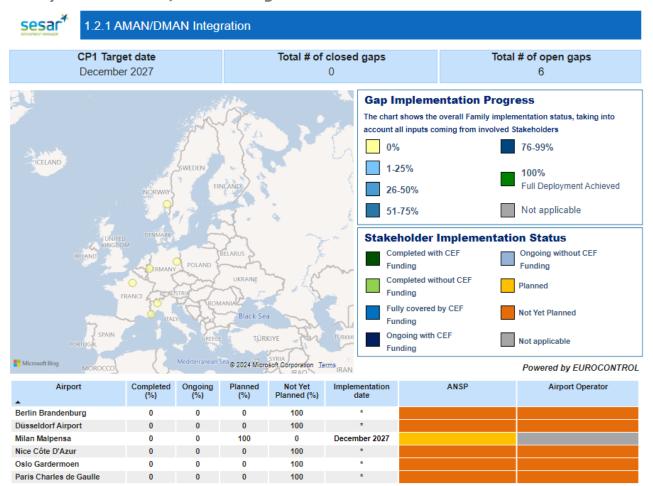
Family 1.1.1 - Arrival Manager extended to en-route airspace



<sup>\*</sup> The remaining scope of the Gap is Not yet Planned



Family 1.2.1 - AMAN/DMAN Integration



<sup>\*</sup> The remaining scope of the Gap is Not yet Planned



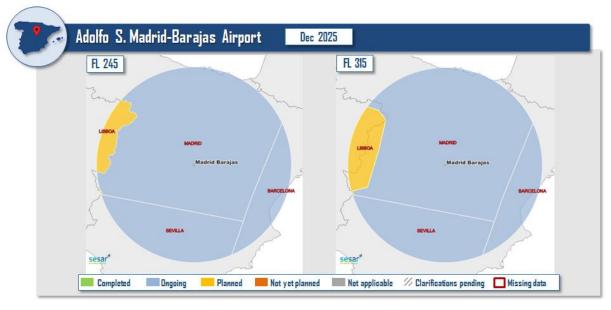
#### **Focus on Extended AMAN implementation**

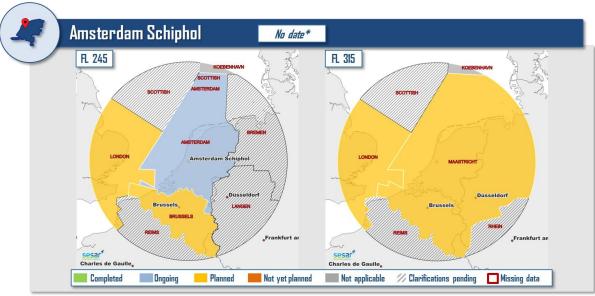
The Arrival Manager extended to en-route airspace requires an extension of AMAN horizon up to a minimum of 180 nautical miles from the arrival airport. Taking into account these specific requirements, operational Stakeholders were requested to report the implementation status of the relevant ACCs for each applicable airport.

In this perspective, the following maps report on the status of implementation of Extended AMAN in the 20 airports, providing specific information on the Area Control Centres impacted by the deployment activities (within 180 nautical miles). These tables are differentiated, where necessary, by Flight Level (FL) when the same airspaces are managed by different U/ACCs depending on the specific FLs.

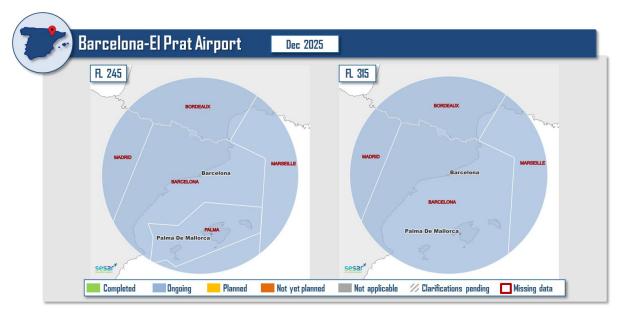
According to the SESAR Deployment Programme, shorter horizon distance will be considered when, due to the geographical location of the arrival airport, the extension of the AMAN horizon does not provide additional performance benefits. In this case, stakeholders are requested to provide SDM with specific evidences to justify the non-applicability of the specific ACC connections. In this respect, and with the support of the AF1 Coordination Platform, SDM elaborated the document "Family 1.1.1 Arrival Management extended to en-route airspace - Extended Aman non-applicability assessment process", which aims at providing guidance on the assessment criteria and the verification process.

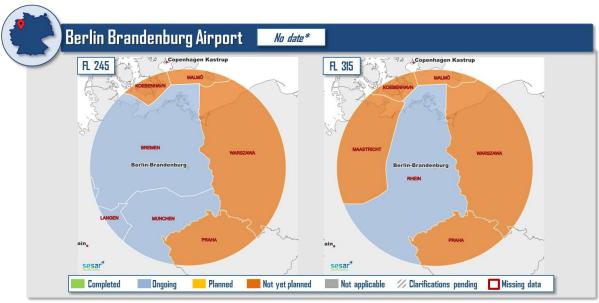
In the maps shown below, the statuses of the ACCs connections reported as Not Applicable, and for which the verification process is not concluded yet, have been depicted as "Clarifications pending".

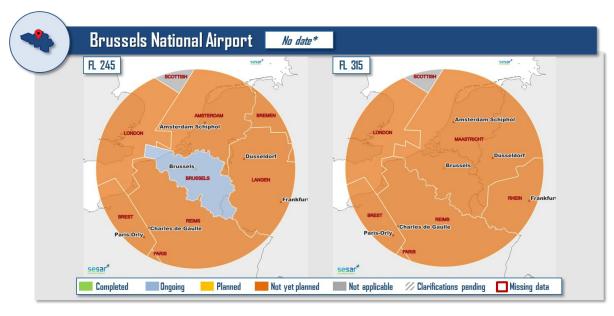




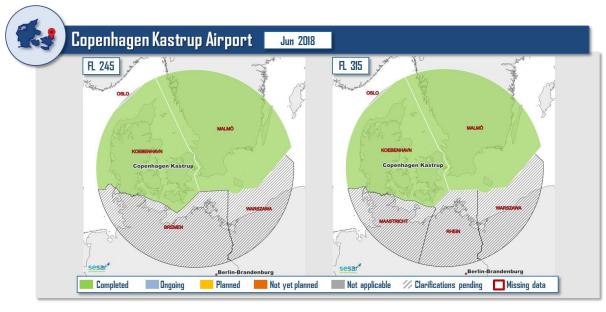


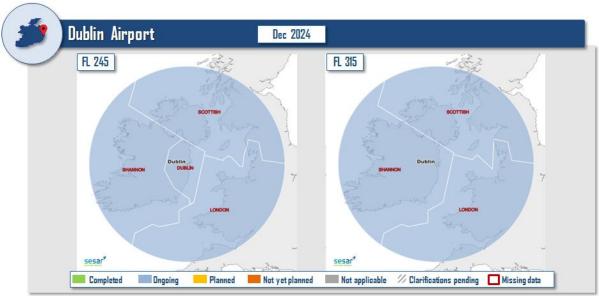


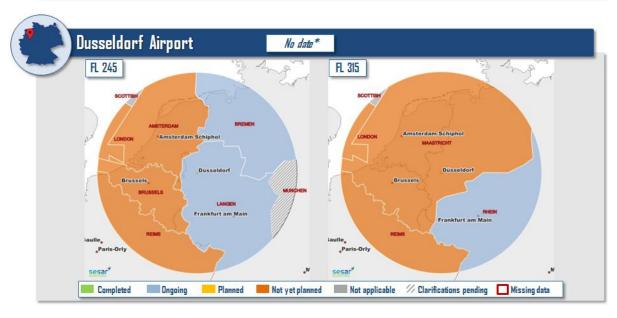




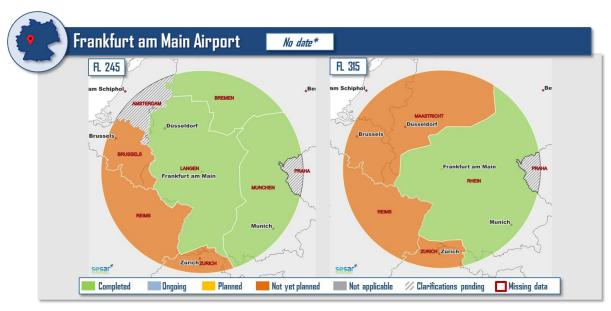


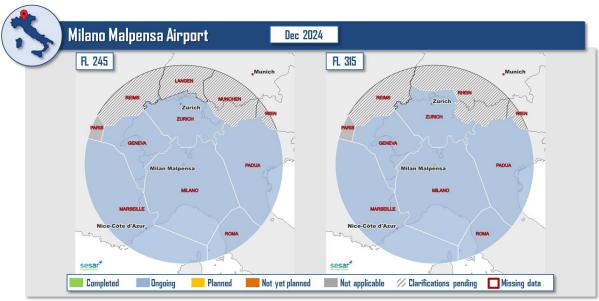


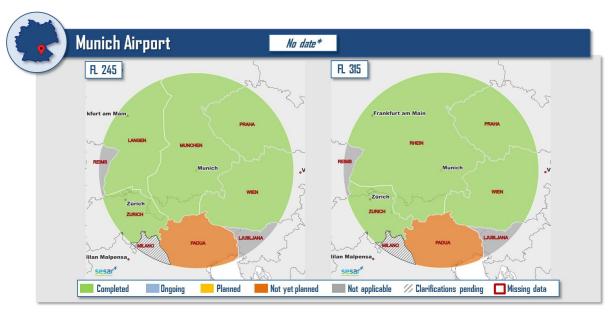




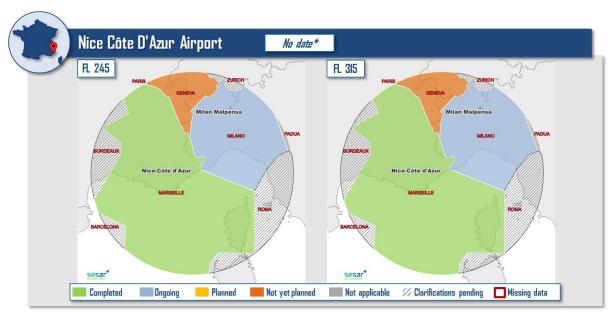


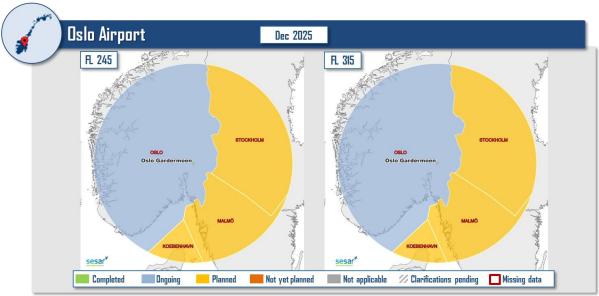


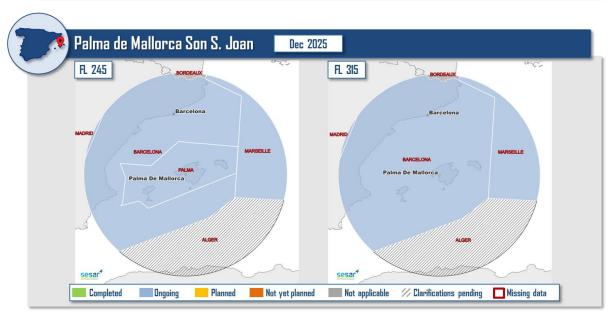




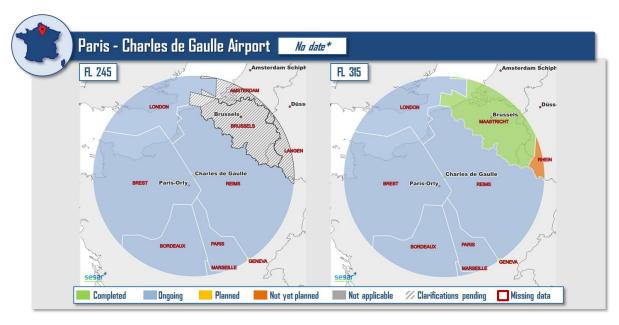


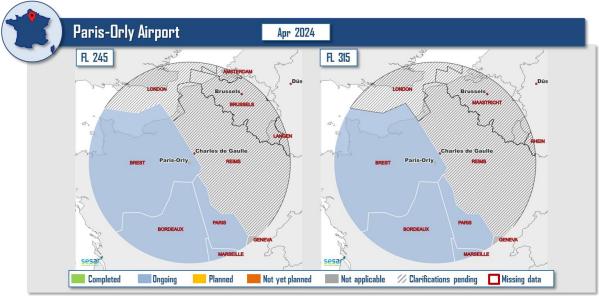


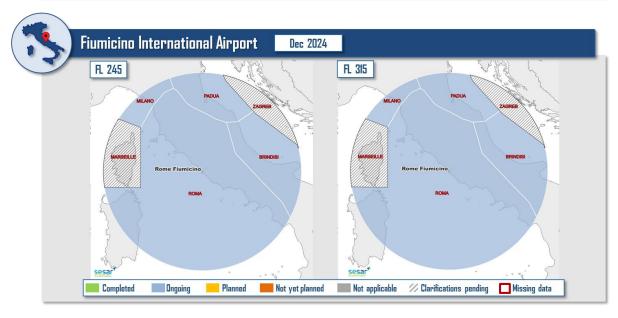




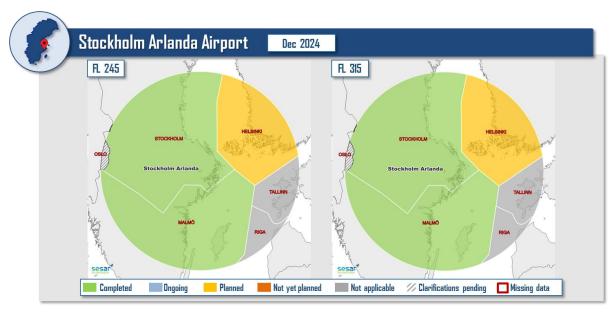


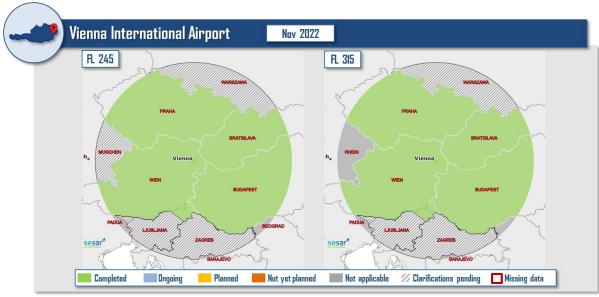


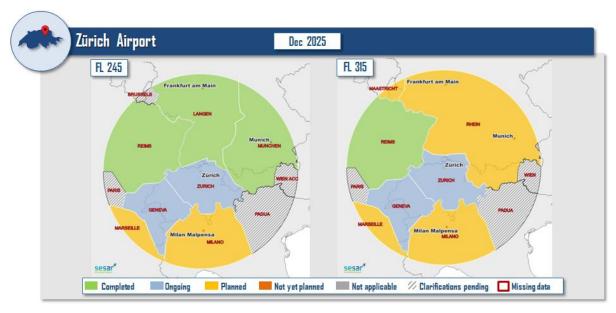








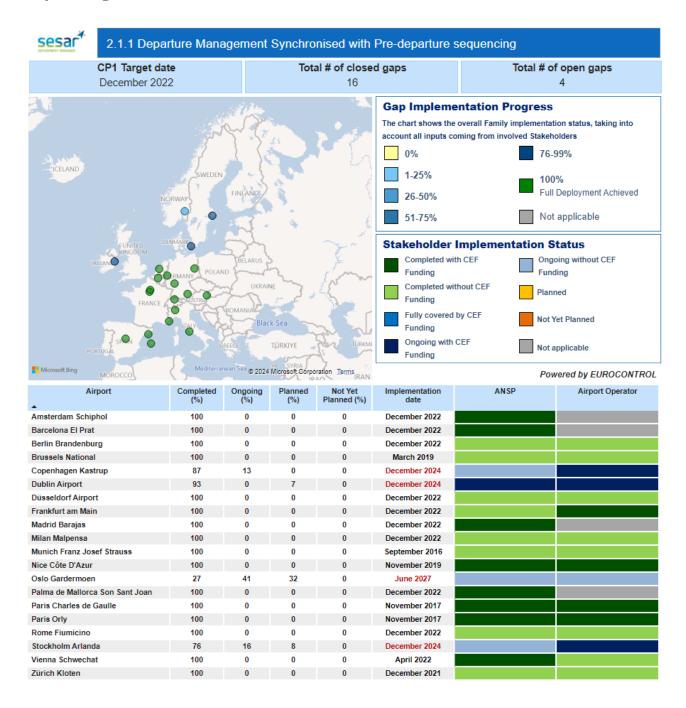






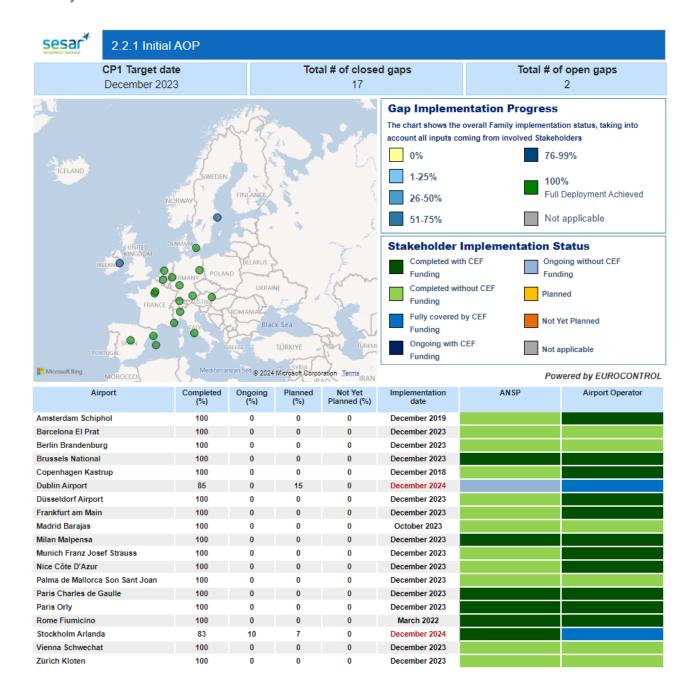
# **AF2 – Airport Integration and Throughput**

Family 2.1.1 – Departure Management Synchronised with Pre-Departure Sequencing



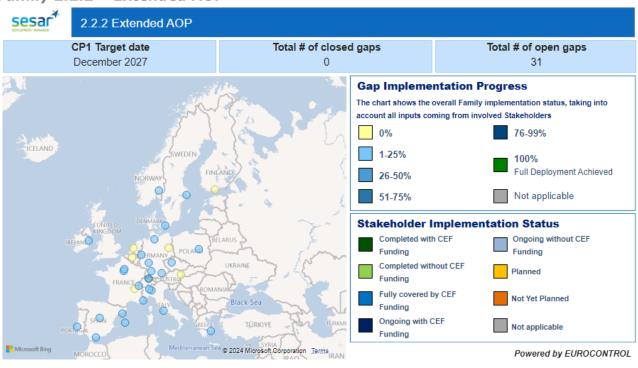


Family 2.2.1 - Initial AOP





Family 2.2.2 – Extended AOP

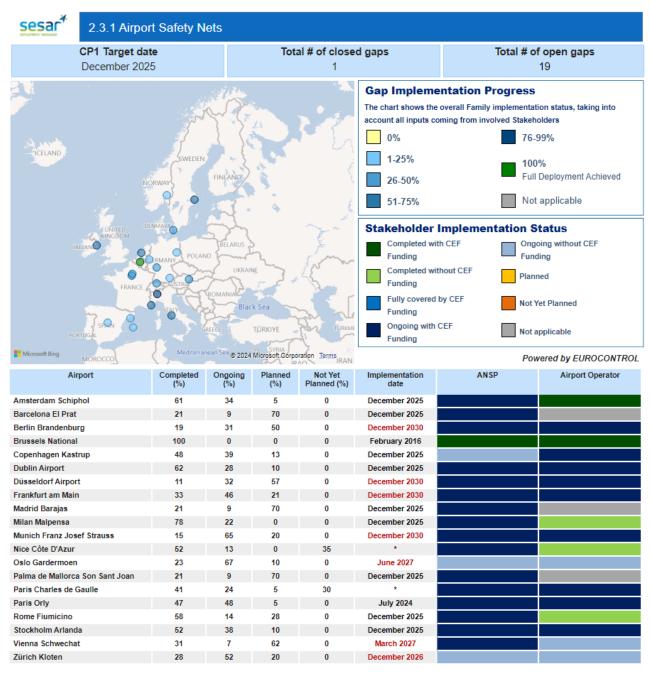


Airport	Completed (%)	Ongoing (%)	Planned (%)	Not Yet Planned (%)	Implementation date	ANSP	Airport Operator
Amsterdam Schiphol	0	0	50	50	*		
Athens Eleftherios Venizelos	2	20	78	0	December 2027		
Barcelona El Prat	3	27	70	0	December 2027		
Berlin Brandenburg	0	0	100	0	December 2027		
Brussels National	0	0	100	0	December 2027		
Copenhagen Kastrup	2	13	0	85	*		
Dublin Airport	9	76	15	0	December 2027		
Düsseldorf Airport	3	5	92	0	December 2027		
Frankfurt am Main	3	22	75	0	December 2027		
Geneva Airport	5	17	28	50	*		
Hamburg Airport	1	7	92	0	December 2027		
Helsinki Vantaa	0	0	100	0	December 2027		
Lisbon Humberto Delgado	1	7	92	0	December 2027		
Lyon Saint-Exupéry	0	0	0	100	*		
Madrid Barajas	3	27	70	0	December 2027		
Málaga Costa del Sol	3	27	70	0	December 2027		
Milan Linate	2	20	78	0	December 2027		
Milan Malpensa	2	20	78	0	December 2027		
Munich Franz Josef Strauss	5	20	75	0	December 2027		
Nice Côte D'Azur	5	40	55	0	December 2027		
Oslo Gardermoen	2	13	85	0	December 2027		
Palma de Mallorca Son Sant Joan	3	27	70	0	December 2027		
Paris Charles de Gaulle	9	76	15	0	December 2027		
Paris Orly	9	76	15	0	December 2027		
Prague Václav Havel	5	40	55	0	December 2027		
Rome Fiumicino	3	5	92	0	December 2027		
Stockholm Arlanda	2	20	78	0	December 2027		
Stuttgart Airport	1	7	50	42	*		
Vienna Schwechat	0	0	100	0	December 2027		
Warsaw Chopin Airport	3	27	70	0	December 2027		
Zürich Kloten	40	60	0	0	December 2027		

<sup>\*</sup> The remaining scope of the Gap is Not yet Planned



Family 2.3.1 - Airport Safety Nets

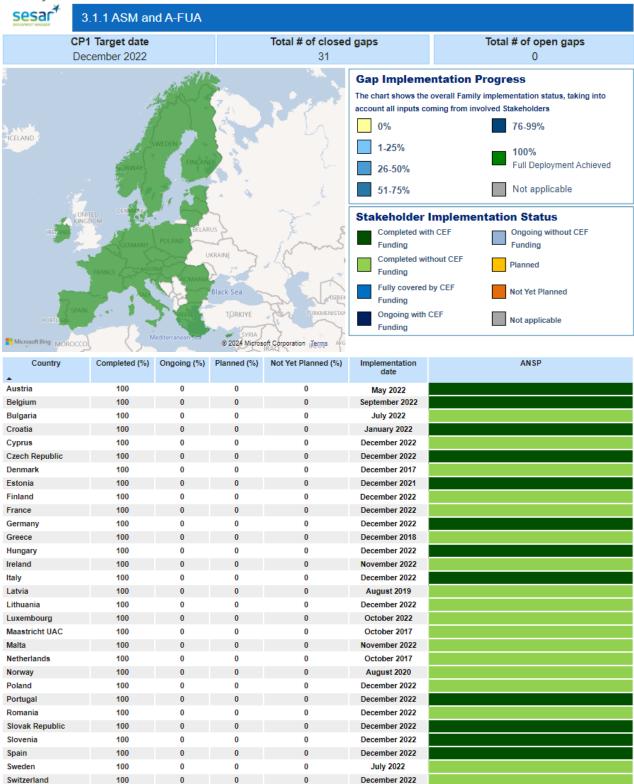


<sup>\*</sup> The remaining scope of the Gap is Not yet Planned



# **AF3 - Flexible Airspace Management and Free Route Airspace**

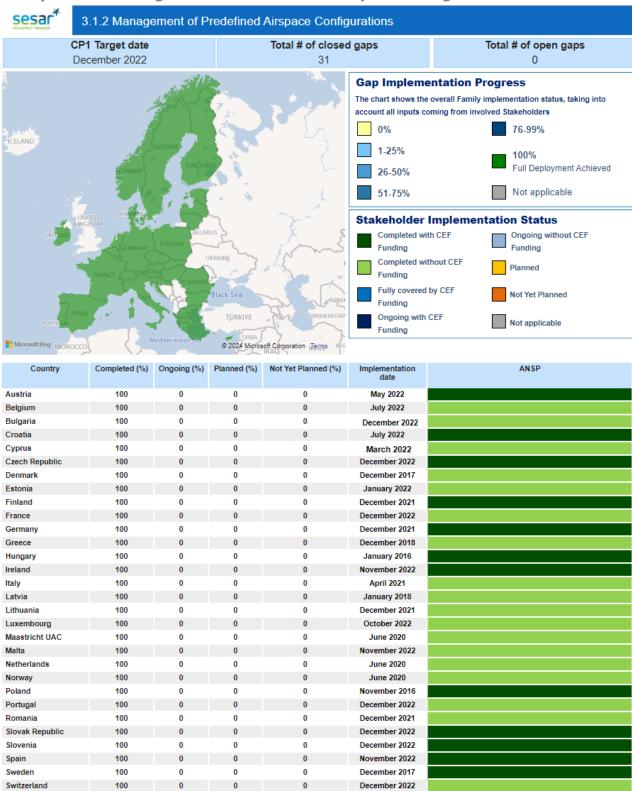
Family 3.1.1 - ASM and A-FUA



	Completed (%)	Ongoing (%)	Planned (%)	Not Yet Planned (%)	Implementation date	Network Manager
Network Manager	100	0	0	0	December 2022	



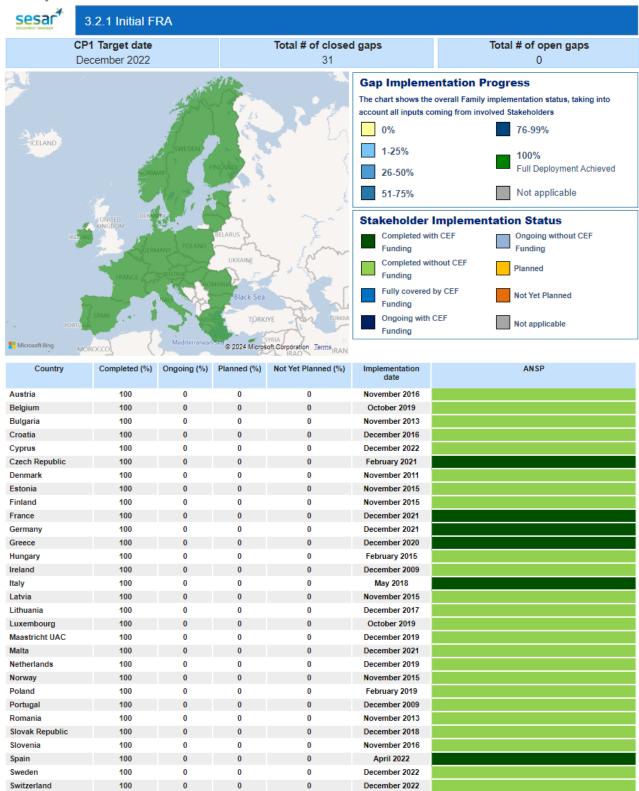
Family 3.1.2 - Management of Predefined Airspace Configurations



	Completed (%)	Ongoing (%)	Planned (%)	Not Yet Planned (%)	Implementation date	Network Manager
Network Manager	100	0	0	0	December 2022	



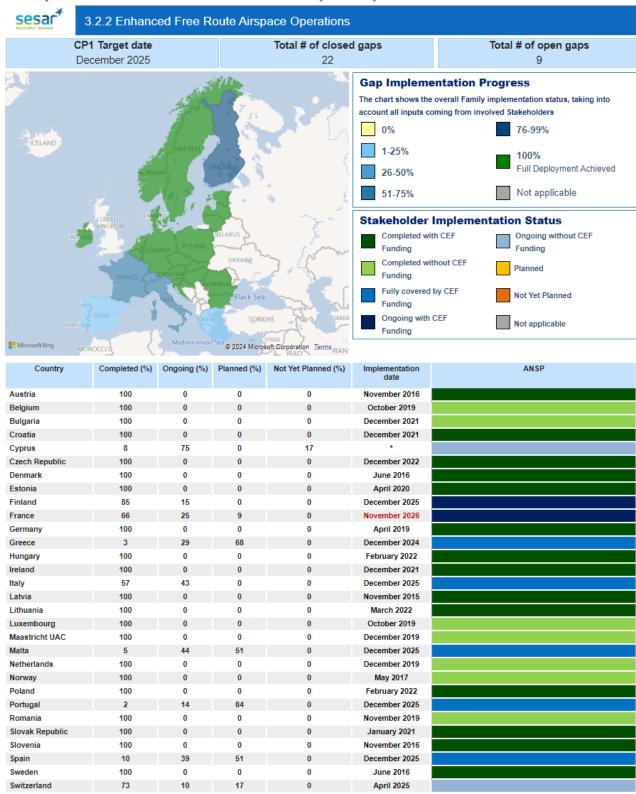
# Family 3.2.1 - Initial FRA



	Completed (%)	Ongoing (%)	Planned (%)	Not Yet Planned (%)	Implementation date	Network Manager
Network Manager	100	0	0	0	December 2022	



Family 3.2.2 - Enhanced Free Route Airspace Operations



<sup>\*</sup> The remaining scope of the Gap is Not yet Planned

	Completed (%)	Ongoing (%)	Planned (%)	Not Yet Planned (%)	Implementation date	Network Manager
Network Manager	100	0	0	0	December 2022	



#### **Focus on Free Route implementation**

Free Route is an operational concept that enables airspace users to fly as close as possible to 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 neighbouring 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:

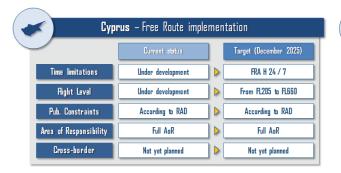
- having a clear picture of the Free Route deployment approach currently followed;
- identifying the Stakeholders' planning to cover all technical requirements by 31<sup>st</sup> December 2025, the CP1 regulatory target date for deploying and operating final FRA.

In the following pages, a specific table for each country within the CP1 Geographical Scope is included, detailing the following information:

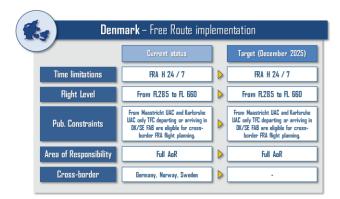
- the *Time limitations* set for the Free Route implementation;
- the *Flight Level* limit;
- the published constraints;
- the Area of Responsibility (AoR) where Free Route is implemented;
- the *cross-border*, indicating the countries with which the cross-border free route has been and will be established by the CP1 target date.





















