

Guidance Material for SESAR Deployment Programme Implementation

Monitoring View 2018

Proposal for update to European Commission

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Table of content

Introduction6
1. PCP Implementation Status9
1.1 Current status of PCP deployment9
1.2 Expected roadmap for PCP completion16
1.3 Overview of PCP deployment per Family – Ground gaps 25
2. Detailed Views per Family
Ground gaps – Monitoring Overview31
AF #1- Extended AMAN and PBN in high density TMA
Family 1.1.1 – Basic AMAN
Family 1.1.2 – AMAN Upgrade to included extended horizon function
Family 1.2.1 – RNP APCH with vertical guidance
Family 1.2.2 – Geographic database for procedure design
Family 1.2.3 – RNP 1 Operations in high density TMAs
Family 1.2.5 – RNP routes connecting Free Route Airspace (FRA) with TMA 47
AF #2 – Airport Integration and Throughput48
Family 2.1.1 – Initial DMAN
Family 2.1.2 – Electronic Flight Strips (EFS)
Family 2.1.3 – Basic A-CDM
Family 2.1.4 – Initial Airport Operations Plan (AOP)
Family 2.2.1 – A-SMGCS Level 1 and 2
Family 2.3.1 –Time Based Separation (TBS)53
Family 2.4.1 – A-SMGCS Routing and Planning Functions
Family 2.5.1 – Airport Safety Nets associated with A-SMGCS (Level 2)
Family 2.5.2 – Aircraft and vehicle systems contributing to Airport Safety Nets 56
AF #3 – Flexible ASM and Free Route
Family 3.1.1 – ASM Tool to support AFUA57
Family 3.1.2 – ASM management of real time airspace data
Family 3.1.3 – Full rolling ASM/ATFCM process and ASM information sharing 59
Family 3.1.4 – Management of Dynamic Airspace configurations
Family 3.2.1 – Upgrade of ATM systems to support DCTs and FRA
Family 3.2.3 – Implement Published Direct Routings (DCTs)62
Family 3.2.4 – Implement Free Route Airspace63
AF #4 – Network Collaborative Management68



Family 4.1.1 – STAM Phase 1 68
Family 4.1.2 – STAM Phase 2 69
Family 4.2.2 – Interactive Rolling NOP
Family 4.2.3 – Interface ATM systems to NM systems
Family 4.2.4 – AOP/NOP Information Sharing72
Family 4.3.1 – Target times for ATFCM purposes73
Family 4.3.2 – Reconciled Target Times for ATFCM and arrival sequencing 74
Family 4.4.2 – Traffic Complexity Tools75
AF #5 – Initial SWIM76
Family 5.1.1 – PENS 1: Pan-European Network Service version 1
Family 5.1.2 – NewPENS. New Pan-European Network Service
SWIM Common Components: SWIM Governance (Family 5.1.3) and Public Key Infrastructure (Family 5.1.4)78
Family 5.2.1 – Stakeholders Internet Protocol Compliance
Family 5.2.2 – Stakeholders SWIM Infrastructure Components
Family 5.2.3 – Stakeholders SWIM PKI and cyber security
Family 5.3.1 – Upgrade/Implement Aeronautical Information Exchange System / Service
Family 5.4.1 – Upgrade/Implement Meteorological Information Exchange System / Service
Family 5.5.1 – Upgrade/Implement Cooperative Network Information Exchange System / Service
Family 5.6.1 – Upgrade/Implement Flight Information Exchange System / Service supported by Yellow Profile
Family 5.6.2 – Upgrade/Implement Flight Information Exchange System / Service supported by Blue Profile
SWIM Services Implementation – Overview of deployment activities
AF #6 – Initial Trajectory Information Sharing
Family 6.1.1 – ATN B1 based services in ATSP domain
Family 6.1.2 – ATN B2 based services in ATSP domain
Family 6.1.3 – A/G and G/G Multi Frequency DL Network in defined European Service Areas
Outlook on PCP deployment per Family – Airspace Users gaps
Appendix - Current status of PCP deployment – View by State
Austria
Belgium
Bulgaria
Bulgaria



Czech Republic
Denmark
Estonia105
Finland106
France107
Germany
Greece
Hungary112
Ireland113
Italy114
Latvia116
Lithuania117
Luxembourg118
Malta119
Maastricht Upper Area Control Center120
Netherlands
Norway
Poland
Portugal124
Romania
Slovak Republic126
Slovenia
Spain
Sweden
Switzerland131
United Kingdom
List of Acronyms
Notes



Introduction

What is the Monitoring View?

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

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

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

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

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

- The technical/operational element to be deployed, i.e. one of the Families included in the SESAR DP;
- The geographical location (e.g. airport or country¹) in which the Family shall be deployed.

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

The Monitoring View 2018 thus provides such updated view, building on a dedicated *Monitoring Exercise* involving all impacted operational stakeholders. This view is updated on a yearly basis, so as to make sure that all progresses in the implementation are duly taken into account, helping to steer the subsequent phase of the PCP deployment and to develop a common reference for all involved actors.

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



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

- Section 1, which provides for a high-level overview of the status of deployment across Europe. Specifically, it identifies all activities that have already been performed between 2014 and 2018,

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.



those currently in progress and/or planned, as well as the main implementation areas that still need to be tackled by ATM stakeholders, with the objective to avoid significant gaps in the SDP implementation. On the basis of the inputs gathered during the Monitoring Exercise from the operational stakeholders, this section also provides the expected roadmap towards the full PCP implementation;

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

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

Key principles underpinning the SDM Monitoring Exercise

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

In this direction, a dedicated SDM Monitoring Exercise was preliminarily established in 2015. To this end, building on the legacy of the Interim Deployment Programme (IDP) monitoring activities, the full alignment between specific DP Families 2016 and the IDP Activity Areas and/or Work Packages addressing PCP prerequisites and facilitators was duly taken into consideration. The exercise has then been refined and expanded in 2016 and 2017, setting the ground for yearly iterations that ensure a more structured and reliable view.

The current monitoring exercise has been carried out taking into account targeted and detailed inputs provided by all relevant operational stakeholder categories, gathered through *ad-hoc* templates and surveys, specifically developed by the SESAR Deployment Manager, with the cooperation of EDA, NM and the SESAR JU. To achieve this goal, the 2018 SDM Monitoring Exercise involves:

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

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

As each milestone is assigned with a specific weight in the Family deployment, the progress towards the full coverage of a specific gap is defined by the achievement of this standard set of milestones from the Stakeholders' operating within the defined geographical scope². In particular, a gap is considered fully closed when all associated milestones have been achieved, the technologies within the Family scope have been fully deployed and their operational use has started.

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



Furthermore, within the 2018 SDM Monitoring Exercise, the expected date of completion of each Family within each airport / country has been also identified, on the basis of the declarations coming from the involved operational stakeholders. These inputs support the preparation of the overall roadmap toward full deployment, at Family, AF, and PCP level, thus identifying a high-level plan to meet the Regulation deadline and timely detect any deviation from the optimum planning or potential implementation delays.

Finally, SDM asked Stakeholders for additional information on technological elements considered as more strategic or deserving particular attention due to their features or characteristics. These integrations focus on the following Families:

- 1.1.2 AMAN upgrade to include Extended Horizon function
- **1.2.1** RNP APCH with Vertical Guidance
- 1.2.3 RNP1 Operations in high density TMAs (ground capabilities)
- 3.2.4 Free Route Implementation
- 5.3.1 Upgrade / Implement Aeronautical Information Exchange system / service
- 5.4.1 Upgrade / Implement Meteorological Information Exchange system / service
- 5.5.1 Upgrade / Implement Cooperative Network Information Exchange system/service
- 5.6.1 Upgrade / Implement Flights Information Exchange system / service supported by Yellow Profile
- 5.6.2 Upgrade / Implement Flights Information Exchange system / service supported by Blue Profile

On the basis of this information, specific tables and/or paragraphs complement the charts at Family level included in Chapter 2.



1. PCP Implementation Status

1.1 Current status of PCP deployment

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

A "*closed gap*" implies that the implementation of a Family within a specific geographical location (airport³ or country – to refer to Airspace dimension – plus Network Manager and MUAC, when applicable) has been achieved, and no further activities are necessary to ensure the operational use of the elements included in the Family scope.

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

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

The following exceptions shall be noted:

- Implementation activities linked to Family 1.2.4, 6.1.4 and 6.1.5 are not included in the overall number of ground gaps, as their scope is only associated to implementation on airborne side (further detail is reported in the last section of Chapter 2);
- Families 5.1.3 and 5.1.4 given the specific features of the activities linked to the establishment of a common SWIM Governance framework and their dimension expanding beyond national borders
 have been treated following a different approach, detailed as well within Chapter 2 (see section SWIM Common Components: SWIM Governance and Public Key Infrastructure);
- Family 1.2.5 has not been taken into account in the definition of the overall figure, as the implementation of its technological and operational elements is not mandatory neither according to the PCP nor to other EU regulations, and is not considered as a facilitator towards the deployment of one of the Sub-AFs included in Regulation (EU) n. 716/2014.

As a result of these assumptions and evaluations, the overall number of ground gaps illustrated within the Monitoring View is 1152. This number has been slightly reviewed and increased from the 2017 edition, where a total number of 1142 ground gaps were considered. That is mostly due to further discussions and analysis – performed by SDM in cooperation with the Network Manager and the relevant local operational stakeholders – on the geographical applicability of STAM Phase 1 (Family 4.1.1) in the framework of the PCP implementation. As the additional assessment confirmed, elements included within this Family are applicable within a much wider geographical area than previously considered, thus leading to an increase of the overall number of gaps. It is however worth emphasizing that those elements are already fully implemented and used operationally, so that the gaps can be considered already closed and do not require additional activities nor investments by the involved stakeholders.

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

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

³ The scope of the SDM 2018 Monitoring Exercise encompasses all 25 PCP airports but Istanbul Ataturk.



PCP implementation: a general view

275 gaps out of the 1152 composing the Deployment Programme scope are already fully implemented and the associated technological and operational elements are already in use by the relevant stakeholders. Compared to the results stemming from the analysis carried out in 2017, the overall percentage of implementation increased by more than four percentage points, thus bringing the coverage from roughly 19% to 23,9%. It is worth noting that such implemented gaps are spread across all PCP ATM Functionalities and 24 Deployment Programme families, demonstrating a wide-ranging and farreaching effort from involved stakeholders.

Figure 2 further provides evidence that **the implementation activities are progressing well, as they are covering around 540 gaps, amounting to almost 47% of their total number**. More specifically, 391 gaps are in the process of being implemented **benefitting from the outcomes of EU-funded and SDM-coordinated Implementation Projects from CEF Call 2014, 2015, 2016 and 2017**, covering either the implementation of the partial or full scope of an identified gap. On the other hand, for 149 gaps the implementation is in progress with Stakeholders' own resources and/or through other means of funding/financing.

In other words, **more than two thirds of the identified gaps (70,7%) is either already closed or is in the process of being implemented by the relevant operational stakeholders**, slightly improving the overall 2017 outlook by around four percentage points. Furthermore, these progresses led to the achievement of partial results in almost 300 additional gaps, for instance through the achievement of intermediate implementation steps, almost doubling the number of gaps where tangible deployment results have already been accomplished.



Figure 2 - Current PCP Implementation Status - Overview

17,5% of the gaps are currently planned to be deployed, as Stakeholders declared through the Monitoring Exercise, bringing the total number of gaps implemented, addressed or soon-to-be addressed by implementation activities to 1016, more of 88% of the total SDP scope. Finally, stakeholders declared the lack of specific plans for the remaining 11,8% of the PCP scope (136 gaps).

Taking a closer look at these last two figures, it is worth noting that the total share of gaps that are either planned or not yet part of the Stakeholders' future implementation programs has seen a slight decrease compared to 2017, dropping from more than 33% to a shy 30%. This is due to the increasing commitment of operational stakeholders to implement the Deployment Programme, as well as to the EU funding support provided under the CEF Framework, including 49 Implementation Projects awarded in CEF Call 2017.

In a nutshell, the aforementioned figures help bringing the positive message that Stakeholders are moving forward with the deployment, thus getting closer to turn the Pilot Common Project into operational reality.



However, attention should be also drawn to specific reasons why the implementation activities are not yet planned:

- the low readiness of the associated Families does not allow the elaboration of concrete implementation plans. It is the case of implementation activities linked to Family 4.3.2 (11 gaps with no associated plans), Family 6.1.2 (28 out of a total of 29 gaps) and Family 5.6.2 (19 gaps with no concrete plans from local stakeholders);
- the potential uncertainties linked to the implementation of SWIM-related elements (especially those associated to different kinds of ATM information exchanges, i.e. Sub-AF 5.3, 5.4, 5.5, 5.6), which relies on the establishment of the SWIM Governance Framework. For 63 implementation gaps associated to AF5 elements no specific implementation plan has been indicated by the stakeholders; furthermore, it is worth noting that Family 5.2.3 is still considered as a *medium readiness* Family;
- potential concerns associated to the deployment of specific Sub-AFs, such as the integration of Departure Management with Surface Management Constraints and its link with the A-SMGCS Planning and Routing functions and the deployment of Enhanced Short Term ATFCM Measures (especially with regard to Family 4.1.2, STAM Phase 2);
- possible reservations regarding the deployment of Family 2.3.1 Time Based Separation within all airports identified in the PCP Geographical scope;
- the sequencing of the Families implementation, which in some cases require to proceed with the deployment of a specific family to elaborate plans to implement another (e.g. the integration of the AOP-NOP, which relies on the implementation of the local Initial Airport Operations Plans, or Family 3.1.2, which requires the full deployment of Family 3.1.1).

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



Detailed view per ATM Functionality

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



Figure 3 - PCP Implementation Status: view per AF



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

Roughly one third of the existing implementation gaps associated to AF1 Families have already been closed, with slight improvements already achieved across all families compared to 2017. Around 60% of the ATM Functionality is already in the process of being implemented (in most cases benefitting of EU funding support and of the SDM coordination activities). This means that the deployment of AF1 is not currently on-going only in 12.5% of the cases, of which more than two thirds are planned to be implemented by stakeholders.

Whilst for Family 1.1.1 and 1.2.2 more than half the stakeholders operating in the PCP airports have already implemented the associated technological and operational elements, it is worth mentioning that for some families only a limited set of gaps have already been closed (4 for Family 1.2.1, and 1 for Family 1.2.3). On the other hand, intermediate results have been achieved in the implementation of all the mentioned Families: 18 airports have already partially implemented the AMAN upgrade to included Extended Horizon function, 19 partially deployed RNP approaches with vertical guidance in at least one of its runways, and 3 implemented some elements associated to RNP 1 operations.

AF 2 – Airport Integration and Throughput

Around 83% of the gaps associated to ATM Functionality #2 is either fully covered or the associated deployment activities are already in progress. In the wide majority of cases, the implementation activities are also coordinated by SDM.

For a limited number of gaps (only less than 5% of their total number), no plans have been declared by stakeholders. That is due essentially to some uncertainties regarding Family 2.3.1 (Time Based Separation): no plans have been declared by 8 airports out of the 16 into which the deployment is required.

The implementation of Family 2.1.1, 2.1.2, 2.1.3 and 2.2.1⁴ is well progressing, as the number of fully or partially covered gaps amounts respectively to 16, 23, 21 and 21 gaps out of the 24 airports, for a total increase of almost 10% vis-à-vis 2017.

Although a limited number of airports have already fully implemented the technological elements linked to Families 2.1.4, 2.4.1, 2.5.1 and 2.5.2, it has to be highlighted that the deployment activities have already started in A-SMGCS Routing and Planning Functions and Airports Safety Nets associated with A-SMGCS, in 18 airports each, whilst the implementation of Aircraft and vehicle systems contributing to Airport Safety Nets and the Initial Airport Operations Plan has started respectively for 17 and 16 gaps. With regard to the above Families, in 85% of the cases, the activities are being carried out under the coordination of SDM.

AF 3 – Flexible ASM and Free Route Airspace

More than 40% of the implementation gaps associated to AF3 have already been fully covered by operational stakeholders, demonstrating considerable improvements compared to the situation outlined in the Monitoring View 2017. The year 2018 also marks the achievement of the first PCP milestone, with the successful implementation of Direct Routings (DCTs) throughout Europe, in accordance to Regulation (EU) n. 716/2014. In addition, significant results have been obtained in Families 3.1.1 and 3.1.3, which have been achieved respectively in 11 and 24 countries. The deployment of Family 3.2.4 is also progressing well, with an overall increase of 10% compared to last year, thus bringing the total number of countries where Airspace Users are able to fly FRA to 17.

113 gaps are in the process of being implemented – both within and beyond the umbrella of the FPA and the associated coordination of SDM – impacting all Families of the ATM Functionality.

With regard to Family 3.2.1, which is associated to the upgrade of ATM systems supporting Sub-AF 3.2, it is worth noting that the situation improved vis-à-vis the Monitoring View 2017, where the implementation activities have already been concluded for Portugal, MUAC and Bulgaria, whilst tangible results have already been achieved elsewhere. Specifically, in 90% of the occasions, the activities toward the full implementation

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



of the supporting tools included in the Family's scope have successfully started, with more than two thirds of them covering 50% or more of the relevant gap.

For only 2,9% of the identified gaps, the implementation activities have been planned but not started yet, whilst for the remaining 2,9% no specific plans have been elaborated by the relevant stakeholders. Also for AF3, the abovementioned results show a convincing progress compared to last year, when 15% and 5% of the gaps where planned and not planned, respectively.

AF 4 – Network Collaborative Management

The number of completed implementations amount to 17,6% of the total gaps associated to ATM Functionality #4, which is more than 6 percentage points higher than in 2017. However, it needs to be noted that AF4 is progressing at a slightly slower pace, if compared to AF1, AF2, and AF3.

The reason is mainly due to the lower level of readiness of some of the elements linked to specific families or to the expected sequencing of the implementation, which requires the achievement of specific milestones or intermediate steps in order for stakeholders to proceed in their deployment efforts.

For example, Family 4.3.2 is marked as a low readiness family and more than one third of the gaps are not associated to any implementation plans.

The currently on-going implementation activities roughly cover 35% of the existing gaps: these are mainly focused on STAM Phase II (Family 4.1.2), the deployment of Interfaces between ATM systems and NM systems (Family 4.2.3), AOP-NOP Integration (Family 4.2.4), and the implementation of Traffic Complexity Tools (Family 4.4.2). In particular, for Families 4.2.3 and 4.4.2, the progress is often included into far-reaching upgrades of the relevant ANSPs ATM systems, covering a wider range of Families.

Finally, plans have been declared for more than 35% of the total number of existing gaps, leaving only around 10% of the AF-related gaps without any associated specific implementation plans.

AF 5 – Initial SWIM

The overall implementation of the ATM Functionality #5 is progressing, although it needs to be considered that some key enabling activities are currently being ramped up through two multi-Stakeholder initiatives. Building on the activities already started in 2016, the implementation project aimed at establishing a SWIM Governance officially started its deployment activities, benefitting of EU funding due to its award under the 2016 CEF Call framework. In addition, an initiative on the SWIM Common PKI has been awarded by INEA within the 2017 CEF Call for Proposals, demonstrating and supporting a cooperative effort to set-up the necessary elements enabling the full implementation of AF5.

Even though due consideration needs to be given to the points highlighted above, it is worth noting that more than 56% of the AF5 gaps are or will be addressed by the operational stakeholders, either through their full closure or through deployment activities currently on going with and without the support of EU funding. More in detail, 40 out of the 318 gaps to be covered by the implementation of technological elements linked to the deployment of Initial SWIM have been closed, 137 are in the process of being addressed, and 78 are associated with future plans of the Operational Stakeholders to achieve the full PCP compliance.

Finally, around 20% of the gaps are not currently covered by any plans for future implementation, as some technological elements are not yet fully mature, and others will be ready for their implementation and subsequent full operational use after the establishment of a SWIM Governance.

In a nutshell, the figures remain practically steady compared to the results stemming from the analysis carried out in 2017. However, the global situation has improved thanks to the multi-Stakeholder initiatives described above. Significant improvements are expected to be tangible once these Europe-wide initiatives progress thanks to the combined effort of the European Community.

AF 6 – Initial Trajectory Information Sharing

The implementation of the three ground families associated to ATM Functionality #6 is tightly linked to the urgent deployment of DLS capabilities at European Level, divided into the ATSP domain (divided into Family



6.1.1 – ATN B1 based services and Family 6.1.2 - ATN B2 based services) and the communication domain, through Family 6.1.3 – A/G and G/G Multi Frequency DL Network in defined European Service Areas.

The deployment of Family 6.1.1 is well advancing and increasing the number of closed gaps compared to last year, with 14 countries having the ATN B1 based services implemented. On the other hand, 35 gaps out of the 84 included in AF6, the implementation activities are in progress, in many cases also supported by activities coordinated by the SDM in its role of DLS Implementation Project Manager. These activities also allowed the achievement of intermediate results in more than 30 gaps (mostly spread across Family 6.1.1 and 6.1.3).

Family 6.1.2, associated to ATN B2 based services, is still a low readiness family: that means that no gaps can be closed yet; that is the rationale underpinning the fact that in the vast majority of cases the implementation activities are neither in progress nor planned, as a higher level of maturity and readiness for the implementation of the associated technological elements is needed to start a synchronized and effective deployment.

In this framework, it is worth mentioning that Family 6.1.3 deserves particular attention, as it aims at implementing the A/G and G/G Multi Frequency Data Link Network through the achievement of intermediate milestones, at Country, Service Area, and Europe-wide level. Although the latter represents the final step for the full achievement of the Family's scope in accordance to the SESAR Deployment Programme, the above mentioned intermediate phases represent significant gates towards complete deployment.

In particular, the implementation at Country level has been currently achieved in 12 countries (plus the MUAC area - upper airspace of Belgium, north-west Germany, Luxembourg and the Netherlands), whilst 8 are in the process of reaching this first milestone. Looking at the global picture, instead, it is worth noting that more than 20 stakeholders are successfully progressing with the implementation of the entire Family 6.1.3, the wide majority being involved in SDM-coordinated large-scale initiatives awarded under the framework of previous CEF Calls.



1.2 Expected roadmap for PCP completion

Overall roadmap

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

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

Through the combination of inputs from operational stakeholders operating within a specific airport or Country, for each existing gap it was possible to identify the expected date on which all elements linked to a specific family will be fully deployed and their operational use will start. The main results stemming from this analysis are reported within Figure 4 and are further illustrated in the following paragraphs. Such figure starts from the status of implementation reported on last edition of the Monitoring View 2017, as resulting from last year SDM Monitoring Exercise and specifically highlighted in orange, and illustrates through a green curve the expected progress in the overall implementation of the Pilot Common Project

It is worth noting that for around 17% of the 1152 implementation gaps that compose the full SESAR Deployment Programme scope, no specific date of completion has been indicated or identified, among other reasons due to a lower level of readiness for implementation of the technological and operational elements to be deployed, and – in a smaller set of cases – due to the lack of already defined plans to steer and address the implementation by local stakeholders.



Figure 4 - Expected Roadmap towards the Full PCP implementation

As illustrated within Section 1.1, the current⁵ status of implementation of the Pilot Common Project includes 275 gaps fully covered, amounting to more than 24% of the total number of 1152 implementation gaps. That marks a significant step forward from May 2017, when less than 19% of the gaps were already fully

⁵ Such status corresponds to the status of PCP implementation as in May 2018, when the monitoring data and associated information has been submitted by the relevant ATM operational stakeholders. For the deployment activities performed under the coordination of SDM, the monitoring results are fully aligned with the DP Execution Progress Report 2/2018, published in June 2018.



closed; that is mostly due to stakeholders' efforts in closing additional gaps in AF2 (e.g. with the significant progress in the wide-spread implementation of Airport-CDM across the PCP airports) and in AF3 (especially thanks to the progress in the implementation of Family 3.1.3 and the achievement of the full closure of Family 3.2.3, leading to the implementation of Direct Routings across the whole European Union).

By the end of 2018, an additional set of 32 additional existing gaps are expected to achieve their full coverage, also benefitting from the progress of EU-funded and SDM-coordinated Implementation Projects. Among the soon-to-be closed gaps, it is worth mentioning the following:

- The deployment of Arrival Manager (Family 1.1.1) in Brussels airport, which would bring the total number of PCP airports operating AMAN to 15, further building the path for the wide-scale implementation of Extended AMAN;
- The progress in the implementation of RNP APCH procedures (covered by Family 1.2.1) in Brussels and Dublin across all local applicable runways used for landings;
- The wide-spread progress in the installation and integration of ASM tools (supported by Family 3.1.1) across 12 European countries, with the coordination and support of the Network Manager. It is worth underlining that in several of these countries, the implementation is currently supported by EU-funded implementation projects. That would bring the total number of Family 3.1.1 closed gaps to 23.

By the end of 2019, a total number of 352 gaps is expected to be closed (roughly 30% of the total), thanks to the achievement of the full coverage for additional 45 gaps spread across all PCP ATM Functionalities, with a specific focus on AF1, AF3 and AF5. More specifically, a significant progress is expected in Family 1.2.1, with the implementation of RNP approach procedures across 6 PCP airports. The deployment of PCP at airport level is also expected to significantly accelerate within AF2, with 11 gaps closed in 2019 within Family 2.1.1, 2.1.2 and 2.2.1. Furthermore, operational stakeholders will achieve important milestones in the deployment of Initial SWIM and its infrastructure components, with 7 gaps closed among Family 5.1.2 (dealing with the installation of NewPENS) and Family 5.2.1 (Stakeholders' Internet Protocol Compliance). It is also worth noting that initial results will be achieved in the integration of local Airport Operations Plan in the Network Operations Plan (covered by Family 4.2.4), with 4 gaps expected to be closed.

In 2020, given the closure of around 100 EU-funded initiatives and the first approaching PCP Regulation target dates, the implementation activities are expected to significantly accelerate, as the percentage of closed gaps will spike to 44%, thanks to the closure of additional 151 gaps, leading to a total number of 503.

The acceleration in the deployment progress will be significantly pushed by the closure of implementation activities, covering more than 80 gaps from AF1 and AF2, spread across almost all identified Families, including the full implementation of RNP APCH with vertical guidance (Family 1.2.1) in 8 PCP airports and the closure of more than 65 gaps associated to Sub-AF 2.1, Family 2.2.1 and Sub-AF 2.5. Additional progress will be represented by the progress in the implementation of AOP/NOP integration (to be deployed by December 2020 in 6 PCP airports) and especially by the implementation of NewPENS (Family 5.1.2) within 23 countries (plus Network Manager), benefitting from the multi-stakeholder initiative funded in the framework of CEF Calls 2015 and 2016.

By the beginning of 2022, the number of closed gaps is expected to arise to 736, topping 64% of the overall implementation of the Pilot Common Project: the constant growth (with 233 gaps closed during 2021) is explicitly led by the progress in the implementation of AF3, with 49 gaps to be closed within Sub-AF 3.1 *Airspace Management and Advanced Flexible Use of Airspace* and 31 gaps spread across Family 3.2.1 and 3.2.4, targeting the almost complete implementation of Free Route Airspace across Europe. More specifically, by the end of 2021, in compliance with the deployment target dates stated within the PCP Regulation, Free Route will be implemented at and above Flight Level 310 in all applicable European countries (plus Maastricht Upper Area); this implementation might however be subject to certain operational limitations (such as time, entry-exit point and cross-border limitations, etc.).

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

At the current time, no ground gaps are explicitly declared to be closed beyond the PCP timeframe nor beyond the specific target date set forth in the Regulation for each ATM Functionality.



On the other hand, due to the lack of readiness for implementation of specific Families (e.g. 4.3.2 Reconciled Target Times for ATFCM and arrival sequencing, 5.6.2 Upgrade/Implement Flight Information Exchange System/Service supported by Blue Profile, 6.1.2 ATN B2 based services in ATSP domain), no specific date has been specified for more 200 gaps. A specific focus is needed for AF5 and AF6 implementation, as no completion date has been indicated for around 150 gaps.

SDM, together with the relevant SES bodies and in cooperation with all involved stakeholders, is carefully monitoring these potential issues and is supporting operational stakeholders in the identification, definition and implementation of the necessary mitigation actions to raise the level of readiness for deployment of the relevant technological elements.

As an example, the establishment of an appropriate SWIM Governance framework – in accordance to the dedicated SWIM Governance Action Plan published in 2016 and whose progress is detailed within the Planning View 2018 – is expected to improve the situation for AF5, paving the way for the timely implementation of the necessary components and structures to be implemented at European and local level, building the set for the different kinds of ATM information exchanges defined in the PCP.

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

Detailed views per ATM Functionality

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

The implementation activities associated to AF #1 are welladvanced and already started delivering their first results, in terms of the also achievement of the related performance benefits: around 30% out of the 121 gaps to be covered have already been closed, setting the ground for the future implementation of all technological and operational elements mandated by the Pilot Common Project. It is also worth mentioning that the progress in the





implementation is expected to keep a steady pace in 2018 and in 2019, closing on average 10 gaps per year.

By December 2020, also thanks to the closure of several EU-funded implementation projects, additional 17 gaps will be closed by local operational stakeholders, achieving around 60% of the overall implementation of AF #1.

The implementation progress rate is expected to slow down during 2021 and 2022, then experiencing a significant spike during 2023, bringing the total of closed gaps to 116 (around 96%). No specific date has been indicated for just a small set of implementation gaps.

It is worth noting that the implementation activities have already produced their results mainly regarding a facilitating family, 1.1.1 Basic AMAN, and a complementary family, 1.2.2 Geographic Database for Procedure design, which have been fully implemented respectively across 14 and 18 airports each.

The completion of Family 1.1.1 is expected to proceed in the upcoming months, as Arrival Manager is expected to be implemented and become operational in Brussels in 2018, as well as in additional 5 of the busiest PCP airports in 2019. In parallel, the Spanish gaps for Family 1.2.2 have just been closed by and EU-funded initiative led by ENAIRE implementing a reference Geographic Database (in Barcelona, Madrid



and Palma de Mallorca) and a similar initiative is also in the process of being completed in Amsterdam Schiphol.

The progress achieved within the implementation of these families is of utmost importance; Basic AMAN represents an intermediate step and a significant push towards the implementation of Family 1.1.2, whose implementation has currently achieved partial results in 18 out of the 24 PCP Airports, although without any fully closed gap yet. In most cases, local stakeholders declared plans to complete the implementation of the Family in accordance with the deployment target date stated in the Regulation – by the end of 2023. On the other hand, the implementation of the Geographic Database for Procedure design works as an effective enabler for the full deployment of Sub-AF 1.2.

It is worth noting that for almost all implementation gaps associated to Family 1.2.1 and 1.2.3, operational stakeholders have declared plans that would lead to the implementation completion in line with the deployment target dates listed in the PCP regulation for the ATM Functionality and with the FOC dates specifically identified for each Family in the SESAR Deployment Programme. Moreover, some earlier implementations are foreseen: as an example, RNP approaches with vertical guidance (Family 1.2.1, with FOC date at the end of 2020) are already implemented at Nice, Oslo, Palma de Mallorca and Paris CDG and will be implemented by the end of 2018 in Brussels and Dublin. Furthermore, the implementation efforts from local ANSPs and Airport Operators already led to the adoption of RNP APCH procedures already in 23 of the 24 PCP airports, although not yet across all the locally applicable runways.

The implementation of Family 1.2.5 – RNP routes connecting Free Route Airspace with TMA – is not mandatory according to Regulation (EU) n. 716/2014. In this perspective, it is worth underlying that the implementation activities linked to this Family are not included in the counting of the existing implementation gaps.

AF 2 – Airport Integration and Throughput

The implementation of AF2 currently registers 62 gaps closed out of a total of 208, accounting for slightly lower than 30% of the overall ATM Functionality. These results have been achieved through the coordinated effort of ANSPs and Airport Operators and have also take advantage of EU funding support and of the coordination of SDM.

After a foreseen slow but steady progress in 2018 and 2019 (closing 17 gaps in total





and focusing on the implementation of Sub-AF 2.1 and 2.2), by the end of 2020, the total number of closed gaps is expected to significantly increase to 145, amounting to 69,7% of the total gaps for AF2. That is mostly due to the completion of the vast majority of Implementation Projects coordinated by SDM associated to AF2, in several cases involving a wide number of operational stakeholders from different PCP airports.

The implementation will then continue at full pace in the following years, bringing the total amount of closed gaps on December 2024 to 194, amounting to 93,3% of the total existing implementation gaps.

For around 15 gaps, no specific date has been identified by the stakeholders, due to lack of detailed plans towards the full implementation: the widest number of gaps for which a target date has not been identified are associated to 2.3.1 Time Based Separation. More specifically, 8 of the 16 PCP airports currently do not foresee to implement the Family by the PCP deployment target date).

The status of implementation of Sub-AF 2.1 is however well-advanced at the current time, considering that Family 2.1.1, 2.1.2 and 2.1.3 are already deployed respectively in 12, 16 and 18 airports across the PCP geographical scope. The implementation efforts from operational stakeholders is expected to lead to the almost complete closure of the Families in line with the FOC dates listed in the SESAR Deployment



Programme, derived from the deployment target dates stated in the Pilot Common Project. Early implementations are already being completed in 2018, with the implementation of the Electronic Flight Strips in the three London PCP airports achieved in July, and with the upcoming implementation of Initial DMAN at Dublin Airport. Finally, all remaining PCP airports are already in the process of fully implementing Airport CDM.

8 implementation gaps associated to Family 2.2.1 (A-SMGCS Level 1 and 2) have already been closed by the joint effort of Airport Operators and ANSPs, depending on the specific operational arrangement in place within each airport and at least A-SMGCS Level 1 is implemented in 19 of the 24 PCP airports. It is worth noting that all involved stakeholders declared plans to close the existing gaps earlier than December 2020, whilst earlier implementations are foreseen in 7 airports (closing the gaps at the latest on December 2019 and, in two cases, in 2018). It is however worth emphasizing that the foreseen implementation of Family 2.2.1 is limited only to the Installation of A-SMGCS Level 1 and 2 and does not include the Surface Management Constraints integration, which is described in the PCP Sub-AF 2.2 and which underpinning SESAR Solution was not successfully validated due to instability of the data. The corresponding Sub-AF is therefore proposed to be removed from the PCP through the PCP revision that SDM submitted to the European Commission in November 2017.

A smaller number of tangible results is associated to Family 2.3.1, 2.4.1, 2.5.1 and 2.5.2: more specifically, Time Based Separation (Family 2.3.1) has already been implemented at Heathrow Airport, whilst the deployment A-SMGCS with Planning and Routing functions (Family 2.4.1) and the associated Airport Safety Nets (Family 2.5.1) has already started across several airports, often supported by wide-range multistakeholder initiatives coordinated by SDM and supported by EU funding.

Finally, the implementation of vehicle systems contributing and supporting Airport Safety Nets (Family 2.5.2) has been completed at Brussels Airport, London Stansted, Paris Charles De Gaulle, Paris Orly and Vienna Schwechat.

AF 3 – Flexible Airspace Management and Free Route

The deployment of Flexible Airspace Management and of Free Route at European level is progressing at a notable speed, with more than 40% of the identified implementation gaps already fully covered by operational stakeholders (mostly ANSPs and the Network Manager, with the involvement of Military Authorities whether relevant according to local arrangements).

