

SDP Monitoring View 2022



2022-122-SESAR Deployment Manager FPA SGA MOVE/E3/SUB/2022-122/SI2.875834

D2.1.1.1 - SESAR Deployment Programme Monitoring View 2022



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30th June 2023

Control sheet

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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 2022 edition, the document presents the status as of December 2022, 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 31% of CP1 Regulation is already implemented and an additional 45% on-going, totalling an amount of 76% of the entire CP1. The deployment status has increased from the 2021 figures, when 68% of the activities were either completed or on-going. The implementations with no specific deployment plans have also decreased in the last year from 14% to 9%.

After reaching the first regulatory deadlines in December 2022 for 6 Families of the SESAR Deployment Programme, it is shown that 85% of those elements have been timely deployed. Out of the 27 gaps exceeding the target date, 19 of them are expected to be completed within 2023, which will increase to 95% the compliance with CP1.

In addition to this, the following facts can be highlighted:

- Two SDP Families have reached full completion across the CP1 geographical scope: Family 3.1.2 –
 Management of Predefined Airspace configurations and Family 3.2.1 Initial Free Route Airspace
- Regarding the three Families with an implementation target date set in December 2023:
 - Family 2.2.1 Initial AOP, data provided in the frame of SDP Monitoring Exercise shows that the Family is expected to be fully implemented by December 2023. However, this implementation could be impacted by the late implementation of the data sharing elements;
 - Family 4.2.1 Interactive Rolling NOP is expected to be fully implemented by December 2023 with the exception of two gaps whose remaining scope is still not yet planned;
 - o Following the document consultation with operational Stakeholders, the information provided for Family 4.2.2 Initial AOP-NOP information sharing in relation to the foreseen completion dates does not reflect the most up-to-date expectations. With the CP1 deadline approaching, the requests from majority of airports to finalise deployment arrived in early 2023. Once data exchange is implemented in airport systems, the work between NM and each CP1 airport takes approximately 5-6 months and cannot be performed in parallel for all cases, creating a bottleneck. For mitigating this risk, actions are taking place between SDM, NM and the concerned airports to tackle the implementation delay. In particular, SDM is preparing a workplan to have this Family scope fully implemented for all CP1 applicable airports by 2024. Exceptions might apply to the Airports that will not fulfil the pre-requisite of being A-CDM by that date.
- Several uncertainties are affecting the implementation of SWIM Services, including new
 competencies needed and timely availability of required resources. The SDM is actively involved in
 supporting the operational stakeholders in these matters.

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:

- Family 1.2.1 AMAN/DMAN integration
- Family 2.2.2 Extended AOP
- Family 4.4.1 AOP/NOP Integration
- Family 5.4.1 Meteorological Information Exchange
- Family 5.5.1 Cooperative Network Information Exchange
- Family 5.6.1 Flight Information Exchange
- Family 6.1.1 Initially A/G Trajectory Information Sharing (Airborne)
- Family 6.1.2 Initially A/G Trajectory Information Sharing (Ground)
- Family 6.3.1 Initially Trajectory Information Sharing Ground Distribution



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 2022, which is presenting the status of implementation of CP1 as of December 2022.

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.

More than eight years after the beginning of this Deployment Phase, the modernisation of the European ATM systems and infrastructure starts becoming 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 Deployment Programme includes a constantly evolving reporting mechanism, which monitors all implementation activities associated to the ATM functionalities of the SDP, allowing for a comprehensive understanding of how deployment is moving, and tracking the overall progress of the CP1 implementation.

More specifically, any effective effort towards synchronisation of the CP1 deployment has to rely on the monitoring of all implementation initiatives launched by operational Stakeholders impacted by the CP1: such monitoring is not only limited to Implementation Projects performed under SDM coordination and benefitting of EU funding support, but also involves any other deployment activities undertaken by local Stakeholders and aiming at implementing technological

SESAR Deployment Programme (SDP) Including the Standardisation and Regulation support to CP1 development





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



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's left for each Stakeholder to do to comply with the CP1 Regulation), and the overall status of the implementation gap (what's left in the specific airport or country to fully implement the Family).

The 2022 Monitoring View is therefore organised into the following sections:

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

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

Finally, Stakeholders have been asked for additional information on technological elements 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 detailed maps 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 For each Country specific data is provided on FRA implementation;
- AF5 Families addressing the implementation of SWIM-based services, namely:
 - o Family 5.3.1 Aeronautical Information Exchange services:
 - Airspace Structure Service;
 - Airspace Availability Service;
 - ARES;
 - Digital NOTAM Service;
 - Digital Aerodrome Mapping information Exchange;
 - Aeronautical Information Features Exchange.
 - Family 5.4.1 Meteorological Information Exchange services:
 - Volcanic Ash Mass Concentration Information Service;
 - Aerodrome Meteorological Information Service;
 - En-Route and Approach Meteorological information Service;
 - Network Meteorological Information Service.
 - Family 5.5.1 Cooperative Network Information Exchange services:
 - ATFCM Tactical Updates Service (Airport Capacity and Enroute);
 - Flight Management Service;
 - Measures Service;
 - Short Term ATFCM Measures Services (MCDM, eHelpdesk, STAM measures);
 - Counts service (ATFCM congestion points).
 - $\circ\,$ Family 5.6.1 Flight Information Exchange services:



- Filing Service;
- Flight Data Request Service;
- Notification Service;
- Data Publication Service;
- Trial Service.

As a result, specific charts complement the Family Views included in Section 2 and specific tables complement the Applicability Area Views in the Appendix.

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 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 *implementation gaps* - representing what is deemed necessary to ensure the complete and timely implementation of the related Family, Sub-AF, AF and then of the overall CP1. An implementation gap is defined by the combination of the technical / operational elements to be deployed (i.e. the 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.

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



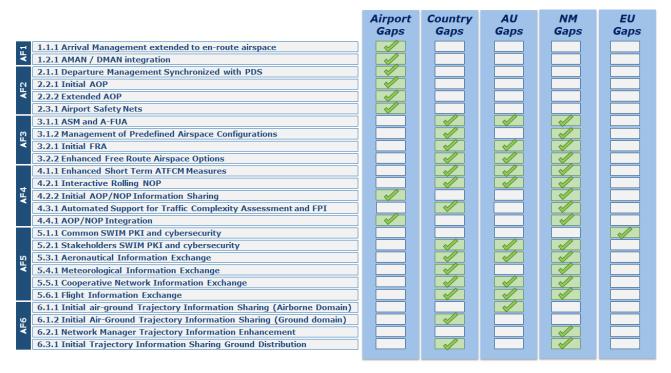


Figure 2 - Impacted stakeholder Category for each ATM functionality

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. Thanks to the updated edition of the SESAR Deployment Programme 2022 and the cooperation with EUROCONTROL, 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 current Monitoring Exercise process of data collection is performed through the usage of the Local Single Sky ImPlementation (LSSIP+) tool on ground side and with 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 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, now 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 82 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 340 Implementation Projects currently under SDM direct oversight and coordination. This results in a thorough consistency assessment and cross-check of information received, to be performed cooperatively with the involved operational Stakeholders.

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



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

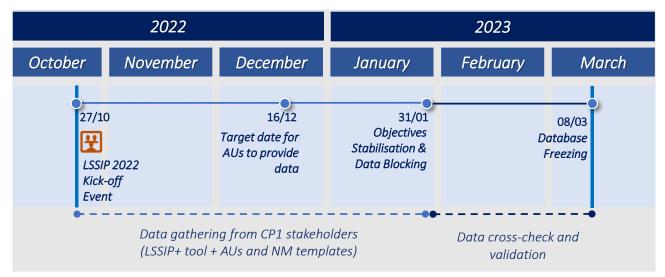


Figure 3 - Timeline of the data gathering and validation

With the aim to support the operational Stakeholders in their reporting efforts through this approach, the main elements of the 2022 Monitoring Exercise were explained during the joint SDM/EUROCONTROL LSSIP Kick-off Event, which took place on the 27th of October 2022. 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.

Performance benefits delivered by SDM-coordinated Implementation Projects

SDM currently coordinates the execution of 340 Implementation Projects (259 already closed by December 2022), 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 94 beneficiaries, across 26 EU Member States and 8 Third Countries.

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

Moreover, this detailed information and the granularity of the collected data allows to measure the direct performance contribution to ATM brought by the deployment of the CP1, especially for SDM coordinated activities. Performance improvements stemming from the first 259 Implementation Projects closed have been measured, in particular with regards to key performance areas: capacity, operational efficiency, service costs, environment, safety and security.

The charts below provide a quick overview of the most relevant performance benefits for the first 259 Implementation Projects, in terms of passenger's time and on the environment: they sum up to a total of €5.6 billion until 2030. Cumulated benefits until 2030 for the 340 Implementation Projects (€12.6 billion estimated, to be updated in the next SDP Execution Progress Report by September 2023) and for the CP1 (€15.7 billion as referenced in the CP1 CBA from February 2021) are also represented on the chart.



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 in order to timely deliver modern and digital Air Traffic Management in Europe.



Figure 4 - Fact sheet performance benefits of CP1 Implementation Status



1.CP1 Implementation Status

Current status of CP1 deployment

As anticipated in the introduction, the concept of the coverage of the implementation gaps has been defined as a suitable indicator to define the status of CP1 deployment, as well as to measure the progress of the associated implementation activities. Tracking the evolution of gap coverage during the years allows for the identification of the pace at which deployment activities are delivering their tangible results. Furthermore, it enables the measuring of the gradually reducing scope of remaining activities to be performed to achieve the full deployment of the CP1.

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

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

The following SDP Family is considered not applicable for 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 and Lithuania since the use of NM tool for STAM and Traffic Complexity tool and the non-applicability of AOP imply that the implementation of the relevant SWIM Services is not required (ATFCM Tactical Updates Service, Flight Management Service, Measures Service, Short Term ATFCM Measures services, Counts service);

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

- 3.1.1 ASM and A-FUA;
- 3.2.1 Initial FRA;
- 3.2.2 Enhanced Free Route Airspace Operations;
- 4.1.1 Enhanced Short Term ATFCM Measures;
- 4.2.1 Interactive rolling NOP;
- 5.2.1 Stakeholders' SWIM PKI and cyber security;
- 5.3.1 Upgrade / Implement Aeronautical Information Exchange system / service;
- 5.5.1 Upgrade / Implement Cooperative Network Information Exchange system / service;
- 5.6.1 Flight Information Exchange;
- 6.1.1 Initial Air-Ground Trajectory Information Sharing (Airborne Domain).

Finally, 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 **590**. The increase of the number of ground gaps from previous report (from 561 to 590 gaps) is due to a combination of different factors, such as the inclusion into the monitoring of Norway and Oslo Airport³ and the decision to report applicable Sub-AF 3.1 "ASM and A-FUA" and 3.2 "Free Route Airspace" in Netherlands, Luxembourg and Belgium. As a matter of fact, the Sub AF 3.1 and 3.2 reporting has to reflect the implementation status in the relevant airspaces at national level, regardless of the

³ Based on "DECISION OF THE EEA JOINT COMMITTEE No 222/2022 (8 July 2022)"



Stakeholders responsible for the specific implementations, therefore the following considerations were made:

- for Netherlands, Sub AF 3.1 and Sub AF 3.2 are implemented by MUAC⁴;
- for Belgium, Sub AF 3.2 is implemented by MUAC;
- for Luxembourg, Sub AF 3.1 is delegated to Belgium⁵ and Sub AF 3.2 is implemented by MUAC.

According to the results of the Monitoring Exercise, these 590 gaps have been clustered into the following categories:

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

Monitoring of AF6 – Initial Trajectory Information Sharing

The monitoring of the SDP Families included in AF6, Initial Trajectory Information Sharing, is not part of the present report. It is due to the "Industrialisation Target Date", set by regulation on 31st December 2023, when the standards and specifications are to be available for the Sub-Functionalities to enable their implementation as defined in the Implementing Regulation (EU) 2021/116.

The European Commission, with the support of the European Union Aviation Safety Agency (EASA), will verify whether the AF6 has been standardised and is ready for implementation after 31st December 2023. Under the coordination of EASA, the SESAR Deployment Manager is cooperating with the SESAR 3 Joint Undertaking, EUROCAE, EUROCONTROL and the relevant manufacturing industry to ensure that the Industrialisation Target Date is met.

CP1 implementation: a general view

The SESAR Deployment Phase can be considered well underway. It was launched in 2014 by the Pilot Common Project and continues to progress through the implementation of the updated ATM Functionalities of CP1 and their revised content.

In comparison with the results stemming from previous SDM Monitoring Exercise 2021, despite the significant impact of COVID-19 crisis in the previous reporting periods (2020-2021), which resulted into postponements and re-scheduling of some Stakeholders' investments, a positive trend can be identified, 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 13% in 2021 with 72 completed gaps, up to 31% in 2022. The total number of gaps already closed by 31/12/2022 increased to 186 (+158% vis-à-vis 2021).

This means that the associated technological and operational elements are already in use by the relevant Stakeholders, with positive outcomes on the overall performance of ATM operations.

In the framework of the CP1 regulatory environment, thanks to the work performed by the Stakeholders, 265 gaps are considered on-going, bringing the total number of gaps either on-going or completed to 451, representing 76% of total ground gaps and confirming the positive trend when compared with 2021 (+8%).

It is worth mentioning that activities currently completed, on-going or planned are spread across 6 ATM Functionalities and well-distributed amongst 25 SESAR Deployment Programme Families: this

⁵ Based on MoU/LoA between ANA and Skeyes.



⁴ The implementation of Sub AF 3.1 in Netherlands is applicable above FL 245 only, according to the SESAR Deployment Programme 2022 where a local limitation is granted.

demonstrates the wide-ranging and far-reaching effort from all involved Stakeholders. In particular, it is worth noting that for 13 Families at least one local implementation has been completed.

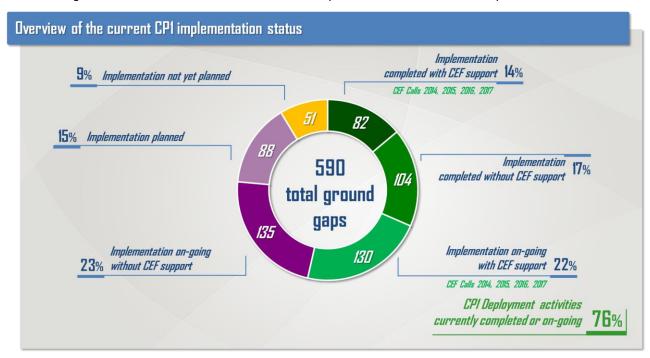


Figure 5 - Current CP1 Implementation Status - Overview

Figure 5 further illustrates that the implementation activities are progressing well, as they are addressing additional 265 gaps (On-going), which amounts to around 45% of the total. More specifically, operational Stakeholders are in the progress of closing 130 gaps benefitting from the outcomes of SDM-coordinated Implementation Projects, supported by EU public funding via CEF Calls 2014, 2015, 2016 and 2017. In addition, for 135 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 15% 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 539, which means around 91% of the total ground gaps. Conversely, there is a lack of specific plans only for the remaining 9%, which does not necessarily entail a non-compliance with CP1 but only the fact that there are no specific plans yet to perform these activities. However, it is worth noting that the number of gaps reported not yet planned has considerably decreased from 67 in 2021 to 38 in 2022 (-43%) mostly thanks to the progress made on Family 2.2.2 - Extended AOP, Family 5.5.1 - Cooperative Network Information Exchange and Family 5.6.1 - Flight Information Exchange.

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, including CEF Call 2022 currently under evaluation by CINEA.

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 just provided, the following main facts can be highlighted:

- as of 31st December 2022:
 - Family 3.1.2 Management of Predefined Airspace configurations and Family 3.2.1 Initial Free Route Airspace were fully deployed, representing the first SDP Families reaching full completion of CP1 requirements;
 - 85% of gaps which had to be addressed by the end of 2022 were completed. The remaining
 27 gaps, still to be completed, are distributed across several families:



- 4 in Family 2.1.1 Departure Management Synchronised with Pre-departure sequencing (Copenhagen Kastrup; Dublin Airport; Oslo Gardermoen; Stockholm Arlanda);
- 1 in Family 3.1.1 ASM and A-FUA (Switzerland)⁶;
- 7 in Family 4.1.1 Enhanced Short Term ATFCM Measures (Estonia; Germany;
 Greece; Italy; Norway; Portugal; Network Manager);
- 15 in Family 4.3.1 Automated Support for Traffic Complexity Assessment and Flight Planning Interfaces (Croatia; Cyprus; Czech Republic; Estonia; Finland; Germany; Greece; Hungary; Italy; Lithuania; Norway; Portugal; Slovak Republic; Slovenia; Sweden).

It is worth noting that 19 out of these 27 gaps are expected to be completed by December 2023, reaching 95% of CP1 compliance.

- Regarding the three Families with an implementation target date set in December 2023:
 - Family 2.2.1 Initial AOP, data provided in the frame of SDP Monitoring Exercise shows that the Family is expected to be fully implemented by December 2023; however, this implementation could be impacted by the late implementation of the data sharing elements
 - Family 4.2.1 Interactive Rolling NOP is expected to be fully implemented by December 2023 with the exception of two gaps whose remaining scope is still not yet planned;
 - o Following the document consultation with operational Stakeholders, the information provided for Family 4.2.2 Initial AOP-NOP information sharing in relation to the foreseen completion dates does not reflect the most up-to-date expectations. With the CP1 deadline approaching, the requests from majority of airports to finalise deployment arrived in early 2023. Once data exchange is implemented in airport systems, the work between NM and each CP1 airport takes approximately 5-6 months and cannot be performed in parallel for all cases, creating a bottleneck. For mitigating this risk, actions are taking place between SDM, NM and the concerned airports to tackle the implementation delay. In particular, SDM is preparing a workplan to have this Family scope fully implemented for all CP1 applicable airports by 2024. Exceptions might apply to the Airports that will not fulfil the pre-requisite of being A-CDM by that date
- the Arrival Manager extended to en-route airspace (Family 1.1.1) requires the extension of AMAN horizon up to a minimum of 180 nautical miles from the arrival airport unless the extension does not provide additional performance benefits as indicated by the SESAR Deployment Programme. This is the case for 10 out 20 airports in scope of this Family for which the Stakeholders have reported a shorter horizon for certain traffic flows by declaring the non-applicability of specific ACCs within the 180 NM horizon. On the other hand, some Stakeholders also reported status of connection with neighbouring ACCs beyond the mandated 180 NM horizon. A specific focus on Family 1.1.1 implementation status per each airport is provided in the paragraph titled "Focus on Extended AMAN implementation";
- for AMAN/DMAN Integration (Family 1.2.1), the impacted Stakeholders have not yet planned the implementation for all 6 gaps (Berlin, Dusseldorf, Milan Malpensa, Nice, Oslo, Paris CDG);
- for some Families, only preliminary planning and preparatory activities have been performed. For instance, for Family 2.2.2 Extended Airport Operations Plan, with a target date on 31st December 2027, 5 out of 31 gaps have no dedicated plans (Brussels, Copenhagen, Dublin, Lyon and Nice airports). However, the implementation of the preceding Family 2.2.1- Initial AOP is being supported by CEF funding and coordinated by SDM for 4 out of these 5 airports and is foreseen to be completed by end-2023, paving the way for the implementation of Family 2.2.2. Moreover, a multi-stakeholders Implementation Project has been submitted in the frame of 2022 CEF Call to address Family 2.2.2 and linked Family 4.4.1 "AOP NOP integration" implementation gaps in 8 airports and additional project initiatives are expected to be elaborated in view of a potential upcoming CEF call in 2023;

⁶ After the closure of the SDP Monitoring exercise, SDM received the communication that Family 3.1.1 ASM and A-FUA was completed in Switzerland.



- implementation of Sub-AF 3.1 Airspace Management and Advanced Flexible Use of Airspace has been completed in 28 out of 29 countries and by MUAC within the CP1 regulatory date (31st December 2022); CP1 compliance has been granted for the majority of countries thanks to the put into operation of available NM systems (CIAM, CHMI) by the regulatory deadline, whereas local ASM tools will continue to be deployed in the next years. It is worth mentioning that the transition to a local ASM tool represents a pivotal turning point to meet the AF5 deadline coming in 2025. The development of the local ASM tool will gradually become a priority in view of the implementation of specific SWIM Services in scope of Family 5.3.1 Aeronautical Information Exchange: Airspace structure service, Airspace Availability service and the Airspace Reservation (ARES) service;
- the CP1 compliance to Sub AF 3.1, Sub AF 4.1 and Sub AF 4.3 has been granted through either the implementation of NM applications or deployment of local tools. In particular:
 - in Family 3.1.1 ASM and A-FUA, NM application (CIAM) is used by the 62% of compliant countries, whereas for remaining 38% the local ASM tool is in use;
 - in Family 3.1.2 Management of Predefined Airspace configurations, NM application (CHMI) is used by the 69% of compliant countries, whereas for remaining 31% the local ASM tool is in use;
 - in Family 4.1.1 Enhanced Short Term ATFCM Measures, NM STAM application (NMP Flow) is used by the 79% of compliant countries, whereas for remaining 21% the local STAM tool is in use;
 - in Family 4.3.1 Automated Support for Traffic Complexity Assessment and Flight Plan interfaces, the NM Traffic Complexity tool application (NMP Flow) is used by the 40% of compliant countries, whereas for the remaining 60% the local Traffic Complexity tool is in use;
- compliance with Sub AF 4.1 Enhanced Short Term ATFCM Measures and Sub AF 4.3 Automated Support for Traffic Complexity Assessment and Flight Plan interfaces has not been achieved for 7 out of 30 gaps and 15 out of 30 gaps, respectively. The main factor contributing to delays are the difficulties faced by Stakeholders in the procurement of local tools to meet STAM and traffic complexity assessment requirements. Furthermore, it is worth noting that the delay reported by the Network Manager in Sub AF 4.1 implementation will be recovered with NM Release 27, foreseen to be issued in April 2023;
- integration of airports data exchange to enable the Initial AOP-NOP information sharing (Family 4.2.2) is showing low progress with regard to the airports system implementation of the data exchange and the subsequent validation of the data sharing between the airports in scope of this functionality and the Network Manager. Currently, implementation is ongoing for all 19 airports in scope; however, following the document consultation with operational Stakeholders, the information provided for Family 4.2.2 Initial AOP-NOP information sharing in relation to the foreseen completion dates does not reflect the most up-to-date expectations. With the CP1 deadline approaching, the requests from majority of airports to finalise deployment arrived in early 2023. Once data exchange is implemented in airport systems, the work between NM and each CP1 airport takes approximately 5-6 months and cannot be performed in parallel for all cases, creating a bottleneck. For mitigating this risk, actions are taking place between SDM, NM and the concerned airports to tackle the implementation delay. In particular, SDM is preparing a workplan to have this Family scope fully implemented for all CP1 applicable airports by 2024. Exceptions might apply to the Airports that will not fulfil the pre-requisite of being A-CDM by that date.
- several uncertainties are affecting the implementation of SWIM-Services, including new competencies needed and timely availability of required resources. In fact, the progress made to date in SWIM implementation is very limited: only 3% of the gaps are completed and implementation has not started in 28% of the cases. In particular:
 - Family 5.2.1 Stakeholders' SWIM PKI and cyber security, 3 gaps have no dedicated plans and 1 gap is planned to be implemented beyond the CP1 regulatory date;



- Family 5.3.1 Aeronautical Information Exchange, 2 gaps have no dedicated plans and 1 gap is planned to be implemented beyond the CP1 regulatory date;
- Family 5.4.1 Meteorological Information Exchange, 4 gaps have no dedicated plans and
 6 gaps are planned to be implemented beyond the CP1 regulatory date;
- Family 5.5.1 Cooperative Network Information Exchange, 3 gaps have no dedicated plans;
- Family 5.6.1 Flight Information Exchange, 8 gaps have no dedicated plans and 7 gaps are planned to be implemented beyond the CP1 regulatory date;
- the lack of maturity of "Initial trajectory information sharing" in AF6 activities is due to ongoing R&D work, which is expected to be completed by the industrialisation target date set on 31st December 2023. At that time, the standardisation process is also expected to be completed, as well as the final assessment from EASA. It is worth noting that SDM is actively involved in the CP1 Industrialisation Forum, chaired by EASA, and aiming at coordinate activities to pass the industrialisation target date;
- 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:
 - Family 1.2.1 AMAN/DMAN integration
 - Family 2.2.2 Extended AOP
 - o Family 4.4.1 AOP/NOP Integration
 - Family 5.4.1 Meteorological Information Exchange
 - Family 5.5.1 Cooperative Network Information Exchange
 - Family 5.6.1 Flight Information Exchange
 - Family 6.1.1 Initially A/G Trajectory Information Sharing (Airborne)
 - Family 6.1.2 Initially A/G Trajectory Information Sharing (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.

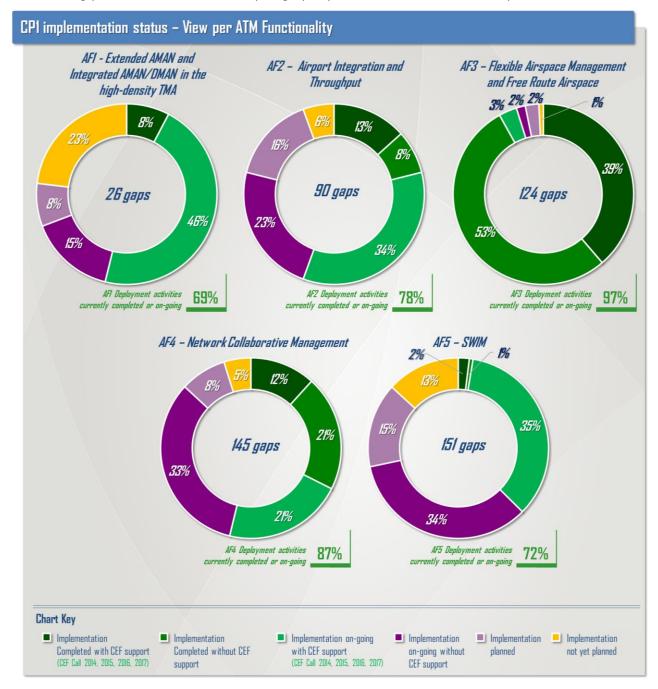


Figure 6 - CP1 Implementation Status: view per AF

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



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

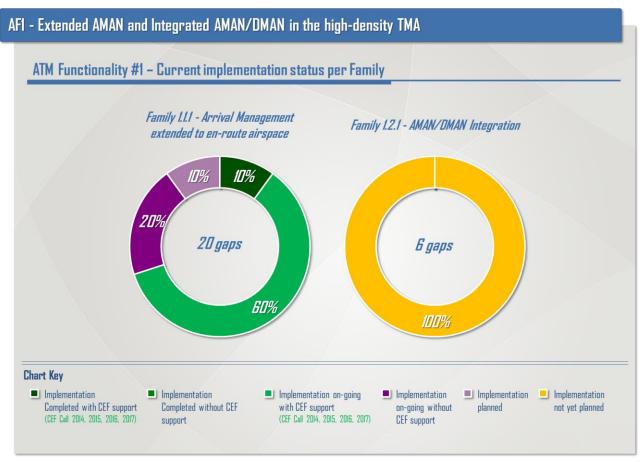


Figure 7 - AF1: current implementation status per Family

8% of the existing implementation gaps associated to AF1 Families have already been closed by local Stakeholders. Around 61% of the ATM Functionality is already in the process of being implemented (in most cases benefitting of EU funding support and of the SDM coordination activities). This means that the deployment of AF1 is not currently on-going only in 31% of the cases, with only 6 gaps for which no specific plans have been defined by the relevant Stakeholders and 2 gaps whose implementation date is currently set beyond CP1 target date.

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), it is worth noting that this Family is fully implemented within 2 of the airports (Vienna Schwechat and Copenhagen Kastrup) listed in the Regulation. Besides, the implementation of the required technical elements is on-going or planned for the majority of the remaining CP1 airports. It is worth mentioning that, as presented in Figure 8, the implementation of this Family in Brussels Airport and Oslo Gardermoen is currently planned to be completed beyond the CP1 target date, whereas the implementation of the extended AMAN connection between Munich airport and Padua ACC is currently not yet planned.

On the other hand, it is worth mentioning that for Family 1.2.1 - AMAN/DMAN Integration, no one of the Stakeholders have dedicated plans yet. 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.



Figure 8 - Focus on CP1 compliance for Family 1.1.1



AF2 - Airport Integration Throughput

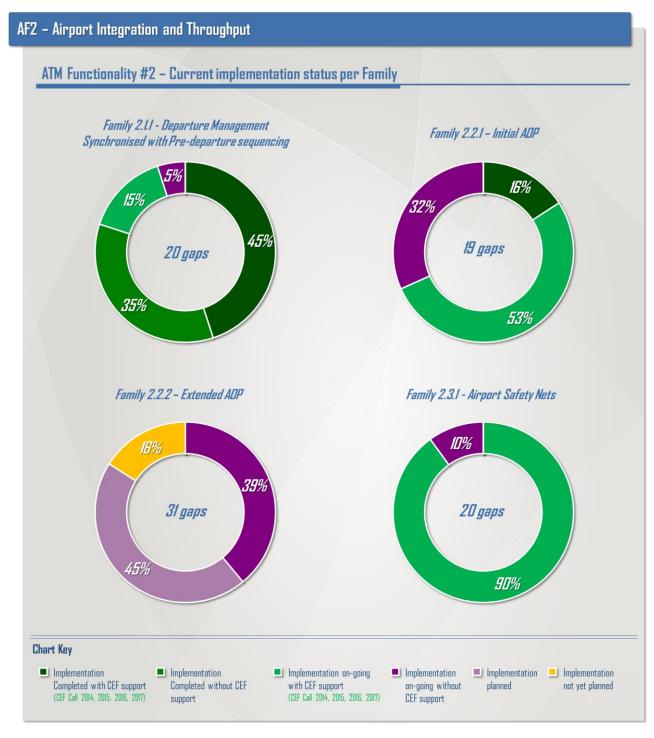


Figure 9 - AF2: current implementation status per Family



78% of the gaps associated to ATM Functionality 2 are either completed or the associated deployment activities are already in progress. 47% of all AF2 gaps are coordinated and synchronised by SDM.

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

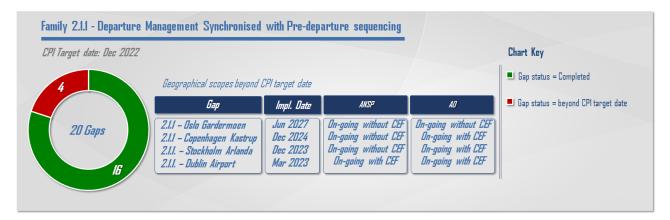


Figure 10 - Focus on CP1 compliance for Family 2.1.1

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, the Air Navigation Service Provider (ENAV) declares that the automated update of TSAT and TTOT, through the connection between A-SMGCS and DMAN, implies 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. At the same time ATCOs can adjust the TTOT for unplanned delay or for unplanned earlier departing aircrafts. ENAV has planned to introduce technical updates to make this process automatic, resulting in a reduction of ATCOs workload. The SDM indicates 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, the Air Navigation Service Provider (LVNL) declares 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. The SDM indicates 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 has been already completed for 3 gaps (Amsterdam Schiphol, Copenhagen Kastrup and Rome Fiumicino) and is on-going for all the remaining CP1 airports in scope (see implementation status chart on page 56). However, this implementation could be impacted by the late implementation of the data sharing elements.

With regards to Family 2.2.2 - Extended AOP, the 16% of the gaps have no plans declared by Stakeholders. The implementation of this Family depends on the deployment of Initial AOP (Family 2.2.1), since Extended AOP increases the iAOP scope beyond the airside operating environment and addresses processes within the landside and terminal infrastructure that have a performance impact on airport operations, flight



predictability and efficiency. For Family 2.2.2 plans have already been declared by Stakeholders for 26 airport gaps out of the 31 for which the deployment is required.

With reference to Family 2.3.1 - Airport Safety Nets, which covers the A-SMGCS Airport Safety Support Service, the implementation is on-going for all the gaps. However, it is worth noting that the implementation date of 5 gaps has been reported beyond the CP1 target date, as depicted in Figure 11.