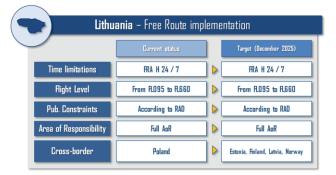




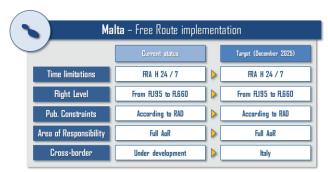


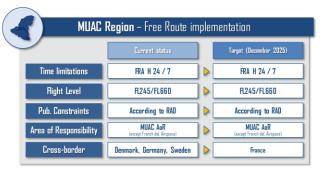




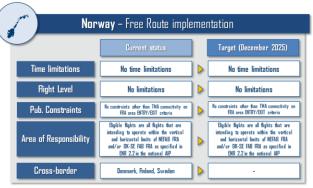








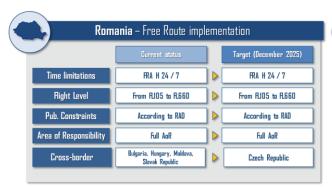








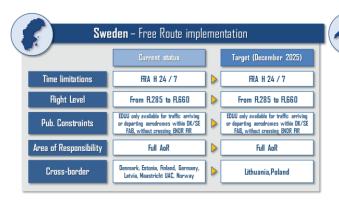


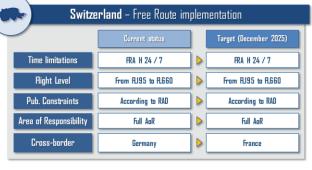








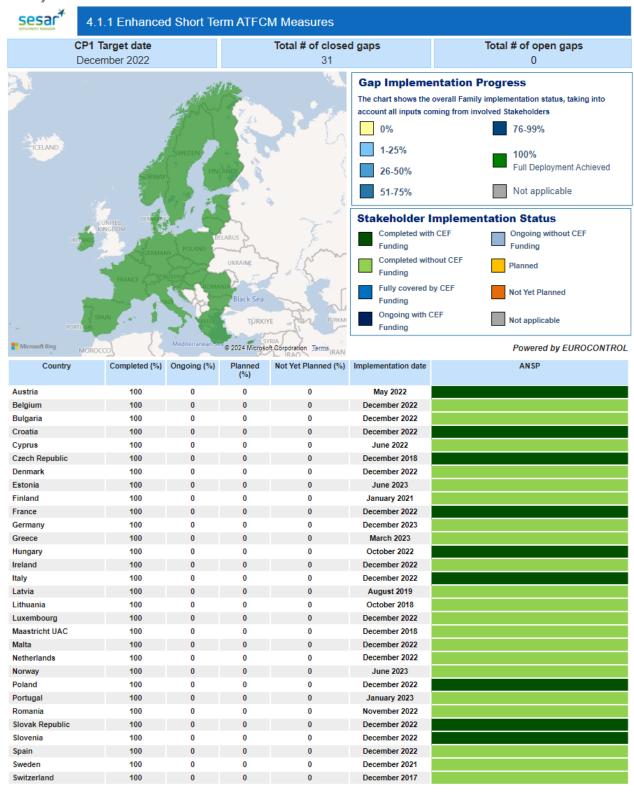






#### **AF4 - Network Collaborative Management**

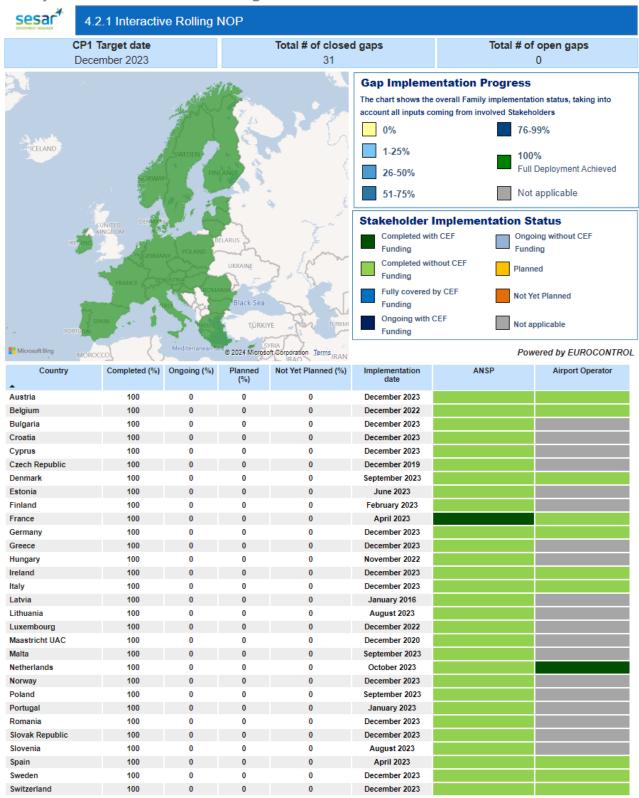
Family 4.1.1 - Enhanced Short Term ATFCM Measures



	Completed (%)	Ongoing (%)	Planned (%)	Not Yet Planned (%)	Implementation date	Network Manager
work Manager	100	0	0	0	April 2023	



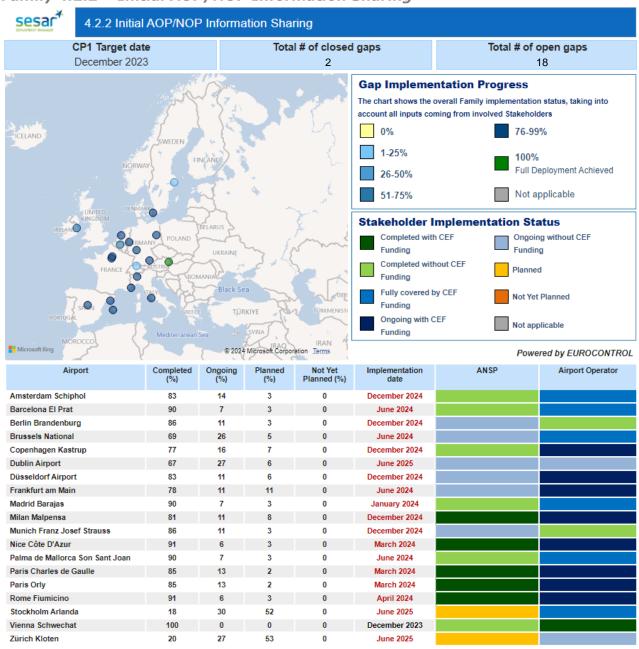
Family 4.2.1 - Interactive Rolling NOP



	Completed (%)	Ongoing (%)	Planned (%)	Not Yet Planned (%)	Implementation date	Network Manager
Network Manager	100	0	0	0	December 2022	



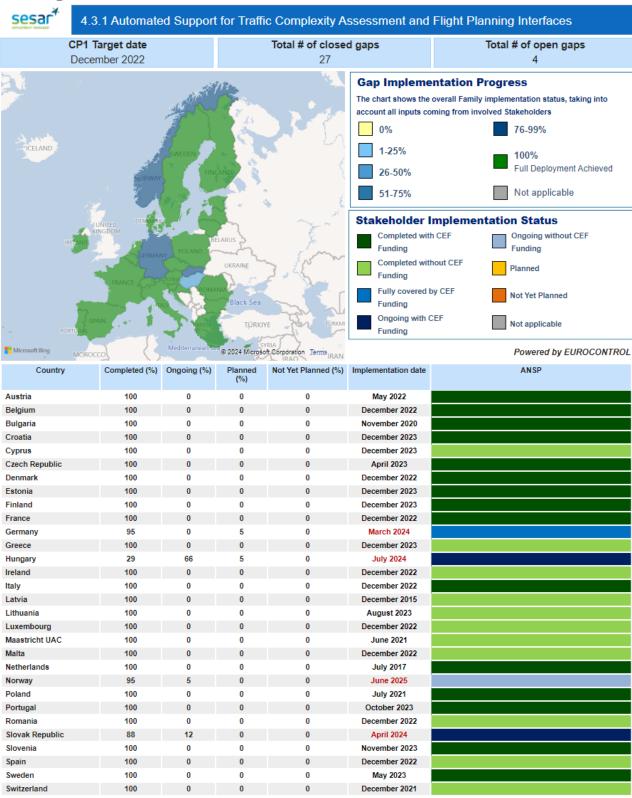
Family 4.2.2 - Initial AOP/NOP Information Sharing



	Completed (%)	Ongoing (%)	Planned (%)	Not Yet Planned (%)	Implementation date	Network Manager
Network Manager	100	0	0	0	December 2023	



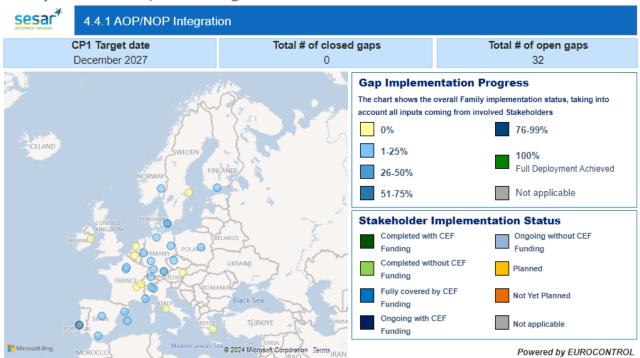
Family 4.3.1 – Automated Support for Traffic Complexity Assessment and Flight Planning Interfaces



	Completed (%)	Ongoing (%)	Planned (%)	Not Yet Planned (%)	Implementation date	Network Manager
Network Manager	100	0	0	0	December 2022	



Family 4.4.1 - AOP/NOP Integration



Airport	Completed (%)	Ongoing (%)	Planned (%)	Not Yet Planned (%)	Implementation date	ANSP	Airport Operator
Amsterdam Schiphol	0	0	80	20	*		
Athens Eleftherios Venizelos	0	0	100	0	December 2027		
Barcelona El Prat	3	25	72	0	December 2027		
Berlin Brandenburg	3	25	72	0	December 2027		
Brussels National	0	0	100	0	December 2027		
Copenhagen Kastrup	34	42	24	0	December 2027		
Dublin Airport	0	0	48	52	*		
Düsseldorf Airport	6	50	44	0	December 2027		
Frankfurt am Main	3	25	72	0	December 2027		
Geneva Airport	0	0	0	100	*		
Hamburg Airport	21	7	72	0	December 2027		
Helsinki Vantaa	10	86	4	0	December 2027		
Lisbon Humberto Delgado	59	37	4	0	December 2026		
Lyon Saint-Exupéry	0	0	0	100	*		
Madrid Barajas	3	25	72	0	December 2027		
Málaga Costa del Sol	3	25	72	0	December 2027		
Milan Linate	11	17	72	0	December 2027		
Milan Malpensa	3	25	72	0	December 2027		
Munich Franz Josef Strauss	28	0	72	0	December 2027		
Nice Côte D'Azur	4	31	65	0	December 2027		
Oslo Gardermoen	3	25	72	0	December 2027		
Palma de Mallorca Son Sant Joan	3	25	72	0	December 2027		
Paris Charles de Gaulle	4	31	65	0	December 2027		
Paris Orly	4	31	65	0	December 2027		
Prague Václav Havel	8	68	24	0	December 2027		
Rome Fiumicino	0	0	100	0	December 2027		
Stockholm Arlanda	0	0	0	100	*		
Stuttgart Airport	11	17	72	0	December 2027		
Vienna Schwechat	0	0	100	0	December 2027		
Warsaw Chopin Airport	11	17	72	0	December 2027		
Zürich Kloten	8	67	25	0	December 2027		

<sup>\*</sup> The remaining scope of the Gap is Not yet Planned

	Completed (%)	Ongoing (%)	Planned (%)	Not Yet Planned (%)	Implementation date	Network Manager
Network Manager	15	0	0	85	December 2027	



#### AF5 - SWIM

### Family 5.1.1 - Common SWIM PKI and cyber security

The Public Key Infrastructure (PKI) and cyber security components of the SDP are dealt within two separate Families, namely:

- Family 5.1.1 Common SWIM PKI and cyber security for the common European Aviation Common Public Key Infrastructure (EACP) addressing the governance and the common infrastructure ensuring regional and global interoperability and the appropriate cyber security objectives and requirements for the common PKI service.
- Family 5.2.1 Stakeholders' SWIM PKI and cybersecurity addresses the Stakeholder implementation and interoperability requirements with the EACP. It has to be noted that Family 5.2.1 allows the option to deploy a local PKI. The EACP must accredit the local PKI, through trust lists, in case this becomes part of it.

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 being 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.

# 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 successfully completed in June 2022.

The project aimed 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 (the EACP), are required to sign, emit and maintain digital certificates and validation services, either implemented locally or as a common service.

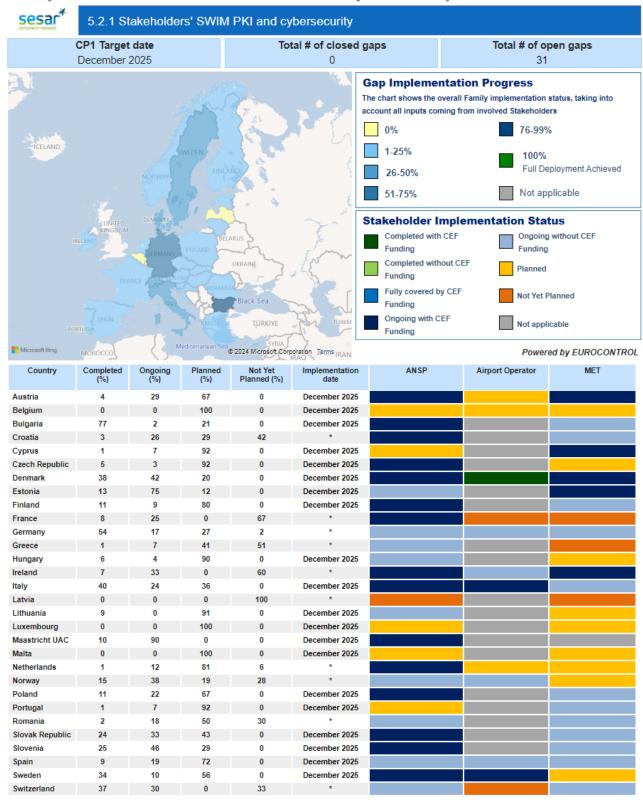
The project reached the following objectives:

- The Call for Tender Material for the deployment of the first EACP solution was developed;
- The SWIM Common PKI policies & procedures for establishing a trust framework was agreed and consulted with the mandated Stakeholders through the SDM consultation platform;
- A complete set of documents detailing how the EACP will be deployed and developed was published;
- A "Declaration of Interest" for joining the founding members of the EACP was issued.

The call for tender was launched in 2023 to select a contractor to perform the day-to-day EACP operations, which will start in 2024, in line with the deployment deadline of CP1 Sub AF 5.1 - *Common infrastructure components*. Currently 43 organisations (ANSPs, airports, airspace users, manufacturers and aviation MET service providers) have responded positively to using the EACP.



Family 5.2.1 - Stakeholders SWIM PKI and cybersecurity

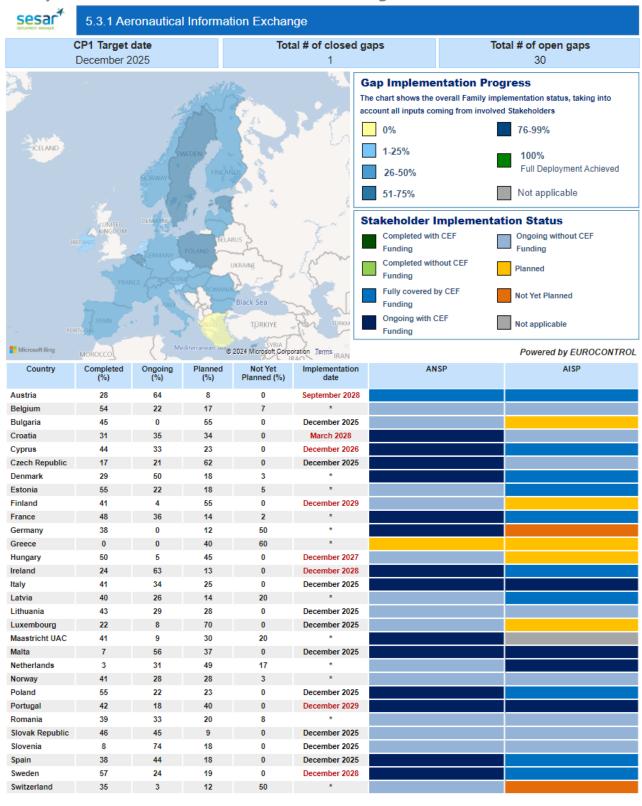


<sup>\*</sup> The remaining scope of the Gap is Not yet Planned

	Completed (%)	Ongoing (%)	Planned (%)	Not Yet Planned (%)	Implementation date	Network Manager
vork Manager	90	10	0	0	December 2024	



Family 5.3.1 - Aeronautical Information Exchange

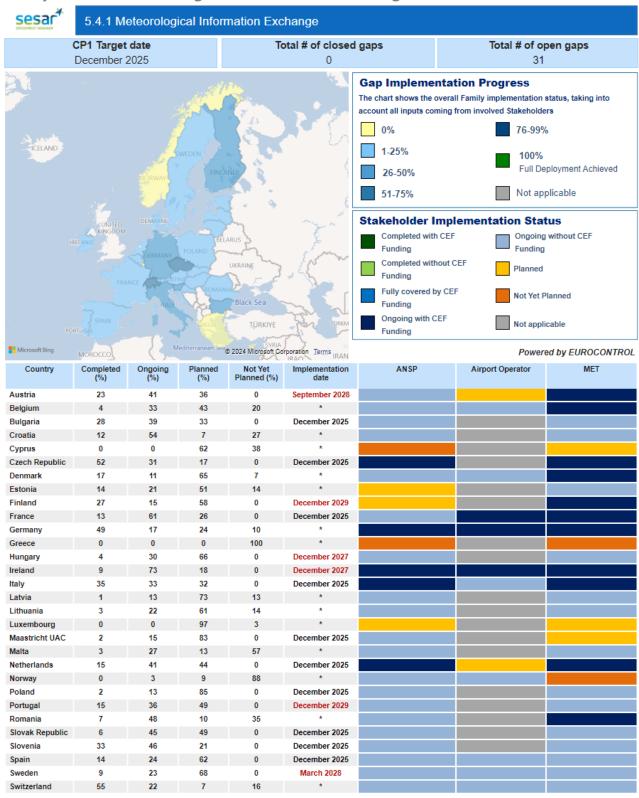


<sup>\*</sup> The remaining scope of the Gap is Not yet Planned

	Completed (%)	Ongoing (%)	Planned (%)	Not Yet Planned (%)	Implementation date	Network Manager
Network Manager	100	0	0	0	December 2021	



Family 5.4.1 - Meteorological Information Exchange

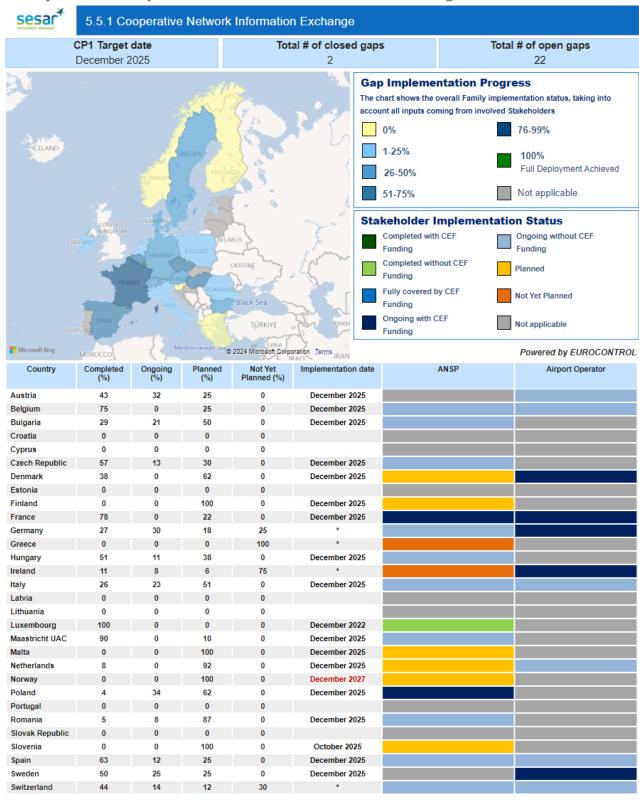


<sup>\*</sup> The remaining scope of the Gap is Not yet Planned

	Completed (%)	Ongoing (%)	Planned (%)	Not Yet Planned (%)	Implementation date	Network Manager
Network Manager	0	0	0	100	*	



Family 5.5.1 - Cooperative Network Information Exchange

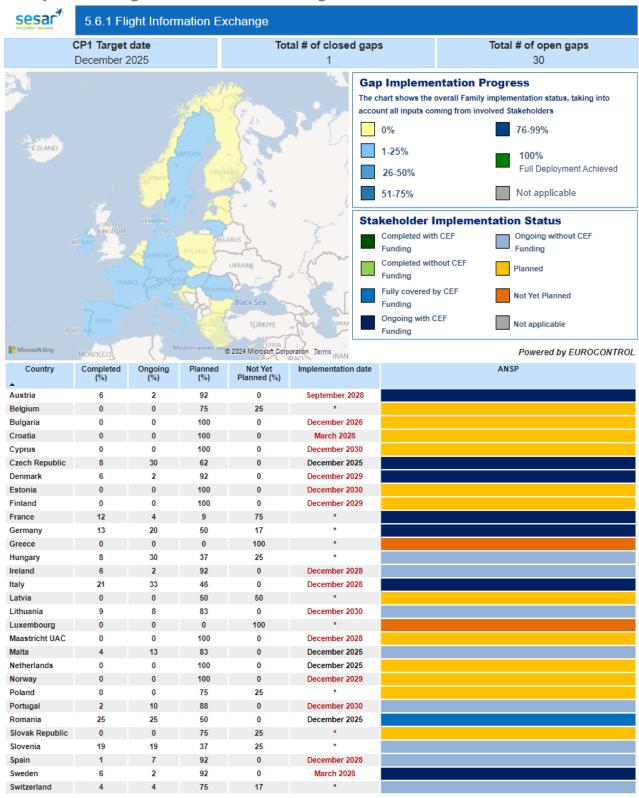


<sup>\*</sup> The remaining scope of the Gap is Not yet Planned

	Completed (%)	Ongoing (%)	Planned (%)	Not Yet Planned (%)	Implementation date	Network Manager
twork Manager	100	0	0	0	December 2021	



Family 5.6.1 - Flight Information Exchange



<sup>\*</sup> The remaining scope of the Gap is Not yet Planned

	Completed (%)	Ongoing (%)	Planned (%)	Not Yet Planned (%)	Implementation date	Network Manager
Network Manager	100	0	0	0	December 2022	



#### AF5 - SWIM Service View

### **SWIM Services Implementation – Overview of deployment activities**

The SWIM requirements' awareness has increased, as demonstrated by the increased number of countries which are addressing the planning and deployment of SWIM services. In fact, the number of available SWIM Services is increasing within the European SWIM registry and more than 100 SWIM services are expected to be available by 2025.

The services in the SWIM Registry are currently made available by the Network Manager and Met Providers. Furthermore, multi-stakeholders Implementation Projects submitted to CINEA in the context of CEF Call 2022 were awarded and are in execution phase, supporting the implementation of ASM and AIM Services in Family 5.3.1 and the implementation of FF\_ICE/R1 in Family 5.6.1, mitigating their limited progress to date.

In 2023, a consortium of stakeholders also submitted a project proposal addressing Family 5.4.1 – Meteorological Information Exchange to CINEA, aiming to include SWIM MET services in a collaborative ATM environment to move towards Trajectory Based Operations (TBO).

The following main facts can be highlighted with regard to AF5 Families dealing with SWIM services:

- Family 5.3.1 Aeronautical Information Exchange, thanks to a collaborative effort in the Aeronautical Information SWIM service Subgroup (A3SG), the definition and description of the services to be deployed have progressed significantly. Moreover, the reported progress of AIM services (Digital NOTAM service, Aerodrome Mapping service, Aeronautical Information Feature service) is expected to increase benefitting of the ACADIA CEF IP 2022\_014\_AF5, awarded in the frame of CLEAN ATM initiative, led by EUROCONTROL, and contributed by a wide number of implementing partners. This project has started and is supporting the Stakeholders meeting the implementation deadline for 13 countries (Austria, Cyprus, Denmark, Estonia, France, Ireland, Italy, Latvia, Malta, Poland, Portugal, Spain and Sweden). On the other hand, with regard to the ASM services, whose implementation is quite advanced and supported by IP 2022\_020\_AF5 ASM SWIM, the implementation of ARES Service is expected to be deployed beyond the CP1 target date by several stakeholders since the interface between ASM and ATC system will be SWIM compliant after a major update of the ATM system in 2025-2029.
- Family 5.4.1 Meteorological Information Exchange is steadily progressing by MET service providers; in fact, several SWIM services are already published in the SWIM registry. However, the consumption of those MET services shows low progress, since stakeholder's ATM systems might need to be updated to achieve the required capability to consume digital MET information. In fact, the ATM systems level of upgrade is depending on the local implementations and on what meteorological data/service and information are used today. The translation of digital data into legacy TAC format will be only a first step towards ATM modernisation and a second step is necessary to bring valuable benefits. This issue was addressed, together with EUROCONTROL, to provide joint support to the MET community. To support this process, the Meteorological SWIM Service Subgroup (MET3SG) is working on the development of the service definitions of the mandated MET-services as well as on a roadmap for MET-SWIM services beyond CP1 to utilize the new capabilities and possibilities that SWIM offers.
- **Family 5.5.1 Cooperative Network Information Exchange** services provision implementation can be considered well progressing thanks to the advanced stage of NM B2B services provision. Nevertheless, most of service consumers (ANSP, AO, AU) are relying on the B2C connection through NM systems which already provide the means to exchange the CP1 requested information to NM.
- **Family 5.6.1 Flight Information Exchange**, 2022\_035\_AF5 FF-ICE R1-eFPL Europe is pioneering the deployment of FF-ICE concept starting with Release 1. This transition foresees the involvement of several Stakeholders (NM, AUs, ANSPs) from flight plan origination to its distribution to the impacted ATSU. The rollout of FF-ICE/R1 will be gradual, where ground stakeholders will update their system transitioning to FF-ICE both through updates and implementations of new systems since in most of the cases, the legacy ATM systems are not capable to process eFPL data. Initial steps will include data exchange via SWIM, setting up SWIM Access Points, and partial system



integrations, laying the groundwork for comprehensive implementation including the modifications of systems and procedures to actually make use of the new information provided through eFPL. An FF-ICE/R1 deployment initiative has been launched and the first FF-ICE/R1 implementation roadmap elaborated. It contains detailed information gathered from the mandated operational stakeholders on their progress and plans. The delay in the implementation of this Family is evident and the FOC dates vary within 2028-2032 timeframe<sup>7</sup>. The airborne information received is limited, however it seems that most of the respondent AUs will comply with the mandate by 2025-2026. There will also be a big portion of ANSPs who will be partially completed by 2025. In fact, the implementation and transition to eFPL cannot be seen as a big bang deployment but rather as a phased iterative approach to achieve the full implementation.

Extended AMAN SWIM service covers 20 gaps mirroring the gaps from Family 1.1.1. - Extended AMAN. The implementations are progressing on the basis of the SWIM service standard ED-254 which nonetheless was identified as allowing specific implementation choices that, if not properly addressed, could result in increased implementation complexity and loss of interoperability. An activity is progressing under Information Management Team (IMT) to limit such choices and, in the medium term, converge on a common Service Definition, to be applied universally in the deployment landscape.

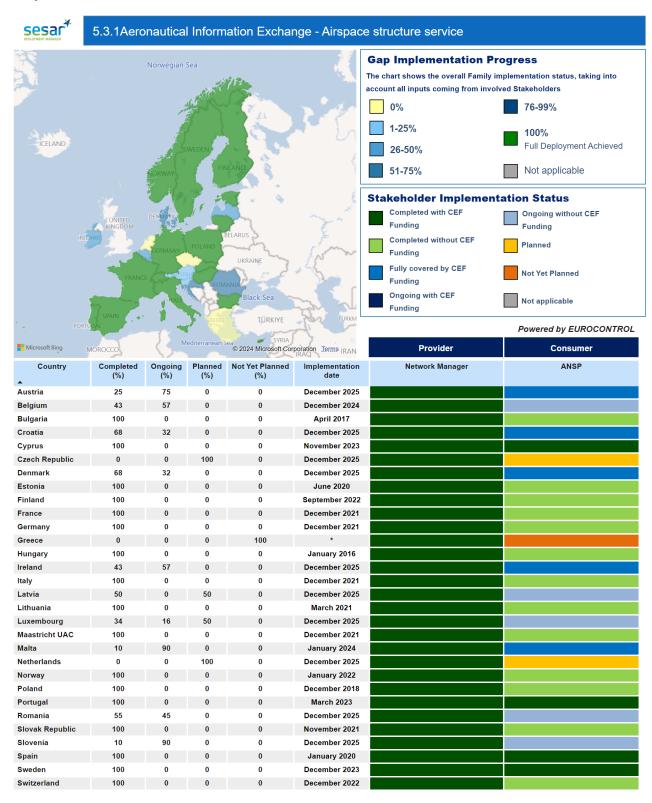
<sup>&</sup>lt;sup>7</sup> some misalignments were identified between the reporting of FF-ICE services in the LSSIP+ tool (namely, Flight Data Request service, Notification service and Data Publication service) and the FOC dates reported in the FF-ICE/R1 questionnaire. Those misalignments will be further assessed in occasion of the upcoming SDP Risk Management Plan and the next Monitoring Exercise 2024.