By the end of 2018, the overall number of closed gaps is expected to raise at 101, reaching more than 48% of the total, slightly increasing also during 2019, with the closure of 4 additional gaps.

The progress of AF#3 implementation is expected to grow stable in the upcoming months leading to the coverage of around 57% of the identified gaps by the end of 2020.

AF #3 - Expected Roadmap towards the full implementation \$ 95,2% 94 8% 56.7% 50.0% 48 1% 4Π 5% PCP deployment taroet date for Free Route Airsoaci May 2017 Dec 2025 May 2018 Dec 2018 Dec 2019 Ber 2020 Dec 2021 Dec 2022 Dec 2023 Dec 2024

The completion of several wideranging upgrade of ATM



systems currently undertaken by a vast set of ANSPs and the joint effort towards the FRA establishment at large scale is then expected to bring to the closure of additional 80 gaps during 2021, pushing the total to 200 closed gaps (more than 95%) by January 1st, 2022, the deployment target date of AF3. As described earlier within section 1.1, this implementation is likely to be subject to certain limitations.

For a limited number of gaps (less than 5% of the total), no specific date for the full implementation has been identified by operational stakeholders, mostly linked to uncertainty on the closure of already on-going and/or planned activities. That is mostly to the case of activities linked to the full deployment of Sub-AF 3.1, whilst on the other hand the operational deployment of Free Route is already in progress (either with or without the support of public funding in 25 out of the 28 European countries).



ASM tools to support AFUA (as described within Family 3.1.1) are already implemented within ten European countries (Belgium, Bulgaria, Croatia, Cyprus, Denmark, Estonia, France, Germany, Hungary, and Switzerland), plus MUAC, and additional implementations and integrations with NM systems will be closed in the upcoming months in Austria, Greece, Ireland, Italy, Lithuania, Norway, Poland, Portugal, Romania, Slovak Republic and Spain. That would lead to the closure of 23 gaps out of the 30 identified in the SESAR Deployment Programme, building the way for an improved civil-military coordination and for greater flexibility in the use of the European Airspace.

Whilst the implementation of Family 3.1.3 has received a significant boost in the previous years, registering more than two thirds of the existing gaps already fully closed, Family 3.1.2 is proceeding at a slower pace, as the still on-going implementation of local ASM tools represents an enabler for its full deployment. Almost all European ANSPs however have started the associated implementation activities and plan to close the gaps by the end of 2021, in compliance with the FOC date of the Family.

Although fully deployed only at MUAC, the implementation of Dynamic Airspace Configuration (covered by Family 3.1.4) is already on-going and have delivered the first intermediate results, with building blocks of the Family already implemented across 24 additional countries (in 11 cases, the Family implementation is already beyond 80% of the progress).

The upgrade of ATM systems associated to Family 3.2.1 is currently undergoing within almost all European countries, in many cases thanks to overarching upgrades of the ATM systems used by the local ANSPs, which will gradually bring to the implementation of tools and functionalities listed in Reg. (EU) 716/2014 to support DCTs and Free Route Airspace.

Within 27 of the 29 applicable countries included in the PCP geographical scope, at least one of the tools required by the Regulation has already been implemented and is in operational use. Furthermore, the effort from ANSPs and Network Manager, often supported by Implementation Projects coordinated by SDM and supported by EU funding is expected to proceed steadily in the upcoming years, leading to the full coverage of the Family in line with the 2021 deadline.

The full-scale implementation of Direct Routing (DCTs) represents one of the earliest achievements in PCP deployment, as Family 3.2.3 has been successfully implemented across all countries included in the Regulation geographical scope, with tangible operational benefits for Airspace Users flying across Europe.

Building on this progress, the deployment of Free Route Airspace is also expected to progress at fast pace: starting from the 17 currently closed gaps, the full implementation of the Family above Flight Level 310 will be achieved in additional 12 countries by the end of 2021, featuring also some relevant earlier implementations across some of the busiest European areas (e.g. the implementation in Germany, Maastricht Upper Area and United Kingdom is scheduled to be completed in 2020). However, it is worth mentioning that current plans for the FRA implementation do not always ensure a consistent and full implementation in all European airspace above FL 310, due to the limitations in terms of time, entry-exit point, cross-border, etc.

AF 4 – Network Collaborative Management

The implementation activities associated to ATM Functionality #4 are progressing at a slower pace, in

comparison with AF #1, AF #2 and AF#3. Only around 18% of the identified implementation gaps have been closed until May 2018, and just a very limited progress rate could be expected in the upcoming years (21 closed gaps in the 2018-2020 framework).

A significant step forward will be experienced during 2021, with the closure of around 60% of the existing implementation gaps, thus bringing the percentage of



Figure 8 - AF4 Expected Roadmap for Implementation



completion of the Family just below 90% in January 2022, deployment target date of the AF in accordance to PCP Regulation.

This sudden increase in the number of closed gaps – and in the associated progress of the implementation of the ATM functionality – is closely connected with the specific features of AF #4. Considering the operational role of the Network Manager, the implementation of specific families at local level, like STAM Phase 2 (Family 4.1.2) and the Interactive Rolling NOP (Family 4.2.2) requires the availability of a common platform, whose development is currently on-going by NM. Once the platform will be completed and enter into operational use, local stakeholders (mostly ANSPs) would be able to proceed with the implementation and close the associated gaps.

It has however to be noted that no specific date of completion has been identified by operational stakeholders for around 11% of the total number of gaps. That is due to, first and foremost, the lack of technological maturity of Family 4.3.2, indicated as a low-level of readiness family within the Planning View.

STAM Phase 1 - a facilitating Family that supports the implementation of Sub-AF 4.1 - is already implemented within 20 out of the 22 applicable countries, plus MUAC; through the achievement of the Family implementation in 2018 in Spain (supported by an EU-funded Implementation Project), additional progress is also expected in the upcoming years towards the full implementation of the Family across the applicable geographical scope.

Family 4.1.2, 4.2.2 and 4.2.3 are expected to experience a slower (although constant) deployment pace, as the wide majority of operational stakeholders identified December 2021 as the target date for the full Deployment of the Families. However, it has to be noted that the vast majority of stakeholders has implemented some of the building blocks that are included within Family 4.2.3 scope, as 28 ANSPs have already deployed and put into operational use at least one of them.

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

Finally, the deployment of Family 4.4.2 has already achieved some preliminary results, with the Traffic Complexity Tools already deployed and fully operational within Switzerland, MUAC and United Kingdom. The implementation will continue at a regular pace, with a notable earlier Family completion in Czech Republic within 2018. The deployment efforts from local stakeholders are in several cases (16 out of the 28 open gaps) supported by SDM-coordinated and EU-funded implementation projects.

AF 5 – Initial System Wide Information Management

As for AF #4, the implementation of ATM Functionality #5 is progressing at a moderate pace, due both to the lower level of maturity of some of the technological elements included in the Families' scope and to the critical role of the still-to-be-fully-defined SWIM Governance Framework and of the Public Key Infrastructure (PKI), whose overall establishment has to be considered as a critical enabler for the complete implementation of the Family.

More specifically, Families 5.3.1, 5.4.1, 5.5.1, 5.6.1 and 5.6.2, covering the different kinds of ATM information exchanges, are highly from dependent the implementation of the specific stakeholders' infrastructure components (covered by Sub-AF 5.2) and especially from the deployment of the common components and structures to be deployed on а European-wide basis, as included in Families 5.1.1, 5.1.2, 5.1.3 and 5.1.4.



Figure 9 – AF5 Expected Roadmap for Implementation



As a result, in line with the results presented in the Monitoring View 2017, only 12,6% of the total number of AF5-related gaps are currently covered, and a limited number of additional gaps is expected to be covered in the upcoming months (10 by the end of 2019).

However, the situation is expected to improve from 2020 onwards, with around 40 additional gaps that will be closed by January 2021 (mostly linked to the EU-wide expected implementation of the NewPENS) and a regular growth in the following years.

Coming closer to the deployment target dates, it is expected that a spike in closed gaps will occur, bringing the total number of closed gaps to around 75% of the total by the end of December 2024.

Stakeholders did not provide a specific target date for the completion and full implementation of around 25% of the total number of gaps. That is specifically due to the lack of clearly defined plans for the deployment of the Families addressing local infrastructure components and ATM information exchanges (almost half of the gaps associated to Sub-AF 5.3, 5.4, 5.5 and 5.6 lacks a specific target date). It is however worth noting that for some of the families, the associated technologic al elements still have to achieve the full readiness for implementation (for example, the Blue Profile and the Flight Object, covered by Family 5.6.2).

The implementation of the PENS-related part of Sub-AF 5.1 is by far the AF5 domain for which the implementation progress has achieved the most tangible results; PENS is fully implemented and operational within 28 of the 30 applicable countries in the PCP geographical scope (including MUAC) and the implementation of Family 5.1.2 (NewPENS) is proceeding at fast pace, with the widest majority countries participating to a dedicated multi-stakeholder Implementation Project, targeting the full deployment in additional 24 countries by December 2020.

In parallel, the activities associated to the establishment of a SWIM Governance Framework (according to Family 5.1.3) have started and are progressing with the contribution of several stakeholders, benefitting of EU funding and in accordance to the specifically developed Action Plan. Furthermore, around 30 operational stakeholders from all stakeholder categories are participating to a multi-stakeholder initiative funded under CEF Call 2017, aiming at deploying the SWIM Common Public Key Infrastructure, as required by the SESAR Deployment Programme and included within Family 5.1.4.

The implementation status of Family 5.2.1 – Stakeholders' IP Compliance – already encompasses a significant number of closed gaps (i.e. Austria, Bulgaria, Czech Republic, Hungary, Italy, Latvia, MUAC, Romania, Slovenia, Switzerland, and UK) and a stable progress rate is expected in the upcoming years (with Germany expected to close the gaps by the end of 2018 and several other countries in 2019). No other gap has been closed yet within any Family besides 5.1.1 and 5.2.1.

AF 6 – Initial Trajectory Information Sharing

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



Figure 10 – AF6 Expected Roadmap for Implementation

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

With specific regard to Family 6.1.3, it is worth recalling that the deployment activities are composed of different steps: a preliminary



implementation at country level, currently in the process of being completed, followed by the synchronized deployment beyond national borders (and eventually at EU level), whose details and features are still under definition, in accordance to the provisions included in the DLS Recovery Plan.

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

In accordance to the afore-mentioned elements, around 80% of the gaps included in the AF6 do not feature a specific target date for their implementation. The only ground gaps that currently can be considered as closed are associated to the implementation of Family 6.1.1, which has achieved a notable progress, with the full coverage of 14 out of the 28 applicable gaps (Austria, Czech Republic, Denmark, Estonia, Germany, Hungary, Ireland, Italy, MUAC, Poland, Spain, Sweden, Switzerland and United Kingdom). Intermediate results have been also achieved in other 11 countries across Europe.

For Family 6.1.3, although the implementation is still limited to the progress at country level, intermediate results have already been achieved within 12 countries (plus Maastricht Upper Area, operating DLS services within Belgium, Netherlands and Luxembourg airspaces). Partial results have also been achieved in other 8 countries, in several cases with the support of EU public funding. The implementation of this Family is also benefitting from the SDM coordination in its role of DLS Project Manager and from the wide-ranging initiatives awarded in the framework of the CEF Call 2016. In this framework, stakeholders are cooperating both in the implementation of the local transitional solutions and in the definition of the target solution, to be deployed in a synchronized manner at EU level.

Finally, the implementation activities associated to Family 6.1.2 have not started yet, as they are highly depending from the progress in the implementation of the other two families. In this perspective, no specific planned date has been provided by the stakeholders, although the current scenario is expected to evolve in the upcoming years, when more detailed plans will be defined by the relevant operational stakeholders. It needs to be noted that the target date implementation of AF6 has been proposed to be shifted to 1st January 2027 through the PCP Review due to the fact that Flight Object distribution on the ground is still under R&D and the required standard is not expected to be ready before 2021.



1.3 Overview of PCP deployment per Family – Ground gaps

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



Figure 11 - AF1: current implementation status per Family





Figure 12 - AF2: current implementation status per Family





Figure 13 - AF3: current implementation status per Family





Figure 14 - AF4: current implementation status per Family





Figure 15 - AF5: current implementation status per Family





Figure 16 - AF6: current implementation status per Family



2. Detailed Views per Family

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

Ground gaps – Monitoring Overview

A generic mock-up of the charts used to outline and provide for a representation of the result of the SDM Monitoring Exercise is proposed hereafter for illustrative purposes. The structure of 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.





Family Number and Title

Each chart is dedicated to a specific Family: its number and title are identified within the header of the charts. Furthermore, the level of readiness for implementation (High/Medium/Low) is mentioned, listing

the readiness of the technological and operational elements included in the Family scope. The color of the banner indicates the category of the family (blue for Core PCP families, green for facilitating families, light red for complementary families).

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



These colors provide a quick and effective indication of the overall

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



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

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

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

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

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

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

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





For each country, the right section of the table allows readers to check the status of implementation for each

category of stakeholders impacted by the Regulation and/or involved in the Family full deployment. Specifically, building on the clustering included in the Family descriptions from the Planning View, two kinds of involvement per stakeholder category is envisaged:

- Stakeholders considered as gaps including those stakeholder categories that are requested by the Pilot Common Project regulatory framework to directly invest to fill-in the implementation gaps and are therefore potentially eligible for co-funding under the upcoming CEF Transport Calls;
- Other stakeholders involved in the Family deployment, including those categories that shall be considered as contributors to the full operational deployment of the Family itself, without being necessarily requested by the PCP regulatory framework to invest.

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



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

It is worth noting that the current edition of the Monitoring View takes into account all Implementation Projects awarded within the framework of CEF Calls 2014, 2015, 2016 and 2017.



Whenever the specific features of Family (as described within the Planning View 2018) require for an active involvement of the Airspace Users to achieve its full deployment and the realization of the related performance benefits, a

dedicated label has been added. Due to the nature of the AU stakeholders, which are not strictly connected to an EU State but are rather operating beyond national borders and across the whole PCP geographical scope, the label highlights the identification of a dedicated Airspace Users gap for the Family.



Furthermore, the proposed charts also mark those implementation initiatives / gaps which are deemed crucial for the improvement of the current performance levels at Network level, identified in cooperation with the Network Manager in accordance with the latest available version of the



European Network Operations Plan and with the European Route Network Improvement Plan (ERNIP) Database. The relevance of such specific implementation gaps – labelled with a dedicated "N'' symbol - has been identified by applying a family-tailored approach, aiming at ascertaining which technological and/or operational elements shall be deployed and where, in order to positively impact on the overall performance of the Network.





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






Focus on Extended AMAN implementation

Taking into account the specific features of the implementation of the Extended AMAN within a specific TMA, operational stakeholders were called to provide additional and more detailed information in the 2018 Monitoring Exercise.

In particular, the monitoring of Family 1.1.2 is now further detailed, as it is now organized on the basis of the Area Control Centers potentially impacted by the extension of the horizon of the Arrival Manager system.

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

In this perspective, the following tables report on the status of implementation of Extended AMAN in the 24 TMAs, providing specific information on the Area Control Centers impacted by the deployment activities. Furthermore, in the tables, the capacity-constrained ACCs – as identified in the latest edition of the Network Operations Plan – are clearly indicated with a green "N" symbol, as they represent "Network Relevant Gaps", thus deemed crucial for the improvement of the current performance levels at Network level.

1			_ /_	-				
-	Amsterdan	n Schiphol Dec 2023		👌 🛛 🕹 Barcelona	El Prat Dec 2023] (📍 🤇	Berlin Brande	enburg Airport 🛛 Dec 20
-		Status of implementation			Status of implementation			Status of implementation
	Amsterdam ACC	In Progress with CEF		Barcelona ACC	Already Implemented		Bremen ACC	In progress with CEF
D	Maastricht UAC	Planned		Seville ACC	In Progress with CEF		Karlsruhe UAC ACC	In progress with CEF
	Bremen ACC	Planned		Palma de Mallorca ACC	Already Implemented		Munich ACC	In progress with CEF
	Langen ACC	Planned		Madrid ACC	In Progress with CEF		Warsaw ACC	Planned
D	Karlsruhe UAC ACC	Planned		Bordeaux ACC	In Progress with CEF		Copenhagen ACC	Planned
	Brussels ACC	Planned		Marseille ACC	In Progress with CEF		Maastricht UAC	In progress with CEF
	London ACC	Planned	_				Prague ACC	Planned
	Paris ACC	Planned					Malmo ACC	Planned
D	Reims ACC	Planned						
			1					
	Brussels	National Dec 2023		e Copenhage	en Kastrup Dec 2023] 🌶	Dublin	Airport Mar 20
	Brussels	National Dec 2023 Status of implementation		Copenhage	In Kastrup Dec 2023 Status of implementation)	Dublin	Airport Mar 20 Status of implementatio
	Brussels Brussels ACC	National Dec 2023 Status of implementation Planned		Copenhage Copenhagen ACC	In Kastrup Dec 2023 Status of implementation Already Implemented		Dublin Dublin ACC	Airport Mar 20 Status of implementatio Planned
	Brussels Brussels ACC Maestricht UAC	National Dec 2023 Status of implementation Planned Planned		Copenhage Copenhagen ACC Malmo ACC	en Kastrup Dec 2023 Status of implementation Aircady Implemented Aircady Implemented		Dublin Dublin ACC Shannon ACC	Airport Mar 20 Status of implementatio Planned Planned
	Brussels Brussels ACC Maastricht UAC Amsterdam ACC	National Dec 2023 Status of Implementation Planned Planned Planned		Copenhage Copenhagen ACC Malmo ACC Maastricht UAC	In Kastrup Dec 2023 Status of implementation Aircady implemented Not Planned		Dublin ACC Shannon ACC Prestwick ACC	Airport Mar 20 Status of implementatio Planned Planned
	Brussels Brussels ACC Maastricht UAC Amsterdam ACC Brest ACC	National Dec 2023 Status of implementation Planned Planned Planned Planned Planned		Copenhage Copenhagen ACC Malmo ACC Maastricht UAC Bremen ACC	In Kastrup Dec 2023 Status of implementation Already Implemented Already Implemented Not Planned Not Planned		Dublin Dublin ACC Shannon ACC Prestwick ACC London ACC	Airport Mar 20 Status of implementatio Planned Planned Planned Planned
	Brussels Brussels ACC Maastricht UAC Amsterdam ACC Brest ACC Langen ACC	National Dec 2023 Status of implementation Planned Planned Planned Planned Planned Planned Planned		Copenhagen Copenhagen ACC Malmo ACC Maastricht UAC Bremen ACC	En Kastrup Dec 2023 Status of implementation Aircady implemented Aircady implemented Not Planned Not Planned		Dublin ACC Dublin ACC Shannon ACC Prestwick ACC London ACC	Airport Mar 20 Status of implementatio Planned Planned Planned Planned
	Brussels ACC Maastricht UAC Amsterdam ACC Brest ACC Langen ACC Karlsruhe UAC ACC	National Dec 2023 Status of Implementation Planned Planned Planned Planned Planned Planned Planned Planned		Copenhagen ACC Copenhagen ACC Malmo ACC Maastricht UAC Bremen ACC	In Kastrup Dec 2023 Status of implementation Already Implemented Already Implemented Not Planned Not Planned		Dublin ACC Shannon ACC Prestwick ACC London ACC	Airport Mar 20 Status of implementatio Planned Planned Planned Planned
	Brussels Brussels ACC Maastricht UAC Amsterdam ACC Brest ACC Langen ACC Karlsruhe UAC ACC Paris ACC	National Dec 2023 Status of implementation Planned Planned Planned Planned Planned Planned Planned Planned Planned		Copenhagen Copenhagen ACC Malmo ACC Maastricht UAC Bremen ACC	In Kastrup Dec 2023 Status of implementation Aready Implemented Aready Implemented Not Planned Not Planned		Dublin ACC Shannon ACC Prestwick ACC London ACC	Airport Mar 20 Status of implementation Planned Planned Planned Planned



Planned

Dusseldorf I	nternational Dec 2023	Frankfurt International Dec 2023	Inndon Gatwick Dec 2023
Design APP	Status or implementation	Status or implementation	Status of implementation
	In progress with LC-	Langen ALL Aiready implemented	London ALL Planned
	In progress with CE		Maastricht DAL Frannen
Maastricht IIAC	In progress with CE		
	Planned		Rest ACC Planed
Brussels ACC	Planned	Brussels ACC In progress with CF	Paris ACC Planned
Reims ACC	Not Planned	Reims ACC In progress with CF	Reims ACC Planned
London ACC	Not Planned		
		(\bigcirc
London H	leathrow Mar 2019	London Stansted Dec 2023	Madrid Barajas Dec 2023
	Status of implementation	Status of implementation	Status of implementation
London ACC	Already Implemented	London ACC Planned	Madrid ACC Already Implemented
Shannon ACC	Already Implemented	N Maastricht UAC Planned	(II) Barcelona ACC In progress with CF
Prestwick ACC	Already Implemented	Amsterdam ACC Planned	Seville ACC Planned
Maastricht UAC	Already Implemented	Brussels ACC Planned	(1) Lisboa ACC In Progress with CEF
Reims ACC	Already Implemented	Brest ACC Planned	(1) Bordeaux ACC In Progress with CEF
🛞 Brest ACC	In progress with CBF	Paris ACC Planned	
		(Reims ACC Planned	
London ACC Prestwick ACC Shannon ACC Dublin ACC	r Ringway Dec 2021 Status of implementation Planned Planned Planned Planned	Milan Malpensa Dec 2023 Status of implementation Milan ACC In Progress with CEF Rome ACC In Progress with CEF Padua ACC In Progress with CEF Zurich and Geneva ACCs In Progress with CEF Vienna ACC In Progress with CEF Ljubljana ACC In Progress with CEF Marseille ACC In Progress with CEF % Marseille ACC Marseille ACC In Progress with CEF % Reims ACC Munich ACC In Progress with CEF Munich ACC In Progress with CEF	Munich Franz Josef Strauss Dec 2023 Status of implementation Munich ACC Already Implemented Langen ACC Already Implemented Prague ACC In progress with CEF Zurich and Geneva ACCs Already Implemented Wien ACC Already Implemented Padua ACC In progress with CEF
Nice Cot Nice Cot Narseille ACC Reims ACC Bordeaux ACC Bordeaux ACC Barcelona ACC Palma de Mallorca ACC Milan ACC	e d'Azur Dec 2023 Status of implementation Already Implemented Not Planned Not Planned Not Planned Not Planned In progress with CEF	Oslo Gardermoen Dec 2023 Status of implementation Oslo, Stavanger and Bodo ACCs Already Implemented Malmoe and Stockholm ACCs Not Planned Copenhagen ACC Not Planned	Palma de Mallorca Son San Juan Dec 2023 Status of implementation Palma de Mallorca ACC Already Implemented Madrid ACC In Progress with CEF Barcelona ACC Already Implemented Barcelona ACC In Progress with CEF Marseille ACC In Progress with CEF Alger ACC In Progress with CEF In Progress with CEF



Rome ACC

Zurich and Geneva ACC

Not Planned

Not Planned

-	Paris Charles	s De Gaulle Dec 2023	Paris	s Orly Dec 2023		Rome F	iumicino Dec 20
-	,	Status of implementation	·	Status of implementation			Status of implementation
	Paris ACC	Already Implemented	Paris ACC	Already Implemented		Rome ACC	In Progress with CEF
	Bordeaux ACC	Planned	Bordeaux ACC	Planned		Brindisi ACC	In Progress with CEF
	Brest ACC	Planned	Brest ACC	Not Planned		Milan ACC	In Progress with CEF
	Marseille ACC	In progress with CEF	Marseille ACC	In Progress with CEF		Padua ACC	In Progress with CEF
	Reims ACC	Planned	Reims ACC	Not Planned		Marseille ACC	In Progress with CEF
	Brussels ACC	Not Planned	Brussels ACC	Not Planned		Zagreb ACC	In Progress with CEF
	Maastricht UAC	Planned	Maastricht UAC	Not Planned	_		
	Amsterdam ACC	Not Planned	Amsterdam ACC	Not Planned			
	Langen ACC	Not Planned	Langen ACC	Not Planned			
	Karlsruhe UAC ACC	Planned	Karlsruhe UAC ACC	Not Planned			
I	London ACC	Planned	London ACC	Not Planned			
	London ACC Stockholm	Planned Planned Arlanda Dec 2023 Status of implementation	London ACC Vienna S	Not Planned]	Zurich	Kloten •
	London ACC Stockholm	Planned Arlanda Dec 2023 Status of implementation Aiready Implemented	London ACC Vienna S Vienna ACC	Not Planned		Zurich	Kloten - Status of implementatio Aready Implemented
	London ACC Stockholm falmo and Stockholm ACCs Copenhagen ACC	Planned Arlanda Dec 2023 Status of implementation Already Implemented Already Implemented	London ACC Vienna S Vienna ACC Padua ACC	Not Planned		Zurich Zurich ACC Geneva ACC	Kloten - Status of implementatio Already Implemented Planned
	London ACC Stockholm falmo and Stockholm ACCs Copenhagen ACC Oslo ACC	Planned Planned Arlanda Dec 2023 Status of implementation Aiready Implemented Aiready Implemented Net Planned	London ACC Vienna S Vienna ACC Padua ACC Prague ACC	Not Planned		Zurich Zurich ACC Geneva ACC Milan ACC	Kloten - Status of implementatio Already Implemented Planned Planned
	London ACC Stockholm falmo and Stockholm ACCs Copenhagen ACC Delo ACC Helsinki ACC	Planned Arlanda Dec 2023 Status of implementation Already Implemented Already Implemented Not Planned Not Planned	London ACC Vienna S Vienna ACC Padua ACC Prague ACC Bratislava ACC	Not Planned Chwechat Dec 2023 Status of implementation Planned Planne Planned Planned Planned Planned Planned Planned Planned Planned		Zurich Zurich ACC Geneva ACC Milan ACC Maastricht UAC	Kloten - Status of implementation Already Implemented Planned Planned Planned
	London ACC Stockholm falmo and Stockholm ACCs Copenhagen ACC Oslo ACC Helsinki ACC Tallinn ACC	Planned Arlanda Dec 2023 Status: of implementation Already Implemented Already Implemented Not Planned Not Planned Not Planned	London ACC Vienna S Vienna ACC Padua ACC Prague ACC Bratislava ACC Budapest ACC	Not Planned Ichwechat Dec 2023 Status of implementation Planned Planned Planned Planned Planned Planned Planned Planned		Zurich Zurich ACC Geneva ACC Milan ACC Maastricht UAC Marseille ACC	Kloten - Status of implementation Already Implemented Planned Planned Planned Planned
	London ACC Stockholm falmo and Stockholm ACCs Copenhagen ACC Dislo ACC Helsinki ACC Tallinn ACC Riga ACC	Planned Arlanda Dec 2023 Status of implementation Aircady Implemented Aircady Implemented Aircady Implemented Not Planned Not Planned Not Planned Not Planned Not Planned Not Planned	London ACC Vienna S Vienna ACC Padua ACC Prague ACC Bratislava ACC Budapest ACC Zagreb ACC	Not Planned Chwechat Dec 2023 Status of implementation Planned Planned Planned Planned Planned Planned Planned Planned		Zurich Zurich ACC Geneva ACC Milan ACC Maastricht UAC Marseille ACC Reims ACC	Kloten - Status of implementation Already implemented Planned Planned Planned Already implemented
	London ACC Stockholm falmo and Stockholm ACCs Copenhagen ACC Oslo ACC Helsinki ACC Tallinn ACC Riga ACC	Planned Arlanda Dec 2023 Status: of implementation Already Implemented Already Implemented Not Planned Not Planned Not Planned Not Planned	London ACC Vienna S Vienna ACC Padua ACC Prague ACC Bratislava ACC Budapest ACC Zagreb ACC Ljubijana ACC	Not Planned Chwechat Dec 2023 Setus of implementation Planned		Zurich Zurich ACC Geneva ACC Milan ACC Maastricht UAC Marseille ACC Reims ACC Karlsruhe UAC ACC	Kloten - Status of implementation Already Implemented Planned Planned Planned Already Implemented Planned
	London ACC Stockholm Almo and Stockholm ACCs Copenhagen ACC Oslo ACC Helsinki ACC Tallinn ACC Riga ACC	Planned Arlanda Dec 2023 Status of implementation Already Implemented Already Implemented Not Planned Not Planned Not Planned Not Planned	London ACC Vienna S Vienna ACC Padua ACC Prague ACC Bratislava ACC Budapest ACC Zagreb ACC Ljubijana ACC Munich ACC	Not Planned ChWechat Dec 2023 Citius of implementation Planned Planned Planned Planned Planned Planned Planned Not Planned Not Planned Not Planned Not Planned Not Planned	() () () () () () () () () () () () () (Zurich Zurich ACC Geneva ACC Milan ACC Maastricht UAC Marseille ACC Reims ACC Karlsruhe UAC ACC Langen ACC	Kloten - Status of implementation Already Implemented Planned Planned Planned Already Implemented Already Implemented







Focus on RNP APCH implementation

In order to gather additional details on the status of implementation of RNP APCH procedures across the 24 airports included in the PCP Geographical scope and to build a clearer picture of the progress of the associated implementation activities, for the 2018 Monitoring Exercise, SDM requested operational stakeholders to provide additional data and inputs.

Considering the objective of fully implementing RNP approach procedures in the PCP airports, it was deemed necessary to further deepen the granularity of the monitoring data, in order to keep track of the progress of the Family for each applicable Instrument Runway Ends (IREs).

Information have been on the status of implementation have been requested to operational stakeholders, integrated with input and data stemming from SDM-coordinated Implementation Projects and - when possible - cross-checked with the existing Aeronautical Information Publications. In this perspective, the following tables report on the status of implementation per each Runway of the 24 PCP Airports, as well as on the overall target date for the full implementation of the Family.

	Amsterdam Schiphol	Dec 2023
	LNAV/VNAV procedures	LPV procedures
Runway D4	In Progress with CEF	In Progress with CEF
Runway D6	In Progress with CEF	In Progress with CEF
Runway 09	In Progress with CEF	In Progress with CEF
Runway 18C	In Progress with CEF	In Progress with CEF
Runway 18L	Not Applicable	Not Applicable
Runway 18R	In Progress with CEF	In Progress with CEF
Runway 22	Already Implemented	Already Implemented
Runway 24	In Progress with CEF	In Progress with CEF
Runway 27	In Progress with CEF	In Progress with CEF
Runway 36C	In Progress with CEF	In Progress with CEF
Runway 36L	Not Applicable	Not Applicable
Runway 36R	In Progress with CEF	In Progress with CEF

	Barcelona El Prat	Dec
	LNAV/VNAV procedures	LPV procedures
Runway O2	In Progress with CEF	In Progress with CEF
Runway 07L	In Progress with CBF	In Progress with CEF
Runway O7R	In Progress with CBF	In Progress with CEF
Runway 20	Not Applicable	Not Applicable
Runway 25L	In Progress with CEF	In Progress with CEF
Runway 25R	In Progress with CEF	In Progress with CEF

Berlin Brandenburg Airport Dec 2020		Brussels National	Dec
No information at landing runway level is provided, as the airport operations has not started yet Further details on the status of implementation will be provided in future		LNAV/VNAV procedures	LPV procedures
releases of the Monitoring View.	Runway Ol	Already Implemented	Already Implemented
	Runway D7L	In Progress with CEF	In Progress with CEF
	Runway D7R	In Progress with CEF	In Progress with CEF
	Runway 19	In Progress with CEF	In Progress with CEF

Runway 25L Runway 25R

<u></u>	Copenhagen Kastrup	Dec 20
	LNAV/VNAV procedures	LPV procedures
Runway O4L	In Progress with CEF	In Progress with CEF
Runway D4R	In Progress with CEF	In Progress with CEF
Runway 12	In Progress with CEF	In Progress with CEF
Runway 22L	In Progress with CEF	In Progress with CEF
Runway 22R	In Progress with CEF	In Progress with CEF
Runway 30	In Progress with CEF	In Progress with CEF

<u>نه (او او ا</u>	Dublin Airport	Dec 2
	LNAV/VNAV procedures	LPV procedures
Runway 10	Already Implemented	In progress without CEF
Runway 16	In progress without CEF	In progress without CEF
Runway 28	Already Implemented	Already Implemented
Runway 34	Already Implemented	Planned



Dec 2018

	D. U. C. L.	D 0000			F. If a Later of		
	Dusseldort Internationa	Dec ZUZU		·)	Frankfurt Internation	E Dec 2020	ł
	LNAV/VNAV procedures	LPV procedures	0		LNAV/VNAV procedures	LPV procedures	l
Runway OSL	Already Implemented	Not Planned		Runway 07C	Already Implemented	Not Planned	l
Runway OSR	Already Implemented	Not Planned		Runway O7L	Already Implemented	Not Planned	l
Runway 23L	Already Implemented	Not Planned		Runway D7R	Already Implemented	Not Planned	l
Runway 23R	Already Implemented	Not Planned		Runway 18	Not Applicable	Not Applicable	l
				Runway 25C	Already Implemented	Not Planned	l
				Runway 25L	Already Implemented	Not Planned	
				Runway 25R	Already Implemented	Not Planned	

.