Figure 11 - Focus on CP1 compliance for Family 2.3.1



AF3 - Flexible Airspace Management and Free Route Airspace

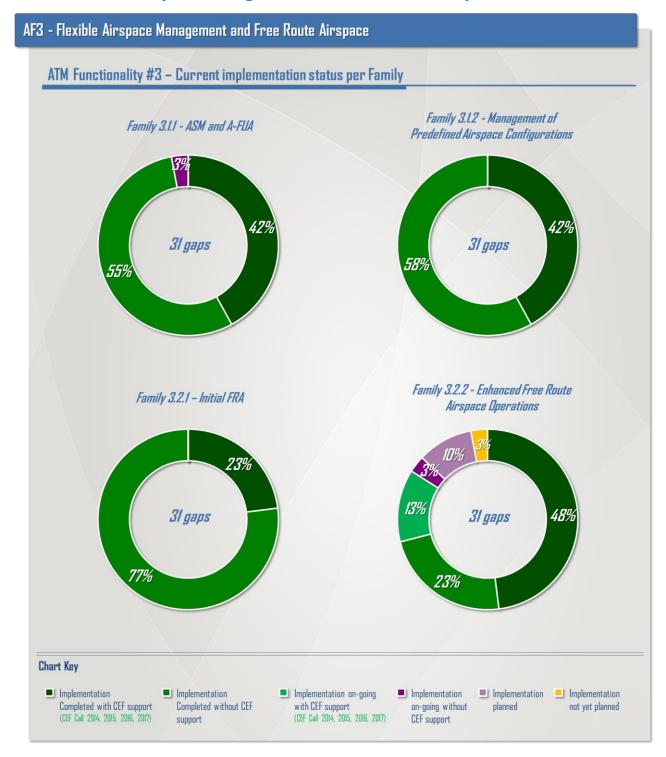


Figure 12 - AF3: current implementation status per Family

92% of the implementation gaps associated to AF3 have already been completed by operational Stakeholders, making it the most advanced ATM functionality within the scope of the CP1 from a deployment-extent perspective. Furthermore, 4 gaps in Family 3.2.2 (around 10% of the AF scope) are in the process of being implemented with CEF support and the associated coordination of SDM.



Family 3.1.1 – ASM and A-FUA reached its CP1 regulatory target date on 31^{st} December 2022. The full implementation has been achieved by 30 out of 31 Stakeholders, whereas this implementation is still ongoing in Switzerland⁷.



Figure 13 - Focus on CP1 compliance for Family 3.1.1

Moreover, 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^{st} December 2022. All the 31 Stakeholders have fully completed these implementations.

The technical requirements for the implementation of "Enhanced Free Route Airspace Operations", addressed by Family 3.2.2 are already implemented in 21 out of 30 countries and by MUAC, 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.

 $^{^{7}}$ After the closure of the SDP Monitoring exercise, SDM received the communication that Family 3.1.1 ASM and A-FUA was completed in Switzerland



AF4 - Network Collaborative Management

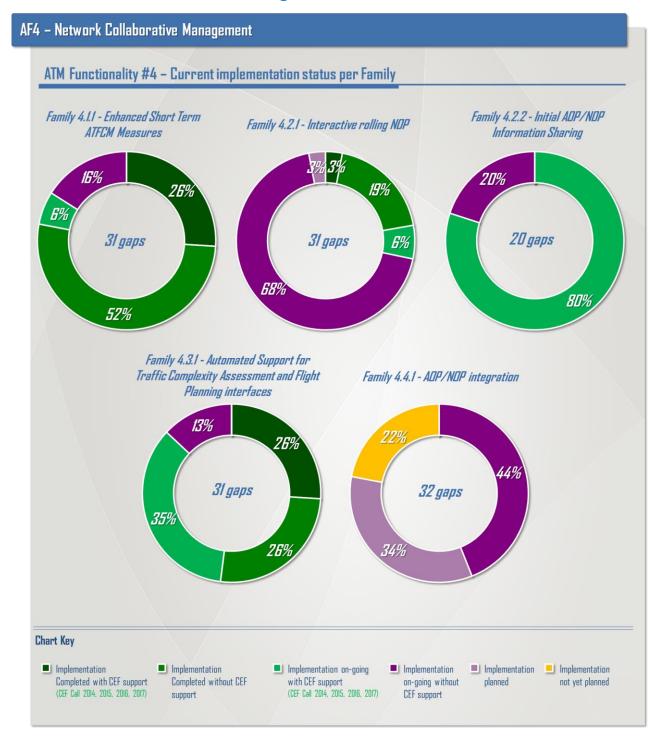


Figure 14 - AF4: current implementation status per Family

33% of AF4 gaps have been already closed by operational Stakeholders. The currently on-going implementation activities roughly cover 54% of the existing gaps, while plans have been declared for around 8% of the total number of existing gaps, leaving only around 5% 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 31st December 2022. For 23 out of 30 countries and for MUAC, the implementation has been completed, whereas the implementation is still ongoing and will be completed beyond the CP1 target date in 6 countries plus the Network Manager.



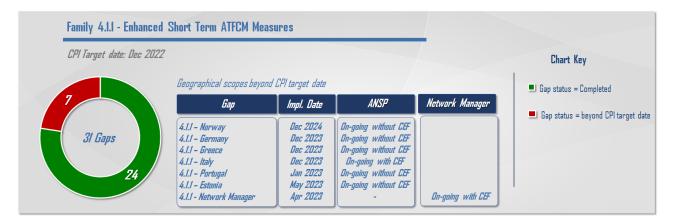


Figure 15 - Focus on CP1 compliance for Family 4.1.1

The implementation of Family 4.2.1 regarding the "Interactive Rolling NOP", linked to the deployment of the NOP Portal by Network Manager, has been completed in 5 countries and by MUAC and the Network Manager, while activities are on-going or planned in the remaining 24 countries.

On the other hand, the implementation of Family 4.2.2 - Initial AOP/NOP Information Sharing, focusing on exchanging the Arrival Planning Information (API) and Departure Planning Information (DPI) messages between AOP and NM, is still on-going for all the applicable CP1 airport gaps. However, following the document consultation with operational Stakeholders, the information provided for Family 4.2.2 - Initial AOP-NOP information sharing in relation to the foreseen completion dates does not reflect the most up-to-date expectations. With the CP1 deadline approaching, the requests from majority of airports to finalise deployment arrived in early 2023. Once data exchange is implemented in airport systems, the work between NM and each CP1 airport takes approximately 5-6 months and cannot be performed in parallel for all cases, creating a bottleneck. For mitigating this risk, actions are taking place between SDM, NM and the concerned airports to tackle the implementation delay. In particular, SDM is preparing a workplan to have this Family scope fully implemented for all CP1 applicable airports by 2024. Exceptions might apply to the Airports that will not fulfil the pre-requisite of being A-CDM by that date.

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 14 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 in 15 countries.

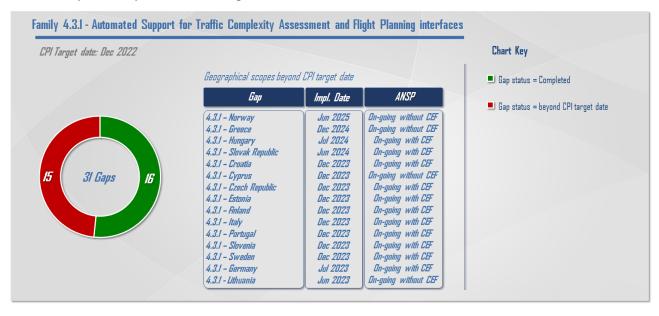


Figure 16 - Focus on CP1 compliance for Family 4.3.1



Most of the gaps without any associated specific implementation plans are linked to Family 4.4.1 - AOP/NOP integration, whose implementation is dependent on the deployment of Family 4.2.2 - Initial AOP/NOP Information Sharing. For Family 4.4.1, currently no dedicated plans have been identified by Stakeholders for 7 airport gaps. On the other hand, 44% of the Stakeholders have already started the implementation activities and all the ongoing and planned implementation activities are foreseen to be completed on time.

AF5 - SWIM

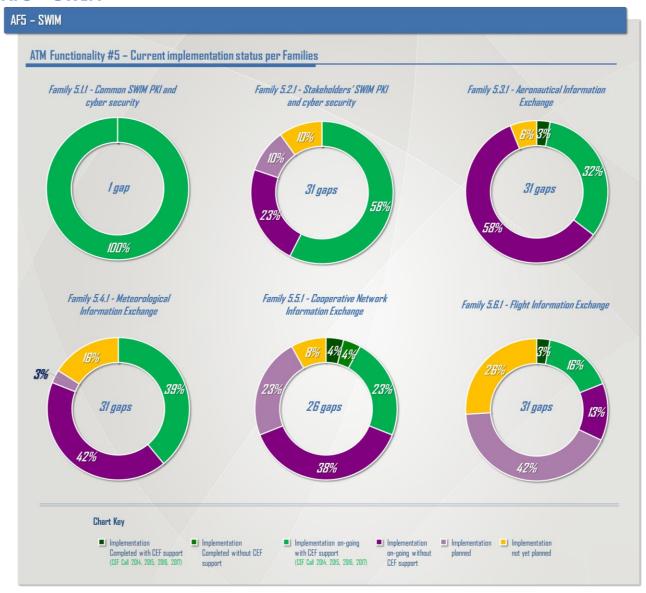


Figure 17 - AF5: current implementation status per Family



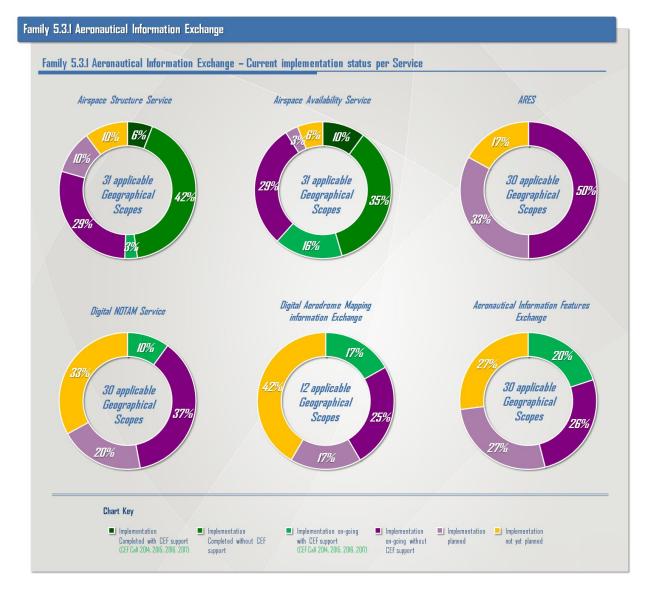


Figure 18 - Family 5.3.1: current implementation status per Service



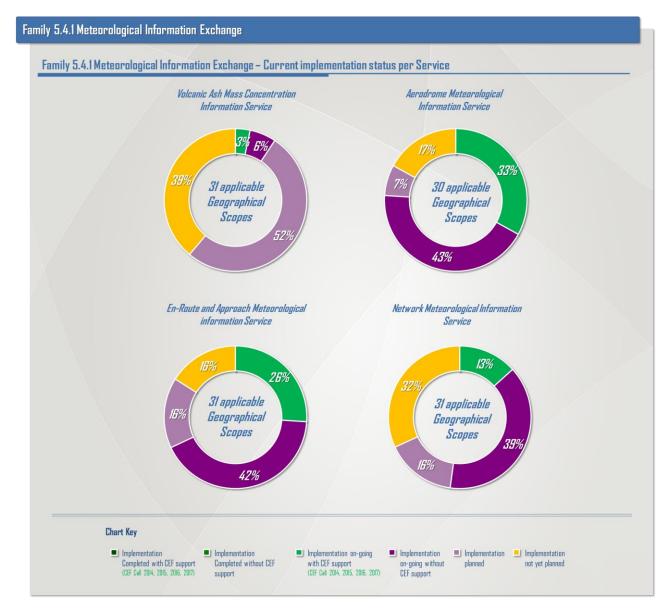


Figure 19 - Family 5.4.1: current implementation status per Service



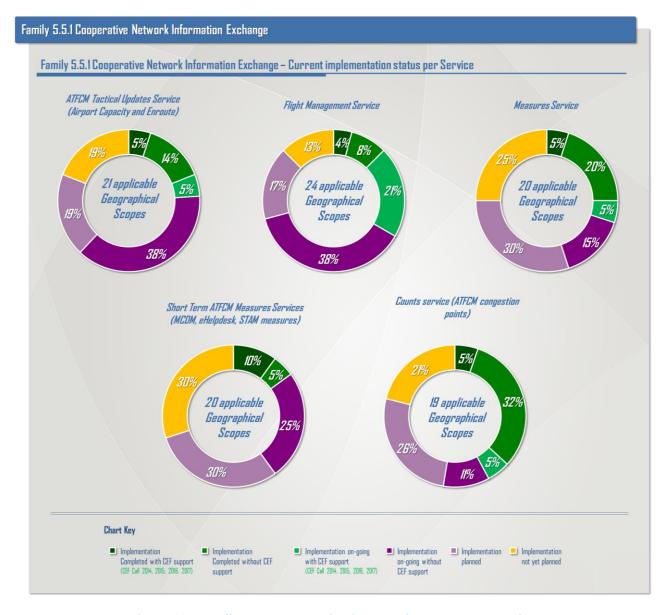


Figure 20 - Family 5.5.1: current implementation status per Service



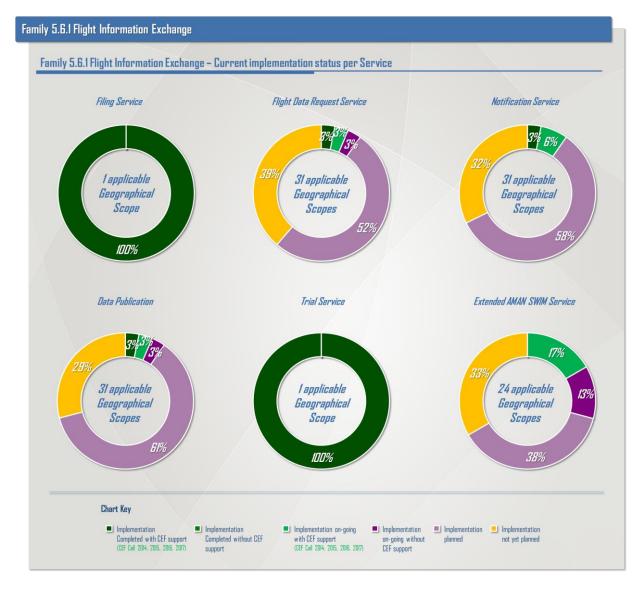


Figure 21- Family 5.6.1: current implementation status per Service

The overall implementation of the ATM Functionality 5 is progressing even if it shows the largest portion of gaps for which no dedicated plans have been identified yet. This is due to the lack of readiness on the consumer side, both for Airspace Users and ANSPs.

Currently 72% of the AF5 gaps have been addressed by the operational Stakeholders either through their full closure or through deployment activities currently on-going. More in detail, 108 out of the 151 gaps to be covered by the implementation of technological elements linked to the deployment of SWIM have been closed, or are in the process of being addressed, 23 are associated with future plans and 20 are not yet planned.

The implementation of Family 5.2.1 - Stakeholders' SWIM PKI and cyber security, which may differ depending on whether the Stakeholders will become a CA (Certificate Authority) themselves or use the European Common Aviation PKI (EACP) as developed by Family 5.1.1, is currently on-going for 81% of the gaps, while for 3 countries the implementation activities have not started yet and for 3 countries plans



have not been identified. Moreover, implementation in Norway is currently foreseen to be completed beyond the CP1 regulatory deadline (31st December 2025).



Figure 22 - Focus on CP1 compliance for Family 5.2.1

Regarding the Service Families, the implementation of "Aeronautical Information Exchange", addressed by Family 5.3.1, has been completed for 1 gap and is currently on-going for 90% of the gaps. It is worth noting that the implementation has been reported beyond the CP1 regulatory target date (31st December 2025) for Norway and has not been yet planned for 2 countries, as depicted in Figure 23.



Figure 23 - Focus on CP1 compliance for Family 5.3.1

The implementation of "Meteorological Information Exchange", addressed by Family 5.4.1, is showing potential criticalities since the implementation date for 6 countries has been reported beyond the CP1 regulatory target date (31^{st} December 2025) and the implementation is currently not yet planned for 5 countries and Network Manager, as shown in Figure 24.



Figure 24 - Focus on CP1 compliance for 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 16 gaps, corresponding to 69% of the CP1 countries.

Finally, the implementation of Family 5.6.1 - Flight Information Exchange is proceeding at a lower pace, due to the complexity of the requirements, which involve a transition from ICAO FPL2012 to FF-ICE flight plan (eFPL) and impact the ATC systems. Thus, the consumption of those services is currently very limited. To mitigate the low progress, SDM together with NM, is launching an FF-ICE deployment supporting initiative to push forward the progress of the deployment. Currently, the implementation date for 7 countries has been reported beyond the CP1 regulatory target date (31st December 2025) and the implementation is currently not yet planned for 7 countries and for MUAC.

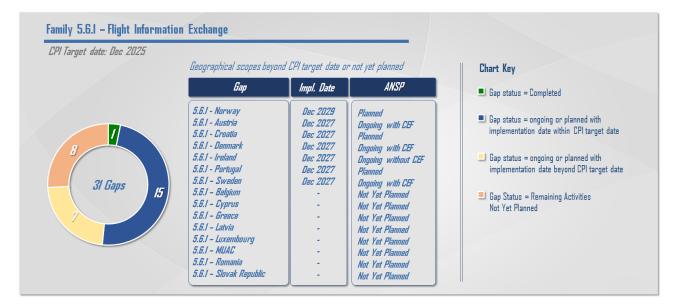


Figure 25 - Focus on CP1 compliance for Family 5.6.1

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



Expected roadmap for CP1 completion

Overall roadmap

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

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

By combining inputs from operational Stakeholders operating within the same airport or within a specific country, the expected date of each gap on which all elements linked to a specific Family will be deployed and their operational use will start can be identified and allow to predict the future trend of the CP1 implementation. The overall outcomes of this analysis are reported within Figure 26 and are further illustrated in the following paragraphs.

Figure 26 illustrates through the green curve the expected progress in the implementation of the Common Project One. It is worth noting that around 9% of the CP1-related ground gaps has no specific target date indicated by Stakeholders.

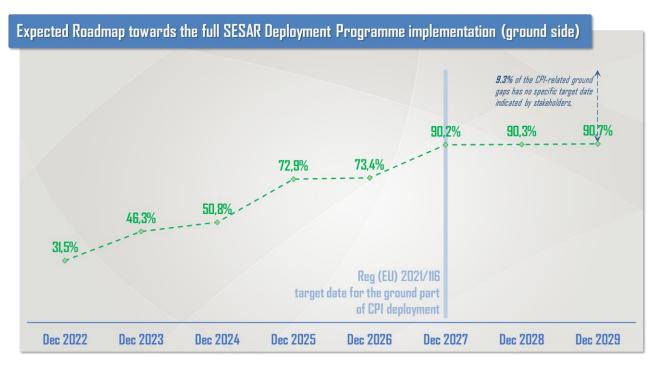


Figure 26 - Expected Roadmap towards the Full CP1 implementation

As illustrated within the previous paragraph, the current⁸ status of implementation of the Common Project One includes 186 completed gaps, amounting to 31% of the total number of 590 implementation gaps.

The most significant positive results have been registered in AF2, AF3 and AF4.

By the end of 2023, an additional set of 87 additional gaps are expected to achieve their full coverage, bringing to 95% the number of gaps foreseen to be compliant with CP1 Sub AFs presenting regulatory deadlines on 31st December 2022, also benefitting from the progress of EU-funded and SDM-coordinated Implementation Projects. Among the soon-to-be closed gaps, it is worth mentioning the following:

⁸ Such status corresponds to the status of CP1 implementation as in December 2022, when the monitoring data and associated information has been submitted by the relevant ATM operational Stakeholders.



- the deployment of Family 1.1.1 Arrival Management extended to en-route airspace, will bring a total of 5 airports closing the gap (3 airports are expected to complete this Family in 2023);
- the deployment of Family 2.1.1 Departure Management Synchronised with Pre-departure sequencing, will bring a total of 18 airports closing the gap (2 airports are expected complete this Family in 2023);
- the deployment of Family 2.2.1 Initial AOP, will bring a total of 19 airports closing the gap (16 airports are expected to complete this Family in 2023);
- the deployment of Family 2.3.1 Airport Safety Nets, will close the gap in 1 airport;
- the deployment of Family 4.1.1 Enhanced Short Term ATFCM Measures will bring the total number of Stakeholders to use STAM for tactical capacity management to 29 (4 countries and the Network Manager are expected to complete this Family in 2023);
- the considerable progress of Family 4.2.1 Interactive Rolling NOP will bring the total number of closed gaps to 29 (22 countries are expected to complete this Family in 2023);
- the considerable progress of Family 4.2.2 Initial AOP/NOP Information Sharing will bring the total number of closed gaps to 19 (all the mandated airports and the Network Manager are expected to complete this Family in 2023);
- similarly, the progress in the implementation of Family 4.3.1 Automated Support for Traffic Complexity Assessment and Flight Planning interfaces will bring to a total of 27 out of 31 closed gaps (11 countries are expected to complete this Family in 2023).

In 2024, the implementation activities will still continue to grow up, as the percentage of closed gaps will top 51%, thanks to the closure of additional 27 gaps in addition to the ones expected to be closed, leading to a total foreseen number of 300.

By the end of 2025, the number of closed gaps is expected to accelerate reaching 430, as the percentage of closed gaps will spike to around 73% of the overall implementation of the Common Project One: the significant growth (with 130 gaps closed during 2025) is explicitly led by the progress in the implementation of AF5, with 105 gaps to be closed.

According to information submitted by the relevant ATM Stakeholders and with their currently declared plans, in the longer run (from 2026 onwards) the progress in CP1 deployment will continue at a steady pace, allowing for the closure of above 106 gaps in total, with a significant increase in closed gaps especially within AF2 and AF6.

At the current time, 10% ground gaps are explicitly declared to be closed beyond the CP1 target dates set forth in the Regulation for each ATM Functionality. Moreover, the fact that the 9% of the gaps have no dedicated plans yet does not necessarily entail a non-compliance with CP1.

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 Risk Assessment process managed by SDM, complemented with the organisation of workshops, sharing of best practices and visits to Stakeholders in order to raise awareness on SDP implementation.

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



Detailed views per ATM Functionality

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

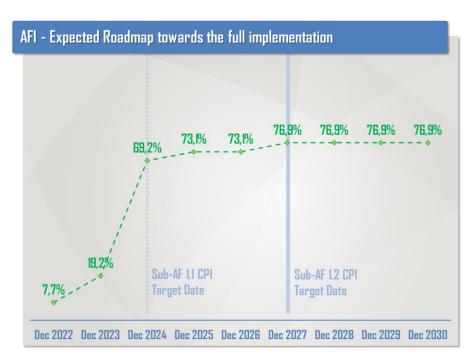


Figure 27 - AF1 Expected Roadmap for Implementation

AF2 – Airport Integration Throughput

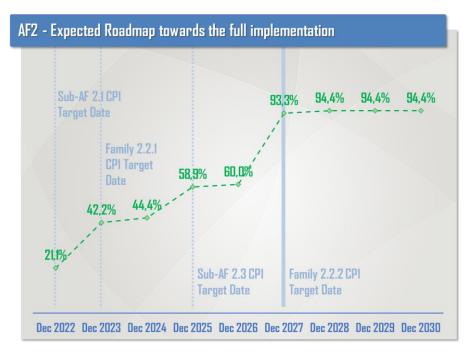


Figure 28 - AF2 Expected Roadmap for Implementation



AF3 – Flexible Airspace Management and Free Route Airspace

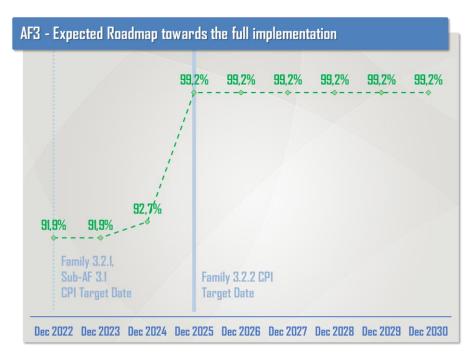


Figure 29 - AF3 Expected Roadmap for Implementation

AF4 - Network Collaborative Management

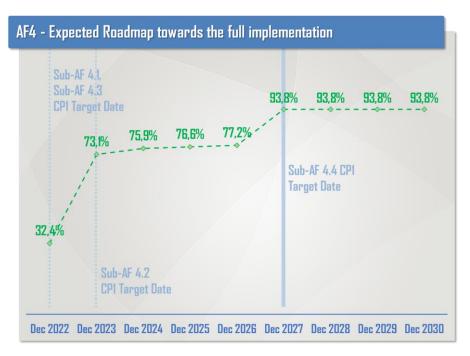


Figure 30 - AF4 Expected Roadmap for Implementation



AF5 - SWIM

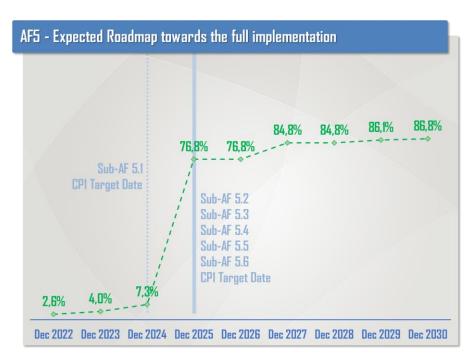


Figure 31 - AF5 Expected Roadmap for Implementation



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

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

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

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

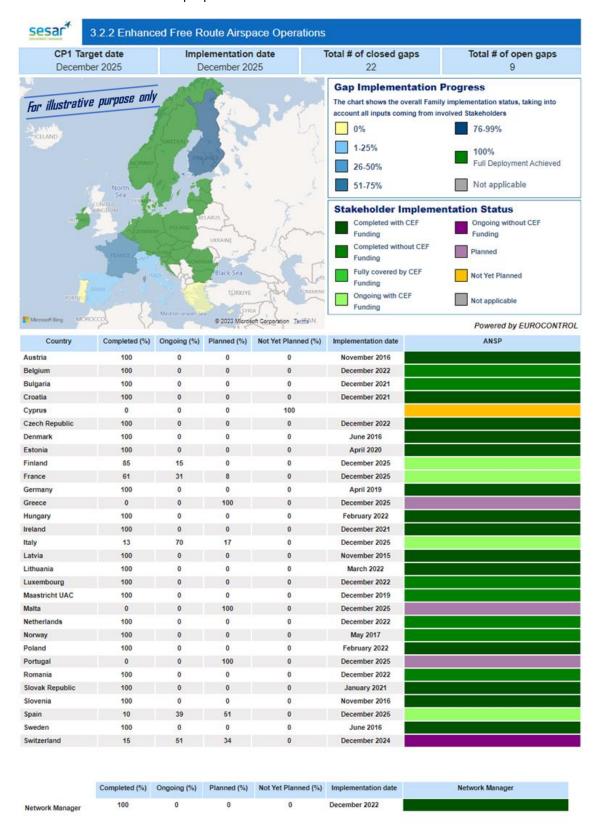
The overall picture of the "geography-based" ground gaps is complemented by the overview on the Airspace Users gaps, defined instead on a fleet-centric approach, due to the fact that AU operations typically expand beyond national and regional borders and affect the whole geographical scope defined by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



Structure and layout of the detailed Views

Family View

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.

Gap Implementation Progress

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

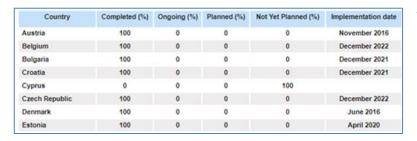
0% 76-99%

1-25% 100%
Full Deployment Achieved

51-75% Not applicable

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).



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" percentage</u>, which identifies the percentage of the Family that is covered by ongoing activities (both within and beyond the SDM coordination⁹);
- 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.

CP1 Target date	Implementation date	Total # of closed gaps	Total # of open gaps		
December 2025	December 2025	22	9		

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 expected implementation date, i.e. when the Family will be implemented within its whole geographical scope (e.g. all countries and airports), in comparison with the CP1 target date;
- the total number of gaps which have already been closed by operational Stakeholders;
- the total number of gaps which remain open, thus needing additional deployment activities before the full implementation is achieved at local level.

For each country or airport, the right section of the table allows readers to check the status of implementation for each category of Stakeholders impacted by the Regulation and involved in the Family full deployment. According to the SESAR Deployment Programme, the following Stakeholders' categories are requested to directly invest to fill-in the implementation gaps and are therefore potentially eligible for co-funding under the upcoming CEF Transport Calls:

⁹ For gaps addressed by initiatives under its specific coordination, SDM is also able to perform an additional cross-check and consistency assessment of the information gathered from Stakeholders vis-à-vis the actual progress of the Implementation Projects. For gaps outside SDM direct coordination, the scope of local initiatives and plans is evaluated only on the basis of information declarations provided by operational Stakeholders.

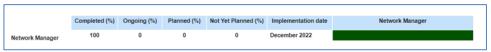


43

- 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;
- 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 and 2017.

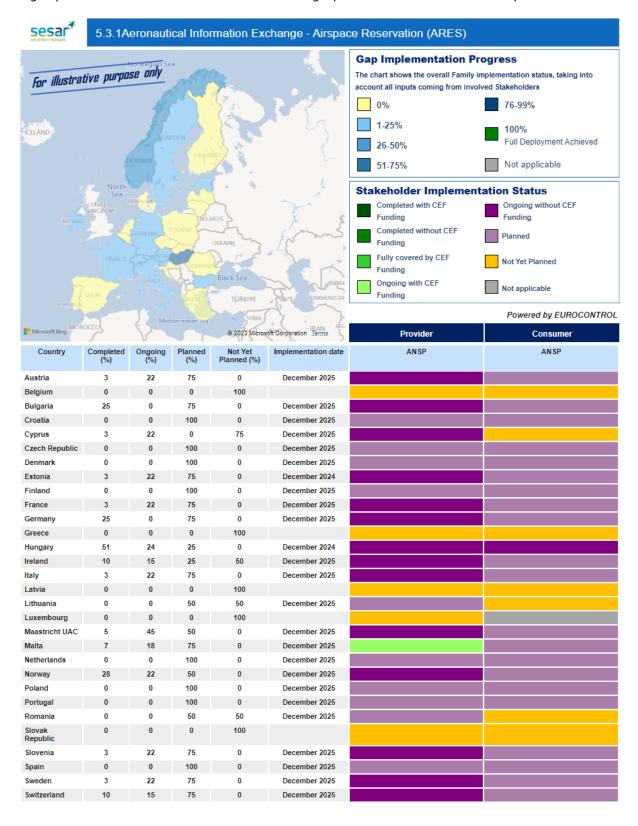
The scope of the local initiatives or plans (i.e. the percentage of the gap that will be addressed) is evaluated and assessed on the basis of Stakeholders' declarations.