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### Family 5.3.1 - SWIM Services

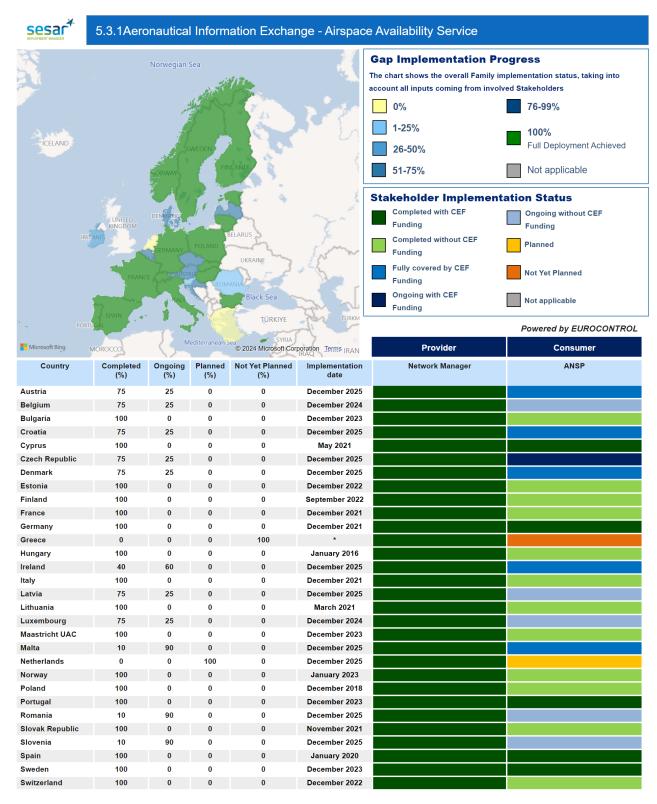
### **Airspace Structure Service**



<sup>\*</sup> The remaining scope of the Gap is Not yet Planned



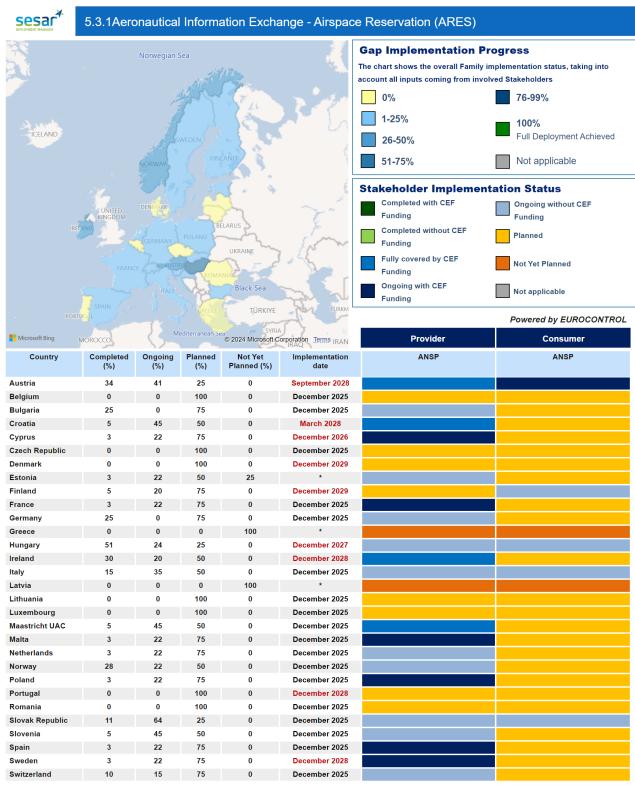
#### **Airspace Availability Service**



<sup>\*</sup> The remaining scope of the Gap is Not yet Planned



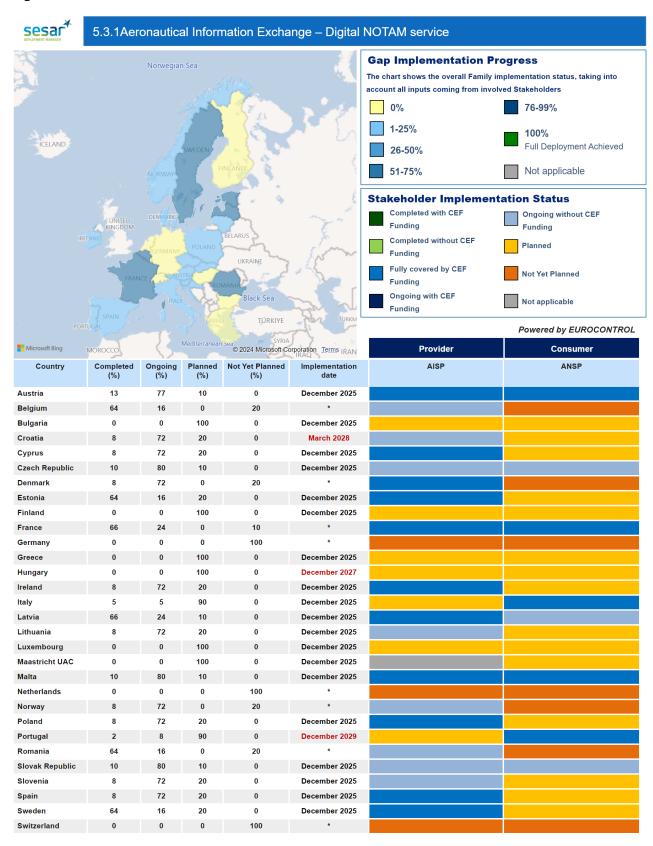
#### Airspace Reservation (ARES) Service



<sup>\*</sup> The remaining scope of the Gap is Not yet Planned



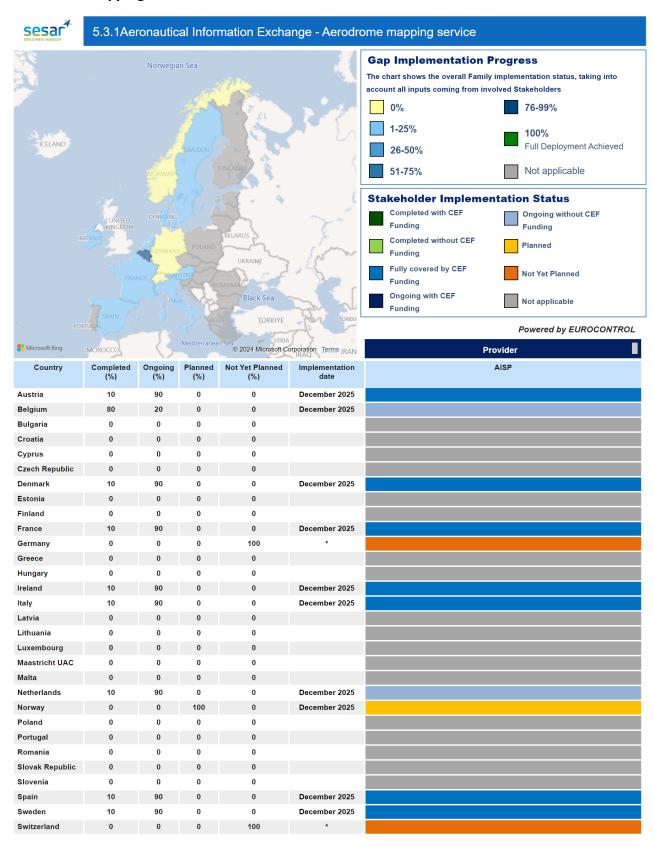
### **Digital NOTAM Service**



<sup>\*</sup> The remaining scope of the Gap is Not yet Planned



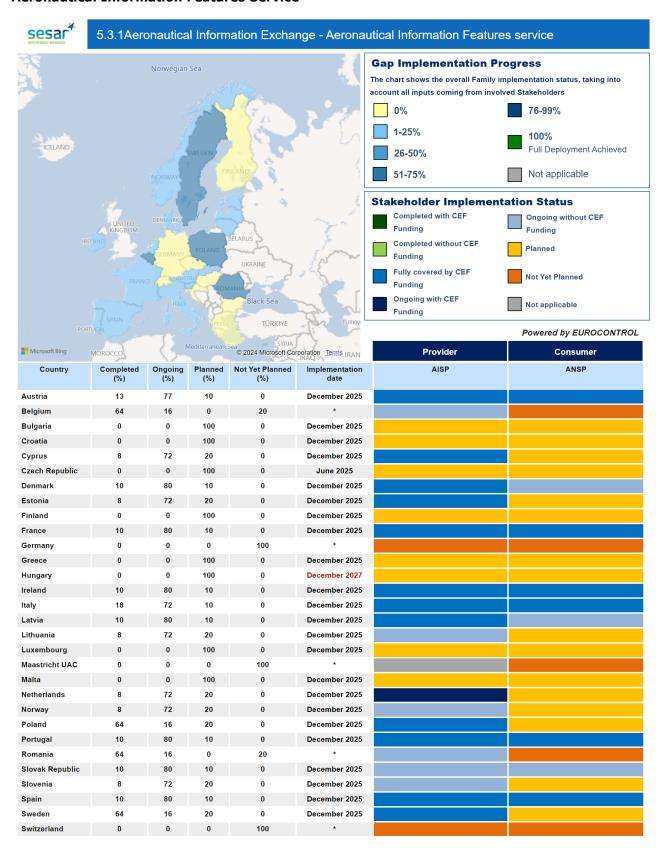
### **Aerodrome Mapping Service**



<sup>\*</sup> The remaining scope of the Gap is Not yet Planned



#### **Aeronautical Information Features Service**

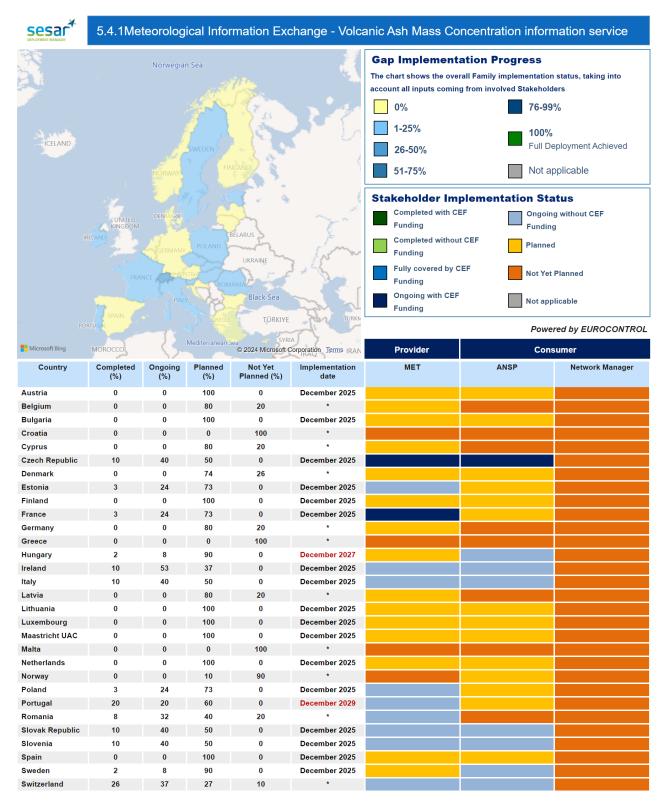


<sup>\*</sup> The remaining scope of the Gap is Not yet Planned



### Family 5.4.1 - SWIM Services

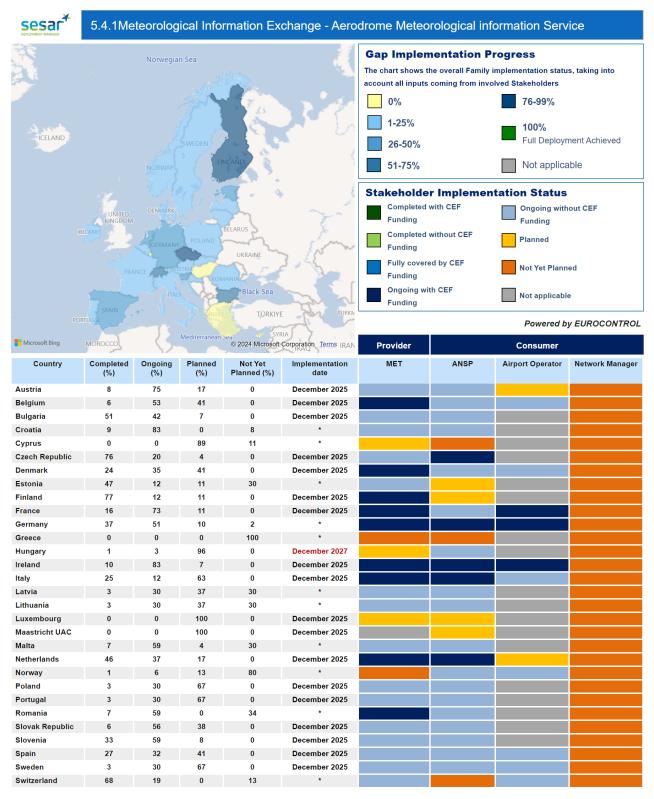
#### **Volcanic Ash Mass Concentration Information Service**



<sup>\*</sup> The remaining scope of the Gap is Not yet Planned



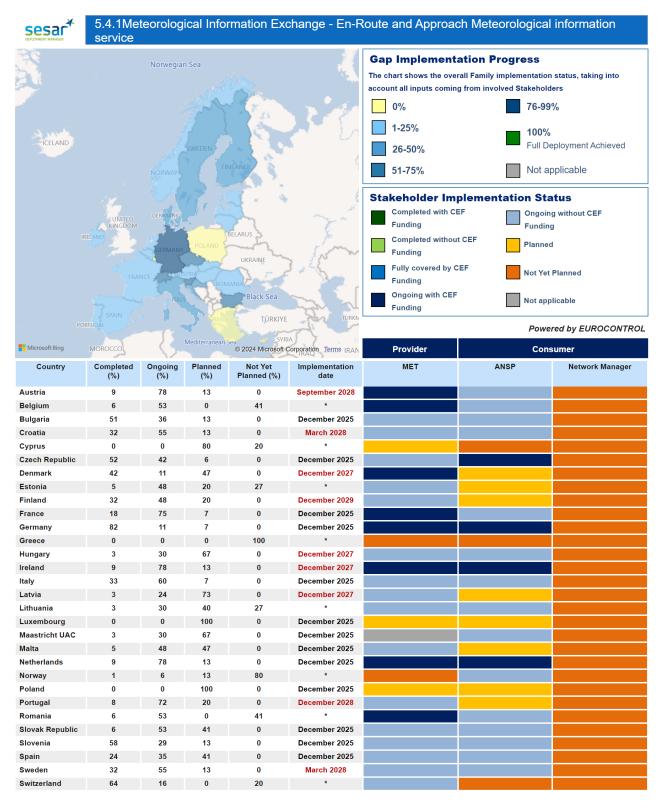
### **Aerodrome Meteorological Information Service**



<sup>\*</sup> The remaining scope of the Gap is Not yet Planned



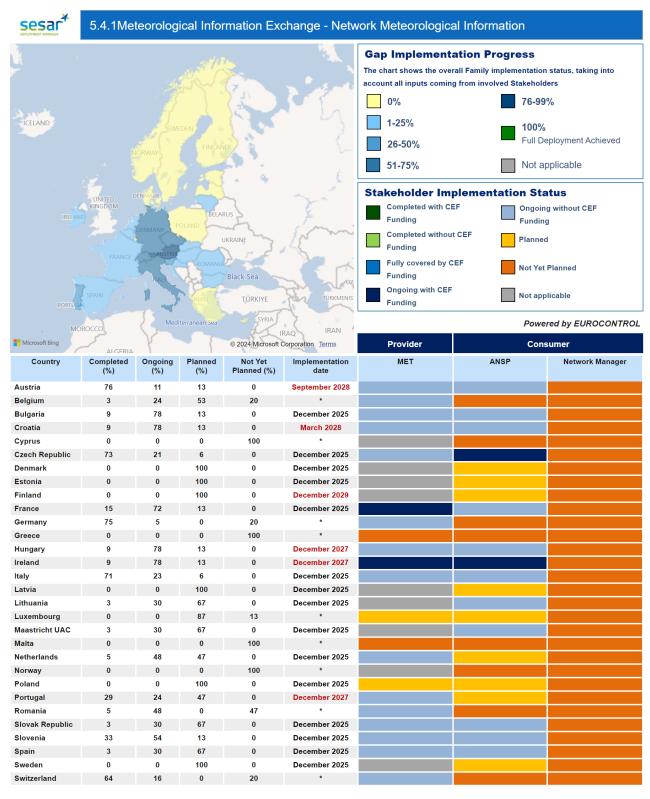
### **En-Route and Approach Meteorological information Service**



<sup>\*</sup> The remaining scope of the Gap is Not yet Planned



### **Network Meteorological Information Service**

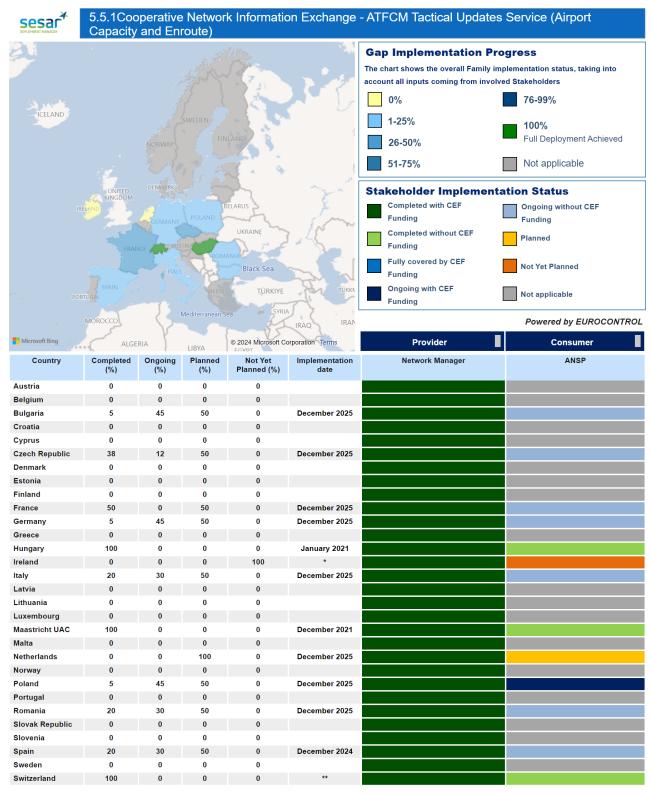


<sup>\*</sup> The remaining scope of the Gap is Not yet Planned



### Family 5.5.1 - SWIM Services

### **ATFCM Tactical Updates Service (Airport Capacity and Enroute)**

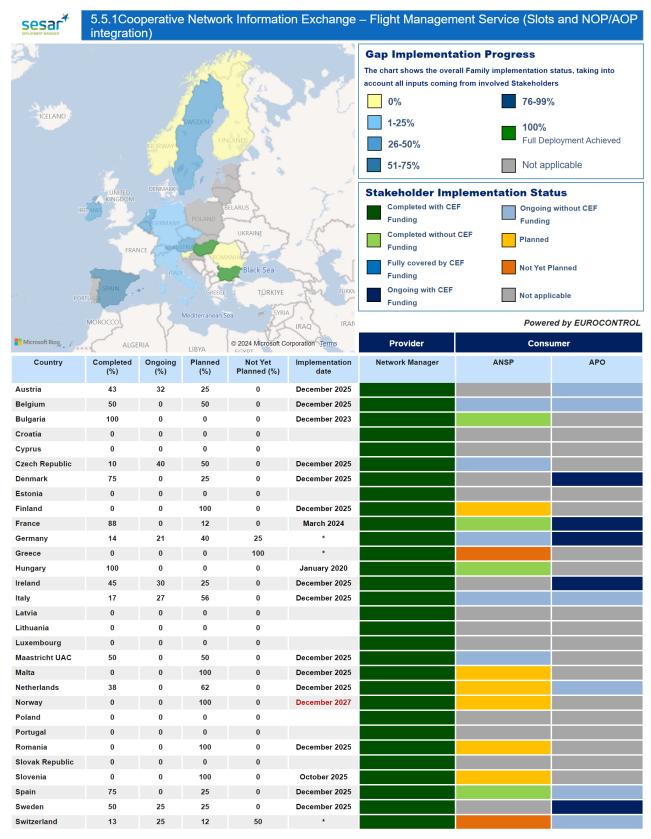


<sup>\*</sup> The remaining scope of the Gap is Not yet Planned



<sup>\*\*</sup> Missing data

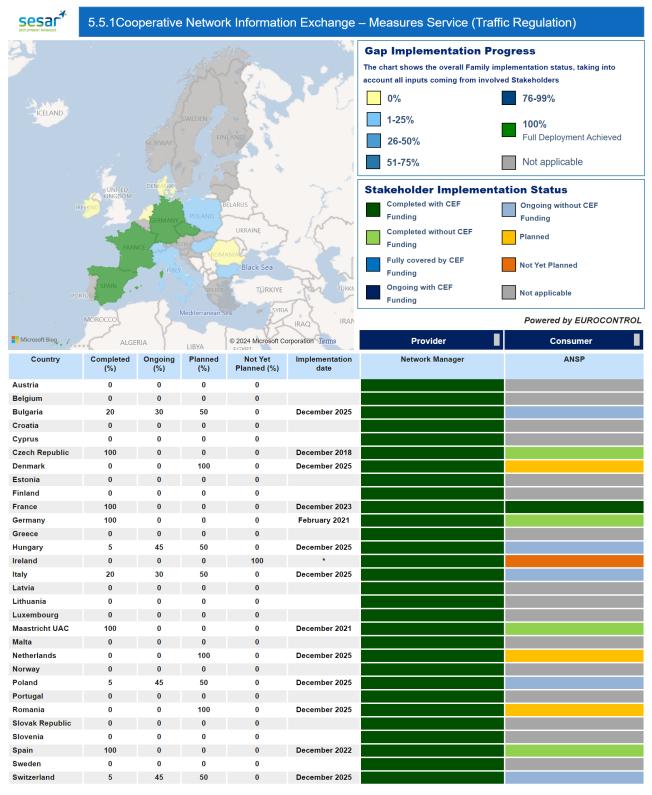
### **Flight Management Service**



<sup>\*</sup> The remaining scope of the Gap is Not yet Planned



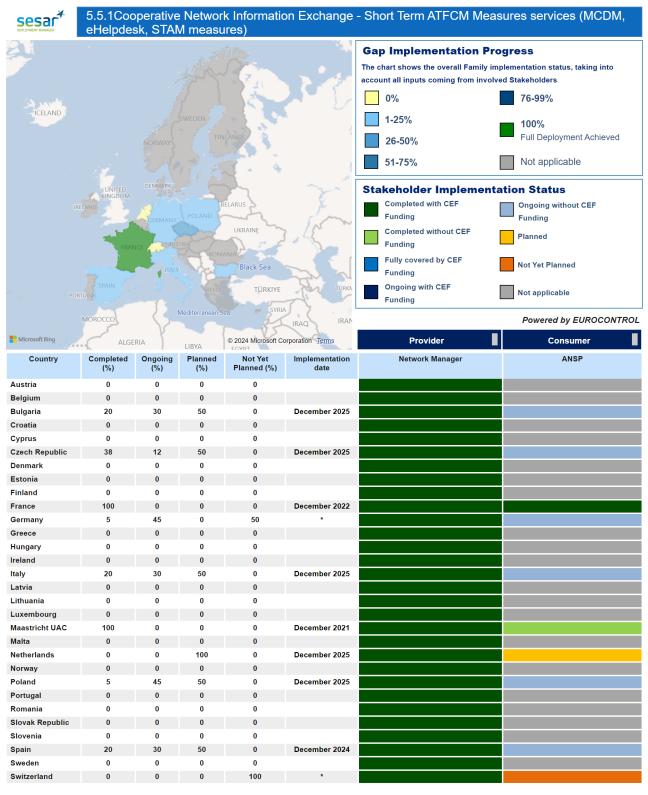
#### **Measures Service**



<sup>\*</sup> The remaining scope of the Gap is Not yet Planned



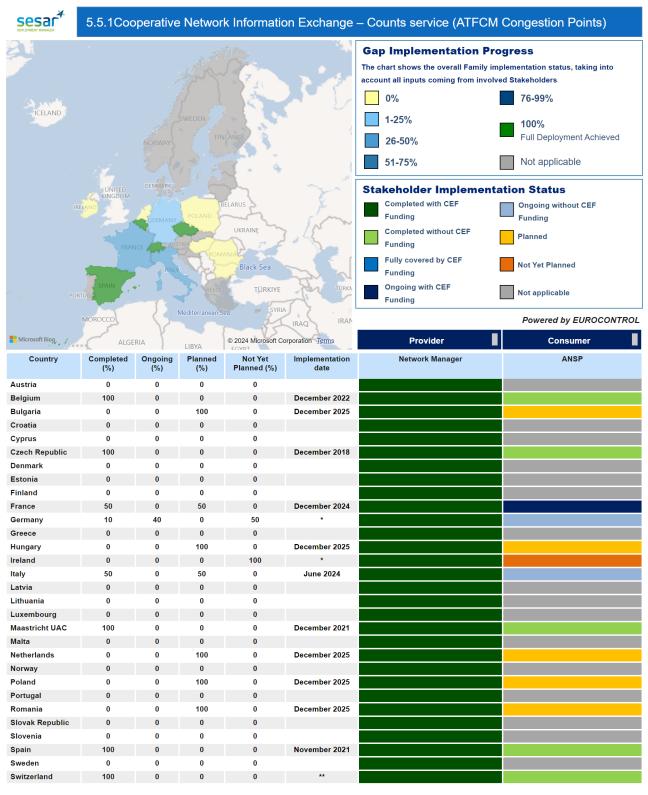
### Short Term ATFCM Measures Services (MCDM, eHelpdesk, STAM measures)



<sup>\*</sup> The remaining scope of the Gap is Not yet Planned



### **Counts Service (ATFCM congestion points)**



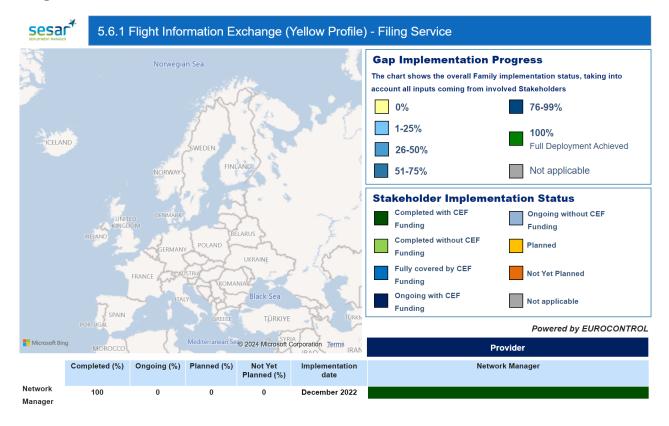
<sup>\*</sup> The remaining scope of the Gap is Not yet Planned



<sup>\*\*</sup> Missing data

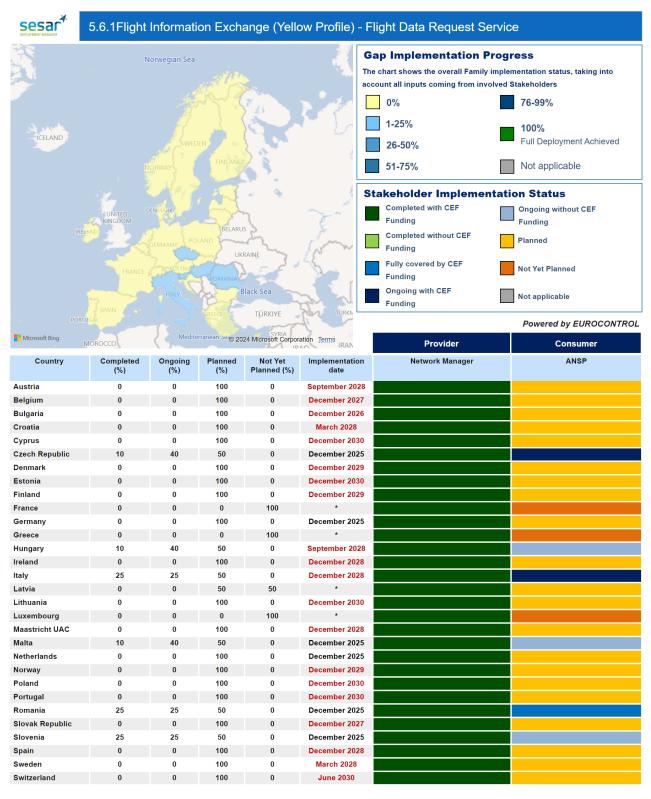
### Family 5.6.1 - SWIM Services

### **Filing Service**





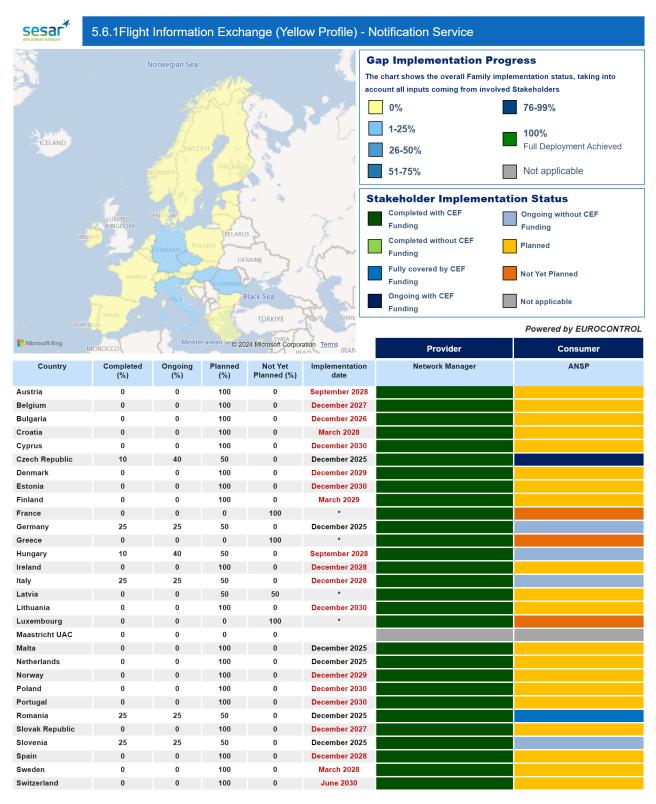
### Flight Data Request Service



<sup>\*</sup> The remaining scope of the Gap is Not yet Planned



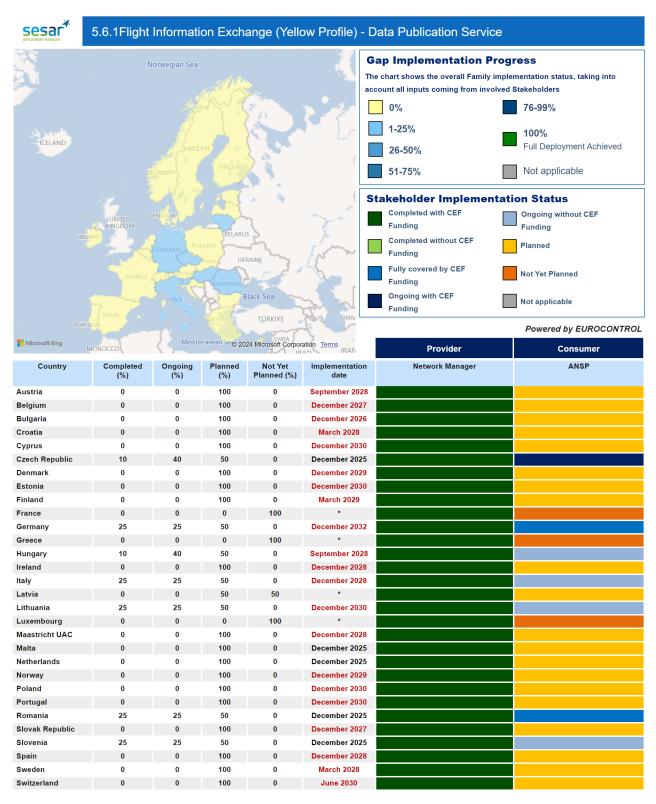
#### **Notification Service**



<sup>\*</sup> The remaining scope of the Gap is Not yet Planned



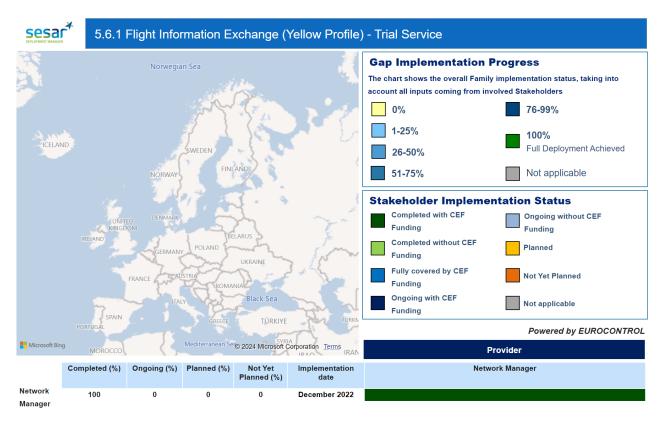
#### **Data Publication Service**



<sup>\*</sup> The remaining scope of the Gap is Not yet Planned

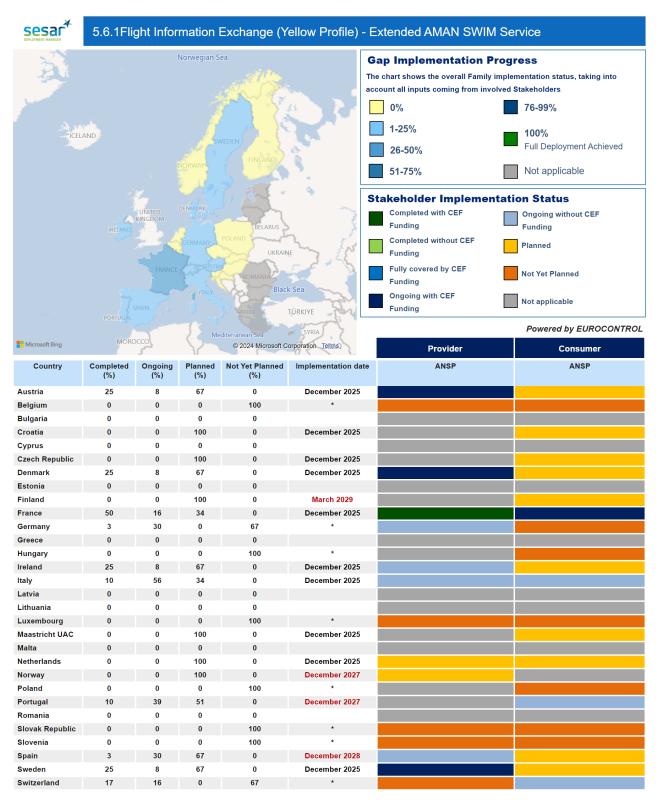


### **Trial Service**





#### **Extended AMAN SWIM Service**

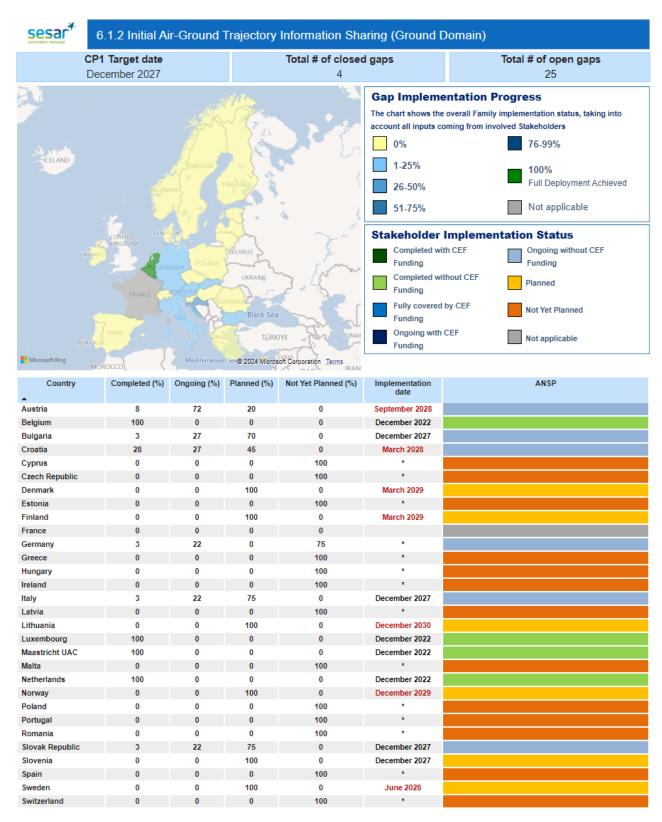


<sup>\*</sup> The remaining scope of the Gap is Not yet Planned



### **AF6 - Initial Trajectory Information Sharing**

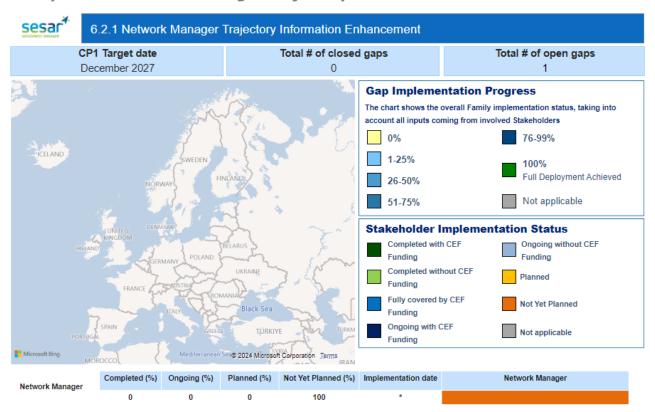
Family 6.1.2 – Initial Air-Ground Trajectory Information Sharing (Ground Domain)