<u>,) </u>	London Gatwick	Dec 2
	LNAV/VNAV procedures	LPV procedures
Runway OBL	Already Implemented	Not Planned
Runway D8R	Already Implemented	Not Planned
Runway 26L	Already Implemented	Not Planned
Runway 26R	Already Implemented	Not Planned

	London Heathrow	Dec 2019
2	LNAV/VNAV procedures	LPV procedures
Runway O9L	Already Implemented	Not Planned
Runway O9R	Already Implemented	Not Planned
Runway 27L	Already Implemented	Not Planned
Runway 27R	Already Implemented	Not Planned

<u> </u>	London Stansted	Dec 2019
2	LNAV/VNAV procedures	LPV procedures
Runway 04	Already Implemented	Not Planned
Runway 22	Already Implemented	Not Planned

	Madrid Barajas	Dec 202
	LNAV/VNAV procedures	LPV procedures
Runway 14L	Not Applicable	Not Applicable
Runway 14R	Not Applicable	Not Applicable
Runway 18L	Planned	Planned
Runway 18R	Planned	Planned
Runway 32L	Planned	Planned
Runway 32R	Planned	Planned
Runway 36L	Not Applicable	Not Applicable
Runway 36R	Not Applicable	Not Applicable

<u>4</u>)	Manchester Ringway	Dec 2023
2	LNAV/VNAV procedures	LPV procedures
Runway OSL	Planned	Planned
Runway OSR	Planned	Planned
Runway 23L	Already Implemented	Planned
Runway 23R	Planned	Planned

	Munich Franz Josef Strauss	
	LNAV/VNAV procedures	LPV procedures
Runway O8L	Already Implemented	Not Planned
Runway O8R	Already Implemented	Not Planned
Runway 26L	Already Implemented	Not Planned
Runway 26R	Already Implemented	Not Planned

	Milan Malpensa	Mar 2019
	LNAV/VNAV procedures	LPV procedures
Runway 17L	In Progress with CEF	In Progress with CEF
Runway 17R	In Progress with CEF	In Progress with CFF
Runway 35L	Already Implemented	Already Implemented
Runway 35R	Already Implemented	Already Implemented

	Nice Cote d'Azur	Clo
y	LNAV/VNAV procedures	LPV procedures
Runway D4L	Already Implemented	Already Implemented
Runway O4R	Already Implemented	Already Implemented
Runway 22L	Not Applicable	Not Applicable
Runway 22R	Not Applicable	Not Applicable



	Oslo Gardermoen	Closed
	LNAV/VNAV procedures	LPV procedures
Runway OIL	Already Implemented	Already Implemented
Runway DIR	Already Implemented	Already Implemented
Runway 19L	Already Implemented	Already Implemented
Runway I9R	Already Implemented	Already Implemented

•) P	Palma de Mallorca Son San Juan 📃 🔤 Close	
	LNAV/VNAV procedures	LPV procedures
Runway OGL	Already Implemented	Already Implemented
Runway OGR	Not Applicable	Not Applicable
Runway 24L	Already Implemented	Already Implemented
Runway 24R	Already Implemented	Already Implemented

	Paris Charles De Gau	e Closed
	LNAV/VNAV procedures	LPV procedures
Runway D8L	Already Implemented	Already Implemented
Runway OBR	Already Implemented	Already Implemented
Runway D9L	Already Implemented	Already Implemented
Runway O9R	Already Implemented	Already Implemented
Runway 26L	Already Implemented	Already Implemented
Runway 26R	Already Implemented	Already Implemented
Runway 27L	Already Implemented	Already Implemented
Runway 27R	Already Implemented	Already Implemented

	Paris Orly	Dec 202
	LNAV/VNAV procedures	LPV procedures
Runway O2	Already Implemented	Already Implemented
Runway OG	Already Implemented	Already Implemented
Runway O8	Already Implemented	Already Implemented
Runway 20	Already Implemented	Planned
Runway 24	Already Implemented	Already Implemented
Runway 26	Already Implemented	Already Implemented

	Rome Fiumicino	Mar 2019
	LNAV/VNAV procedures	LPV procedures
Runway 07	Planned	Planned
Runway 16C	Not Applicable	Already Implemented
Runway 16L	Already Implemented	Already Implemented
Runway 16R	Already Implemented	Already Implemented
Runway 25	In Progress with CEF	In Progress with CEF
Runway 34C	Not Applicable	Already Implemented
Runway 34L	Already Implemented	Already Implemented
Runway 34R	Already Implemented	Already Implemented

	Stockholm Arlanda	Dec 2
	LNAV/VNAV procedures	LPV procedures
Runway DIL	In Progress without CEF	In Progress with CEF
Runway DIR	Already Implemented	Already Implemented
Runway O8	Not Applicable	Not Applicable
Runway 19L	In Progress without CEF	In Progress with CEF
Runway 19R	In Progress without CEF	In Progress with CEF
Runway 26	Already Implemented	In Progress with CEF

**)	Vienna Schwechat	Mar 20
	LNAV/VNAV procedures	LPV procedures
Runway 11	Already Implemented	Already Implemented
Runway 16	Already Implemented	Already Implemented
Runway 29	Already Implemented	In Progress with CEF
Runway 34	Already Implemented	Already Implemented

k)	Zurich Kloten	Dec 3
	LNAV/VNAV procedures	LPV pracedures
Runway 10	Not Applicable	Not Applicable
Runway 14	Already Implemented	Already Implemented
Runway 16	Planned	Planned
Runway 28	In Progress without CEF	In Progress without CEF
Runway 32	Not Applicable	Not Applicable
Runway 34	Planned	Planned













Focus on RNP1 procedures implementation

The deployment of RNP1 SIDs and STARs at the 24 airports and TMAs included in the PCP scope is well underway. For most of the airports, STARs are planned to be deployed earlier than SIDs. However, some airports and TMAs still have not started the deployment or presented plans for deployment.

In Oslo Gardermoen the gap is fully covered with 24 SIDs and 12 STARs already implemented. In two airports where the deployment is being carried out by CEF projects, the gap will be covered in 2020: Copenhagen, where the implementation of SID/STAR procedures for all 6 RWYs will be completed by June 2020 and London Stansted, where all the conventional SIDs, STARs, transitions and LPV approaches will be converted to RNP1 procedures by December 2020. Besides, in January 2024, the gap is expected to be also covered in other 17 airports; only 4 of them have not yet a plan for the deployment.

In two cases, local stakeholders have started deploying RNAV1 procedures rather than RNP1, as explicitly required by the text of the PCP Regulation.

The SESAR Deployment Manager view is that RNAV1 implementation initiatives are acceptable as an intermediate step and as a way of building experience and confidence in PBN operations, but that alone does not constitute a sufficient condition to close the gap. In order to be fully compliant with the PCP and with the SESAR Deployment Programme, an RNP1 route structure is required.









AF #2 – Airport Integration and Throughput





































				3.1.1 ASM T	ool to support AFUA		
Expected completion year Dec 2	2021 Total #	t of closed gaps	s 11		and a start of the	Chart Key – Impl	ementation Status
Family FDC date Jan 2	022 Total #	^t of open gaps	19	-		The chart shows the overa	Il Family implementation status,
				A Start	5	taking into account all inpu	its coming from involved Stakeholders
		MUAC (B	5 Standbar	3 ()	26-50%	51-75%
🔆 Network Manager		\$	S I			76.90%	
50% 50% 0% Dec 2018		Ż	3				Deuleument Achieved
	_	6					Depidyment Achieved
	2300	34				No informati	on Not applicable
	En .	2		2		Chart Key per St	takeholders
	-					Family's scope fully	implemented
						Family's scope fully	covered by on-going CEF projects
				1 m		📕 Implementation in pr	ogress (with CEF funding)
		_	-		12 m	Implementation in pr	ogress (without CEF funding)
					A de la de l	🔲 Implementation plan	ned
	R		*		Le Cres	📙 Implementation not	planned
	12	2			61 12000	🔲 Not applicable	
						🔲 No information avail	able
N = Network-relevant implementation	gaps					· · · · · · · · · · · · · · · · · · ·	
Poweter	Currently	in progress	Not cleaned	Expected	Implementa	tion Status by Operational Stakeholder	· Category
Lountry	deploye d	/ Planned	NOT planned	completion date	1107	Stakeholders considered as Liaps	Witten Adamitian
Austria		100%	0%	Dec 2018		network manager	million y Authorities
Belgium		10070	070				
Bulgaria							
Croatia							
Cyprus							
Czech Republic	15%	85%	0%	Dec 2020			
Denmark							
Estonia							
Finland	70%	0%	30%	Dec 2020			
France							
Germany							
Greece	0%	100%	0%	Dec 2018			
nungary		10004		Des 2019			
Italv	55%	45%	0%	Dec 2018			
Latvia	40%	60%	0%	Dec 2020			
Lithuania	50%	50%	0%	Dec 2018			
Luxembourg							
Malta	0%	0%	100%	-			
MUAC							
Netherlands							
Norway	40%	60%	0%	Dec 2018			
Poland	70%	30%	0%	Dec 2018			
Portugal	90%	10%		Dec 2018			
Komania	60%	50%		Dec 2018			
Slovak Kepublic	40%	100%	070	Dec 2010			
Snain	70%	30%	0%	Dec 2018			
Sweden		100%	0%	Dec 2019			
Switzerland							
United Kingdom	70%	30%	0%	· ·			

AF #3 – Flexible ASM and Free Route















50%

45%

60%

45%

45%

Slovenia

Switzerland

United Kingdom

Spain Sweden 50%

55%

40%

10%

55%

0%

0%

0%

45%

0%

Dec 2021

Dec 2023

Dec 2021

Dec 2021

Dec 2021













Focus on Free Route implementation

Due to the specific relevance of a **coordinated and synchronized implementation of Free Route** across Europe, the SESAR Deployment Manager has gathered additional information from the local Air Navigation Service Providers. 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 by January 1st, 2022, the PCP Regulation target date for deploying and operating FRA.

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

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

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



\frown							
	Bulgaria – Free Route implementation						
		Current status (Summer 2018)		Target (January 2022)			
	Time limitations	Night FRA		FRA H 24 / 7			
	Aight Level	Above Right Level 175		Above Right Level 105			
	Pub. Constraints	According to RAD		According to RAD			
	Area of Responsibility	Full AoR		Full AoR			
	Cross-border	Danube FAB		Danube FAB			

Ń	Croatia – Free Route implementation				
_	y	Current status (Summer 2018)		Target (January 2022)	
	Time limitations	FRA H24 / 7		FRA H24 / 7	
	Right Level	Above Right Level 310		Above Right Level 310	
	Pub. Constraints	No published constraint		No published constraint	
	Area of Responsibility	Full AoR		Full AoR	
	Cross-border	Cross-border in place		Austracantrol, BHANSA, ENAV, Slovenia Control, SMATSA	

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

Cyprus – Free Route implementation				
	Current status (Summer 2018)		Target (January 2022)	
Time limitations	Direct Routings (DCT) in place		Under definition	
Right Level	Under development		Above Right Level 285	
Pub. Constraints	Under development		No published constraints	
Area of Responsibility	Full AoR		Full AoR	
Cross-border	Planned		HCAA and DHMI	

/						
	Czech Republic - Free Route implementation					
_		Current status (Summer 2018)		Target (January 2022)	Ī	
	Time limitations	Direct Routings (DCT) in place		FRA H 24 / 7	l	
	Right Level	Above Right Level 245		Above Right Level 245	l	
	Pub. Constraints	According to RAD		According to RAD	l	
	Area of Responsibility	Full AoR		Full AoR	l	
	Cross-border	Planned		FAB CE (under review)		



Denmark – Free Route implementation				
	2	Current status (Summer 2018)		Target (January 2022)
	Time limitations	FRA H 24 / 7		FRA H 24 / 7
	Right Level	Above Flight Level 285		Above Right Level 285
	Pub. Constraints	Routes to/from Helsinki		No constraints
	Area of Responsibility	Full AoR		Full AoR
	Cross-border	Avinor; LFV		Avinor; LFV, MUAC; NATS

_						
20	Estonia – Free Route implementation					
_		Current status (Summer 2018)		Target (January 2022)		
	Time limitations	FRA H 24 / 7		FRA H 24 / 7		
	Right Level	Above Right Level 285		Above Right Level 95		
	Pub. Constraints	No published constraint		No published constraint		
	Area of Responsibility	Full AoR		Full AoR		
	Cross-border	NEFAB and DKSE FAB		NEFAB, DKSE FAB, UK/IE FAB		

Finl 🔪	Finland – Free Route implementation					
	Current status (Summer 2018)		Target (January 2022)			
Time limitations	FRA H 24 / 7		FRA H 24 / 7			
Right Level	Above Right Level 310		Above Right Level 95			
Pub. Constraints	No published constraints		No published constraints			
Area of Responsibility	Full AoR		Full AoR			
Cross-border	NEFA B		NEFAB and DK SE FAB			

France – Free Route implementation				
	Current status (Summer 2018)		Target (January 2022)	
Time limitations	Under development		FRA H 24 / 7 (Brest Jan 2021, Bordeaux Jan 2022, other ACCs to be confirmed)	
Right Level	Under development		From A. 195 (Brest, Bordeaux)	
Pub. Constraints	Under development		According to RAD	
Area of Responsibility	Under development		UIR France for Brest and Bordeaux	
Cross-border	Under development		Spain, UK, FABEC	

	dermany – Free Route implementation				
		Current status (Summer 2018)		Target (January 2022)	
I	Time limitations	FRA Cell EDUU: FRA H24 / 7 FRA Cells EDMM and EDWW: FRA Night	Þ	FRA H 24 / 7	
	Right Level	FRA Cell: EDUU N R. 285+ FRA Cell: EDUU E R. 315+ FRA Cells: EDMM EDWW R. 245+		Above Right Level 245	
	Pub. Constraints	Structural limitations	Þ	Structural limitations	
	Area of Responsibility	Three ACCs/UACs (EDUU, EDWW, EDMM)		Three ACCs/UACs (EDUU, EDWW, EDMM)	
I	Cross-border	Planned	Þ	Naviair, LFV, MUAC	

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Greece – Free Route implementation				
9	Current status (Summer 2018)		Target (January 2022)	
Time limitations	Deployment in progress		FRA H 24 / 7	
Right Level	Deployment in progress		Between R. 355 and R. 460	
Pub. Constraints	Deployment in progress		No published constraints	
Area of Responsibility	Deployment in progress		Full AoR	
Cross-border	Deployment in progress		Blue MED FAB	

	Hungary – Free Route implementation					
_		Current status (Summer 2018)		Target (January 2022)		
	Time limitations	FRA H 24 / 7		FRA H 24 / 7		
	Right Level	Above Right Level 310		Above Right Level 310		
	Pub. Constraints	No published constraints		No published constraints		
	Area of Responsibility	Full AoR		Full AoR		
	Cross-border	Romania (Night FRA)		FAB CE		

Italy – Free Route implementation							
9	Current status (Summer 2018)		Target (January 2022)				
Time limitations	FRA H 24 / 7		FRA H 24 / 7				
Right Level	Above Right Level 305		Above Right Level 305				
Pub. Constraints	No published constraints		No published constraints				
Area of Responsibility	Full AoR		Full AoR				
Cross-border	Under development		Blue MED FAB + other adjacent ACCs				

Jreland – Free Route implementation						
	Current status (Summer 2018)		Target (January 2022)			
Time limitations	FRA H 24 / 7		FRA H 24 / 7			
Right Level	Above Right Level 245		Above Right Level 95			
Pub. Constraints	No published constraints		No published constraints			
Area of Responsibility	Full AoR		Full AoR			
Cross-border	Planned		UK – Ireland FAB			

Latvia – Free Route implementation					
	Current status (Summer 2018)		Target (January 2022)		
Time limitations	FRA H 24 / 7		FRA H 24 / 7		
Right Level	Above R. 95		Above R. 95		
Pub. Constraints	No published constraints		No published constraints		
Area of Responsibility	Full AaR		Full AoR		
Cross-border	ANS Finland, EANS, LFV		Borealis Alliance		



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Lithuania – Free Route implementation						
		Current status (Summer 2018)		Target (January 2022)		
	Time limitations	FRA H 24 / 7		FRA H 24 / 7		
	Right Level	Above Right Level 310		Above Right Level 95		
	Pub. Constraints	No published constraints		No published constraints		
	Area of Responsibility	Full AoR		Full AoR		
	Cross-border	No		PANSA		

Luxembourg – Free Route implementation
Air Traffic Control in the upper airspace of the Benelux is managed by the Maastrich Uoper Area Control Center (MUAC). Please see the dedicated table.

Malta – Free Route implementation					
	Current status (Summer 2018)		Target (January 2022)		
Time limitations	FRA H 24 / 7	🕨	FRA H 24 / 7		
Right Level	Above Right Level 335	🕨	Above Right Level 310		
Pub. Constraints	Only operational constraints		As published on the AIP		
Area of Responsibility	Full AoR		Full AoR		
Cross-border	Planned		HCAA, ENAV		

MUAC Region - Free Route implementation						
	Current status (Summer 2018)		Target (January 2022)			
Time limitations	Planned		FRA H 24 / 7			
Right Level	Above Right Level 245		Above Right Level 245			
Pub. Constraints	Planned		No published constraints			
Area of Responsibility	Planned		Full AoR, but French delegated airspace			
Cross-border	MUAC Region by default		Naviair			

Netherlands – Free Route implementation

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

Norway – Free Route implementation					
	Current status (Summer 2018)		Target (January 2022)		
Time limitations	FRA H 24 / 7		FRA H 24 / 7		
Right Level	Above Right Level 310		Above Right Level 310		
Pub. Constraints	No published constraints		No published constraints		
Area of Responsibility	Full AoR		Full AoR		
Cross-border	EANS, Finavia LFV, LGS, Naviair		Borealis Alliance		

1						
	Poland – Free Route implementation					
-	>	Current status (Summer 2018)		Target (January 2022)	I	
1	Time limitations	DCT routings in place		FRA H 24 / 7	l	
	Aight Level	Under development		Above Right Level 95	l	
	Pub. Constraints	Some constraints for a better distribution of traffic flows		Some constraints for a better distribution of traffic flows	l	
	Area of Responsibility	Full AoR		Full AoR	l	
	Cross-border	Under development		Gate One ANSPs, DFS, LFV, Oro Navigacija		

	Port	ntation		
-		Current status (Summer 2018)		Target (January 2022)
I	Time limitations	FRA H 24 / 7		FRA H 24 / 7
	Right Level	Above Right Level 310		Above Right Level 310
	Pub. Constraints	No published constraints		No published constraints
I	Area of Responsibility	Full AoR		Full AoR
	Cross-border	ENAIRE (Madrid FIR)		ENAIRE (Madrid FIR)

Romania – Free Route implementation						
Current status (Summer 2018) Target (January 2022)						
Time limitations	Night FRA		FRA H 24 / 7			
Right Level	Above Right Level 105		Above Right Level 105			
Pub. Constraints	According to RAD		According to RAD			
Area of Responsibility	Full AoR		Full AoR			
Cross-border	BULATSA and Hungarocontrol		BULATSA and Hungarocontrol			

9	Slovak Republic – Free Route implementation					
_		Current status (Summer 2018)		Target (January 2022)	I	
	Time limitations	Planned		FRA H 24 / 7		
	Right Level	Planned		Above Right Level 245	l	
	Pub. Constraints	Planned		No published constraints	l	
	Area of Responsibility	Planned		Full AoR		
	Cross-border	Planned		Bulatsa, Romatsa, Hungaro Control	l	



\bigcap				
	Slov	renia – Free Route imple	eme	ntation
		Current status (Summer 2018)		Target (January 2022)
	Time limitations	Full FRA H 24 / 7		Full FRA H 24 / 7
	Aight Level	Above Right Level 310		Ground to Right Level 660
	Pub. Constraints	Some constraints due to sector clipping		Some constraints due to sector clipping
	Area of Responsibility	Full AoR		Full AoR
	Cross-border	Austrocontrol, BHANSA, Creatia Control, SMATSA		Austrocontrol, BHANSA, Croatia Control, SMATSA

Spain – Free Route implementation				
-		Current status (Summer 2018)		Target (January 2022)
	Time limitations	Limited to specific segments		Under development
	Right Level	Above FL245, only for FRASAI Airspace		Above Right Level 345
	Pub. Constraints	Limited to specific segments		According to RAD
	Area of Responsibility	Only FRASAL Airspace		Full AoR (but Oceanic airspace in GCCC)
	Cross-border	NAV Portugal (FRASAI)		NAV Portugal (FRASAI)

Swe	Sweden - Free Route implementation		
2	Current status (Summer 2018)		Target (January 2022)
Time limitations	FRA H 24 / 7		FRA H 24 / 7
Right Level	Above FL 285		Above Right Level 245*
Pub. Constraints	According to RAD		According to RAD
Area of Responsibility	Full AoR		Full AoR
Cross-border	Avinor, EANS, Finavia, Naviair, LGS		Avinor, DFS, EANS, Finavia, Naviair, LGS, PANSA

* Above Flight Level 95 from 2024

	🕞 🖌 Switze	e rland – Free Route im	plen	nentation
_		Current status (Summer 2018)		Target (January 2022)
	Time limitations	Direct Routes partially implemented		FRA H 24 / 7
	Right Level	Above Right Level 245		Above Right Level 195
	Pub. Constraints	According to RAD		According to RAD
	Area of Responsibility	Full AoR		Full AoR
	Cross-border	Cross-border routes with French and Berman airspace delegated to Switzerland		Under development

United Kingdom – Free Route implementation				
2	Current status (Summer 2018)		Target (January 2022)	
Time limitations	Planned		FRA H 24 / 7	
Right Level	Planned		Above Right Level 310 (above R. 255 in Prestwick ACC)	
Pub. Constraints	Planned		No published constraints	
Area of Responsibility	Planned		Full AoR	
Cross-border	Planned		Borealis Alliance	




























Cyprus	0%	100%	0%	Dec 2021		
Czech Republic	0%	100%	0%	Dec 2021		
Denmark	0%	100%	0%	Dec 2021		
Estonia	0%	0%	100%	· ·		
Finland	0%	100%	0%	Dec 2021		
France	0%	100%	0%	Dec 2021		
Germany	0%	0%	100%	· ·		
Greece	0%	100%	0%	Dec 2021		
Hungary	0%	100%	0%	Dec 2021		
Ireland	0%	0%	100%	· ·		
Italy	0%	100%	0%	Dec 2021		
Latvia	0%	0%	100%	· ·		
Lithuania	0%	100%	0%	Dec 2021		
Luxembourg	0%	100%	0%	Dec 2021		
Malta	0%	0%	100%	· ·		
MUAC	0%	100%	0%	Dec 2021		
Netherlands	0%	100%	0%	Dec 2021		
Norway	0%	0%	100%	· ·		
Poland	0%	0%	100%	· ·		
Portugal	0%	100%	0%	Dec 2021		
Romania	0%	0%	100%	· ·		
Slovak Republic	0%	0%	100%			
Slovenia	0%	100%	0%	Dec 2021		
Spain	0%	100%	0%	Dec 2021		
Sweden	0%	100%	0%	Dec 2021		
Switzerland	0%	100%	0%	Dec 2021		
United Kingdom	0%	100%	0%	Dec 2021		









AF #5 – Initial SWIM







SWIM Common Components:

SWIM Governance (Family 5.1.3) and Public Key Infrastructure (Family 5.1.4)

Due to the specific features of the Families and their purpose of deploying SWIM Common components, the deployment activities shall follow a coordinated and EU-wide approach, rather than been steered by locally-based implementation initiatives. To this end, the following section reports on the latest developments and results stemming from two multi-stakeholder initiatives, currently coordinated by SDM under the Framework Partnership Agreement⁶.

2016_141_AF5 – Deploy SWIM Governance

This multi-stakeholder initiative tackles the issue of establishing a governance for SWIM in Europe ensuring a common starting point and a controlled evolution of the SWIM deployment.

The initial priorities of the project are Task 02, Task 05 and Task 07.

The Task 02, "to refine and set up the SWIM Governance structure and process, has concluded the first iteration of its work. The first set of deliverables of this task was delivered mid-2018:

- **SWIM Governance Structure** document, which defines the setup of the SWIM Governance, the tasks of the bodies involved as well as the Terms of Reference of these bodies.
- The **SWIM Service Provisioning Policy**, which contains detailed statements on the compliance assessment of services and the service registration applicable to service providers. These statements specify what is expected from service providers with regard to the provision of SWIM Services.

At the same time, Task 05 has started the work on the legal setup of SWIM Governance, elaborating a number of legal issues and tackling a legal agreement for SWIM Governance to be used after the end of the project.

Finally, Task 07 drafted security requirements and, more importantly, a draft security policy.

Based on the above-mentioned achievements, Task 04 has also kicked off. This task sets out to instantiate the SWIM Governance bodies and execute the related processes. As a first action, a SWIM Governance Handbook will be drafted, which will detail the relevant processes of the SWIM Governance. Once Task 04 will be fully on execution, an operational SWIM Governance will exist.

Thus, the project is on the way to complete "MM.1 – SWIM governance structure and processes set up". This milestone will be fully achieved when the Governance bodies are working and the process definition has concluded.

2017_084_AF5 - SWIM Common PKI and policies & procedures for establishing a Trust framework

This multi-stakeholder initiative has been launched in the 2017 CEF Transport Call and has been fully awarded by INEA in early September 2018.

The project aims at deploying a common framework for both integrating local PKI deployments in an interoperable manner as well as providing interoperable digital certificates to the users of SWIM. The resulting PKI and its associated trust framework, which will be part of the cyber security infrastructure of aviation systems, are required to sign, emit and maintain digital certificates and revocation lists as required by the PCP Regulation.

This project comprises the following tasks:

- Task 01 Develop the Trust Framework policies and procedures
- Task 02 Develop Common PKI specifications (for both development and operations)
- Task 03 Define the (SWIM) interfaces to the Common PKI
- Task 04 Interface with SWIIM governance
- Task 05 Prepare the material for the potential launch of a CFT (scope still to be defined)
- Task 06 Prepare all necessary material for operations
- Task 07 Project Management

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



































Country	Currently deployed	In progress / Planned	Not planned	Expected completion date	Stakeholders cor	isidered as Gaps	Other stakeholders involved
					ANSPs	Network Manager	Military Authorities
Austria	0%	0%	100%	· ·			
Belgium	0%	0%	100%	· · ·			
Bulgaria	0%	0%	100%	· ·			
Croatia	0%	0%	100%	· ·			
Cyprus	0%	0%	100%	· ·			
Czech Republic	0%	100%	0%	Dec 2024			
Denmark	0%	0%	100%	· ·			
Estonia	0%	100%	0%	Dec 2024			
Finland	0%	100%	0%	Dec 2024			
France	0%	100%	0%	Dec 2024			
Germany	0%	100%	0%	Dec 2027			
Greece	0%	100%	0%	Dec 2022			
Hungary	0%	0%	100%	· · ·			
Ireland	0%	0%	100%	· ·			
Italy	0%	100%	0%	Dec 2024			
Latvia	0%	0%	100%	· ·			
Lithuania	0%	100%	0%	Dec 2024			
Luxembourg							
Malta	0%	0%	100%	· ·			
MUAC	0%	100%	0%	Dec 2024			
Netherlands	0%	0%	100%	· · ·			
Norway	0%	0%	100%	· ·			
Poland	0%	100%	0%	Dec 2024			
Portugal	0%	0%	100%	· · ·			
Romania	0%	0%	100%	· ·			
Slovak Republic	0%	0%	100%	· · ·			
Slovenia	0%	0%	100%	· ·			
Spain	0%	100%	0%	Dec 2024			
Sweden	0%	0%	100%	· ·			
Switzerland	0%	0%	100%	•			
United Kingdom	0%	100%	0%	· ·			



SWIM Services Implementation – Overview of deployment activities

While so far the implementation progress of AF5, and in particular of SWIM services, has been slower than in other AFs, an increased speed can be observed over the last year.

A large number of operational stakeholders report an ongoing or even concluded planning of SWIM service implementations, which are expected to transition to actual implementation initiatives in the coming years.

Recently, several foundations for the implementation of SWIM services, namely the

- Eurocontrol SWIM specifications;
- SWIM Governance material, in particular the service delivery policy; and the
- EUROCAE ED-254 standard "Arrival Sequence Service Performance Specification".

have also matured, thus providing better grounds for SWIM implementation.

This increases the confidence of the operational stakeholders, which more or less consistently report the drafting of roadmaps for the implementation of SWIM (services) and a planning that goes into more detail. Some more advanced stakeholders even envision a transition to an information-oriented organization.

While the above-mentioned foundations provide a starting point for drafting implementation plans, currently missing details on SWIM services, i.e. missing service descriptions/definitions, constitutes an obstacle to actual implementation.

Further service standardization is also required for this purpose. This can be achieved either through SDOs, e.g. EUROCAE, drafting standards or through *de facto* standardization by SWIM Governance.

Besides the overall improving picture, differences between the various families dealing with SWIM services can be observed:

- In general, Families 5.3.1, 5.4.1 and 5.5.1 are being considered more mature. This translates into more numerous and more concrete planning of implementation or even in on-going implementation initiatives, which cover at least part of the services;
- In Family 5.5.1, this maturity is owed to the advanced stage of NM service implementation, which is partly SWIM compliant. Implementation initiatives in this Family are based on NM B2B services or the alternative NM access via the NM portal.
- Families 5.6.1 and 5.6.2 are lagging behind with regard to the planning coverage; especially Family 5.6.2 is mostly not even planned. This is due to the non-maturity or unavailability of the required industrialization material, i.e. the update of the EUROCAE ED-133 standard and the specification of the SWIM TI Blue Profile, both of which are not expected before 2020.











Country	deployed	/ Planned	Not planned	completion date	Stakeholders co	nsidered as Gaps	Other stakeholders involved
					ANSPs	Network Manager	Military Authorities
Austria	0%	0%	100%	· ·			
Belgium							
Bulgaria	0%	0%	100%	· ·			
Croatia	0%	0%	100%	· ·			
Cyprus	0%	0%	100%	· ·			
Czech Republic	0%	0%	100%	· ·			
Denmark	0%	0%	100%	· ·			
Estonia	0%	0%	100%	-			
Finland	0%	0%	100%	-			
France	0%	0%	100%	· ·			
Germany	0%	0%	100%	· ·			
Greece	0%	0%	100%	· ·			
Hungary	0%	0%	100%	· .			
Ireland	0%	0%	100%	· ·			
Italy	0%	0%	100%	· .			
Latvia	0%	0%	100%	· .			
Lithuania	0%	0%	100%	· ·			
Luxembourg							
Malta	0%	0%	100%	· ·			
MUAC	80%	0%	20%	· ·			
Netherlands							
Norway	0%	0%	100%	· ·			
Poland	0%	0%	100%	· ·			
Portugal	0%	0%	100%	· ·			
Romania	0%	0%	100%	· ·			
Slovak Republic	0%	0%	100%	· · ·			
Slovenia	0%	0%	100%	•			
Spain	0%	0%	100%	· ·			
Sweden	0%	0%	100%	· ·			
Switzerland	0%	0%	100%	· ·			
United Kingdom	0%	0%	100%				







Family 6.1.3 regards the Air/Ground and Ground/Ground Multi Frequency (MF) DL Network in defined European Service Areas, consisting in the European implementation of the A/G and G/G Network based on European Service Areas and VDL Mode 2 as part of ATN COM (COMmunication) domain; in particular, this is expected to be achieved through a stepwise approach, which envisages – in a first step – the deployment of a transitional solution (Model B or C/MF) and – subsequently – the implementation of the European target solution (Model D).

The implementation process has been suitably designed in three levels of implementation:

- at Country Level, where local ANSPs are directly responsible of designing, developing and putting into operation the technical infrastructure, or responsible of managing the design and development through the Communication Service Providers;
- at Service Area level, i.e. within "portions of airspace, homogeneous in terms of operational and technical needs, to provide data link services in a safe, secure, and efficient way"⁷, which goes beyond national borders;
- at European level, i.e. through the implementation of the DLS target solution in a single Service Area including all EU Member States, plus Norway and Switzerland.

Whilst the implementation activities at Country Level are progressing swiftly, the integration at Service Areas first, and European Level then, is expected to be performed in a coordinated way, based on the outcomes stemming from the so-called "Path II framework" that aims at identifying the activities needed for the definition of the technical aspects for the future DLS architecture. The "Path II framework" is supported by two EU-funded Multi-stakeholder projects coordinated by SDM, aiming at defining the technical aspects of the future DLS infrastructure. The projects involve most European ANSPs, the two main Communication Service Providers, as well as the Airspace Users and manufactory industries

In the light of above, the previous map provides only the implementation status of Family 6.1.3 at Country Level, building on the data provided by the involved stakeholders in response to the targeted DLS Survey released by SDM in late March 2018.

Based on the outcomes of the SDM-coordinated initiatives and the contribution from local stakeholders, future releases of the Monitoring View will also feature an overview of the implementation status of the technical infrastructure at Service Areas and European Level, in order to reach the full operational capability by the FOC date of the Family itself (December 2022).

⁷ Report on Service Areas and DLS overall architecture, produced by SESAR Deployment Manager, September 2017



Outlook on PCP deployment per Family – Airspace Users gaps

Since the establishment of dedicated SDM surveys in 2015, a wide number of airlines – including all major European hub carriers and point-to-point carriers – have provided targeted and up-to-date feedback on the alignment of their fleet capabilities and of their flight planning systems with the PCP requirements. With respect to the number of commercial aircraft, number of departures/arrivals and market share of the respondents, the outcome of the surveys reflects a representative snap-shot of the current state-of-play on Civil Airspace Users' side.

Due to the complexity of the different types, ages, operational roles, and quantities of military aircraft, it is not possible to provide an accurate percentage of aircraft equipage levels for PCP AF capabilities.

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

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

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

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

Such input is considered as resulting into a representative snap-shot of the current state-of-play on Airspace Users' side and helps better defining and clarifying the magnitude of the associated existing gaps towards the full deployment.





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

Figure 17 - Airspace Users' Gaps - Overall Outlook on Airborne Capabilities

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

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

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

With regard to the PCP-associated flight planning capabilities, most of the responding Europeheadquartered airlines refer to the need for synchronized implementation of the Network Manager systems, the ANSPs systems and their Computer Flight Planning System Providers (CFSPs) systems. In this sense,



the involvement of the Airspace Users to upgrade their flight plan systems capabilities is a key factor for success of the PCP implementation. Due to the nature of the Airspace Users operations, spreading across the whole European airspace, the NM system availability for AF4 and the ANSPs readiness throughout the whole network are key factors. The synchronization task of the SDM towards ANSPs, AUs and NM is therefore expected to have the highest priority in planning, executing and monitoring a harmonized implementation.

DLS Update – Airborne domain equipage rate

A dedicated monitoring session has been performed by SDM with the aim of providing an updated and overall picture of the DLS implementation status in the airborne domain. Specifically, a detailed questionnaire was distributed to the Airspace Users in July 2018 in order to have a clear and complete picture on the VDL Mode 2 deployment in the airborne domain, according to Regulation (EU) n. 310/2015.

The following charts indicate the percentage of fleet, operated by Airlines headquartered in Europe, that is already or expected to be compliant with the DLS regulatory framework, in terms of aircraft equipage, focusing on the "*Best-in-class (BIC)*"⁸. The following charts, therefore, outline the current situation (2018) and the expected status by 2020, according to the information provided by the SDM survey.



Figure 28 - Percentage of DLS-compliant fleet – Current and planned scenario

Figure 18 provides evidence that the scenario is progressing well, as the overall number of equipped aircraft is expected to increase of around 25 percentage points, raising from 59,8% to 83,1%. As a result of this progress, the amount of not equipped aircraft is expected to significantly decrease to 16,9% in 2020.

⁸ i.e. A set of airborne equipment necessary to comply with the ATN/VDL2 performance expectations in multi-frequency (MF) environment





Figure 39 – CPDLC ATN/VDL2 "best in class" Aircraft equipped in MF environment

More specifically, with reference to the Best-in-class (BIC), the current outlook faces a substantial improvement, also benefitting from the outcomes of EU-funded and SDM-coordinated Implementation Projects, awarded in the Framework of CEF Call 2016 and 2017.

Taking into account the results of the DLS survey, by the end of 2020 the overall percentage of VDL2 Bestin class in Multi Frequency environment is expected to boost considerably, thus leading to a relevant improvement from 2018, up to 65,5% of aircraft equipped.