Service View

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

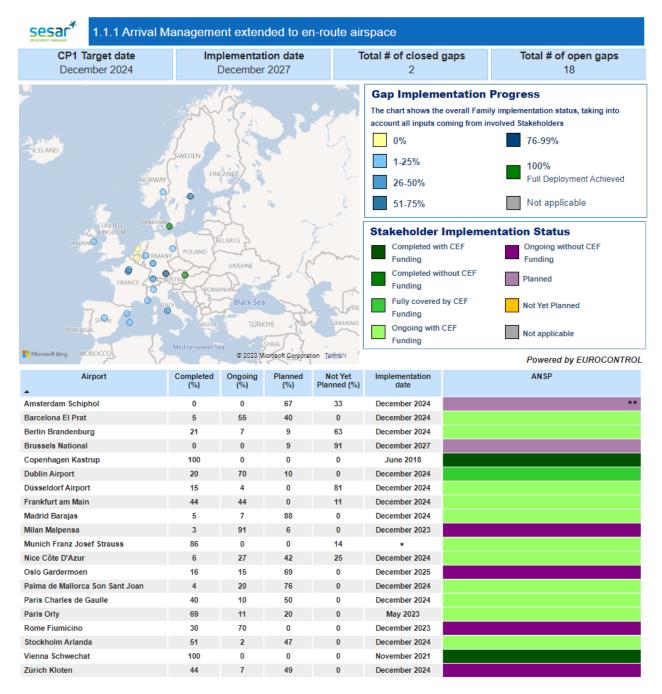




Ground Gaps – Family and Service View

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

Family 1.1.1 - Arrival Manager extended to en-route airspace

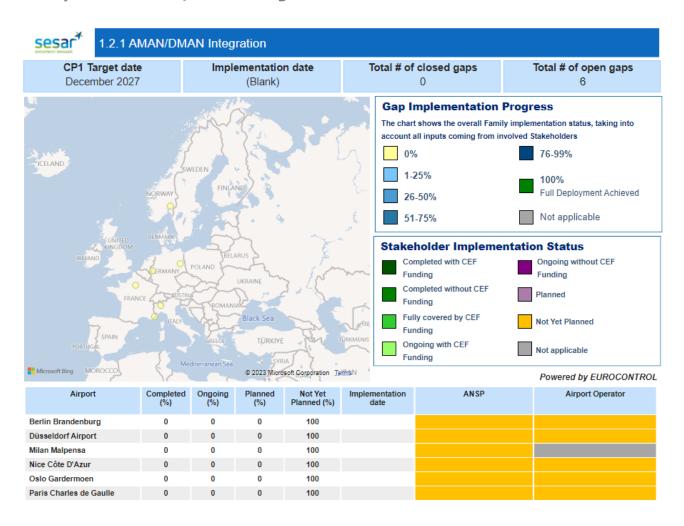


^{*} The remaining scope of the Gap is Not yet Planned



^{**} Supported by CEF fund

Family 1.2.1 - AMAN/DMAN Integration





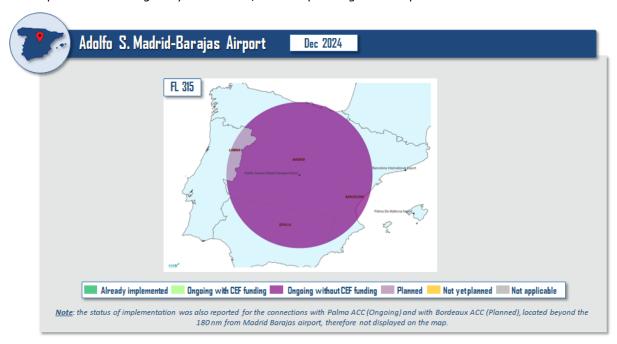
Focus on Extended AMAN implementation

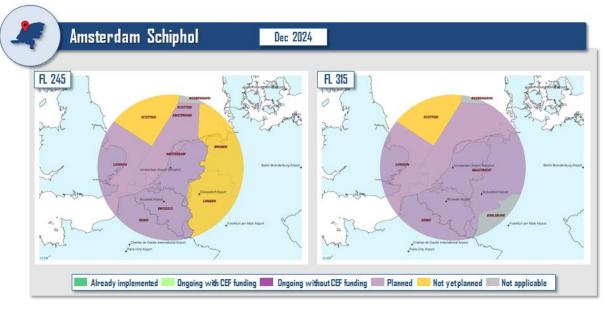
The Arrival Manager extended to en-route airspace requires an extension of AMAN horizon up to a minimum of 180 nautical miles from the arrival airport. Shorter horizon distance shall be considered when, due to the geographical location of the arrival airport, the extension of the AMAN horizon does not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

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

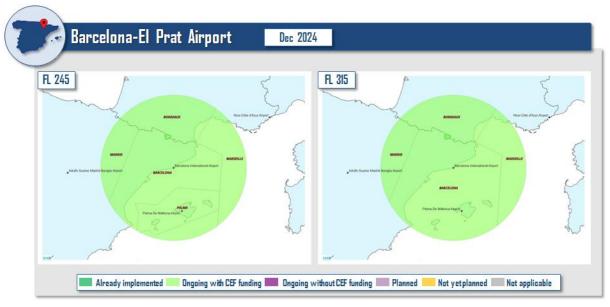
Information on the status of implementation of the Family have been requested to operational Stakeholders and – when possible – cross-checked with input and data stemming from SDM-coordinated Implementation Projects.

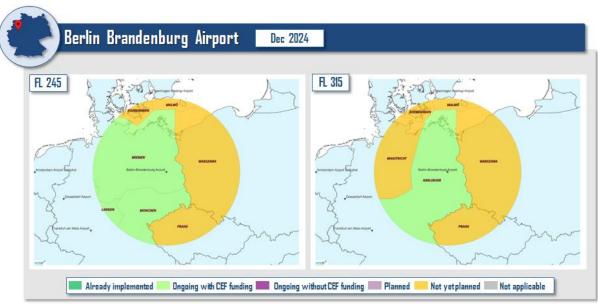
In this perspective, the following tables report on the status of implementation of Extended AMAN in the 19 TMAs, providing specific information on the Area Control Centres impacted by the deployment activities (within 180 nautical miles). These tables are differentiated, where necessary, by Flight Level (FL) when the same airspaces are managed by different U/ACCs depending on the specific FLs.

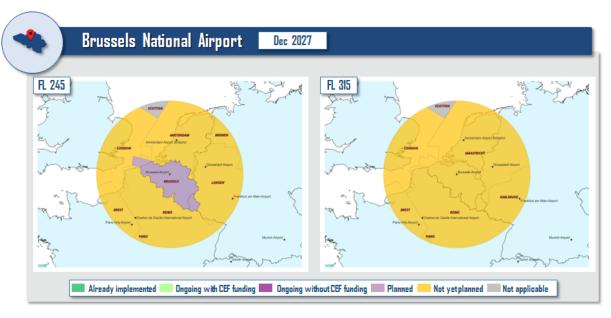




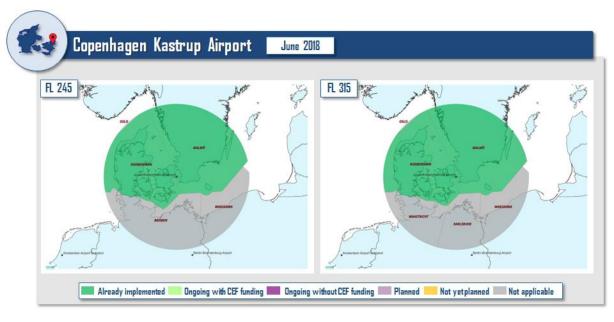


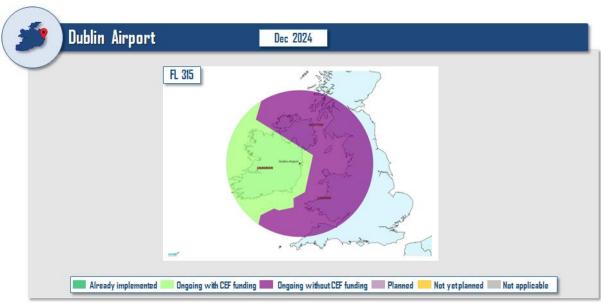


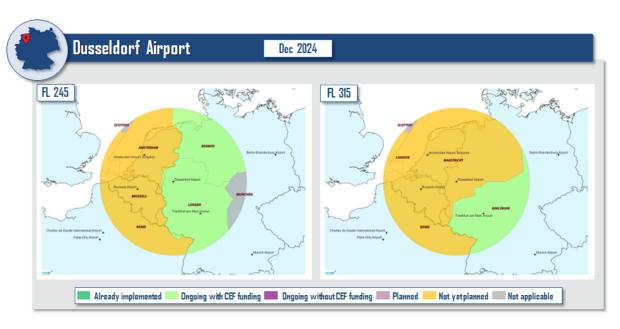




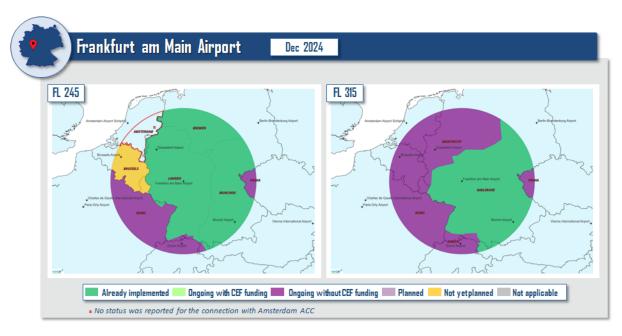


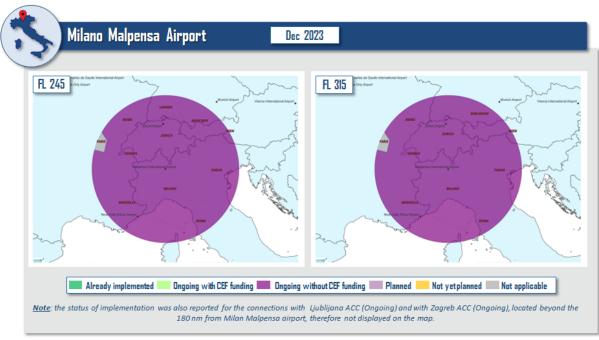




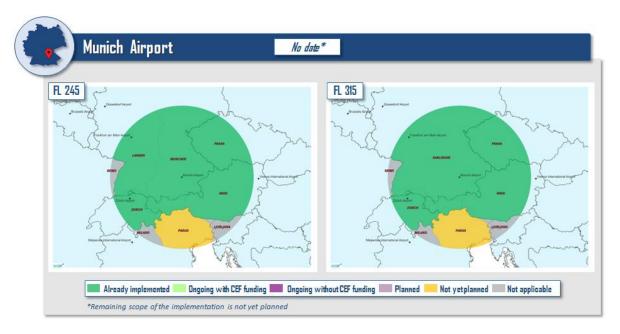


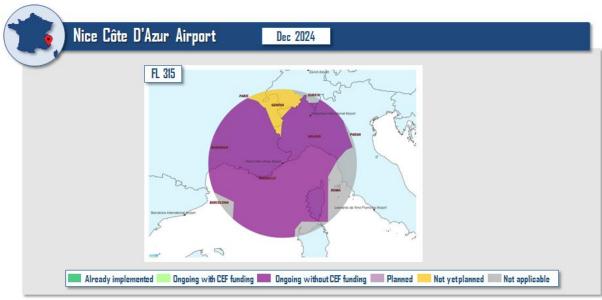


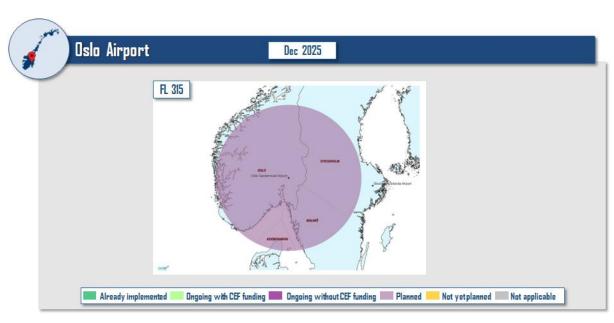




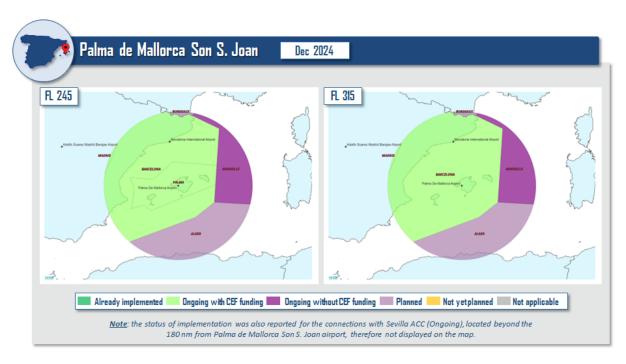


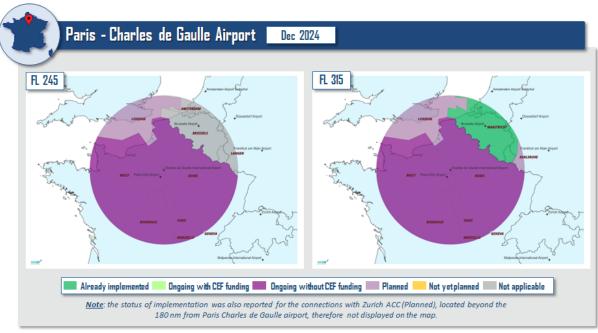




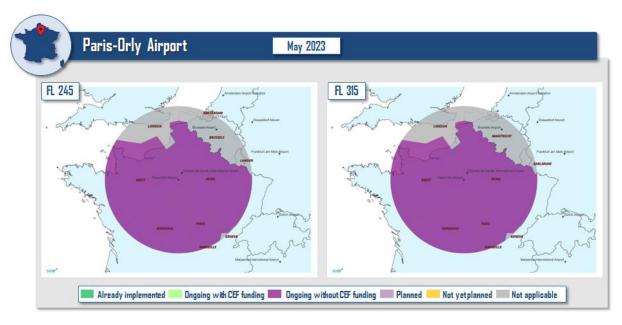


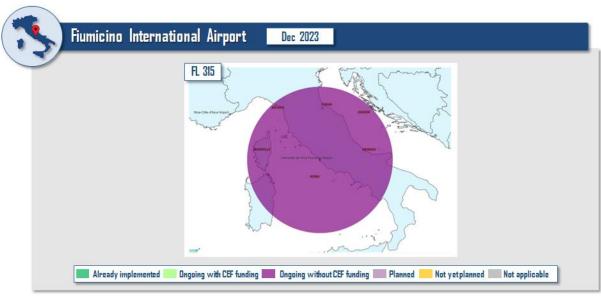


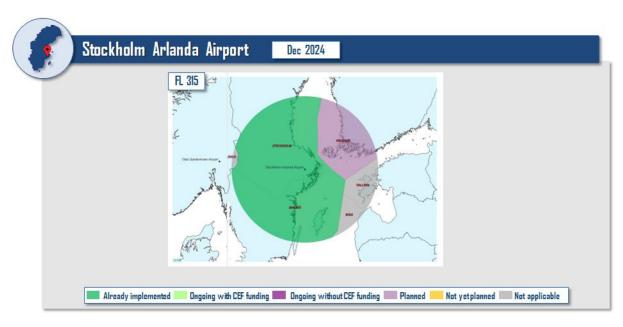




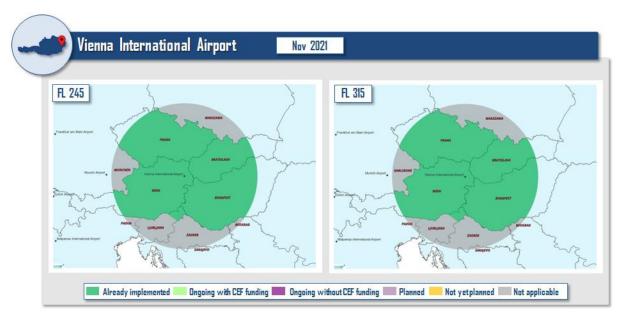


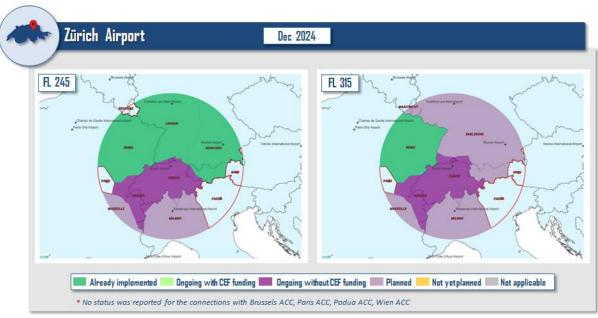








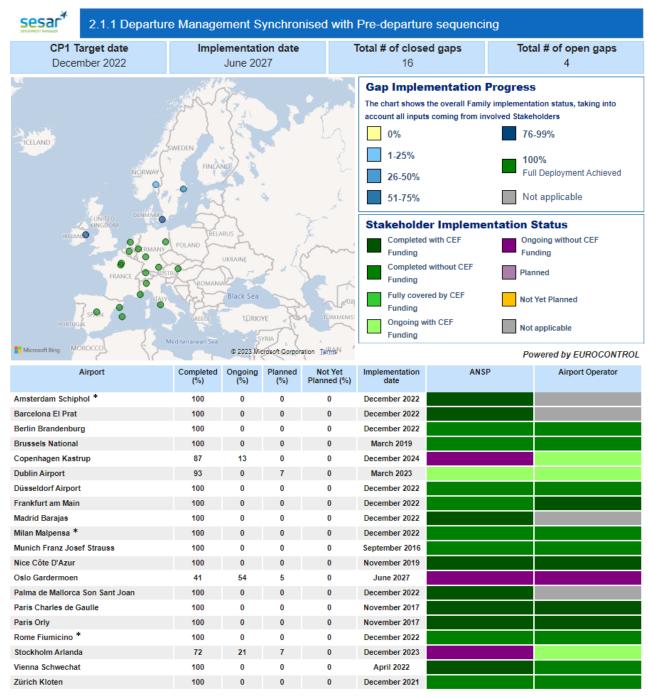






AF2 – Airport Integration and Throughput

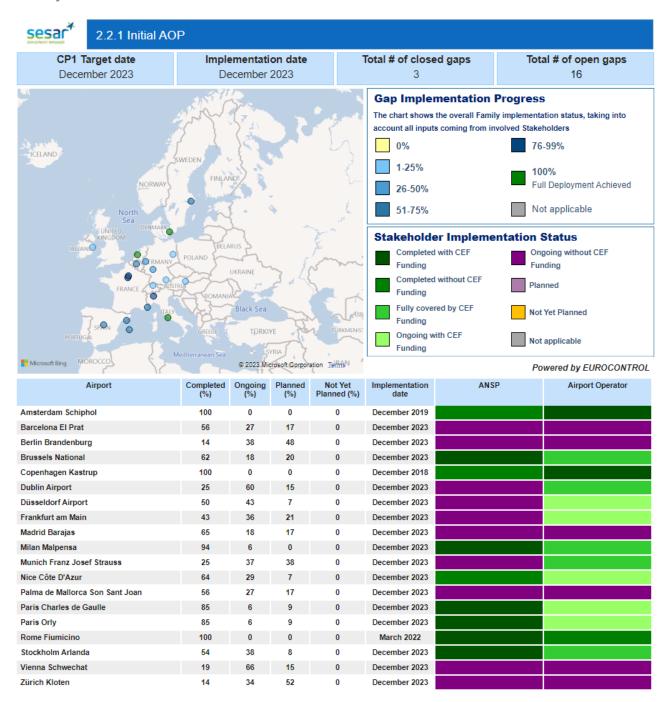
Family 2.1.1 – Departure Management Synchronised with Pre-Departure Sequencing



^{*} Please refer to the observations at page 22

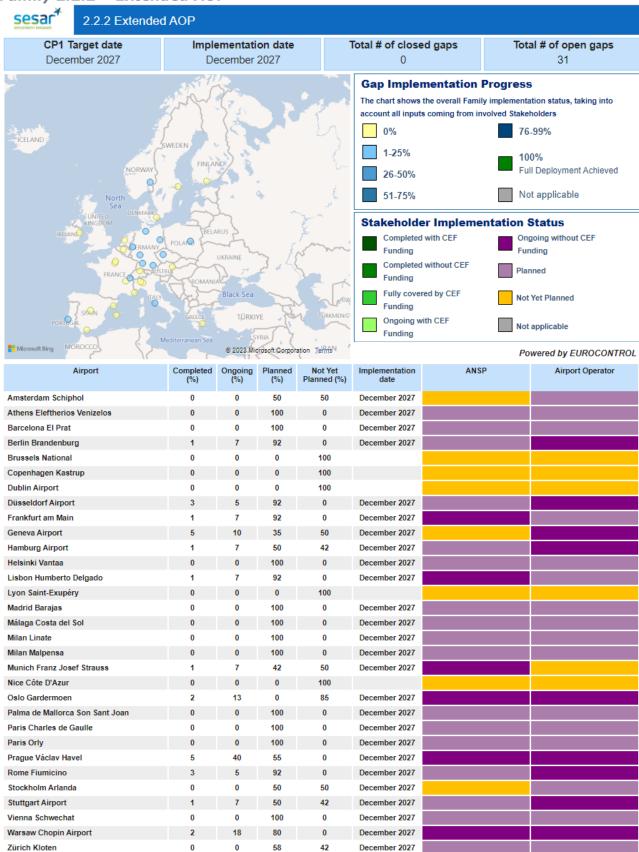


Family 2.2.1 – Initial AOP



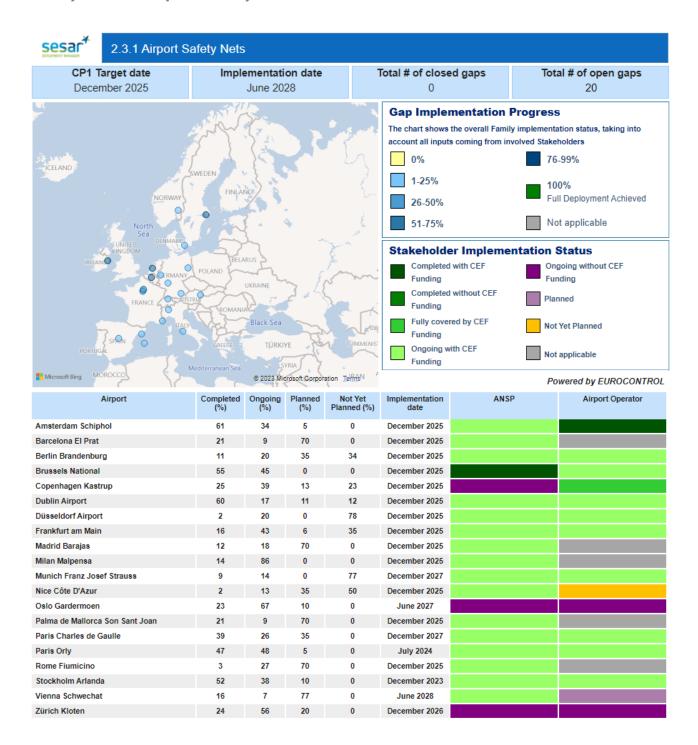


Family 2.2.2 - Extended AOP





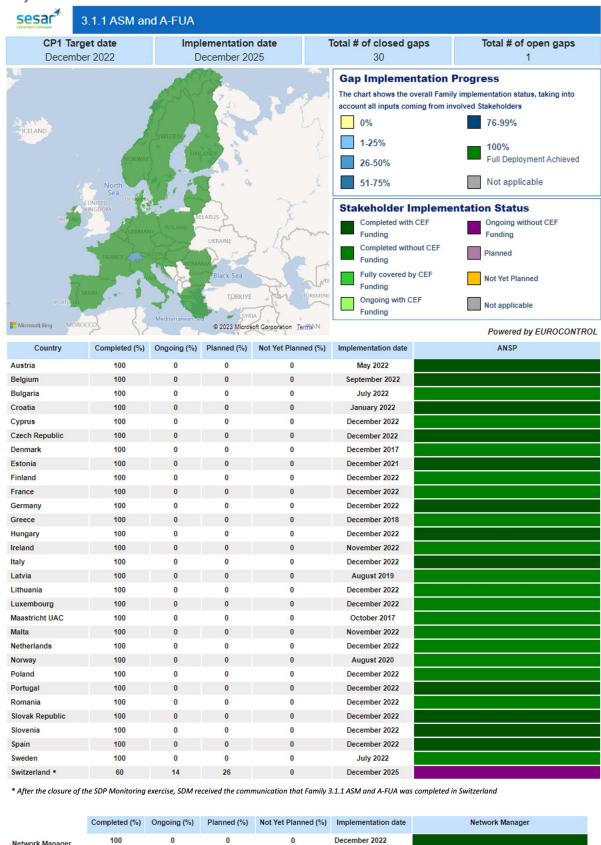
Family 2.3.1 - Airport Safety Nets





AF3 - Flexible Airspace Management and Free Route Airspace

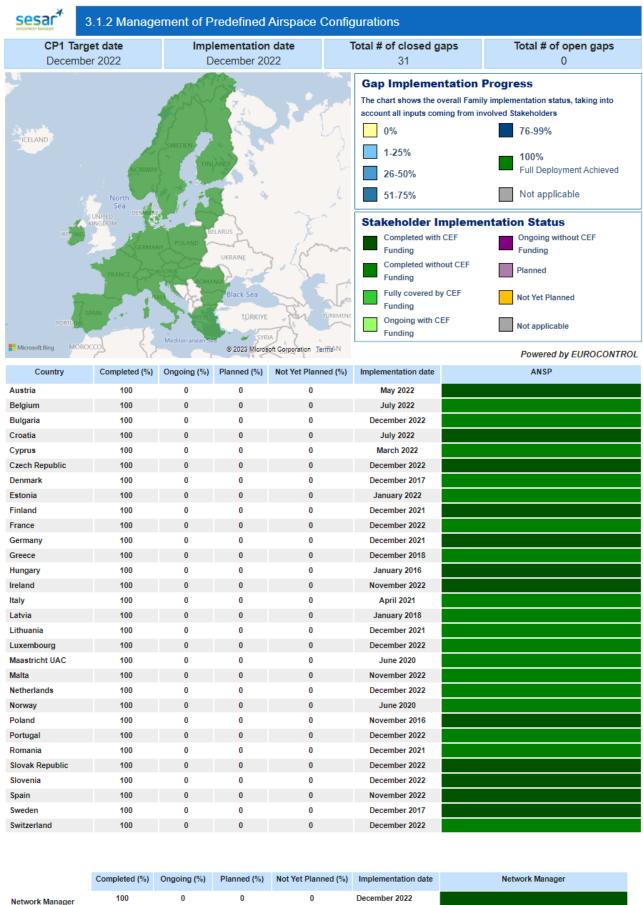
Family 3.1.1 - ASM and A-FUA





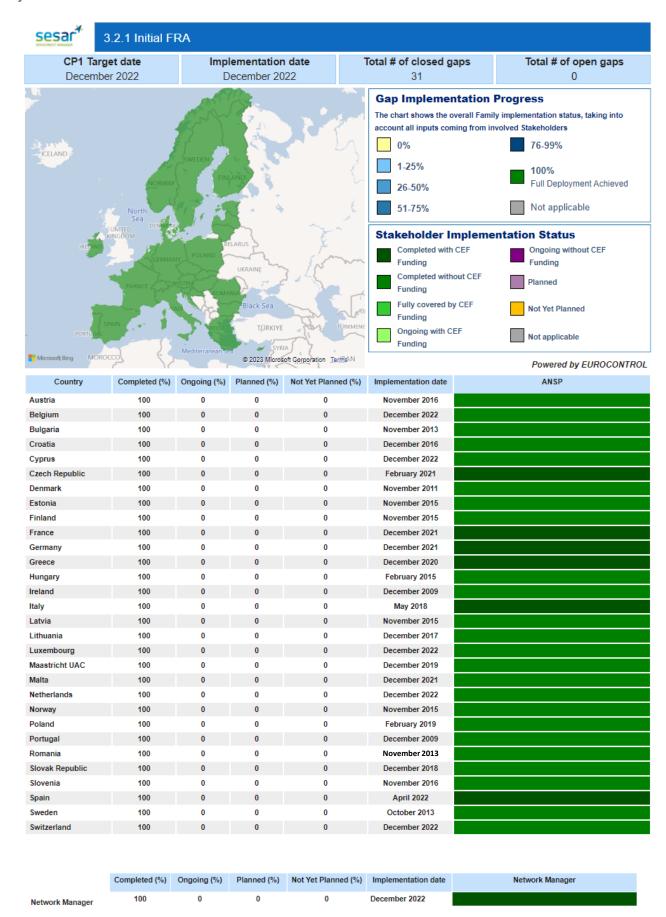
Network Manager

Family 3.1.2 - Management of Predefined Airspace Configurations



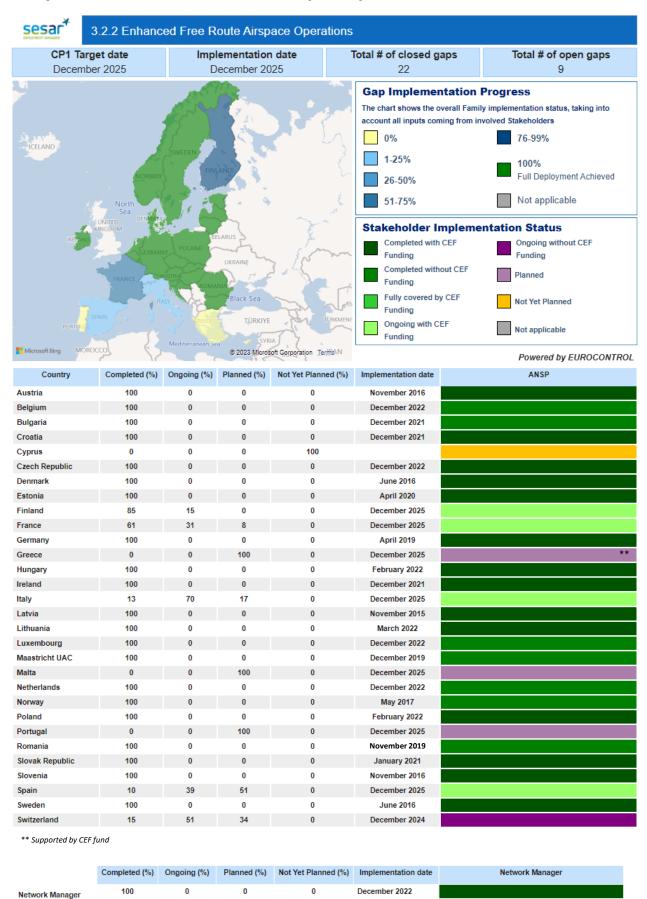


Family 3.2.1 - Initial FRA





Family 3.2.2 - Enhanced Free Route Airspace Operations





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 31st 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:

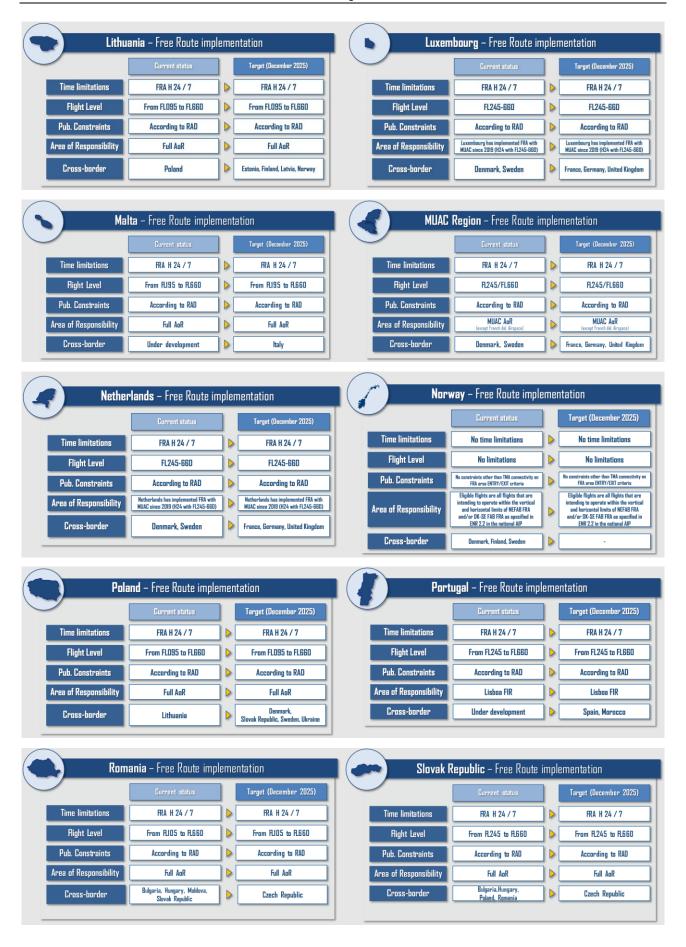
- the *Time limitations* set for the Free Route implementation;
- the Flight Level limit;
- the published constraints;
- the Area of Responsibility (AoR) where Free Route is implemented;
- the *cross-border*, indicating the countries with which the cross-border free route has been and will be established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