<sup>\*</sup> The remaining scope of the Gap is Not yet Planned



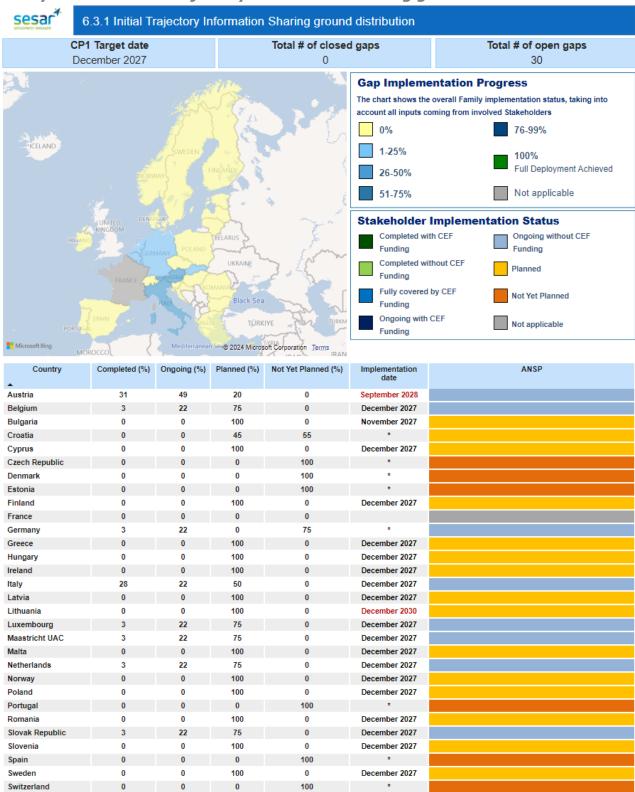
Family 6.2.1 - Network Manager Trajectory Information Enhancement



<sup>\*</sup> The remaining scope of the Gap is Not yet Planned



Family 6.3.1 - Initial Trajectory Information Sharing ground distribution



<sup>\*</sup> The remaining scope of the Gap is Not yet Planned

	Completed (%)	Ongoing (%)	Planned (%)	Not Yet Planned (%)	Implementation date	Network Manager
Network Manager	20	0	0	80	December 2027	



## 3. 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, who 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 2022, hence they are considered as implementation gaps. The following Families must be considered in this Airspace Users gap 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, AU systems shall be upgraded to:
  - consume and use the European Airspace Use Plan (EAUP) and its updates (EUUP), published by NM via the NM B2B Airspace Availability Service;
- Family 5.5.1 Cooperative Network Information Exchange, In particular, AU systems shall be upgraded to use the NM B2B Services in order to:
  - o consume Flights updates Including ATFCM Slots provided via Flight Management Service,
  - o consume Traffic Regulations provided via Measures Service,
  - collaborate on the application of STAM;
- Family 5.6.1 *Flight Information Exchange*, In particular, AU systems shall be upgraded to use the NM B2B Services in order to:
  - consume the Filing Service in support of information Exchange of FF-ICE;
- 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**

While the monitoring of ANSPs' progress is performed through the LSSIP+ tool, the collection of data and information from airlines is organised around the distribution and collection of individual monitoring templates to make sure CP1-relevant data is requested, featuring all technical and operational information to allow an easy completion. In the majority of the cases the templates were distributed through the Airspace Users' organizations such as IATA and A4E or have been directly provided by SDM.

The main reason is that most of CP1 requirements are applicable to flights (aircraft) operating as general air traffic in accordance with instrument flight rules within the Single European Sky airspace, this includes all AU's transiting through SES airspace or operating in SES airports.

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 thanks to the support of EDA.

### **Results**

The Airspace Users Monitoring Exercise resulted in the reception of 31 feedbacks, 24 from Civil Airspace Users and 7 from Military Airspace Users. Among them, 21 Civil Airspace Users are based in the 27 Member



States of the EU plus the 4 states of the European Free Trade Association (EFTA), representing a fleet of 2400 aircraft, 2 are based in non-EU ECAC Region, representing a fleet of 356 aircraft, expected to operate the majority of their fleet into or over EU airspace. One is based in the US with a fleet size of 960 aircraft out of which only a small portion, namely the long rage equipment is expected to operate into, over or out of EU airspace.

Compared to the last reporting cycle which was still impacted by the COVID-19 crisis, the airline feedback on this survey has improved but is still at a low level. It has to be noted that the presented data cannot be seen as fully representative, although some important considerations can be made. The below assessment analyses the contribution provided by the Civil Airspace Users.

According to the replies, all the respondent airlines confirmed the completion of the SDP Families with a CP1 target date set in the past (Family 3.1.1 ASM and A-FUA, Family 3.2.1 Initial FRA, Family 4.1.1 Enhanced STAM, Family 4.2.1 Interactive Rolling NOP).

#### Family 3.1.1 ASM and A-FUA

Target date: 31 December 2022

This Family includes two requirements for Airspace Users:

- 1. Airspace Users must be able to interface with the Network Manager systems in accordance with AF3. Interfaces must be set out to allow updated real-time airspace data to be sent to operational stakeholder systems and allow those stakeholders to communicate information in an accurate and timely manner. These systems must be modified to enable such interfaces using the available SWIM services set out in point 5.1.3 in IR (EU) 2021/116 (CP1).
- 2. Flight Planning systems must be capable to process FPL (Flight Plan Message) improvements (based on EAUP/EUUP information) received via RRP (Re-routing Proposal Message) or Opportunity tool application and have to be used in daily operations.

According to the contribution received, not all Airspace users' systems (Computer Flight Plan Software Providers - CFSP) are able to achieve full automation. They have capabilities to receive information and to process them in their Flight Planning Systems but the latter has to be triggered manually. The interpretation is that, to comply with CP1, only the receiving capability needs to be automated, but the recalculation of the flight plan may be manually performed.

### Family 3.2.1 Initial FRA

Target date: 31 December 2022

This Family includes two requirements for Airspace Users:

- 1. Operational procedures have to be in place to take into account the airspace and traffic constraints of Initial FRA.
- 2. The Flight Planning system is adapted as necessary to support initial FRA restrictions, e.g., in terms of lateral, vertical or time limitations.

Although the Airspace Users already operate FRA across Europe, not all Airspace Users' implementations are in a way to generate optimum benefits yet. In fact, CFSPs are still in the process of optimising flight plans calculations.

#### Family 3.2.2 Enhanced Free Route Airspace Operations

Target date: 31 December 2025

This Family includes two requirements for Airspace Users:

- 1. Operational procedures have to be in place to take into account the airspace and traffic constraints when planning a route in Enhanced Free Route environment (Enhanced Free Route environment covers also cross-border FRA, TMA connectivity and 24/7 FRA above FL305).
- 2. The Flight Planning system has to be adapted as necessary to support Enhanced Free Route operations, e.g.: Cross-border FRA, RAD, TMA connecting routes.

The cross-border FRA is not completely developed yet. Currently, 65% reported completed with regard to requirement 1 and 62% with regard to requirement 2. However, in FABs where cross border FRA is already deployed, (e.g., Baltic FAB, Danube FAB, DK-SE FAB, NEFAB, UK-Ireland FAB and FAB CE), benefits are evident for Airspace Users enhanced by the inter-FAB FRA initiatives in place, such as Borealis.



#### Family 4.1.1 Enhanced Short Term ATFCM Measures

Target date: 31 December 2022

Procedures (automatic or manual) have to be set up including the transmission to the concerned crew, to monitor the validity of the flight plan with regard to any mandatory rerouting or modification of slot, as required by STAM measures.

This Family was implemented uneventfully on Airspace Users' side and no concerns have been raised.

#### Family 4.2.1 Interactive rolling NOP

Target date: 31 December 2023

The procedures for reception, transmission to the flight crews and usage of calculated take-off times ('CTOT') shared by NM which include Target Time information appear to be widely achieved.

#### Family 5.2.1 Stakeholders' SWIM PKI and cyber security

Target date: 31 December 2025

Local procedures and systems to manage digital certificates (validation, revocation, etc.), as stated in the relevant section for Family 5.2.1 of the SESAR Deployment Programme, have to be implemented.

PKI mechanism are used in B2B communication already today and may be maintained without changes. In fact, 62% of the reporting AUs' responded to have completed this Family already.

#### Family 5.3.1 Aeronautical Information Exchange

Target date: 31 December 2025

NM B2B airspace availability service including EAUP/EUUP information has to be consumed in the daily operations by updating Flight Planning and/or any other relevant FOC system).

Two years prior the target date, 27% of the reporting AUs' indicate to have completed already. Some Airspace Users reported having the function in place but not automated or via B2B.

#### Family 5.5.1 Cooperative Network Information Exchange

Target date: 31 December 2025

This Family includes three requirements for AUs:

- 1. the Airspace Users' flight planning system is upgraded to consume the flight updates relative to their flights (including the ATFM slot), which are published by NM via the NM B2B Services;
- 2. the Airspace Users' flight planning system is upgraded to consume the measures updates, published by NM via the NM B2B Services, which may affect their flights;
- 3. the Airspace Users' system is upgraded to use the NM B2B Services in order to collaborate with NM on the application of STAM measures.

Being two years ahead the target date, about 45% of the reporting AUs indicated to have completed this Family already. Implementation is ongoing and no concerns have been raised within this monitoring campaign. It is important to mention that, if no SWIM yellow profile B2B interface is implemented, NM will be providing tools to support manual processing.

### Family 5.6.1 Flight Information Exchange

Target date: 31 December 2025

Airspace Users will have to adapt or replace existing Flight plan Filing systems in order to implement the capability submitting eFPL to NM.

According to the received contributions, the 35% of the responding airlines is capable to consume NM B2B Filing Service as a part FF-ICE/R1 to submit eFPL to NM.

The FF-ICE/R1 implementation system requirements have been defined in collaboration with the system suppliers by the 42% of the responding airlines, whereas 38% of them started the rollout or the update of the flight planning filing system, and more than one third of the respondent have already trained the relevant personnel.



However, even if 50% of the airlines have a firm commitment from CFSPs on the implementation date, only one airline, representing a considerable portion of the traffic, is already sending FF-ICE/R1 flight plans for individual city pairs, and indicated that this will successively ramp-up to meet the target date.

According to the received contributions, Airspace Users depend on their CFSPs.

It can be concluded from the replies that Airspace Users' CP1 deployment for AF3, AF4 and AF5 relies, 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 eFPL + Filing Service consumption), including testing with NM.

### Family 6.1.1 Initial Air-Ground Trajectory Information Sharing (Airborne Domain)

Target date: 31 December 2027

For flights operating as general air traffic in accordance with instrument flight rules within the airspace above flight level 285 within the Single European Sky airspace, Aircraft operators must ensure that aircraft with an individual certificate of airworthiness first issued on or after 31 December 2027 are equipped with ADS-C EPP as part of ATS B2 capability.

According to the monitoring campaign 2023, the availability of airborne products is currently limited to Airbus A320 and A330 Families. Other manufacturers are awaiting clear descriptions of airborne equipment requirements to be included in CS/ACNS certification specifications. There is currently no retrofit activity reported yet. In spite of this, in February 2024, 332 ADS-C EPP capable aircraft are listed in the EUROCONTROL Datalink LOGON LIST. 189 of them are registered in the EU with most of the flights flying in EU airspace, 54 registered in Iceland, Norway, Switzerland or UK with a huge portion of the flights operated into, over or out of EU airspaces and 89 aircraft registered outside EU27+4 countries with sporadic flights into, over or out of EU airspaces.



# 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. In this respect, 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 ongoing 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):
  - o Completed, i.e. what has been already deployed:
  - Ongoing, i.e. the percentage of the Family covered by ongoing activities;
  - Planned, i.e. the percentage of the Family planned to be covered by future initiatives;
  - Not yet planned, i.e. the percentage of the Family for which no specific plan has been elaborated;
  - o Implementation date of the Family deployment;
  - o *CEF projects,* illustrating whether one or more SDM-coordinated projects contribute to the deployment of the Family (if *Yes*).

The same logic applies for both Country and Airport gaps.



To ease the identification of the completed gaps or the implementations set beyond the CP1 target dates, the rows of the table are coloured in green or red, respectively.

To get a full picture of the individual status for each Stakeholder category (ANSP, Airport Operator, MET Provider, AISP, NM) contributing to the local implementation, refer to Family and Service Views (Section 2).

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.

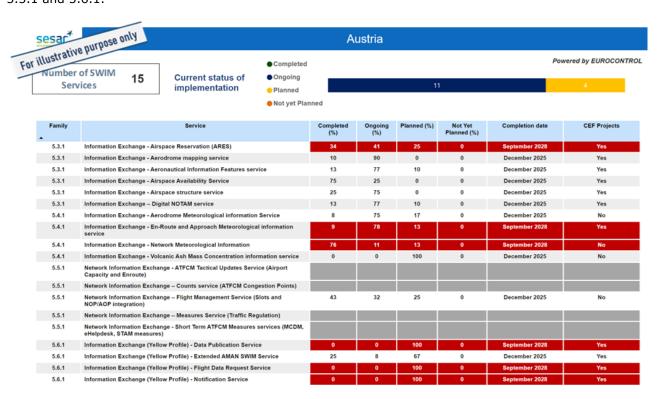


The closed projects are also duly highlighted.



#### **Service View**

In order to provide a comprehensive view on AF5 implementation status, a dedicated chart, with similar 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.



#### **Network Manager View**

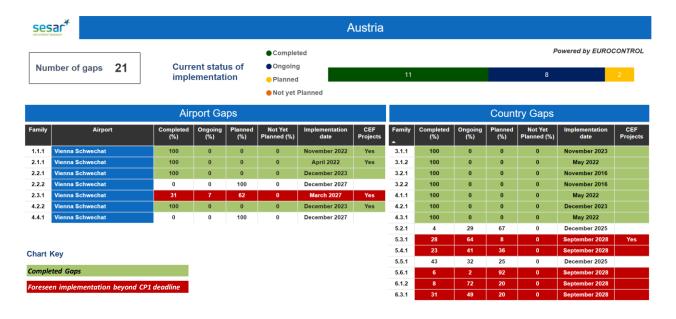
In addition to the section included at the bottom of the chart of each Family applicable, the contribution of Network Manager to the overall CP1 implementation is summarised in a dedicated view.



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.

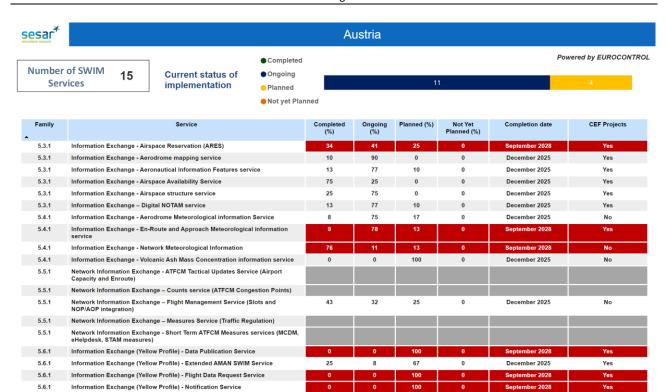


## **Austria**



Reference Number	CEF Project Title	Implementing Partners	Closed
006AF5	ATM Data Quality (ADQ)	Austro Control	<b>⊘</b>
007AF1	Performance Based Navigation (PBN) implementation in Vienna (LOWW)	Austro Control	<b>Ø</b>
008AF2	External Gateway System (EGS) Implementation	Austro Control	<b>Ø</b>
009AF5	Integrated Briefing System New (IBSN)	Austro Control	<b>Ø</b>
011AF2	Collaborative Decision Management (CDM) fully implemented	Austro Control	<b>Ø</b>
102AF3	Free route airspace from the Black Forest to the Black Sea	Austro Control	<b>Ø</b>
015_021_AF4	Slot Manager for PCP airports	Sabre	
015_106_AF4	Flight evolution and upgrade of interfaces with NM stakeholders	Sabre	<b>Ø</b>
015_107_AF3	NM Systems upgrades in support of DCTs and FRA	Sabre	<b>Ø</b>
015_110_AF4	STAM Phase 2 (NM)	Sabre	<b>Ø</b>
015_114_AF4	Implementation of Target Times for ATFCM purposes (NM)	Sabre	<b>Ø</b>
015_174_AF5_A	NewPENS Stakeholders contribution for the procurement and deployment of NewPENS - Part A: General Call	Austro Control	<b>Ø</b>
015_207_AF3_A	Harmonisation of Technical ATM Platform in 5 ANSP including support of free Route Airspace and preparation of PCP program. (COOPANS B3.3, B3.4 and B3.5)	Austro Control	<b>Ø</b>
015_220_AF2	AF2_MET-Compliance-Programme	Austro Control	<b>Ø</b>
015_230_AF5	AF5 AIM Compliance Programme	Austro Control	
015_231_AF5	METSW-DB PCP Evolution	Austro Control	<b>Ø</b>
015_232_AF2	TBS4LOWW (Time Based Separation for Vienna Airport)	Austro Control	<b>Ø</b>
015_234_AF1_A	AMAN LOWW initial	Austro Control	<b>Ø</b>
015_234_AF1_B	AMAN LOWW initial	Austro Control	<b>Ø</b>
015_236_AF3	VHF Concept Implementation 2020	Austro Control	
016_027_AF5	European Deployment Roadmap for Flight Object Interoperability	Austro Control	
016_075_AF3_A	FAB CE wide Study of DAM and STAM - General Call	Austro Control	<b>Ø</b>
016_134_AF3	Implementation of rolling ASM/ATFCM	Sabre	
016_141_AF5	Deploy SWIM governance	Austro Control	<b>Ø</b>
016_147_AF1	RNP APCH RWY 29 Vienna	Austro Control	<b>Ø</b>
016_149_AF5	Austro Control iSWIM Capability Infrastructure	Austro Control	<b>Ø</b>
016_159_AF6	DLS Implementation Project - Path 2	Austro Control	<b>Ø</b>
016_161_AF6	DLS Implementation Project - Path 1 Ground stakeholders	Austro Control	<b>Ø</b>
017_004_AF1	Flight Crew Training for RNP1 Operations	AUA	
017_052_AF4	AOP-NOP Integration - Extended Implementation	VIE	
017_053_AF3	Implementation of rolling ASM/ATFCM	Sabre	
017_056_AF5	Towards Shared Business Trajectory / Trajectory Based Operations	Sabre	
017_058_AF2	ITWP4LOWW (Integrated Tower Working Position for Vienna Schwechat)	Austro Control	<b>Ø</b>
017_066_AF5	Implementing harmonised SWIM (Y) solution in COOPANS ANSPs and general PCP compliance	Austro Control	
017_084_AF5	SWIM Common PKI and policies & procedures for establishing a Trust framework	Austro Control	<b>Ø</b>
017_089_AF6	IP1 - DLS European Target Solution assessment	Austro Control	<b>Ø</b>
017_089_AF6	IP1 - DLS European Target Solution assessment	PLUS	<b>Ø</b>
022_014_AF5	Acceleration of Aeronautical Digital Information Availability (ACADIA)	ACDS	
022_014_AF5	Acceleration of Aeronautical Digital Information Availability (ACADIA)	Austro Control	



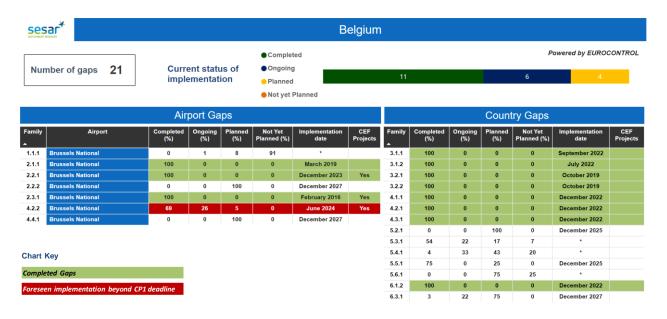


Completed SWIM Service

Foreseen implementation beyond CP1 deadline



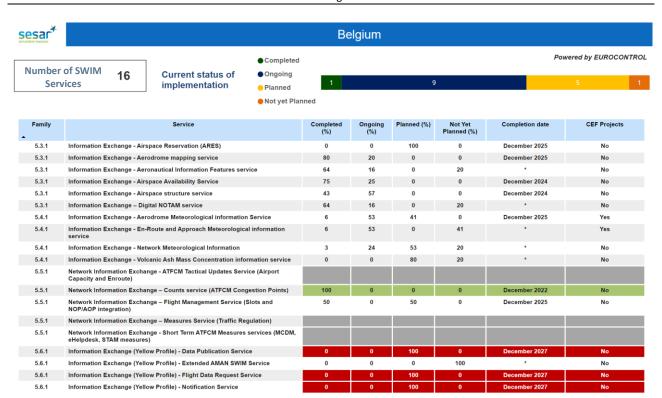
## **Belgium**



<sup>\*</sup> The remaining scope of the Gap is Not yet Planned

List of CEF-fun	ded initiatives awarded to Stakeholders		
Reference Number	CEF Project Title	Implementing Partners	Closed
#013AF1	Implementation of RNP Approaches with Vertical Guidance at the Belgian civil aerodromes within the Brussels TMA	skeyes	<b>Ø</b>
#014AF5	MPLS WAN Project	skeyes	<b>Ø</b>
#015AF3	LARA integration in CANAC 2	skeyes	
#016AF5	Initial WXXM Implementation on Belgocontrol systems	skeyes	<b>Ø</b>
#018AF2	Enhancement of Airport Safety Nets for Brussels Airport (EBBR)	skeyes	
#022AF2	Vehicle Tracking System (VTS)	BAC	<b>Ø</b>
2015_021_AF4	Slot Manager for PCP airports	BAL	
2015_067_AF5	European Weather Radar Composite of Convection Information Service	EUMETNET	<b>Ø</b>
2015_068_AF5	European Harmonised Forecasts of Adverse Weather (Icing, Turbulence, Convection and Winter weather)	EUMETNET	
2015_069_AF5	European MET Information Exchange (MET-GATE)	EUMETNET	<b>Ø</b>
2015_174_AF5_A	NewPENS Stakeholders contribution for the procurement and deployment of NewPENS - Part A: General Call	skeyes	
2015_244_AF2	APOC implementation	BAC	<b>Ø</b>
2015_245_AF2	AIRSTAT	BAC	
2016_131_AF4	AOP-NOP Integration - Extended Implementation	BAC	
2016_141_AF5	Deploy SWIM governance	EUMETNET	$\bigcirc$
2016_150_AF2_GND	Enablers for Airport Surface Movement related to Safety Nets	BAC	
2016_159_AF6	DLS Implementation Project - Path 2	SITA S.C.R.L.	
2016_161_AF6	DLS Implementation Project - Path 1 Ground stakeholders	SITA S.C.R.L.	<b>Ø</b>
2017_022_AF2	Synchronised stakeholder decision on process optimisation at airport level	BAC	
2017_022_AF2	Synchronised stakeholder decision on process optimisation at airport level	skeyes	
2017_062_AF4	Traffic Complexity Assessment and Simulations Tool – TCAST	skeyes	<b>Ø</b>
2017_084_AF5	SWIM Common PKI and policies & procedures for establishing a Trust framework	skeyes	<b>Ø</b>



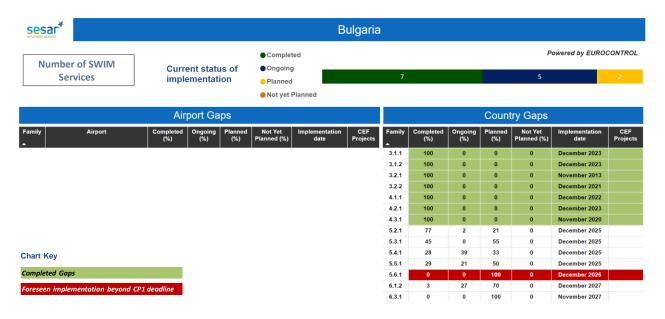


Completed SWIM Service

Foreseen implementation beyond CP1 deadline



## **Bulgaria**



Reference Number	CEF Project Title	Implementing Partners	Closed
2015_174_AF5_B	NewPENS Stakeholders contribution for the procurement and deployment of NewPENS - Part B: Cohesion Call	BULATSA	<b>Ø</b>
2015_217_AF4	tCAT implementation in Sofia ACC	BULATSA	<b>Ø</b>
2016_062_AF5	Creating Local Security Operation Center	BULATSA	$ \bigcirc $
2016_141_AF5	Deploy SWIM governance	BULATSA	<b>Ø</b>
2016_159_AF6	DLS Implementation Project - Path 2	BULATSA	<b>Ø</b>
2017_084_AF5	SWIM Common PKI and policies & procedures for establishing a Trust framework	BULATSA	
2017_089_AF6	IP1 - DLS European Target Solution assessment	BULATSA	<b>Ø</b>



5.3.1   5.3.1   5.3.1   5.3.1   5.3.1	Information Exchange - Airspace Reservation (ARES) Information Exchange - Aerodrome mapping service Information Exchange - Aeronautical Information Features service Information Exchange - Airspace Availability Service Information Exchange - Digital NOTAM service Information Exchange - Digital NOTAM service	0 100 100	0	75 100	0	December 2025	No
5.3.1 5.3.1 5.3.1 5.3.1	Information Exchange - Aeronautical Information Features service Information Exchange - Airspace Availability Service Information Exchange - Airspace structure service	100		100	0	December 2025	
5.3.1 5.3.1 5.3.1	Information Exchange - Airspace Availability Service Information Exchange - Airspace structure service	100		100	0	December 2025	N-
5.3.1 5.3.1	Information Exchange - Airspace structure service		0				No
5.3.1		100		0	0	December 2023	No
	Information Exchange - Digital NOTAM service	100	0	0	0	April 2017	No
5.4.1		0	0	100	0	December 2025	No
3.4.1	Information Exchange - Aerodrome Meteorological information Service	51	42	7	0	December 2025	No
	Information Exchange - En-Route and Approach Meteorological information service	51	36	13	0	December 2025	No
5.4.1	Information Exchange - Network Meteorological Information	9	78	13	0	December 2025	No
5.4.1	Information Exchange - Volcanic Ash Mass Concentration information service	0	0	100	0	December 2025	No
	Network Information Exchange - ATFCM Tactical Updates Service (Airport Capacity and Enroute)	5	45	50	0	December 2025	No
5.5.1	Network Information Exchange – Counts service (ATFCM Congestion Points)	0	0	100	0	December 2025	No
	Network Information Exchange – Flight Management Service (Slots and NOP/AOP integration)	100	0	0	0	December 2023	No
5.5.1	Network Information Exchange – Measures Service (Traffic Regulation)	20	30	50	0	December 2025	No
	Network Information Exchange - Short Term ATFCM Measures services (MCDM, eHelpdesk, STAM measures)	20	30	50	0	December 2025	No
5.6.1	Information Exchange (Yellow Profile) - Data Publication Service	0	0	100	0	December 2025	No
5.6.1	Information Exchange (Yellow Profile) - Extended AMAN SWIM Service						
5.6.1	Information Exchange (Yellow Profile) - Flight Data Request Service	0	0	100	0	December 2025	No
5.6.1	Information Exchange (Yellow Profile) - Notification Service	0	0	100	0	December 2025	No

Chart Key

Completed SWIM Service

Foreseen implementation beyond CP1 deadline



## **Croatia**



<sup>\*</sup> The remaining scope of the Gap is Not yet Planned

List of CEF-fun	ded initiatives awarded to Stakeholders		
Reference Number	CEF Project Title	Implementing Partners	Closed
#102AF3	Free route airspace from the Black Forest to the Black Sea	Croatia Control	<b>⊘</b>
2015_047_AF5	Modernisation of IP based G/G Data Network in CCL - CaRT/iWAN-NG	Croatia Control	<b>Ø</b>
2015_049_AF5	CCL cyber security architecture - ExCO-NG	Croatia Control	<b>Ø</b>
2015_050_AF3	SIMULATION AND IMPLEMENTATION OF SEAFRA H24	Croatia Control	<b>Ø</b>
2015_051_AF3	VARP - VolP ATC Radio Project	Croatia Control	
2015_174_AF5_B	NewPENS Stakeholders contribution for the procurement and deployment of NewPENS - Part B: Cohesion Call	Croatia Control	<b>Ø</b>
2015_207_AF3_B	Harmonisation of Technical ATM Platform in 5 ANSP including support of free Route Airspace and preparation of PCP program. (COOPANS B3.3, B3.4 and B3.5)	Croatia Control	<b>Ø</b>
2016_027_AF5	European Deployment Roadmap for Flight Object Interoperability	Croatia Control	<b>Ø</b>
2016_043_AF3	VCS-IP - Upgrade of Voice Communication Systems to support ATM VoIP communications	Croatia Control	
2016_044_AF5	Modernization of IP based G/G Data Network in CCL - CaRT/iWAN-NG - Phase II Implementation	Croatia Control	
016_075_AF3_B	FAB CE wide Study of DAM and STAM - Cohesion Call	Croatia Control	$\bigcirc$
2016_159_AF6	DLS Implementation Project - Path 2	Croatia Control	<b>Ø</b>
2016_161_AF6	DLS Implementation Project - Path 1 Ground stakeholders	Croatia Control	<b>Ø</b>
2017_066_AF5	Implementing harmonised SWIM (Y) solution in COOPANS ANSPs and general PCP compliance	Croatia Control	
017_089_AF6	IP1 - DLS European Target Solution assessment	Croatia Control	<b>Ø</b>
022_020_AF5	ASM SWIM	Croatia Control	