Appendix - Current status of PCP deployment - View by State

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

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

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

 Overview of the status of the implementation gaps for the country, differentiating between

 Aready
 implemented
 In progress
 / Planned
 Not planned

 of implementation
 #
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those which have already been closed, those whose closure is in progress or planned, and those for which no specific plans have been elaborated by the relevant stakeholders;

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

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

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

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



of	mber 4 gaps 4	il Curri	ent status ementation	Ali	ready imple	mented In progress	s / Planned					Not plann
	A	TM Function	ality #1			ATM Function	ality #2			ATM Functiona	ality #3	
Family	Ga	p coverage	Compl. Year	CEF Projects	Family	Gap coverage	Compl. Year	CEF Projects	Family	Gap coverage	Compl. Year	CEF Projec
1.1.1	75%	25% 0%	Dec 2019	Yes	2.1.1				3.1.1	0% 100% 0%	Dec 2018	Yes
1.1.2	0%	75% 25%	Dec 2023		2.1.2				3.1.2	0% 100% 0%	Dec 2021	Yes
1.2.1	90%	10% 0%	Mar 2019	Yes	2.1.3	45% 55% 0%	Dec 2018	Yes	3.1.3		-	
1.2.2	0%	100% 0%	Dec 2020		2.1.4	0% 100% 0%	Dec 2021		3.1.4	95% 5% 0%	Dec 2021	Yes
1.2.3	0%		Dec 2023	Yes	2.2.1		Dec 2022	Vee	3.2.1	75% 25% 0%	Dec 2021	Yes
1.2.4					2.4.1		Dec 2023	Yes	3.2.4		5	
					2.5.1	0% 100% 0%	Dec 2020	Yes				
					2.5.2							
	A	TM Function	alitv #4			ATM Function	alitv #5			ATM Functions	ilitv #6	
Family	v Ga	p coverage	Compl. Year	CEF Projects	Family	Gap coverage	Compl. Year	CEF Projects	Family	Gap coverage	Compl. Year	CEF Projec
4.1.1					5.1.1				6.1.1		1	
4.1.2	0%	100% 0%	Dec 2021	Yes	5.1.2	40% 60% 0%	Dec 2020	Yes	6.1.2	0% 0% 100%	-	
4.2.2	0%	100% 0%	Dec 2021		5.2.1				6.1.3		-	
4.2.3	70%	30% 0%	Dec 2019		5.2.2	0% 70% 30%	Dec 2024	Yes	6.1.4			
4.2.4	0%		Uec 2021	Yes	5.2.3		Dec 2020	Yes	6.1.5			
4.3.			Dec 2021		5.41		Dec 2024	Yes		For the SWIM Governance relate	d Families (nam	ely 5.1.3 and 5
4.4.7	0%	100% 0%	Dec 2024	Yes	5.5.1	0% 100% 0%	Dec 2024		prea:	The status reported for Fam.	nily 6.1.3 is exclu:	sively related
								-	de de	playment at Country level. The	implementation .	at Service Area
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List of 2 2 2 2 2 2 2 2 2 2 2 2 2	CEF-fund #005AF5 #007AF1 #009AF2 #009AF5 #011AF2 #102AF3 015_021_AF4 015_105_AF4 015_107_AF3 2015_110_AF4 2015_114_AF5_A _207_AF3_A 015_220_AF2	ed initiative ATM Data Quali Performance I implementation External Gatew Integrated Brid Decision Manay Free Route Air Black forest tr Slot Manager I Right evolution with NM stakel NM Systems up of DCTs and RR STAM Phase 2 Implementation for ATECM pur New PBNS Stak Procurement of Harmonisation including suppi	es awarded ity (ADD) Based Navigation 1 in Vienna (LDV vay System (EG: efing System Ne gement (CDM) f space from the 0 the Black Sea for PCP airports 1 and upgrade o holders for PCP airports 1 and upgrade in supp (NM) 1 of Target Timp poses (NM) 1 of Target Timp poses (NM)	d to Austrian (PBN) (WW) (WW) (WW) (IBSN) (I	5,6,1 5,6,2 Stakehold Austro Co Austro Co Austro Co Austro Co Austro Co Sabre Sabre Sabre Sabre Austro Co Austro Co Austro Co	20% 80% 0% 0% 100%	2016_002 2016_002 2016_01 2016_075_ 2016_075_ 2016_13 2016_14 2016_14 2016_14 2016_15 2016_16 2016_16 2017_01 2017_05 2017_05	3_AF4 Right inter 0_AF4 VHF 7_AF5 Fillingt AF3_A DAN 4_AF3 Impl 4_AF3 Dep 47_AF5 Dep 9_AF5 Aus 9_AF5 Aus 9_AF6 DLS 5_AF6 LICS 5_AF6 LICS 2_AF4 ADP 3_AF3 Impl	t evolution and u faces with NM st Concept Impleme pean Deployment it Object Interope CE wide Study of and STAM Gener ementation of rol loy SWIM governe APCH RWY 29 Vi tro Control iSWIM Implementation F Implementation F and stakeholder hansa Group & Ai rade to "best in c it Crew Training i -NOP Integration ementation of rol	AFI , AFZ , and Family 4.2.4 to L pgrade of akeholders ntation 2020 t Roadmap for rability al Call lling ASM/ATFCM ance enna l Capability Infrastructure Project - Path 2 Project - Path 1 s France Group Datalink lass" avionics for RNPI Operations - Extended Implementation lling ASM/ATFCM	Errapean level ie implemented in Austrian A Austrian A Austro Cor Austro Cor Sabre Austro Cor Austro Cor Sabre	has not yet sta in Yienna Schwa pleted proj irilines irilines itrol itrol itrol itrol itrol itrol itrol itrol
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List of Control Control Contr	CEF-fund #005AF5 #007AF1 #009AF2 #009AF5 #014F2 #102AF3 015_102_AF4 015_105_AF4 015_107_AF3 2015_114_AF4 5_174_AF5_A _207_AF3_A 015_220_AF5 015_231_AF5	ed initiative ATM Data Quali Performance I implementation External Gatev Integrated Brie Decision Manag Free Route Air Black Forest tr Slot Manager 1 Flight evolution with My stakes IN Systems u of DCTs and FR STAM Phase 2 Implementation for ATFCM pur NewPDNS Stak procurement a Including suppi AF2_MET-Comp AF5 AIM Compl	es awarded ity (AOD) Based Navigation 1 in Vienna (LOV vay System (EG: efing System Ne gement (CDM) f space from the 0 the Black Sea for PCP airports 1 and upgrade o holders for PCP airports 1 and upgrade in supp A (NM) 1 of Target Timm poses (NM) 1 of Target Timm poses (NM) 1 of Tack ATM PI ort of FRA and p oliance Program p Evolution	I to Austrian (PBN) (WV) (VW) (VW) (VW) (IBSN) (IBS	5,6,1 5,6,2 Stakehold Austro Co Austro Co Austro Co Austro Co Austro Co Sabre Sabre Sabre Sabre Sabre Co Austro Co Austro Co Austro Co Austro Co	0% 20% 80% 0% 0% 100% ders	2016_002 2016_002 2016_01 2016_075_ 2016_075_ 2016_14 2016_14 2016_14 2016_14 2016_15 2016_16 2017_01 2017_05 2017_05 2017_05 2017_05	3_AF4 Right inter 0_AF4 VHF 7_AF5 Failer AF3_A FAB AF3_A FAB AF3_A DAN 4_AF5 Dep 4_AF5 Dep 4_AF5 Dep 4_AF5 Dep 5_AF6 DLS 5_AF6 DLS 5_AF6 LLG 04_AF1 Rigg 04_AF3 Imp 6_AF5 Tow 8_AF2 WTW	t evolution and u faces with NM st Concept Impleme pean Deployment i Object Interope CE wide Study of and STAM Gener ementation of rol loy SWIM governe APCH RWY 29 Vi tro Control i SWIM Implementation F Implementation F stakeholder hansa Group & Ai rade to "best in c it Crew Training i -NOP Integration ementation of rol rards Shared Busi ectory Based Ope P4LDWW (Integration for Pation for Vi	AFT , AFZ , and Family 4.2.4 to 1 pgrade of akeholders ntation 2020 t Roadmap for rability al Call lling ASM/ATFCM ance enna l Capability Infrastructure Project - Path 2 Project - Path 1 S France Group Datalink lass" avionics for RNPI Operations - Extended Implementation lling ASM/ATFCM mess Trajectory / partitions ed Tower enna Schwechat)	Errapean level ie implemented A Austrian A Austrian A Austro Cor Sabre Austro Cor Sabre Austro Cor Austro Cor Austro Cor Austro Cor Austro Cor Austro Cor Austro Cor Austro Cor Austro Cor Sabre Sabre Sabre Sabre	has not yet stå ir Vienna Schwa pleted proj irlines irlines itrol itrol itrol itrol itrol itrol itrol itrol itrol itrol itrol itrol
List of	CEF-fund #005AF5 #007AF1 #009AF2 #009AF5 #011AF2 #102AF3 015_021_AF4 015_105_AF4 015_105_AF4 015_107_AF3 2015_110_AF4 5_174_AF5_A _207_AF3_A 015_220_AF5 015_231_AF5 015_231_AF5	ed initiative ATM Data Quali Performance E implementation External Gatew Integrated Brie Decision Manay Free Route Air Black Forest to Slot Manager f Black Forest to Slot Manager f Right evolution with NM stakel NM Systems u of DCTs and FR STAM Phase 2 Implementation for ATFCM pury NewPPNS Stak procurement a Harmonisation including suppi AF2_MET-Comp AF5 AIM Compl METSW-DB PCI	es awarder ity (ADD) Based Navigation 1 in Vienna (LDV vay System (EGS efing System Ne gement (CDM) f space from the o the Black Sea for PCP airports 1 and upgrade o holders ngrades in supp ità (NM) 1 of Target Timm poses (NM) etholders contril and deployment of Tech ATM PI: ort of FRA and p pliance-Program P Evolution ime Based Sepan ort)	d to Austrian (PBN) (WV) S) implementation (IBSN) ully implemented (ISSN) ully implemented of interfaces ort es bution for the of NewPBNS atform in 5 ANSP preparation of PCP nme retion	5.61 5.6.2 Stakehold Austro Co Austro Co Austro Co Austro Co Sabre Sabre Sabre Sabre Sabre Sabre Sabre Sabre Austro Co Austro Co Austro Co Austro Co	0% 20% 80% 0% 0% 100% Jers	2016_002 2016_002 2016_01 2016_075 2016_075 2016_075 2016_13 2016_14 2016_14 2016_14 2016_16 2017_01 2017_05 2017_05 2017_05 2017_05 2017_05	3_AF4 Figh inter 0_AF4 VHF 0_AF4 VHF 7_AF5 Figh AF3_A AF3_A FAB DAN 4_AF3 Impl 4_AF3 Dep 9_AF5 Aus 9_AF5 Aus 31_AF6 DLS 32_AF6 Luft 2_AF4 AOP 3_AF3 Impl 6_AF5 Tow Worl 6_AF5 Lmp	t evolution and u faces with NM st Concept Impleme opean Deployment it Object Interope CE wide Study of and STAM Gener ementation of rol loy SWIM governa APCH RWY 29 Vii tro Control iSWIM Implementation F und" stakeholder hansa Group & Ai reade to "best in c it Crew Training ententation of rol vards Shared Busi ementation of rol vards Shared Busi ementing harmor PAID WW (Integration ementing harmor PAIS ANSPS and	AFI , AF2 , and Family 4.24 to 1 pgrade of akeholders ntation 2020 t Roadmap for rability al Call ling ASM/ATFCM ince enna l Capability Infrastructure Project - Path 1 s r France Group Datalink lass" avionics for RNPI Operations - Extended Implementation ling ASM/ATFCM inses Trajectory / partitions ed Tower enna Schwechat) uised SWIM (Y) solution in general PCP compliance	European lovel ie implemented A Austrian A Austrian A Austro Cor Sabre Austro Cor Austro Cor Austro Cor Austro Cor Austro Cor Austro Cor Austro Cor Sabre Sabre Sabre Austro Cor	has not yet set in Yienna Schwa pleted proj irlines irlines itrol itrol itrol itrol itrol irlines irlines irlines irlines irlines irlines itrol itrol itrol
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								Be	lgium								
Number of gaps	35]	Curre of imple	ent status ementation	Alread	y implemente	d 9							In	progres	s / Planned 23	Not planned
	AT	M Fu	nction	ality #1			ļ	ATM Fu	nction	ality # 2			A	TM Fu	nction	ality #3	
Family	Gap	coverag	8	Compl. Year	CEF Projects	Family	6	dap covera	je	Compl. Year	CEF Projects	Family	6;	ap covera	je	Compl. Year	CEF Projects
1.1.1	95%	5%	0%	Dec 2018		2.1.1	-					3.1.1					
1.1.2	0% 1	00%	0%	Dec 2023		2.1.2	\checkmark					3.1.2	70%	30%	0%	Dec 2019	Yes
1.2.1	90%	10%	0%	Dec 2018	Yes	2.1.3						3.1.3					
1.2.2						2.1.4	0%	100%	0%	Dec 2020	Yes	3.1.4	45%	10%	45%	Dec 2021	
1.2.3	0% 1	00%	0%	Dec 2023		2.2.1	40%	60%	0%	Dec 2019	Yes	3.2.1	50%	0%	50%	<u> </u>	
1.2.4						2.3.1						3.2.3					
1.2.5	0%	0%	100%	_ <u> </u>		2.4.1	0%	100%	0%	Dec 2023	Yes	3.2.4					
						2.5.1	0%	100%	0%	Dec 2020	Yes						
						Z.5.Z	-										
	ATM	M Fur	nction	ality #4			ļ	ATM Fu	nction	ality # 5			A	TM Fu	nctiona	ality #6	
Family	Gap	coverag	e	Compl. Year	CEF Projects	Family	E	iap covera	e	Compl. Year	CEF Projects	Family	Ga	ap coveraj	je –	Compl. Year	CEF Projects
4.1.1						5.1.1	\checkmark					6.1.1					
4.1.Z	0% 1	00%	0%	Dec 2021		5.1.2	40%	60%	0%	Dec 2020	Yes	6.1.2					
4.2.2	0% 1	00%	0%	Dec 2021		5.2.1	50%	50%	0%	Dec 2019	Yes	6.1.3					
4.2.3	50%	0%	50%	Dec 2021		5.2.2	0%	100%	0%	Dec 2024		6.1.4					
4.2.4	0% 1	00%	0%	Jun 2020	Yes	5.2.3	0%	100%	0%	Dec 2024		6.1.5					
4.3.1						5.3.1	0%	100%	0%	Dec 2024			Can al. a. (7111)	W Course		ad Emulian (norma	4 512 and 514)
4.3.2	0%	0%	100%	•		5.4.1	0%	100%	0%	Dec 2024	Yes	plea:	se refer to	the dedic.	ance relation	n within Chapter	2 of this document
4.4.Z	0% 1	00%	0%	Jun 2019	Yes	5.5.1	0%	100%	0%	Dec 2024		4	The stat	tus report	ted for Fan	nily 6.1.3 is exclusi	ively related to its
						5.6.1	0%	0%	100%	-		DB	uuyment a	n Lountry	ievei, ine	European level	has not yet started
						5.6.2	0%	0%	100%	-			AFI , AFZ ,	and Family	ly 4.2.4 to	be implemented in	Brussels National



			Be	gium			
	Number 35 of gaps 35	Current status Already im of implementation	plemented 9			In progr	ess / Planned Not planne
List	of CEF-fund	ed initiatives awarded to Belgian Sta	keholders				🖌 Completed proj
	#DI3AFI	RNP Approach with Vertical Guidance at the Belgian civil aerodromes within the Brussels TMA	Belgocontrol		2015_145_AF5_B	AIM Deployment Toolkit	ECTL / Network Manager
	#014AF5	MPLS WAN Project	Belgocontrol		2015_174_AF5_A	NewPENS Stakeholders contribution for the procurement and deployment of NewPENS	ECTL / Network Manager, ECTL / MUAC, Belgocontrol
	#015AF3	LARA integration in CANAC 2	Belgocontrol		2015_174_AF5_B	NewPENS Stakeholders contribution for the procurement and deployment of NewPENS	ECTL / Network Manager
	#016AF5	Initial WXXM Implementation on Belgocontrol systems	Belgocontrol		2015_196_AF1_A	XMAN - Cross-centre arrival management	ECTL / MUAC
	#018AF2	Enhancement of Airport Safety Nets for Brussels Airport (EBBR)	Belgocontrol		2015_232_AF2	TBS4LOWW (Time Based Separation for Vienna Airport)	ECTL / Network Manager
	#D22AF2	Vehicle Tracking System (VTS)	Brussels National	\bigcirc	2015_244_AF2	APOC implementation	Brussels National
	#073AF5	SWIM Common Components	ECTL / Network Manager		2015_245_AF2	AIRSTAT	Brussels National
	#077AF4	Interactive Rolling NOP	ECTL / Network Manager		2015_319_AF5	SWIM Common Components - Phase 2	ECTL / Network Manager
	#078AF4	ATFCM measures (STAM)	ECTL / Network Manager		2016_023_AFI	XMAN - Cross-center arrival management - Part 2	ECTL / MUAC
	#079AF4	Trajectory accuracy and traffic complexity	ECTL / Network Manager	\bigcirc	2016_027_AF5	European Deployment Roadmap for Hight Object	ECTL / Network Manager, ECTL / MUAC
	#080AF3	ASM and AFUA Implementation	ECTL / Network Manager		2016_100_AF4	Provision of EFPL data and initial FF-ICE/ 1	ECTL / Network Manager
	#081AF3	NM DCT/FRA Implementation and support	ECTL / Network Manager		2016_129_AF5	NewPENS Stakeholders contribution for the	ECTL / Network Manager
	#082AF5	SWIM compliance of NM systems	ECTL / Network Manager		2016_131_AF4	AOP-NOP Integration - Extended Implementation	ECTL / Network Manager, Brussels National
	#083AF1	AMAN extended to en-route	ECTL / Network Manager		2016_133_AF3	NM system management of	ECTL / Network Manager
	2015_021_AF4	Slot Manager for PCP airports	Brussels Airlines		2016_134_AF3	Implementation of rolling ASM/ATFCM	ECTL / Network Manager
	2015_067_AF5	European Weather Radar Composite of Convection Information Service	EUMETNET EIG, ECTL / Network Manager		2016_135_AF3	Implementation of pre-defined airspace configuration	ECTL / Network Manager
	2015_068_AF5	European Harmonised Forecasts of Adverse Weather	EUMETNET EG, ECTL / Network Manager		2016_141_AF5	Deploy SWIM governance	EUMETNET EG, Eurocontrol
	2015_069_AF5	European MET Information Exchange (MET-GATE)	EUMETNET BG, ECTL / Network Manager		2016_150_AF2	Enablers for Airport Surface Movement	Brussels National
	2015_101_AF1	Network Support to extended Arrival Management	ECTL / Network Manager		2016_159_AF6	DLS Implementation Project - Path 2	ECTL / MUAC
	2015_105_AF4	Interactive Rolling Network Operations Planning	ECTL / Network Manager		2017_022_AF2	Synchronized stakeholder decision on process	Brussels National, Belgocontrol
	2015_106_AF4	Right evolution and upgrade of interfaces with NM stakeholders	ECTL / Network Manager		2017_037_AF2	TBS deployment at Paris CDG	ECTL
	2015_107_AF3	NM Systems upgrades	ECTL / Network Manager		2017_052_AF4	AOP-NOP Integration - Extended Implementation	ECTL / Network Manager
	2015_110_AF4	STAM Phase 2 (NM)	ECTL / Network Manager		2017_053_AF3	Implementation of rolling ASM/ATFCM	ECTL / Network Manager
	2015_112_AF5	Integrate the Aeronautical Information Exchange Services in NM Systems	ECTL / Network Manager		2017_054_AF4	Network Collaborative Management	ECTL / Network Manager
	2015_113_AF4	AOP-NOP Integration	ECTL / Network Manager		2017_055_AF3	NM Systems upgrades in support of FRA	ECTL / Network Manager
	2015_114_AF4	Implementation of Target Times	ECTL / Network Manager		2017_056_AF5	Towards Shared Business Trajectory /	ECTL / Network Manager
	2015_115_AF4	Traffic Complexity Management	ECTL / Network Manager		2017_058_AF2	ITWP4LOWW (Integrated Tower Working Position for Vienna Schwechat)	ETL
	2015_117_AF5	Improve NM SWIM Infrastructure	ECTL / Network Manager		2017_062_AF4	Traffic Complexity Assessment	Belgocontrol
	2015_141_AF5	Improve NM Right Information	ECTL / Network Manager		2017_084_AF5	SWIM Common PKI and policies & procedures	ECTL, Belgocontrol
	2015 143 AF5	Improve Cooperative Network Information	ECTL / Network Manager		2017_089_AF6	IP1 - DLS European Target Solution assessment	ECTL / Network Manager
2	015 145 AF5 A	AIM Deployment Toolkit	ECTL / Network Manager				



						Bulga	ria					
Number of gaps	25	Cur of im	rent status plementation		Alread	y implemented			n progress <i>d</i>	/ Planned U	Not planne	
	AT	M Functio	inality #1			ATM Functi	onality # 2			ATM Funct	ionality #3	
Family	Gap	coverage	Compl. Year	CEF Projects	Family	Gap coverage	Compl. Year	CEF Projects	Family	Gap coverage	Compl. Year	CEF Projects
					2.1.1				3.1.1			
					2.1.2				3.1.2	70% 30% 0	6 Dec 2021	
					2.1.3				3.1.3			
					2.1.4				3.1.4	95% 5% 0	6 Dec 2021	
1.2.3					2.2.1				3.2.1			
1.2.4					2.3.1				3.2.3			
					2.4.1				3.2.4			
					2.5.1							
					2.5.2							
	ATN	1 Functio	nality #4			ATM Functi	onality #5			ATM Funct	ionality #6	
Family	Gap	coverage	Compl. Year	CEF Projects	Family	Gap coverage	Compl. Year	CEF Projects	Family	Gap coverage	Compl. Year	CEF Projects
4.1.1					5.1.1				6.1.1	95% 5% 0	6 Dec 2018	
4.1.2	0% 1	0%	Dec 2021		5.1.2	40% 60% 09	6 Dec 2020	Yes	6.1.2	0% 0% 100	% -	
4.2.2	0% 1	0%	Dec 2021		5.2.1				6.1.3	45% 50% 5	6 -	Yes
4.2.3					5.2.2	0% 0% 100	%		6.1.4			
4.2.4					5.2.3	0% 100% 09	6 Dec 2024	Yes	6.1.5			
4.3.1					5.3.1	0% 0% 100	%			5		
4.3.2	0% 1	0%	Dec 2021		5.4.1	0% 0% 100	%		plea	for the SWIM Governance se refer to the dedicated	related Families (n. section within Chap	er 2 of this docum
4.4.Z	40% 8	0% 0%	Sep 2020	Yes	5.5.1	0% 0% 100	% -			The status reported to	r Family 6.1.3 is ext	clusively related to
					5.6.1	0% 0% 100	% -		de,	ployment at Lountry level	The implementation European lei	n at Service Area vel has not yet star
					5.6.2	0% 0% 100	%					
List of CE	F-funde	d initiativ	ves awarder	to Bulgaria	in Stakeho	lders					Ø Co	mpleted proje
2015_174	_AF5_B	procurement	and deployment	of NewPENS	BULATSA		2016_159_	AF6 DLS Implem	entation Proje	ect - Path 2	BULATSA	
2015_3	217_AF4	CAT impleme	entation in Sofia	ACC	BULATSA		2017_084_	AF5 SWIM Comm for establis	non PKI and p hing a Trust f	olicies & procedures ramework	BULATSA	
2016_0	62_AF5	Creating Loca	al Security Opera	tion Center	BULATSA		2017_089_	AF6 IP1 - DLS Eu	iropean Targe	t Solution assessmen	BULATSA	



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							Croati	a						
Nu	umber Z fgaps Z	6 Cur of im	rrent status plementation	Already	ady implemented In progress / Planned 6 18									
	Å	TM Functio	inality #1			ATN	1 Functio	nality #2			AT	M Function	ality #3	
Famil	ly Ga		Compl. Year	CEF Projects	Family	Gap (Compl. Year	CEF Projects	Family	Gap	coverage	Compl. Year	CEF Projects
1.1.1										3.1.1				
1.1.2										3.1.2	50%	50% 0%	Dec 2021	Yes
1.2.										3.1.3			1	
1.2.2	2									3.1.4	90%	10% 0%	Dec 2021	Yes
1.2.3										3.2.1	50%	20% 30%	Dec 2021	Yes
1.2.4										3.2.3				
										3.2.4			-	
					2.5.2									
	A	TM Functio	nality #4			ATM	A Functio	nality #5			AT	M Function	ality #6	
Fami	ily Ga	ip coverage	Compl. Year	CEF Projects	Family	Gap	coverage	Compl. Year	CEF Projects	Family	Gap	coverage	Compl. Year	CEF Project
4.1.					5.1.1					6.1.1	80%	0% 20%	-	
4.1.2	2 0%	100% 0%	Dec 2021	Yes	5.1.2	40% 8	0% 0%	Dec 2020	Yes	6.1.2	0%	0% 100%	-	
4.2.	.2 0%	100% 0%	Dec 2021		5.2.1	0% 1	JO% 0%	Dec 2019	Yes	6.1.3				
4.2.	.3 75%	25% 0%	Dec 2021		5.2.2	0% 1	10%	Dec 2024	Yes	6.1.4				
4.2.					5.2.3	0% 1	0%	Dec 2024	Yes	6.1.5				
4.3.					5.3.1	0% 1	JO% 0%	Dec 2024)	-	_		
4.3.	.2 0%	100% 0%	Dec 2021		5.4.1	0% 1	JO% 0%	Dec 2024] plea	For the SWIM se refer to th	<i>Bovernance rela</i> he dedicated section	ted Families (nam ion within Chapter	ely 5.1.3 and 5. 2 of this docum
4.4.	.2 0%	100% 0%	Dec 2021	Yes	5.5.1	0% 1	10% 0%	Dec 2024) <u> </u>	The status	s reported for Fa	mily 6.1.3 is exclu	sively related t
					5.6.1	0% 2	20% 80%	Dec 2024) di	eployment at i	Country level. The	e implementation European levei	at Service Area ' has not yet sta
					5.6.2	0%	0% 100%]				
List o	of CEF-fund	led initiativ	ves awarded	l to Croatian	Stakehol	ders			VCCID II		P		🖌 Com	pleted proj
	#102AF3	from the Bla	ck Forest to the E	Black Sea	Croatia Co	introl		2016_043_4	F3 Systems t	o support ATM	VoIP communic	unications	Croatia Contro	I
✓ 2	2015_047_AF5	Modernisatio Network in C	n of IP based G/C CL - CaRT/iWAN-I	i Data NG	Croatia Co	introl		2016_044_A	IFS Modernizat	tion of IP based ART/iWAN-NG -	G/G Data Phase	Network	Croatia Contro	1
✓ 2	2015_049_AF5	CCL cyber se	ecurity architectu	re - ExCO-NG	Croatia Co	introl		2016_075_AF3	B FAB CE with Cohesion (de Study of DAN Call	and STAM	-	Croatia Contro	I
✓ 2	2015_050_AF3	Simulation a	nd Implementation	of SEAFRA H24	Croatia Co	introl		2016_159_A	F6 DLS Impler	nentation Proje	ect - Path 2	1	Croatia Contro	I
:	2015_051_AF3	VARP - VolP	ATC Radio Project	E	Croatia Co	introl		2016_161_4	F6 DLS Impler "Ground"	nentation Proje stakeholders	ect - Path 1		Croatia Contro	I
20	115_174_AF5_B	NewPENS Sta procurement	akeholders contri and deployment	bution for the of NewPENS	Croatia Co	introl		2017_066_4	F5 Implementi COOPANS	ing harmonised ANSPs and gen	eral PCP co	solution in impliance	Croatia Contro	I
201	5_207_AF3_B	Harmonisatio	on of Tech ATM Pl oport of FRA and p	atform in 5 ANSP preparation of PCP	Croatia Co	introl		2017_089_A	F6 IP1 - DLS E	uropean Targe	t Solution a	ssessment	Croatia Contro	1
		European De	alaumant Roadma	0										



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Numbe of gap	Number 26 Current status Already of gaps 26 of implementation			Already imp	olemented In progress / Plan 5											Not plann
	ATN	l Functi	ionality #1			A	TM Fu	nction	ality # 2			A	ATM Fu	nctiona	ality #3	
Family	Gap co	verage	Compl. Year	CEF Projects	Family	6	ap coveraj	ge	Compl. Year	CEF Projects	Family	G	lap coveraj	je	Compl. Year	CEF Projec
					2.1.1						3.1.1				1	
					2.1.2						3.1.2	30%	70%	0%	Dec 2021	
					2.1.3						3.1.3	1			-	
1.2.2					2.1.4						3.1.4	45%	55%	0%	Dec 2021	
					2.2.1						3.2.1	15%	85%	0%	Dec 2021	
					2.3.1						3.2.3				-	
					Z.4.1						3.2.4	0%	100%	0%	Dec 2021	
					2.5.1											
					2.5.2											
	ATM	Functi	onality #4			A	TM Fu	nction	ality #5			A	TM Fu	nctiona	ality #6	
Family	Gap ci	verage	Compl. Year	CEF Projects	Family	G	ap coverai	ge	Compl. Year	CEF Projects	Family	G	lap coveraj	je	Compl. Year	CEF Projec
4.1.1					5.1.1	1					6.1.1	20%	55%	25%	•	
4.1.Z	0% 10	3% 0%	Dec 2021		5.1.2	10%	90%	0%	Dec 2021		6.1.2	0%	0%	100%	•	
4.2.2	0% 10	3% 0%	Dec 2021		5.2.1	5%	95%	0%	Dec 2020	Yes	6.1.3	0%	0%	100%		
4.2.3	50% 50	1% 0%	Dec 2021		5.2.2	0%	0%	100%			6.1.4					
4.2.4					5.2.3	0%	0%	100%	<u> </u>		6.1.5					
4.3.1					5.3.1	0%	0%	100%			/	For the SW	IM Govern	ance relati	ed Families (nam	ely 5.1.3 and 5
4.3.2	0% 10	3% 0%	Dec 2021		5.4.1	0%	0%	100%			pleas	e refer to	the dedic.	ated section	n within Chapter	2 of this docu
4.4.2	0% 10	J% 0%	Dec 2021		5.5.1	0%	0%	100%			dej	The sta aloyment	atus report at Country	ted for Fan level. The	nily 6.1.3 is exclu implementation	sively related at Service Area
					5.6.1	0%	0%	100%	<u> </u>						European level	has nat yet st
					5.b.Z	U%	U%									
															0.	