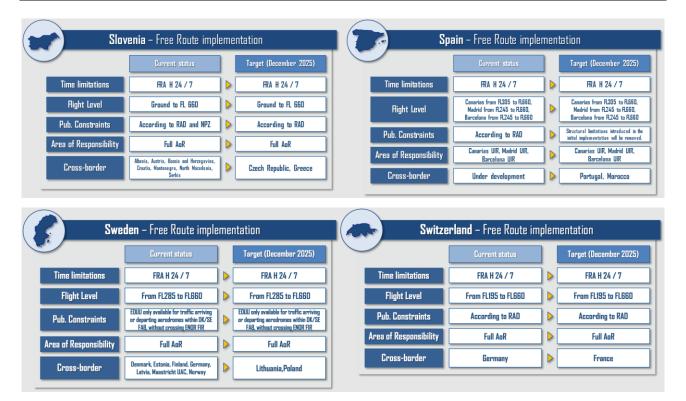








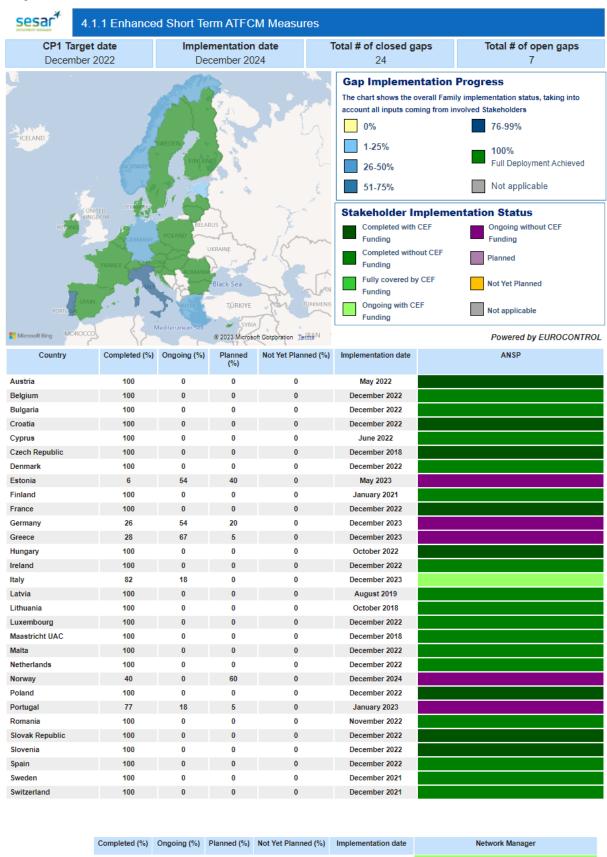






AF4 - Network Collaborative Management

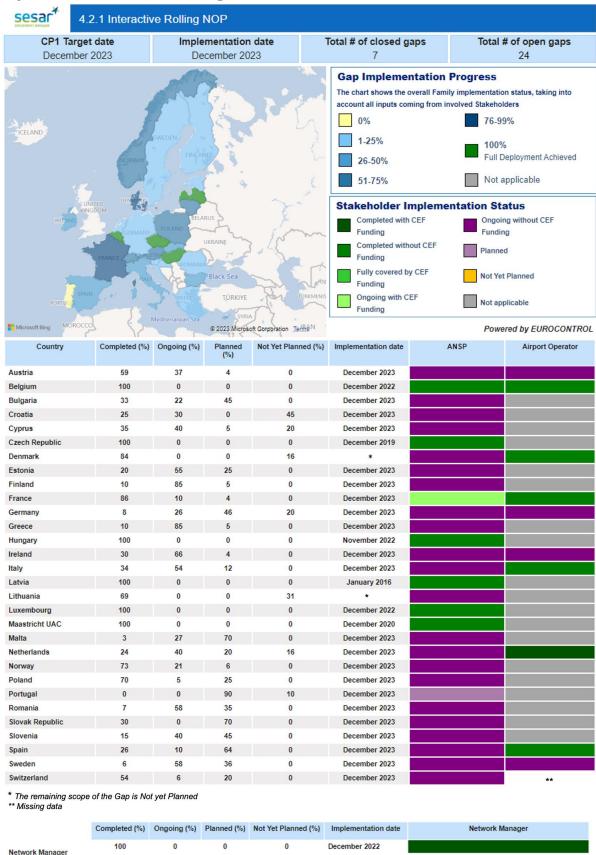
Family 4.1.1 - Enhanced Short Term ATFCM Measures





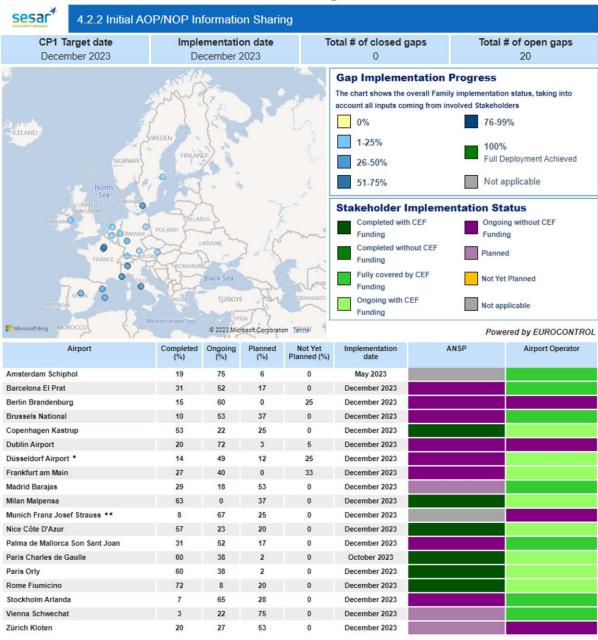
Network Manager

Family 4.2.1 - Interactive Rolling NOP





Family 4.2.2 - Initial AOP/NOP Information Sharing



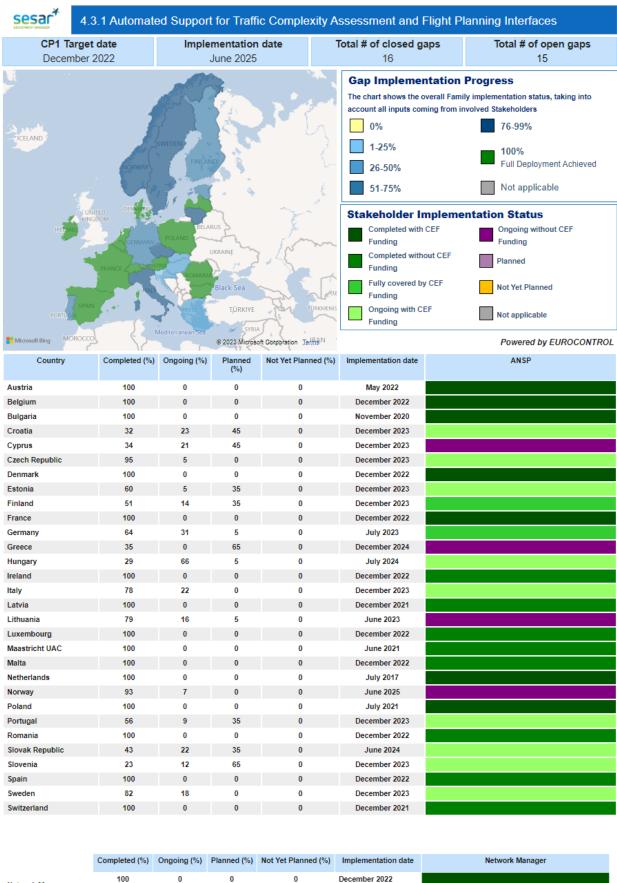
^{*} After the closure of the SDP Monitoring exercise, SDM received the communication that the ANSP is "Not Applicable" in Family 4.2.2 iAOP-NOP Information Sharing in Dusseldorf Airport

^{**} After the closure of the SDP Monitoring exercise, SDM received the communication that the ANSP is "Ongoing without CEF funding" in Family 4.2.2 iAOP-NOP Information Sharing in Munich Airport

Completed (%)	Ongoing (%)	Planned (%)	Not Yet Planned (%)	Implementation Date	Network Manager
70	30	0	0	December 2023	



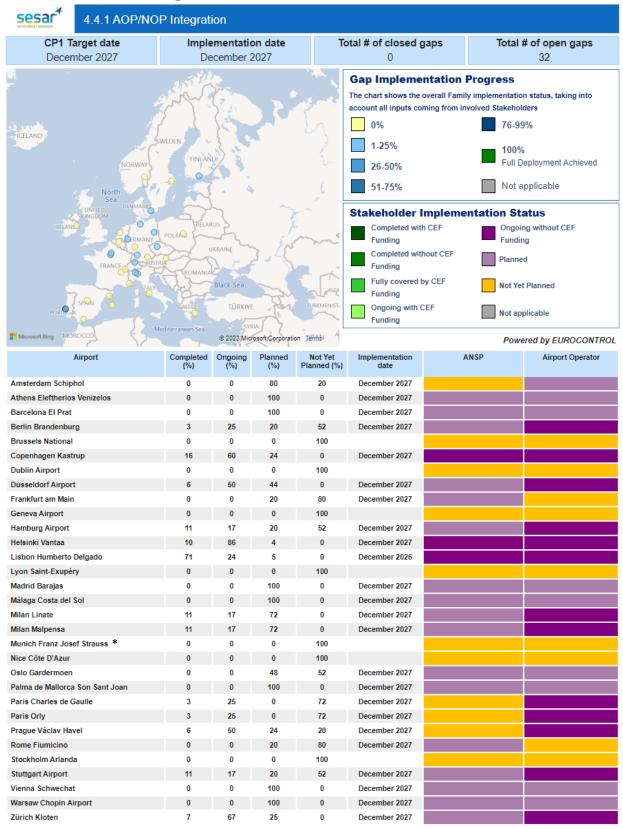
Family 4.3.1 – Automated Support for Traffic Complexity Assessment and Flight Planning Interfaces





Network Manager

Family 4.4.1 - AOP/NOP Integration



^{*} After the closure of the SDP Monitoring exercise, SDM received the communication that the ANSP is "Planned" in Family 4.4.1 AOP-NOP integration in Munich Airport

	Completed (%)	Ongoing (%)	Planned (%)	Not Yet Planned (%)	Implementation Date	Network Manager
Network Manager	10	0	0	90	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 with in two separate Families, Family 5.1.1 for the common part covering PKI governance, common PKI infrastructure ensuring regional and global interoperability and, in this context, appropriate cyber security objectives, while Family 5.2.1 addresses the Stakeholder implementation. The scope of Family 5.1.1 is the implementation of the SWIM common components covering common PKI and its governance. This Family addresses the solution to be deployed: the overall European Aviation Common PKI (EACP) and its associated governance, which the local implementations shall comply with.

Due to the specific features of the Families and their purpose of deploying SWIM Common components, the deployment activities are following a coordinated and EU-wide approach, rather than 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 kicked-off in November 2018.

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

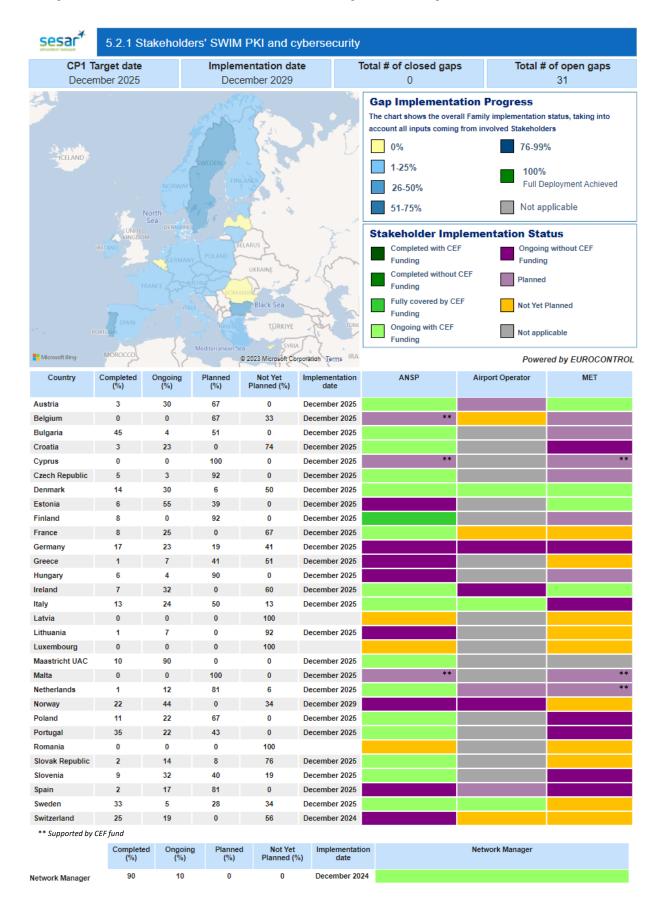
The project has progressed in 2022:

- CFT Material for the deployment of the first EACP solution has been developed
- The SWIM Common PKI and policies & procedures for establishing trust framework has been agreed in the Implementation Project and consulted by the mandated Stakeholders, using the SDM consultation platform.
- All comments were discussed and processed, leading to a complete set of documents detailing how the EACP will be deployed and developed as the need arises.
- All consulted documents are available on the SDM website.
- An invitation to sign a "Declaration of Interest" for joining the founding members of the EACP has been sent out.

The call for tender will be launched in 2023 to start running the operational solution that will be completed in line with the deployment deadlines of Family 5.1.1 in CP1.

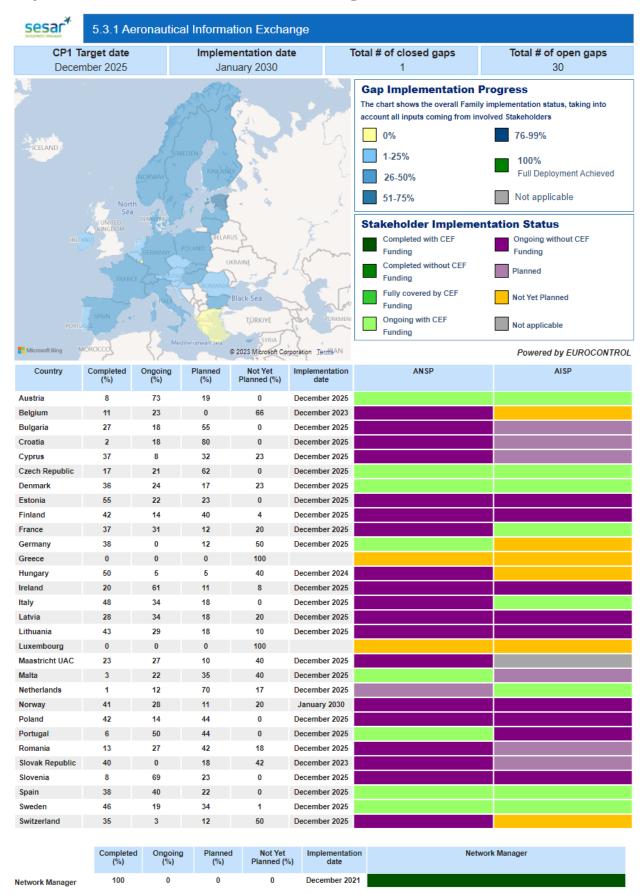


Family 5.2.1 - Stakeholders SWIM PKI and cybersecurity



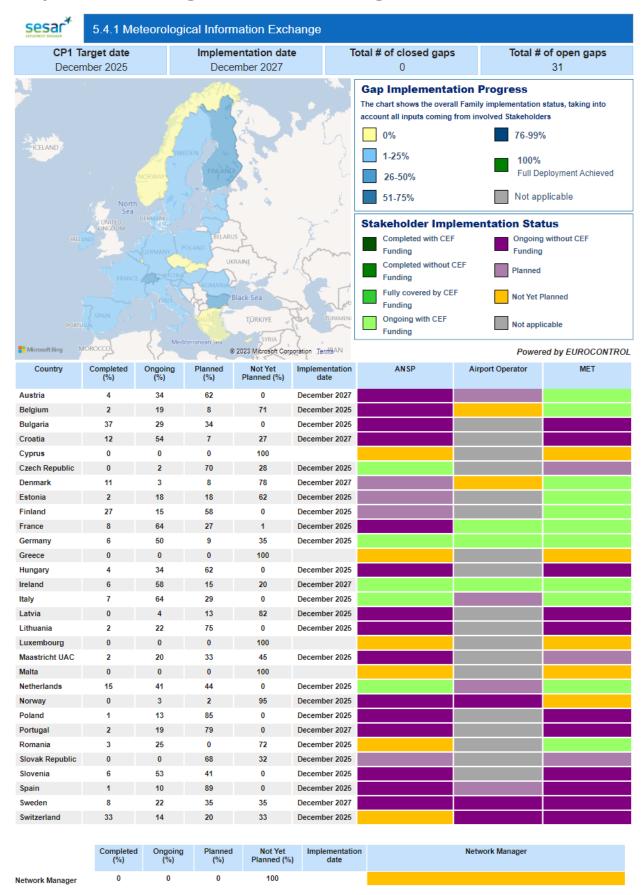


Family 5.3.1 - Aeronautical Information Exchange



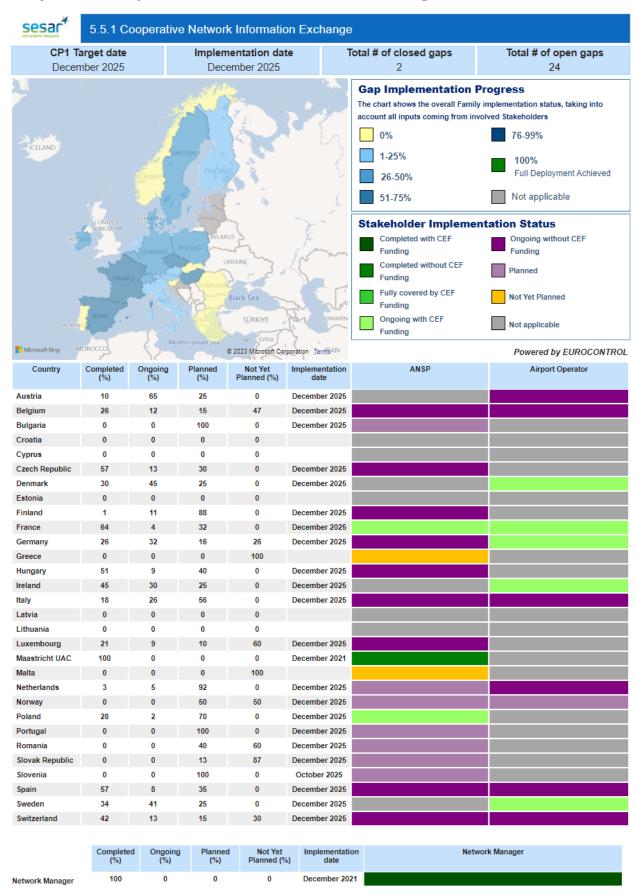


Family 5.4.1 - Meteorological Information Exchange



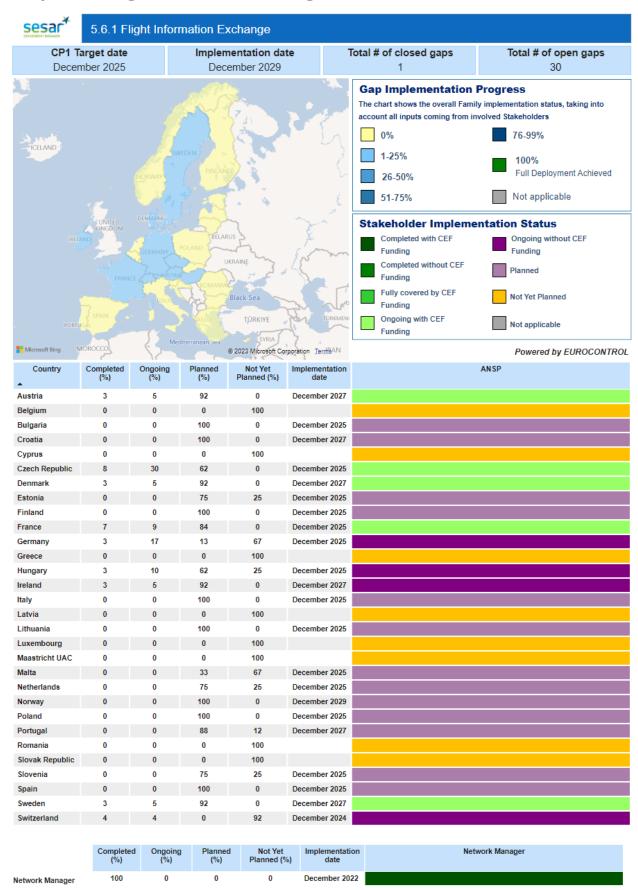


Family 5.5.1 - Cooperative Network Information Exchange





Family 5.6.1 - Flight Information Exchange





AF5 - Service View

SWIM Services Implementation – Overview of deployment activities

In 2022, the awareness of the CP1 SWIM requirements increased, resulting in an increased number of countries which are now addressing the planning of SWIM deployment. Moreover, it is worth noting that the number of available SWIM Services is increasing within the European SWIM registry which now contains more than 50 SWIM services implemented across Europe.

Such services are made available mainly by Network Manager and Met Providers. Furthermore, promising multi-stakeholders Implementation Project proposals have been submitted to CINEA in the context of CEF Call 2022, aiming at implementing Aeronautical Information Features Exchange service, Digital NOTAM service and Digital Aerodrome Mapping information Exchange service in several EU countries, mitigating their limited progress to date. Starting from 2023, it is expected that the Stakeholders start the consumption of the implemented services benefitting of enhanced data and information. The CEF funded projects and the convergence on main SWIM requirements are expected to accelerate the deployment of SWIM in Europe.

The following main facts can be highlighted for the various AF5 Families dealing with SWIM services:

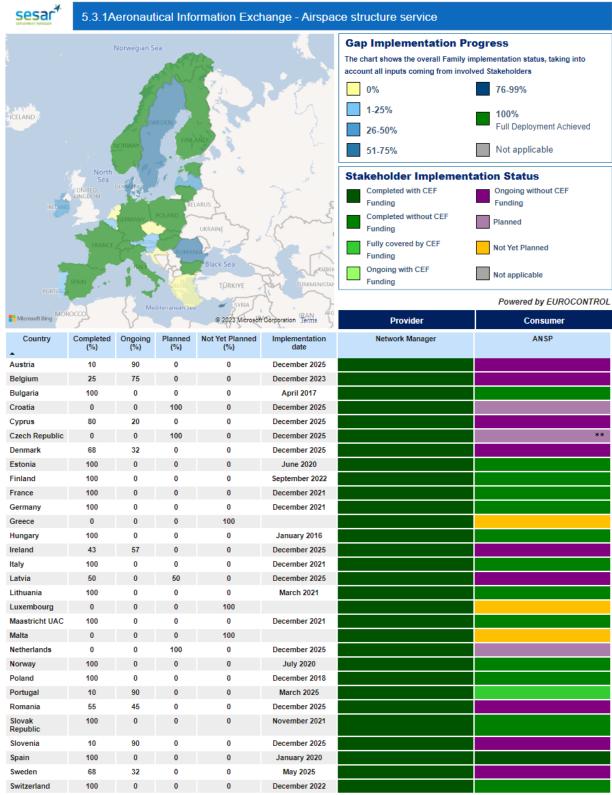
- Family 5.3.1 Aeronautical Information Exchange, thanks to a collaborative effort in the Aeronautical Information SWIM service Subgroup (A3SG), the definition and description of the services to be deployed have progressed significantly. Moreover, the reported progress is expected to increase benefitting of the ACADIA Implementation Project proposal, submitted in the frame of 2022 CEF Call 2022 proposal, led by Eurocontrol, and contributed by a wide number of implementing partners. This project will support the Stakeholders reaching the implementation deadline.
- **Family 5.4.1 Meteorological Information Exchange** is steadily progressing by MET service providers; in fact, a number of SWIM services are already published in the SWIM registry, whereas the consumption of those MET services shows low progress. Stakeholder's ATM systems shall be upgraded to achieve the required capability to consume digital MET information'. It is worth noting that the translation of digital data into legacy TAC format brings no benefits for ATM modernisation and is not in line with SWIM concept. This issue was addressed together with EUROCONTROL to provide joint support to the MET community. According to the SDP short term deployment approach, the implementation of this Family is a priority, therefore the Meteorological SWIM service Subgroup (MET3SG) is working on the definition of a common initiative for the SWIM MET deployment across Europe to be submitted in the potential upcoming CEF Call.
- 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 still relying on data exchange granted by NM CHMI tool, in view of a future transition into SWIM service-oriented data exchange.
- Family 5.6.1 Flight Information Exchange, implementation of all mandated services was completed by NM (as service provider). However, the consumption of those services is currently very limited. It has to be noted that this Family is the most complex because it requires transition from ICAO FPL2012 to FF-ICE flight plan (eFPL) and impacts the ATC systems. Europe is pioneering the deployment of FF-ICE concept starting with Release 1. This transition foresees multistakeholders' involvement (NM, AUs, ANSPs) from flight plan origination to its distribution to impacted ATSU. ANSPs are expected to perform changes in ATC operations, procedures and upgrade of their ATM systems. In fact, legacy ATM systems are not capable to process eFPL data, and ANSPs have started to procure new ATM system and reported progress status as planned. An implementation roadmap to support the timely implementation of this Family will be elaborated together with the mandated stakeholders during 2023 in the remit of the FF-ICE support initiative. Moreover, SDM in collaboration with Network Manager is launching, in view of a potential 2023 CEF Call, an FF-ICE deployment initiative in line with the prioritisation of SDP Family 5.6.1 in the SDP Short-Term Deployment Approach. It is worth highlighting that in December 2022, Lufthansa



performed the first pioneering flight, ever globally filling an eFPL in operations, thanks to the implementation of CP1.

Family 5.3.1 - Services

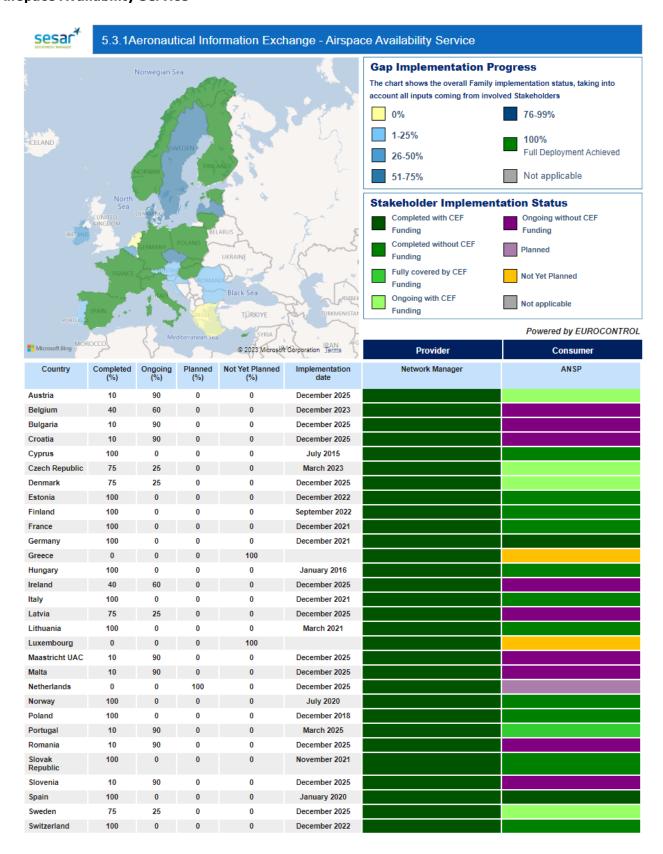
Airspace Structure Service





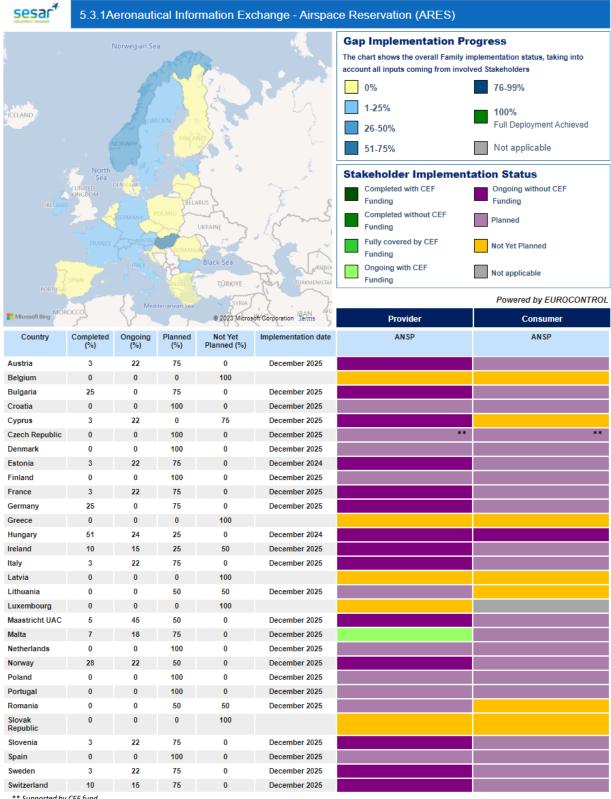


Airspace Availability Service





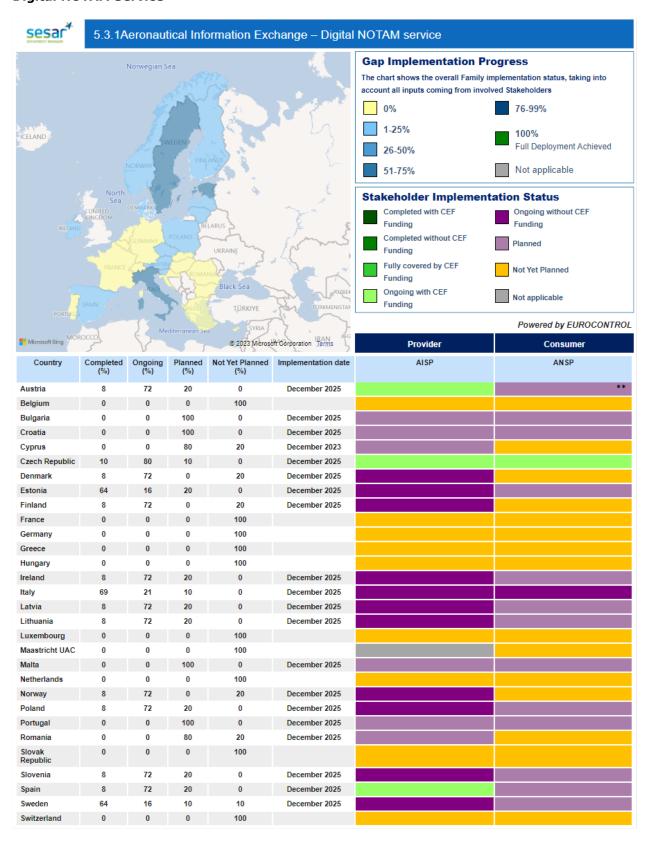
Airspace Reservation (ARES) Service





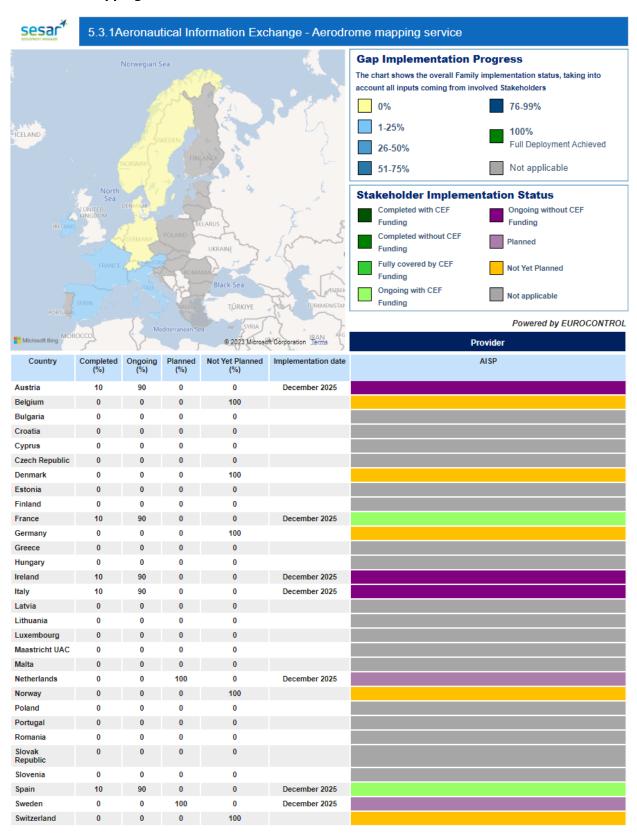


Digital NOTAM Service



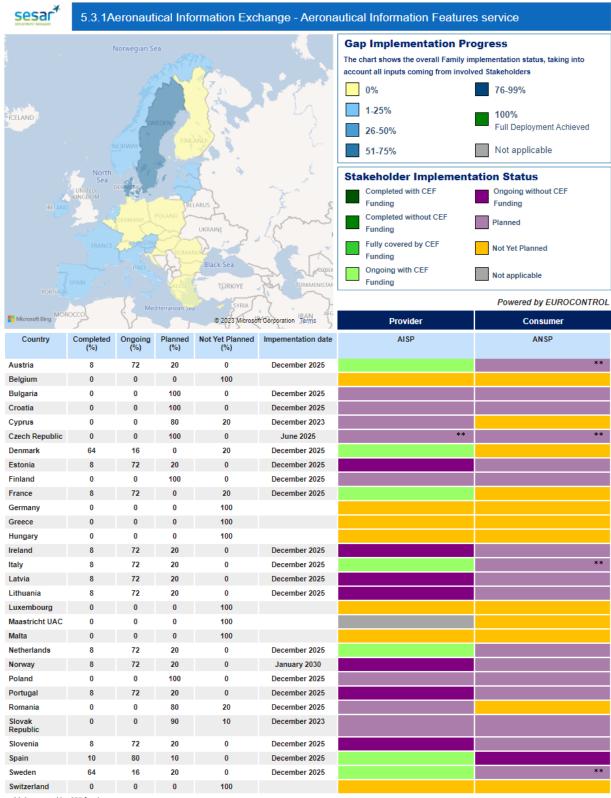


Aerodrome Mapping Service





Aeronautical Information Features Service

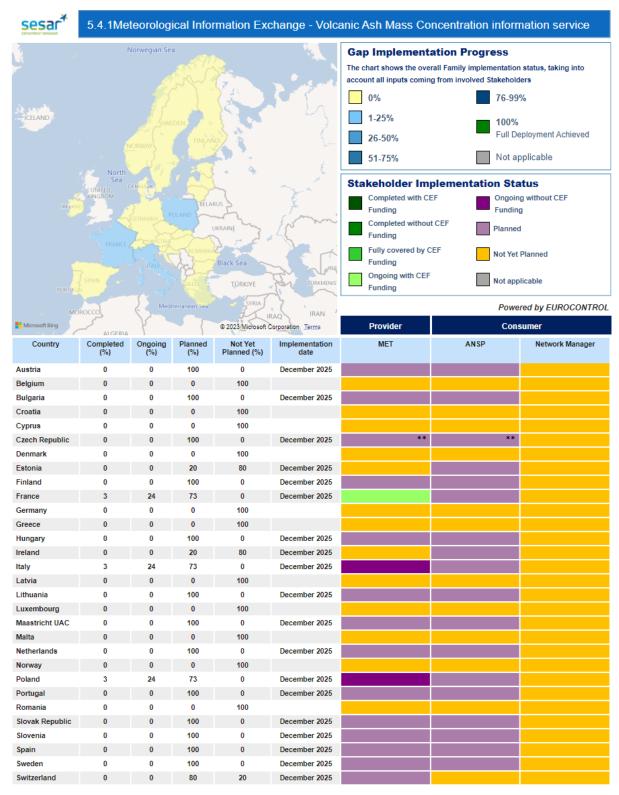






Family 5.4.1 - Services

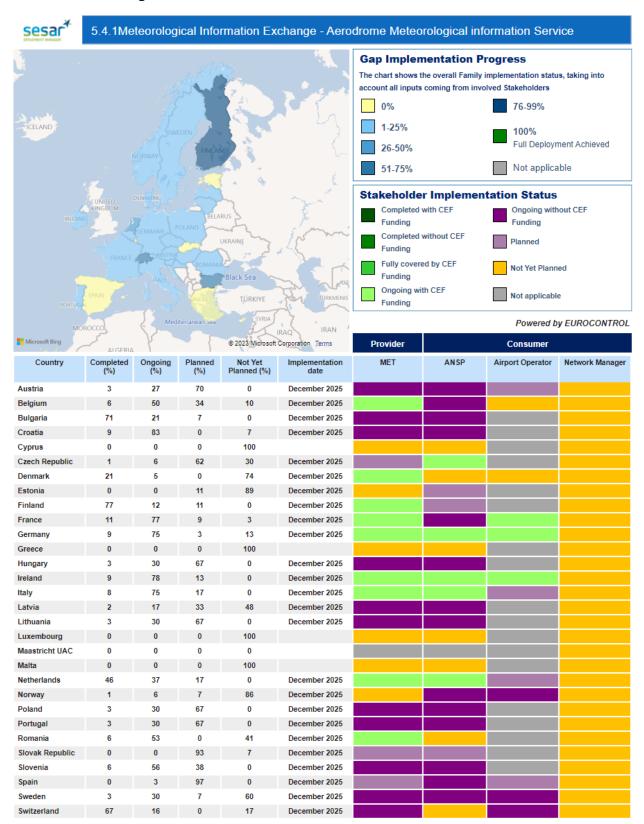
Volcanic Ash Mass Concentration Information Service