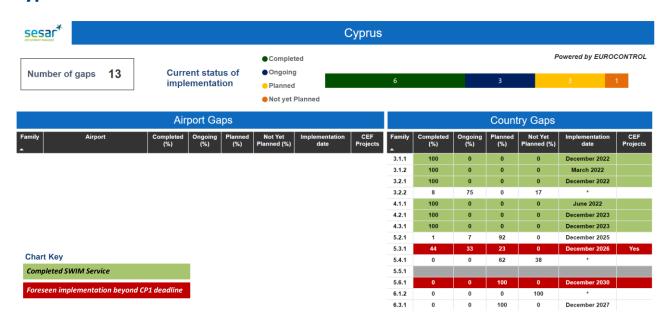
Family -	Service	Completed (%)	Ongoing (%)	Planned (%)	Not Yet Planned (%)	Completion date	CEF Projects
5.3.1	Information Exchange - Airspace Reservation (ARES)	5	45	50	0	March 2028	Yes
5.3.1	Information Exchange - Aerodrome mapping service						
5.3.1	Information Exchange - Aeronautical Information Features service	0	0	100	0	December 2025	No
5.3.1	Information Exchange - Airspace Availability Service	75	25	0	0	December 2025	Yes
5.3.1	Information Exchange - Airspace structure service	68	32	0	0	December 2025	Yes
5.3.1	Information Exchange – Digital NOTAM service	8	72	20	0	March 2028	No
5.4.1	Information Exchange - Aerodrome Meteorological information Service	9	83	0	8	•	No
5.4.1	Information Exchange - En-Route and Approach Meteorological information service	32	55	13	0	March 2028	No
5.4.1	Information Exchange - Network Meteorological Information	9	78	13	0	March 2028	No
5.4.1	Information Exchange - Volcanic Ash Mass Concentration information service	0	0	0	100	•	No
5.5.1	Network Information Exchange - ATFCM Tactical Updates Service (Airport Capacity and Enroute)						
5.5.1	Network Information Exchange – Counts service (ATFCM Congestion Points)						
5.5.1	Network Information Exchange – Flight Management Service (Slots and NOP/AOP integration)						
5.5.1	Network Information Exchange – Measures Service (Traffic Regulation)						
5.5.1	Network Information Exchange - Short Term ATFCM Measures services (MCDM, eHelpdesk, STAM measures)						
5.6.1	Information Exchange (Yellow Profile) - Data Publication Service	0	0	100	0	March 2028	No
5.6.1	Information Exchange (Yellow Profile) - Extended AMAN SWIM Service	0	0	100	0	December 2025	No
5.6.1	Information Exchange (Yellow Profile) - Flight Data Request Service	0	0	100	0	March 2028	No
5.6.1	Information Exchange (Yellow Profile) - Notification Service	0	0	100	0	March 2028	No

Completed SWIM Service

Foreseen implementation beyond CP1 deadline



## **Cyprus**



<sup>\*</sup> The remaining scope of the Gap is Not yet Planned

ference Nu	umber		CEF Project Tit	tle				Implementing Partne	ers Clos
_109_AF5	BLUEMED FAB IP N	BLUEMED FAB IP Network deployment						DCAC	<b>⊘</b>
_014_AF5	Acceleration of Aer	Acceleration of Aeronautical Digital Information Availability (ACADIA)					DCAC		
_020_AF5	ASM SWIM							DCAC	
sar*				C	yprus				
		1	● Completed					Pow	vered by EUROCON
lumber	of SWIM 12	Current status of	Ongoing						
Sen	vices	implementation	Planned	2					
			Not yet Plan	ned					
			• not yet i iai						
Family		Service		Completed (%)	Ongoing (%)	Planned (%)	Not Yet Planned (%)	Completion date	CEF Projects
5.3.1	Information Exchange - Air	space Reservation (ARES)		3	22	75	0	December 2026	Yes
5.3.1	Information Exchange - Aer	rodrome mapping service							
5.3.1	Information Exchange - Aer	ronautical Information Features ser	vice	8	72	20	0	December 2025	Yes
5.3.1	Information Exchange - Air	space Availability Service		100	0	0	0	May 2021	Yes
5.3.1	Information Exchange - Air	space structure service		100	0	0	0	November 2023	Yes
5.3.1	Information Exchange – Dig	gital NOTAM service		8	72	20	0	December 2025	Yes
5.4.1	Information Exchange - Aer	rodrome Meteorological information	Service	0	0	89	11	*	No
5.4.1	Information Exchange - En- service	-Route and Approach Meteorologica	al information	0	0	80	20	•	No
5.4.1	Information Exchange - Ne	twork Meteorological Information		0	0	0	100	*	No
5.4.1	Information Exchange - Vol	canic Ash Mass Concentration info	rmation service	0	0	80	20	*	No
5.5.1	Network Information Excha Capacity and Enroute)	inge - ATFCM Tactical Updates Serv	ice (Airport						
5.5.1	Network Information Excha	inge – Counts service (ATFCM Cong	gestion Points)						
5.5.1	Network Information Excha NOP/AOP integration)	inge – Flight Management Service (	Slots and						
5.5.1	Network Information Excha	ange – Measures Service (Traffic Re	gulation)						
5.5.1	Network Information Excha eHelpdesk, STAM measure	inge - Short Term ATFCM Measures s)	services (MCDM,						
5.6.1	Information Exchange (Yell	ow Profile) - Data Publication Servi	ce	0	0	100	0	December 2030	No
5.6.1	Information Exchange (Yell	ow Profile) - Extended AMAN SWIM	Service						
	Information Exchange (Yell	ow Profile) - Flight Data Request Se	rvice	0	0	100	0	December 2030	No
5.6.1				0	0	100	0	December 2030	No

\* The remaining scope of the Gap is Not yet Planned

Completed SWIM Service

Foreseen implementation beyond CP1 deadline



## **Czech Republic**



<sup>\*</sup> The remaining scope of the Gap is Not yet Planned

List of CEF-fur	ded initiatives awarded to Stakeholders		
Reference Number	CEF Project Title	Implementing Partners	Closed
#102AF3	Free route airspace from the Black Forest to the Black Sea	ANS CR	<b>Ø</b>
2015_145_AF5_B	AIM Deployment Toolkit	ANS CR	<b>Ø</b>
2015_174_AF5_B	NewPENS Stakeholders contribution for the procurement and deployment of NewPENS - Part B: Cohesion Call	ANS CR	<b>Ø</b>
2015_196_AF1_B	Extended AMAN in Czech airspace	ANS CR	<b>Ø</b>
2015_234_AF1_B	AMAN LOWW initial	ANS CR	
2015_239_AF3	Flexible ASM and Free Route	ANS CR	
2015_240_AF4	Traffic Complexity Tools	ANS CR	
2015_241_AF5	Meteorological Information Exchange Service	ANS CR	
2015_241_AF5	Meteorological Information Exchange Service	СНМІ	$\otimes$
2015_242_AF3	Free Route implementation into ATM system of ANS CR	ANS CR	<b>Ø</b>
2015_243_AF5	Aeronautical Information Distribution Service	ANS CR	
2016_065_AF5	SWIM implementation into ATS INFO/ARO system of ANS CR	ANS CR	
2016_075_AF3_B	FAB CE wide Study of DAM and STAM - Cohesion Call	ANS CR	
2022_014_AF5	Acceleration of Aeronautical Digital Information Availability (ACADIA)	PRG airport	
2022_022_AF2_AF4	BEACON	PRG airport	





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12

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Information Exchange - Volcanic Ash Mass Concentration information service

Network Information Exchange – Counts service (ATFCM Congestion Points)

Network Information Exchange - ATFCM Tactical Updates Service (Airport Capacity and Enroute)

Network Information Exchange – Flight Management Service (Slots and NOP/AOP integration)

Network Information Exchange - Measures Service (Traffic Regulation)

Information Exchange (Yellow Profile) - Extended AMAN SWIM Service

Information Exchange (Yellow Profile) - Flight Data Request Service

Information Exchange (Yellow Profile) - Data Publication Service

Information Exchange (Yellow Profile) - Notification Service

Network Information Exchange - Short Term ATFCM Measures services (MCDM, eHelpdesk, STAM measures)

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Chart Key

Completed SWIM Service

December 2025

December 2025

December 2018

December 2025

December 2018

December 2025

December 2025

December 2025

December 2025

December 2025

Yes

No

No

No

No

No

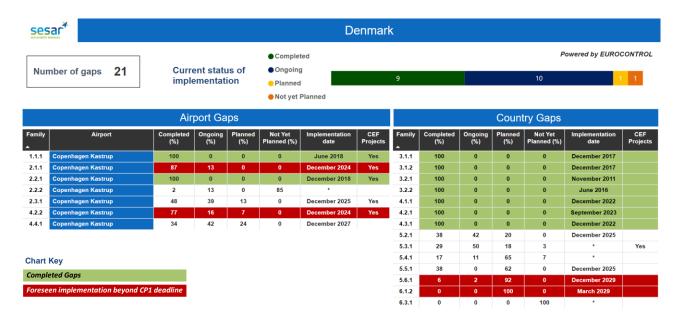
Yes

Yes

Foreseen implementation beyond CP1 deadline



### **Denmark**



<sup>\*</sup> The remaining scope of the Gap is Not yet Planned

Reference Number	CEF Project Title	Implementing Partners	Closed
#020AF3	Borealis Free Route Airspace (Part 1)	NAVIAIR	Ø
#103AF2	Standardization of A-SMGCS	СРН	<b>Ø</b>
#103AF2	Standardization of A-SMGCS	NAVIAIR	<b>Ø</b>
#127AF5	National WAN Infrastructure - CANDI-IP preparation project	NAVIAIR	<b>Ø</b>
2015_025_AF5_A	Sub-regional SWIM MET deployment to support NEFRA (part A)	DMI	<b>Ø</b>
2015_043_AF2	AF2.4 A-SMGCS - Routing & Planning	СРН	
2015_043_AF2	AF2.4 A-SMGCS - Routing & Planning	NAVIAIR	
2015_044_AF2	Implementation of initial DMAN and AOP at Copenhagen Airport	СРН	<b>Ø</b>
2015_044_AF2	Implementation of initial DMAN and AOP at Copenhagen Airport	NAVIAIR	<b>Ø</b>
2015_045_AF5	AF5 iSWIM	СРН	
2015_046_AF2	AF 2.5 A-SMGCS - Safety Nets	СРН	
2015_046_AF2	AF 2.5 A-SMGCS - Safety Nets	NAVIAIR	
2015_099_AF5	DK-SE FAB Aeronautical Data Quality (ADQ)	NAVIAIR	<b>Ø</b>
015_131_AF5	CANDI-IP (execution phase)	NAVIAIR	<b>Ø</b>
2015_132_AF3	VolP Programme	NAVIAIR	<b>Ø</b>
2015_174_AF5_A	NewPENS Stakeholders contribution for the procurement and deployment of NewPENS - Part A: General Call	NAVIAIR	<b>Ø</b>
2015_207_AF3_A	Harmonisation of Technical ATM Platform in 5 ANSP including support of free Route Airspace and preparation of PCP program. (COOPANS B3.3, B3.4 and B3.5)	NAVIAIR	<b>Ø</b>
2015_227_AF3_A	Borealis FRA Implementation (Part 2)	NAVIAIR	
2016_012_AF1	Synchronised PBN Implementation	СРН	
2016_012_AF1	Synchronised PBN Implementation	NAVIAIR	
2016_027_AF5	European Deployment Roadmap for Flight Object Interoperability	NAVIAIR	
016_141_AF5	Deploy SWIM governance	СРН	<b>Ø</b>
2016_150_AF2_GND	Enablers for Airport Surface Movement related to Safety Nets	СРН	
016_150_AF2_GND	Enablers for Airport Surface Movement related to Safety Nets	NAVIAIR	
017_022_AF2	Synchronised stakeholder decision on process optimisation at airport level	СРН	
017_026_AF5	PKI and Cybersecurity	СРН	
2017_060_AF5	ADQ Components in the SWIM Infrastructure - upstream data inclusion in the full data chain solution - ANSP and Airport	NAVIAIR	
017_066_AF5	Implementing harmonised SWIM (Y) solution in COOPANS ANSPs and general PCP compliance	NAVIAIR	
017_084_AF5	SWIM Common PKI and policies & procedures for establishing a Trust framework	СРН	<b>Ø</b>
017_084_AF5	SWIM Common PKI and policies & procedures for establishing a Trust framework	NAVIAIR	<b>Ø</b>
2022_014_AF5	Acceleration of Aeronautical Digital Information Availability (ACADIA)	NAVIAIR	
2022 020 AF5	ASM SWIM	NAVIAIR	





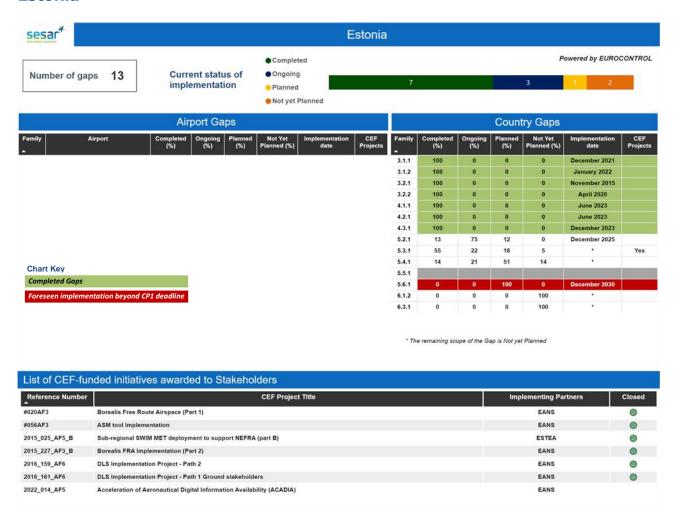
Family	Service	Completed (%)	Ongoing (%)	Planned (%)	Not Yet Planned (%)	Completion date	CEF Projects
•		()	(,,,,				
5.3.1	Information Exchange - Airspace Reservation (ARES)	0	0	100	0	December 2029	Yes
5.3.1	Information Exchange - Aerodrome mapping service	10	90	0	0	December 2025	Yes
5.3.1	Information Exchange - Aeronautical Information Features service	10	80	10	0	December 2025	Yes
5.3.1	Information Exchange - Airspace Availability Service	75	25	0	0	December 2025	Yes
5.3.1	Information Exchange - Airspace structure service	68	32	0	0	December 2025	Yes
5.3.1	Information Exchange – Digital NOTAM service	8	72	0	20		Yes
5.4.1	Information Exchange - Aerodrome Meteorological information Service	24	35	41	0	December 2025	Yes
5.4.1	Information Exchange - En-Route and Approach Meteorological information service	42	11	47	0	December 2027	Yes
5.4.1	Information Exchange - Network Meteorological Information	0	0	100	0	December 2025	No
5.4.1	Information Exchange - Volcanic Ash Mass Concentration information service	0	0	74	26	*	No
5.5.1	Network Information Exchange - ATFCM Tactical Updates Service (Airport Capacity and Enroute)						
5.5.1	Network Information Exchange – Counts service (ATFCM Congestion Points)						
5.5.1	Network Information Exchange – Flight Management Service (Slots and NOP/AOP integration)	75	0	25	0	December 2025	Yes
5.5.1	Network Information Exchange – Measures Service (Traffic Regulation)	0	0	100	0	December 2025	No
5.5.1	Network Information Exchange - Short Term ATFCM Measures services (MCDM, eHelpdesk, STAM measures)						
5.6.1	Information Exchange (Yellow Profile) - Data Publication Service	0	0	100	0	December 2029	No
5.6.1	Information Exchange (Yellow Profile) - Extended AMAN SWIM Service	25	8	67	0	December 2025	Yes
5.6.1	Information Exchange (Yellow Profile) - Flight Data Request Service	0	0	100	0	December 2029	No
5.6.1	Information Exchange (Yellow Profile) - Notification Service	0	0	100	0	December 2029	No

Completed SWIM Service

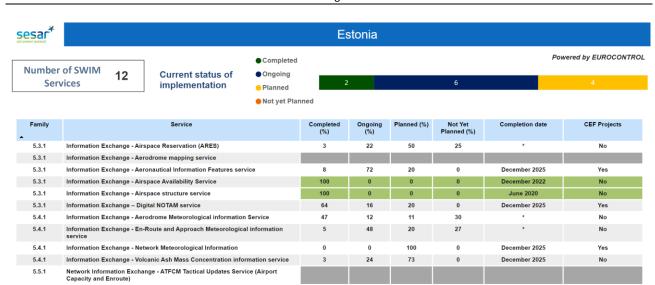
Foreseen implementation beyond CP1 deadline



### **Estonia**







100

Completed SWIM Service

Foreseen implementation beyond CP1 deadline

\* The remaining scope of the Gap is Not yet Planned

Network Information Exchange – Counts service (ATFCM Congestion Points)

Network Information Exchange - Short Term ATFCM Measures services (MCDM, eHelpdesk, STAM measures)

Network Information Exchange – Flight Management Service (Slots and NOP/AOP integration)

Network Information Exchange – Measures Service (Traffic Regulation)

Information Exchange (Yellow Profile) - Data Publication Service

Information Exchange (Yellow Profile) - Notification Service

Information Exchange (Yellow Profile) - Extended AMAN SWIM Service

Information Exchange (Yellow Profile) - Flight Data Request Service

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5.5.1 5.6.1

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## **Finland**



Reference Number	CEF Project Title	Implementing Partners	Closed
#020AF3	Borealis Free Route Airspace (Part 1)	Finavia	0
2015_025_AF5_A	Sub-regional SWIM MET deployment to support NEFRA (part A)	FMI	0
2015_068_AF5	European Harmonised Forecasts of Adverse Weather (Icing, Turbulence, Convection and Winter weather)	FMI	
2015_174_AF5_A	NewPENS Stakeholders contribution for the procurement and deployment of NewPENS - Part A: General Call	Finavia	0
2015_174_AF5_A	NewPENS Stakeholders contribution for the procurement and deployment of NewPENS - Part A: General Call	Fintraffic ANS	0
2015_227_AF3_A	Borealis FRA Implementation (Part 2)	Finavia	
2015_227_AF3_A	Borealis FRA Implementation (Part 2)	Fintraffic ANS	
2016_027_AF5	European Deployment Roadmap for Flight Object Interoperability	Fintraffic ANS	0
2016_141_AF5	Deploy SWIM governance	Fintraffic ANS	0
016_159_AF6	DLS Implementation Project - Path 2	Fintraffic ANS	0
2017_084_AF5	SWIM Common PKI and policies & procedures for establishing a Trust framework	Fintraffic ANS	0





Family	Service	Completed (%)	Ongoing (%)	Planned (%)	Not Yet Planned (%)	Completion date	CEF Projects
5.3.1	Information Exchange - Airspace Reservation (ARES)	5	20	75	0	December 2029	No
5.3.1	Information Exchange - Aerodrome mapping service						
5.3.1	Information Exchange - Aeronautical Information Features service	0	0	100	0	December 2025	No
5.3.1	Information Exchange - Airspace Availability Service	100	0	0	0	September 2022	No
5.3.1	Information Exchange - Airspace structure service	100	0	0	0	September 2022	No
5.3.1	Information Exchange – Digital NOTAM service	0	0	100	0	December 2025	No
5.4.1	Information Exchange - Aerodrome Meteorological information Service	77	12	11	0	December 2025	Yes
5.4.1	Information Exchange - En-Route and Approach Meteorological information service	32	48	20	0	December 2029	No
5.4.1	Information Exchange - Network Meteorological Information	0	0	100	0	December 2029	No
5.4.1	Information Exchange - Volcanic Ash Mass Concentration information service	0	0	100	0	December 2025	No
5.5.1	Network Information Exchange - ATFCM Tactical Updates Service (Airport Capacity and Enroute)						
5.5.1	Network Information Exchange – Counts service (ATFCM Congestion Points)						
5.5.1	Network Information Exchange – Flight Management Service (Slots and NOP/AOP integration)	0	0	100	0	December 2025	No
5.5.1	Network Information Exchange – Measures Service (Traffic Regulation)						
5.5.1	Network Information Exchange - Short Term ATFCM Measures services (MCDM, eHelpdesk, STAM measures)						
5.6.1	Information Exchange (Yellow Profile) - Data Publication Service	0	0	100	0	March 2029	No
5.6.1	Information Exchange (Yellow Profile) - Extended AMAN SWIM Service	0	0	100	0	March 2029	No
5.6.1	Information Exchange (Yellow Profile) - Flight Data Request Service	0	0	100	0	December 2029	No
5.6.1	Information Exchange (Yellow Profile) - Notification Service	0	0	100	0	March 2029	No

Completed SWIM Service

Foreseen implementation beyond CP1 deadline



### **France**



List of CEF-fund	ded initiatives awarded to Stakeholders		
Reference Number	CEF Project Title	Implementing Partners	Closed
#023AF2	SMAN-Vehicle	ADP	
#024AF2	SAIGA	ADP	<b>Ø</b>
#025AF2	TSAT to the Gate	ADP	<b>Ø</b>
#026AF2	Evolutions CDM - CDG	ADP	<b>Ø</b>
#027AF2	SMAN-Airport	ADP	<b>Ø</b>
#030AF2	Equipment of ground vehicles to supply the A-SMGCS	Côte d'Azur	<b>Ø</b>
#031AF2	Data exchanges with the Air Navigation Service Provider	Côte d'Azur	<b>Ø</b>
032AF2	Data exchanges with the Network Manager Operations Center	Côte d'Azur	<b>Ø</b>
1033AF2	Data exchanges with COHOR	Côte d'Azur	<b>Ø</b>
048AF2	SYSAT@CDG	DSNA	<b>Ø</b>
050AF2	SYSAT@ORY	DSNA	<b>Ø</b>
051AF1a	RNP Approaches at CDG Airport with vertical guidance (Part A)	Air France	<b>Ø</b>
051AF1a	RNP Approaches at CDG Airport with vertical guidance (Part A)	DSNA	<b>Ø</b>
051AF1b	RNP Approaches at CDG Airport with vertical guidance (Part B)	Air France	<b>Ø</b>
053AF3	4-Flight deployment in DSNA pilot ACCs	DSNA	<b>Ø</b>
:054AF2	CDG 2020 Step1	Air France	<b>Ø</b>
054AF2	CDG 2020 Step1	DSNA	<b>Ø</b>
067AF5	Coflight-eFDP System Development	DSNA	<b>Ø</b>
129AF2	CDM-ORLY	ADP	<b>Ø</b>
130AF2	BOREAL-Orly	ADP	
015_021_AF4	Slot Manager for PCP airports	Sabre France	<b>Ø</b>
015_062_AF3_Phase_I	4-Flight Deployment in PARIS Area - Phase I	DSNA	
015_067_AF5	European Weather Radar Composite of Convection Information Service	Météo FR	<b>Ø</b>
015_068_AF5	European Harmonised Forecasts of Adverse Weather (Icing, Turbulence, Convection and Winter weather)	Météo FR	<b>Ø</b>
015_069_AF5	European MET Information Exchange (MET-GATE)	Météo FR	<b>Ø</b>
015_073_AF1	AMAN upgrade for extended horizon at DSNA airports	ADP	<b>Ø</b>
015_073_AF1	AMAN upgrade for extended horizon at DSNA airports	Air France	<b>Ø</b>
015_073_AF1	AMAN upgrade for extended horizon at DSNA airports	DSNA	<b>Ø</b>
015_083_AF2	iAOP implementation	Côte d'Azur	
015_085_AF2	DMAN and Pre-departure sequence (PDS) implementations for the CDM implementation	Côte d'Azur	
015_085_AF2	DMAN and Pre-departure sequence (PDS) implementations for the CDM implementation	DSNA	<b>Ø</b>
015_106_AF4	Flight evolution and upgrade of interfaces with NM stakeholders	Sabre France	<b>Ø</b>
015_107_AF3	NM Systems upgrades in support of DCTs and FRA	Sabre France	<b>Ø</b>
015_110_AF4	STAM Phase 2 (NM)	Sabre France	<b>Ø</b>



Reference Number	CEF Project Title	Implementing Partners	Clo
015_113_AF4	AOP-NOP Integrations	ADP	
015_114_AF4	Implementation of Target Times for ATFCM purposes (NM)	Sabre France	(
015_133_AF2	Initial AirPort Operational Centre (iAPOC)	ADP	6
115_133_AF2	Initial AirPort Operational Centre (iAPOC)	Air France	(
15_133_AF2	Initial AirPort Operational Centre (iAPOC)	DSNA	6
15_135_AF2	CDG and ORLY - Initial Airport Operational Plan (AOP)	ADP	
15_135_AF2	CDG and ORLY - Initial Airport Operational Plan (AOP)	Air France	
15_139_AF1	GEOGRAPHIC DATABASE - AIM TOOL	ADP	
15_139_AF1	GEOGRAPHIC DATABASE - AIM TOOL	DSNA	
115_174_AF5_A	NewPENS Stakeholders contribution for the procurement and deployment of NewPENS - Part A: General Call	DSNA	(
15_196_AF1_A	XMAN - Cross-centre arrival management	DSNA	6
15_247_AF3	4Flight deployment in military En-route ACC (CMCC)	DGA	
15_249_AF5	PATRUS (Secured real time gateway) for data exchange between civil and military systems	DGA	-
16_023_AF1	XMAN - Cross-centre arrival management - Part 2 (CEF2016)	DSNA	
16_027_AF5	European Deployment Roadmap for Flight Object Interoperability	DSNA	(
16_055_AF3	FR_Upgrade of French Military Control and Reporting Centres (CRC) for civil/military interoperability	DGA	(
16_100_AF4	Provision of EFPL data and initial FF-ICE/ 1 readiness	Air France	
16_121_AF3	Free Route	Air France	
16_123_AF4	STAM Phase 2 in combination with Target Times	Air France	
16_134_AF3	Implementation of rolling ASM/ATFCM	Air France	(
16_134_AF3	Implementation of rolling ASM/ATFCM	Sabre France	
16_141_AF5	Deploy SWIM governance	Air France	(
16_141_AF5	Deploy SWIM governance	DGA	
16_141_AF5	Deploy SWIM governance	DSNA	
16_150_AF2_AIR	Enablers for Airport Surface Movement related to Safety Nets	ADP	
16_150_AF2_AIR	Enablers for Airport Surface Movement related to Safety Nets	Air France	
16_150_AF2_GND	Enablers for Airport Surface Movement related to Safety Nets	ADP	
16_150_AF2_GND	Enablers for Airport Surface Movement related to Safety Nets	Air France	
16_150_AF2_GND	Enablers for Airport Surface Movement related to Safety Nets	Côte d'Azur	
16_150_AF2_GND	Enablers for Airport Surface Movement related to Safety Nets	DSNA	
	DLS Implementation Project - Path 2	DSNA	
16_159_AF6	DLS Implementation Project - Path 2	ESSP	(
16_159_AF6			
16_159_AF6	DLS Implementation Project - Path 2	SITA IT Services France	
16_159_AF6	DLS Implementation Project - Path 2	Sita SC - France	
16_161_AF6	DLS Implementation Project - Path 1 Ground stakeholders	DSNA	(
16_161_AF6	DLS Implementation Project - Path 1 Ground stakeholders	SITA IT Services France	-
16_161_AF6	DLS Implementation Project - Path 1 Ground stakeholders	Sita SC - France	-
16_165_AF6_AIR	Lufthansa Group & Air France Group Datalink upgrade to "best in class" avionics	Air France	(
16_165_AF6_AIR	Lufthansa Group & Air France Group Datalink upgrade to "best in class" avionics	НОР	-
16_165_AF6_GND	Lufthansa Group & Air France Group Datalink upgrade to "best in class" avionics	Air France	(
16_165_AF6_GND	Lufthansa Group & Air France Group Datalink upgrade to "best in class" avionics	HOP	-
17_002_AF5	Aeronautical Information Exchange system for Airlines Flight Operation Centre (FOC) at Lufthansa & Air France	Air France	
17_008_AF6_AIR	Air France Group Datalink upgrade to best in class avionics - Lot2	Air France	- (
17_008_AF6_AIR	Air France Group Datalink upgrade to best in class avionics - Lot2	Transavia France	(
17_008_AF6_GND	Air France Group Datalink upgrade to best in class avionics - Lot2	Air France	(
17_008_AF6_GND	Air France Group Datalink upgrade to best in class avionics - Lot2	Transavia France	(
17_022_AF2	Synchronised stakeholder decision on process optimisation at airport level	ADP	
17_022_AF2	Synchronised stakeholder decision on process optimisation at airport level	Côte d'Azur	
17_034_AF5	Deploying Cyber Infrastructure at DSNA	DSNA	
17_035_AF5	Deploying SWIM infrastructure at DSNA	DSNA	
17_037_AF2	TBS deployment at Paris CDG	DSNA	
17_037_AF2	TBS deployment at Paris CDG	Météo FR	
 17_038_AF4	Enablers of Network Collaborative Management for En-Route and Airports at DSNA	ADP	
17_038_AF4	Enablers of Network Collaborative Management for En-Route and Airports at DSNA	Air France	
17_038_AF4	Enablers of Network Collaborative Management for En-Route and Airports at DSNA	DSNA	
17_039_AF5	SEPIA - Deploying SWIM based AIM services in French Airspace	DSNA	
17_043_AF3	Coflight-eFDP Development (Step 2)	DSNA	(
17_043_AF4	AOP-NOP Integration - Extended Implementation	Côte d'Azur	
17_052_AF3	Implementation of rolling ASM/ATFCM	Sabre France	
17_055_AF5 17_056_AF5	Towards Shared Business Trajectory / Trajectory Based Operations	Sabre France	
17_080_AF5 17_080_AF5	PATRUS niveau 2 - Gateway Updgrade for 4Flight compliance	DGA	
17_084_AF5	SWIM Common PKI and policies & procedures for establishing a Trust framework	ADP	
7_084_AF5	SWIM Common PKI and policies & procedures for establishing a Trust framework	Air France	
7_084_AF5	SWIM Common PKI and policies & procedures for establishing a Trust framework	DGA	-
17_084_AF5	SWIM Common PKI and policies & procedures for establishing a Trust framework	DSNA	
17_089_AF6	IP1 - DLS European Target Solution assessment	ALTYS	-
17_089_AF6	IP1 - DLS European Target Solution assessment	DSNA	(
17_089_AF6	IP1 - DLS European Target Solution assessment	ESSP	
17_089_AF6	IP1 - DLS European Target Solution assessment	SITA IT Services France	
17_089_AF6	IP1 - DLS European Target Solution assessment	Thales	
22_014_AF5	Acceleration of Aeronautical Digital Information Availability (ACADIA)	ADP	
22_014_AF5	Acceleration of Aeronautical Digital Information Availability (ACADIA)	DSNA	
22_020_AF5	ASM SWIM	DSNA	
	FF-ICE R1 - eFPL	Air France	