							Czech	Repu	blic					
Number of gaps	s 26	Curr of imp	ent status lementation	Already imp	olemented 6	In proj 19	gress / P	lanned						Not planne
	ATM	Functio	nality #1			l	ATM Fun	ction	ality #2			ATM Functio	nality #3	
Family	Gap cov	erage	Compl. Year	CEF Projects	Family		3ap coverage		Compl. Year	CEF Projects	Family	Gap coverage	Compl. Year	CEF Project
1.1.1					2.1.1						3.1.1	15% 85% 0%	Dec 2020	Yes
1.1.Z					2.1.2						3.1.2	0% 100% 0%	Dec 2020	Yes
1.2.1					2.1.3						3.1.3			
1.2.2					2.1.4						3.1.4	45% 55% 0%	Dec 2021	Yes
1.2.3					2.2.1						3.2.1	35% 50% 15%	Dec 2021	Yes
1.2.4					2.3.1						3.2.3			
					2.4.1						3.2.4	5% 95% 0%	Dec 2021	Yes
					2.5.1									
					2.5.2						1			
	ATM	Functior	ality #4				ATM Fun	ction	ality #5			ATM Functio	nality #6	
Family	Gap cov	erage	Compl. Year	CEF Projects	Family		3ap coverage		Compl. Year	CEF Projects	Family	Gap coverage	Compl. Year	CEF Proje
4.1.1					5.1.1						6.1.1			
4.1.2	10% 909	% 0%	Dec 2021	Yes	5.1.2	40%	60%	0%	Dec 2020	Yes	6.1.2	0% 0% 100%	•	
4.2.2	0% 100	% 0%	Dec 2021		5.2.1						6.1.3			
4.2.3	75% 25	% 0%	Dec 2021		5.2.2	0%	100%	0%	Dec 2024		6.1.4			
4.2.4					5.2.3	0%	100%	0%	Dec 2024		6.1.5			
4.3.1					5.3.1	0%	100%	0%	Dec 2024	Yes]	5 N 01111 0		
4.3.2	0% 100	% 0%	Dec 2021		5.4.1	60%	40%	0%	Dec 2020	Yes	plea:	for the Swim Governance re se refer to the dedicated set	rated Pannues (nam ction within Chapter	2 of this docu
4.4.Z	95% 5%	6 0%	Dec 2018	Yes	5.5.1	0%	100%	0%	Dec 2024],	The status reported for	Family 6.1.3 is exclu	sively related
					5.6.1	0%	100%	0%	Nov 2020	Yes		ployment at Lountry level. T	he implementation European level	at Service Are has not yet s
					5.6.2	0%	100%	0%	Dec 2024]			
List of C	EF-funded	initiativ	es awarded	l to Czech S	takeholde	rs							🕢 Com	pleted pro
	#102AF3 Fre	e Route Air m the Blac	rspace k Forest to the B	llack Sea	ANS CR				2015_241_4	1F5 Meteorol	ogical Informati	on Exchange Service	ANS CR, CHMI	
2015_14	5_AF5_B AIM	1 Deployme	nt Toolkit		ANS CR				2015_242_4	F3 Free Rou into ATM	te implementati system of ANS	on CR	ANS CR	
2015_17	74_AF5_B Ne	wPENS Stal	keholders contri and deployment	bution for the of NewPENS	ANS CR				2015_243_4	1F5 Aeronaut	ical Information	Distribution Service	ANS CR	
2015_1	96_AF1_B Ext	ended AMA	N in Czech Airsp	ace	ANS CR				2016_064_A	F5 AIMSIL -	AIM Systems In	tegration Layer	ANS CR	
2015_2	34_AFI_B AM	AN LOWW i	nitial		ANS CR				2016_065_A	IF5 SWIM im System i	plementation in of ANS CR	to ATS INFO/ARO	ANS CR	
2015	239_AF3 Re	xible ASM a	and Free Route		ANS CR				2016_075_AF3	B FAB CE wand STAN	vide Study of DA M - Cohesion Cal	M I	ANS CR	
2015	240_AF4 Tra	affic Comple	exity Tools		ANS CR									



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							De	nmark	(
Nu	umber A	1 Curre	ent status		Already	implem	ented	In pro	gress / Planr	1ed				Not planne
of	gaps "	of imple	ementation				13	26						
	A.	TM Function	ality #1			A	TM Fu	nctiona	ality #2			ATM Funct	ionality #3	
Family	y Gap	o coverage	Compl. Year	CEF Projects	Family	Gi	ap coverag	e	Compl. Year	CEF Projects	Family	Gap coverage	Compl. Year	CEF Projects
1.1.1					2.1.1	35%	65%	0%	Dec 2019	Yes	3.1.1			
1.1.2	70%	0% 30%	Dec 2023	Yes	2.1.2				-		3.1.2	30% 35% 35	% -	
1.2.1	15%	85% 0%	Dec 2019	Yes	2.1.3			4790 (3.1.3			
1.2.2		050/ 00/	Dec 2010	Vac	2.1.4	0%	90%	10%	Dec 2021	Yes	3.1.4	95% 5% 0	Dec 2018 0/ 0== 2021	Yes
12.0				Tes	2.2.1	1%		0%	May 2022	Vec	3.2.			TES
1.2.5					2.4.1	0%	100%	0%	Dec 2020	Yes	3.2.4			
					2.5.1	0%	100%	0%	Dec 2020	Yes				
					2.5.2	0%	100%	0%	Dec 2020	Yes	<u> </u>			
	AT	M Function	ality #4			A	TM Fu	nctiona	ality #5			ATM Funct	ionality #6	
Famil	v Gar	coverage	Compl. Year	CEF Projects	Family	6	ap coverad	e	Compl. Year	CEF Projects	Family	Gap coverage	Compl. Year	CEF Projec
4.1.1					5.1.1						6.1.1			
4.1.2	2 0%	100% 0%	Dec 2021		5.1.2	40%	60%	0%	Dec 2020	Yes	6.1.2	0% 0% 100	-	
4.2.3	2 0%	100% 0%	Dec 2021		5.2.1	60%	40%	0%	Dec 2024	Yes	6.1.3			
4.2.3	3				5.2.2	0%	60%	40%	Dec 2024	Yes	6.1.4			
4.2.4	4 0%	100% 0%	Dec 2021		5.2.3	0%	100%	0%	Dec 2024	Yes	6.1.5			
4.3.					5.3.1	0%	100%	0%	Dec 2021	Yes		For the SWIM Revenuence	valated Familian Insur	by 517 and 4
4.3.2	2 0%	100% 0%	Dec 2021		5.4.1	0%	100%	0%	Dec 2024	Yes	plea	se refer to the dedicated	section within Chapter	2 of this docu
4.4.3	2 95%	5% 0%	Dec 2021		5.5.1	0%	100%	0%	Dec 2024	Yes	de	The status reported for poloyment at Country level	nr Family 6.1.3 is exclus . The implementation a	ively related t Service Area
					5.6.1	0%	20%	80%	Dec 2024		-		European level	has not yet st
					3.0.2	<u>U70</u>	<u>U78</u>	10078			AI	H , AF2 , and Family 4.2.4	to be implemented in C	openhagen Ka
List o	f CEF-fund	ed initiative	es awarded	to Danish	Stakeholde	rs							🖌 Com	oleted proj
	#020AF3	Borealis Free	Route Airspace	(Part 1)	Naviair				2015_207_AF3	A Harmonis	ation of Tech AT support of FRA	M Platform in 5 ANSP and preparation of PC	p Naviair	
	#103AF2	Standardization	n of A-SMGCS		Copenhagen Naviair	Airports	as,		2015_227_AF3	_A Borealis	FRA Implementat	ion (Part 2)	Naviair	
	#127AF5	National WAN I CANDI-IP prepa	Infrastructure - aration project		Naviair				2016_012_/	AFI Synchron	ised PBN Implen	nentation	Copenhagen Air Naviair	ports AS,
201	5_025_AF5_A	Sub-regional S to support NEF	SWIM MET deploy	rment	Danish Mete Institute (D	iorologica M)	al		2016_027_A	F5 European for Flight	Deployment Roa Object Interoper	admap rability	Naviair	
2	2015_043_AF2	AFZ.4 A-SMGCS	S - Routing & Pl	anning	Copenhagen Naviair	Airports	AS,		2016_141_A	F5 Deploy S	WIM governance	•	Copenhagen Air	ports
2	2015_044_AF2	Implementation at Copenhagen	n of initial DMAN Airport	and ADP	Copenhagen Naviair	Airports	as,		2016_150_A	F2 Enablers related t	for Airport Surf Safety Nets	ace Movement	Copenhagen Air Naviair	ports AS,
2	2015_045_AF5	AF5 iSWIM			Copenhagen	Airports	AS		2017_022_4	FZ Synchron optimizat	ized stakeholder ion at airport le	• decision on process vel	Copenhagen Air	ports AS
2	2015_046_AF2	AF 2.5 A-SMGC	S - Safety Nets		Copenhagen Naviair	Airports	as,		2017_026_A	F5 PKI and C	ybersecurity		Copenhagen Air	ports AS
2	2015_099_AF5	DK-SE FAB Aer	onautical Data	Quality (ADQ)	Naviair				2017_060_A	F5 ADQ Com	ponents in the S data inclusion i	WIM Infrastructure - in the full data chain	Naviair	
	2015_131_AF5	CANDI-IP (Exec	ution phase)		Naviair				2017_066_A	F5 Implement	ting harmonised ANSPs and gen	SWIM (Y) solution in eral PCP compliance	Naviair	
										SWIM Co	nmon PKI and po	licies & procedures	Conenhagen Air	ports AS,
	2015_132_AF3	VolP Programm	ne		Naviair				2017_084_A	F5 for estab	lishing a Trust fi	ramework	Naviair	



9					1 1	Estonia]				(1)	
Nur of g	^{mber} 2! gaps 2!	5 Cu of in	nrrent status	Alrea	idy implemen	6				In progress	S / Planned	Not planne
	A	TM Functi	onality #1			ATM Function	ality #2			ATM Functio	inality #3	
Family	Ga) coverage	Compl. Year	CEF Projects	Family	Gap coverage	Compl. Year	CEF Projects	Family	Gap coverage	Compl. Year	CEF Projec
1.1.1					2.1.1				3.1.1			
1.1.2					2.1.2			1	3.1.2	30% 70% 0%	Dec 2018	
1.2.1					2.1.3				3.1.3			
1.2.2					2.1.4				3.1.4	60% 40% 0%	Dec 2021	
1.2.3					2.2.1				3.2.1	70% 15% 15%	Dec 2021	
1.2.4					2.3.1				3.2.3			
					2.4.1		l	ļ	3.2.4			
					2.5.1		ļ	<u> </u>	-			
					Z.5.Z				1			
	A	M Functio	onality #4			ATM Function	ality #5			ATM Functio	nality #6	
Family	y Ga	o coverage	Compl. Year	CEF Projects	Family	Gap coverage	Compl. Year	CEF Projects	Family	Gap coverage	Compl. Year	CEF Projec
4.1.1					5.1.1				6.1.1			
4.1.2	0%	100% 0%	Dec 2021		5.1.2	10% 90% 0%	Dec 2020		6.1.2	0% 0% 100%	<u>i</u>	
4.2.2	0%	100% 0%	Dec 2021		5.2.1	0% 0% 100%)[]		6.1.3	65% 35% 0%	<u> </u>	Yes
4.2.3	30%	70% 0%	Dec 2021	Yes	5.2.2	0% 80% 20%	Dec 2024	Yes	6.1.4			
4.2.4					5.2.3	0% 60% 40%	Dec 2024		6.1.5			
4.3.1					5.3.1	80% 10% 10%	Dec 2020			For the SWIM Governance ro	elated Families (name	ely 5.1.3 and 5
4.3.2	2 0%	0% 100%	6 -		5.4.1		Dec 2024	Yes	plea	ase refer to the dedicated se	ection within Chapter	2 of this docu
4.4.2	U %	100%	Dec 2021		5.5.1		Dec 2024			The status reported for eployment at Country level.	Family 6.1.3 is exclus The implementation a	sively related at Service Area
					5.6.1		Dec 2021		-		European level	has not yet st
					3.8.2				_			
List of	CEF-fund	ed initiati	ives awarded	l to Estonian	Stakehold	lers					🕢 Com	pleted proj
\bigcirc	#020AF3	Borealis Fre	ee Route Airspace	(Part I)	EANS		201	5_227_AF3_B	Borealis FRA In	plementation (Part 2)	EANS	
	#056AF3	ASM tool im	plementation		EANS			2016_159_AF6	DLS Implement	ation Project - Path 2	EANS	
2015	025 AF5 B	Sub-regiona	SWIM MET deploy	vment	Estonian En	vironment Agency		2016 161 AF6	DLS Implement	ation Project - Path 1	FANS	



						Fir	ıland						
Number of gaps	28	6 Curr of imp	ent status lementation	Already imp	plemented 5	In progress / I 19	lanned						Not planne
	A.	TM Function	nality #1			ATM Fur	ictional	lity #2			ATM Function	onality #3	
Family	Gap) coverage	Compl. Year	CEF Projects	Family	Gap coverag		Compl. Year	CEF Projects	Family	Gap coverage	Compl. Year	CEF Project
1.1.1					2.1.1					3.1.1	70% 0% 309	6 Dec 2020	Yes
1.1.2					2.1.2					3.1.2	0% 100% 0%	Dec 2020	Yes
1.2.1					2.1.3					3.1.3			
1.2.2					2.1.4					3.1.4	90% 10% 0%	Dec 2021	Yes
1.2.3					2.2.1					3.2.1	70% 10% 209	6 Dec 2021	Yes
1.2.4					2.3.1					3.2.3			
					Z.4.1					3.2.4			
					2.5.1								
					2.5.2								
	AT	M Function	ality #4			ATM Fur	ictional	lity #5			ATM Function	onality #6	
Family	Gap	o coverage	Compl. Year	CEF Projects	Family	Gap coverag		Compl. Year	CEF Projects	Family	Gap coverage	Compl. Year	CEF Project
4.1.1					5.1.1			1		6.1.1	60% 0% 409	6 -	
4.1.Z	0%	100% 0%	Dec 2021	Yes	5.1.2	40% 60%	0%	Dec 2020	Yes	6.1.2	0% 0% 100%	6 -	
4.2.2	0%	100% 0%	Dec 2021		5.2.1	60% 40%	0%	Dec 2024	Yes	6.1.3	0% 0% 100%	6 -	
4.2.3	75%	25% 0%	Dec 2021	Yes	5.2.2	0% 100%	0%	Dec 2024	Yes	6.1.4			
4.2.4					5.2.3	0% 100%	0%	Dec 2024		6.1.5			
4.3.1					5.3.1	0% 100%	0%	Dec 2024					
4.3.2	0%	100% 0%	Dec 2021		5.4.1	20% 80%	0%	Dec 2024	Yes	plea	For the SWIM Governance i se refer to the dedicated s	related Families (nam. rection within Chapter	ely 5.1.3 and 5. 2 of this documents
4.4.Z	0%	100% 0%	Dec 2021		5.5.1	0% 100%	0%	Dec 2024			The status reported for	Family 6.1.3 is exclusion	sively related u
					5.6.1	0% 100%	0%	Dec 2024		de	eployment at Country level.	The implementation European level	at Service Area ' has not yet sta
					5.6.2	0% 100%	0%	Dec 2024					
List of CE	F-fund	ed initiativ	es awarde	d to Finnish	Stakeholde	rs.						🕢 Com	pleted proj
	#020AF3	Borealis Free	Route Airspace	(Part 1)	Finavia		\checkmark	2016_027_A	F5 European D	Deployment Ro	admap for Right Object	ANS Finland	
2015_02	5_AF5_A	Sub-regional Sto support NE	SWIM MET deplo FRA (part A)	yment	Finnish Mete Institute	orological		2016_141_A	F5 Deploy SWI	IM governance		ANS Finland	
2015_1	368_AF5	European Harr of Adverse Wi	monised Foreca eather	sts	Finnish Mete Institute	eorological		2016_159_A	F6 DLS Implem	entation Proj	ect – Path 2	ANS Finland	
2015_17	4_AF5_A	NewPENS Stal	ceholders contr and deployment	ibution for the of NewPENS	Finavia			2017_084_A	F5 SWIM Comr for establis	non PKI and p shing a Trust f	olicies & procedures framework	ANS Finland	
2015_22	7_AF3_A	Borealis FRA I	mplementation	(Part 2)	Finavia								



				Franc	8						
han	Pursue at at at	Alread	y implemented	In progress / Pla	nned						
aps 69	of implementat	ion	14	50							
		0		×							
	ATM Functionality #1										
	Paris Charles de Gaule Paris Orly									Cote d'Azur	
Family	Gao coverace	Comol. Year	CEF Projects	Gao coverage	Comol. Year	CEF Projects	Gap coverage		Comol. Year CEF Proiect		
111											
1.1.2	50% 35%	5% Dec 2023	Yes	50% 10% 40%	Dec 2023	Yes	50%	5%	45%	Dec 2023	Yes
1.2.1				90% 10% 0%	Dec 2022	Yes					
1.2.2	30% 70%	0% Dec 2020	Yes	30% 70% 0%	Dec 2020	Yes	15%	55%	30%	-	Yes
1.2.3		- 00%		0% 0% 100%	6		0%	0%	100%	-	
1.2.4						<u> </u>					1
1.2.5					-		0%	0%	100%	-	
				ATM Functio	nality # 2						
		Paris Charles de Gaulle			Paris Orly				Nice	Cote d'Azur	
Family	Gap coverage	Compl. Year	CEF Projects	Gap coverage	Compl. Year	CEF Projects	G	ap coverage	2	Compl. Year	CEF Projects
2.1.1	0% 100%	0% Dec 2020	Yes	0% 100% 0%	Dec 2020	Yes	65%	35%	0%	Dec 2020	Yes
2.1.2	20% 80%	0% Dec 2021	Yes	30% 70% 0%	Dec 2021	Yes	20%	80%	0%	Dec 2021	Yes
2.1.3							0%	100%	0%	Dec 2020	Yes
2.1.4	0% 100%	0% Dec 2020	Yes	0% 100% 0%	Dec 2020	Yes	0%	100%	0%	Dec 2020	Yes
2.2.1	85% 15%	0% Dec 2020	Yes	85% 15% 0%	Dec 2020	Yes	30%	70%	0%	Dec 2020	Yes
2.3.						Vac	0%	100%	0%	Dec 2023	Van
7.61		Dec 2022	Vac						11/11		LIES.
2.4.1	0% 100%	0% Dec 2022 0% Dec 2022	Yes		Dec 2022	Yes	0%	100%	0%	Dec 2020	Yes
2.4.1 2.5.1 2.5.2	0% 100%	0% Dec 2022 0% Dec 2022	Yes Yes	0% 100% 0%	Dec 2022	Yes	0%	100%	0% 70%	Dec 2022	Yes
2.4.1 2.5.1 2.5.2	0% 100%	0% Dec 2022 0% Dec 2022	Yes Yes	0% 100% 0%	Dec 2022	Yes	0%	100%	0% 70%	Dec 2022	Yes Yes
2.4.1 2.5.1 2.5.2		0% Dec 2022 0% Dec 2022	Yes Yes ATI	0% 100% 0% 0% 100% 0%	Dec 2022 Dec 2022	Yes Gaps)	0%	100%	0% 70%	Dec 2022	Yes Yes
2.4.1 2.5.1 2.5.2 Family		O% Dec 2022 D% Dec 2022 O% Dec 2022 O* O* Paris Charles de Gaulle	Yes Yes ATI	0% 100% 0% 0% 100% 0%	Dec 2022 Dec 2022 4 (Airport Paris Orly	Yes Gaps)	0%	100%	0% 70% Nice	Dec 2022 - Cote d'Azur	Yes
2.4.1 2.5.1 2.5.2 Family	0% 100% 0% 100% 6ap coverage	Dec 2022 Dec 2022 Dec 2022 Paris Charles de Gaule Campl. Year	Yes Yes ATI	D% 100% D% D% 100% D% M Functionality # Bap coverage	Dec 2022 Dec 2022 4 (Airport Paris Orly Compl. Year	Gaps)		100%	0% 70% Nice	Dec 2023 Dec 2022 - Cote d'Azur Compl. Year	Yes Yes CEF Projects
2.4.1 2.5.1 2.5.2 Family 4.2.4	0% 100% 0% 100%	0% Dec 2022 Dec 2022 Paris Charles de Gaule Campl. Year Dec 2019	Yes Yes ATI	0% 100% 0% Bap coverage 0% 100% 0%	Dec 2022 Dec 2022 4 (Airport Paris Orly Campl. Year Dec 2019	CEF Projects Yes	0% 30% 6; 0%	100% (0% (0% (100% (0% 70% Nice	Dec 2022 	Yes Yes CEF Projects Yes
2.4.1 2.5.1 2.5.2 Family 4.2.4	0% 100% 0% 100% 0% 00% 0% 00%	0% Dec 2022 0% Dec 2022 Paris Charles de Gaule Compl. Year 0% Dec 2019 ATM Fur	Yes Yes ATI CEF Projects Yes Inctionality # 2	0% 100% 0% 0% 100% 0% M Functionality # 6ap coverage 0% 0% 100% 0% 3 3 3	Dec 2022 Dec 2022 4 (Airport Paris Orly Compl. Year Dec 2019 ATM F	Gaps) CEF Projects Yes Functionality	30% 30% 64 64 64 64 64 64 64 64 64 64 64 64 64	100% (0% (0% (100% (100% (0untry	0% 70% Nice 0% Gaps	Cote d'Azur Campl. Year Dec 2022	Yes Yes CEF Projects Yes
2.4.1 2.5.1 2.5.2 Family 4.2.4	0% 100% 0% 100% Gap coverage 0% 100% Family	0% Dec 2022 0% Dec 2022 Paris Charles de Gaule Compl. Year 0% Dec 2019 ATM Fur Gap coverag	Yes Yes ATI CEF Projects Yes ictionality # 3 compl. Y	U% 100% U% O% 100% 0% M Functionality # Bap coverage D% 100% 0% 3 CEF Projects	Dec 2022 Dec 2022 Paris Orly Campl. Year Dec 2019 ATM F Family	Gaps) CEF Projects Yes Functionality Bap coverage	878 0% 30% 30% 68 0% # 4 (C	100% 0% 0% 100% 100% 0untry ompl. Year	0% 70% Nice 0% Gaps	Cote d'Azur Cote d'Azur Compl. Year Dec 2021	Ves Yes CEF Projects Yes
2.4.1 2.5.1 2.5.2 Family 4.2.4	0% 100% 0% 100% 6ap coverage 0% 100% Family 3.1.1	0% Dec 2022 D% Dec 2022 Paris Charles de Goule Compl. Year D% Dec 2019 ATM Fur Gap coverag	Yes Yes ATI CEF Projects Yes Inctionality # 2 compl. Y	UM UM/N UM/N D% 100% 0% M Functionality # Bap coverage D% 100% 0% 100% 0% 100% 0% 100% 0% 100%	Dec 2022 Dec 2022 Paris Orly Compl. Year Dec 2019 ATM F Family	Gaps) CEF Projects Yes Functionality Gap coverage	876 0% 30% 4 (C C	100% 0% 0% 100% 100% 0untry ompl. Year	0% 70% Nice 0% Gaps	Cote d'Azur Campi. Year Dec 2022 	Yes Yes CEF Projects Yes
2.4.1 2.5.1 2.5.2 Family 4.2.4	0% 100% 0% 100% 0% 100% €ap coverage 0% 100% Family 3.1.1 3.1.2 3.1.2	0% Dec 2022 0% Dec 2022 Paris Charles de Goule Compl. Year 0% Dec 2019 ATM Fur Gap coverag 30% 70%	Yes Yes ATI CEF Projects Yes ctionality # 2 campl. Y D% Dec 20	U% U% U% U% U0% U% U% U0% U% M Functionality # Bap coverage U% U% U0% Bap coverage U% CEF Projects U 21 U	dec 2022 dec 2022 dec 2022 dec 2022 dec 2022 dec 202 dec 2019 d	Gaps) CEF Projects Yes Gap coverage O% 100% [C	670 0% 30% 680 0% # 4 (C C	ap coverage ap coverage ap coverage ampl. Year acceler 2021	0% 70% Nice 0% Gaps	Cote d'Azur Cote d'Azur Compl. Year Dec 2021	Yes Yes CEF Projects Yes
2.4.1 2.5.1 2.5.2 Family 4.2.4	0% 100% 0% 100% 6ap coverage 0% 100% Family 3.1.1 3.1.2 3.1.3 7.1 /	0% Dec 2022 0% Dec 2022 Paris Charles de Goule Compl. Year 0% Dec 2019 ATM Fur Gap coverag 0% 70% 0% 70% 0% 70%	Yes Yes ATI CEF Projects Yes ctionality # 2 Campl Y D% Dec 20	0% 100% 0% 0% 100% 0% M Functionality # 60p coverage 0% 0% 100% 0% 8 60% 100% 21 60% 60% 10 100% 10%	ATM F Family 4.1.2 4.2.2	Gaps) CEF Projects Yes Functionality Gap coverage O% 100% C Spec 5 Spec 5	(C) (C) (C) (C) (C) (C) (C) (C)	100% 0% 100% 100% 100% 0untry 0untry 0ec 2021 0ec 2021 0ec 2021 0ec 2021	0% 70% Nice 0% Gaps	Cote d'Azur Cote d'Azur Compl. Year Dec 2021 Projects Yes	Yes Yes CEF Projects Yes
2.4.1 2.5.1 2.5.2 Family 4.2.4	6ap coverage 0% 100% 6ap coverage 0% 100% Family 3.1.1 3.1.2 3.1.3 3.1.4 3.2.1	O% Dec 2022 O% Dec 2022 Paris Charles de Gaule Campl. Year O% Dec 2019 ATM Fur Gap coverag 30% 70% 55% 0% 55% 0% 55% 0%	Yes Yes ATI CEF Projects Yes Compl. Y O% Dec 20 S% Dec 20 S% Dec 20	0% 100% 0% 0% 100% 0% M Functionality # 6ap coverage 0% 0% 100% 0% 3 0% 100% 21 0% 100% 18 1 1 21 1 1	dec 2022 dec 2029 dec 2019	Gaps) CEF Projects Yes Functionality Bap coverage O% 100% C 100% C 100% C	<pre>0% 0% 0% 0% # 4 (C 0% # 4 (C 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0%</pre>	100% 0% 100% 100% 100% 0untry ompl. Year 100%	Nice Nice O% O% Gaps	Cote d'Azur Compl. Year Dec 2022 - Compl. Year Dec 2021 :) :Projects Yes Yes	Yes Yes
2.4.1 2.5.1 2.5.2 Family 4.2.4	0% 100% 0% 100% 6ap coverage 0% 100% Family 3.11 3.1.2 3.1.3 3.1.4 3.2.1 3.2.3	0% Dec 2022 0% Dec 2022 Paris Charles de Geule Compl. Year 0% Dec 2019 ATM Fur Bap coverag 30% 70% 55% 0%	Yes Yes ATI CEF Projects Yes Compl. Y D% Dec 20 15% Dec 20	U% U% U% U% 100% U% M Functionality # Bap coverage U% U% 100% U% Bap coverage U% U% D% 100% U% Bap coverage U% U% Bap coverage U% U% D% 100% U% Bap coverage U% U% D% 100% U% Bap coverage U% U% </td <td>Dec 2022 Dec 2022 Paris Orly Compl. Year Dec 2019 ATM F Family 4.1.1 4.1.2 4.2.2 4.3.1 4.3.2</td> <td>Yes Gaps) CEF Projects Yes Functionality Bap coverage 0% 100% 0% 100% 0% 100% 0%</td> <td></td> <td>100% 100% 0% 10</td> <td>Nice Caps Caps Caps Caps</td> <td>Compl. Year Dec 2022 - Congl. Year Dec 2021 :) Projects Yes Yes</td> <td>Yes Yes CEF Projects Yes</td>	Dec 2022 Dec 2022 Paris Orly Compl. Year Dec 2019 ATM F Family 4.1.1 4.1.2 4.2.2 4.3.1 4.3.2	Yes Gaps) CEF Projects Yes Functionality Bap coverage 0% 100% 0% 100% 0% 100% 0%		100% 100% 0% 10	Nice Caps Caps Caps Caps	Compl. Year Dec 2022 - Congl. Year Dec 2021 :) Projects Yes Yes	Yes Yes CEF Projects Yes
2.4.1 2.5.1 2.5.2 Family 4.2.4	0% 100% 0% 100% 0% 100% 0% 100% Family 3.1.1 3.1.2 3.1.3 3.1.4 3.2.1 3.2.3 3.2.4	0% Dec 2022 0% Dec 2022 2aris Charles de Geule	Yes Yes ATI CEF Projects Yes Inctionality # 3 Compl. Y Compl. Y Co	U% U% U% U% 100% U% U% 100% U% Bap coverage U% U% U% 100% U% Bap coverage U% U% U% 100% U% Bap coverage U% U% U% 100% U% S U% U% I U% U% II U% U% II Yes U% II Yes U%	Dec 2022 Dec 2022 Paris Orly Compl. Year Dec 2019 ATM F Family 4.1.1 4.1.2 4.2.2 4.3.1 4.3.2 4.4.2	Tots Yes Gaps) CEF Projects Yes Functionality Gap coverage 0% 00%	0% 30% 30% 4 (C C C C C C C C C C C C C C C C C C C	100% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0%		Dec 2022 - Cote d'Azur Campl. Year Dec 2021 : : : : : : : : : : : : :	Yes Yes
2.4.1 2.5.1 2.5.2 Family 4.2.4	0% 100% 0% 100% 0% 100% ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■	0% Dec 2022 0% Dec 2022 Paris Charles de Goule Compl. Year 0% Dec 2019 ATM Fur Gap coverág 30% 70% 55% 0% 55% 0% 0% 10% 0% 10%	Yes Yes ATI CEF Projects Yes Cample Y Cample Y D% Dec 20 Cample Y D% Dec 20 Cample Y D% Dec 20 Cample Y Cample	0% 100% 0% 0% 100% 0% 0% 100% 0% Bap coverage 0% 100% 0% 100% 0% 3 0% 100% 21 0% 100% 18 0% 10% 21 Yes 10%	Dec 2022 Dec 2022 Paris Drly Campl. Year Dec 2019 ATM F Family 4.1.1 4.2.2 4.2.3 4.3.1 4.3.2	Yes Gaps) CEF Projects Yes Functionality Bap coverage 0% 100% 0% 100% 0% 100% 0% 100% 0% 0% 00%	(0%) (0%)	100% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0%		Cote d'Azur Campl. Year Dec 2022 - Cote d'Azur Dec 2021 Projects Yes Yes Yes	Yes Yes
2.4.1 2.5.1 2.5.2 Family 4.2.4	0% 100% 0% 100% 0% 100% 0% 100% Family 3.1.1 3.1.2 3.1.3 3.1.4 3.2.1 3.2.3 3.2.4	0% Dec 2022 0% Dec 2022 Paris Charles de Boule Compl. Year 0% Dec 2019 ATM Fur Bap coverag 30% 70% 55% 0% 15% 70% 0% 100% ATM Fur	Yes Yes ATI CEF Projects Yes Campl Y Campl Y O% Dec 20 Solutionality # 2 O% Dec 20 Conce 20 C	US US US US US US US US US M Functionality # Bop coverage US US O% 100% US Bop coverage US US OS 100% US S US US II US US II Yes III II Yes III III Yes IIII	Dec 2022 Dec 2022 Paris Orly Compl. Year Dec 2019 ATM F Family 4.1.1 4.2.2 4.3.1 4.3.2 4.4.2	Yes Gaps) CEF Projects Yes Functionality Gap coverage M 100% 0% 100% 0% 100% 0% 100% 0% 0% 0% 100% 0%		100% 100% 100% 100% 100% 100% 100% 100%		Cote d'Azur Campl. Year Dec 2022	Yes Yes
2.4.1 2.5.1 2.5.2 Family 4.2.4	0% 100% 0% 100% 0% 100% 0% 100% Family 3.1.1 3.1.2 3.1.3 3.1.4 3.2.1 3.2.3 3.2.4 Family 5.11	0% Dec 2022 0% Dec 2022 Paris Charles de Gaule Paris Charles de Gaule 0% Dec 2019 ATM Fur 0% Dec 2019 0% Dec 2019 0% Dec 2019 0% 0% 0% 0% 0% 0% 0% 0% 0% 00% 0% 00% 0% 00% 0% 00%	Yes Yes ATI CEF Projects Yes Compl. Y Compl. Y Compl. Y D% Dec 20 D% Dec 20 Compl. Y Compl. Y	UN UUN UN UN 100% UN Bap coverage UN	Dec 2022 Dec 2022 Paris Orly Compl. Year Dec 2019 ATM F Family 4.1.1 4.2.2 4.2.3 4.3.1 4.3.2 4.4.2 7 Family Family	Tots Yes Gaps) CEF Projects Yes Functionality Bap coverage 0% 100% 0% 100% 0% 0% 0% 0% 00%	0% 30% 30% 0% 4 (C) C C C C C C C C C C C C C C C C C C	100% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0%		Cote d'Azur Compl. Year Dec 2022 - Compl. Year Dec 2021 :) Yes Yes Yes Yes Yes	Yes Yes CEF Projects Yes
2.4.1 2.5.1 2.5.2 Family 4.2.4	6ap coverage 6ap coverage 0% 100% 6ap coverage 0% 100% 6an coverage 3.1.1 3.1.2 3.1.3 3.1.4 3.2.1 3.2.3 3.2.4 Family 5.1.1 5.12	O% Dec 2022 O% Dec 2022 Paris Charles de Gaule Compl. Year O% Dec 2019 ATM Fur Gap coverag S5% D% S5% D% S5% D% O% D0% D% D0% D% D0% O% D0%	Yes Yes ATI CEF Projects Yes Compl. Y Compl. Y O% Dec 20 Citionality # 2 Campl. Y Campl. Y Campl. Y	U% U% U% U% 100% 0% M Functionality # Bap soverage 0% 100% D% 100% 0% Same CEF Projects 1 21 Yes 1 18 1 1 21 Yes 1 Same CEF Projects 1 Same CEF Projects 1 Same CEF Projects 1 Same Yes 1 Yes 1 1	Dec 2022 Dec 2022 Paris Orly Compl. Year Dec 2019 ATM F Family 4.1.1 4.1.2 4.2.2 4.3.1 4.3.2 4.4.2 7 Family 5.1.1 6.1.2	Yes Gaps) CEF Projects Yes Functionality Bap coverage 0% 100% 0% 00%	0% 0% 33% 33% 0% 10%	IDD% Coverage p coverage IDD% Cove		Core d'Azur Compl. Year Dec 2022 - Compl. Year Dec 2021 :) Projects Yes Yes Yes	Yes Yes
2.4.1 2.5.1 2.5.2 Family 4.2.4	0% 100% 0% 100% 0% 100% 0% 100% Family 3.1.1 3.1.2 3.1.3 3.1.4 3.2.3 3.2.4 Family 5.1.1 5.1.2 5.2.1	Dec 2022 2aris Charles de 2022 2aris Charles de 2024 3aris Charles de 2024 <td< td=""><td>Yes Yes ATI CEF Projects Yes Compl. Y Compl. Y C</td><td>U% U% U% U% 100% U% Bap coverage U% U% D% 100% U% Bap coverage U% U% D% 100% U% Bap coverage U% U% Sear UEF Projects U% Sear UEF Projects U% Sear UEF Projects U% Sear U% U% Sear U% U%</td><td>Dec 2022 Dec 2022 Paris Orly Compl. Year Dec 2019 ATM F Family 4.1.1 4.1.2 4.2.3 4.3.1 4.3.2 Family 4.4.2 7 Family 6.1.1 6.1.2 6.1.3</td><td>Yes Gaps) CEF Projects Yes Functionality Bop coverage 0% 0% 00%</td><td>0% 0% 30% 30% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0%</td><td>100% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0%</td><td></td><td>Cote d'Azur Campl. Year Dec 2022 - Cote d'Azur Dec 2021 : Projects Yes Yes Yes Yes</td><td>Yes Yes</td></td<>	Yes Yes ATI CEF Projects Yes Compl. Y Compl. Y C	U% U% U% U% 100% U% Bap coverage U% U% D% 100% U% Bap coverage U% U% D% 100% U% Bap coverage U% U% Sear UEF Projects U% Sear UEF Projects U% Sear UEF Projects U% Sear U% U% Sear U% U%	Dec 2022 Dec 2022 Paris Orly Compl. Year Dec 2019 ATM F Family 4.1.1 4.1.2 4.2.3 4.3.1 4.3.2 Family 4.4.2 7 Family 6.1.1 6.1.2 6.1.3	Yes Gaps) CEF Projects Yes Functionality Bop coverage 0% 0% 00%	0% 0% 30% 30% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0%	100% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0%		Cote d'Azur Campl. Year Dec 2022 - Cote d'Azur Dec 2021 : Projects Yes Yes Yes Yes	Yes Yes
2.4.1 2.5.1 2.5.2 Family 4.2.4	0% 100% 0% 100% 0% 100% Family 3.1.1 3.1.2 3.1.3 3.1.4 3.2.1 3.2.3 3.2.4 Family 5.1.1 5.1.2 5.2.1 5.2.2	Dec 2022 2aris Charles de 2022 2aris Charles de 2024 30% 70% 70% 20% 30% 70% 70% 20% 30% 70% 70% 20% 30% 70% 100% 20% 30% 70% 20% 20% 30% 70% 20% 20% 30% 70% 20% 20% 30% 70% 20% 20% 30% 70% 20%<	Yes Yes ATI CEF Projects Yes Inctionality # 3 Compl Y Compl Y	U% U% U% U% 100% U% U% 100% U% Bap coverage U% U% D% 100% U% Bap coverage U% U% Bap coverage U% U% CEF Projects U% U% So U% U% CEF Projects U% U% CO Yes U% CO Yes U% C4 Yes U%	Dec 2022 Dec 2022 Paris Drly Compl. Year Dec 2019 ATM F Family 4.1.1 4.1.2 4.2.2 4.2.3 5 4.3.1 4.3.2 Family 5.1.1 6.1.2 6.1.3 6.1.4	Tos Yes Gaps) CEF Projects Yes functionality Gap coverage 0% 0% 00%	(0%) (0%)	100% 1 100% 1 0% 1 100% 100% 100% 100% 100% 100% 100% 100%		Cote d'Azur Campl. Year Dec 2022 - Dec 2022 Dec 2021 Projects Yes Yes Yes Yes	Yes Yes
2.4.1 2.5.1 2.5.2 Family 4.2.4	0% 100% 0% 100% 0% 100% 0% 100% 0% 100% 0% 100% 5.1.1 3.2.3 3.2.4 5.1.1 5.1.2 5.2.1 5.2.2 5.2.3	0% Dec 2022 0% Dec 2022 Paris Charles de Boule Compl. Year 0% Dec 2019 ATM Fur Bap coverage 30% 70% 55% 0% 55% 0% 55% 0% 55% 0% 0% 100% 0% 00% 0% 00% 0% 00% 0% 00% 0% 00% 0% 00% 0% 00% 0% 00%	Yes Yes ATI CEF Projects Yes Cample Y Cample Y Cample Y Cample Y Comple Y C	U% U% U% U% 100% 0% U% 100% 0% Bap coverage 0% 100% D% 100% 0% Bap coverage 0% 100% Bap coverage 0% 100% Bap coverage 0% 0% Bap coverage	Bee 2022 Dec 2022 Paris Orly Compl. Year Dec 2019 ATM F Family 4.1.1 4.1.2 4.2.2 4.2.3 5 4.3.1 4.3.2 7 Family 6.1.1 6.1.2 6.1.3 6.1.4 6.1.5	Yes Gaps) CEF Projects Yes Functionality Gap coverage 0% 100% 0% 100% 0% 00%	0% 0% 30% 0% #4 (C) C 0% C	100% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0%		Cote d'Azur Campl. Year Dec 2022 Cote d'Azur Dec 2021 Projects Yes Yes Yes	Yes Yes
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1)				Fra	nce			
Number of gaps	69	Current status of implementation	emented 14	In progress / F 50	lanned			Not planne
List of Cl	F-funde	d initiatives awarded to French Sta	ikeholder	'S				🔗 Completed proj
	#023AF2	SMAN-Vehicle	Aéroports	De Paris		2015_196_AF1_A	XMAN - Cross-centre arrival management	DSNA
	#024AF2	SAIGA	Aéroports	De Paris		2015_247_AF3	4Flight deployment in military En-route ACC (CMCC)	French MOD
	#025AF2	TSAT to the Gate	Aéroports	De Paris		2015_249_AF5	PATRUS (Secured real time gateway) for data exchange between civil and military systems	French MOD
	#026AF2	Evolutions CDM-CDG	Aéroports	De Paris		2016_023_AF1	XMAN - Cross-center arrival management - Part 2 (CEF2016)	DSNA
\bigcirc	#027AF2	SMAN-Airport	Aéroports	De Paris	\bigcirc	2016_027_AF5	European Deployment Roadmap for Fight Object Interoperability	DSNA
	#030AF2	Equipment of ground vehicles to supply the A-SMGCS	Aéroports	de la Côte d'Azur		2016_055_AF3	Upgrade of French Military CRCs for civil- military intercoerability	French MOD
	#031AF2	Data exchanges with the Air Navigation Service Provider	Aéroports	de la Côte d'Azur		2016_100_AF4	Provision of EFPL data and initial FF-ICE/ 1 readiness	Air France
\bigcirc	#032AF2	Data exchanges with the Network Manager Operations Center	Aéroports	de la Côte d'Azur		2016_121_AF3	Free Route	Air France
	#033AF2	Data exchanges with COHOR	Aéroports	de la Côte d'Azur		2016_123_AF4	STAM Phase 2 in combination with Target Times	Air France
	#048AF2	SYSAT@CDG	DSNA			2016_134_AF3	Implementation of rolling ASM/ATFCM	Air France, Sabre France, SARI
	#049AF2	SYSAT®NCE	DSNA			2016_141_AF5	Deploy SWIM governance	DSNA, Air France, French MOD
	#050AF2	SYSAT®ORY	DSNA			2016_150_AF2	Enablers for Airport Surface Movement	ADP, Aéroports de la Côte d'Azur, Air France, DSNA
	#051AFla	RNP Approaches at CDG Airport with vertical guidance (Part A)	DSNA, Air I	France		2016_159_AF6	DLS Implementation Project - Path 2	DSNA, ESSP
\bigcirc	#051AFIb	RNP Approaches at CDG Airport with vertical guidance (Part B)	Air France			2016_161_AF6	DLS Implementation Project - Path 1 "Ground" stakeholders	DSNA
	#053AF3	4-Flight deployment in DSNA pilot ACCs	DSNA			2016_165_AF6	Lufthansa Group & Air France Group Datalink	Air France, HOP
\bigcirc	#054AF2	CDG 2020 Step 1	DSNA, Air I	France		2017_002_AF5	Aeronautical Information Exchange system for Airlines FDC at Lufthansa & Air France	Air France
\bigcirc	#067AF5	Coflight-eFDP System Development	DSNA			2017_008_AF6	Air France Group Datalink upgrade to best in class avionics - Lot2	Air France, Transavia
\bigcirc	#129AF2	CDM-ORLY	Aéroports	De Paris		2017_022_AF2	Synchronized stakeholder decision on process optimization at airport level	Aéroports De Paris, Aéroports de la Côte d'Azı
	#130AF2	BOREAL-Orly	Aéroports	De Paris		2017_034_AF5	Deploying Cyber Infrastructure at DSNA	DSNA
2015_062_AF	3_Phase_I	4-Flight Deployment in PARIS Area - Phase I	DSNA			2017_035_AF5	Deploying SWIM infrastructure at DSNA	DSNA
2015_062_AF	3_Phase_II	4-Flight Deployment in PARIS Area, Ucorade in Marseille and Aix ACCs - Phase II	DSNA			2017_037_AF2	TBS deployment at Paris CDG	DSNA, Meteo France
201	5_067_AF5	European Weather Radar Composite of Convection Information Service	Meteo Fran	ce		2017_038_AF4	Enablers of Network Collaborative Management for En Route and Airports at DSNA	Aéroports De Paris, Air France, DSNA
2015	_068_AF5	European Harmonised Forecasts of Adverse Weather	Meteo Fran	Ce		2017_039_AF5	SEPIA - Deploying SWIM based AIM services in French Airspace	DSNA
2015	_069_AF5	European MET Information Exchange (MET-GATE)	Meteo Fran	CB		2017_043_AF3	Coflight-eFDP Development (Step 2)	DSNA
201	5_073_AFI	AMAN upgrade for extended horizon at DSNA airports	DSNA, Aéro Air France	oports De Paris,		2017_052_AF4	AOP-NOP Integration - Extended Implementation	Aéroports de la Côte d'Azu
2015	_083_AF2	iAOP implementation	Aéroports	de la Côte d'Azur		2017_053_AF3	Implementation of rolling ASM/ATFCM	Air France, Sabre France SARL
20	5_085_AF2	DMAN and Pre-departure sequence (PDS) implementations for the CDM implementation	Aéroports DSNA	de la Côte d'Azur,		2017_056_AF5	Towards Shared Business Trajectory / Trajectory Based Operations	Sabre France SARL
2	015_113_AF4	ADP-NOP Integration	Aéroports	De Paris		2017_076_AF5	Meteorological Information Exchange service for Airlines FDC at Lufthansa & Air France	Air France
20	15_133_AF2	Initial AirPort Operational Centre (iAPOC)	Aéroports Air France.	de Paris, DSNA		2017_080_AF5	PATRUS niveau 2 - Gateway Updgrade for 4Plight compliance	French MOD
20	15_135_AF2	CDG and ORLY - Initial Airport Operational Plan (AOP)	Aéroports Air France	de Paris,		2017_084_AF5	SWIM Common PKI and policies & procedures for establishing a Trust framework	Aéroports De Paris, Air France, DSNA, French MOD
2	015_139_AFI	Geographic Database – AIM TODL	DSNA, Aéro	oports de Paris		2017_089_AF6	IPI - DLS European Target Solution assessment	ALTYS, DNSA, ESSP, SITA F Services France, Thales
2015	174 AF5 A	New PENS Stakeholders contribution for the	Aéroports	De Paris, DSNA				