^{**} Supported by CEF fund

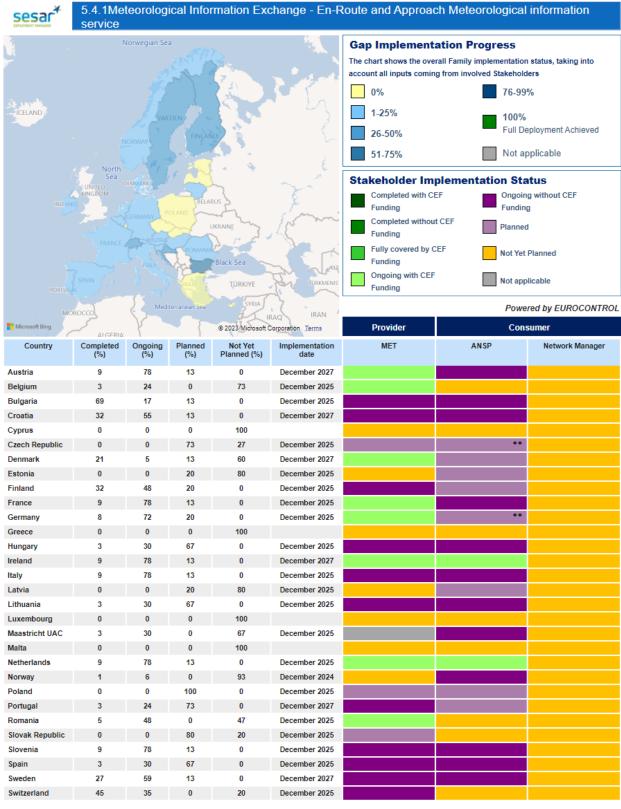


Aerodrome Meteorological Information Service





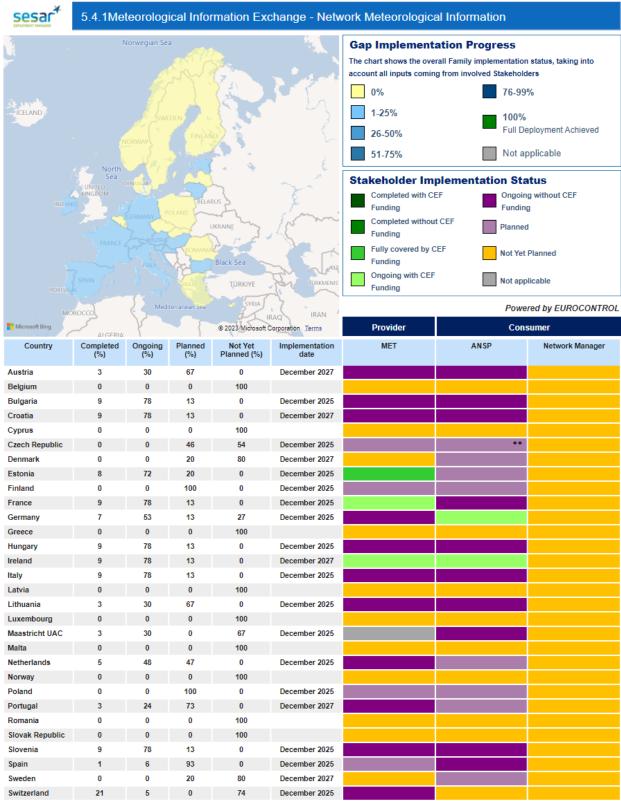
En-Route and Approach Meteorological information Service



^{**} Supported by CEF fund



Network Meteorological Information Service

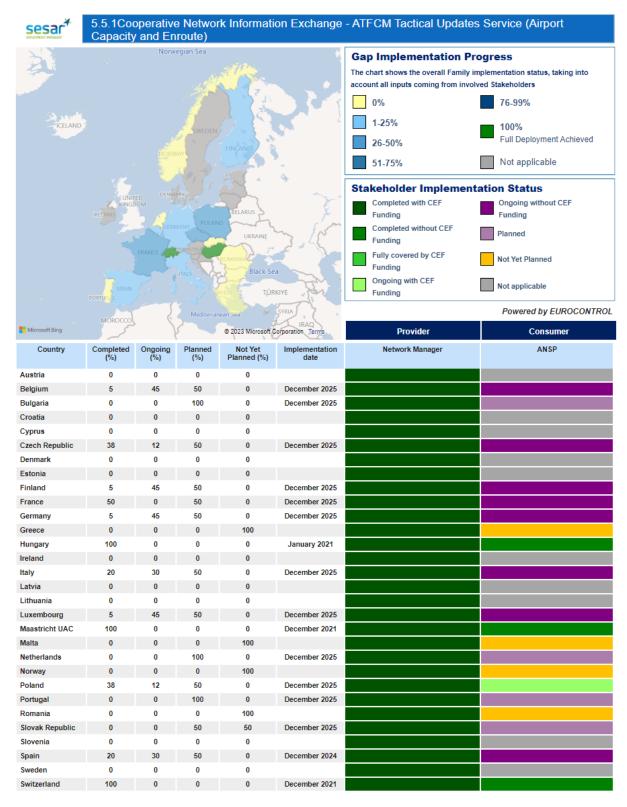


^{**} Supported by CEF fund



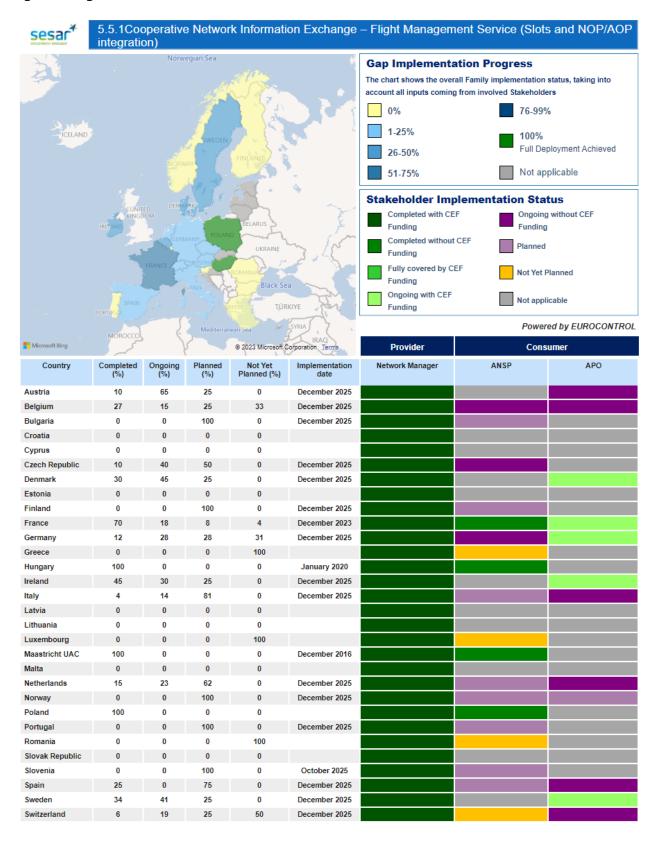
Family 5.5.1 - Services

ATFCM Tactical Updates Service (Airport Capacity and Enroute)



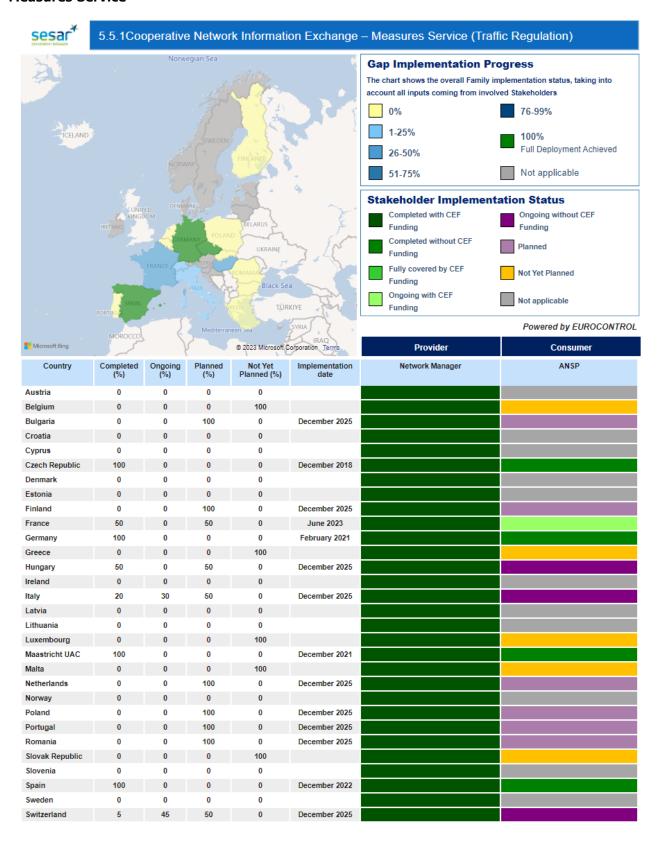


Flight Management Service



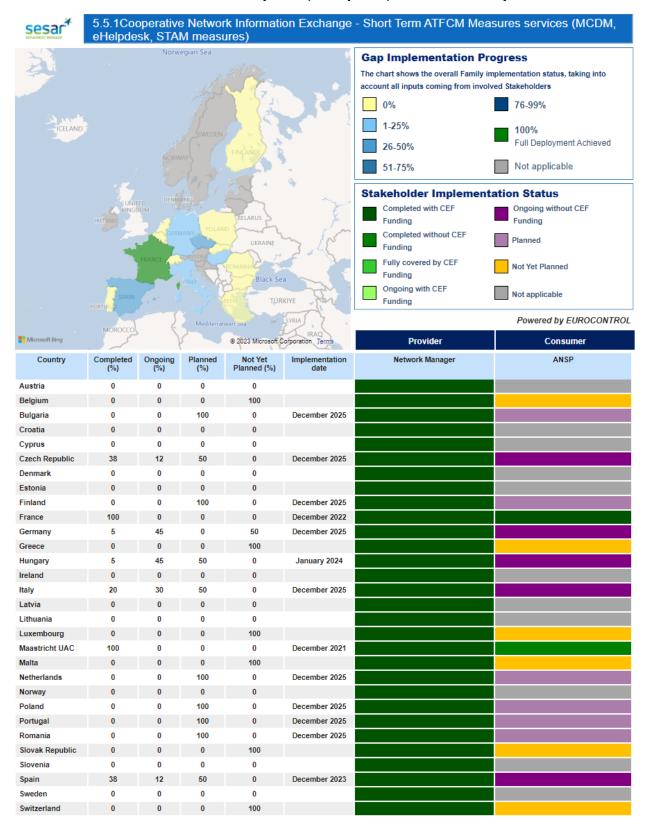


Measures Service



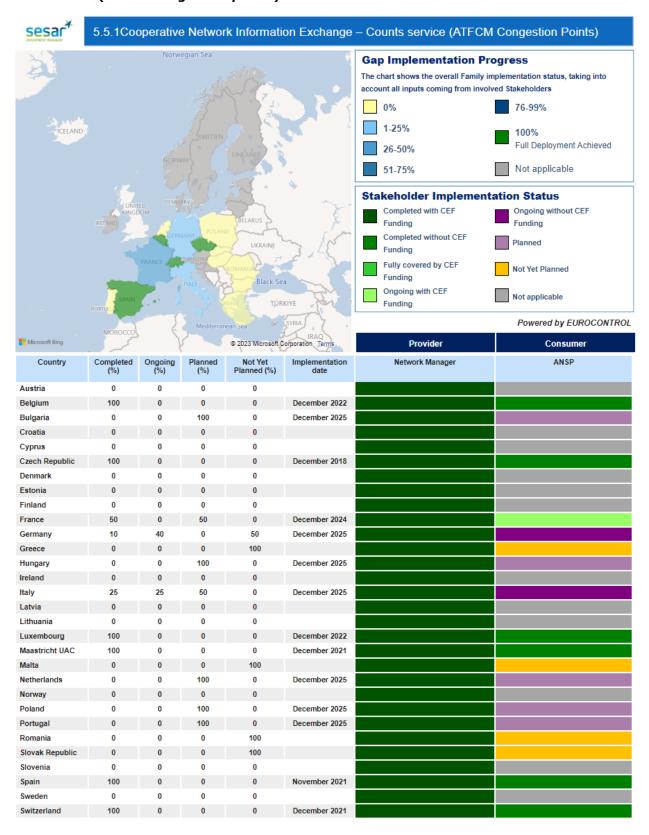


Short Term ATFCM Measures Services (MCDM, eHelpdesk, STAM measures)





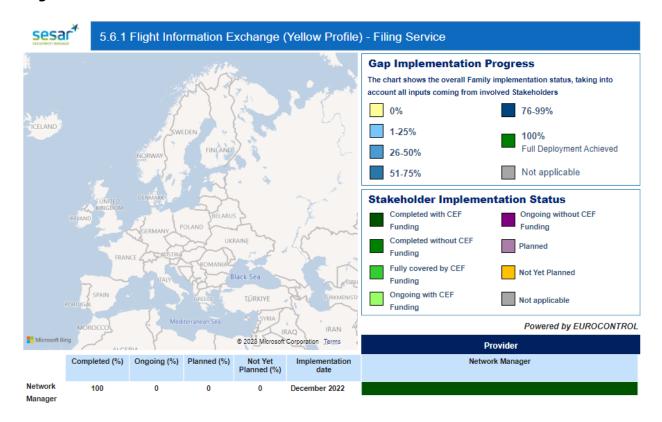
Counts Service (ATFCM congestion points)





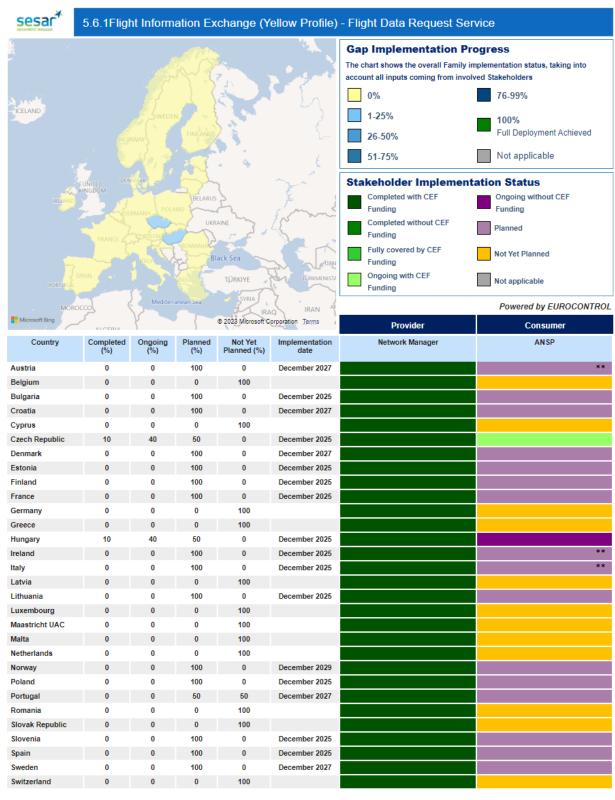
Family 5.6.1 - Services

Filing Service





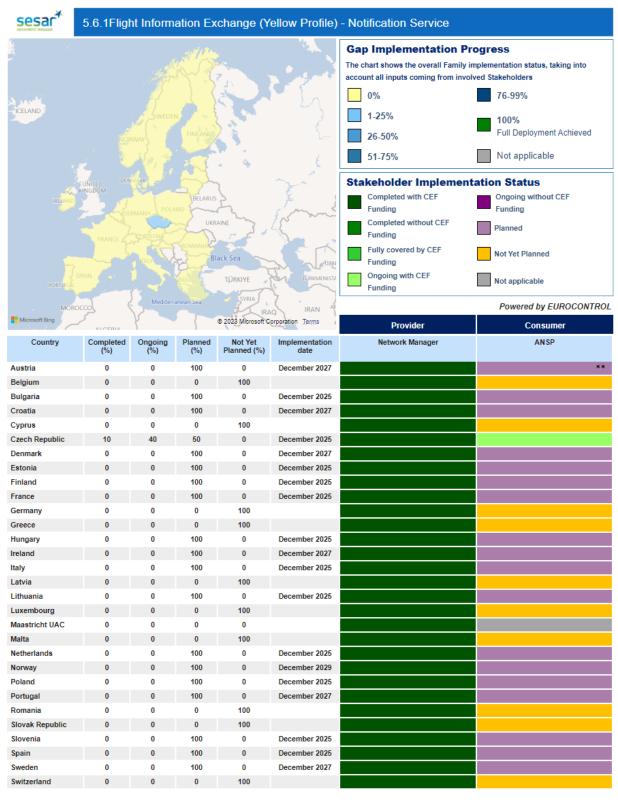
Flight Data Request Service



^{**} Supported by CEF fund



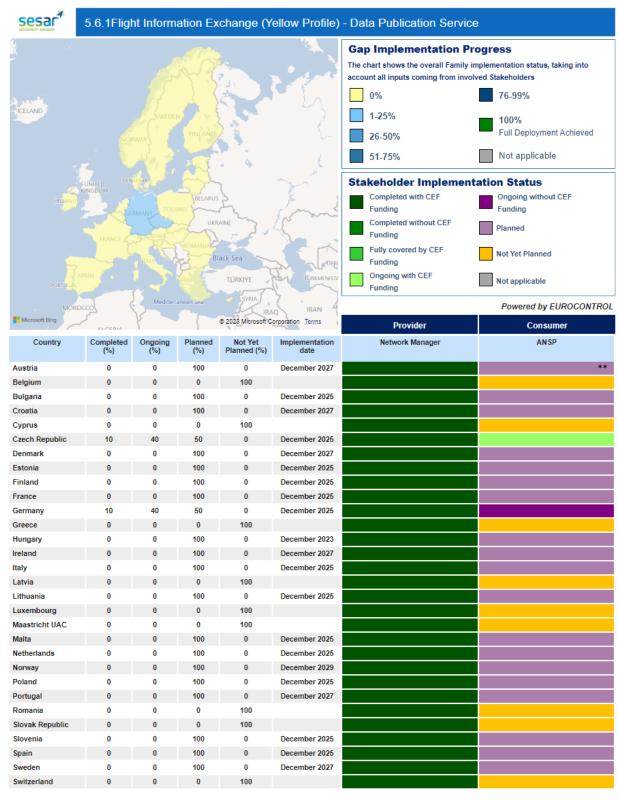
Notification Service



^{**} Supported by CEF fund



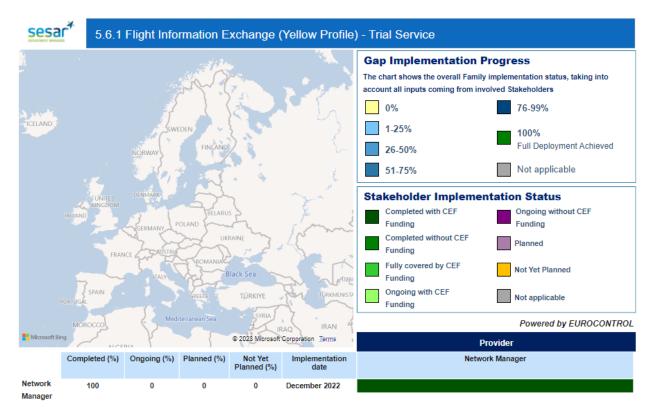
Data Publication Service



^{**} Supported by CEF fund

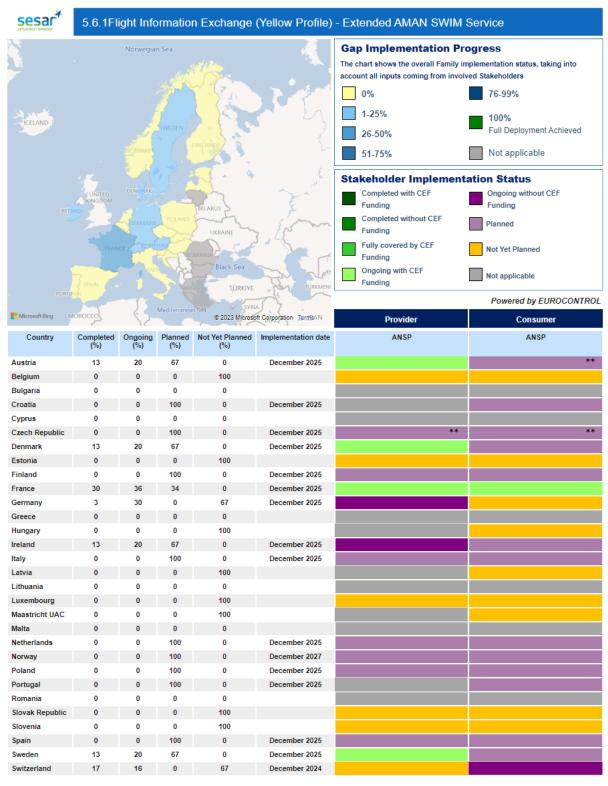


Trial Service





Extended AMAN SWIM Service



^{**} Supported by CEF fund



Outlook on CP1 deployment for Airspace Users

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

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

Since the establishment of dedicated surveys in 2015, several airlines – including major European hub carriers and point-to-point carriers – also thanks to the support provided by IATA, 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
 - whereas the consumption of the "Airspace Structure Service", "Aerodrome Mapping Service", "Aeronautical Information Feature Service" and "Digital NOTAM Service" is recommended;
- Family 5.4.1 Meteorological Information Exchange, where the consumption of the "Volcanic Ash Mass Concentration Information Service", "Aerodrome Meteorological information Service", "Enroute and Approach Meteorological information Service" and "Network Meteorological Information Service" is recommended;
- Family 5.5.1 Cooperative Network Information Exchange. In particular, AU systems shall be upgraded to use the NM B2B Services in order to:
 - consume Flights updates Including ATFCM Slots provided via Flight Management Service
 - 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
 - whereas the consumption of the "Trial Service" is recommended;
- 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

In 2021, due to the COVID-19 crisis and the difficulties faced by the Airspace Users in providing relevant information to the survey, a different approach was followed that year to alleviate their reporting efforts, by simplifying and reorganising the survey. The collection of data and information from EU-headquartered airlines was organised around the distribution and collection of individual renovated monitoring templates



to make sure CP1-relevant data is requested, featuring all technical and operational information to allow an easy completion. The same approach has been undertaken this year, thus allowing a delta analysis between 2021 and 2022 reports.

This database is planned to be kept constantly updated through the continuous synchronisation activities and monitoring of the Programme implementation, also taking into duly account the inputs stemming from the military side, gathered through the support of EDA.

Results

The airline feedback on the Monitoring Exercise has been scarce. Airlines confirmed, that with the intense restart activities and being still short in staff, there is beside the operation ramp-up and CP1 implementation activities no available capacity for reporting tasks. The Airspace Users Monitoring Exercise resulted in the reception of 18 feedbacks, 13 from Civil and 5 from Military Airspace Users, representing a fleet of 1443 Civil and 66 Military transport type aircraft.

Because of the low number of responding airlines and the low number of represented aircraft, it has to be noted that the presented data cannot be seen as fully representative, although some important considerations can be made.

In fact, all the respondents highlighted considerable progress in the implementation of STAM (Family 4.1.1), having set up procedures (automatic or manual) to monitor the validity of the flight plan with regard to any mandatory rerouting or modification of slot.

Furthermore, the implementation of SWIM services started to be addressed. Specifically, the implementation of the following services is reported Completed or Ongoing with implementation dates compliant with CP1:

- Airspace Availability and the Aeronautical Information Feature services (Family 5.3.1)
- Flight Management and Short term ATFCM measures services (Family 5.5.1)

However, it is worth noting that one operator reported the CP1 target date (31st December 2025) of the services in Family 5.6.1 (Filing service and Trial service), to be ambitious, since it seems that the actual solution proposed by the CFSP is not able to support all operations and could not be timely deployed.

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

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

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

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



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

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

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

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

overview of the status of the implementation gaps for the country, differentiating between those
which have already been closed, those which are 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):
- Completed, i.e. what has been already deployed:
 - Ongoing, i.e. the percentage of the Family covered by ongoing
 - percentage of the Family planned to be covered by future initiatives:

activities:

- Not yet planned, i.e. the percentage of the Family
- for which no specific plan has been elaborated;
- Implementation date of the Family deployment;

1.1.1

1.1.1

1.1.1

1.2.1

2.1.1

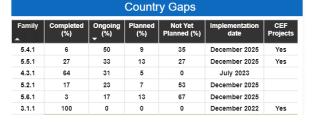
o *CEF projects,* illustrating whether one or more SDM-coordinated projects contribute to the deployment of the Family (if *Yes*).

The same logic applies for both Country and Airport gaps.

Furthermore, the table at the bottom of each chart lists the SDMcoordinated and EUfunded Implementation

List of CEF-funded initiatives awarded to Stakeholders				
Reference Number	CEF Project Title	Implementing Partners	Closed	
#006AF5	ATM Data Quality (ADQ)	Austro Control	0	
#007AF1	Performance Based Navigation (PBN) implementation in Vienna (LOWW)	Austro Control	0	
#008AF2	External Gateway System (EGS) implementation	Austro Control	0	
#009AF5	Integrated Briefing System New (IBSN)	Austro Control	0	
#011AF2	Collaborative Decision Management (CDM) fully implemented	Austro Control		

Projects which directly involve Stakeholders operating within the relevant country. The closed projects are also duly highlighted.



December 2017

May 2018 December 2024

December 2024

Yes

81

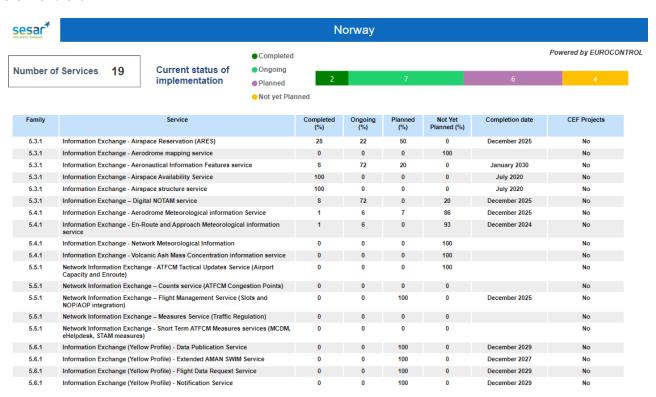
Airport Gaps

15



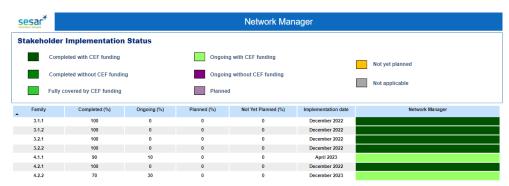
Service View

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

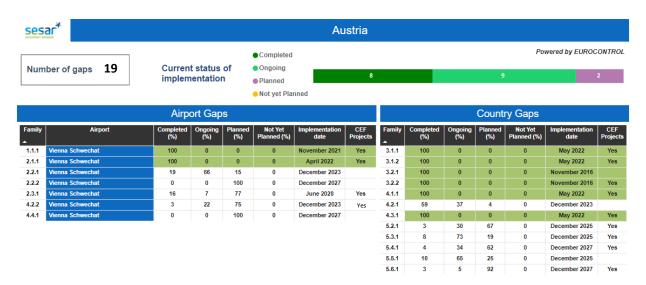
In addition to the section included at the bottom of the chart of each Family applicable, the contribution of Network Manager to the overall CP1 implementation is summarised in a dedicated view.



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.