\* The remaining scope of the Gap is Not yet Planned

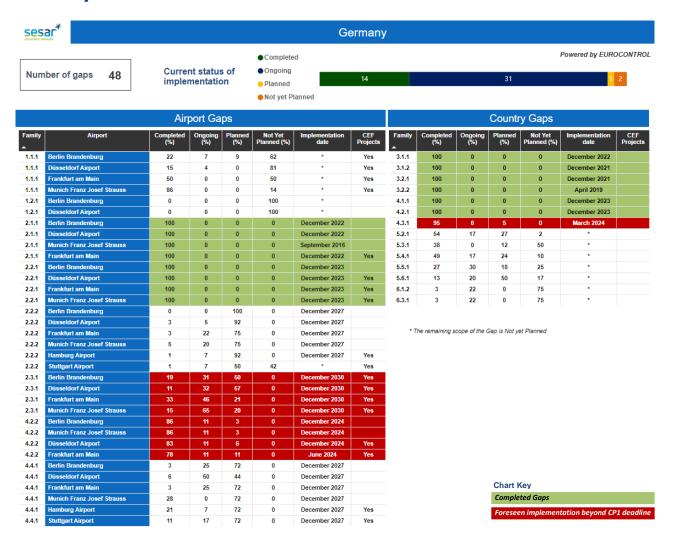
Chart Key

Completed SWIM Service

Foreseen implementation beyond CP1 deadline



### **Germany**



onautical Data Quality AIM System Integration Disseldorf Disseldorf dition of Prerequisites for the Provision of Aerodrome Mapping Data and Airport Maps as Data Originator (Aeronautical Information ension troller Working Position ety Net: Mobile Detection of Air Crash Tenders	DFS DFS FS FDG Fraport Fraport Fraport Fraport	0 0 0
Düsseldorf Düsseldorf Stion of Prerequisites for the Provision of Aerodrome Mapping Data and Airport Maps as Data Originator (Aeronautical Information ension troller Working Position ety Net: Mobile Detection of Air Crash Tenders	DFS FDG Fraport Fraport Fraport	9
Dusseldorf  tion of Prerequisites for the Provision of Aerodrome Mapping Data and Airport Maps as Data Originator (Aeronautical Information  ension  troller Working Position  ety Net: Mobile Detection of Air Crash Tenders	FDG Fraport Fraport Fraport	<ul><li>Ø</li><li>Ø</li><li>Ø</li></ul>
ation of Prerequisites for the Provision of Aerodrome Mapping Data and Airport Maps as Data Originator (Aeronautical Information ension troller Working Position ety Net: Mobile Detection of Air Crash Tenders	Fraport Fraport Fraport	<ul><li>Ø</li></ul>
ension troller Working Position ety Net: Mobile Detection of Air Crash Tenders	Fraport Fraport	<b>Ø</b>
troller Working Position ety Net: Mobile Detection of Air Crash Tenders	Fraport	_
ety Net: Mobile Detection of Air Crash Tenders	·	
•	Fraport	
and the first Harmond Bulletin (BODA)		
Renewal of the Surface Movement Radar (BORA)	FMG	<b>Ø</b>
er for PCP airports	Lufthansa	
er for PCP airports	Sabre Airline Solutions	<b>Ø</b>
nsponder A-SMGCS Düsseldorf	FDG	<b>Ø</b>
Veather Radar Composite of Convection Information Service	DWD	<b>Ø</b>
farmonised Forecasts of Adverse Weather (Icing, Turbulence, Convection and Winter weather)	DWD	<b>Ø</b>
MET Information Exchange (MET-GATE)	DFS	$\bigcirc$
MET Information Exchange (MET-GATE)	DWD	<b>Ø</b>
ution and upgrade of interfaces with NM stakeholders	Sabre Airline Solutions	
s upgrades in support of DCTs and FRA	Sabre Airline Solutions	<b>Ø</b>
e 2 (NM)	Sabre Airline Solutions	
ntegrations	Fraport	
ation of Target Times for ATFCM purposes (NM)	Sabre Airline Solutions	<b>Ø</b>
AN - Arrival Management at Düsseldorf Airport and Berlin International	DFS	<b>Ø</b>
e Route Airspace (Full FRA) in German Airspace	DFS	<b>Ø</b>
t of Air Traffic Control System iCAS: Implementation of ATM PCP Functionalities at LVNL and DFS	DFS	
A H	earther Radar Composite of Convection Information Service armonised Forecasts of Adverse Weather (Icing, Turbulence, Convection and Winter weather) ET Information Exchange (MET-GATE) Et Information Exchange (IMI) Et Information Exchange (IMI) Et Information Exchange (IMI) Exchange	Leather Radar Composite of Convection Information Service DWD  armonised Forecasts of Adverse Weather (Icing, Turbulence, Convection and Winter weather) DWD  ET Information Exchange (MET-GATE) DFS  ET Information Exchange (MET-GATE) DWD  Uniformation Exchange (MET-GATE) DWD  Sabre Airline Solutions supgrade of interfaces with NM stakeholders Sabre Airline Solutions supgrades in support of DCTs and FRA Sabre Airline Solutions supgrades in support of DCTs and FRA Sabre Airline Solutions are 2 (MM) Sabre Airline Solutions Sabre Airline Solutions (Expandions) Fraport (Information Exchange (MET-GATE) Sabre Airline Solutions (Information Exchange (MET-GATE) Sabre Airline Solu



Reference Number	CEF Project Title	Implementing Partners	Closed
45 400 454		050	ē
15_193_AF1 15_193_AF1	Implementation of RNP Based Departure Operations in High Density TMAs in FRA, DUS and MUC Implementation of RNP Based Departure Operations in High Density TMAs in FRA, DUS and MUC	DFS Fraport	0
15_193_AF1	Implementation of RNP Based Departure Operations in High Density TMAs in FRA, DUS and MUC	Lufthansa	0
15_194_AF5	STANLY_ACOS iSWIM for Free-Route and NM	DFS	9
15_195_AF3	Deployment of next Generation and VoIP Capable Centre Voice Communication System	DFS	0
15_196_AF1_A	XMAN - Cross-centre arrival management	DFS	0
15_197_AF5	Centralized DFS Yellow Profile SWIM Node	DFS	0
15_222_AF2	Advanced Airport Moving Map (AAMM) Prototype Implementation	Fraport	0
15_222_AF2	Advanced Airport Moving Map (AAMM) Prototype Implementation	Lufthansa	0
015_225_AF2	Initial Airport Operations Plan @ FRA	Fraport	0
015_226_AF2	Airport Safety Net: Mobile Detection of Marshaller Vehicles	Fraport	0
)15_282_AF2	Initial APOC and AOP	FMG	0
)16_008_AF4	Flight evolution and upgrade of interfaces with NM stakeholders	Lufthansa	
016_010_AF4	STAM Phase 2	Lufthansa	0
16_021_AF2	TANGe (Tower AT S-System Next Generation) Phase 1	DFS	0
16_023_AF1	XMAN - Cross-centre arrival management - Part 2 (CEF2016)	DFS	
16_024_AF4	Deployment of an Automated Support Tool for Traffic Complexity Assessment at DFS  Support Programment for Deployment of PCD Air Traffic Control System ICAS at DFS and LVAII	DFS	
016_026_AF3	System Procurement for Deployment of PCP Air Traffic Control System iCAS at DFS and LVNL	DFS	
016_027_AF5 016_100_AF4	European Deployment Roadmap for Flight Object Interoperability  Provision of EEPL data and initial EELICE 1 readiness	DFS LH Systems	
016_100_AF4 016_100_AF4	Provision of EFPL data and initial FF-ICE/1 readiness  Provision of EFPL data and initial FF-ICE/1 readiness	LH Systems Lufthansa	
016_100_AF4	Free Route	LH Systems	
016_121_AF3	Free Route	Lufthansa	
016_123_AF4	STAM Phase 2 in combination with Target Times	LH Systems	
016_123_AF4	STAM Phase 2 in combination with Target Times	Lufthansa	
016_134_AF3	Implementation of rolling ASM/ATFCM	LH Systems	0
016_134_AF3	Implementation of rolling ASM/ATFCM	Lufthansa	0
016_134_AF3	Implementation of rolling ASM/ATFCM	Sabre Airline Solutions	0
016_137_AF2	Initial AOP DUS	DFS	0
016_137_AF2	Initial AOP DUS	FDG	0
016_141_AF5	Deploy SWIM governance	DFS	<b>Ø</b>
016_141_AF5	Deploy SWIM governance	FMG	0
016_141_AF5	Deploy SWIM governance	Lufthansa	0
016_147_AF1	RNP APCH RWY 29 Vienna	Lufthansa	<b>Ø</b>
016_150_AF2_GND	Enablers for Airport Surface Movement related to Safety Nets	FMG	
016_150_AF2_GND	Enablers for Airport Surface Movement related to Safety Nets	Fraport	
016_159_AF6	DLS Implementation Project - Path 2	DFS	<b>②</b>
16_159_AF6	DLS Implementation Project - Path 2	SITA Inc BV - Germany	<b>Ø</b>
16_161_AF6	DLS Implementation Project - Path 1 Ground stakeholders	DFS	<b>Ø</b>
16_161_AF6	DLS Implementation Project - Path 1 Ground stakeholders	SITA Inc BV - Germany	0
16_165_AF6_AIR	Lufthansa Group & Air France Group Datalink upgrade to "best in class" avionics	LCAG	0
16_165_AF6_AIR	Lufthansa Group & Air France Group Datalink upgrade to "best in class" avionics	Lufthansa	0
016_165_AF6_GND	Lufthansa Group & Air France Group Datalink upgrade to "best in class" avionics	LCAG	0
016_165_AF6_GND	Lufthansa Group & Air France Group Datalink upgrade to "best in class" avionics	Lufthansa	0
017_004_AF1 017_004_AF1	Flight Crew Training for RNP1 Operations	Eurowings	
017_004_AF1	Flight Crew Training for RNP1 Operations Flight Crew Training for RNP1 Operations	Eurowings Europe LCAG	
	Flight Crew Training for RNP1 Operations		
017_004_AF1 017_004_AF1	Flight Crew Training for RNP1 Operations	LH Cityline Lufthansa	
017_022_AF2	Synchronised stakeholder decision on process optimisation at airport level	FMG	
17_022_AF2	Synchronised stakeholder decision on process optimisation at airport level	Fraport	
17_029_AF3	Deployment of Centralised Interoperable Center Information Service (Step 1)	DFS	
17_031_AF3	Procurement and Deployment of PCP Air Traffic Control System iCAS at DFS Munich and Bremen and LVNL Amsterdam	DFS	
17_032_AF2	TANGe (Tower ATS-System Next Generation) Phase 1+ incl. Service Architecture	DFS	
17_052_AF4	AOP-NOP Integration - Extended Implementation	FDG	
17_053_AF3	Implementation of rolling ASM/ATFCM	Sabre Airline Solutions	0
17_056_AF5	Towards Shared Business Trajectory / Trajectory Based Operations	Sabre Airline Solutions	
17_084_AF5	SWIM Common PKI and policies & procedures for establishing a Trust framework	DFS	0
17_084_AF5	SWIM Common PKI and policies & procedures for establishing a Trust framework	Lufthansa	0
17_089_AF6	IP1 - DLS European Target Solution assessment	DFS	0
22_022_AF2_AF4	BEACON	DFS	
22_022_AF2_AF4	BEACON	Flughafen Hamburg	









### **Greece**



<sup>\*</sup> The remaining scope of the Gap is Not yet Planned

List of CEF-fun	ded initiatives awarded to Stakeholders		
Reference Number	CEF Project Title	Implementing Partners	Closed
#095AF3	Implementation of FRA in Greece	HCAA	<b>Ø</b>
2015_029_AF3	Procurement of new DPS/ATM and VCRS systems to support DCTs and FRA	HCAA	
2016_161_AF6	DLS Implementation Project - Path 1 Ground stakeholders	HCAA	<b>Ø</b>
2017_084_AF5	SWIM Common PKI and policies & procedures for establishing a Trust framework	HCAA	<b>Ø</b>
2022_014_AF5	Acceleration of Aeronautical Digital Information Availability (ACADIA)	Athens International Airport	
2022_022_AF2_AF4	BEACON	Athens International Airport	

Sar				G	reece				
umber Serv	of SWIM 13	Current status of implementation	<ul><li>Completed</li><li>Ongoing</li><li>Planned</li><li>Not yet Plan</li></ul>	2 nned				P.	owered by EUROCONT
Family		Service		Completed (%)	Ongoing (%)	Planned (%)	Not Yet Planned (%)	Completion date	CEF Projects
5.3.1	Information Exchange - Air	space Reservation (ARES)		0	0	0	100		No
5.3.1	Information Exchange - Aer	rodrome mapping service							
5.3.1	Information Exchange - Aer	ronautical Information Features ser	vice	0	0	100	0	December 2025	No
5.3.1	Information Exchange - Air	space Availability Service		0	0	0	100		No
5.3.1	Information Exchange - Air	space structure service		0	0	0	100		No
5.3.1	Information Exchange – Dig	gital NOTAM service		0	0	100	0	December 2025	No
5.4.1	Information Exchange - Aer	rodrome Meteorological information	n Service	0	0	0	100	*	No
5.4.1	Information Exchange - En- service	Route and Approach Meteorologic	al information	0	0	0	100	•	No
5.4.1	Information Exchange - Net	twork Meteorological Information		0	0	0	100	*	No
5.4.1	Information Exchange - Vol	canic Ash Mass Concentration info	rmation service	0	0	0	100	*	No
5.5.1	Network Information Excha Capacity and Enroute)	inge - ATFCM Tactical Updates Serv	rice (Airport						
5.5.1	Network Information Excha	inge – Counts service (ATFCM Con	gestion Points)						
5.5.1	Network Information Excha NOP/AOP integration)	nge – Flight Management Service (	Slots and	0	0	0	100	*	No
5.5.1	Network Information Excha	nge – Measures Service (Traffic Re	gulation)						
5.5.1	Network Information Excha eHelpdesk, STAM measures	inge - Short Term ATFCM Measures s)	services (MCDM,						
5.6.1	Information Exchange (Yell	ow Profile) - Data Publication Servi	ce	0	0	0	100		No
5.6.1	Information Exchange (Yell	ow Profile) - Extended AMAN SWIN	I Service						
5.6.1	Information Exchange (Yell	ow Profile) - Flight Data Request S	ervice	0	0	0	100	*	No
5.6.1		ow Profile) - Notification Service		0	0	0	100		No

\* The remaining scope of the Gap is Not yet Planned

Completed SWIM Service
Foreseen implementation beyond CP1 deadline



## **Hungary**



<sup>\*</sup> The remaining scope of the Gap is Not yet Planned

Reference Number	CEF Project Title	Implementing Partners	Closed
#102AF3	Free route airspace from the Black Forest to the Black Sea	HungaroControl	0
2015_034_AF3	ATM System (MATIAS) upgrade for cross-border free route operation	HungaroControl	0
2015_234_AF1_B	AMAN LOWW initial	HungaroControl	
2016_027_AF5	European Deployment Roadmap for Flight Object Interoperability	HungaroControl	0
2016_075_AF3_B	FAB CE wide Study of DAM and STAM - Cohesion Call	HungaroControl	0
2016_141_AF5	Deploy SWIM governance	HungaroControl	0
2016_159_AF6	DLS Implementation Project - Path 2	HungaroControl	0
2016_161_AF6	DLS Implementation Project - Path 1 Ground stakeholders	HungaroControl	0
2017_074_AF3	Hungarian ATM system upgrade for AF3-AF4	HungaroControl	0
2017_084_AF5	SWIM Common PKI and policies & procedures for establishing a Trust framework	HungaroControl	0
2017_089_AF6	IP1 - DLS European Target Solution assessment	HungaroControl	0





Family	Service	Completed (%)	Ongoing (%)	Planned (%)	Not Yet Planned (%)	Completion date	CEF Projects
5.3.1	Information Exchange - Airspace Reservation (ARES)	51	24	25	0	December 2027	No
5.3.1	Information Exchange - Aerodrome mapping service						
5.3.1	Information Exchange - Aeronautical Information Features service	0	0	100	0	December 2027	No
5.3.1	Information Exchange - Airspace Availability Service	100	0	0	0	January 2016	No
5.3.1	Information Exchange - Airspace structure service	100	0	0	0	January 2016	No
5.3.1	Information Exchange – Digital NOTAM service	0	0	100	0	December 2027	No
5.4.1	Information Exchange - Aerodrome Meteorological information Service	1	3	96	0	December 2027	No
5.4.1	Information Exchange - En-Route and Approach Meteorological information service	3	30	67	0	December 2027	No
5.4.1	Information Exchange - Network Meteorological Information	9	78	13	0	December 2027	No
5.4.1	Information Exchange - Volcanic Ash Mass Concentration information service	2	8	90	0	December 2027	No
5.5.1	Network Information Exchange - ATFCM Tactical Updates Service (Airport Capacity and Enroute)	100	0	0	0	January 2021	No
5.5.1	Network Information Exchange – Counts service (ATFCM Congestion Points)	0	0	100	0	December 2025	No
5.5.1	Network Information Exchange – Flight Management Service (Slots and NOP/AOP integration)	100	0	0	0	January 2020	No
5.5.1	Network Information Exchange – Measures Service (Traffic Regulation)	5	45	50	0	December 2025	No
5.5.1	Network Information Exchange - Short Term ATFCM Measures services (MCDM, eHelpdesk, STAM measures)						
5.6.1	Information Exchange (Yellow Profile) - Data Publication Service	10	40	50	0	September 2028	No
5.6.1	Information Exchange (Yellow Profile) - Extended AMAN SWIM Service	0	0	0	100	*	No
5.6.1	Information Exchange (Yellow Profile) - Flight Data Request Service	10	40	50	0	September 2028	No
5.6.1	Information Exchange (Yellow Profile) - Notification Service	10	40	50	0	September 2028	No

Completed SWIM Service

Foreseen implementation beyond CP1 deadline



### **Ireland**



<sup>\*</sup> The remaining scope of the Gap is Not yet Planned

Reference Number	CEF Project Title	Implementing Partners	Close
020AF3	Borealis Free Route Airspace (Part 1)	IAA	0
135AF2a	Ryanair RAAS Programme (Part A)	Ryanair	0
135AF2b	Ryanair RAAS Programme (Part B)	Ryanair	0
015_074_AF2	Display TOBT TSAT at the Gate	DAA	0
015_076_AF2	Aerial Visual Display A-CDM Phase 2	DAA	0
015_077_AF2	Universal Mobile Display System (UMDS) solution to support A-CDM	DAA	0
015_078_AF2	A-CDM Enhancements EIDW	DAA	0
015_159_AF3	Deployment of IP / VOIP technology to enable Management of Dynamic Airspace configurations	IAA	
015_161_AF2	Initial implementation of DMAN	IAA	0
015_162_AF2	Electronic Flight Strip (EFS) Implementation	IAA	0
015_174_AF5_A	NewPENS Stakeholders contribution for the procurement and deployment of NewPENS - Part A: General Call	IAA	
015_207_AF3_A	Harmonisation of Technical ATM Platform in 5 ANSP including support of free Route Airspace and preparation of PCP program. (COOPANS B3.3, B3.4 and B3.5)	IAA	0
015_227_AF3_A	Borealis FRA Implementation (Part 2)	IAA	
015_227_AF3_A	Borealis FRA Implementation (Part 2)	Ryanair	
016_027_AF5	European Deployment Roadmap for Flight Object Interoperability	IAA	
016_033_AF5	Use SWIM methods to replace AFTN feeds for A-CDM	DAA	0
016_034_AF5	Upgrade/Replace Infrastructure to facilitate SWIM	DAA	0
016_148_AF5	Implementation of Automated Meteorological Information Exchange	DHLGH	
016_148_AF5	Implementation of Automated Meteorological Information Exchange	IAA	
016_150_AF2_GND	Enablers for Airport Surface Movement related to Safety Nets	DAA	
016_164_AF6	RYR Upgrade to ATN B1 to "best in class"	Ryanair	
017_018_AF5	SWIM-enabled OCC	Ryanair	
017_022_AF2	Synchronised stakeholder decision on process optimisation at airport level	DAA	
017_066_AF5	Implementing harmonised SWIM (Y) solution in COOPANS ANSPs and general PCP compliance	IAA	
017_084_AF5	SWIM Common PKI and policies & procedures for establishing a Trust framework	Ryanair	0
017_089_AF6	IP1 - DLS European Target Solution assessment	Airtel	0
022_014_AF5	Acceleration of Aeronautical Digital Information Availability (ACADIA)	AirNav Ireland	
022 014 AF5	Acceleration of Aeronautical Digital Information Availability (ACADIA)	DAA	





Family	Service	Completed (%)	Ongoing (%)	Planned (%)	Not Yet Planned (%)	Completion date	CEF Projects
5.3.1	Information Exchange - Airspace Reservation (ARES)	30	20	50	0	December 2028	Yes
5.3.1	Information Exchange - Aerodrome mapping service	10	90	0	0	December 2025	Yes
5.3.1	Information Exchange - Aeronautical Information Features service	10	80	10	0	December 2025	Yes
5.3.1	Information Exchange - Airspace Availability Service	40	60	0	0	December 2025	Yes
5.3.1	Information Exchange - Airspace structure service	43	57	0	0	December 2025	Yes
5.3.1	Information Exchange – Digital NOTAM service	8	72	20	0	December 2025	Yes
5.4.1	Information Exchange - Aerodrome Meteorological information Service	10	83	7	0	December 2025	Yes
5.4.1	Information Exchange - En-Route and Approach Meteorological information service	9	78	13	0	December 2027	Yes
5.4.1	Information Exchange - Network Meteorological Information	9	78	13	0	December 2027	Yes
5.4.1	Information Exchange - Volcanic Ash Mass Concentration information service	10	53	37	0	December 2025	No
5.5.1	Network Information Exchange - ATFCM Tactical Updates Service (Airport Capacity and Enroute)	0	0	0	100	•	No
5.5.1	Network Information Exchange – Counts service (ATFCM Congestion Points)	0	0	0	100	*	No
5.5.1	Network Information Exchange – Flight Management Service (Slots and NOP/AOP integration)	45	30	25	0	December 2025	Yes
5.5.1	Network Information Exchange – Measures Service (Traffic Regulation)	0	0	0	100	*	No
5.5.1	Network Information Exchange - Short Term ATFCM Measures services (MCDM, eHelpdesk, STAM measures)						
5.6.1	Information Exchange (Yellow Profile) - Data Publication Service	0	0	100	0	December 2028	No
5.6.1	Information Exchange (Yellow Profile) - Extended AMAN SWIM Service	25	8	67	0	December 2025	No
5.6.1	Information Exchange (Yellow Profile) - Flight Data Request Service	0	0	100	0	December 2028	Yes
5.6.1	Information Exchange (Yellow Profile) - Notification Service	0	0	100	0	December 2028	No

Completed SWIM Service

Foreseen implementation beyond CP1 deadline



## **Italy**



List of CEF-fur	nded initiatives awarded to Stakeholders		
Reference Number	CEF Project Title	Implementing Partners	Closed
#004AF3	AZA Traffic Flow Restriction (TFR) – LIDO planning system	Alitalia S.p.A	<b>Ø</b>
#005AF3	AZA FREE FLIGHT- DIRECT OPTIMIZATION	Alitalia S.p.A	<b>Ø</b>
#062AF4	ENAV initiative for the identification of Network Collaborative Management requirements	ENAV	<b>Ø</b>
#063AF3	ENAV implementation of Free Route	ENAV	<b>Ø</b>
#064AF2	ENAV Airport System upgrade	ENAV	<b>Ø</b>
#065AF1	ENAV Geographic DB for Procedure Design	ENAV	<b>Ø</b>
#066AF5	ENAV AIS system Upgrade to support AIXM 5.1	ENAV	<b>Ø</b>
#067AF5	Coflight-eFDP System Development	ENAV	<b>Ø</b>
2015_198_AF5	Implementation of ENAV LAN Servizi	ENAV	<b>Ø</b>
2015_201_AF5	Transition of current Aeronautical Information Management System to EAD	ENAV	<b>Ø</b>
2015_202_AF3	A SM tool Implementation	ENAV	<b>Ø</b>
2015_204_AF3_Phase _I	4-Flight deployment in Italy 2016-2017	ENAV	<b>Ø</b>
2015_204_AF3_Phase _II	4-Flight deployment in Italy 2019-2020	ENAV	
2016_027_AF5	European Deployment Roadmap for Flight Object Interoperability	ENAV	<b>Ø</b>
2016_089_AF6	IT_ITAF ATC CONTROL SYSTEM MOVING TO i4D	ENAV	<b>Ø</b>
2016_089_AF6	IT_ITAF ATC CONTROL SYSTEM MOVING TO I4D	MoD Italy	<b>Ø</b>
2016_092_AF5	ITAF WAN	MoD Italy	
2016_108_AF5	ENAV ADQ - Aeronautical Data Quality system interface evolution (ADQ2)	ENAV	<b>Ø</b>
2016_109_AF5	BLUEMED FAB IP Network deployment	ENAV	
2016_110_AF3	ENAV Automated ENV Data Interchange for FDP	ENAV	<b>Ø</b>
2016_114_AF4	ENAV Traffic Complexity Tool Implementation	ENAV	
2016_115_AF3	ENAV 4-Flight Deployment in Italy - Third Stage 2017-2018	ENAV	<b>Ø</b>
2016_116_AF5	ENAV Security Operational Centre (iSOC) Upgrade	ENAV	
2016_117_AF2	ENAV Implementation of A-SMGCS Level 1 and 2 with Safety Nets in MXP and FCO	ADR	
2016_117_AF2	ENAV Implementation of A-SMGCS Level 1 and 2 with Safety Nets in MXP and FCO	ENAV	
2016_117_AF2	ENAV Implementation of A-SMGCS Level 1 and 2 with Safety Nets in MXP and FCO	S.E.A.	
2016_118_AF5	ENAV Network enhancement toward NewPENS	ENAV	
2016_119_AF5	ENAV Airport MET System and UPM-MET database upgrade	ENAV	
2016_120_AF1	ENAV Introduction of RNP1+RF and APV procedures in MXP and FCO	ENAV	
2016_141_AF5	Deploy SWIM governance	ENAV	<b>Ø</b>
2016_150_AF2_GND	Enablers for Airport Surface Movement related to Safety Nets	ADR	
2016_159_AF6	DLS Implementation Project - Path 2	ENAV	<b>Ø</b>
2016_161_AF6	DLS Implementation Project - Path 1 Ground stakeholders	ENAV	
2017_004_AF1	Flight Crew Training for RNP1 Operations	Air Dolomiti	
2017_020_AF5	Initial SWIM security deployment	ADR	
2017_022_AF2	Synchronised stakeholder decision on process optimisation at airport level	ADR	
2017_022_AF2	Synchronised stakeholder decision on process optimisation at airport level	ENAV	



Reference Number	CEF Project Title	Implementing Partners	Closed
2017_040_AF5	AERONET/ENET2 Interoperability	MoD Italy	
2017_041_AF3	ASM - LARA Enhancement - Implementation in Italy	ENAV	
2017_041_AF3	ASM - LARA Enhancement - Implementation in Italy	MoD Italy	
2017_042_AF3	Automatic Tactical Controller Tool implementation	ENAV	
2017_042_AF3	Automatic Tactical Controller Tool implementation	MoD Italy	
2017_043_AF3	Coflight-eFDP Development (Step 2)	ENAV	<b>Ø</b>
2017_045_AF4	ENAV Deployment of traffic complexity tool and STAM phase 2	ENAV	
2017_052_AF4	AOP-NOP Integration - Extended Implementation	ADR	
2017_052_AF4	AOP-NOP Integration - Extended Implementation	S.E.A.	
2017_069_AF5	ITALIAN AIR FORCE INTEGRATED BRIEFING	MoD Italy	
2017_084_AF5	SWIM Common PKI and policies & procedures for establishing a Trust framework	ENAV	
2017_089_AF6	IP1 - DLS European Target Solution assessment	ENAV	
2017_089_AF6	IP1 - DLS European Target Solution assessment	Leonardo	
2022_007_AF3	South East Enhanced FRA implementation	ENAV	
2022_014_AF5	Acceleration of Aeronautical Digital Information Availability (ACADIA)	ENAV	
2022_022_AF2_AF4	BEACON	S.E.A.	

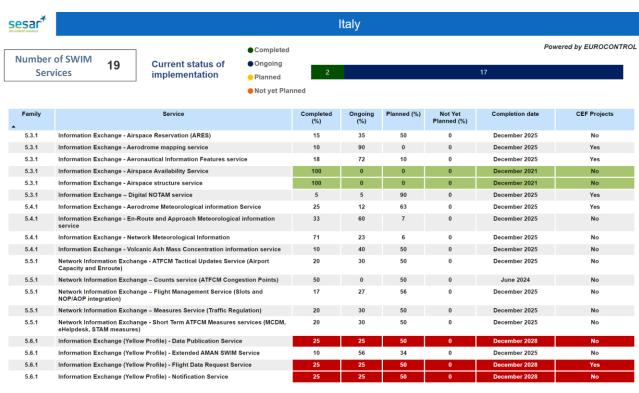


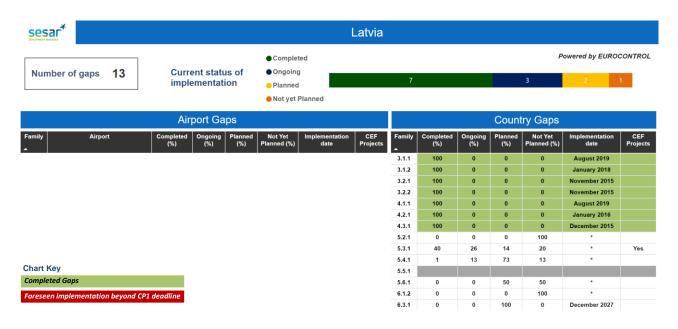
Chart Key

Completed SWIM Service

Foreseen implementation beyond CP1 deadline



## Latvia



<sup>\*</sup> The remaining scope of the Gap is Not yet Planned

List of CEF-funded initiatives awarded to Stakeholders						
Reference Number	CEF Project Title	Implementing Partners	Closed			
#020AF3	Borealis Free Route Airspace (Part 1)	LGS	<b>Ø</b>			
2015_227_AF3_A	Borealis FRA Implementation (Part 2)	LGS				
2016_159_AF6	DLS Implementation Project - Path 2	LGS				
2016_161_AF6	DLS Implementation Project - Path 1 Ground stakeholders	LGS	<b>Ø</b>			
2016_163_AF6	CPDLC Implementation in the Riga FIR	LGS	<b>Ø</b>			
2022_014_AF5	Acceleration of Aeronautical Digital Information Availability (ACADIA)	LGS				

sesar*				L	atvia				
	r of SWIM 12 vices	Current status of implementation	<ul><li>Completed</li><li>Ongoing</li><li>Planned</li><li>Not yet Plan</li></ul>	ined		6		Pov 5	vered by EUROCONTRO
Family		Service		Completed (%)	Ongoing (%)	Planned (%)	Not Yet Planned (%)	Completion date	CEF Projects
5.3.1	Information Exchange - Air	space Reservation (ARES)		0	0	0	100	*	No
5.3.1	Information Exchange - Aer	rodrome mapping service							
5.3.1	Information Exchange - Aer	ronautical Information Features ser	vice	10	80	10	0	December 2025	Yes
5.3.1	Information Exchange - Airspace Availability Service			75	25	0	0	December 2025	No
5.3.1	Information Exchange - Airs	space structure service		50	0	50	0	December 2025	No
5.3.1	Information Exchange - Digital NOTAM service			66	24	10	0	December 2025	Yes

5.3.1	Information Exchange - Airspace Reservation (ARES)	0	0	0	100		No
5.3.1	Information Exchange - Aerodrome mapping service						
5.3.1	Information Exchange - Aeronautical Information Features service	10	80	10	0	December 2025	Yes
5.3.1	Information Exchange - Airspace Availability Service	75	25	0	0	December 2025	No
5.3.1	Information Exchange - Airspace structure service	50	0	50	0	December 2025	No
5.3.1	Information Exchange – Digital NOTAM service	66	24	10	0	December 2025	Yes
5.4.1	Information Exchange - Aerodrome Meteorological information Service	3	30	37	30	*	No
5.4.1	Information Exchange - En-Route and Approach Meteorological information service	3	24	73	0	December 2027	No
5.4.1	Information Exchange - Network Meteorological Information	0	0	100	0	December 2025	No
5.4.1	Information Exchange - Volcanic Ash Mass Concentration information service	0	0	80	20	*	No
5.5.1	Network Information Exchange - ATFCM Tactical Updates Service (Airport Capacity and Enroute)						
5.5.1	Network Information Exchange – Counts service (ATFCM Congestion Points)						
5.5.1	Network Information Exchange – Flight Management Service (Slots and NOP/AOP integration)						
5.5.1	Network Information Exchange – Measures Service (Traffic Regulation)						
5.5.1	Network Information Exchange - Short Term ATFCM Measures services (MCDM, eHelpdesk, STAM measures)						
5.6.1	Information Exchange (Yellow Profile) - Data Publication Service	0	0	50	50	*	No
5.6.1	Information Exchange (Yellow Profile) - Extended AMAN SWIM Service						
5.6.1	Information Exchange (Yellow Profile) - Flight Data Request Service	0	0	50	50	*	No
5.6.1	Information Exchange (Yellow Profile) - Notification Service	0	0	50	50		No

Chart Key

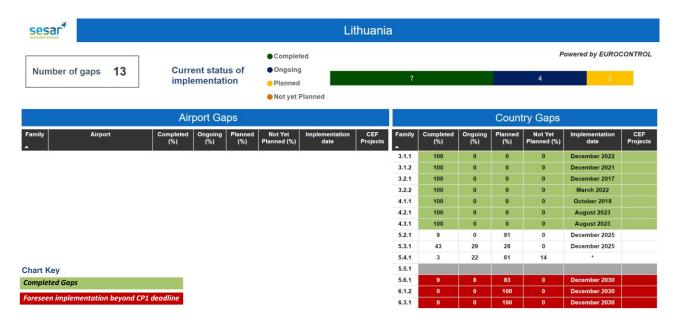
Completed SWIM Service

Foreseen implementation beyond CP1 deadline

<sup>\*</sup> The remaining scope of the Gap is Not yet Planned



## Lithuania



<sup>\*</sup> The remaining scope of the Gap is Not yet Planned

Reference Number	CEF Project Title	Implementing Partners	Closed
2016_087_AF3	iTEC Tests, Validations and Planning (iTEC-TVP)	ORO NAVIGACIJA	
016_159_AF6	DLS Implementation Project - Path 2	ORO NAVIGACIJA	0
2016_161_AF6	DLS Implementation Project - Path 1 Ground stakeholders	ORO NAVIGACIJA	
2017_084_AF5	SWIM Common PKI and policies & procedures for establishing a Trust framework	ORO NAVIGACIJA	0
2022 020 AF5	ASM SWIM	ORO NAVIGACIJA AB	