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	Number	85 Cu	rrent status	Alread	ly implemen	ited in pro	ogress / Plan	med							Not planne	8
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2.4.1	0% 100% 1	0% Dec 2023	Yes	0% 100%	0% 0	ec 2023	Yes	0% 100%	6 0%	Dec 2023	Yes	0%	100%	0%	Dec 2023	Y
2.5.1	0% 100% 1	0% Dec 2020	Yes	0% 100%	0%	-)[Yes	0% 100%	6 0%	<u> </u>	Yes	0%	100%	0%	Dec 2020	Y
2.5.2		Dec 2020		0% 100%	0%	ec 2020	Yes	0% 100%	6 0%	Dec 2020	Yes	50%	50%	0%	Dec 2020	<u> </u>
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Family 4.2.4	Ber Bop coverage 0 0% 90% 1	in Brandenburg Airp	ert CEF Projects Family 3.1.1 3.1.2 3.2.3 3.2.4 5.5.2 5.1.2 5.2.2 5.2.3 5.3.3 5.2.3 5.3.3 5.3.3 5.3.3 5.3.3 5.3.3 5.3.3 5.3.3 5.3.3 5.3.3 5.3.3 5.3.3 5.3.3 5.3.3 5.3.3 5.3.5 5.5.5 5.5.5 5.5.5 5.5.5 5.5.5 5.5.5 5.5.5 5.5.5 5.5.5 5.5	Bap coveraj 0% 100% ATM Function 0% 6 70% 0% 6 70% 0% 6 30% 0% 6 30% 0% 6 30% 0% 6 35% 0% 6 45% 0% 6 45% 0% 6 60% 0% 6 80% 0% 6 80% 0% 6 80% 0% 6 80% 0% 6 20% 0% 6 20% 0%	Dusseldorf In 0% <	ternational angl. Year 1 2021 1 1 Yes 1 Yes 1 Yes 1 Yes 0 Yes	DEF Projects Yes Cts Famil 4.1 4.1 4.1 4.1 4.1 4.1 4.2 4.3 4.3 6.1 6.1 6.1 6.1 6.1 6.1	Bap cove Bap cove 0% 100% ATM Fun ily .2 0% .3 75% 3.1 0% .2 0% .3 75% .4 0% .5	Frankf Frankf Frankf Gyr Ctional Gyr Ctional Gyr Cysso Gyr Cysso Gyr Cysso Gyr Cysso Gyr Cysso Gyr Cysso Gyr Cysso Gyr Cysso Gyr Cysso Cy	ert laterasional Congl. Yar Dec 2019 ity # 4 (Coul ge Cong 0% Dec 0% Dec	L Yes 2021 2021 2021 2021 2021 Yes 2021 2021 Yes 2021 2	es	99 COVERE 100%	Munich Fr	anz Jasef Strauss Compl. Year Dec 2021	
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)	Nur of g	nber 85 Current status Aire gaps of implementation	ady implemented In progr 21 59	ess / Pla	nned		Not planned
List (of CEF-fund	ed initiatives awarded to German Stakeholo	ders				🕢 Completed proje
	#040AF5	ADD - Aeronautical Data Quality	DFS		2016_021_AF2	TANGe (Tower ATS-System Next Generation) Phase 1	DFS
	#041AF5	EASI - EAD AIM System Integration	DFS		2016_023_AFI	XMAN - Cross-center arrival management - Part 2 (CFE2016)	DFS
	#042AF2a	A-SMGCS Düsseldorf	DFS, Düsseldorf International		2016_024_AF4	Deployment of an Automated Support Tool for Traffic Complexity Assessment at DES	DFS
\bigcirc	#084AF5	Prerequisites for the Provision of Aerodrome Manning, Data and Airport Mans	Fraport		2016_026_AF3	System Procurement for Deployment of PCP Air Traffic Control System iCAS at DFS and UVN	DFS
	#086AF2	A-CDM Extension	Fraport		2016_027_AF5	European Deployment Roadmap for Flight Object Interoperability	DFS
	#087AF2	Apron Controller Working Position	Fraport		2016_100_AF4	Provision of EFPL data and initial FF-ICE/ 1 readiness	Deutsche Lufthansa, IH Systeme
	#088AF2	Airport Safety Net Mobile Detection of Air Crash Tenders	Fraport		2016_121_AF3	Free Route	Deutsche Lufthansa,
	#115AF2	A-SMGCS Renewal of the Surface Movement Radar (BORA)	Munich Airport		2016_123_AF4	STAM Phase 2 in combination with Target Times	Deutsche Lufthansa, IH Sveteme
-	2015_031_AF2	Vehicle Transponder A-SMGCS Düsseldorf	Düsseldorf International		2016_134_AF3	Implementation of rolling ASM/ATFCM	Deutsche Lufthansa,
	2015_067_AF5	European Weather Radar Composite of	DWD		2016_137_AF2	Initial AOP DUS	DFS, Düsseldorf Internation
	2015_068_AF5	European Harmonised Forecasts of Adverse Weather	DWD		2016_141_AF5	Deploy SWIM governance	Deutsche Lufthansa, DES Munich Ainport
	2015_069_AF5	European MET Information Exchange (MET-GATE)	DFS, DWD		2016_147_AFI	RNP APCH RWY 29 Vienna	Deutsche Lufthansa
	2015_113_AF4	AOP-NOP Integration	Fraport		2016_150_AF2	Enablers for Airport Surface Movement	Fraport, Munich Airport
	2015_188_AFI	Deploy AMAN - Arrival Management at Disseldorf and Berlin International	DFS		2016_159_AF6	DLS Implementation Project - Path 2	Deutsche Lufthansa, DFS
	2015_189_AF3	Deploy Free Route Airspace (Full FRA) in Semman Airspace	DFS		2016_161_AF6	DLS Implementation Project - Path 1 "Second" stakeholdens	DFS
	2015_190_AF3	Deployment of ATC System iCAS: Implementation of ATM BCP Funct at IVNL and DES	DFS		2016_165_AF6	Lufthansa Group & Air France Group Datalink	Lufthansa Group *
	2015_192_AF5	RAPNET NG	DFS		2017_002_AF5	Aeronautical Information Exchange system for Airlines	Deutsche Lufthansa,
	2015_193_AF1	RNP Based Departure Operations in High	DFS, Fraport, Deutache Lufthance		2017_004_AFI	Right Crew Training for RNPI Operations	Lufthansa Group *
	2015_194_AF5	STANLY_ACOS iSWIM for Free-Route and NM	DFS		2017_022_AF2	Synchronized stakeholder decision on process	Fraport, Munich Airport
	2015_195_AF3	Deployment of next Generation and VolP Capable	DFS		2017_029_AF3	Deployment of Centralized Interoperable Center	DFS
3	2015_196_AF1_A	XMAN - Cross-centre arrival management	DFS		2017_031_AF3	Procurement and Deployment of PCP ATC System iCAS	DFS
	2015_197_AF5	Centralized DFS "Yellow Profile" SWIM Node	DFS		2017_032_AF2	TANGE (Tower ATS-System Next Generation)	DFS
	2015_222_AF2	Advanced Airport Moving Map (AAMM)	Fraport, Deutsche Lufthansa		2017_052_AF4	AOP-NOP Integration - Extended Implementation	Düsseldorf International
	2015_225_AF2	Initial Airport Operations Plan @ FRA	Fraport		2017_053_AF3	Implementation of colling ASM/ATFCM	Deutsche Lufthansa, IH Sveterne Salva Guild
	2015_226_AF2	Airport Safety Net: Mobile Detection	Fraport		2017_056_AF5	Towards Shared Business Trajectory /	Deutsche Lufthansa,
	2015_282_AF2	Initial APOC and AOP	Munich Airport		2017_076_AF5	Meteorological Information Exchange service for	Deutsche Lufthansa,
	2016_008_AF4	Right evolution and upgrade of interfaces	Deutsche Lufthansa		2017_084_AF5	SWIM Common PKI and policies & procedures for	Deutsche Lufthansa, DFS
	2016 010 464	STAM Phase 2	Neutsche Lufthansa		2017 089 466	IPI - DLS European Target Solution assessment	DES



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Number of gaps	25	A Current status f implementation	lready imp. In 2 21	progress / I 2	Janned						Not planne
	ATM Fun	ctionality # 1			ATM Functio	nality # 2			ATM Function	nality # 3	
Family	Gap coverage	Compl. Year	CEF Projects	Family	Gap coverage	Compl. Year	CEF Projects	Family	Gap coverage	Compl. Year	CEF Project
				2.1.1				3.1.1	0% 100% 0%	Dec 2018	
				2.1.2				3.1.2	0% 100% 0%	Dec 2021	Yes
				2.1.3				3.1.3			
				2.1.4				3.1.4	0% 100% 0%	Dec 2020	Yes
				2.2.1				3.2.1	0% 100% 0%	Dec 2020	Yes
				2.3.1				3.2.3			
				2.4.1				3.2.4	0% 100% 0%	Dec 2021	Yes
				2.5.1							
				2.5.2							
	ATM Fun	ctionality # 4			ATM Functio	nality # 5			ATM Function	nality # 6	
Family	Gap coverage	Compl. Year	CEF Projects	Family	Gap coverage	Compl. Year	CEF Projects	Family	Gap coverage	Compl. Year	CEF Project
4.1.1				5.1.1	0% 100% 0%	Dec 2019		6.1.1	0% 100% 0%	· ·	
4.1.2	0% 100%	0% Dec 2021		5.1.2	0% 100% 0%	Dec 2020		6.1.2	0% 0% 100%	· .	
4.2.2	0% 100%	0% Dec 2021		5.2.1	0% 100% 0%	Dec 2022		6.1.3	0% 100% 0%	· .	Yes
4.2.3	0% 100%	0% Dec 2020	Yes	5.2.2	0% 100% 0%	Dec 2022		6.1.4			
				5.2.3	0% 100% 0%	Dec 2022		6.1.5			
4.3.1				5.3.1	0% 100% 0%	Dec 2022			For the SWIM Concerner	tad Familian (the El 2 and El
4.3.2	0% 100%	0% Dec 2021		5.4.1	0% 100% 0%	Dec 2022		pleas	se refer to the dedicated sect	ion within Chapter	ay 3.1.5 and 3.1. Z of this docum
4.4.2	0% 100%	0% Dec 2021	Yes	5.5.1	0% 100% 0%	Dec 2022			The status reported for Fa	mily 6.1.3 is exclus	vively related to
				5.6.1	0% 100% 0%	Dec 2022			puyment at country 18V81. Th	European level	has not yet star
				5.6.2	0% 100% 0%	Dec 2022					
list of CEF	funded init	iatives awarde	ed to Greek S	takeholder	S					🖌 Comp	leted projec
#09	35AF3 Impleme	ntation of IRA in Gre	ece	HCAA		2016_161_AFE	DLS Implem "Ground" s	nentation Proje stakeholders	ct - Path 1	HCAA	
2015 0.29	AF3 Procure	ment of new DPS/AT	M and VCRS	нелл		2012 00% 100	SWIM Com	mon PKI and po	licies & procedures	нелл	



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Number	26	Curr	ent status		Already i	mplemented 8				In	progres	ss / Pla	nned		Not planne
[
	ATM I	Function	nality #1			ATM F	unction	ality # 2			A	TM Fur	iction	ality #3	
Family	Gap cover	age	Compl. Year	CEF Projects	Family	Gap cover	rage	Compl. Year	CEF Projects	Family	G	ap coverag	e	Compl. Year	CEF Project
1.1.1					2.1.1					3.1.1				-	
1.1.2					2.1.2					3.1.2	30%	70%	0%	Jul 2020	Yes
										3.1.3					
					2.1.4					3.1.4	45%	55%	0%	Dec 2021	Yes
1.2.3					2.2.1					3.2.1	60%	40%	0%	Dec 2021	Yes
					2.3.1					3.2.3					
					2.4.1					3.2.4					
					2.5.1										
					2.5.2										
	ATM F	unction	ality #4			ATM F	unction	ality #5			A	TM Fur	ction	ality #6	
Family	Gap cover	age	Compl. Year	CEF Projects	Family	Gap cover	rage	Compl. Year	CEF Projects	Family	G	ap coverag		Compl. Year	CEF Projec
4.1.1					5.1.1					6.1.1					
4.1.2	0% 100%	0%	Dec 2021	Yes	5.1.2	0% 100%	ő <mark>0%</mark>	Apr 2019		6.1.2	0%	0%	100%	-	
4.2.2	0% 100%	0%	Dec 2021		5.2.1					6.1.3					
4.2.3	75% 25%	0%	Dec 2021	Yes	5.2.2	0% 10%	90%	Dec 2024		6.1.4					
4.2.4					5.2.3	0% 100%	ő <mark>0</mark> %	Dec 2024		6.1.5					
4.3.1					5.3.1	0% 0%	100%	-			F 11 F			15 1 1	
4.3.2	0% 100%	0%	Dec 2021		5.4.1	0% 55%	45%	Dec 2024		pleas	ror the Sw. se refer to	the dedica	ted section	ed Families (nami on within Chapter	2 of this docu
4.4.2	0% 100%	0%	Dec 2019	Yes	5.5.1	0% 0%	100%	-			The sta	tus reporte	nd for Fai	mily 6.1.3 is exclus	ively related
					5.6.1	0% 0%	100%	-		aej	ployment i	at Lountry	ievei. The	European level	has not yet st
					5.6.2	0% 0%	100%	· · ·							
List of CE	EF-funded i	nitiativo	es awarde	d to Hungaria	ın Stakeh	olders								🖌 Comp	leted proje
	#102AF3 Free from	Route Air the Black	space Forest to the	Black Sea	Hungaro I	Control		2016_159_A	F6 DLS Implem	entation Proje	ect - Patl	h 2	I	lungaro Contro	ł
2015_1	034_AF3 ATM	System (l cross-bord	MATIAS) upgrad ler free route	e operation	Hungaro I	Control		2016_161_A	IF6 DLS Implem "Ground" s	entation Proje takeholders	ect - Pat	h 1	I	Hungaro Contro	l
2015_23	34_AF1_B AMA	N LOWW in	nitial		Hungaro I	Control		2017_074_0	AF3 Hungarian	ATM system up	pgrade fo	or AF3-AF4	4 1	lungaro Contro	I
2016_	027_AF5 Euro for l	pean Depl Aight Obje	oyment Roadm ct Interoperabil	ap lity	Hungaro I	Control		2017_084_4	AF5 SWIM Comm for establis	non PKI and po hing a Trust fr	olicies & ramewor	procedure k	is I	lungaro Contro	ł
2016_07	5_AF3_B FAB	CE wide S esion Call	tudy of DAM an	d STAM –	Hungaro	Control		2017_089_A	IF6 IP1 - DLS Eu	iropean Target	t Solution	assessn	nent l	Hungaro Contro	l
		-													



							Irela	and								
N	umber 4	il Curr	rent status	Already i	mplemented 8	In pr	ogress / I	Planne	ed							Not plann
	i gupa		nementation													
	A	TM Functio	nality #1			A	TM Func	tiona	ality #2			A	TM Fu	nction	ality #3	
Fami	il y G a	p coverage	Compl. Year	CEF Projects	Family	Ga	ap coverage		Compl. Year	CEF Projects	Family	G	ap covera	je	Compl. Year	CEF Proje
1.1.	95%	0% 5%	Dec 2019		2.1.1	65%	35%	0%	Dec 2018	Yes	3.1.1	0%	100%	0%	Dec 2018	
1.1.2	2 0%	100% 0%	Dec 2023		2.1.2	\checkmark					3.1.2	0%	100%	0%	Dec 2021	
1.2	.1 50%	50% 0%	Dec 2018		2.1.3	55%	45%	0%	Jun 2019	Yes	3.1.3	0%	0%	100%		
1.2.	2				2.1.4	0%		0%	Dec 2020	Yes	3.1.4	90%	10%	0%	Dec 2021	Yes
1.2.	3 0%		Dec 2018		2.2.1						3.2.1	40%	0%	60%	-	Yes
1.Z.	4				2.3.1	0%			Dec 2023		3.2.3					
1.2.					2.4.1	0%			Dec 2023		<u>0.2.4</u>				_	
					2.5.2	0%	100%	0%	Dec 2020							
			h. /				THE		b. E						be a	
	A	IM Function	nality #4			A	IM Func	tiona	ality # 5			A	IM Fu	nction	ality #6	
Fami	ily Ga	p coverage	Compl. Year	CEF Projects	Family	6;	ip coverage		Compl. Year	CEF Projects	Family	G	ap covera	e	Compl. Year	CEF Proje
4.1					5.1.1			201			6.1.1			(0.00)	-	
4.1.	2 0%		Dec 2021		5.1.2	40%	60% U		Dec 2020	Yes	6.1.Z	U%	U %	100%	-	
4.2	2 75%		Dec 2020		3.2.1	0%		J %	Jan 2020	Vee	D.I.3 C1.4				-	
4.2	4 0%	0% 100%	-		573	0%		3%	Jan 2020	Yes	615					
4.3					5.3.1	0%	100% [3%	Dec 2024	Yes			_	_		
4.3	.2 0%	0% 100%	· ·		5.4.1	0%	100%	3%	Dec 2024	Yes	pleas	For the SW. se refer to	IM Govern the dedic	ance relati ated section	ed Families (nan. an within Chaoter	ely 5.1.3 and 2 of this doc
4.4	.2 0%	100% 0%	Dec 2021		5.5.1	0%	100% C]%	Oct 2020	Yes		The sta	tus repor	ted for Fai	nily 6.1.3 is exclu	sively related
					5.6.1	0%	20% 8	0%	Dec 2024		de	ployment i	at Country	level. The	European level	at Service Are has not yet s
					5.6.2	0%	0% 10	10%	-			AFT , A	F2 , and F	amily 4.2.	4 to be implement	ted in Dublin A
list r	of CEF-fund	ed initiativ	es awarded	l to Irish Sta	keholders										🕢 Com	pleted proj
2	#020453	Ronaulie From	Route Airenace	(Part 1)		IAA			2015 227 AF3	A Romania FR/	Implementat	ion (Part	7)		IAA Rua	nain
2	#135AF2a	Ryanair RAAS	Programme (Pa	rt A)		Ryanair	. (2016 027 AI	F5 European Di	eployment Roa	idmap	-/		IAA	
2	#135AF2b	Ryanair RAAS	Programme (Pa	rt 8)		Ryanair		•	2016_033_AI	F5 Use SWIM m	ject Interoper iethods to rep	lace AFTI	l feeds l	or A-CDM	Dublin A	irport
	2015_074_AF2	Display TOBT	TSAT at the Gate			DAA			2016_034_AI	F5 Upgrade/Re	place Infrastr SWIM	ucture			Dublin A	irport
	2015_076_AF2	Aerial Visual I	Display A-CDM P	nase 2		DAA			2016_148_AF	5 Implementat Meteorologia	ion of Automa cal Informatio	ited n Exchan	qe		IAA, Irisl Service	n Meteorolog (Met Gream
0	2015_077_AF2	Universal Mob solutionto sup	bile Display Syste oport A-CDM Imp	em (UMDS) ementation		DAA			2016_150_A	F2 Enablers for related to S	Airport Surfa afety Nets	ace Move	ment		Dublin A	irport
	2015_078_AF2	A-CDM Enhanc	cements EDW			DAA			2016_159_AF	F6 DLS Impleme	entation Proje	ct - Path	2		Ryanair	
	2015_159_AF3	IP/VOIP techn of Dynamic Ai	iology to enable irspace Configura	Management Itions		IAA			2016_164_AF	F6 RYR Upgrad	e to ATN BI to	"best in	class"		Ryanair	
	2015_160_AF5	Aeronautical	Information exch	ange and manage	ement	IAA			2017_018_AI	F5 SWIM-enable	ed OCC				Ryanair	
	2015_161_AF2	Initial impleme	entation of DMAN			IAA			2017_022_A	FZ Synchronize optimization	d stakeholder at airport lev	decision /el	on proc	ess	Dublin A	irport
	2015_162_AF2	Bectronic Rig	ght Strip (EFS) In	nplementation		IAA			2017_066_AI	F5 Implementin COOPANS A	g harmonised NSPs and genu	SWIM (Y eral PCP	') solutio compliar	n in ce	IAA	
	D15 174 AF5 A	Newrons Stal	and deployment	of New PENS		IAA			2017_084_A	F5 for establish	ing a Trust fr	amewor	roceaur	85	Ryanair	
20		Hannasie	and deployment	thomas in E ANON												



					Italy	1					
Number of gaps	56	Current status of implementation	Already in	plemented 13	In progress . 40	/ Planned				Not planne	:d 3
						D.					
					AIM Function	inality #1			_		
		Family		Milan Malpensa			Rome	Fiumicino			
			Gap coverage	Compl.	Year CEF Proje	sts	Gap coverage	Compl. Year CEF	Projects		
				Dec 2	019 Yes	20%		Dec 2019	Yes		
		121	50% 50% C	Mar 2	019 Yes	70%		Mar 2019	Yes		
		1.2.2									
		1.2.3	0% 100% 0	M Dec 2	023 Yes	0%	100% 0%	Dec 2023	Yes		
		1.2.4									
		1.2.5	0% 100% 0	Mar 2	023 Yes	0%		Mar 2023	Yes		
					ATM Functio	nality #2	2				
		Family		Milan Malpensa	1		Rome	Fiumicino			
		Taniny	Gap coverage	Compl.	Year CEF Proje	ets	Gap coverage	Compl. Year CEF	Projects		
		2.1.1	0% 100% 0	% Dec 21	120	0%		Dec 2020			
		2.1.2									
		2.1.3			174 Ves			Dec 2020	Ves		
		2.2.1	10% 90% 0	Model Dec 20 Model Dec 20	120 Yes	10%		Dec 2020	Yes		
		2.3.1	0% 0% 10	0% -		0%	0% 100%	•			
		2.4.1	0% 100% 0	M Dec 2	023 Yes	0%	100% 0%	Dec 2023	Yes		
		2.5.1	10% 90% 0	M Dec 21	J20 Yes	10%	90% 0%	Dec 2020	Yes		
		2.5.2		1% Dec 21	120 Yes	10%	90% 0%	Dec 2020	Yes		
				AIM Fu	nctionality #	4 (Airpo	rt Gaps)				
		Family	-	Milan Malpensa			Rome	Fiumicino	-		
		4.2.4	Gap coverage	16 Compl.	Vear CEF Proje DZI Yes	cts 0%	Gap coverage	Dec 2021	Yes		
			ATM Functiona	litv #3		ATM	A Functionality	/ #4 (Country	Gans)		
		Family	Gap coverage	Compl. Year	CEF Projects	Family	Gao coverage	Comol. Year	CEF Projects		
		3.1.1 55%	45% 0%	Dec 2018	Yes	4.1.1					
		3.1.2 0%	100% 0%	Dec 2021	Yes	4.1.2	0% 100%	0% Dec 2021	Yes		
		3.1.3		-		4.2.2	0% 100%	0% Dec 2021			
		3.1.4 45%	55% 0%	Dec 2021		4.2.3	60% 40%	0% Dec 2021	Yes		
		3.2.1 65%	35% 0%	Dec 2021	Yes	4.3.1		Dec 2021			
		3.2.3				4.3.2		0% Dec 2021	Ves		
		0.2.7	ATM Eurotiana	litu # 5			ATM Euro	ationality # C	105		
		Front de la			PEE Desirate	E-utla			PEE Devicede		
			bap coverage	Compi. Tear	Ler Projects	C11	Dap coverage	Lampi. Tear	LEF Projects		
		5.1.2 0%	100% 0%	Dec 2024	Yes	6.1.2		- 10%			
		5.2.1		-		6.1.3	60% 0% 4		Yes		
		5.2.2 0%	100% 0%	Dec 2024		6.1.4					
		5.2.3 0%		Dec 2024	Yes	6.1.5					
		5.3.1 0%		Uec 2024	Yes		For the SWIM Governan	ce related Families (na	mely 5.1.3 and 5.1.4),		
		5.51 0%		Dec 2024	TES	plea.	se refer to the dedicate The status reported	ed section within Chapte 1 for Family 6.1.3 is exc	er 2 of this document Susively related to its		
		5.6.1 0%		Dec 2024		de	ployment at Country le	evel. The implementation European law	at Service Area and al has not vet started		
		5.6.2 0%	100% 0%	Dec 2024	Yes						
		3.0.2		060 2024	165						



			Italy			
Nu	gaps 56	Current status Already implement of implementation	ted In progress / Plann 13 41	ed		Not plann
List o	f CEF-funde	d initiatives awarded to Italian Stakeholde	rs		(🖌 Completed proj
	#004AF3	Traffic How Restriction (TFR) - UDD planning system	Alitalia	2016_116_AF5	ENAV Security Operational Centre (iSOC) Upgrade	ENAV
	#005AF3	Free Right – Direct Optimization	Alitalia	2016_117_AF2	ENAV Implementation of A-SMGCS Level 1 and 2 with Safety Nets in MXP and FCD	ENAV, Rome Fiumicir SEA Milano Airports
	#062AF4	ENAV initiative for the identification of Network Collaborative Management requirements	ENAV	2016_118_AF5	ENAV Network enhancement toward New PENS	ENAV
	#063AF3	ENAV implementation of Free Route	ENAV	2016_119_AF5	ENAV Airport MET System and UPM-MET database upprade	ENAV
	#064AF2	ENAV Airport System upgrade	ENAV	2016_120_AFI	ENAV Introduction of RNP1+RF and APV procedures in MXP and FCD	ENAV
	#065AF1	ENAV Geographic DB for Procedure Design	ENAV	2016_141_AF5	Deploy SWIM governance	ENAV
	#066AF5	ENAV AIS system Upgrade to support AIXM 5.1	ENAV	2016_150_AF2	Enablers for Airport Surface Movement related to Safety Nets	Rome Fiumicino
Ø	#067AF5	Coffight-eFDP System Development	ENAV	2016_159_AF6	DLS Implementation Project - Path 2	ENAV
	2015_198_AF5	Implementation of ENAV "LAN Servizi"	ENAV	2016_161_AF6	DLS Implementation Project – Path 1 "Ground" stakeholders	ENAV
	2015_201_AF5	Transition of current Aeronautical Information Management System to EAD	ENAV	2017_004_AFI	Right Crew Training for RNPI Operations	Air Dolomiti
	2015_202_AF3	ASM tool Implementation	ENAV	2017_020_AF5	Initial SWIM security deployment	Rome Fiumicino
	2015_203_AF1	AMAN Extended Horizon	ENAV	2017_022_AF2	Synchronized stakeholder decision on process optimization at airport level	ENAV, Rome Fiumicir SEA Milano Airports
	2015_204_AF3	4-Flight deployment in Italy 2016-2017 (Phase I)	ENAV	2017_040_AF5	AERONET/ENET2 Interoperability	ENAV, Italian MOD
	2015_204_AF3	4-Flight deployment in Italy 2019-2020 (Phase II)	ENAV	2017_041_AF3	ASM - LARA Enhancement – Implementation in Italy	ENAV, Italian MOD
	2016_027_AF5	European Deployment Roadmap for Flicht Obiect Intercoperability	ENAV	2017_042_AF3	Automatic Tactical Controller Tool implementation	ENAV, Italian MOD
	2016_089_AF6	2016_089_AF6_IT_ITAF ATC Control Systems to i4D	Italian MOD, ENAV	2017_043_AF3	Coflight-eFDP Development (Step 2)	ENAV
	2016_092_AF5	2016_092_AF5_ITAF WAN	Italian MOD	2017_045_AF4	ENAV Deployment of traffic complexity tool and STAM phase 2	ENAV
	2016_108_AF5	ENAV ADQ - Aeronautical Data Quality system interface evolution (ADQ2)	ENAV	2017_052_AF4	AOP-NOP Integration - Extended Implementation	Rome Fiumicino, SEA Milano Airports
	2016_109_AF5	BLUEMED FAB IP Network deployment	ENAV	2017_069_AF5	Italian Air Force Integrated Briefing	Italian MOD
	2016_110_AF3	ENAV Automated ENV Data Interchange for FDP/ERATO	ENAV	2017_084_AF5	SWIM Common PKI and policies & procedures for establishing a Trust framework	ENAV
	2016_114_AF4	ENAV Traffic Complexity Tool Implementation	ENAV	2017_089_AF6	IPI - DLS European Target Solution assessment	ENAV, Leonardo - Finmero
	2016_115_AF3	ENAV 4-Right Deployment in Italy – Third Stage 2017-2018	ENAV			