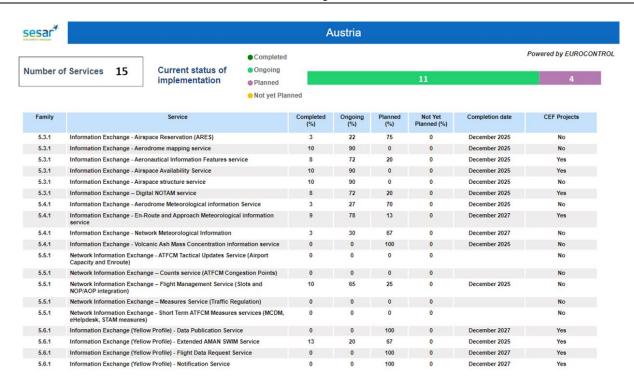


Austria



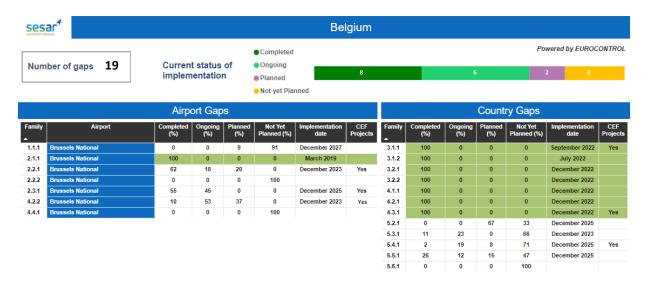
Reference Number	CEF Project Title	Implementing Partners	Closed
006AF5	ATM Data Quality (ADQ)	Austro Control	⊘
007AF1	Performance Based Navigation (PBN) implementation in Vienna (LOWW)	Austro Control	Ø
008AF2	External Gateway System (EGS) Implementation	Austro Control	Ø
009AF5	Integrated Briefing System New (IBSN)	Austro Control	Ø
011AF2	Collaborative Decision Management (CDM) fully implemented	Austro Control	0
102AF3	Free route airspace from the Black Forest to the Black Sea	Austro Control	0
015_021_AF4	Slot Manager for PCP airports	Sabre	0
015_106_AF4	Flight evolution and upgrade of interfaces with NM stakeholders	Sabre	Ø
015_107_AF3	NM Systems upgrades in support of DCTs and FRA	Sabre	0
015_110_AF4	STAM Phase 2 (NM)	Sabre	0
015_114_AF4	Implementation of Target Times for ATFCM purposes (NM)	Sabre	0
015_174_AF5_A	NewPENS Stakeholders contribution for the procurement and deployment of NewPENS - Part A: General Call	Austro Control	Ø
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	0
015_220_AF2	AF2_MET-Compliance-Programme	Austro Control	Ø
015_230_AF5	AF5 AIM Compliance Programme	Austro Control	
015_231_AF5	METSW-DB PCP Evolution	Austro Control	Ø
015_232_AF2	TBS4LOWW (Time Based Separation for Vienna Airport)	Austro Control	
015_234_AF1_A	AMAN LOWW initial	Austro Control	Ø
015_234_AF1_B	AMAN LOWW initial	Austro Control	Ø
015_236_AF3	VHF Concept Implementation 2020	Austro Control	
016_027_AF5	European Deployment Roadmap for Flight Object Interoperability	Austro Control	Ø
016_075_AF3_A	FAB CE wide Study of DAM and STAM - General Call	Austro Control	Ø
016_134_AF3	Implementation of rolling ASM/ATFCM	Sabre	0
016_141_AF5	Deploy SWIM governance	Austro Control	Ø
016_147_AF1	RNP APCH RWY 29 Vienna	Austro Control	Ø
016_149_AF5	Austro Control iSWIM Capability Infrastructure	Austro Control	Ø
016_159_AF6	DLS Implementation Project - Path 2	Austro Control	Ø
016_161_AF6	DLS Implementation Project - Path 1 Ground stakeholders	Austro Control	Ø
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	0
017_056_AF5	Towards Shared Business Trajectory / Trajectory Based Operations	Sabre	
017_058_AF2	ITWP4LOWW (Integrated Tower Working Position for Vienna Schwechat)	Austro Control	Ø
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	0
017_089_AF6	IP1 - DLS European Target Solution assessment	Austro Control	





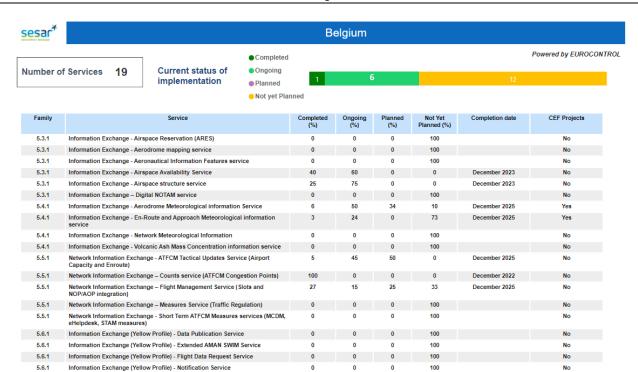


Belgium



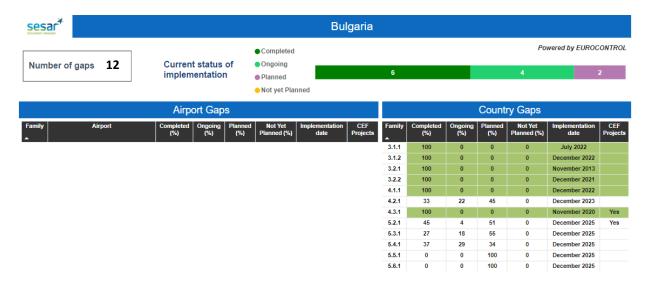
Reference Number	CEF Project Title	Implementing Partners	Closed
#013AF1	Implementation of RNP Approaches with Vertical Guidance at the Belgian civil aerodromes within the Brussels TMA	skeyes	Ø
#014AF5	MPLS WAN Project	skeyes	Ø
#015AF3	LARA integration in CANAC 2	skeyes	
#016AF5	Initial WXXM Implementation on Belgocontrol systems	skeyes	Ø
#018AF2	Enhancement of Airport Safety Nets for Brussels Airport (EBBR)	skeyes	
#022AF2	Vehicle Tracking System (VTS)	BAC	0
2015_021_AF4	Slot Manager for PCP airports	BAL	
2015_067_AF5	European Weather Radar Composite of Convection Information Service	EUMETNET	0
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	Ø
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	Ø
2015_245_AF2	AIRSTAT	BAC	
2016_131_AF4	AOP-NOP Integration - Extended Implementation	BAC	
2016_141_AF5	Deploy SWIM governance	EUMETNET	
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.	Ø
2017_022_AF2	Synchronised stakeholder decision on process optimisation at airport level	BAC	
017_022_AF2	Synchronised stakeholder decision on process optimisation at airport level	skeyes	
2017_062_AF4	Traffic Complexity Assessment and Simulations Tool – TCAST	skeyes	
2017_084_AF5	SWIM Common PKI and policies & procedures for establishing a Trust framework	skeyes	Ø



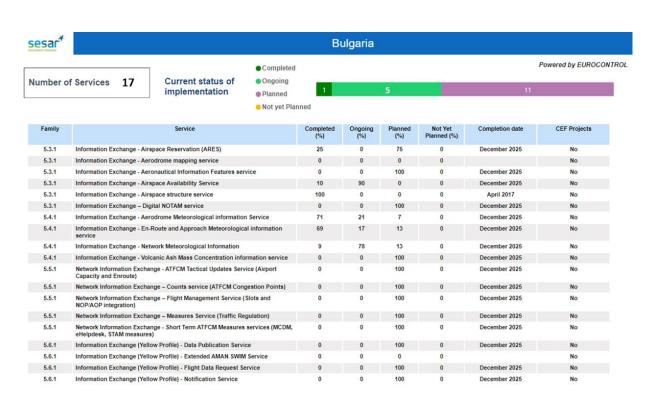




Bulgaria

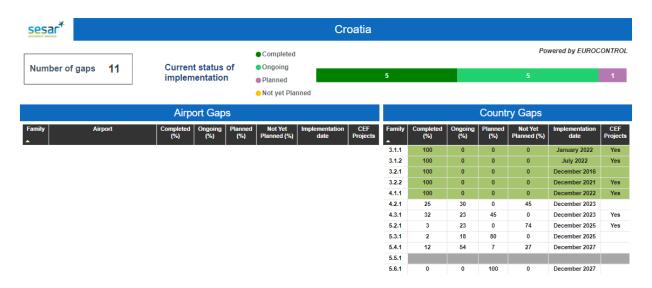


List of CEF-funded initiatives awarded to Stakeholders					
Reference Number	CEF Project Title	Implementing Partners	Closed		
2015_174_AF5_B	NewPENS Stakeholders contribution for the procurement and deployment of NewPENS - Part B: Cohesion Call	BULATSA	Ø		
2015_217_AF4	tCAT implementation in Sofia ACC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



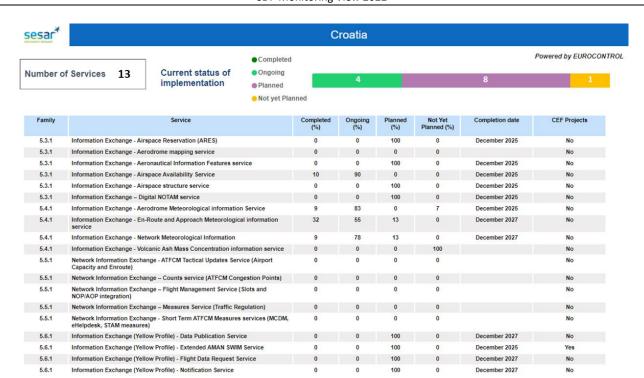


Croatia



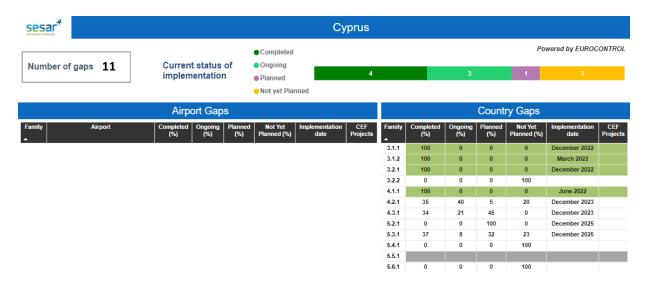
Reference Number	CEF Project Title	Implementing Partners	Closed
#102AF3	Free route airspace from the Black Forest to the Black Sea	Croatia Control	□
2015_047_AF5	Modernisation of IP based G/G Data Network in CCL - CaRT//WAN-NG	Croatia Control	0
2015_049_AF5	CCL cyber security architecture - ExCO-NG	Croatia Control	Ø
2015_050_AF3	SIMULATION AND IMPLEMENTATION OF SEAFRA H24	Croatia Control	Ø
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	Ø
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	Ø
2016_027_AF5	European Deployment Roadmap for Flight Object Interoperability	Croatia Control	Ø
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	
2016_075_AF3_B	FAB CE wide Study of DAM and STAM - Cohesion Call	Croatia Control	Ø
2016_159_AF6	DLS Implementation Project - Path 2	Croatia Control	Ø
2016_161_AF6	DLS Implementation Project - Path 1 Ground stakeholders	Croatia Control	Ø
2017_066_AF5	Implementing harmonised SWIM (Y) solution in COOPANS ANSPs and general PCP compliance	Croatia Control	
2017_089_AF6	IP1 - DLS European Target Solution assessment	Croatia Control	Ø

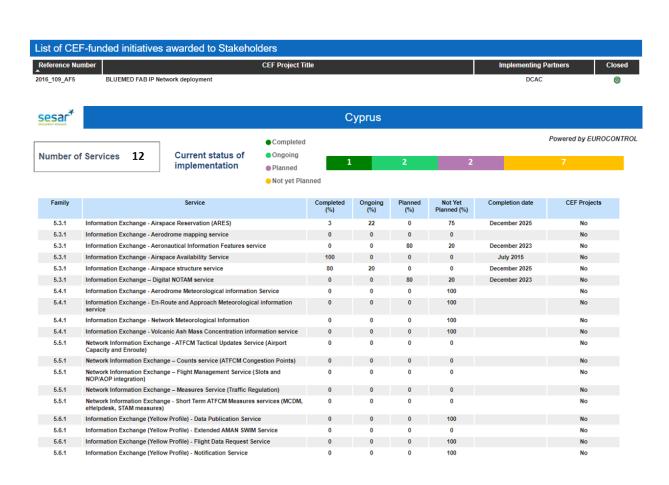






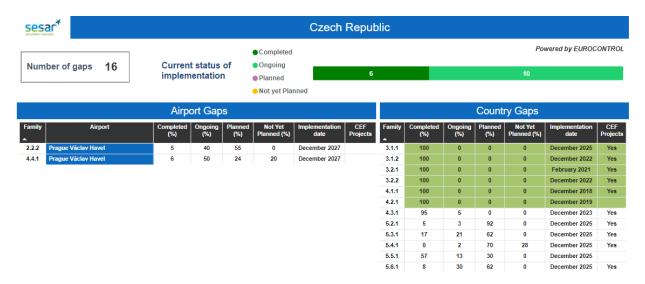
Cyprus





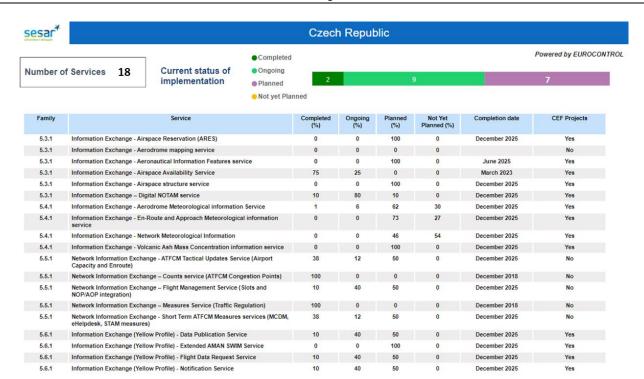


Czech Republic



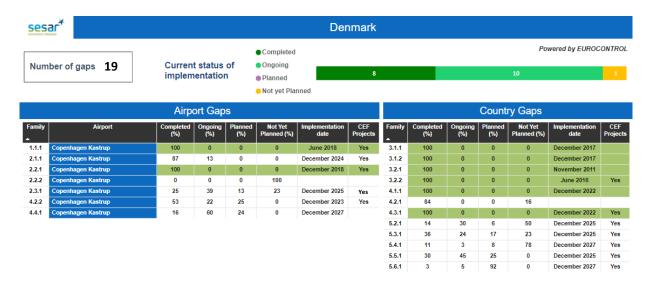
List of CEF-funded initiatives awarded to Stakeholders					
Reference Number	CEF Project Title	Implementing Partners	Closed		
#102AF3	Free route airspace from the Black Forest to the Black Sea	ANS CR	Ø		
2015_145_AF5_B	AIM Deployment Toolkit	ANS CR	Ø		
2015_174_AF5_B	NewPENS Stakeholders contribution for the procurement and deployment of NewPENS - Part B: Cohesion Call	ANS CR			
2015_196_AF1_B	Extended AMAN in Czech airspace	ANS CR	Ø		
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	Ø		
2015_241_AF5	Meteorological Information Exchange Service	СНМІ			
2015_242_AF3	Free Route implementation into ATM system of ANS CR	ANS CR			
2015_243_AF5	Aeronautical Information Distribution Service	ANS CR	Ø		
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			





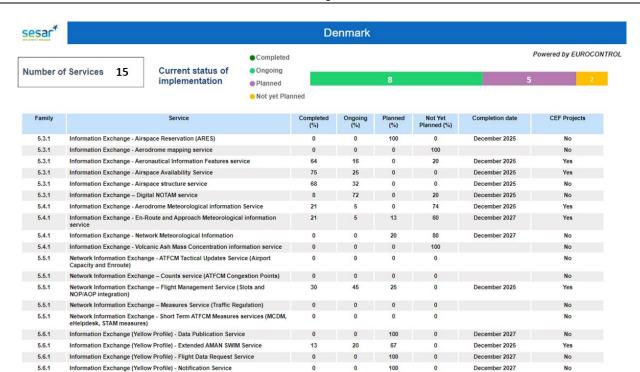


Denmark



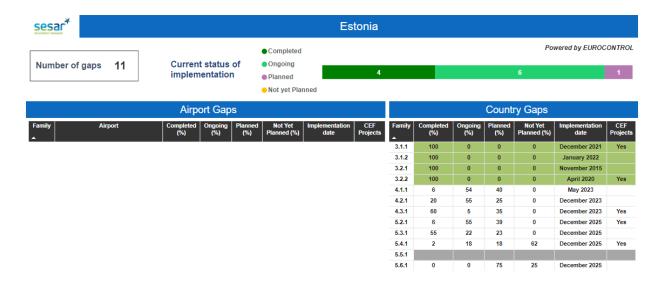
List of CEF-fun	ded initiatives awarded to Stakeholders		
Reference Number	CEF Project Title	Implementing Partners	Closed
#020AF3	Borealis Free Route Airspace (Part 1)	NAVIAIR	Ø
#103AF2	Standardization of A-SMGCS	СРН	Ø
#103AF2	Standardization of A-SMGCS	NAVIAIR	Ø
#127AF5	National WAN Infrastructure - CANDI-IP preparation project	NAVIAIR	8
2015_025_AF5_A	Sub-regional SWIM MET deployment to support NEFRA (part A)	DMI	
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	Ø
2015_044_AF2	Implementation of initial DMAN and AOP at Copenhagen Airport	NAVIAIR	Ø
2015_045_AF5	AF5 i SWIM	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	Ø
2015_131_AF5	CANDI-IP (execution phase)	NAVIAIR	Ø
2015_132_AF3	VoIP Programme	NAVIAIR	
2015_174_AF5_A	NewPENS Stakeholders contribution for the procurement and deployment of NewPENS - Part A: General Call	NAVIAIR	Ø
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)	NAVIAIR	Ø
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	Ø
2016_141_AF5	Deploy SWIM governance	СРН	
2016_150_AF2_GND	Enablers for Airport Surface Movement related to Safety Nets	СРН	
2016_150_AF2_GND	Enablers for Airport Surface Movement related to Safety Nets	NAVIAIR	
2017_022_AF2	Synchronised stakeholder decision on process optimisation at airport level	СРН	
2017_026_AF5	PKI and Cybersecurity	CPH	
2017_060_AF5	ADQ Components in the SWIM Infrastructure - upstream data inclusion in the full data chain solution - ANSP and Airport	NAVIAIR	
2017_066_AF5	Implementing harmonised SWIM (Y) solution in COOPANS ANSPs and general PCP compliance	NAVIAIR	
2017_084_AF5	SWIM Common PKI and policies & procedures for establishing a Trust framework	СРН	Ø
2017_084_AF5	SWIM Common PKI and policies & procedures for establishing a Trust framework	NAVIAIR	Ø



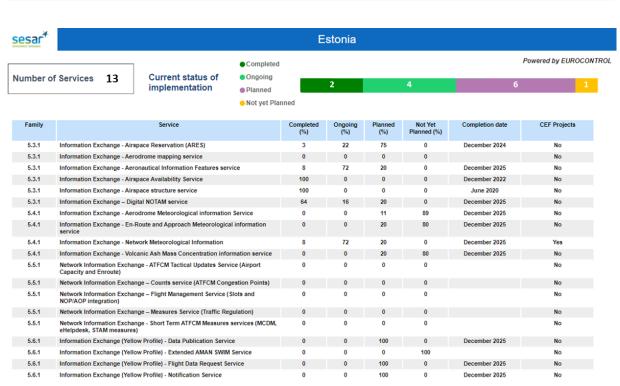




Estonia

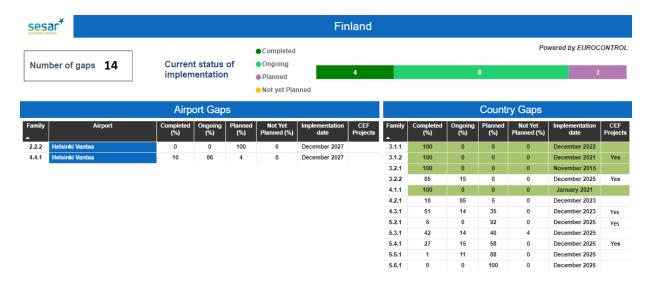


List of CEF-funded initiatives awarded to Stakeholders					
Reference Number	CEF Project Title	Implementing Partners	Closed		
#020AF3	Borealis Free Route Airspace (Part 1)	EANS	Ø		
#056AF3	ASM tool Implementation	EANS	Ø		
2015_025_AF5_B	Sub-regional SWIM MET deployment to support NEFRA (part B)	ESTEA	Ø		
2015_227_AF3_B	Borealis FRA Implementation (Part 2)	EANS	Ø		
2016_159_AF6	DLS Implementation Project - Path 2	EANS	Ø		
2016_161_AF6	DLS Implementation Project - Path 1 Ground stakeholders	EANS	Ø		

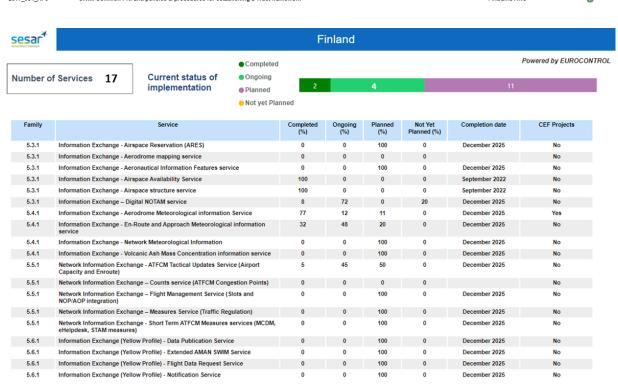




Finland



Reference Number	CEF Project Title	Implementing Partners	Closed
#020AF3	Borealis Free Route Airspace (Part 1)	Finavia	Ø
2015_025_AF5_A	Sub-regional SWIM MET deployment to support NEFRA (part A)	FMI	Ø
2015_068_AF5	European Harmonised Forecasts of Adverse Weather (Icing, Turbulence, Convection and Winter weather)	FMI	Ø
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	\otimes
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
2016_159_AF6	DLS Implementation Project - Path 2	Fintraffic ANS	Ø
2017 084 AF5	SWIM Common PKI and policies & procedures for establishing a Trust framework	Fintraffic ANS	





France

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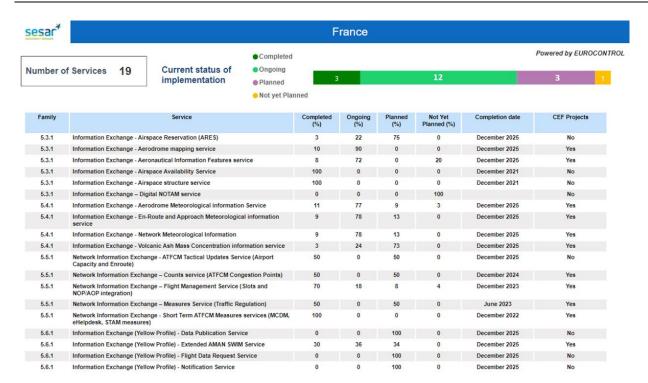
Reference Number	CEF Project Title	Implementing Partners	Closed
_	· ·		
#023AF2	SMAN-Vehicle	ADP	Ø
#024AF2	SAIGA	ADP	
025AF2	TSAT to the Gate	ADP	Ø
t026AF2	Evolutions CDM - CDG	ADP	
t027AF2	SMAN-Airport	ADP	
t030AF2	Equipment of ground vehicles to supply the A-SMGCS	Côte d'Azur	
t031AF2	Data exchanges with the Air Navigation Service Provider	Côte d'Azur	
t032AF2	Data exchanges with the Network Manager Operations Center	Côte d'Azur	
#033AF2	Data exchanges with COHOR	Côte d'Azur	
#048AF2	SYSAT@CDG	DSNA	
050AF2	SY SAT@ORY	DSNA	\otimes
¢051AF1a	RNP Approaches at CDG Airport with vertical guidance (Part A)	Air France	
051AF1a	RNP Approaches at CDG Airport with vertical guidance (Part A)	DSNA	0
051AF1b	RNP Approaches at CDG Airport with vertical guidance (Part B)	Air France	Ø
053AF3	4-Flight deployment in DSNA pilot ACCs	DSNA	Ø
054AF2	CDG 2020 Step1	Air France	Ø
054AF2	CDG 2020 Step1	DSNA	0
067AF5	Coflight-eFDP System Development	DSNA	0
129AF2	CDM-ORLY	ADP	0
130AF2	BOREAL-Orly	ADP	0
015_021_AF4	Slot Manager for PCP airports	Sabre France	0
015_062_AF3_Phase_I	4-Flight Deployment in PARIS Area - Phase I	DSNA	0
015_067_AF5	European Weather Radar Composite of Convection Information Service	Météo FR	0
015_068_AF5	European Harmonised Forecasts of Adverse Weather (Icing, Turbulence, Convection and Winter weather)	Météo FR	0
015_069_AF5	European MET Information Exchange (MET-GATE)	Météo FR	0
015_073_AF1	AMAN upgrade for extended horizon at DSNA airports	ADP	0
015_073_AF1	AMAN upgrade for extended horizon at DSNA airports	Air France	0
015_073_AF1	AMAN upgrade for extended horizon at DSNA airports	DSNA	0
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	0
015 106 AF4	Flight evolution and upgrade of interfaces with NM stakeholders	Sabre France	0
015_107_AF3	NM Systems upgrades in support of DCTs and FRA	Sabre France	0
2015 110 AF4	STAM Phase 2 (NM)	Sabre France	0
015_113_AF4	AOP-NOP Integrations	ADP	9
015 114 AF4	Implementation of Target Times for ATFCM purposes (NM)	Sabre France	0
015_114_AF4	Initial AirPort Operational Centre (iAPOC)	ADP	0
015_133_AF2	Initial AirPort Operational Centre (IAPOC)	Air France	0
015_133_AF2	Initial AirPort Operational Centre (IAPOC)	DSNA	0
015_135_AF2	CDG and ORLY - Initial Airport Operational Plan (AOP)	ADP	9
2015_135_AF2 2015_135_AF2	CDG and ORLY - Initial Airport Operational Plan (AOP) CDG and ORLY - Initial Airport Operational Plan (AOP)	AIP AIr France	
		AIF France	
2015_139_AF1 2015_139_AF1	GEOGRAPHIC DATABASE - AIM TOOL GEOGRAPHIC DATABASE - AIM TOOL	DSNA	





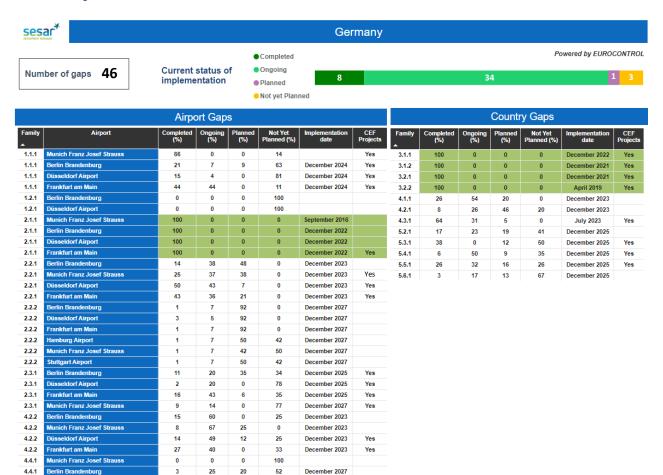
	Not yet Planned		
t -t CEE touris	distriction accorded to Challete Ideas		
	d initiatives awarded to Stakeholders		
eference Number	CEF Project Title	Implementing Partners	Closed
2015_174_AF5_A	NewPENS Stakeholders contribution for the procurement and deployment of NewPENS - Part A: General Call	DSNA	(
2015_196_AF1_A	XMAN - Cross-centre arrival management	DSNA	(
2015_247_AF3	4Flight deployment in military En-route ACC (CMCC)	DGA	
2015_249_AF5	PATRUS (Secured real time gateway) for data exchange between civil and military systems	DGA	
2016_023_AF1	XMAN - Cross-centre arrival management - Part 2 (CEF2016)	DSNA	
2016_027_AF5	European Deployment Roadmap for Flight Object Interoperability	DSNA	-
2016_055_AF3	FR_Upgrade of French Military Control and Reporting Centres (CRC) for civil/military interoperability	DGA	(
2016_100_AF4	Provision of EFPL data and initial FF-ICE/1 readiness	Air France	
2016_121_AF3	Free Route	Air France	
2016_123_AF4	STAM Phase 2 in combination with Target Times	Air France	(
2016_134_AF3 2016_134_AF3	Implementation of rolling ASM/ATFCM Implementation of rolling ASM/ATFCM	Sabre France	
2016_134_AF5 2016_141_AF5	Deploy SWIM governance	Air France	
2016_141_AF5 2016_141_AF5	Deploy SWIM governance	DGA	
2016_141_AF5	Deploy SWIM governance	DSNA	
2016_150_AF2_AIR	Enablers for Airport Surface Movement related to Safety Nets	ADP	
2016_150_AF2_AIR	Enablers for Airport Surface Movement related to Safety Nets	Air France	
2016_150_AF2_GND	Enablers for Airport Surface Movement related to Safety Nets	ADP	
2016_150_AF2_GND	Enablers for Airport Surface Movement related to Safety Nets	Air France	
2016_150_AF2_GND	Enablers for Airport Surface Movement related to Safety Nets	Côte d'Azur	
2016_150_AF2_GND	Enablers for Airport Surface Movement related to Safety Nets	DSNA	
2016_159_AF6	DLS Implementation Project - Path 2	DSNA	
2016_159_AF6	DLS Implementation Project - Path 2	ESSP	(
2016_159_AF6	DLS Implementation Project - Path 2	SITA IT Services France	
2016_159_AF6	DLS Implementation Project - Path 2	Sita SC - France	
2016_161_AF6	DLS Implementation Project - Path 1 Ground stakeholders	DSNA	
2016_161_AF6	DLS Implementation Project - Path 1 Ground stakeholders	SITA IT Services France	
2016_161_AF6	DLS Implementation Project - Path 1 Ground stakeholders	Sita SC - France	
2016_165_AF6_AIR	Lufthansa Group & Air France Group Datalink upgrade to "best in class" avionics	Air France	
2016_165_AF6_AIR	Lufthansa Group & Air France Group Datalink upgrade to "best in class" avionics	HOP	
2016_165_AF6_GND	Lufthansa Group & Air France Group Datalink upgrade to "best in class" avionics	Air France	-
2016_165_AF6_GND	Lufthansa Group & Air France Group Datalink upgrade to "best in class" avionics	HOP	-
2017_002_AF5	Aeronautical Information Exchange system for Airlines Flight Operation Centre (FOC) at Lufthansa & Air France	Air France	
2017_008_AF6_AIR	Air France Group Datalink upgrade to best in class avionics - Lot2	Air France	-
2017_008_AF6_AIR	Air France Group Datalink upgrade to best in class avionics - Lot2	Transavia France	
2017_008_AF6_GND	Air France Group Datalink upgrade to best in class avionics - Lot2	Air France	
2017_008_AF6_GND	Air France Group Datalink upgrade to best in class avionics - Lot2	Transavia France	
2017_022_AF2	Synchronised stakeholder decision on process optimisation at airport level	ADP	
2017_022_AF2	Synchronised stakeholder decision on process optimisation at airport level	Côte d'Azur	
2017_034_AF5	Deploying Cyber Infrastructure at DSNA	DSNA	
2017_035_AF5	Deploying SWIM infrastructure at DSNA TRS deployment at Paris CDG	DSNA	
2017_037_AF2	TBS deployment at Paris CDG TBS deployment at Paris CDG	DSNA Météo FR	
2017_037_AF2 2017_038_AF4	Enablers of Network Collaborative Management for En-Route and Airports at DSNA	ADP	
2017_038_AF4 2017_038_AF4	Enablers of Network Collaborative Management for En-Route and Airports at DSNA Enablers of Network Collaborative Management for En-Route and Airports at DSNA	Air France	
2017_038_AF4 2017_038_AF4	Enablers of Network Collaborative Management for En-Route and Airports at DSNA Enablers of Network Collaborative Management for En-Route and Airports at DSNA	DSNA	
2017_030_AF5	SEPIA - Deploying SWIM based AIM services in French Airspace	DSNA	
2017_043_AF3	Coflight-eFDP Development (Step 2)	DSNA	
2017_052_AF4	AOP-NOP Integration - Extended Implementation	Côte d'Azur	
2017_053_AF3	Implementation of rolling ASM/ATFCM	Sabre France	
2017_056_AF5	Towards Shared Business Trajectory / Trajectory Based Operations	Sabre France	
2017_080_AF5	PATRUS niveau 2 - Gateway Updgrade for 4Flight compliance	DGA	
2017_084_AF5	SWIM Common PKI and policies & procedures for establishing a Trust framework	ADP	
2017_084_AF5	SWIM Common PKI and policies & procedures for establishing a Trust framework	Air France	
2017_084_AF5	SWIM Common PKI and policies & procedures for establishing a Trust framework	DGA	
2017_084_AF5	SWIM Common PKI and policies & procedures for establishing a Trust framework	DSNA	
2017_089_AF6	IP1 - DLS European Target Solution assessment	ALTYS	(
2017_089_AF6	IP1 - DLS European Target Solution assessment	DSNA	-
2017_089_AF6	IP1 - DLS European Target Solution assessment	ESSP	(
2017_089_AF6	IP1 - DLS European Target Solution assessment	SITA IT Services France	-
2017_089_AF6	IP1 - DLS European Target Solution assessment	Thales	(