Sesar*	Lithuania							
Number of SWIM	12	Current status of	<ul><li>Completed</li><li>Ongoing</li></ul>			Powered by EUROCONTROL		
Services	12	implementation	<ul><li>Planned</li></ul>	2	6	4		
			Not yet Planned					

Family	Service	Completed (%)	Ongoing (%)	Planned (%)	Not Yet Planned (%)	Completion date	CEF Projects
5.3.1	Information Exchange - Airspace Reservation (ARES)	0	0	100	0	December 2025	Yes
5.3.1	Information Exchange - Aerodrome mapping service						
5.3.1	Information Exchange - Aeronautical Information Features service	8	72	20	0	December 2025	No
5.3.1	Information Exchange - Airspace Availability Service	100	0	0	0	March 2021	No
5.3.1	Information Exchange - Airspace structure service	100	0	0	0	March 2021	No
5.3.1	Information Exchange – Digital NOTAM service	8	72	20	0	December 2025	No
5.4.1	Information Exchange - Aerodrome Meteorological information Service	3	30	37	30	*	No
5.4.1	Information Exchange - En-Route and Approach Meteorological information service	3	30	40	27		No
5.4.1	Information Exchange - Network Meteorological Information	3	30	67	0	December 2025	No
5.4.1	Information Exchange - Volcanic Ash Mass Concentration information service	0	0	100	0	December 2025	No
5.5.1	Network Information Exchange - ATFCM Tactical Updates Service (Airport Capacity and Enroute)						
5.5.1	Network Information Exchange – Counts service (ATFCM Congestion Points)						
5.5.1	Network Information Exchange – Flight Management Service (Slots and NOP/AOP integration)						
5.5.1	Network Information Exchange – Measures Service (Traffic Regulation)						
5.5.1	Network Information Exchange - Short Term ATFCM Measures services (MCDM, eHelpdesk, STAM measures)						
5.6.1	Information Exchange (Yellow Profile) - Data Publication Service	25	25	50	0	December 2030	No
5.6.1	Information Exchange (Yellow Profile) - Extended AMAN SWIM Service						
5.6.1	Information Exchange (Yellow Profile) - Flight Data Request Service	0	0	100	0	December 2030	No
5.6.1	Information Exchange (Yellow Profile) - Notification Service	0	0	100	0	December 2030	No

\* The remaining scope of the Gap is Not yet Planned

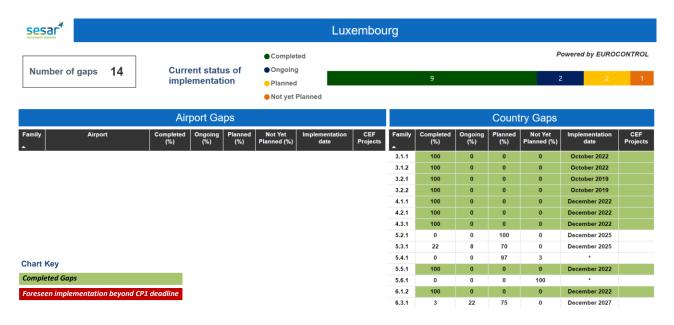
Completed SWIM Service

Foreseen implementation beyond CP1 deadline

Chart Key



### Luxembourg



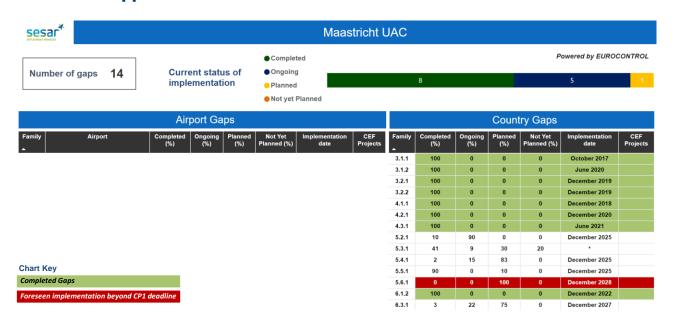
<sup>\*</sup> The remaining scope of the Gap is Not yet Planned



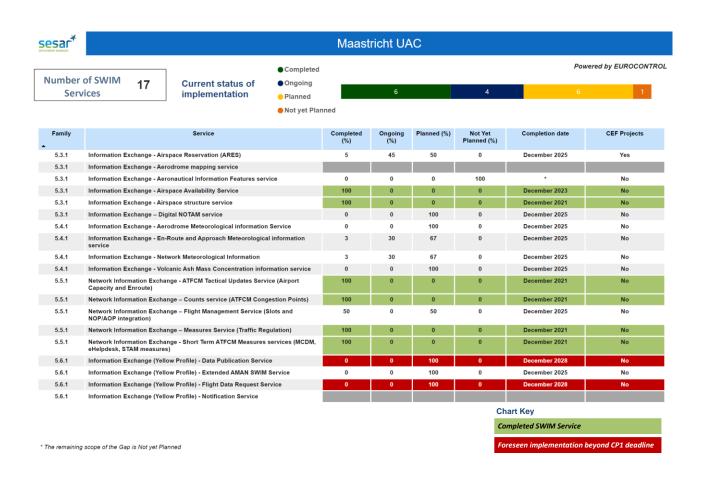




## **Maastricht Upper Area Control Center**

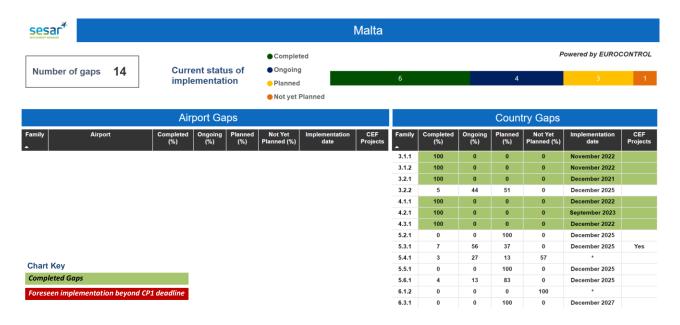


<sup>\*</sup> The remaining scope of the Gap is Not yet Planned





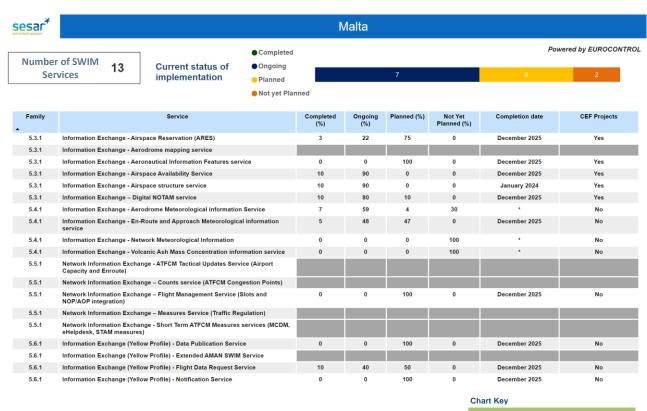
### **Malta**



<sup>\*</sup> The remaining scope of the Gap is Not yet Planned

List of CEF-funded initiatives awarded to Stakeholders						
Reference Number	CEF Project Title	Implementing Partners	Closed			
2016_109_AF5	BLUEMED FAB IP Network deployment	MATS	<b>Ø</b>			
2016_159_AF6	DLS Implementation Project - Path 2	MATS	<b>Ø</b>			
2016_161_AF6	DLS Implementation Project - Path 1 Ground stakeholders	MATS	$ \bigcirc $			
2022_007_AF3	South East Enhanced FRA implementation	MATS				
2022_014_AF5	Acceleration of Aeronautical Digital Information Availability (ACADIA)	MATS				
2022_020_AF5	ASM SWIM	MATS				



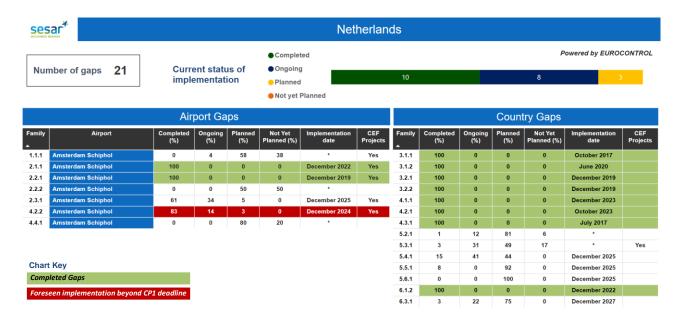


\* The remaining scope of the Gap is Not yet Planned

Completed SWIM Service



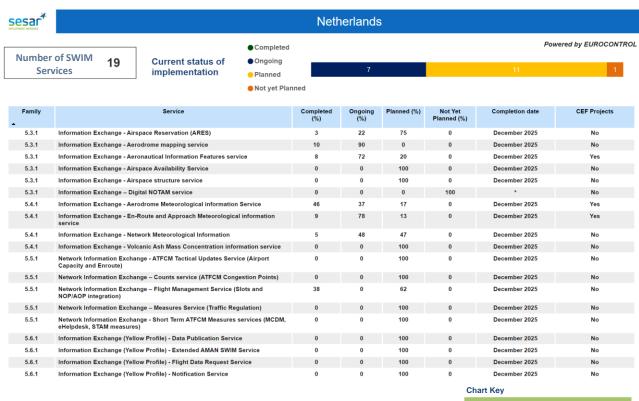
### **Netherlands**



<sup>\*</sup> The remaining scope of the Gap is Not yet Planned

Reference Number	CEF Project Title	Implementing Partners	Closed
#107AF1	First phase of RNAV1 and RNP- APCH approaches Amsterdam Schiphol (EHAM)	LVNL	Ø
#108AF2	Electronic Flight Strips at Schiphol TWR	LVNL	<b>Ø</b>
#109AF2	Airport CDM implementation Schiphol	KLM	<b>Ø</b>
#109AF2	Airport CDM implementation Schiphol	LVNL	<b>Ø</b>
#109AF2	Airport CDM implementation Schiphol	SNBV	0
#110AF5	Meteorological Information Exchange by MET ANSP KNMI	KNMI	<b>Ø</b>
2015_137_AF5	European Meteorological Aircraft Derived Data Center (EMADDC)	KNMI	
2015_165_AF1	Amsterdam Schiphol AMAN 1.0	LVNL	<b>Ø</b>
2015_166_AF1	Amsterdam Schiphol AMAN 2.0	LVNL	
2015_167_AF4	Workload model for Amsterdam Area Control and Approach Control operations	LVNL	
2015_168_AF5	Implementation of Aeronautical Data Quality (ADQ) at LVNL	LVNL	<b>Ø</b>
2015_169_AF5	Initial (I)WXXM implementation on CCIS Amsterdam ACC and Schiphol	LVNL	<b>Ø</b>
2015_174_AF5_A	NewPENS Stakeholders contribution for the procurement and deployment of NewPENS - Part A: General Call	LVNL	<b>Ø</b>
2015_178_AF2	Implementation of AOP Schiphol Airport	KNMI	<b>Ø</b>
2015_178_AF2	Implementation of AOP Schiphol Airport	SNBV	<b>Ø</b>
2015_179_AF4	Implementation of APOC Schiphol Airport	KNMI	<b>Ø</b>
015_179_AF4	Implementation of APOC Schiphol Airport	SNBV	<b>Ø</b>
2015_186_AF1	RNP approaches to three main landing runways Amsterdam Schiphol	LVNL	<b>Ø</b>
2015_187_AF2	TWR System at Amsterdam Schiphol	LVNL	
2015_190_AF3	Deployment of Air Traffic Control System iCAS: Implementation of ATM PCP Functionalities at LVNL and DFS	LVNL	
2015_196_AF1_A	XMAN - Cross-centre arrival management	LVNL	<b>Ø</b>
2015_253_AF1_A_AIR	RNP 1.0, RNP 0.3 & SBAS FOR E3A AWACS FOR CEF ELIGIBLE NATIONS AND THIRD PARTY (Production and Retrofit)	NAPMA	<b>Ø</b>
2015_253_AF1_A_GND	RNP 1.0, RNP 0.3 & SBAS FOR E3A AWACS FOR CEF ELIGIBLE NATIONS AND THIRD PARTY (Flight Simulator Training Device upgrade and AirCrew Training)	NAPMA	<b>Ø</b>
015_253_AF1_B	RNP 1.0, RNP 0.3 & SBAS FOR E3A AWACS FOR COHESION ELIGIBLE STATES	NAPMA	<b>Ø</b>
2016_023_AF1	XMAN - Cross-centre arrival management - Part 2 (CEF2016)	LVNL	
2016_026_AF3	System Procurement for Deployment of PCP Air Traffic Control System iCAS at DFS and LVNL	LVNL	
2016_027_AF5	European Deployment Roadmap for Flight Object Interoperability	LVNL	
2016_131_AF4	AOP-NOP Integration - Extended Implementation	SNBV	
2016_143_AF5	ATM Network 2.0 Amsterdam	LVNL	
2016_150_AF2_GND	Enablers for Airport Surface Movement related to Safety Nets	SNBV	
2016_159_AF6	DLS Implementation Project - Path 2	SITA	$\otimes$
2016_161_AF6	DLS Implementation Project - Path 1 Ground stakeholders	SITA	<b>Ø</b>
017_031_AF3	Procurement and Deployment of PCP Air Traffic Control System iCAS at DFS Munich and Bremen and LVNL Amsterdam	LVNL	
017_063_AF2	A-SMGCS High Performance Surveillance enhancement in view to support routing & planning functions implementation	LVNL	
017_064_AF1	Final phase RNP APCH procedures Amsterdam Schiphol	LVNL	
2017_065_AF5	LVNL Nation wide managed network supporting SWIM	LVNL	
017_084_AF5	SWIM Common PKI and policies & procedures for establishing a Trust framework	LVNL	
2017_089_AF6	IP1 - DLS European Target Solution assessment	SITA	<b>Ø</b>
022_014_AF5	Acceleration of Aeronautical Digital Information Availability (ACADIA)	SNBV	



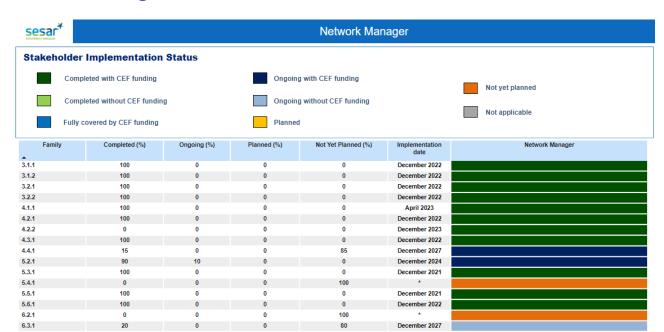


Completed SWIM Service

Foreseen implementation beyond CP1 deadline



## **Network Manager**



<sup>\*</sup> The remaining scope of the Gap is Not yet Planned

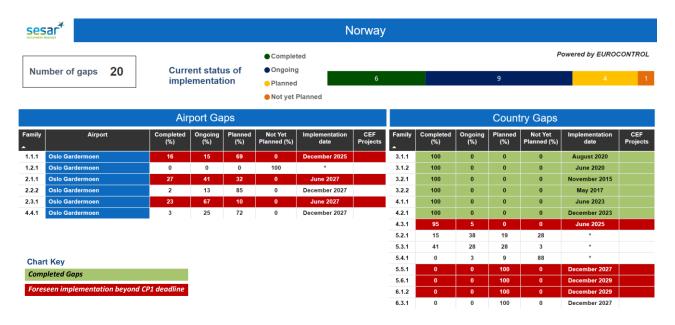
Reference Number	CEF Project Title	Implementing Partners	Closed
#073AF5	SWIM Common Components	EUROCONTROL/NM	Ø
077AF4	Interactive Rolling NOP	EUROCONTROL/NM	<b>Ø</b>
078AF4	ATFCM measures (STAM)	EUROCONTROL/NM	<b>Ø</b>
079AF4	Trajectory accuracy and traffic complexity	EUROCONTROL/NM	<b>Ø</b>
#080AF3	ASM AFUA Implementation	EUROCONTROL/NM	<b>Ø</b>
#081AF3	NM DCT/FRA Implementation and support	EUROCONTROL/NM	<b>Ø</b>
#082AF5	SWIM compliance of NM systems	EUROCONTROL/NM	<b>Ø</b>
±083AF1	AMAN extended to en-route	EUROCONTROL/NM	<b>Ø</b>
015_067_AF5	European Weather Radar Composite of Convection Information Service	EUROCONTROL/NM	<b>Ø</b>
015_068_AF5	European Harmonised Forecasts of Adverse Weather (Icing, Turbulence, Convection and Winter weather)	EUROCONTROL/NM	<b>Ø</b>
015_069_AF5	European MET Information Exchange (MET-GATE)	EUROCONTROL/NM	<b>Ø</b>
2015_101_AF1	Network Support to extended Arrival Management	EUROCONTROL/NM	<b>Ø</b>
2015_105_AF4	Interactive Rolling Network Operations Planning	EUROCONTROL/NM	<b>Ø</b>
015_106_AF4	Flight evolution and upgrade of interfaces with NM stakeholders	EUROCONTROL/NM	0
015_107_AF3	NM Systems upgrades in support of DCTs and FRA	EUROCONTROL/NM	0
015_110_AF4	STAM Phase 2 (NM)	EUROCONTROL/NM	0
015_112_AF5	Integrate the Aeronautical Information Exchange Services in NM Systems	EUROCONTROL/NM	<b>Ø</b>
015_113_AF4	AOP-NOP Integrations	EUROCONTROL/NM	
015_114_AF4	Implementation of Target Times for ATFCM purposes (NM)	EUROCONTROL/NM	<b>Ø</b>
015_115_AF4	Traffic Complexity Management	EUROCONTROL/NM	<b>Ø</b>
015_117_AF5	Improve NM SWIM Infrastructure	EUROCONTROL/NM	<b>Ø</b>
015_141_AF5	Improve NM Flight Information Exchange Services	EUROCONTROL/NM	<b>Ø</b>
015_143_AF5	Improve Cooperative Network Information Exchange Services	EUROCONTROL/NM	<b>Ø</b>
015_145_AF5_A	AIM Deployment Toolkit	EUROCONTROL/NM	<b>Ø</b>
015_174_AF5_A	NewPENS Stakeholders contribution for the procurement and deployment of NewPENS - Part A: General Call	EUROCONTROL/NM	<b>Ø</b>
015_174_AF5_B	NewPENS Stakeholders contribution for the procurement and deployment of NewPENS - Part B: Cohesion Call	EUROCONTROL/NM	<b>Ø</b>
2015_196_AF1_A	XMAN - Cross-centre arrival management	EUROCONTROL/NM	<b>Ø</b>
015_232_AF2	TBS4LOWW (Time Based Separation for Vienna Airport)	EUROCONTROL/NM	<b>Ø</b>
015_319_AF5	SWIM Common Components - Phase 2	EUROCONTROL/NM	<b>Ø</b>
016_023_AF1	XMAN - Cross-centre arrival management - Part 2 (CEF2016)	EUROCONTROL/NM	
016_027_AF5	European Deployment Roadmap for Flight Object Interoperability	EUROCONTROL/NM	<b>Ø</b>
016_129_AF5	NewPENS Stakeholders contribution for the procurement and deployment of NewPENS	EUROCONTROL/NM	<b>Ø</b>
016_131_AF4	AOP-NOP Integration - Extended Implementation	EUROCONTROL/NM	
016_133_AF3	NM system management of real time airspace data	EUROCONTROL/NM	<b>Ø</b>
016_134_AF3	Implementation of rolling ASM/ATFCM	EUROCONTROL/NM	<b>Ø</b>
016_135_AF3	Implementation of pre-defined airspace configuration	EUROCONTROL/NM	<b>Ø</b>
2016_141_AF5	Deploy SWIM governance	EUROCONTROL/NM	<b>Ø</b>
017_037_AF2	TBS deployment at Paris CDG	EUROCONTROL/NM	
2017_052_AF4	AOP-NOP Integration - Extended Implementation	EUROCONTROL/NM	



	led initiatives awarded to Network Manager		
Reference Number	CEF Project Title	Implementing Partners	Closed
2017_053_AF3	Implementation of rolling ASM/ATFCM	EUROCONTROL/NM	<b>Ø</b>
2017_054_AF4	Network Collaborative Management	EUROCONTROL/NM	
2017_055_AF3	NM Systems upgrades in support of FRA	EUROCONTROL/NM	<b>Ø</b>
2017_056_AF5	Towards Shared Business Trajectory / Trajectory Based Operations	EUROCONTROL/NM	
2017_058_AF2	ITWP4LOWW (Integrated Tower Working Position for Vienna Schwechat)	EUROCONTROL/NM	<b>Ø</b>
2017_084_AF5	SWIM Common PKI and policies & procedures for establishing a Trust framework	EUROCONTROL/NM	$\bigcirc$
2017_089_AF6	IP1 - DLS European Target Solution assessment	EUROCONTROL/NM	<b>Ø</b>
2022_014_AF5	Acceleration of Aeronautical Digital Information Availability (ACADIA)	EUROCONTROL	
2022_020_AF5	ASM SWIM	EUROCONTROL	
2022_022_AF2_AF4	BEACON	EUROCONTROL	
2022_035_AF5	FF-ICE R1 - eFPL	EUROCONTROL	



#### **Norway**



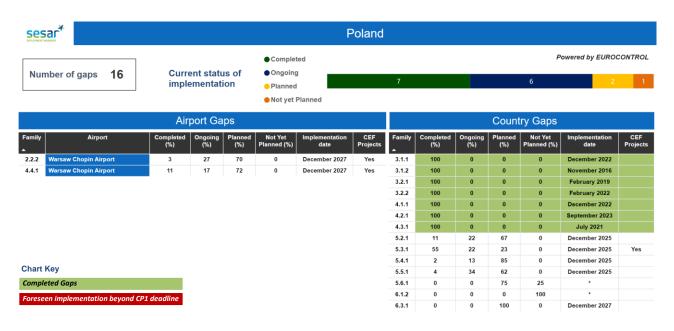
<sup>\*</sup> The remaining scope of the Gap is Not yet Planned

rence Nu	mber		CEF Project Titl	е				Implementing Partner	rs Close
F3	Borealis Free Route	Airspace (Part 1)						Avinor	<b>Ø</b>
sar*				No	orway				
IT MANAGER					<u>,</u>			_	
	-£ CVA/IBA	]	● Completed					Pow	ered by EUROCON
	of SWIM	Current status of	<ul><li>Ongoing</li></ul>	2		5		7	1
Serv	rices	implementation	Planned					/	
			Not yet Plar	ned					
Family		Service		Completed (%)	Ongoing (%)	Planned (%)	Not Yet Planned (%)	Completion date	CEF Projects
5.3.1	Information Exchange - Air	space Reservation (ARES)		28	22	50	0	December 2025	No
5.3.1	Information Exchange - Ae	rodrome mapping service		0	0	100	0	December 2025	No
5.3.1	Information Exchange - Ae	ronautical Information Features ser	rice	8	72	20	0	December 2025	No
5.3.1	Information Exchange - Air	space Availability Service		100	0	0	0	January 2023	No
5.3.1	Information Exchange - Air	space structure service		100	0	0	0	January 2022	No
5.3.1	Information Exchange - Di	gital NOTAM service		8	72	0	20		No
5.4.1	Information Exchange - Ae	rodrome Meteorological information	Service	1	6	13	80	•	No
5.4.1	Information Exchange - En service	-Route and Approach Meteorologica	linformation	1	6	13	80		No
5.4.1	Information Exchange - Ne	twork Meteorological Information		0	0	0	100	*	No
5.4.1	Information Exchange - Vo	Icanic Ash Mass Concentration info	mation service	0	0	10	90	*	No
5.5.1	Network Information Excha Capacity and Enroute)	ange - ATFCM Tactical Updates Serv	ice (Airport						
5.5.1	Network Information Excha	ange – Counts service (ATFCM Cong	estion Points)						
5.5.1	Network Information Excha NOP/AOP integration)	ange – Flight Management Service (	Slots and	0	0	100	0	December 2027	No
5.5.1	Network Information Excha	ange – Measures Service (Traffic Re	gulation)						
5.5.1	Network Information Excha eHelpdesk, STAM measure	ange - Short Term ATFCM Measures s)	services (MCDM,						
5.6.1	Information Exchange (Yell	low Profile) - Data Publication Servi	e	0	0	100	0	December 2029	No
5.6.1	Information Exchange (Yell	low Profile) - Extended AMAN SWIM	Service	0	0	100	0	December 2027	No
5.6.1	Information Exchange (Yell	low Profile) - Flight Data Request Se	rvice	0	0	100	0	December 2029	No
5.6.1	Information Exchange (Yell	low Profile) - Notification Service		0	0	100	0	December 2029	No





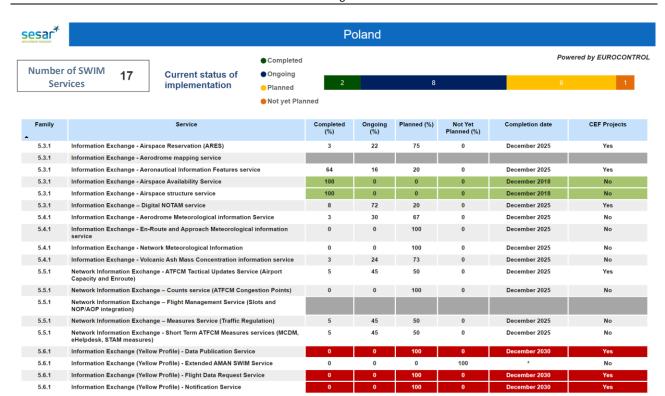
### **Poland**



<sup>\*</sup> The remaining scope of the Gap is Not yet Planned

Reference Number	CEF Project Title	Implementing Partners	Close
131AF3	1st part of the upgrade of the P_21 PEGASUS system to SESAR functionalities - Test and Validation Platform	PANSA	<b>Ø</b>
015_021_AF4	Slot Manager for PCP airports	Sabre Polska	
015_035_AF5	LAN network upgrade	PANSA	<b>Ø</b>
015_038_AF5	The ECG Communication System upgrade	PANSA	<b>Ø</b>
015_106_AF4	Flight evolution and upgrade of interfaces with NM stakeholders	Sabre Polska	
015_107_AF3	NM Systems upgrades in support of DCTs and FRA	Sabre Polska	
015_110_AF4	STAM Phase 2 (NM)	Sabre Polska	
015_114_AF4	Implementation of Target Times for ATFCM purposes (NM)	Sabre Polska	0
016_027_AF5	European Deployment Roadmap for Flight Object Interoperability	PANSA	<b>Ø</b>
016_085_AF3	ATM System Upgrade Towards Free Route Airspace	PANSA	<b>Ø</b>
016_087_AF3	iTEC Tests, Validations and Planning (iTEC-TVP)	PANSA	
016_100_AF4	Provision of EFPL data and initial FF-ICE/ 1 readiness	LH Systems Poland	
016_121_AF3	Free Route	LH Systems Poland	
016_123_AF4	STAM Phase 2 in combination with Target Times	LH Systems Poland	
016_129_AF5	NewPENS Stakeholders contribution for the procurement and deployment of NewPENS	PANSA	<b>Ø</b>
016_134_AF3	Implementation of rolling ASM/ATFCM	LH Systems Poland	0
016_134_AF3	Implementation of rolling ASM/ATFCM	Sabre Polska	<b>Ø</b>
016_141_AF5	Deploy SWIM governance	PANSA	0
016_159_AF6	DLS Implementation Project - Path 2	PANSA	$\otimes$
016_161_AF6	DLS Implementation Project - Path 1 Ground stakeholders	PANSA	0
016_162_AF6	IMPLEMENTATION OF DATA LINK SERVICES FOR THE ATM IN FIR WARSAW	PANSA	$\otimes$
017_053_AF3	Implementation of rolling ASM/ATFCM	Sabre Polska	0
017_056_AF5	Towards Shared Business Trajectory / Trajectory Based Operations	Sabre Polska	
017_057_AF4	Local traffic complexity management	PANSA	<b>Ø</b>
017_084_AF5	SWIM Common PKI and policies & procedures for establishing a Trust framework	PANSA	<b>Ø</b>
017_089_AF6	IP1 - DLS European Target Solution assessment	PANSA	
022_014_AF5	Acceleration of Aeronautical Digital Information Availability (ACADIA)	PANSA	
022_020_AF5	ASM SWIM	PANSA	
022_022_AF2_AF4	BEACON	Polish Airports State Enterprise	
022_028_AF3	Cross-border FRA	PANSA	



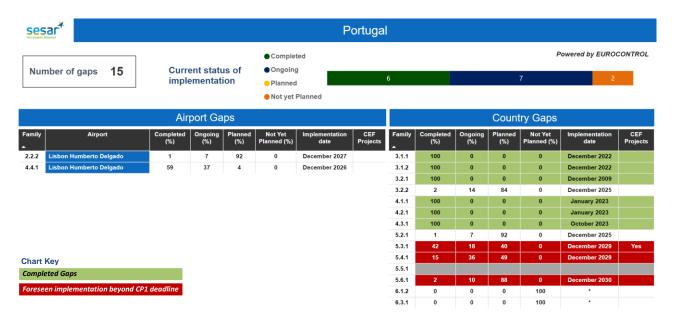


Completed SWIM Service

Foreseen implementation beyond CP1 deadline



## **Portugal**



<sup>\*</sup> The remaining scope of the Gap is Not yet Planned

Reference Number	CEF Project Title	Implementing Partners	Closed
#122AF3	FT3.1.1 NAV Portugal - Initial ASM tool to support AFUA	NAV Portugal	<b>⊘</b>
‡123AF4	FT 4.2.3 NAV Portugal Interface to NMS AFP	NAV Portugal	<b>Ø</b>
2015_138_AF5	5.3.1 NAV Portugal - Implementation of a solution for electronic Terrain and Obstacle Data management	NAV Portugal	<b>Ø</b>
015_174_AF5_A	NewPENS Stakeholders contribution for the procurement and deployment of NewPENS - Part A: General Call	NAV Portugal	<b>Ø</b>
015_262_AF5	Aeronautical Data Quality and Exchange	PRTAF	<b>Ø</b>
015_278_AF1	C-130H RNP-1 Avionics Upgrade for 4 A/C	PRTAF	
015_279_AF1	Falcon 50 RNP-1 Avionics Upgrade for 3 A/C	PRTAF	
016_027_AF5	European Deployment Roadmap for Flight Object Interoperability	NAV Portugal	<b>Ø</b>
016_061_AF6_AIR	Deployment of ATN B1 capability within TAP Group	PORTUGÁLIA	
016_061_AF6_AIR	Deployment of ATN B1 capability within TAP Group	TAP	<b>Ø</b>
016_061_AF6_GND	Deployment of ATN B1 capability within TAP Group	PORTUGÁLIA	
016_061_AF6_GND	Deployment of ATN B1 capability within TAP Group	TAP	
016_069_AF2_AIR	Runway Overrun Prevention System (ROPS) bundled application for TAP	TAP	
016_069_AF2_GND	Runway Overrun Prevention System (ROPS) bundled application for TAP	TAP	<b>Ø</b>
016_071_AF5	PT_Implement a PT Air Force IP Backbone connected into NewPENS	PRTAF	<b>Ø</b>
016_141_AF5	Deploy SWIM governance	NAV Portugal	<b>Ø</b>
016_159_AF6	DLS Implementation Project - Path 2	NAV Portugal	
016_159_AF6	DLS Implementation Project - Path 2	TAP	<b>Ø</b>
016_161_AF6	DLS Implementation Project - Path 1 Ground stakeholders	NAV Portugal	
017_083_AF6_AIR	Portugalia E195 - Deployment of ATN B1 capability	PORTUGÁLIA	<b>Ø</b>
017_083_AF6_GND	Portugalia E195 - Deployment of ATN B1 capability	PORTUGÁLIA	
017_084_AF5	SWIM Common PKI and policies & procedures for establishing a Trust framework	NAV Portugal	<b>Ø</b>
017_089_AF6	IP1 - DLS European Target Solution assessment	NAV Portugal	$ \bigcirc $
022_009_AF3_EUR	Enhanced FAB SW Crossborder Free-Route (EUR)	NAV Portugal	
022_014_AF5	Acceleration of Aeronautical Digital Information Availability (ACADIA)	NAV Portugal	
022_020_AF5	ASM SWIM	NAV Portugal	