Nur of g	nber 25 Japs 25	Curri of impli	ent status ementation	Alrea	ıdy implemen	nted 6				In	progress /	Planned 11				Not planne
	A	M Function	ality #1			Ā	TM Func	tional	ity #2			ļ	ATM Fu	inction	ality #3	
Family	Gap	coverage	Compl. Year	CEF Projects	Family	Gaj	o coverage		Compl. Year	CEF Projects	Family	6	ap covera	ge	Compl. Year	CEF Projects
1.1.1					2.1.1						3.1.1	40%	60%	0%	Dec 2020	1
1.1.2					2.1.2						3.1.2	0%	0%	100%	-	
1.2.1					2.1.3						3.1.3				-	
1.2.2					2.1.4						3.1.4	95%	5%	0%	Dec 2020	
1.2.3					2.2.1						3.2.1	60%	0%	40%	Dec 2021	
1.2.4					2.3.1						3.2.3				-	
					2.4.1						3.2.4				-	
					2.5.1											
					2.5.2					L]						
	AT	M Function	ality #4			A	M Func	tional	ity #5			A	TM Fu	nction	ality #6	
Family	y Gap	coverage	Compl. Year	CEF Projects	Family	Gaj	o coverage	T	Compl. Year	CEF Projects	Family	G	ap covera	ge	Compl. Year	CEF Projects
4.1.1					5.1.1				-		6.1.1	40%	15%	45%	•	Yes
4.1.2	0%	0% 100%	Dec 2021		5.1.2	10%	90%	0%	Dec 2024		6.1.2	0%	0%	100%	-	
4.2.2	0%	100% 0%	Dec 2021		5.2.1				-		6.1.3	60%	0%	40%	· ·	Yes
4.2.3					5.2.2	0%	100%	0%	Dec 2024		6.1.4					
4.2.4					5.2.3	0%	100%	0%	Dec 2024		6.1.5					
4.3.1					5.3.1	0%	100%	0%	Dec 2024			For the SW	IM Goveri	nance relat	ed Families (nan	nelv 5.1.3 and 5.1
4.3.2	0%	0% 100%	· .		5.4.1	0%	100%	0%	Dec 2024		plea	se refer to	the dedic	ated section	on within Chapte	r 2 of this docum
4.4.2	0%	0% 100%	Dec 2021		5.5.1	0%	0% 10	10%	-		de	The sta ployment	atus repor at Country	ted for Fai level. The	mily 6.1.3 is exclu- implementation	sively related to at Service Area
					5.6.1				Dec 2024				,		European leve	l has not yet star
					5.6.2	0%		JU%	-							
List of	CEF-fund	ed initiative	es awarded	to Latvian	Stakehold	ers									🖌 Com	pleted projec
	#020AF3	Borealis Free I	Route Airspace	(Part 1)	LGS				2016_161_A	F6 DLS Implem	entation Proje	ect - Pati	ı 1 "Grou	nd" stak	eholders U	SS
2015	_227_AF3_A	Borealis FRA Ir	nplementation	(Part 2)	LGS			\checkmark	2016_163_A	VEC CPOLC Imp	lementation in	the Riga	ĦR		L	ZZ
2	016 159 AF6	DLS Implementa	ation Project -	Path 2	LGS											



						Lithuania	3					
Numbe of gaps	5 26	Curr of impl	ent status ementation	Alread	y im <mark>ple</mark> ment	ed In progress / Pla 6 19	anned					Not plan
	ATM F	unctior	nality #1			ATM Function	ality #2			ATM Function	onality #3	
Family	Gap cover	192	Compl. Year	CEF Projects	Family	Gap coverage	Compl. Year	CEF Projects	Family	Gap coverage	Compl. Year	CEF Proj
					2.1.1				3.1.1	50% 50% 0%	Dec 2018	1
					2.1.2				3.1.2	0% 100% 0%	Dec 2021	
					2.1.3				3.1.3		1	
					2.1.4				3.1.4	0% 100% 0%	Dec 2021	Yes
1.2.3					2.2.1				3.2.1	50% 50% 0%	Dec 2021	Yes
1.2.4					2.3.1				3.2.3			
					2.4.1				3.2.4			
					2.5.1							
					2.5.2]					
	ATM Fi	Inction	ality #4			ATM Function	ality #5			ATM Function	onality #6	
Family	Gap cover:	ige	Compl. Year	CEF Projects	Family	Gap coverage	Compl. Year	CEF Projects	Family	Gap coverage	Compl. Year	CEF Proj
4.1.1					5.1.1				6.1.1	10% 40% 50%	<u> </u>	
4.1.2	0% 100%	0%	Dec 2021		5.1.2	10% 90% 0%	Jun 2020		6.1.2		6	
4.2.2	0% 100%	0%	Dec 2021		5.2.1		Dec 2021		6.1.3	15% 30% 55%	<u> </u>	Yes
4.2.3			-		5.2.2		Dec 2022		6.1.4			
4.2.4					5.2.3		Jun 2021	Yes	6.1.5			
4.5.1			Dep 2021		5.61		Dec 2024			For the SWIM Governance i	related Families (nam	ely 5.1.3 and
4.4.7		1%	Dec 2021	Yes	5.51		Dec 2024		plea	ase refer to the dedicated s The status reported for	ection within Chapter Family 613 is evolu	Z of this dou sively related
10-10-5			- BOO MURE		5.6.1		Dec 2024		đ	leployment at Country level.	The implementation	at Service Ar
					5.6.2	0% 100% 0%	Dec 2024				Lurupean level	nas nut yet :
st of Cl 2016_	EF-funded in 087_AF3 itec	ritia ti v e Tests, Val	es awarded lidations and Pla	1 to Lithuania anning (iTEC-TVP)	in Stakeho Ori	Iders Navigacija	2017_057_A	F4 Local traffic	c complexity	management	Comp Comp Comp Oro Navigacija	leted pro
2016_1	159_AF6 DLS In	n <mark>plemen</mark> ta	ition Project -	Path 2	Ori	o Navigacija	2017_084_A	F5 SWIM Comr for establis	non PKI and p hing a Trust	oolicies & procedures framework	Oro Navigacija	
2016	161_AF6 DLS In	nplementa	tion Project -	Path 1	Ori	Navigacija						



Numbe of gap	er 15 Cur s 15 of imp	rent status dementation	Already Implement	nented									In progres	ss / Pla
	ATM Functio	nality #1			ATI	A Function	ality # 2			A	TM Fur	iction	ality #3	
Family	Gap coverage	Compl. Year	CEF Projects	Family	Gap	coverage	Compl. Year	CEF Projects	Family	Ga	ap coverag	8	Compl. Year	CEF Pr
				2.1.1					3.1.1					
				2.1.2					3.1.2					
				2.1.3					3.1.3					
				2.1.4					3.1.4	0%	100%	0%	Dec 2021	
1.2.3][]		2.2.1					3.2.1					
				2.3.1					3.2.3					
]		2.4.1					3.2.4					
				2.5.1										
				2.5.2										
	ATM Functio	nality #4			ATI	l Function	ality #5			A	TM Fur	iction	ality #6	
Family	Gap coverage	Compl. Year	CEF Projects	Family	Gap	coverage	Compl. Year	CEF Projects	Family	6:	ap coverag	e	Compl. Year	CEF Pro
4.1.1				5.1.1					6.1.1					
4.1.2	0% 100% 0%	Dec 2021		5.1.2	40%	60% 0%	Mar 2020		6.1.2					
4.2.2	0% 100% 0%	Dec 2021		5.2.1	0% 1	0%	Dec 2021		6.1.3					
4.2.3	50% 0% 50%	· .		5.2.2	0% 1	0%	Dec 2021		6.1.4					
				5.2.3	0% 1	0% 0%	Mar 2021		6.1.5					
4.3.1				5.3.1	0% 1	0%	Mar 2021			an the CW	M Rayar		ad Familian (w 512-
4.3.2	0% 100% 0%	Dec 2021		5.4.1	0% 1	0%	Dec 2024		pleas	e refer to	the dedica	ted section	an within Chapter	2 of this de
4.4.2	0% 100% 0%	Dec 2021		5.5.1	0% 1	0%	Dec 2024		4	The stat	tus reporta	ed for Fai	nily 6.1.3 is exclus	ively relate
				5.6.1	0% 1	0% 0%	Dec 2024		ae)	wyment a	a Loumry	IEVEI. 1118	European level	has not yet



26 Curr of imp	ent status lementation	Already impl. 3			In progress	/ Planned					Not planned
ATM Function	nality #1			ATM Function	ality #2			ATM Fi	Inction	ality #3	
Gap coverage	Compl. Year	CEF Projects	Family	Gap coverage	Compl. Year	CEF Projects	Family	Gap covera	ige	Compl. Year	CEF Projects
			2.1.1				3.1.1	0% 0%	100%	-	
			2.1.2				3.1.2	0% 0%	100%		
			2.1.3				3.1.3	0% 0%	100%	-	
			2.1.4				3.1.4	0% 0%	100%	-	
			2.2.1				3.2.1	70% 15%	15%	Dec 2021	
			2.3.1				3.2.3			-	
			2.4.1				3.2.4			-	
			2.5.1								
			2.5.2								
ATM Function	ality #4			ATM Function	ality #5			ATM FL	Inction	ality #6	
Gap coverage	Compl. Year	CEF Projects	Family	Gap coverage	Compl. Year	CEF Projects	Family	Gap covera	ige	Compl. Year	CEF Projects
0% 0% 100%			5.1.1				6.11	20% 0%	80%	-	
0% 0% 100%			5.1.2	0% 100% 0%	Dec 2019		6.1.2	0% 0%	100%		
0% 100% 0%	Dec 2021		5.2.1	5% 95% 0%	Dec 2020	Yes	6.1.3	0% 0%	100%	-	
			5.2.2	0% 60% 40%	Dec 2020		6.1.4				
			5.2.3		Dec 2020		6.1.5				
			5.3.1	0% 20% 80%							
0% 0% 100%			5.4.1	0% 0% 100%	· ·		alaa	For the SWIM Gover	nance relation	ed Families (name n within Chanton	ly 5.1.3 and 5.
and the second sec			E E I		D 2020		preas	The status renal	ated for Fu	nilv 6.1.3 is exclus	waly salated to
0% 100% 0%	Dec 2021		5.5.	0% 100% 0%	DEC ZUZU			The Sulus Teper	teu iur ran		ively related to
0% 100% 0%	Dec 2021		5.6.1	0% 0% 100%	-		dej	oloyment at Country	v level. The	implementation i	t Service Area
	ATM Function Bap coverage ATM Function Bap coverage 0% 0% 100% 0% 100% 0%	ATM Functionality #1 Bap coverage Compl. Yeer ATM Functionality #4 Bap coverage Compl. Yeer D% D% D% D% Compl. Yeer D%	ATM Functionality #1 Bap everage Compl. Year CEF Projects ATM Functionality #4 Bap everage Compl. Year CEF Projects CM 0% 0% 100% - CH 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0%	ATM Functionality # 1 Bap coverage Campl. Year DB* Projects Family 2.1.1 2.1.2 2.1.3 2.1.2 2.1.3 2.1.4 2.1.3 2.1.4 2.1.1 2.1.4 2.1.2 2.1.3 2.1.5 2.3.1 2.3.1 2.5.1 2.5.1 2.5.2 ATM Functionality # 4 EBap coverage Campl. Year Bap coverage Campl. Year DE* Projects 7.5.1.1 7.5.1.2 7.5.1.2 0% 100% 0% Dec 2021 5.2.1 0% 100% 0% 5.2.2 5.2.3	ATM Functionality #1 ATM Function Bap coverage Compl. Year CEP Projects Family Bap coverage 2.11 2.12 2.11 2.12 2.13 2.1.2 2.1.3 2.1.4 2.1.4 2.1.4 2.1.4 2.2.1 2.2.1 2.1.4 2.2.1 2.3.1 2.3.1 2.5.1 2.5.1 2.5.1 2.5.1 2.5.2 2.5.2 2.5.1 2.5.1 D% D% - 5.1.1 D% D0% 0% 0% D% Dec 2021 5.2.1 5% 5% 0% 0% D% D% D% 5.2.2 0% 0% 0%	ATM Functionality #1 ATM Functionality #2 Bap coverage Compl. Yeer CEF Projects Family Bap coverage Compl. Yeer 2.11 2.12 2.13 2.14 2.14 2.14 2.14 2.1.4 2.2.1 2.2.1 2.2.1 2.2.1 2.2.1 2.2.1 2.1.4 2.2.1 2.2.1 2.2.1 2.2.1 2.2.1 2.2.1 2.2.1 2.2.1 2.2.1 2.2.1 2.2.1 2.2.1 2.2.1 2.2.1 2.2.1 2.2.1 2.2.1 2.2.1 2.2.1 2.2.1 2.2.1 2.2.1 2.2.1 2.2.1 2.2.1 2.2.1 2.2.1 2.2.1 2.2.1	ATM Functionality #1 ATM Functionality #2 Bap coverage Compl. Year DEF Projects Family Bap coverage Compl. Year DEF Projects 2.1.2 2.1.3 2.1.4 2.1.4 2.1.4 2.1.4 2.1.4 2.1.3 2.1.4 2.1.4 2.1.4 2.1.4 2.1.4 2.1.4 2.1.4 2.1.4 2.1.4 2.1.4 2.1.4 2.1.4 2.1.4 2.1.4 2.1.4 2.1.4 2.1.4 2.1.4 2.1.4 2.1.4 2.1.4 2.1.4 2.1.4 2.1.4 2.1.4 2.1.4 2.1.4 2.1.4 2.1.4 2.1.4 2.1.4 2.1.4 2.1.4 2.1.4 2.1.4 2.5.1 2.3.1 2.3.1 2.5.1 2.5.2 2.5.2 2.5.2 2.5.2 2.5.2 2.5.2 2.5.1 2.5.1 2.5.1 2.5.1 2.5.1 2.5.2 2.5.2 2.5.2 2.5.2 2.5.2 2.5.2 2.5.2 2.5.2 2.5.2 2.5.2 2.5.2 2.5.2 2.5.2 2.5.2 2.5.2 2.5.2 2.5.2 2.5.2 2.5.2 </td <td>ATM Functionality #1 ATM Functionality #2 Bap coverage Compl. Yeer DEF Projects Family Bap coverage Compl. Yeer DEF Projects Family 21.1 21.2 31.1 31.2 31.1 21.2 21.3 31.2 31.3 21.4 21.4 31.4 31.4 22.1 21.4 31.4 32.1 21.4 22.1 32.1 32.1 21.4 22.1 32.1 32.2 21.4 23.1 32.1 32.1 22.1 23.1 32.3 32.4 25.1 25.1 32.4 32.4 25.2 51.1 0% 100% - 61.1 0% 0% - 51.1 0% 100% - 61.1 0% 0% - 51.2 0% 100% 0% - 61.1 0% 0% - 51.2 0% 100% 0% - 61.3 0% 100% 0% 0% 0% 0% 0% 0% 0% 0% 61.4 52.2.1 0% 0% 0% 0% 0% 0% 0% 0% 61.4</td> <td>ATM Functionality #1 ATM Functionality #2 ATM Functionality #2 Bap coverage Compl. Year DEF Projects Family Bap coverage Compl. Year DEF Projects Family Bap coverage 2.11 2.11 2.11 2.11 2.11 2.11 0% 0% 2.11 2.11 2.11 2.11 2.11 0% 0% 2.12 2.12 2.12 2.12 0% 0% 0% 2.13 2.14 2.13 0%</td> <td>ATM Functionality #1 ATM Functionality #2 ATM Functionality #2 Bap coverage CompL Year DEF Projects Family Bap coverage Bap coverage CompL Year DEF Projects Family Bap coverage 2.11 2.12 2.13 2.12 3.11 D% D% DD% 2.12 2.13 2.14 3.12 D% D% DD% 3.13 D% D% DD% 2.14 2.14 3.14 D% D% DD% 3.13 D% D% DD% 3.2.3 3.14 D% D% DD% 2.14 2.14 3.14 D% D% D% D0% D% D% D% D% D% D% D% D%</td> <td>ATM Functionality #1 ATM Functionality #2 ATM Functionality #3 Bap coverage Compl. Year GEP Projects Family Bap coverage Compl. Year GEP projects Family Bap coverage Compl. Year Com</td>	ATM Functionality #1 ATM Functionality #2 Bap coverage Compl. Yeer DEF Projects Family Bap coverage Compl. Yeer DEF Projects Family 21.1 21.2 31.1 31.2 31.1 21.2 21.3 31.2 31.3 21.4 21.4 31.4 31.4 22.1 21.4 31.4 32.1 21.4 22.1 32.1 32.1 21.4 22.1 32.1 32.2 21.4 23.1 32.1 32.1 22.1 23.1 32.3 32.4 25.1 25.1 32.4 32.4 25.2 51.1 0% 100% - 61.1 0% 0% - 51.1 0% 100% - 61.1 0% 0% - 51.2 0% 100% 0% - 61.1 0% 0% - 51.2 0% 100% 0% - 61.3 0% 100% 0% 0% 0% 0% 0% 0% 0% 0% 61.4 52.2.1 0% 0% 0% 0% 0% 0% 0% 0% 61.4	ATM Functionality #1 ATM Functionality #2 ATM Functionality #2 Bap coverage Compl. Year DEF Projects Family Bap coverage Compl. Year DEF Projects Family Bap coverage 2.11 2.11 2.11 2.11 2.11 2.11 0% 0% 2.11 2.11 2.11 2.11 2.11 0% 0% 2.12 2.12 2.12 2.12 0% 0% 0% 2.13 2.14 2.13 0%	ATM Functionality #1 ATM Functionality #2 ATM Functionality #2 Bap coverage CompL Year DEF Projects Family Bap coverage Bap coverage CompL Year DEF Projects Family Bap coverage 2.11 2.12 2.13 2.12 3.11 D% D% DD% 2.12 2.13 2.14 3.12 D% D% DD% 3.13 D% D% DD% 2.14 2.14 3.14 D% D% DD% 3.13 D% D% DD% 3.2.3 3.14 D% D% DD% 2.14 2.14 3.14 D% D% D% D0% D% D% D% D% D% D% D% D%	ATM Functionality #1 ATM Functionality #2 ATM Functionality #3 Bap coverage Compl. Year GEP Projects Family Bap coverage Compl. Year GEP projects Family Bap coverage Compl. Year Com



Num of g	iber aps	26	Curr of impl	ent status ementation				Already i	impleme	ented 11						In progre	ss / Pla
		ATM Fi	unction	ality #1			A1	'M Funct	tionali	ity #2			A	TM Fu	nction	ality #3	
Family	T	Gap covera	ge	Compl. Year	CEF Projects	Family	Gap	i coverage		Compl. Year	CEF Projects	Family	6	ap covera	ge	Compl. Year	CEF Pro
						2.1.1						3.1.1					
						2.1.2						3.1.2	50%	50%	0%	Dec 2021	
						2.1.3						3.1.3				1	
						2.1.4						3.1.4	1			-	
1.2.3						2.2.1						3.2.1					
1.2.4						2.3.1						3.2.3					
												3.2.4	95%	5%	0%	May 2020	
						2.5.1											
						2.5.2											
		ATM Fu	nction	ality #4			A	'M Funct	tionali	ity #5			A	TM Fu	nction	ality #6	
Family		Gap covera	ge	Compl. Year	CEF Projects	Family	Gaş) coverage		Compl. Year	CEF Projects	Family	G	ap covera	ge	Compl. Year	CEF Pro
4.1.1						5.1.1						6.1.1	-				
4.1.2				-		5.1.2	40%	60% 0	<mark>]%</mark>	Dec 2020	Yes	6.1.2	80%	0%	20%	-	
4.2.2	0%	100%	0%	Dec 2021		5.2.1				-		6.1.3					
4.2.3	60%	40%	0%	Dec 2021		5.2.2	0%	100% 0]%	Dec 2024		6.1.4					
4.2.4						5.2.3	0%	100% 0]%	Dec 2024		6.1.5					
4.3.1						5.3.1	60%	30% 10	0%	Dec 2024			C 4 04				L E17
4.3.2	0%	100%	0%	Dec 2021		5.4.1	0%	100% 0	1%	Dec 2024		pleas	e refer to	the dedic	ance relation	on within Chapter	2 of this do
4.4.2						5.5.1	45%	55% 0	3%	Dec 2024		,	The sta	tus repar	ted for Fai	nily 6.1.3 is exclus	ively relate
						5.6.1	0%	100% 0	3%	Mar 2020		dej	oloyment i	at Lountry	level. The	European level	has not yet
						EE7	00/	1000/ 0	10/	D 2024							



						Notho	alanda					
د (8 10 M		neure	nanus					
Number of gaps	;	31 Curr of impl	ent status ementation	lready implem	ented						In progress	s / Planned Not planne 27
	1	ATM Function	nalitv #1			ATM Fund	tinnality	# 7			ATM Functiona	litv #3
Family	ß	an enverane	Compl Year	CFF Projects	Family	Gan roverane	Como	Vear	CFF Penjants	Family	Ban enverane	Compl Year CFF Deniert
111 /		60% 0%	Dec 2020	Yes	211		0% Dec	2020	Yes	311	Corp. corer age	
117	0%		Dec 2023	Yes	21.1		0% Dec	2020	Yes	3.1.2		
1.2.1	10%	90% 0%	Dec 2023	Yes	2.1.3					3.1.3		
1.2.2	0%	100% 0%	Dec 2018	Yes	2.1.4	0% 100%	0% Dec	2020	Yes	3.1.4		
1.2.3	0%	100% 0%	Dec 2023	Yes	2.2.1	0% 100%	0% Dec	2020	Yes	3.2.1	0% 100% 0%	Dec 2021 Yes
1.2.4					2.3.1	0% 100%	0% Dec	2023		3.2.3		
1.2.5	0%	20% 80%		Yes	2.4.1	0% 100%	0% Dec	2023	Yes	3.2.4		
					2.5.1		U% Dec	2020	Yes			
				_	Z.d.Z			2020	165			-
	A	TM Function	ality #4			ATM Fund	tionality	# 5			ATM Functiona	lity #6
Family	G	ap coverage	Compl. Year	CEF Projects	Family	Gap coverage	Comp	l. Year	CEF Projects	Family	Gap coverage	Compl. Year CEF Project:
4.1.1					5.1.1					6.1.1		
4.1.2	0%		Dec 2021		5.1.2	40% 60%	0% Dec	2020	Yes	6.1.2		
4.2.2			Dec 2021	Yes	5.2.1		0% Dec	2024	Yes	6.1.3		
4.2.3	U%		Jun 2020	Vac	3.Z.Z		0% Dec	2024	Tes	615		
4.3.1				105	5.3.1	0% 20%	10% Dec	2024	Yes	0.1.0		
4.3.2	0%	100% 0%	Dec 2021		5.4.1	0% 100%	0% Dec	2024	Yes	aleas	For the SWIM Governance related se refer to the dedicated section	Families (namely 5.1.3 and 5. within Chanter 2 of this docu
4.4.2 4	45%	55% 0%	Dec 2020	Yes	5.5.1	0% 20% 1	10% Dec	2024		<i>p</i>	The status reported for Fami	ly 6.1.3 is exclusively related to
					5.6.1	0% 0% 1	00%			dej	oloyment at Country level. The is	nplementation at Service Area European level has not yet sta
List of CEF-	func	led initiative	es awarded	to Dutch St	akeholder	s					,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	Completed project
#107	7AFI	First phase of R	NAVI and RNP-APC	CH approaches	LVNL		2015_1	253_AF1_A_	AIR RNP 1.0	, RNP 0.3 & SE	BAS for E3A AWACS	NAPMA
#108/	AFZ	Bectronic Right	Strips at Schiphe	I TWR	LVNL		2015_2	53_AF1_A_I	GND RNP 1.0	, RNP 0.3 & SE eligible Nation	BAS for E3A AWACS	NAPMA
#109/	AFZ	Airport CDM imp	elementation Schi	phol	Amsterdar KLM, LVNL	n Schiphol,	2	015_253_AI	FI_B RNP 1.0	, RNP 0.3 & SE esion eligible	SAS for E3A AWACS States	NAPMA
#110.	IAF5	Meteorological I by MET ANSP KN	Information Excha IMI	nge	KNMI			2016_023	_AFI XMAN ·	Cross-center	arrival management - Par	t 2 LVNL
2015_137_4	AF5	European Meteo Derived Data Ce	rological Aircraft enter (EMADDC)		KNMI			2016_026_	AF3 System Air Tra	Frocurement ffic Control Sy	for Deployment of PCP ystem iCAS at DFS and LVNL	LVNL
2015_165_	AFI	Amsterdam Sch	iphol AMAN 1.0		LVNL		\bigcirc	2016_027_	AF5 Europe for Flig	an Deployment ht Object Inter	t Koadmap roperability	LVNL
2015_166_	AFI	Amsterdam Sch	iphol AMAN 2.0	Anna Cantu-I	LVNL			2016_131_	AF4 ADP-NO	P Integration	- Extended Implementation	Amsterdam Schip
2015_167_4	AF4	and Approach Co	ontrol operations	Area Control	LVNL			2016_143_	AF5 ATM Ne	twork 2.0 Ams	sterdam Surface Movement	LVNL
2015_168_4	AF5	Data Quality (AD	00) at LVNL	1 CCIS	LVNL			2016_150_	AF2 related	to Safety Net	S	Amsterdam Schip
2015_169_/	AF5	Amsterdam ACC NewPENS Stake	and Schiphol	ion for the	LVNL			2016_159_	AF6 OLS Imp	lementation P	roject – Path 2 roject – Path 1	SITA
2015_174_AF	A_C	procurement an	id deployment of	NewPENS	LVNL Amsterdar	n Schiphol,		2016_161_	AF6 "Ground	" stakeholder ement and Dec	s loyment of PCP ATC System	SITA
2015_178_/	AFZ	Implementation	of AUP Schiphol A	Airport	KNMI Amsterdar	n Schiphol,		2017_031_	AF3 iCAS at AF2 A-SMGC	DFS Munich a S High Perfor	nd Bremen and LVNL Amste mance Surveillance	rdam LVNL
2013_179_	AF4	RNP approaches	or APUL Schiphol s to three main la	nding runways	KNMI			2017_003_	AFI Final ph	ement to supp ase RNP APCH	ort routing & planning func procedures	tions
2010_106_	AFT	Amsterdam Sch TWR System at	iphol Amsterdam Sobie	hol	LVNL			2017_064	AF5 LVNL N	dam Schiphol ation wide may	naned network supporting	
2015_107_	AF3	Deployment of	ATC System iCAS:	Implementation	LVNI			2017 084	AF5 SWIM I	Common PKI a	nd policies & procedures fo	r LVNI
2010_130_		of ATM PCP Fun	ict. at LVNL and D	FS	LINE			2017_004	- establi	shing a Trust	framework	SITA INC BV
2015_196_A	FI_A	XMAN - Cross-C	Centre arrival ma	anagement	LVNL			2017_089	_AF6 IP1 - D	LS European T	arget Solution assessment	Netherlands



					Norway						
Numbe	r Curre	ont status		Already in	mplemented		ŀ	progress /	Planned		Not plann
of gaps	3 40 of imple	ementation			12				17		
	ATM Function	ality #1			ATM Function	ality #2			ATM Function	ality #3	
Family	Gap coverage	Compl. Year	CEF Projects	Family	Gap coverage	Compl. Year	CEF Projects	Family	Gap coverage	Compl. Year	CEF Proje
1.1.1				2.1.1				3.1.1	40% 60% 0%	Dec 2018	
1.1.2	50% 0% 50%	Dec 2023		2.1.2			-	3.1.2	0% 100% 0%	Dec 2021	
1.2.1				2.1.3				3.1.3			
1.2.2				2.1.4	0% 100% 0%	Dec 2024		3.1.4	45% 55% 0%	Dec 2021	
1.2.3				2.2.1				3.2.1	15% 85% 0%	Dec 2021	
1.2.4				2.3.1	0% 100% 0%	Dec 2024		3.2.3			
1.2.5	0% 0% 100%	· · ·		2.4.1	0% 100% 0%	Dec 2024		3.2.4			
				2.5.1	0% 100% 0%	Dec 2024					
				2.5.2	0% 100% 0%	Dec 2023					
	ATM Function	ality #4			ATM Function	ality #5			ATM Function	ality #6	
Family	Gap coverage	Compl. Year	CEF Projects	Family	Gap coverage	Compl. Year	CEF Projects	Family	Gap coverage	Compl. Year	CEF Proje
4.1.1				5.1.1				6.1.1	0% 60% 40%	· .	
4.1.Z	0% 100% 0%	Dec 2021		5.1.2	0% 100% 0%	Dec 2024		6.1.2	0% 0% 100%	· .	
4.2.2	0% 100% 0%	Dec 2021		5.2.1	0% 0% 100%	Dec 2024		6.1.3	0% 90% 10%	·	
4.2.3	25% 75% 0%	Dec 2021		5.2.2	0% 0% 100%	· .)		6.1.4			
				5.2.3	0% 0% 100%	· ·)		6.1.5			
4.2.4				E 94	00/ 00/ 1000/						by 512 and
4.2.4 4.3.1				5.3.1		العنا			For the SWIM Revenance rale	tod Familiac (namo	I D.I.D allu
4.2.4 4.3.1 4.3.2	0% 0% 100%			5.3.1 5.4.1	0% 0% 100%			pleas	For the SWIM Governance relate the refer to the dedicated sections	ted Families (name ion within Chapter	2 of this doc
4.2.4 4.3.1 4.3.2 4.4.2	0% 0% 100% 0% 0% 100% 0% 100% 0%			5.3.1 5.4.1 5.5.1	0% 0% 100% 0% 0% 100% 0% 0% 100%) pleas	For the SWIM Governance rela te refer to the dedicated secto The status reported for Fa claument at Counter level The	ted Families (name ion within Chapter mily 6.1.3 is exclus	2 of this doc ively related
4.2.4 4.3.1 4.3.2 4.4.2	0% 0% 100% 0% 100% 0%	- Dec 2021		5.3.1 5.4.1 5.5.1 5.6.1	0% 0% 100% 0% 0% 100% 0% 0% 100% 0% 0% 100%			pleas dey	For the SWIM Governance rela te refer to the dedicated secto The status reported for Fa alayment at Country level. The	ted Families (name ion within Chapter mily 6.1.3 is exclus o implementation a European level	2 of this doc ively related it Service Are has not yet s
4.2.4 4.3.1 4.3.2 4.4.2	0% 0% 100% 0% 100% 0%	 Dec 2021		5.3.1 5.4.1 5.5.1 5.6.1 5.6.2	U% U% 100% 0% 0% 100% 0% 0% 100% 0% 0% 100% 0% 0% 100%) pleas dej	For the SWIM Governance rela e refer to the dedicated sect The status reported for Fa aloyment at Country level. The AFT , AFZ , and Family 4.2.4 to	ted Families (name ion within Chapter mily 6.1.3 is exclus e implementation a European level be implemented in	Z of this doc ively related at Service Are has not yet s in Oslo Garder
4.2.4 4.3.1 4.3.2 4.4.2	0% 0% 100% 0% 100% 0%	Dec 2021	to Norwegi	5.3.1 5.4.1 5.5.1 5.6.1 5.6.2	U% U% UU% O% O% D0% O% O% 00% O% 0% 00%) pleas dey	for the SWIM Governance rela e refer to the dedicated sect The status reported for Fa layment at Country level. The AFT , AFZ , and Family 4.2.4 to	ted Families (name ian within Chapter mily 6.1.3 is exclus a implementation a European level be implemented in	2 of this do. ively related t Service Ar has not yet in Oslo Garde