Germany



Reference Number	CEF Project Title	Implementing Partners	Closed
#040AF5	ADQ – Aeronautical Data Quality	DFS	∅
#041AF5	EASI - EAD AIM System Integration	DFS	Ø
#042AF2a	A-SMGCS Düsseldorf	DFS	0
#042AF2a	A-SMGCS Düsseldorf	FDG	Ø
#084AF5	Implementation of Prerequisites for the Provision of Aerodrome Mapping Data and Airport Maps as Data Originator (Aeronautical Information Exchange)	Fraport	Ø
±086AF2	A-CDM Extension	Fraport	Ø
087AF2	Apron Controller Working Position	Fraport	
088AF2	Airport Safety Net: Mobile Detection of Air Crash Tenders	Fraport	Ø
115AF2	A-SMGCS Renewal of the Surface Movement Radar (BORA)	FMG	
015_021_AF4	Slot Manager for PCP airports	Lufthansa	0
2015_021_AF4	Slot Manager for PCP airports	Sabre Airline Solutions	Ø
015_031_AF2	Vehicle Transponder A-SMGCS Düsseldorf	FDG	Ø
015_067_AF5	European Weather Radar Composite of Convection Information Service	DWD	
2015_068_AF5	European Harmonised Forecasts of Adverse Weather (Icing, Turbulence, Convection and Winter weather)	DWD	Ø
2015_069_AF5	European MET Information Exchange (MET-GATE)	DFS	
2015_069_AF5	European MET Information Exchange (MET-GATE)	DWD	0
2015_106_AF4	Flight evolution and upgrade of interfaces with NM stakeholders	Sabre Airline Solutions	
015_107_AF3	NM Systems upgrades in support of DCTs and FRA	Sabre Airline Solutions	Ø
2015_110_AF4	STAM Phase 2 (NM)	Sabre Airline Solutions	
015_113_AF4	AOP-NOP Integrations	Fraport	
015_114_AF4	Implementation of Target Times for ATFCM purposes (NM)	Sabre Airline Solutions	\otimes
015_188_AF1	Deploy AMAN - Arrival Management at Düsseldorf Airport and Berlin International	DFS	Ø
015_189_AF3	Deploy Free Route Airspace (Full FRA) in German Airspace	DFS	
2015_190_AF3	Deployment of Air Traffic Control System iCAS: Implementation of ATM PCP Functionalities at LVNL and DFS	DFS	
2015_192_AF5	RAPNET NG	DFS	Ø
015_193_AF1	Implementation of RNP Based Departure Operations in High Density TMAs in FRA, DUS and MUC	DFS	Ø
015_193_AF1	Implementation of RNP Based Departure Operations in High Density TMAs in FRA, DUS and MUC	Fraport	
015_193_AF1	Implementation of RNP Based Departure Operations in High Density TMAs in FRA, DUS and MUC	Lufthansa	Ø
2015_194_AF5	STANLY_ACOS iSWIM for Free-Route and NM	DFS	
015_195_AF3	Deployment of next Generation and VoIP Capable Centre Voice Communication System	DFS	Ø
2015_196_AF1_A	XMAN - Cross-centre arrival management	DFS	Ø
	Centralized DFS Yellow Profile SWIM Node	DFS	Ø



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Düsseldorf Airport

Frankfurt am Main

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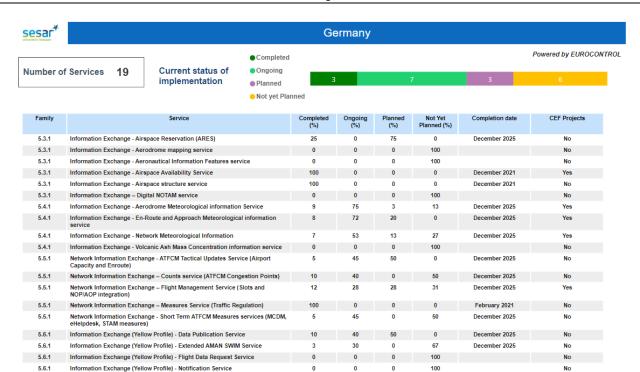
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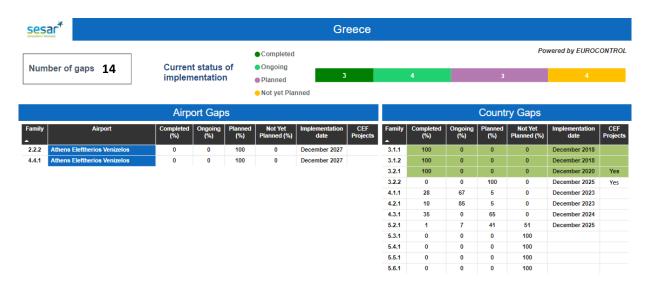
Reference Number	CEF Project Title	Implementing Partners	Closed
			-
015_222_AF2	Advanced Airport Moving Map (AAMM) Prototype Implementation	Fraport	0
15_222_AF2	Advanced Airport Moving Map (AAMM) Prototype Implementation	Lufthansa	0
15_225_AF2	Initial Airport Operations Plan @ FRA	Fraport	
15_226_AF2	Airport Safety Net: Mobile Detection of Marshaller Vehicles	Fraport	Ø
15_282_AF2	Initial APOC and AOP	FMG	
16_008_AF4	Flight evolution and upgrade of interfaces with NM stakeholders	Lufthansa	
16_010_AF4	STAM Phase 2	Lufthansa	
16_021_AF2	TANGe (Tower ATS-System Next Generation) Phase 1	DFS	
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	DFS	
16_026_AF3	System Procurement for Deployment of PCP Air Traffic Control System iCAS at DFS and LVNL	DFS	
16_027_AF5	European Deployment Roadmap for Flight Object Interoperability	DFS	
16_100_AF4	Provision of EFPL data and initial FF-ICE/1 readiness	LH Systems	
6_100_AF4	Provision of EFPL data and initial FF-ICE/1 readiness	Lufthansa	
16_121_AF3	Free Route	LH Systems	
6_121_AF3	Free Route	Lufthansa	
6_123_AF4	STAM Phase 2 in combination with Target Times	LH Systems	
6_123_AF4	STAM Phase 2 in combination with Target Times	Lufthansa	
6_134_AF3	Implementation of rolling ASM/ATFCM	LH Systems	0
6_134_AF3	Implementation of rolling ASM/ATFCM	Lufthansa	Ø
6_134_AF3	Implementation of rolling ASM/ATFCM	Sabre Airline Solutions	0
6_137_AF2	Initial AOP DUS	DFS	0
16_137_AF2	Initial AOP DUS	FDG	0
16_141_AF5	Deploy SWIM governance	DFS	0
16_141_AF5	Deploy SWIM governance	FMG	0
16_141_AF5	Deploy SWIM governance	Lufthansa	0
16_147_AF1	RNP APCH RWY 29 Vienna	Lufthansa	0
16_150_AF2_GND	Enablers for Airport Surface Movement related to Safety Nets	FMG	
16 150 AF2 GND	Enablers for Airport Surface Movement related to Safety Nets	Fraport	
16_159_AF6	DLS Implementation Project - Path 2	DFS	0
6_159_AF6	DLS Implementation Project - Path 2	SITA Inc BV - Germany	0
6 161 AF6	DLS Implementation Project - Path 1 Ground stakeholders	DES	0
6 161 AF6	DLS Implementation Project - Path 1 Ground stakeholders	SITA Inc BV - Germany	0
6_165_AF6_AIR	Lufthansa Group & Air France Group Datalink upgrade to "best in class" avionics	LCAG	0
6_165_AF6_AIR	Lufthansa Group & Air France Group Datalink upgrade to "best in class" avionics	Lufthansa	0
16_165_AF6_GND	Lufthansa Group & Air France Group Datalink upgrade to "best in class" avionics	LCAG	0
16_165_AF6_GND	Lufthansa Group & Air France Group Datalink upgrade to "best in class" avionics	Lufthansa	0
7_004_AF1	Flight Crew Training for RNP1 Operations	Eurowings	
7_004_AF1	Flight Crew Training for RNP1 Operations	Eurowings Europe	
17 004 AF1	Flight Crew Training for RNP1 Operations	LCAG	
17_004_AF1	Flight Crew Training for RNP1 Operations	LH Cityline	
7_004_AF1	Flight Crew Training for RNP1 Operations	Lufthansa	
7_022_AF2	Synchronised stakeholder decision on process optimisation at airport level	FMG	
7 022 AF2	Synchronised stakeholder decision on process optimisation at airport level	Fraport	
7_022_AF2 7_029_AF3	Deployment of Centralised Interoperable Center Information Service (Step 1)	DFS	
7_031_AF3	Procurement and Deployment of PCP Air Traffic Control System iCAS at DFS Munich and Bremen and LVNL Amsterdam	DFS	
7_031_AF3 7_032_AF2	TANGe (Tower ATS-System Next Generation) Phase 1+ incl. Service Architecture	DFS	
7_052_AF2	AOP-NOP Integration - Extended Implementation	EDG.	
7_052_AF4 17_053_AF3	AOP-NOP integration - Extended implementation Implementation of rolling A SM/ATFCM	Sabre Airline Solutions	Ø
17_053_AF3 17_056_AF5	Towards Shared Business Trajectory / Trajectory Based Operations	Sabre Airline Solutions Sabre Airline Solutions	0
		Sabre Airline Solutions DES	2
7_084_AF5	SWIM Common PKI and policies & procedures for establishing a Trust framework		_
7_084_AF5	SWIM Common PKI and policies & procedures for establishing a Trust framework	Lufthansa DFS	Ø Ø







Greece



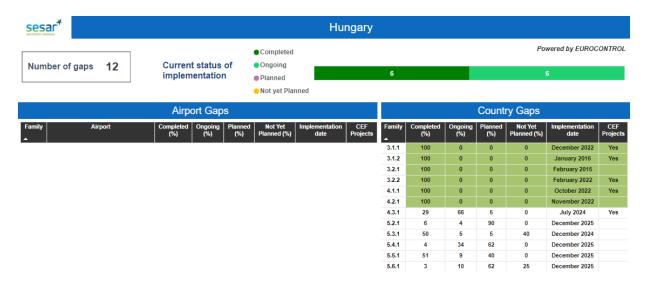


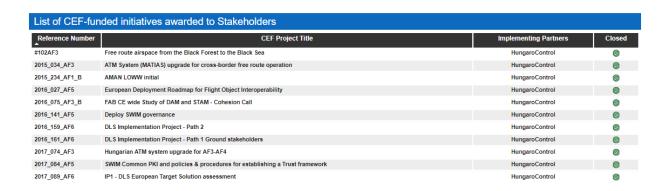


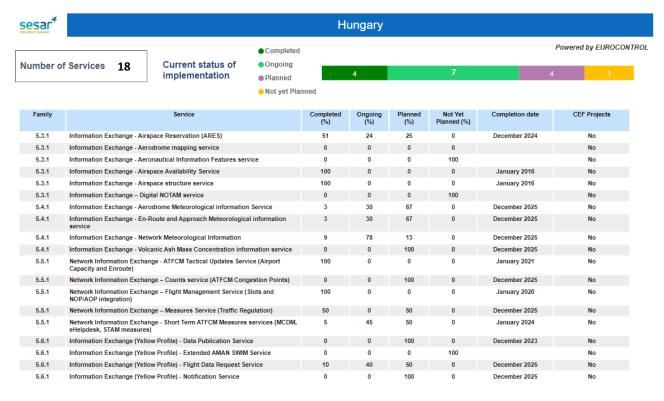
1 dillily	Service	(%)	(%)	(%)	Planned (%)	Completion date	CLI Flojecis
5.3.1	Information Exchange - Airspace Reservation (ARES)	0	0	0	100		No
5.3.1	Information Exchange - Aerodrome mapping service	0	0	0	0		No
5.3.1	Information Exchange - Aeronautical Information Features service	0	0	0	100		No
5.3.1	Information Exchange - Airspace Availability Service	0	0	0	100		No
5.3.1	Information Exchange - Airspace structure service	0	0	0	100		No
5.3.1	Information Exchange – Digital NOTAM service	0	0	0	100		No
5.4.1	Information Exchange - Aerodrome Meteorological information Service	0	0	0	100		No
5.4.1	Information Exchange - En-Route and Approach Meteorological information service	0	0	0	100		No
5.4.1	Information Exchange - Network Meteorological Information	0	0	0	100		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)	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)	0	0	0	100		No
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)	0	0	0	100		No
5.6.1	Information Exchange (Yellow Profile) - Data Publication Service	0	0	0	100		No
5.6.1	Information Exchange (Yellow Profile) - Extended AMAN SWIM Service	0	0	0	0		No
5.6.1	Information Exchange (Yellow Profile) - Flight Data Request Service	0	0	0	100		No
5.6.1	Information Exchange (Yellow Profile) - Notification Service	0	0	0	100		No



Hungary

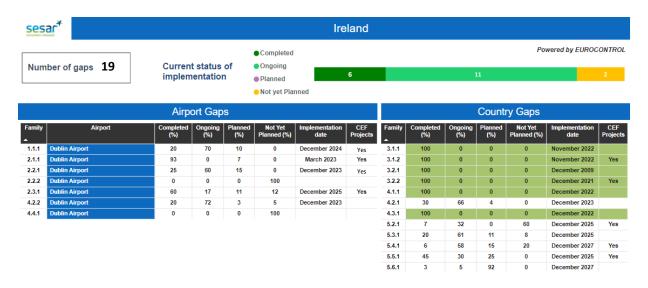






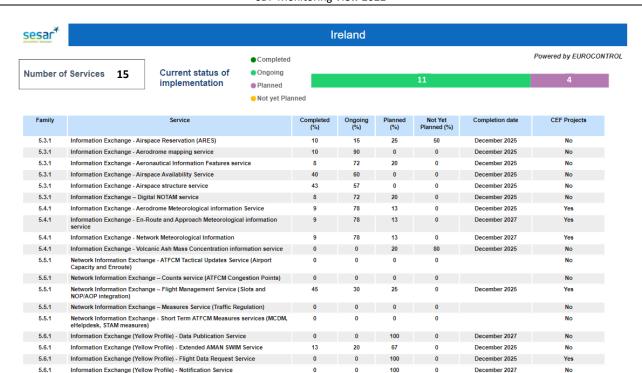


Ireland



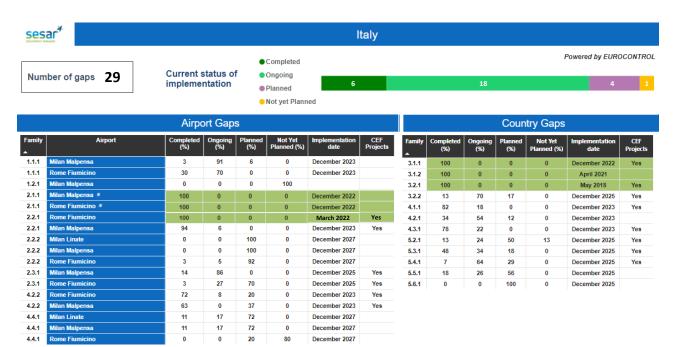
Reference Number	CEF Project Title	Implementing Partners	Closed
#020AF3	Borealis Free Route Airspace (Part 1)	IAA	Ø
#135AF2a	Ryanair RAAS Programme (Part A)	Ryanair	Ø
#135AF2b	Ryanair RAAS Programme (Part B)	Ryanair	Ø
2015_074_AF2	Display TOBT TSAT at the Gate	DAA	0
2015_076_AF2	Aerial Visual Display A-CDM Phase 2	DAA	\otimes
2015_077_AF2	Universal Mobile Display System (UMDS) solution to support A-CDM	DAA	Ø
2015_078_AF2	A-CDM Enhancements EIDW	DAA	Ø
2015_159_AF3	Deployment of IP / VOIP technology to enable Management of Dynamic Airspace configurations	IAA	
2015_161_AF2	Initial implementation of DMAN	IAA	Ø
015_162_AF2	Electronic Flight Strip (EFS) Implementation	IAA	Ø
015_174_AF5_A	NewPENS Stakeholders contribution for the procurement and deployment of NewPENS - Part A: General Call	IAA	Ø
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, 83.4 and 83.5)	IAA	0
2015_227_AF3_A	Borealis FRA Implementation (Part 2)	IAA	
2015_227_AF3_A	Borealis FRA Implementation (Part 2)	Ryanair	
2016_027_AF5	European Deployment Roadmap for Flight Object Interoperability	IAA	Ø
2016_033_AF5	Use SWIM methods to replace AFTN feeds for A-CDM	DAA	Ø
016_034_AF5	Upgrade/Replace Infrastructure to facilitate SWIM	DAA	Ø
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	Ø
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	
2017_084_AF5	SWIM Common PKI and policies & procedures for establishing a Trust framework	Ryanair	Ø
017_089_AF6	IP1 - DLS European Target Solution assessment	Airtel	Ø







Italy

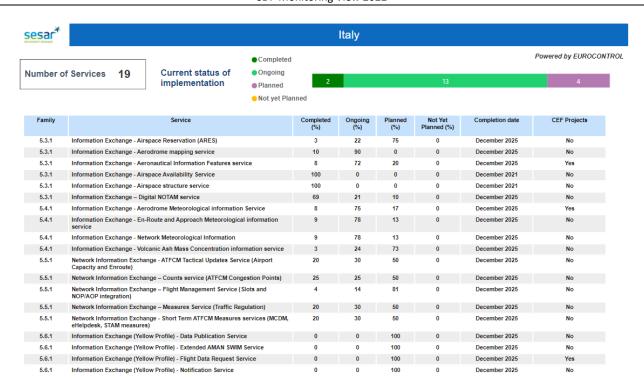


^{*} Please refer to the observations at page 22



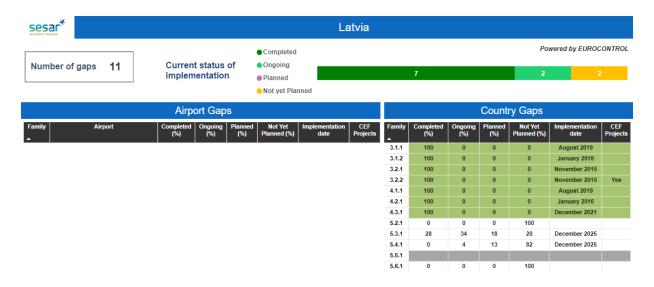
Reference Number	CEF Project Title	Implementing Partners	Closed
#004AF3	AZA Traffic Flow Restriction (TFR) – LIDO planning system	Alitalia S.p.A	Ø
005AF3	AZA FREE FLIGHT- DIRECT OPTIMIZATION	Alitalia S.p.A	0
062AF4	ENAV initiative for the identification of Network Collaborative Management requirements	ENAV	0
063AF3	ENAV implementation of Free Route	ENAV	0
064AF2	ENAV Airport System upgrade	ENAV	0
065AF1	ENAV Geographic DB for Procedure Design	ENAV	0
066AF5	ENAV AIS system Upgrade to support AIXM 5.1	ENAV	0
067AF5	Coflight-eFDP System Development	ENAV	0
015 198 AF5	Implementation of ENAV LAN Servizi	ENAV	0
015_201_AF5	Transition of current Aeronautical Information Management System to EAD	ENAV	0
015_202_AF3	ASM tool Implementation	ENAV	0
015_204_AF3_Phase	4-Flight deployment in Italy 2016-2017	ENAV	0
015_204_AF3_Phase	4-Flight deployment in Italy 2019-2020	ENAV	
016_027_AF5	European Deployment Roadmap for Flight Object Interoperability	ENAV	Ø
016_089_AF6	IT_ITAF ATC CONTROL SYSTEM MOVING TO I4D	ENAV	0
016_089_AF6	IT_ITAF ATC CONTROL SYSTEM MOVING TO i4D	MoD Italy	0
016_092_AF5	ITAF WAN	MoD Italy	0
016_108_AF5	ENAV ADQ - Aeronautical Data Quality system interface evolution (ADQ2)	ENAV	Ø
016_109_AF5	BLUEMED FAB IP Network deployment	ENAV	0
016_110_AF3	ENAV Automated ENV Data Interchange for FDP	ENAV	0
016_114_AF4	ENAV Traffic Complexity Tool Implementation	ENAV	0
016_115_AF3	ENAV 4-Flight Deployment in Italy - Third Stage 2017-2018	ENAV	Ø
016_116_AF5	ENAV Security Operational Centre (iSOC) Upgrade	ENAV	0
016_117_AF2	ENAV Implementation of A-SMGCS Level 1 and 2 with Safety Nets in MXP and FCO	ADR	
016_117_AF2	ENAV Implementation of A-SMGCS Level 1 and 2 with Safety Nets in MXP and FCO	ENAV	
016_117_AF2	ENAV Implementation of A-SMGCS Level 1 and 2 with Safety Nets in MXP and FCO	S.E.A.	
016_118_AF5	ENAV Network enhancement toward NewPENS	ENAV	0
016_119_AF5	ENAV Airport MET System and UPM-MET database upgrade	ENAV	_
016_120_AF1	ENAV Introduction of RNP1+RF and APV procedures in MXP and FCO	ENAV	0
016_141_AF5	Deploy SWIM governance	ENAV	0
016_150_AF2_GND	Enablers for Airport Surface Movement related to Safety Nets	ADR	
016_159_AF6	DLS Implementation Project - Path 2	ENAV	Ø
016_161_AF6	DLS Implementation Project - Path 1 Ground stakeholders	ENAV	0
017_004_AF1	Flight Crew Training for RNP1 Operations	Air Dolomiti	
017_020_AF5	Initial SWIM security deployment	ADR	0
017_022_AF2	Synchronised stakeholder decision on process optimisation at airport level	ADR	
017_022_AF2	Synchronised stakeholder decision on process optimisation at airport level	ENAV	
017_022_AF2	Synchronised stakeholder decision on process optimisation at airport level	S.E.A.	
017_040_AF5	AERONET/ENET2 Interoperability	ENAV	
017_040_AF5	AERONET/ENET2 Interoperability	MoD Italy	
017_041_AF3	ASM - LARA Enhancement - Implementation in Italy	ENAV	
017_041_AF3	ASM - LARA Enhancement - Implementation in Italy	MoD Italy	
017_042_AF3	Automatic Tactical Controller Tool implementation	ENAV	
017_042_AF3	Automatic Tactical Controller Tool implementation	MoD Italy	
017_043_AF3	Coflight-eFDP Development (Step 2)	ENAV	0
017_045_AF4	ENAV Deployment of traffic complexity tool and STAM phase 2	ENAV	
017_052_AF4	AOP-NOP Integration - Extended Implementation	ADR	
017_052_AF4	AOP-NOP Integration - Extended Implementation	S.E.A.	
017_069_AF5	ITALIAN AIR FORCE INTEGRATED BRIEFING	MoD Italy	0
017_084_AF5	SWIM Common PKI and policies & procedures for establishing a Trust framework	ENAV	0
017_089_AF6	IP1 - DLS European Target Solution assessment	ENAV	0
	IP1 - DLS European Target Solution assessment	Leonardo	0

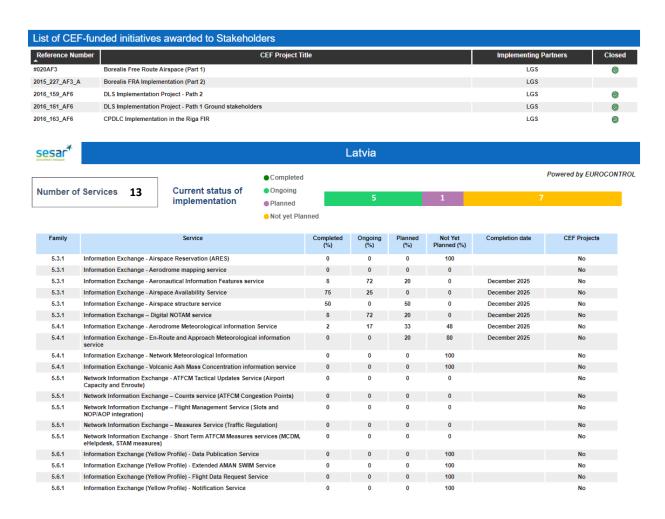






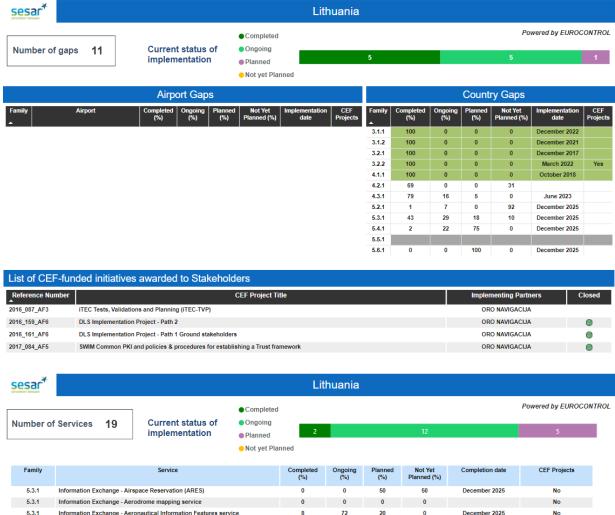
Latvia

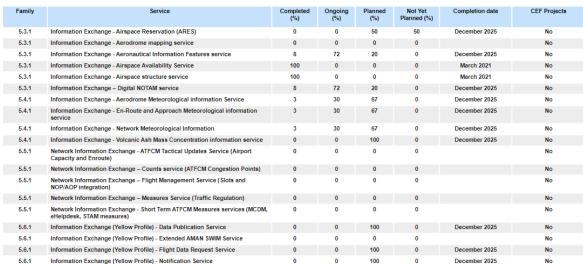






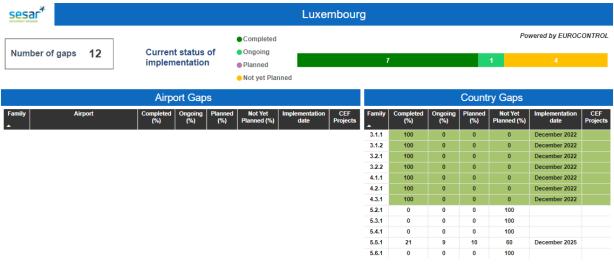
Lithuania

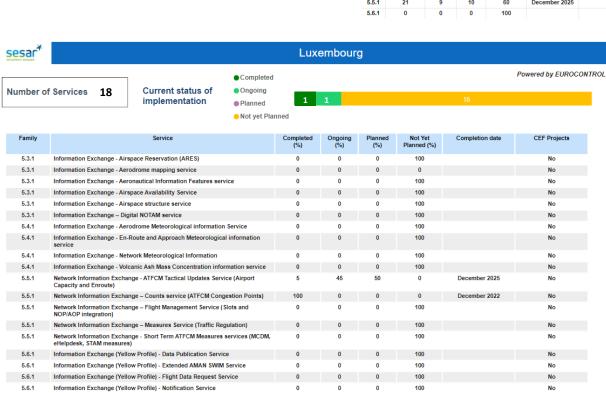






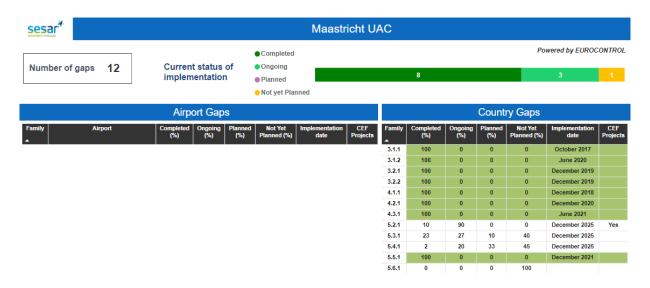
Luxembourg

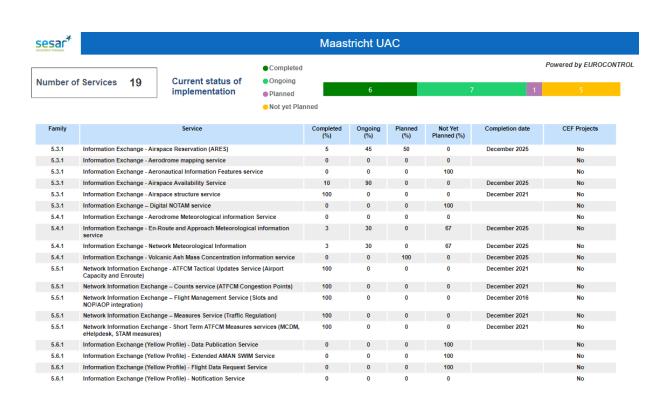






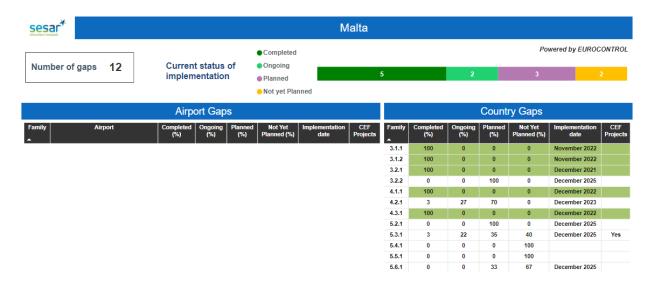
Maastricht Upper Area Control Center



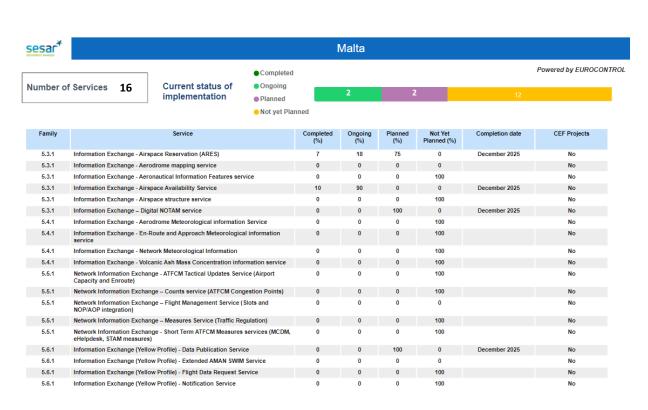




Malta

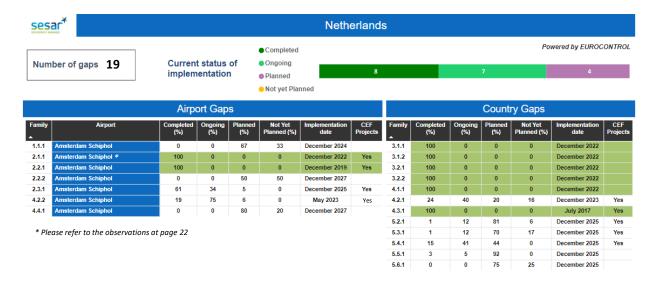






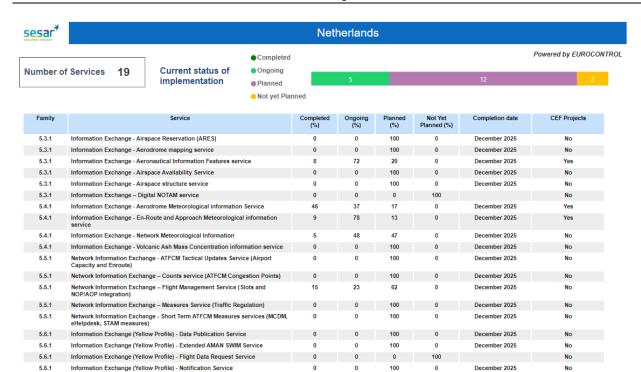


Netherlands



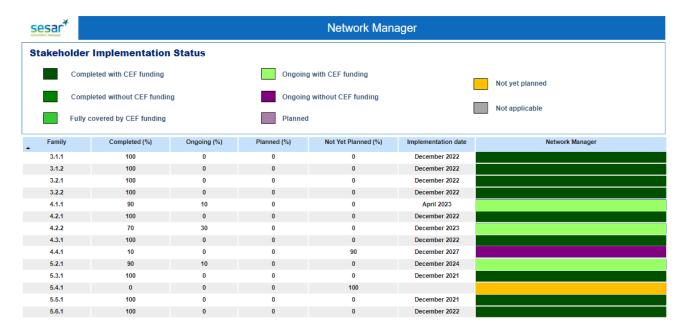
Reference Number	CEF Project Title	Implementing Partners	Closed
#107AF1	First phase of RNAV1 and RNP- APCH approaches Amsterdam Schiphol (EHAM)	LVNL	⊘
#108AF2	Electronic Flight Strips at Schiphol TWR	LVNL	Ø
#109AF2	Airport CDM implementation Schiphol	KLM	Ø
#109AF2	Airport CDM implementation Schiphol	LVNL	Ø
#109AF2	Airport CDM implementation Schiphol	SNBV	Ø
#110AF5	Meteorological Information Exchange by MET ANSP KNMI	KNMI	Ø
2015_137_AF5	European Meteorological Aircraft Derived Data Center (EMADDC)	KNMI	
2015_165_AF1	Amsterdam Schiphol AMAN 1.0	LVNL	0
015_166_AF1	Amsterdam Schiphol AMAN 2.0	LVNL	
015_167_AF4	Workload model for Amsterdam Area Control and Approach Control operations	LVNL	
015_168_AF5	Implementation of Aeronautical Data Quality (ADQ) at LVNL	LVNL	0
015_169_AF5	Initial (I)WXXM implementation on CCIS Amsterdam ACC and Schiphol	LVNL	0
015_174_AF5_A	NewPENS Stakeholders contribution for the procurement and deployment of NewPENS - Part A: General Call	LVNL	Ø
015_178_AF2	Implementation of AOP Schiphol Airport	KNMI	0
015_178_AF2	Implementation of AOP Schiphol Airport	SNBV	0
015_179_AF4	Implementation of APOC Schiphol Airport	KNMI	Ø
015_179_AF4	Implementation of APOC Schiphol Airport	SNBV	Ø
015_186_AF1	RNP approaches to three main landing runways Amsterdam Schiphol	LVNL	Ø
015_187_AF2	TWR System at Amsterdam Schiphol	LVNL	
015_190_AF3	Deployment of Air Traffic Control System iCAS: Implementation of ATM PCP Functionalities at LVNL and DFS	LVNL	
015_196_AF1_A	XMAN - Cross-centre arrival management	LVNL	
015_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	Ø
015_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	Ø
015_253_AF1_B	RNP 1.0, RNP 0.3 & SBAS FOR E3A AWACS FOR COHESION ELIGIBLE STATES	NAPMA	Ø
016_023_AF1	XMAN - Cross-centre arrival management - Part 2 (CEF2016)	LVNL	
016_026_AF3	System Procurement for Deployment of PCP Air Traffic Control System iCAS at DFS and LVNL	LVNL	
016_027_AF5	European Deployment Roadmap for Flight Object Interoperability	LVNL	
016_131_AF4	AOP-NOP Integration - Extended Implementation	SNBV	
016_143_AF5	ATM Network 2.0 Amsterdam	LVNL	
016_150_AF2_GND	Enablers for Airport Surface Movement related to Safety Nets	SNBV	
016_159_AF6	DLS Implementation Project - Path 2	SITA	Ø
016_161_AF6	DLS Implementation Project - Path 1 Ground stakeholders	SITA	Ø
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	Ø
017_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	