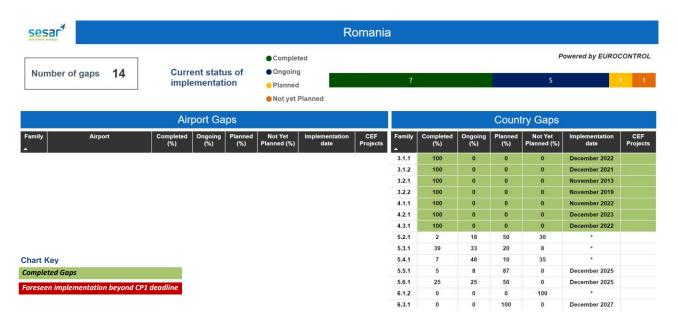


Family	Service	Completed (%)	Ongoing (%)	Planned (%)	Not Yet Planned (%)	Completion date	CEF Projects
5.3.1	Information Exchange - Airspace Reservation (ARES)	0	0	100	0	December 2028	Yes
5.3.1	Information Exchange - Aerodrome mapping service						
5.3.1	Information Exchange - Aeronautical Information Features service	10	80	10	0	December 2025	Yes
5.3.1	Information Exchange - Airspace Availability Service	100	0	0	0	December 2023	Yes
5.3.1	Information Exchange - Airspace structure service	100	0	0	0	March 2023	Yes
5.3.1	Information Exchange – Digital NOTAM service	2	8	90	0	December 2029	Yes
5.4.1	Information Exchange - Aerodrome Meteorological information Service	3	30	67	0	December 2025	No
5.4.1	Information Exchange - En-Route and Approach Meteorological information service	8	72	20	0	December 2028	No
5.4.1	Information Exchange - Network Meteorological Information	29	24	47	0	December 2027	No
5.4.1	Information Exchange - Volcanic Ash Mass Concentration information service	20	20	60	0	December 2029	No
5.5.1	Network Information Exchange - ATFCM Tactical Updates Service (Airport Capacity and Enroute)						
5.5.1	Network Information Exchange – Counts service (ATFCM Congestion Points)						
5.5.1	Network Information Exchange – Flight Management Service (Slots and NOP/AOP integration)						
5.5.1	Network Information Exchange – Measures Service (Traffic Regulation)						
5.5.1	Network Information Exchange - Short Term ATFCM Measures services (MCDM, eHelpdesk, STAM measures)						
5.6.1	Information Exchange (Yellow Profile) - Data Publication Service	0	0	100	0	December 2030	No
5.6.1	Information Exchange (Yellow Profile) - Extended AMAN SWIM Service	10	39	51	0	December 2027	No
5.6.1	Information Exchange (Yellow Profile) - Flight Data Request Service	0	0	100	0	December 2030	No
5.6.1	Information Exchange (Yellow Profile) - Notification Service	0	0	100	0	December 2030	No

Completed SWIM Service



#### **Romania**



<sup>\*</sup> The remaining scope of the Gap is Not yet Planned

List of CEF-funded initiatives awarded to Stakeholders							
Reference Number	CEF Project Title	Implementing Partners	Closed				
#134AF5	PILOT PLATFORM for access services to OPMET (worldwide/ECAC) data (METAR, TAF, SIGMET) in WXXM format	ROMATSA	<b>Ø</b>				
2015_174_AF5_B	NewPENS Stakeholders contribution for the procurement and deployment of NewPENS - Part B: Cohesion Call	ROMATSA	0				
2017_084_AF5	SWIM Common PKI and policies & procedures for establishing a Trust framework	ROMATSA	0				
2022_035_AF5	FF-ICE R1 - eFPL	ROMATSA					

Sesar				Romania			
Number of SW	IM 16	Current status of	<ul><li>Completed</li><li>Ongoing</li></ul>			Pow	vered by EUROCONTROL
Services	10	implementation	<ul><li>Planned</li></ul>		12		4
			Not yet Planned				

Family	Service	Completed (%)	Ongoing (%)	Planned (%)	Not Yet Planned (%)	Completion date	CEF Projects
5.3.1	Information Exchange - Airspace Reservation (ARES)	0	0	100	0	December 2025	No
5.3.1	Information Exchange - Aerodrome mapping service						
5.3.1	Information Exchange - Aeronautical Information Features service	64	16	0	20	*	No
5.3.1	Information Exchange - Airspace Availability Service	10	90	0	0	December 2025	No
5.3.1	Information Exchange - Airspace structure service	55	45	0	0	December 2025	No
5.3.1	Information Exchange – Digital NOTAM service	64	16	0	20	*	No
5.4.1	Information Exchange - Aerodrome Meteorological information Service	7	59	0	34	*	Yes
5.4.1	Information Exchange - En-Route and Approach Meteorological information service	6	53	0	41		Yes
5.4.1	Information Exchange - Network Meteorological Information	5	48	0	47		No
5.4.1	Information Exchange - Volcanic Ash Mass Concentration information service	8	32	40	20		No
5.5.1	Network Information Exchange - ATFCM Tactical Updates Service (Airport Capacity and Enroute)	20	30	50	0	December 2025	No
5.5.1	Network Information Exchange – Counts service (ATFCM Congestion Points)	0	0	100	0	December 2025	No
5.5.1	Network Information Exchange – Flight Management Service (Slots and NOP/AOP integration)	0	0	100	0	December 2025	No
5.5.1	Network Information Exchange – Measures Service (Traffic Regulation)	0	0	100	0	December 2025	No
5.5.1	Network Information Exchange - Short Term ATFCM Measures services (MCDM, eHelpdesk, STAM measures)						
5.6.1	Information Exchange (Yellow Profile) - Data Publication Service	25	25	50	0	December 2025	Yes
5.6.1	Information Exchange (Yellow Profile) - Extended AMAN SWIM Service						
5.6.1	Information Exchange (Yellow Profile) - Flight Data Request Service	25	25	50	0	December 2025	Yes
5.6.1	Information Exchange (Yellow Profile) - Notification Service	25	25	50	0	December 2025	Yes

\* The remaining scope of the Gap is Not yet Planned

Chart Key

Completed SWIM Service

Foreseen implementation beyond CP1 deadline



# **Slovak Republic**



<sup>\*</sup> The remaining scope of the Gap is Not yet Planned

List of CEF-funded initiatives awarded to Stakeholders						
Reference Number	CEF Project Title	Implementing Partners	Closed			
#102AF3	Free route airspace from the Black Forest to the Black Sea	LPS	<b>Ø</b>			
2015_174_AF5_B	NewPENS Stakeholders contribution for the procurement and deployment of NewPENS - Part B: Cohesion Call	LPS	<b>Ø</b>			
2015_234_AF1_B	AMAN LOWW initial	LPS	<b>Ø</b>			
2016_075_AF3_B	FAB CE wide Study of DAM and STAM - Cohesion Call	LPS	<b>Ø</b>			
2016_141_AF5	Deploy SWIM governance	LPS				
2016_159_AF6	DLS Implementation Project - Path 2	LPS	<b>Ø</b>			
2017_084_AF5	SWIM Common PKI and policies & procedures for establishing a Trust framework	LPS	<b>Ø</b>			





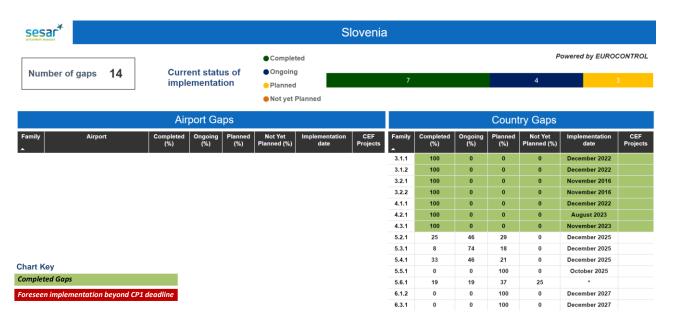
Family	Service	Completed (%)	Ongoing (%)	Planned (%)	Not Yet Planned (%)	Completion date	CEF Projects
5.3.1	Information Exchange - Airspace Reservation (ARES)	11	64	25	0	December 2025	No
5.3.1	Information Exchange - Aerodrome mapping service						
5.3.1	Information Exchange - Aeronautical Information Features service	10	80	10	0	December 2025	No
5.3.1	Information Exchange - Airspace Availability Service	100	0	0	0	November 2021	No
5.3.1	Information Exchange - Airspace structure service	100	0	0	0	November 2021	No
5.3.1	Information Exchange – Digital NOTAM service	10	80	10	0	December 2025	No
5.4.1	Information Exchange - Aerodrome Meteorological information Service	6	56	38	0	December 2025	No
5.4.1	Information Exchange - En-Route and Approach Meteorological information service	6	53	41	0	December 2025	No
5.4.1	Information Exchange - Network Meteorological Information	3	30	67	0	December 2025	No
5.4.1	Information Exchange - Volcanic Ash Mass Concentration information service	10	40	50	0	December 2025	No
5.5.1	Network Information Exchange - ATFCM Tactical Updates Service (Airport Capacity and Enroute)						
5.5.1	Network Information Exchange – Counts service (ATFCM Congestion Points)						
5.5.1	Network Information Exchange – Flight Management Service (Slots and NOP/AOP integration)						
5.5.1	Network Information Exchange – Measures Service (Traffic Regulation)						
5.5.1	Network Information Exchange - Short Term ATFCM Measures services (MCDM, eHelpdesk, STAM measures)						
5.6.1	Information Exchange (Yellow Profile) - Data Publication Service	0	0	100	0	December 2027	No
5.6.1	Information Exchange (Yellow Profile) - Extended AMAN SWIM Service	0	0	0	100	*	No
5.6.1	Information Exchange (Yellow Profile) - Flight Data Request Service	0	0	100	0	December 2027	No
5.6.1	Information Exchange (Yellow Profile) - Notification Service	0	0	100	0	December 2027	No

Completed SWIM Service

Foreseen implementation beyond CP1 deadline



## **Slovenia**



<sup>\*</sup> The remaining scope of the Gap is Not yet Planned

List of CEF-funded initiatives awarded to Stakeholders				
Reference Number	CEF Project Title	Implementing Partners	Closed	
#102AF3	Free route airspace from the Black Forest to the Black Sea	FAB CE (Hungarocontrol affiliate)	<b>Ø</b>	
#102AF3	Free route airspace from the Black Forest to the Black Sea	Slovenia Control	<b>Ø</b>	
2015_174_AF5_A	NewPENS Stakeholders contribution for the procurement and deployment of NewPENS - Part A: General Call	Slovenia Control	<b>Ø</b>	
2016_030_AF6	Air Ground Datalink Implementation	Slovenia Control	<b>Ø</b>	
2016_075_AF3_A	FAB CE wide Study of DAM and STAM - General Call	FABCE	<b>Ø</b>	
2016_075_AF3_A	FAB CE wide Study of DAM and STAM - General Call	Slovenia Control	<b>Ø</b>	
2016_075_AF3_B	FAB CE wide Study of DAM and STAM - Cohesion Call	FABCE	<b>Ø</b>	
2017_084_AF5	SWIM Common PKI and policies & procedures for establishing a Trust framework	Slovenia Control	<b>Ø</b>	





Completed SWIM Service

Foreseen implementation beyond CP1 deadline



### **Spain**



Reference Number	CEF Project Title	Implementing Partners	Closed
#057AF2a	Fulfillment of the prerequisite EFS for the PCP AF2 Subfunctionality: Airport Integration and Throuhput (Phase A)	ENAIRE	<b>⊘</b>
#058AF2a	Fulfillment of the prerequisite A-SMGCS 2 for the PCP AF2 Subfunctionality: Airport Integration and Throughput (Phase A)	ENAIRE	0
#059AF5	Implementation and operation of an IP-based G/G data communication network in ENAIRE	ENAIRE	0
#060AF1	ENAIRE reference geographic database (FT 1.2.2)	ENAIRE	0
#061AF1a	RNP APCH Implementation in Palma de Mallorca	ENAIRE	0
2015 174 AF5 A	NewPENS Stakeholders contribution for the procurement and deployment of NewPENS - Part A: General Call	ENAIRE	0
2015 210 AF5	AMHS/SWIM gateway	ENAIRE	0
2015 211 AF2	Fulfilment of the prerequisite A-SMGCS 2 for the PCP AF2 Subfunctionality: Airport Integration and Throughput (2017-2019)	ENAIRE	
2015 212 AF2	Fulfilment of the prerequisite EFS for the PCP AF2 Subfunctionality: Airport Integration and Throughput (2017-2019)	ENAIRE	0
2015_215_AF1	RNP APCH Implementation in Madrid and Barcelona	ENAIRE	
2015 221 AF3	Implementation of Voice over IP (VoIP) systems and services in ENAIRE	ENAIRE	
2015_271_AF1	SESAR PCP. CECAF RNP Procedures Design	ES AF	<b>Ø</b>
2015_272_AF1_AIR	SESAR PCP. CECAF RNP Procedures Implementation (on-board console acquisition and to the equipment and certification of aircraft)	ES AF	0
2015_272_AF1_GND	SESAR PCP. CECAF RNP Procedures Implementation (pilots and flight operators courses)	ES AF	<b>Ø</b>
2016_027_AF5	European Deployment Roadmap for Flight Object Interoperability	ENAIRE	0
2016_035_AF5	ENAIRE exchange of Aeronautical Information data in AIXM5.1	ENAIRE	<b>Ø</b>
2016_036_AF3	Deployment of SACTA-iTEC	ENAIRE	
2016_037_AF3	Deployment of LARA System in Spain	ENAIRE	<b>Ø</b>
2016_037_AF3	Deployment of LARA System in Spain	ES AF	<b>Ø</b>
2016_038_AF5	Implementation of an IP-based G/G data communication network in ENAIRE (REDAN)	ENAIRE	<b>Ø</b>
2016_039_AF4	STAM Phase 1 Implementation in Spain	ENAIRE	<b>Ø</b>
2016_040_AF3	Upgrade of trajectory management in SACTA-iTEC	ENAIRE	<b>Ø</b>
2016_077_AF1	ES_FALCON 900 compliance with RNP 1 and RNP APCH	ES AF	
2016_125_AF6_AIR	ES_Airbus A310 ATN VDL2 Compliance	ES AF	<b>Ø</b>
2016_125_AF6_GND	ES_Airbus A310 ATN VDL2 Compliance	ES AF	<b>Ø</b>
2016_126_AF6_AIR	ES_FALCON 900 compliance with Air Ground ATN VDL2 Data Link	ES AF	
2016_126_AF6_GND	ES_FALCON 900 compliance with Air Ground ATN VDL2 Data Link	ES AF	
2016_131_AF4	AOP-NOP Integration - Extended Implementation	Aena	
2016_141_AF5	Deploy SWIM governance	ENAIRE	<b>Ø</b>
2016_159_AF6	DLS Implementation Project - Path 2	ENAIRE	<b>Ø</b>
016_161_AF6	DLS Implementation Project - Path 1 Ground stakeholders	ENAIRE	<b>Ø</b>
017_018_AF5	SWIM-enabled OCC	BAS	
017_049_AF3	Electronic Flight Strip (EFS) in En-Route and TMA in SACTA system	ENAIRE	
2017_050_AF3	Controller Working Position (CWP) upgrade	ENAIRE	
2017_084_AF5	SWIM Common PKI and policies & procedures for establishing a Trust framework	ES AF	<b>Ø</b>
2017_089_AF6	IP1 - DLS European Target Solution assessment	ENAIRE	<b>Ø</b>



List of CEF-funded initiatives awarded to Stakeholders				
Reference Number	CEF Project Title	Implementing Partners	Closed	
2017_400_BLD	Implementation of Voice over IP (VoIP) in Barcelona ACC	ENAIRE		
2022_009_AF3_Canar y	Enhanced FAB SW Crossborder Free-Route (Canary)	ENAIRE		
2022_009_AF3_Canar y	Enhanced FAB SW Crossborder Free-Route (Canary)	SPAF		
2022_009_AF3_EUR	Enhanced FAB SW Crossborder Free-Route (EUR)	ENAIRE		
2022_009_AF3_EUR	Enhanced FAB SW Crossborder Free-Route (EUR)	SPAF		
2022_014_AF5	Acceleration of Aeronautical Digital Information Availability (ACADIA)	Aena		
2022_014_AF5	Acceleration of Aeronautical Digital Information Availability (ACADIA)	ENAIRE		
2022_020_AF5	A SM SWIM	ENAIRE		
2022_020_AF5	ASM SWIM	SPAF		
2022_022_AF2_AF4	BEACON	Aena		
2022_022_AF2_AF4	BEACON	ENAIRE		

2022_014_AF5	Acceleration of Aeron	nautical Digital Information Availabili	ty (ACADIA)					Aena	
2022_014_AF5	Acceleration of Aeron	nautical Digital Information Availabili	ty (ACADIA)					ENAIRE	
2022_020_AF5	ASM SWIM							ENAIRE	
2022_020_AF5	ASM SWIM							SPAF	
2022_022_AF2_A	AF4 BEACON							Aena	
2022_022_AF2_A	AF4 BEACON							ENAIRE	
sesar*					Spain				
DEPLOYMENT MANAGER			20					Pov	wered by EUROCONTRO
Number	of CM/IN/I		<ul><li>Completed</li></ul>					,	rerea by Londoon me
Serv	19	Current status of implementation	<ul><li>Ongoing</li><li>Planned</li></ul>		4		11		4
			Not yet Plar	nned					
Family		Service		Completed (%)	Ongoing (%)	Planned (%)	Not Yet Planned (%)	Completion date	CEF Projects
5.3.1	Information Exchange - Air	space Reservation (ARES)		3	22	75	0	December 2025	Yes
5.3.1	Information Exchange - Aer	Information Exchange - Aerodrome mapping service		10	90	0	0	December 2025	Yes
5.3.1	Information Exchange - Aeronautical Information Features service		10	80	10	0	December 2025	Yes	
5.3.1	Information Exchange - Air	Information Exchange - Airspace Availability Service			0	0	0	January 2020	Yes
5.3.1	Information Exchange - Airs	space structure service		100	0	0	0	January 2020	Yes
5.3.1	Information Exchange – Dig	gital NOTAM service		8	72	20	0	December 2025	Yes
5.4.1	Information Exchange - Aer	odrome Meteorological information	Service	27	32	41	0	December 2025	No
5.4.1	Information Exchange - Enservice	nformation Exchange - En-Route and Approach Meteorological information service		24	35	41	0	December 2025	No
5.4.1	Information Exchange - Net	work Meteorological Information		3	30	67	0	December 2025	No
5.4.1	Information Exchange - Vol	canic Ash Mass Concentration info	rmation service	0	0	100	0	December 2025	No
5.5.1	Network Information Exchange - ATFCM Tactical Updates Service (Airport Capacity and Enroute)			20	30	50	0	December 2024	No
5.5.1	Network Information Excha	nge – Counts service (ATFCM Cong	gestion Points)	100	0	0	0	November 2021	No
5.5.1	Network Information Excha	nge – Flight Management Service (	Slots and	75	0	25	0	December 2025	No
5.5.1	Network Information Excha	nge – Measures Service (Traffic Re	gulation)	100	0	0	0	December 2022	No
5.5.1	Network Information Excha eHelpdesk, STAM measures	nge - Short Term ATFCM Measures s)	services (MCDM,	20	30	50	0	December 2024	No
5.6.1	Information Exchange (Yell	ow Profile) - Data Publication Servi	ce	0	0	100	0	December 2028	No
5.6.1	Information Exchange (Yell	ow Profile) - Extended AMAN SWIM	Service	3	30	67	0	December 2028	No
5.6.1	Information Exchange (Yell	ow Profile) - Flight Data Request Se	rvice	0	0	100	0	December 2028	No
						400		B 1 0000	

Completed SWIM Service

Foreseen implementation beyond CP1 deadline



5.6.1

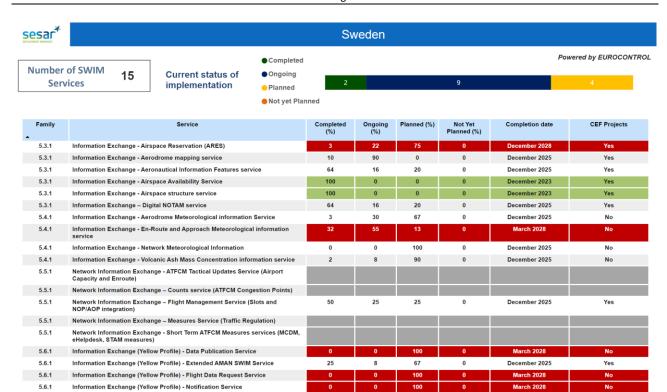
Information Exchange (Yellow Profile) - Notification Service

## **Sweden**



Reference Number	CEF Project Title	Implementing Partners	Closed
#020AF3	Borealis Free Route Airspace (Part 1)	LFV	<b>⊘</b>
#104AF1	Lower Airspace Optimization	LFV	<b>Ø</b>
#136AF2	A-CDM Optimization	Swedavia	<b>Ø</b>
#137AF2	Enhancement of Airport Safety Nets at Stockholm Arlanda Airport	Swedavia	<b>Ø</b>
2015_025_AF5_A	Sub-regional SWIM MET deployment to support NEFRA (part A)	змні	<b>Ø</b>
2015_098_AF5	Implementing redundant WAN	LFV	<b>Ø</b>
2015_099_AF5	DK-SE FAB Aeronautical Data Quality (ADQ)	LFV	<b>Ø</b>
2015_118_AF5	More efficient Flight Planning	LFV	<b>Ø</b>
2015_174_AF5_A	NewPENS Stakeholders contribution for the procurement and deployment of NewPENS - Part A: General Call	LFV	<b>Ø</b>
2015_207_AF3_A	Harmonisation of Technical ATM Platform in 5 ANSP including support of free Route Airspace and preparation of PCP program. (COOPANS B3.3, B3.4 and B3.5)	COOPANS	0
2015_207_AF3_A	Harmonisation of Technical ATM Platform in 5 ANSP including support of free Route Airspace and preparation of PCP program. (COOPANS 83.3, B3.4 and B3.5)	LFV	<b>Ø</b>
2015_207_AF3_B	Harmonisation of Technical ATM Platform in 5 ANSP including support of free Route Airspace and preparation of PCP program. (COOPANS 83.3, 83.4 and 83.5)	COOPANS	<b>Ø</b>
2015_227_AF3_A	Borealis FRA Implementation (Part 2)	LFV	
2015_288_AF5	ADQ implementation Stockholm Arlanda	Swedavia	<b>Ø</b>
2015_290_AF2	Initial AOP	Swedavia	<b>Ø</b>
2015_291_AF2	A-SMGCS Level 2 implementation	Swedavia	<b>Ø</b>
015_292_AF2	DMAN Stockholm Arlanda Airport	Swedavia	<b>Ø</b>
015_294_AF2	Implementation of OTP	Swedavia	<b>Ø</b>
2015_309_AF1_AIR	Implementation of GBAS (Technical upgrade of aircraft to GBAS)	Novair	<b>⊘</b>
2015_309_AF1_GND	Implementation of GBAS (preparation of GBAS operation in the Flight Operations Department and training of flight crew in GBAS operation)	Novair	<b>Ø</b>
2015_320_AF3	Implementation of VoIP	LFV	<b>Ø</b>
2016_027_AF5	European Deployment Roadmap for Flight Object Interoperability	LFV	
2016_131_AF4	AOP-NOP Integration - Extended Implementation	Swedavia	
2016_141_AF5	Deploy SWIM governance	LFV	<b>Ø</b>
2016_150_AF2_GND	Enablers for Airport Surface Movement related to Safety Nets	Swedavia	
2016_159_AF6	DLS Implementation Project - Path 2	LFV	
2016_161_AF6	DLS Implementation Project - Path 1 Ground stakeholders	LFV	
2016_166_AF1	Stockholm Arlanda Airport RNP Project (SAARP)	Novair	<b>Ø</b>
2016_166_AF1	Stockholm Arlanda Airport RNP Project (SAARP)	Swedavia	<b>Ø</b>
2017_022_AF2	Synchronised stakeholder decision on process optimisation at airport level	Swedavia	
2017_060_AF5	ADQ Components in the SWIM Infrastructure - upstream data inclusion in the full data chain solution - ANSP and Airport	Aviseq	
2017_060_AF5	ADQ Components in the SWIM Infrastructure - upstream data inclusion in the full data chain solution - ANSP and Airport	LFV	
2017_060_AF5	ADQ Components in the SWIM Infrastructure - upstream data inclusion in the full data chain solution - ANSP and Airport	Swedavia	
017_061_AF5	Application of cyber security to ANSP and SWIM services at LFV	Aviseq	
2017_061_AF5	Application of cyber security to ANSP and SWIM services at LFV	LFV	
017_066_AF5	Implementing harmonised SWIM (Y) solution in COOPANS ANSPs and general PCP compliance	Aviseq	
2017_066_AF5	Implementing harmonised SWIM (Y) solution in COOPANS ANSPs and general PCP compliance	LFV	
017_075_AF5	SWIMARN - SWIM with Cyber Security at Stockholm Arlanda Airport	Swedavia	
2017_084_AF5	SWIM Common PKI and policies & procedures for establishing a Trust framework	Aviseq	0
2017_084_AF5	SWIM Common PKI and policies & procedures for establishing a Trust framework	LFV	<b>Ø</b>
2017_089_AF6	IP1 - DLS European Target Solution assessment	LFV	0
2022_014_AF5	Acceleration of Aeronautical Digital Information Availability (ACADIA)	Swedavia	





Completed SWIM Service



#### **Switzerland**



<sup>\*</sup> The remaining scope of the Gap is Not yet Planned

List of CEF-funded initiatives awarded to Stakeholders			
Reference Number	CEF Project Title	Implementing Partners	Closed
2016_159_AF6	DLS Implementation Project - Path 2	SITA Switzerland	<b>⊘</b>
2016_161_AF6	DLS Implementation Project - Path 1 Ground stakeholders	SITA Switzerland	<b>Ø</b>
2017_004_AF1	Flight Crew Training for RNP1 Operations	Swiss	
2017_089_AF6	IP1 - DLS European Target Solution assessment	SITA Switzerland	<b>Ø</b>

esar*			Swit	zerland				
	of SWIM 19 Current status implementation		nned	4		8	<i>P</i> o	wered by EUROCONT
Family	Service		Completed (%)	Ongoing (%)	Planned (%)	Not Yet Planned (%)	Completion date	CEF Projects
5.3.1	Information Exchange - Airspace Reservation (ARES)		10	15	75	0	December 2025	No
5.3.1	Information Exchange - Aerodrome mapping service		0	0	0	100	*	No
5.3.1	Information Exchange - Aeronautical Information Featur	es service	0	0	0	100	*	No
5.3.1	Information Exchange - Airspace Availability Service		100	0	0	0	December 2022	No
5.3.1	Information Exchange - Airspace structure service		100	0	0	0	December 2022	No
5.3.1	Information Exchange – Digital NOTAM service		0	0	0	100	*	No
5.4.1	Information Exchange - Aerodrome Meteorological info	mation Service	68	19	0	13	*	No
5.4.1	Information Exchange - En-Route and Approach Meteor service	ological information	64	16	0	20		No
5.4.1	Information Exchange - Network Meteorological Information	tion	64	16	0	20	*	No
5.4.1	Information Exchange - Volcanic Ash Mass Concentration	on information service	26	37	27	10	*	No
5.5.1	Network Information Exchange - ATFCM Tactical Update Capacity and Enroute)	s Service (Airport	100	0	0	0	**	No
5.5.1	Network Information Exchange – Counts service (ATFC	M Congestion Points)	100	0	0	0	**	No
5.5.1	Network Information Exchange – Flight Management Se NOP/AOP integration)	rvice (Slots and	13	25	12	50	*	No
5.5.1	Network Information Exchange – Measures Service (Tra	ffic Regulation)	5	45	50	0	December 2025	No
5.5.1	Network Information Exchange - Short Term ATFCM Me eHelpdesk, STAM measures)	asures services (MCDM,	0	0	0	100	*	No
5.6.1	Information Exchange (Yellow Profile) - Data Publication Service		0	0	100	0	June 2030	No
5.6.1	Information Exchange (Yellow Profile) - Extended AMAN	SWIM Service	17	16	0	67	*	No
5.6.1	Information Exchange (Yellow Profile) - Flight Data Requ	iest Service	0	0	100	0	June 2030	No
5.6.1	Information Exchange (Yellow Profile) - Notification Ser	vice	0	0	100	0	June 2030	No

Chart Key
Completed SWIM Service
Foreseen implementation beyond CP1 deadline

<sup>\*\*</sup> Missing data



<sup>\*</sup> The remaining scope of the Gap is Not yet Planned

# **List of Acronyms**

Acronym	Meaning
A3SG	Aeronautical Information SWIM Service Sub-Group
A4E	Airlines for Europe
ACADIA	Acceleration of Aeronautical Digital Information Availability
ACC	Area Control Center
A-CDM	Airport Collaborative Decision Making
ADS-C	Automatic Dependent Surveillance - Contract
AF	ATM Functionality
AFP	Advanced Florible Hear of Airman
A-FUA	Advanced Flexible Use of Airspace Air/Ground
A/G AISP	Aeronautical Information Service Provider
AMA	Arrival Management Message
AMAN	Arrival Manager
ANSP	Air Navigation Service Provider
AO	Airport Operator
АОР	Airport Operations Plan
AoR	Area of Responsibility
АРР	Approach
ARES	Airspace Reservation
ASM	AirSpace Management
A-SMGCS	Advanced Surface Movement Guidance and Control System
ATC	Air Traffic Control
ATCO	Air Traffic Control Officer, Air Traffic Controller
ATFCM	Air Traffic Flow and Capacity Management
ATM ATM MP	Air Traffic Management Air Traffic Management Master Plan
ATM	Air Traffic Service
ATSU	Air Traffic Service Unit
AU	Airspace User
B2B	Business-to-Business
CA	Certificate Authority
CATC	Conflicting ATC Clearances
СВА	Cost Benefit Analysis
CBCF	Cross Border Convection Forecast
CEF	Connecting Europe Facility
CFSP	Computer Flight Planning Service Providers
СНМІ	Collaborative Human Machine Interface
CIAM	CHMI Service for Airspace Management Cells
CINEA	European Climate, Infrastructure and Environment Executive Agency
CMAC CO2	Conformance Monitoring Alerts for Controllers carbon dioxide
CP1	Common Project One Reg. (EU) n. 2021/116
DB	Database
DM	Deployment Milestone
DMAN	Departure Management
EACP	European Aviation Common PKI



Acronym	Meaning
EASA	European Union Aviation Safety Agency
EAUP	European Airspace Use Plan
ECAC	European Civil Aviation Conference
EDA	European Defence Agency
eFPL	Extended Flight Plan
EU	European Union
EUUP	European Update airspace Use Plan
FAB	Functional Airspace Block
FDP	Flight Data Processing
FF-ICE	Flight and Flow Information for a Collaborative Environment
FL	Flight Level
FOC	Full Operational Capability
FPL	Flight Plan
FPL2012	ICAO Flight Plan 2012 Format
FRA	Free Route Airspace
iAOP	Initial Airport Operations Plan
IATA	International Air Transport Association
ICAO	International Civil Aviation Organisation
IMT	Information Management Team
LSSIP	Local Single Sky ImPlementation
MCDM	Multi-Criteria Decision-Making
MET	Meteorological
MET3SG	Meteorological SWIM Service Sub Group
MUAC	Maastricht Upper Area Control
NM	Network Manager
nm	Nautical Miles
NM B2B	Network Manager Business-to-Business Web Services
NMP	Network Manager Portal
NOP	Network Operations Plan
NOTAM	Notice to Airmen
OLDI	On-Line Data Interchange
PBN	Performance Based Navigation
PCP	Pilot Common Project Reg. (EU) n. 716/2014
PKI	Public Key Infrastructure
QNH RMCA	Mean sea level pressure Runway Monitoring and Conflict Alerting
RAD	Route Availability Document
SDIP	SESAR Deployment Infrastructure Partnership
SDM	SESAR Deployment Manager
SDP	SESAR Deployment Programme
SES	Single European Sky
SESAR	Single European Sky ATM Research
SLoA	Stakeholders' Lines of Action
STAM	Short Term ATFCM Measures
SWIM	System Wide Information Management
TAC	Traditional Alphanumeric Code
ТВО	Trajectory-Based Operations
TBS	Time Based Separation



Acronym	Meaning
TMA	Terminal Manoeuvring Area
TSAT	Target Start Approval Time
ттот	Target Take Off time
VTT	Variable Taxi Time