Network Manager



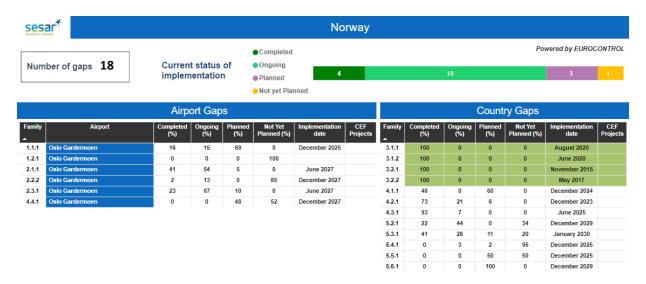


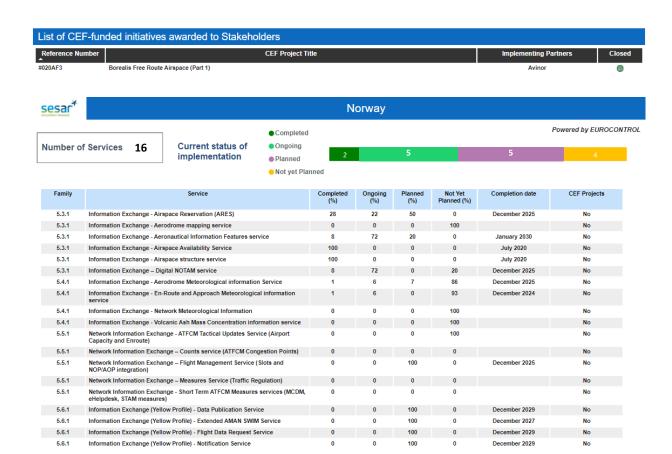
Reference Number	CEF Project Title	Implementing Partners	Closed
#073AF5	SWIM Common Components	EUROCONTROL/NM	⊗
#077AF4	Interactive Rolling NOP	EUROCONTROL/NM	Ø
#078AF4	ATFCM measures (STAM)	EUROCONTROL/NM	
#079AF4	Trajectory accuracy and traffic complexity	EUROCONTROL/NM	Ø
#080AF3	ASM AFUA Implementation	EUROCONTROL/NM	Ø
#081AF3	NM DCT/FRA Implementation and support	EUROCONTROL/NM	Ø
#082AF5	SWIM compliance of NM systems	EUROCONTROL/NM	Ø
#083AF1	AMAN extended to en-route	EUROCONTROL/NM	Ø
2015_067_AF5	European Weather Radar Composite of Convection Information Service	EUROCONTROL/NM	Ø
2015_068_AF5	European Harmonised Forecasts of Adverse Weather (Icing, Turbulence, Convection and Winter weather)	EUROCONTROL/NM	Ø
2015_069_AF5	European MET Information Exchange (MET-GATE)	EUROCONTROL/NM	0
2015_101_AF1	Network Support to extended Arrival Management	EUROCONTROL/NM	Ø
2015_105_AF4	Interactive Rolling Network Operations Planning	EUROCONTROL/NM	Ø
2015_106_AF4	Flight evolution and upgrade of interfaces with NM stakeholders	EUROCONTROL/NM	Ø
2015_107_AF3	NM Systems upgrades in support of DCTs and FRA	EUROCONTROL/NM	Ø
015_110_AF4	STAM Phase 2 (NM)	EUROCONTROL/NM	Ø
2015_112_AF5	Integrate the Aeronautical Information Exchange Services in NM Systems	EUROCONTROL/NM	Ø
2015_113_AF4	AOP-NOP Integrations	EUROCONTROL/NM	
015_114_AF4	Implementation of Target Times for ATFCM purposes (NM)	EUROCONTROL/NM	Ø
2015_115_AF4	Traffic Complexity Management	EUROCONTROL/NM	Ø
2015_117_AF5	Improve NM SWIM Infrastructure	EUROCONTROL/NM	Ø
015_141_AF5	Improve NM Flight Information Exchange Services	EUROCONTROL/NM	Ø
015_143_AF5	Improve Cooperative Network Information Exchange Services	EUROCONTROL/NM	Ø
015_145_AF5_A	AIM Deployment Toolkit	EUROCONTROL/NM	Ø
2015_174_AF5_A	NewPENS Stakeholders contribution for the procurement and deployment of NewPENS - Part A: General Call	EUROCONTROL/NM	Ø
015_174_AF5_B	NewPENS Stakeholders contribution for the procurement and deployment of NewPENS - Part B: Cohesion Call	EUROCONTROL/NM	Ø
015_196_AF1_A	XMAN - Cross-centre arrival management	EUROCONTROL/NM	Ø
015_232_AF2	TBS4LOWW (Time Based Separation for Vienna Airport)	EUROCONTROL/NM	Ø
015_319_AF5	SWIM Common Components - Phase 2	EUROCONTROL/NM	Ø
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	Ø
016_129_AF5	NewPENS Stakeholders contribution for the procurement and deployment of NewPENS	EUROCONTROL/NM	Ø
2016_131_AF4	AOP-NOP Integration - Extended Implementation	EUROCONTROL/NM	
016_133_AF3	NM system management of real time airspace data	EUROCONTROL/NM	Ø
016_134_AF3	Implementation of rolling ASM/ATFCM	EUROCONTROL/NM	Ø
016_135_AF3	Implementation of pre-defined airspace configuration	EUROCONTROL/NM	Ø
016_141_AF5	Deploy SWIM governance	EUROCONTROL/NM	Ø
017_037_AF2	TBS deployment at Paris CDG	EUROCONTROL/NM	
017_052_AF4	AOP-NOP Integration - Extended Implementation	EUROCONTROL/NM	
017_053_AF3	Implementation of rolling ASM/ATFCM	EUROCONTROL/NM	Ø
017_054_AF4	Network Collaborative Management	EUROCONTROL/NM	Ø
017_055_AF3	NM Systems upgrades in support of FRA	EUROCONTROL/NM	Ø
017_056_AF5	Towards Shared Business Trajectory / Trajectory Based Operations	EUROCONTROL/NM	
2017_058_AF2	ITWP4LOWW (Integrated Tower Working Position for Vienna Schwechat)	EUROCONTROL/NM	Ø
017_084_AF5	SWIM Common PKI and policies & procedures for establishing a Trust framework	EUROCONTROL/NM	Ø
017 089 AF6	IP1 - DLS European Target Solution assessment	EUROCONTROL/NM	Ø

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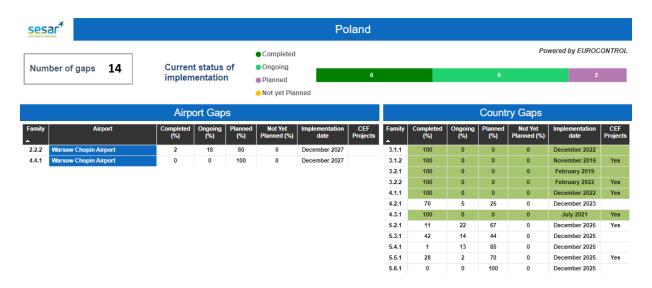
Norway





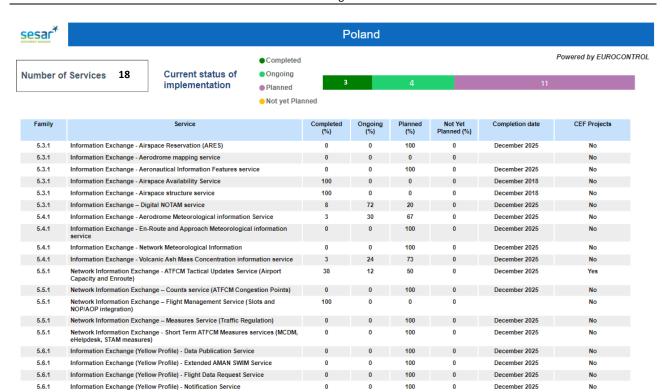


Poland



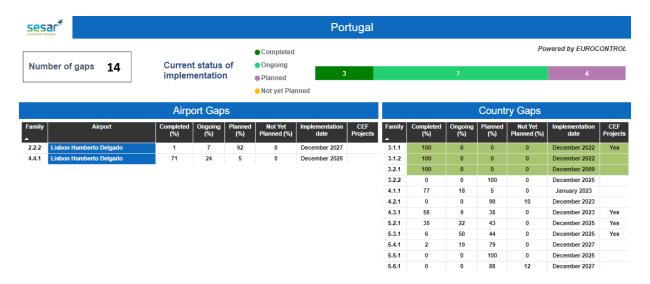
Reference Number	CEF Project Title	Implementing Partners	Closed
131AF3	1st part of the upgrade of the P_21 PEGASUS system to SESAR functionalities - Test and Validation Platform	PANSA	⊘
015_021_AF4	Slot Manager for PCP airports	Sabre Polska	Ø
015_035_AF5	LAN network upgrade	PANSA	Ø
015_038_AF5	The ECG Communication System upgrade	PANSA	Ø
015_106_AF4	Flight evolution and upgrade of interfaces with NM stakeholders	Sabre Polska	Ø
015_107_AF3	NM Systems upgrades in support of DCTs and FRA	Sabre Polska	Ø
015_110_AF4	STAM Phase 2 (NM)	Sabre Polska	Ø
015_114_AF4	Implementation of Target Times for ATFCM purposes (NM)	Sabre Polska	Ø
016_027_AF5	European Deployment Roadmap for Flight Object Interoperability	PANSA	
016_085_AF3	ATM System Upgrade Towards Free Route Airspace	PANSA	Ø
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	Ø
016_134_AF3	Implementation of rolling ASM/ATFCM	LH Systems Poland	0
016_134_AF3	Implementation of rolling ASM/ATFCM	Sabre Polska	Ø
016_141_AF5	Deploy SWIM governance	PANSA	Ø
016_159_AF6	DLS Implementation Project - Path 2	PANSA	$ \bigcirc $
016_161_AF6	DLS Implementation Project - Path 1 Ground stakeholders	PANSA	
016_162_AF6	IMPLEMENTATION OF DATA LINK SERVICES FOR THE ATM IN FIR WARSAW	PANSA	Ø
17_053_AF3	Implementation of rolling ASM/ATFCM	Sabre Polska	Ø
17_056_AF5	Towards Shared Business Trajectory / Trajectory Based Operations	Sabre Polska	
17_057_AF4	Local traffic complexity management	PANSA	Ø
017_084_AF5	SWIM Common PKI and policies & procedures for establishing a Trust framework	PANSA	Ø
017_089_AF6	IP1 - DLS European Target Solution assessment	PANSA	Ø





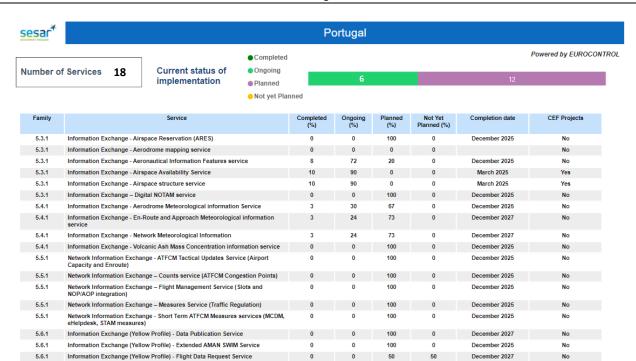


Portugal



List of CEF-funded initiatives awarded to Stakeholders					
Reference Number	CEF Project Title	Implementing Partners	Closed		
#122AF3	FT3.1.1 NAV Portugal - Initial ASM tool to support AFUA	NAV Portugal	Ø		
#123AF4	FT 4.2.3 NAV Portugal Interface to NMS AFP	NAV Portugal	Ø		
2015_138_AF5	5.3.1 NAV Portugal - Implementation of a solution for electronic Terrain and Obstacle Data management	NAV Portugal	Ø		
2015_174_AF5_A	NewPENS Stakeholders contribution for the procurement and deployment of NewPENS - Part A: General Call	NAV Portugal	Ø		
2015_262_AF5	Aeronautical Data Quality and Exchange	PRTAF	Ø		
2015_278_AF1	C-130H RNP-1 Avionics Upgrade for 4 A/C	PRTAF			
2015_279_AF1	Falcon 50 RNP-1 Avionics Upgrade for 3 A/C	PRTAF			
2016_027_AF5	European Deployment Roadmap for Flight Object Interoperability	NAV Portugal	Ø		
2016_061_AF6_AIR	Deployment of ATN B1 capability within TAP Group	PORTUGÁLIA	Ø		
2016_061_AF6_AIR	Deployment of ATN B1 capability within TAP Group	TAP	Ø		
2016_061_AF6_GND	Deployment of ATN B1 capability within TAP Group	PORTUGÁLIA			
2016_061_AF6_GND	Deployment of ATN B1 capability within TAP Group	TAP			
2016_069_AF2_AIR	Runway Overrun Prevention System (ROPS) bundled application for TAP	TAP	Ø		
2016_069_AF2_GND	Runway Overrun Prevention System (ROPS) bundled application for TAP	TAP	Ø		
2016_071_AF5	PT_Implement a PT Air Force IP Backbone connected into NewPENS	PRTAF			
2016_141_AF5	Deploy SWIM governance	NAV Portugal	Ø		
2016_159_AF6	DLS Implementation Project - Path 2	NAV Portugal	Ø		
2016_159_AF6	DLS Implementation Project - Path 2	TAP	Ø		
2016_161_AF6	DLS Implementation Project - Path 1 Ground stakeholders	NAV Portugal	Ø		
2017_083_AF6_AIR	Portugalia E195 - Deployment of ATN B1 capability	PORTUGÁLIA	Ø		
2017_083_AF6_GND	Portugalia E195 - Deployment of ATN B1 capability	PORTUGÁLIA			
2017_084_AF5	SWIM Common PKI and policies & procedures for establishing a Trust framework	NAV Portugal	Ø		
2017_089_AF6	IP1 - DLS European Target Solution assessment	NAV Portugal	Ø		





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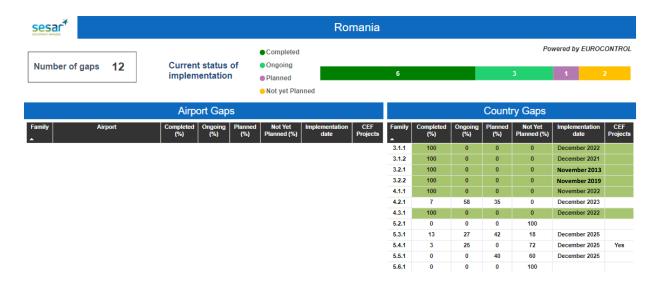
December 2027



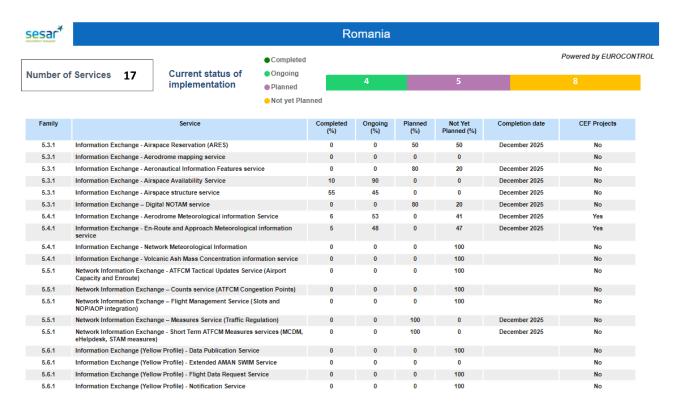
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Information Exchange (Yellow Profile) - Notification Service

Romania

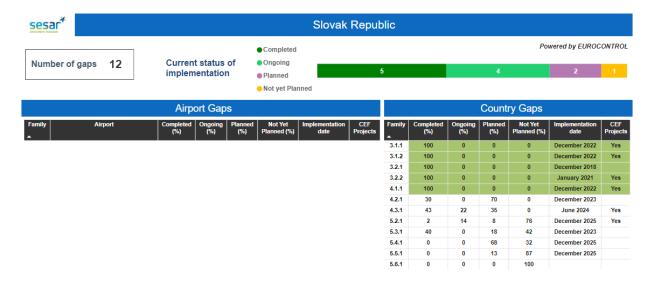


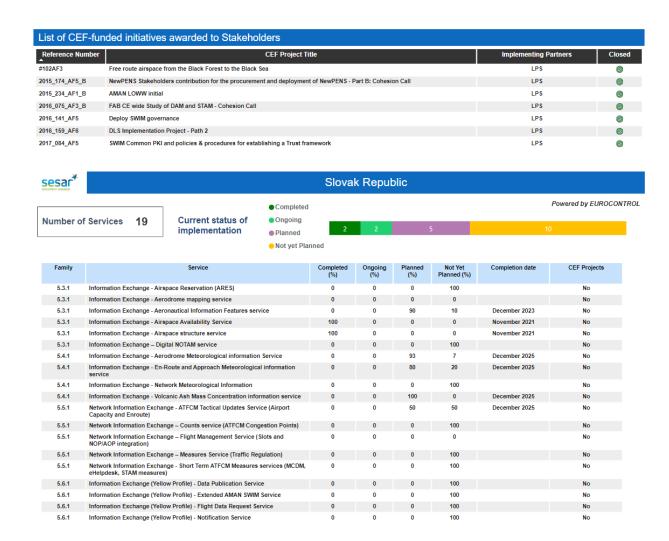
List of CEF-funded initiatives awarded to Stakeholders				
Reference Number	CEF Project Title	Implementing Partners	Closed	
#134AF5	PILOT PLATFORM for access services to OPMET (worldwide/ECAC) data (METAR, TAF, SIGMET) in WXXM format	ROMATSA	Ø	
2015_174_AF5_B	NewPENS Stakeholders contribution for the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





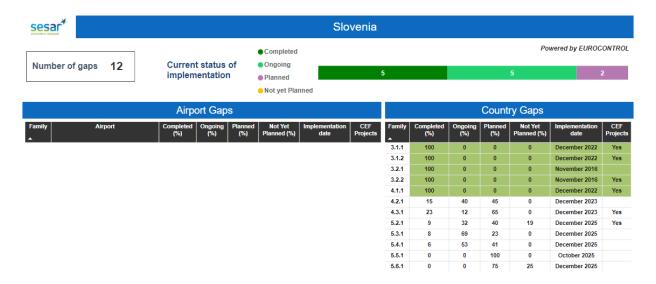
Slovak Republic

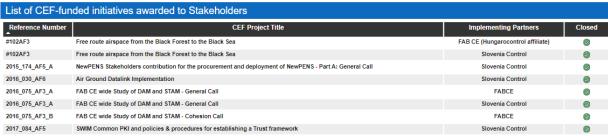


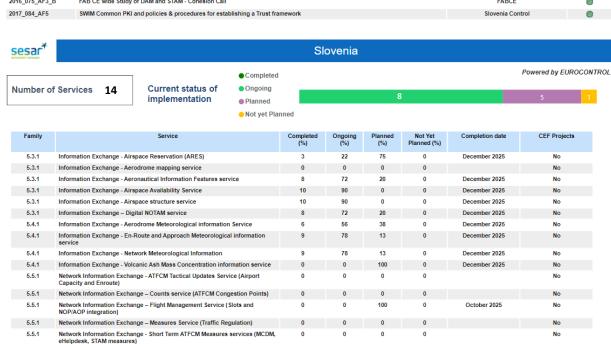




Slovenia







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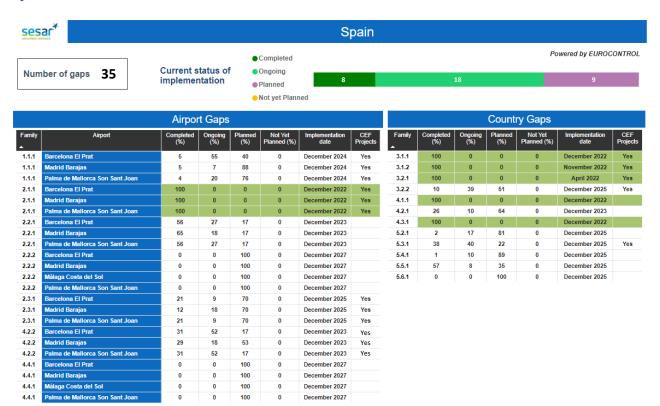
Information Exchange (Yellow Profile) - Data Publication Service

Information Exchange (Yellow Profile) - Notification Service

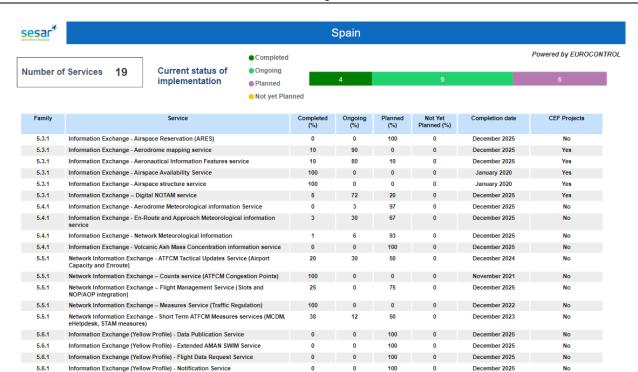
Information Exchange (Yellow Profile) - Extended AMAN SWIM Service

Information Exchange (Yellow Profile) - Flight Data Request Service

Spain

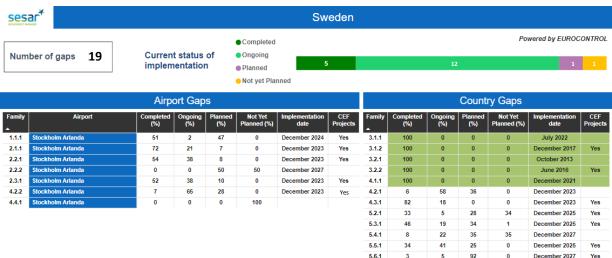






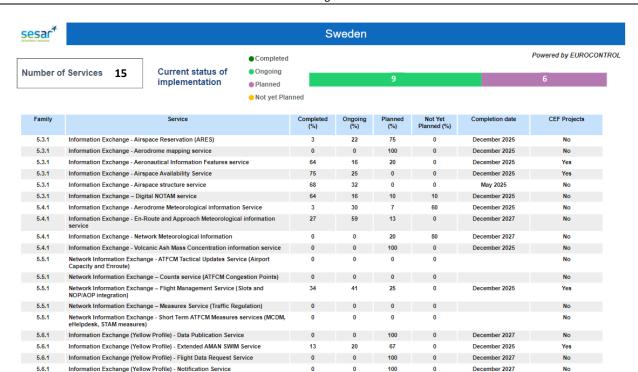


Sweden



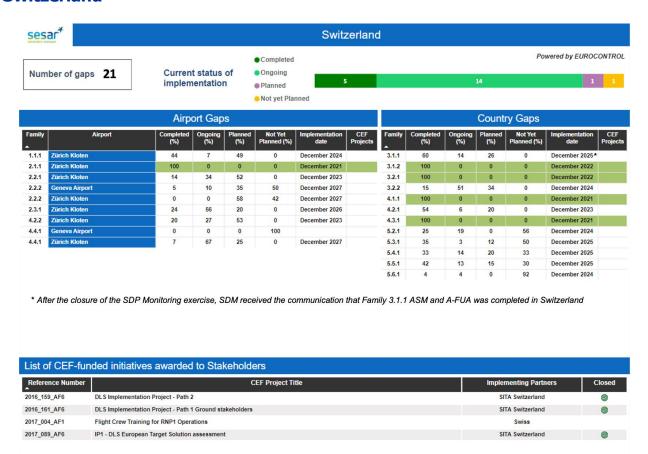
		5.5.1	34		25	-	December 2025	Yes
		5.6.1	3	5	92	0	December 2027	Yes
List of CEF-fur	nded initiatives awarded to Stakeholders							
Reference Number	CEF Project Title	_	_		Imple	menting Partne	ers C	Closed
#020AF3	Borealis Free Route Airspace (Part 1)					LFV		Ø
#104AF1	Lower Airspace Optimization					LFV		Ø
#136AF2	A-CDM Optimization					Swedavia		Ø
#137AF2	Enhancement of Airport Safety Nets at Stockholm Arlanda Airport					Swedavia		Ø
2015_025_AF5_A	Sub-regional SWIM MET deployment to support NEFRA (part A)					SMHI		Ø
2015_098_AF5	Implementing redundant WAN					LFV		Ø
2015_099_AF5	DK-SE FAB Aeronautical Data Quality (ADQ)					LFV		\otimes
2015_118_AF5	More efficient Flight Planning					LFV		Ø
2015_174_AF5_A	NewPENS Stakeholders contribution for the procurement and deployment of NewPENS - Part A: General	Call				LFV		
2015_207_AF3_A	Harmonisation of Technical ATM Platform in 5 ANSP including support of free Route Airspace and prepar (COOPANS B3.3, B3.4 and B3.5)	ation of P	CP program.			COOPANS		Ø
2015_207_AF3_A	Harmonisation of Technical ATM Platform in 5 ANSP including support of free Route Airspace and prepar (COOPANS B3.3, B3.4 and B3.5)	ation of P	CP program.			LFV		
2015_207_AF3_B	Harmonisation of Technical ATM Platform in 5 ANSP including support of free Route Airspace and prepar (COOPANS B3.3, B3.4 and B3.5)	ation of P	CP program.			COOPANS		Ø
2015_227_AF3_A	Borealis FRA Implementation (Part 2)					LFV		
2015_288_AF5	ADQ implementation Stockholm Arlanda					Swedavia		
2015_290_AF2	Initial AOP					Swedavia		
2015_291_AF2	A-SMGCS Level 2 implementation					Swedavia		
2015_292_AF2	DMAN Stockholm Arlanda Airport					Swedavia		\bigcirc
2015_294_AF2	Implementation of OTP					Swedavia		
2015_309_AF1_AIR	Implementation of GBAS (Technical upgrade of aircraft to GBAS)					Novair		
015_309_AF1_GND	Implementation of GBAS (preparation of GBAS operation in the Flight Operations Department and trainin operation)	g of flight	crew in GBA	IS		Novair		Ø
015_320_AF3	Implementation of VoIP					LFV		\bigcirc
016_027_AF5	European Deployment Roadmap for Flight Object Interoperability					LFV		
016_131_AF4	AOP-NOP Integration - Extended Implementation					Swedavia		
016_141_AF5	Deploy SWIM governance					LFV		
016_150_AF2_GND	Enablers for Airport Surface Movement related to Safety Nets					Swedavia		
016_159_AF6	DLS Implementation Project - Path 2					LFV		
2016_161_AF6	DLS Implementation Project - Path 1 Ground stakeholders					LFV		Ø
016_166_AF1	Stockholm Arlanda Airport RNP Project (SAARP)					Novair		Ø
2016_166_AF1	Stockholm Arlanda Airport RNP Project (SAARP)					Swedavia		Ø
017_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 - AN		-			Aviseq		
017_060_AF5	ADQ Components in the SWIM Infrastructure - upstream data inclusion in the full data chain solution - AN					LFV		
2017_060_AF5	ADQ Components in the SWIM Infrastructure - upstream data inclusion in the full data chain solution - AN	ISP and A	irport			Swedavia		
2017_061_AF5	Application of cyber security to ANSP and SWIM services at LFV					Aviseq		
017_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		
2017_075_AF5	SWIMARN - SWIM with Cyber Security at Stockholm Arlanda Airport Swedavia							
2047 004 455								
2017_084_AF5 2017_084_AF5	SWIM Common PKI and policies & procedures for establishing a Trust framework SWIM Common PKI and policies & procedures for establishing a Trust framework					Aviseq		

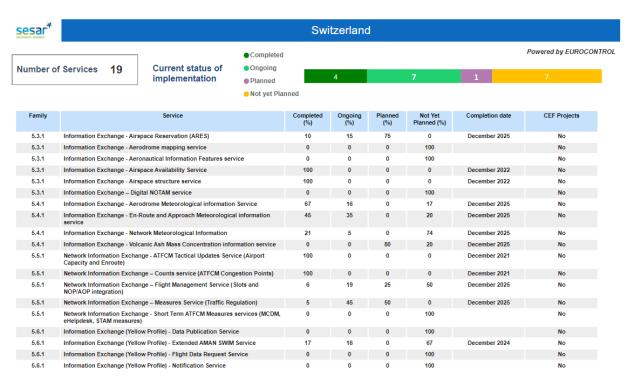






Switzerland







List of Acronyms

Acronym	Meaning
A3SG	Aeronautical Information SWIM Service Sub-Group
ACADIA	Acceleration of Aeronautical Digital Information Availability
ACC	Area Control Center
AF	ATM Functionality
A-FUA	Advanced Flexible Use of Airspace
AISP	Aeronautical Information Service Provider
AMAN	Arrival Manager
ANSP	Air Navigation Service Provider
AO	Airport Operator
AOC	Air Operator Certificate
AOP	Airport Operations Plan
AoR	Area of Responsibility
API	Arrival Planning Information
ARES	Airspace Reservation
ASM	AirSpace Management
A-SMGCS	Advanced Surface Movement Guidance and Control System
ATC	Air Traffic Control
ATFCM	Air Traffic Flow and Capacity Management
ATM	Air Traffic Management
ATM MP	Air Traffic Management Master Plan
ATS	Air Traffic Service
ATSU	Air Traffic Service Unit
AU	Airspace User
CA	Certificate Authority Cost Reposit Applysis
CBA	Cost Benefit Analysis Connecting Europe Facility
CFSP	Computer Flight Planning Service Providers
CFT	Call for Tender
СНМІ	Collaborative Human Machine Interface
	CHMI Service for Airspace Management Cells
CINEA	European Climate, Infrastructure and Environment Executive Agency
COVID-19	Corona Virus Disease
CP1	Common Project One Reg. (EU) n. 2021/116
DM	Deployment Milestone
DMAN	Departure Management
DPI	Departure Planning Information
EACP	European Aviation Common PKI
EASA	European Union Aviation Safety Agency
ECAC	European Civil Aviation Conference
EDA	European Defence Agency
eFPL	Extended Flight Plan
EUROCAE	European Organisation for Civil Aviation Equipment
EUROCONTROL	European Organisation for the Safety of Air Navigation
EU	European Union
FAB	Functional Airspace Block
FF-ICE	Flight and Flow Information for a Collaborative Environment



Acronym	Meaning
FIR	Flight Information Region
FL	Flight Level
FOC	Full Operational Capability
FPA	Framework Partnership Agreement
FPL	Flight Plan
FPL2012	ICAO Flight Plan 2012 Format
FRA	Free Route Airspace
iAOP	Initial Airport Operations Plan
ICAO	International Civil Aviation Organisation
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
PBN	Performance Based Navigation
PCP	Pilot Common Project Reg. (EU) n. 716/2014
PDS	Pre-Departure Sequence
PKI	Public Key Infrastructure
R&D	Research and Development
RAD	Route Availability Document
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
TBS	Time Based Separation
TMA	Terminal Manoeuvring Area
TSAT	Target Start Approval Time
TTOT	Target Take Off time
UAC	Upper Area Control
UIR	Upper Information Region