								Polan	d								
Numbe of gap	er Z	6.	Current s f implemen	tatus Itation	Already imp	emented 5							In p	orogress	/ Planr	1ed 17	Not planne
	ļ	\TM Fun	ctionality	y #1			A	TM Functio	nality # 2				A	TM Fun	ctiona	lity #3	
Family	6	ap coverage	Con	mpl. Year	CEF Projects	Family	6a	ip coverage	Compl. Year	CEF	Projects	Family	Ga	ap coverage		Compl. Year	CEF Project
1.1.1						2.1.1						3.1.1	70%	30%	0%	Dec 2018	
1.1.2						2.1.2						3.1.2	30%	70%	0%	Dec 2021	
1.2.1						2.1.3						3.1.3	30%	70%	0%	Dec 2021	Yes
1.2.2						2.1.4						3.1.4	90%	10%	0%	Dec 2021	Yes
1.2.3						2.2.1						3.2.1	50%	50%	0%	Dec 2021	Yes
1.2.4						2.3.1						3.2.3				-	
						2.4.1						3.2.4	35%	65%	0%	Feb 2019	
						2.5.1											
						Z											
	A	TM Fund	ctionality	/ # 4			A	TM Functio	nality #5				A	TM Fund	ctiona:	lity #6	
Family	6	ap coverage	Con	mpl. Year	CEF Projects	Family	Ga	ap coverage	Compl. Year	CEF	Projects	Family	Ga	ap coverage		Compl. Year	CEF Project
4.1.1				/		5.1.1						6.1.1				1	
4.1.2	0%	100%	0% De	ec 2021	Yes	5.1.2	40%	60% 0%	Dec 2020		Yes	6.1.2	0%	0% 1	00%	-	
4.2.2	0%	100%	0% De	ec 2021		5.2.1	0%	100% 0%	Dec 2019		Yes	6.1.3				1	
4.2.3						5.2.2	0%	100% 0%	Dec 2024		Yes	6.1.4				_	
4.2.4						5.2.3	0%	100% 0%	Dec 2024			6.1.5					
4.3.1						5.3.1	0%	100% 0%	Dec 2024				For the SW	M Governan	ce relate	d Families (nam	why 513 and 5
4.3.2	0%	0% 1	00%			5.4.1	0%	0% 100%	· ·			plea	se refer to	the dedicate	ad section	n within Chapter	2 of this docu
4.4.2	0%	100%	0% De	ac 2021	Yes	5.5.1	0%	100% 0%	Dec 2024		Yes	de	The stat playment a	tus reporteo at Country le	for Fami vel. The i	ily 6.1.3 is exclu implementation	sively related a at Service Area
						5.6.1	0%	0% 100%	-							European level	has not yet sta
						5.6.2	0%		Dec 2024								
List of C	EF-fund	led initi	atives a	wardeo	l to Polish S	akeholder	S									🖌 Comp	oleted proje
\checkmark	#131AF3	1 st part of system	of the upgrad to SESAR fun	de of the l nctionalitie	P_21 PEGASUS		PAN	ISA	2016_16	_AF6	DLS Impl "Ground"	ementation Pr stakeholders	oject – P	ath 1		PANS	4
2015_0	135_AF5	LAN netv	work upgrad	e			PAN	ISA	2016_162	_AF6	Implement for the A	itation off Dat TM in the AR	a Link Se Warsaw	rvices		PANS/	4
2015_0	138_AF5	The ECG	Communicat	tion Syste	ım upgrade		PAN	ISA	2017_002	AF5	Aeronaut Airlines	ical Informati FOC at Lufthan	on Exchar sa & Air	ige syster France	n for	LH Sy	stems Poland
✓ 2016_C	127_AF5	European for Right	n Deploymen t Object Inte	nt Roadma properabili	p ty		PAN	ASA	2017_053	_AF3	Implemen	ntation of rolli	ng ASM/A	ATFCM		LH Sy SABRE	stems Poland Polska SP Z
2016_0	185_AF3	ATM Sys	stem Upgrade	e Toward	sFree Route Airs	lace	PAN	AZI	2017_056	_AF5	lowards Based Op	Shared Busin perations	ess fraje	ctory / Tr	ajectory	SABRE	stems Poland Polska SP Z
2016_0	387_AF3	itec te	ests, Validatio	ons and P	lanning (iTEC - TVP)	PAN	AZI	2017_057	_AF4	Local tra	ffic complexity	y manage	ment		PANS	4
2016_	129_AF5	New PB procure	IS Stakehold ement and d	lers contr eployment	ibution for the of NewPENS		PAN	ISA	2017_078	6_AF5	Meteorol Airlines	ogical Informa FOC at Lufthan	ntion Exch sa & Air I	lange serv France	vice for	LH Sy	stems Poland
2016	_141_AF5	Deploy	SWIM govern	nance			PAN	ASA	2017_084	AF5	SWIM Co establish	mmon PKI and ing a Trust fr	policies amework	ă procedui	res for	PANS	4
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Image: 20 Dervert state: 0 Arredy implemented Image: 20 Att Endpanented in the plane. ATM Functionality # 1 ATM Functionality # 2 ATM Functionality # 3 Image: 200 Protein								Portuga	1								
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Image Desc Desc <thdesc< th=""> Desc Desc <t< th=""><th></th><th>A</th><th>TM Functio</th><th>onality #1</th><th></th><th></th><th>ATM</th><th>Function</th><th>ality #2</th><th></th><th></th><th></th><th>A</th><th>TM Fun</th><th>ction</th><th>ality #3</th><th></th></t<></thdesc<>		A	TM Functio	onality #1			ATM	Function	ality #2				A	TM Fun	ction	ality #3	
111 211 211 211 211 212 100	Family	Gaj) coverage	Compl. Year	CEF Projects	Family	Gap co	verage	Compl. Year	CEF	F Projects	Family	G	ap coverage	:	Compl. Year	CEF Project
122 123 124 125 124 125 124 126 127 128 128 128 128 128 128 128 128 128 <th>1.1.1</th> <th></th> <th></th> <th></th> <th></th> <th>2.1.1</th> <th></th> <th></th> <th></th> <th></th> <th></th> <th>3.1.1</th> <th>90%</th> <th>10%</th> <th>0%</th> <th>Dec 2018</th> <th>Yes</th>	1.1.1					2.1.1						3.1.1	90%	10%	0%	Dec 2018	Yes
122 21/2	1.1.2					2.1.2						3.1.2	30%	70%	0%	Dec 2021	Yes
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411 611 60% 0%	Family	Gaj	o coverage	Compl. Year	CEF Projects	Family	Gap co	verage	Compl. Year	CEF	F Projects	Family	G	ap coverage		Compl. Year	CEF Project
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4223 5222 6% 100% 0% 0c 0c 024 514 433 5243 0% 100% 0% 0c 0c 024 514 433 5243 0% 100% 0% 0c 0c 024 514 433 524 0% 100% 0% 0c 0c 024 514 433 0% 100% 0% 0c 0c 024 514 0% 100% 0% 0c 0c 019 433 0% 100% 0% 0c 024 515 0% 0% 00% 0c 0c 019 434 0% 100% 0% 0c 024 515 0% 0% 00% 0c 0c 019 515 0% 0% 0% 00% 0c 0c 021 515 0% 0% 00% 0c 0c 019 516 0% 0% 00% 0c 0c 00% 0c 0c 00% 0c 0c 00% 0c 00% 0c 0c 00% 0c 0c 00% 0c 00% 0c	4.2.2	0%	100% 0%	Dec 2021		5.2.1	0% 100	1%	Dec 2024		Yes	6.1.3	50%	50%	0%	-	Yes
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44.4.2 0% 100% 0% 0% 100% - Ite statics reported for family EA.3 is exclosively relation at Service - European level has not service - Initial ASM tool to support AFIA NAV Portugal 2016_058_AFZ Runway Overrun Prevention System (ROPS) bundled application for TAP Portugal TAP Portugal #122AF3 FT 3.11 NAV Portugal - Initial ASM tool to support AFIA NAV Portugal 2016_058_AFZ Runway Overrun Prevention System (ROPS) bundled application for TAP Portugal TAP Portugal #122AF3 FT 4.2.3 NAV Portugal Interface to NMS AFP NAV Portugal 2016_071_AF5 Deplay SWIM governance NAV Portugal 2015_138_AF5 Implementation for electronic Terrain and Obstacle Data management NAV Portugal 2016_15_9_AF6 DLS Implementation Project - Path 2 NAV Portugal 2015_262_AF5 Aeronautical Data Duality and Exchange PT MOD 2016_161_AF6 DLS Implementation Project - Path 1 NAV Portugal 2015_278_AF1 False for 5 A/C PT MOD 2017_083_AF6 Portugalia E85 - Olegolyment of ANV Portugal	4.3.2	0%	100% 0%	Dec 2021		5.4.1	0% 100	1%	Dec 2019			plea	se refer to	the dedica	ted section	en ramures (na en within Chapte	er 2 of this docum
5.5.1 0% 0% 100% - Explorment it Cautery even. The implementation it is served it	4.4.2	0%	100% 0%	Dec 2021		5.5.1	0% 0	6 100%	· ·				The sta	tus reporte	d for Fan	nily 6.1.3 is exci	lusively related t
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#123AF FT 4.2.3 NAV Portugal Interface to NMS AFP NAV Portugal 2016_071_AFS 2016_071_AFS 2016_071_AFS PT MOD 2015_138_AFS Implementation of a solution for electronic Energian and Distacle Data management NAV Portugal 2016_141_AFS Deploy SWIM governance NAV Portugal 2015_174_AFS_A Implementation of a solution for the procurement and deployment of NewPBNS NAV Portugal 2016_159_AF6 DLS Implementation Project - Path 2 NAV Portugal, TAP Portugal 2015_278_AF1 Aeronautical Data Quality and Exchange PT MOD 2016_161_AF6 DLS Implementation Project - Path 1 NAV Portugal 2015_278_AF1 C-30H RNP-1 Avionics Upgrade for 5 A/C PT MOD 2017_083_AF6 Portugalia B95 - Deployment of ATN B1 capability PGA - Portugalia Airle 2015_279_AF1 Falco 50 RNP-1 Avionics Upgrade for 3 A/C PT MOD 2017_084_AF5 SWIM Common PKI and policies & procedures for establishing a Trust framework NAV Portugal 2016_027_AF5 European Deployment Roadmap for Fight Object Interoperability NAV Portugal 2017_089_AF6 IPI - DLS European Target Solution assessment NAV Portugal		#122AF3	FT 3.1.1 NAV F Initial ASM to	Portugal – ool to support AF	UA	N	AV Portugal		2016_069	_AF2	Runway Dy bundled ap	verrun Preve pplication for	ntion Sys TAP Port	tem (ROPS ugal	;)	TAP Portu	gal
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2015_174_AF5_A newnorus stakenoiders controlution for the procurement and deployment of New PBIS NAV Portugal 2016_159_AF6 DLS Implementation Project - Path 2 NAV Portugal, TAP Pc 2015_262_AF5 Aeronautical Data Quality and Exchange PT MOD 2016_161_AF6 DLS Implementation Project - Path 1 NAV Portugal 2015_278_AF1 C-I30H RNP-I Avionics Upgrade for 5 A/C PT MOD 2017_083_AF6 Portugalia B95 - Deployment of Na V Portugalia Airlion of ATN BI capability PGA - Portugalia Airlion of ATN BI capability 2015_279_AF1 Falcon 50 RNP-I Avionics Upgrade for 3 A/C PT MOD 2017_084_AF5 SWIM Common PKI and policies & procedures for establishing a Trust framework NAV Portugal 2016_027_AF5 European Deployment Roadmap for Flight Object Interoperability NAV Portugal 2017_089_AF6 IPI - DLS European Target Solution assessment NAV Portugal	2015	138_AF5	Implementati	on of a solution Obstacle Data m	tor electronic anagement sibution for the	N	AV Portugal		2016_141	_AF5	Deploy SW	/IM governand	8			NAV Portu	gal
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2015_278_AFI C-I30H RNP-I Avionics Upgrade for 5 A/C PT MOD 2017_083_AF6 For Eigens Total PGA - Portugalia Airl 2015_279_AF1 Falcon 50 RNP-I Avionics Upgrade for 3 A/C PT MOD 2017_084_AF5 Silva Common FXI and policies & procedures for establishing a Trust framework NAV Portugal 2016_027_AF5 European Deployment Roadmap for Right Object Interoperability NAV Portugal 2017_089_AF6 IPI - DLS European Target Solution assessment NAV Portugal	2015_	262_AF5	Aeronautical	Data Quality and	d Exchange	P	TMOD		2016_161	_AF6	"Ground" Portugalia	stakeholders	yeur = ra	ul I		NAV Portu	gal
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	2016	UZ7_AF5	for Flight Obj	ject Interoperabi	lity	N	AV Portugal		2017_089	_AF6	IPI - ULS E	wropean Targ	jet Solutio	in assess	ment	NAV Portu	gal



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Numbe	114		Curre	ant status	Already i	mplemented					In progress	s / Planned					Not planne
of gap	s 2	4	of imple	ementation		5						10					5
	ļ	ATM FL	Inction	ality #1			A	TM Func	ctiona	ılity #2		1	A	ATM Fu	nction	ality #3	
Family	G		ge	Compl. Year	CEF Projects	Family	6a	p coverage		Compl. Year	CEF Projects	Family	6	ap covera	ge	Compl. Year	CEF Projects
						2.1.1						3.1.1	65%	35%	0%	Dec 2018	
						2.1.2						3.1.2	0%	100%	0%	Dec 2021	
						2.1.3						3.1.3				1	
						2.1.4						3.1.4	85%	15%	0%	Dec 2021	
						2.2.1						3.2.1	85%	15%	0%	Dec 2018	
1.2.4						2.3.1						3.2.3				-	
						2.4.1						3.2.4				-	
						2.5.1											
						2.5.2											
	A	TM Fu	nctiona	ality #4			A	TM Func	ctiona	ılity #5			A	TM Fu	nction	ality #6	
Family	G	ap covera	ge	Compl. Year	CEF Projects	Family	Ga	p coverage		Compl. Year	CEF Projects	s Family	G	ap covera	ge	Compl. Year	CEF Project
4.1.1						5.1.1						6.1.1	55%	20%	25%	-	
4.1.2	0%	0%	100%	•		5.1.2	40%	60%	0%	Dec 2020	Yes	6.1.2	0%	0%	100%	-	
4.2.2	0%	100%	0%	Dec 2021		5.2.1						6.1.3	60%	0%	40%	-	
4.2.3				-		5.2.2	0%	100%	0%	Dec 2024		6.1.4					
4.2.4						5.2.3	0%	0% 1	00%	-		6.1.5					
4.3.1						5.3.1	0%	0% 1	00%	-			Fan the Cl	M Gauges	anaa melat	ad Familian (ak 512 and 5
4.3.2	0%	0%	100%	· ·		5.4.1	0%	45%	55%	Dec 2024	Yes		se refer to	the dedic	ated section	en rammes (nam an within Chapter	· 2 of this docu
4.4.2	0%	0%	100%	· ·		5.5.1	0%	0% 1	00%				The sta	tus repor	ted for Fai	nily 6.1.3 is exclu	sively related t
						5.6.1	0%	0% 1	00%	-			pioyment	at Lountry	ievei. The	European level	has not yet sta
						5.6.2	0%	0% 1	00%	-							
List of C	EF-fund	led in	itiative	s awarde	l to Romania	n Stakeho	lders									🖌 Com	oleted proje
2	#134AF5	PILOT data (PLATFORI	M for access s AF. SIGMET) in	ervices to OPMET WXXM format		ROMATS	A		201	7_084_AF5	SWIM Common P for establishing	KI and po a Trust fr	licies & amewor	procedur k	es Roma	TSA
I A A A A A A A A A A A A A A A A A A A		uutu	transing i	,,													



							Slovak Rep	iblic					
Numbe			Cum	A	lready impleme	ented				In	progress / Planned		Not planne
of gaps	s 2	6	of imple	ementation		4					16		
	_					_							
	A	TM Fu	nction	ality #1			ATM Function	ality #2			ATM Function	ality #3	
Family	Ga	ip coverage		Compl. Year	CEF Projects	Family	Gap coverage	Compl. Year	CEF Projects	Family	Gap coverage	Compl. Year	CEF Proje
						2.1.1				3.1.1	40% 60% 0%	Dec 2018	Yes
1.1.2						2.1.2				3.1.2	50% 20% 30%	Dec 2021	Yes
						2.1.3				3.1.3			
1.2.2						2.1.4				3.1.4	90% 10% 0%	Dec 2021	Yes
1.2.3						2.2.1				3.2.1	30% 40% 30%	Dec 2021	
1.2.4						2.3.1				3.2.3			
						2.4.1				3.2.4	35% 65% 0%	Dec 2021	Yes
						2.5.1							
						2.5.2							
	A	TM Fun	ctiona	ality #4			ATM Function	ality #5			ATM Function	ality #6	
Family	Ga	ip coverage		Compl. Year	CEF Projects	Family	Gap coverage	Compl. Year	CEF Projects	Family	Gap coverage	Compl. Year	CEF Projec
4.1.1				-		5.1.1				6.1.1	0% 100% 0%	Dec 2020	
4.1.2	0%	100%	0%	Dec 2021	Yes	5.1.2	40% 60% 0%	Dec 2020	Yes	6.1.2	0% 0% 100%	· · ·	
4.2.2	0%	100%	0%	Dec 2021		5.2.1	60% 40% 0%	Dec 2022		6.1.3	0% 0% 100%	· ·	
4.2.3	0%	75%	25%	Dec 2021		5.2.2	0% 15% 85%	Dec 2023		6.1.4			
4.2.4						5.2.3	0% 100% 0%	Dec 2024		6.1.5			
4.3.1						5.3.1	0% 0% 100%	-			Г. 4. ОШИ О		
4.3.2	0%	0%	100%	-		5.4.1	0% 80% 20%	-		pleas	ror the Swim Governance relations in the section of	eo ramues (name. an within Chapter	2 of this docu
4.4.2	0%	100%	0%	· ·	Yes	5.5.1	0% 0% 100%	-			The status reported for Fai	nily 6.1.3 is exclusi	ively related
						5.6.1	0% 100% 0%	Dec 2023		de,	ployment at Lountry level. The	European level	t Service Area has not yet st
						5.6.2	0% 0% 100%	_ . _					
List of C	EF-fund	led ini	tiative	s awarded	l to Slovakia	in Stakeho	lders					🖉 Compl	eted proj
	#102AF3	Free Ro	oute Airs	space from the	Black Forest to	the Black Sea	LPS SR	2016_141_4	AF5 Deploy SW	IM governance		LPS	SR
2015_17	4_AF5_B	New PB for the	S Stake	eholders contri ment and depl	bution oyment of NewP	ENS	LPS SR	2016_159_4	AF6 DLS Implen	nentation Proj	ect – Path 2	LPS	SR
2015_2	34_AFI_B	AMAN L	.OWW ini	itial			LPS SR	2017_084_/	AF5 SWIM Com establishin	mon PKI and p g a Trust fram	olicies & procedures for 1ework	LPS	SR



)					N I. :	1	Sloven	a	L.		Diama di i		Natio
Numbe of gaps	<mark>ہ 2</mark>	6	Curre of imple	ent status ementation	Already imp	demented 5			In	progress / I	13		
	ļ	\TM Fur	nction	ality #1			ATM Functio	nality # 2			ATM Functiona	ılity #3	
Family	G	ap coverage		Compl. Year	CEF Projects	Family	Gap coverage	Compl. Year	CEF Projects	Family	Gap coverage	Compl. Year	CEF Pr
						2.1.1				3.1.1	0% 100% 0%	Dec 2021	Ye
						2.1.2				3.1.2	0% 100% 0%	Dec 2021	Ye
						2.1.3				3.1.3	0% 100% 0%	Dec 2021	Ye
						2.1.4				3.1.4	50% 50% 0%	Dec 2021	Ye
						2.2.1			1	3.2.1	15% 85% 0%	Dec 2021	
1.2.4						2.3.1				3.2.3		-	
						2.4.1				3.2.4		-	
						2.5.1							
						2.5.2							
	A	TM Fun	ctiona	ality #4			ATM Functio	nality #5			ATM Functiona	ility #6	
Family	G	ap coverage	2	Compl. Year	CEF Projects	Family	Gap coverage	Compl. Year	CEF Projects	Family	Gap coverage	Compl. Year	CEF Pr
4.1.1	\checkmark					5.1.1				6.1.1	50% 50% 0%	Jan 2019	Ye
4.1.2	0%	100%	0%	Dec 2021	Yes	5.1.2	40% 60% 0%	Dec 2020	Yes	6.1.2	0% 0% 100%	-	
4.2.2	0%	100%	0%	Dec 2021		5.2.1				6.1.3	0% 0% 100%		
4.2.3	75%	25%	0%	Dec 2021		5.2.2	0% 0% 100%	·		6.1.4			
						5.2.3	0% 30% 70%	Dec 2021		6.1.5			
4.3.1						5.3.1	0% 0% 100%	·		1	For the SWIM Governmence relate	d Familiae (nam	alu 512 an
4.3.2	0%	100%	0%	Dec 2021		5.4.1	0% 0% 100%	·		plea	se refer to the dedicated section	n within Chapter	Z of this d
4.4.2	0%	100%	0%	•	Yes	5.5.1	0% 0% 100%	<u> </u>		da	The status reported for Fam	ily 6.1.3 is exclu implementation	sively relation
						5.6.1	0% 0% 100%	<u> </u>				European level	has not yet
						5.6.2	0% 0% 100%	<u> </u>					
ist of Cl	EF-func	led ini	tiative	s awarded	to Slovenia	n Stakeho	lders					🖌 Comp	leted pr
) #1	OZAF3 I	Free Rout	e Airspa	ce from the Bl	ack Forest to the	Black Sea S	llovenia Control	2016_075	_AF3_A FAB CE	wide Study of	DAM and STAM - General C	all Slove	enia Contr
2015_174_	AF5_A	lewPENS or the pr	Stakehol ocureme	lders contribut int and deployr	ion nent of NewPENS	5	llovenia Control	2016_075	_AF3_B FAB CE	wide Study of	DAM and STAM - Cohesion	Call Fabco	e Ltd.
2016 03	O AF6	Air Groun	d Datalin	k Implementat	on	5	Slovenia Control	2017 0	84 AF5 SWIM C	ommon PKI an	d policies & procedures for	Fabri	e Ltd,



							S	Spain							
umber 69 gaps 69	Cu of im	rrent st iplement	tatus tation		Already imple	mented 18	ln pr 50	ogress	/ Planned						
						ļ	TM Fu	nctio	nality #1						
			Barc	celona El Prat				Ма	drid Barajas			Pa	alma de M	allorca Son San Jua	n)
Family	6	iap covera	ge	Compl. Year	CEF Projects	6	ap coverag	je	Compl. Year	CEF Projects	6	ap covera	ge	Compl. Year	CEF Projects
1.1.1				-							\checkmark				
1.1.2	60%	40%	0%	Dec 2023	Yes	50%	50%	0%	Dec 2023	Yes	60%	40%	0%	Dec 2023	Yes
1.2.1	10%	90%	0%	Dec 2020	Yes	10%	90%	0%	Dec 2020	Yes					
1.2.2				Dec 2022				00/	D== 2022			1009/		Dec 2022	
17.4	U 70	10070	U70	Dec 2023		U 70	10070	U 70	DEC 2023		U 70	10070	U78	Dec 2023	
1.2.5															
			_			-	TM Eur	nation	ality #7		_				
						A			iality # Z						
Family			Baro	celona El Prat	077.0			Ма	drid Barajas			R	alma de M	allorca Son San Jua	
7.11		ap covera;	ge	Compl. Year	CEF Projects	G	ap coverag	je	Compl. Year	CEF Projects	6	ap covera	ge	Compl. Year	CEF Projects
2.1.1	50%	50%	0%	Dec 2019	Уре	50%	50%	0%	Dec 2019	Yee	75%	25%	0%	Dec 2019	Yee
2.1.2			970	500 2010	103			570		163		10/0	970		103
2.1.4	0%	100%	0%	Dec 2021		0%	100%	0%	Dec 2021		0%	100%	0%	Dec 2021	
2.2.1	75%	25%	0%	Dec 2019	Yes	75%	25%	0%	Dec 2019	Yes	75%	25%	0%	Dec 2019	Yes
2.3.1						0%	100%	0%	Dec 2023						
2.4.1	0%	100%	0%	Dec 2023		0%	100%	0%	Dec 2023		0%	100%	0%	Dec 2023	
2.5.1	0%			Dec 2020				0%	Dec 2020		0%	100%	0%	Dec 2020	<u> </u>
Z.5.Z	U %	100%	U %	Lec 2020		U %	100%	U 70	Dec ZUZU		U 7a	100%	U %	UBC ZUZU	L
					AT	M Func	tionali	ity #	4 (Airport (Gaps)					
Family			Baro	celona El Prat				Ма	drid Barajas			Pa	alma de M	allorca Son San Jua	In
	6	iap covera	ge	Compl. Year	CEF Projects	6	ap coverag	je	Compl. Year	CEF Projects	G	ap covera	ge	Compl. Year	CEF Projects
4.2.4	0%	100%	0%	Sep 2020	Yes	0%	100%	0%	Sep 2020	Yes	0%	100%	0%	Sep 2020	Yes
				ATM Func	tionality # 3	3			ATM Fi	unctionality	# 4 (C	ountr	y Gap	s)	
		Famil	y 📗	Gap coverage	Compl. Y	'ear C	EF Project	s	Family	Gap coverage	0	ompl. Yea	r CE	F Projects	
		3.1.1	7	0% 30%	0% Dec 20	18	Yes		4.1.1 75	5% 25% 0	1%	Nov 2018		Yes	
		3.1.2		0% 100%	0% Dec 20	21	Yes		4.1.2 0	% 100% 0	%	Dec 2021			
		3.1.3							4.2.2 0	% 100% 0	<u>%</u>	Dec 202			
		3.1.4	4	5% 55%	0% Dec 20	23	Yes		4.2.3			-			
		3.2.		3% 83%	U7a Uec 20	21	Tes		4.3.	% 100% 0	%	lec 202			
		3.2.			0% Dec 20	21			4.4.7 0	% 100% 0	%	Jec 2021			
		A DEC ASS													
		4745		ATM F	1 Ita						ante n	W # h			
		1745		ATM Func	tionality #	5						y # 0			
		Famil	y L	ATM Func Gap coverage	tionality # Compl. Y	5 er [C	EF Project	s	Family	Gap coverage		compl. Yea	r CE	F Projects	
		Famil 5.1.1	y	ATM Func Bap coverage	Compl. Y	5 ear C	EF Project	s	Family 6.1.1			compl. Yea	r CE	F Projects	
		Famil 5.1.1 5.1.2	y	ATM Func Bap coverage	Campl. Y	5 ear C 20	EF Project Yes Yes	s	Family 6.1.1 • 6.1.2 0	AIM FUNCT Gap coverage		Compl. Yea		F Projects	
		Famil 5.1.1 5.1.2 5.2.1 5.2.2	у 2 4 1 4 2 1	ATM Func Gap coverage 0% 60% 0% 60%	Campl. Y Campl. Y Cam	5 ear C 20 C 20 C	EF Project Yes Yes Yes Yes	s	Family 6.1.1 6.1.2 0 6.1.3 65 6.1.4	ATM FUNC Bap coverage % 0% 10 5% 35% 0	0%) (%)	compl. Yea		F Projects Yes	
		Famil 5.1.1 5.1.2 5.2.2 5.2.2 5.2.2	y 4 2 4 1 4 2 C	ATM Func Bap coverage 0% 60% 0% 60% 1% 100%	tionality # Compl. Y 0% Dec 203 0% Dec 203 0% Dec 203 0% Dec 203 0% Dec 203	5 constant of the search of th	EF Project Yes Yes Yes Yes Yes	s	Family 6.1.1 (* * * * * * * * * * * * * * * * * * *	ATM FUNC Bap coverage % 0% 10 5% 35% 0		Compl. Yea		F Projects Yes	
		Famil 5.1.1 5.1.2 5.2.1 5.2.2 5.2.2 5.2.3	Y 2 4 1 4 2 C 3 C	ATM Func Bap coverage 0% 60% 0% 60% 1% 100% 1% 100%	tionality # Compl. Y Compl. Y Compl. Y Compl. Y Completion Complet	5 ear C 20 C 24 C 24 C	EF Project Yes Yes Yes Yes Yes		Family 6.1.1 6.1.2 0 6.1.3 5 6.1.4 6.1.5	ATM FUNC Bap coverage % 0% 10 5% 35% 0 autor of the second se		Compl. Yea		F Projects	
		Famil 5.1.1 5.1.2 5.2.2 5.2.2 5.2.2 5.2.2 5.2.2 5.2.2 5.2.2 5.2.2	y 2 4 1 4 2 2 0 3 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	ATM Func Gap coverage CM 60% 0% 60% 0% 60% 0% 100% 1% 100% 1% 100% 1% 100%	tionality # Compl. Y Compl. Y Compl. Y Compl. Y Complexed Complexe	5 #ar 0 20	EF Project Yes Yes Yes Yes Yes		Family 6.1.1 6.1.2 6.1.3 6.1.3 6.1.4 6.1.5 <i>For the please rel</i>	ATM FUNC Bap coverage % 0% 0% 10 3% 35% 0 5% 0 5% 0 5% 0 5% 0 5% 0 5% 0 5% 0	0% 0% % a related / section w	iompl. Yea	r CE	F Projects Yes 3 and 5.14), this document	
		Famil 5.1.1 5.2.1 5.2.1 5.2.2 5.2.2 5.2.2 5.3.1 5.4.1 5.5.1		ATM Func Bap coverage D% 60% 0% 60% 0% 100% 1% 100% 1% 100% 1% 100%	tionality # Compl. Y Compl. Y Compl. Y Compl. Y Completion Complet	5 ear C 20 20 24 24 24 24 24 24	EF Project Yes Yes Yes Yes Yes		Family 6.1.2 0 6.1.2 6 6.1.3 6 6.1.4 6 6.1.5 for the please rel please rel deadors	ATM FUNC Bap coverage % 0% 10 3% 35% 0 3% 35% 0 5% 0% 10 3% 0% 10 3% 0% 10%	0% 0% 1% 1% 1 section w for Family of The imm	Compl. Yea	r CE	F Projects Yes 3 and 5.1.4), this document related to its ice drea and	



<u>_</u>				Spain		
N	umber 69 f gaps	Current status Already import of implementation	olemented 18	In progress / Planned 50		Not planne
List c	of CEF-funded	initiatives awarded to Spanish Stakeho	Iders		Q	Completed projec
	#057AF2a	Fulfillment of the prerequisite EFS: Airport Integration and Throughput (Phase A)	ENAIRE	2016_037_AF3	Deployment of LARA System in Spain	ENAIRE, Spanish Air Force
	#058AF2a	Fulfillment of the prerequisite A-SMGCS 2: Airport Integration and Throughput (Phase A)	ENAIRE	2016_038_AF5	Implementation of an IP-based G/G data communication network in ENAIRE (REDAN)	ENAIRE
	#059AF5	Implementation and operation of an IP-based G/G data communication network in BNAIRE	ENAIRE	2016_039_AF4	STAM Phase 1 Implementation in Spain	ENAIRE
	#060AFI	ENAIRE reference geographic database (FT 1.2.2)	ENAIRE	2016_040_AF3	Upgrade of trajectory management in SACTA-iTEC	ENAIRE
	#D61AF1a	RNP APCH Implementation in Palma de Mallorca	ENAIRE	2016_077_AFI	2016_077_AFI_ES_FALCON 900 compliance with RNP 1 and RNP APCH	Spanish Air Force
	2015_174_AF5_A	NewPENS Stakeholders contribution for the procurement and deployment of NewPENS	ENAIRE	2016_125_AF6	2016_125_AF6_ES_Airbus A310 ATN VDL2 Compliance	Spanish Air Force
	2015_210_AF5	AMHS/SWIM gateway	ENAIRE	2016_126_AF6	2016_126_AF6_ES_FALCON 900 compliance with Air Ground ATN VOL2 Data Link	Spanish Air Force
	2015_211_AF2	Fulfillment of the prerequisite A-SMGCS 2: Airport Integration and Throughput (2017-2019)	ENAIRE	2016_131_AF4	ADP-NOP Integration - Extended Implementation	AENA
	2015_212_AF2	Fulfillment of the prerequisite EFS: Airport Integration and Throughput (2017-2019)	ENAIRE	2016_141_AF5	Deploy SWIM governance	ENAIRE
	2015_215_AFI	RNP APCH Implementation in Madrid and Barcelona	ENAIRE	2016_159_AF6	DLS Implementation Project - Path 2	ENAIRE
	2015_221_AF3	Implementation of Voice over IP (VoIP) systems and services in BNAIRE	ENAIRE	2016_161_AF6	DLS Implementation Project – Path 1 "Ground" stakeholders	ENAIRE
	2015_271_AF1	CECAF RNP Procedures Design	Spanish Ai	r Force 2017_400_BLD	Implementation of Voice over IP (VoIP) in Barcelona ACC	ENAIRE
	2015_272_AF1_AIR	CECAF RNP Procedures Implementation (Pilots and Right operators courses)	Spanish Ai	r Force 2017_018_AF5	SWIM-enabled OCC	Boeing
✓ 2	2015_272_AF1_GND	CECAF RNP Procedures Implementation (Pilots and Right operators courses)	Spanish Ai	r Force 2017_049_AF3	Bectronic Flight Strip (EFS) in En-Route and TMA in SACTA system	ENAIRE
	2016_027_AF5	European Deployment Roadmap for Right Object Interoperability	ENAIRE	2017_050_AF3	Controller Working Position (CWP) upgrade	ENAIRE
	2016_035_AF5	ENAIRE exchange of Aeronautical Information Data in AIXM5.1	ENAIRE	2017_084_AF5	SWIM Common PKI and policies & procedures for establishing a Trust framework	Spanish Air Force
	2016_036_AF3	Deployment of SACTA-iTEC	ENAIRE	2017_089_AF6	IP1 - DLS European Target Solution assessment	ENAIRE



					Swi	eden					
-			Already in	nolemente	d !! In progress	/ Planned					Not planned
Nun of g	nber 40 japs 40	Current status of implementation			9 29						
	ATN	A Functionality #1			ATM Fund	tinnalitv #7			ATM Functi	innality #3	
Family	Ban er		CFF Projects	Family	Gan coverage	Compl Year	CFF Penigets	Family	Ban enverance	Connel Year	CFF Deniant
1.1.1				2.1.1	50% 50%	0% Dec 2019	Yes	3.1.1	0% 100% 09	6 Dec 2019	
1.1.2	60% 0	1% 40% Dec 2023	Yes	2.1.2				3.1.2	0% 30% 70	% Dec 2021	
1.2.1	30% 7	0% 0% Dec 2022	Yes	2.1.3				3.1.3			
1.2.2	65% 3	5% 0% Dec 2020	Yes	2.1.4	0% 100%	0% Dec 2020	Yes	3.1.4	60% 40% 0%	6 Dec 2021	Yes
1.2.3		0% 0% Dec 2020	Yes	2.2.1	60% 40%	0% Dec 2018	Yes	3.2.1	65% 10% 25	% Dec 2021	Yes
1.2.4		100%		2.3.		Nec 2023	Yes	3.2.3			
1,2,0				2.5.1	0% 100%	0% Dec 2020	Yes	0.2.4			
				2.5.2	0% 100%	0% Dec 2020	Yes				
	ATM	Functionality #4			ATM Fund	tionality #5			ATM Functi	onality #6	
Family	/ Gap ci	overage Compl. Year	CEF Projects	Family	Gap coverage	Compl. Year	CEF Projects	Family	Gap coverage	Compl. Year	CEF Project
4.1.1				5.1.1				6.1.1			1
4.1.2	0% 10	0% 0% Dec 2021		5.1.2	40% 60%	0% Dec 2020	Yes	6.1.2	0% 0% 100	% -	
4.2.2	0% 10	0% 0% Dec 2021		5.2.1	55% 45%	0% Dec 2024	Yes	6.1.3			
4.2.3	75% 2	5% 0% Dec 2018		5.2.2	0% 100%	0% Dec 2024	Yes	6.1.4			
4.2.4			Yes	5.2.3		0% Dec 2023	Yes	6.1.5			
4.3.7		0% 0% Dec 2021		5.4.1	0% 45%	5% Dec 2024	Yes	, in the second s	For the SWIM Governance	related Families (nan	nely 5.1.3 and 5
4.4.2	95% 5	i% 0% Dec 2021		5.5.1	0% 20% 1	0% Dec 2024	Yes	preas	The status reported for	r Family 6.1.3 is exclu	sively related t
				E.0.1				de	alayment at Country level	The implementation	at Comina Anas
			-	3.0.1	0% 80%	20% Dec 2024				European leve	l has not yet sta
				5.6.2	0% 80% 1	20% Dec 2024			AFI , AFZ , and Family 4.2.	European leve 4 to be implemented i	al Service Area I has not yet sta in Stockholm Arla
List of	CEF-funded	l initiatives awarde	d to Swedish St	5.6.2	0% 80% 1 0% 0% 1	20% Dec 2024			AFT , AFZ , and Family 4.2.	European leve 4 to be implemented i	i Service Aea 1 has not yet sta in Stackhalm Ark pleted proje
List of	CEF-funded #020AF3	<mark>l initiatives awarde</mark> Borealis Free Route Airspa	d to Swedish St ce (Part 1)	5.6.2 takehold	0% 80% (0% 0% 1 ers	200% Dec 2024 200% -	GND Impleme	entation of GBA	AFT , AFZ , and Family 4.2.4 S (operation in the	European leve 4 to be implemented i Com Nova Airlin	i Service Area I has not yet sta in Stockholm Ark pleted proje es AB
List of The second seco	CEF-funded #020AF3 #104AF1	<mark>l initiatives award</mark> er Borealis Free Route Airspa Lower Airspace Optimizatio	d to Swedish St ce (Part I) m	5.6.2 LEV	0% 0% 1 0% 0% 1	20% Dec 2024 10% - 2015_309_AF1 2015_3209	GND Impleme Rights (entation of GBA perations Dept entation of Voll	IF, AFZ , and family 4.2. S (operation in the and training of flight creat	European leve European leve (4 to be implemented i Comp (W) Nova Airlin LFV	i has not yet sta in Stockholm Ark pleted proje as AB
List of The second seco	CEF-funder #020AF3 #104AF1 #136AF2	I initiatives awarder Borealis Free Route Airspa Lower Airspace Optimizatio A-CDM Optimization	d to Swedish St ce (Part I) m	5.6.2 takehold LFV LFV Swedav	0% 80% (0% 0% (ers	20% Dec 2024 	GND Implem Rights (AF3 Impleme AF5 Europea	entation of GBA perations Dept entation of Voll n Deployment + Object between	AF, AF2 , and Family 4.2. S (operation in the and training of flight cre Roadmap	Erropan leve Erropan leve (4 to be implemented 1 (2000) (2	i Service week i has not yet sta in Stockholm Ark
List of The second seco	CEF-funded #020AF3 #104AF1 #136AF2 #137AF2	I initiatives awarder Borealis Free Route Airspa Lower Airspace Optimizatio A-CDM Optimization Enhancement of Airport Sa	d to Swedish St ce (Part I) m ifety Nets	5.6.2 Eakehold LFV LFV Swedav Swedav	u% 80% (0% 0% (ers (ia (20% Dec 2024 10% - 2015_309_AFI_ 2015_320 2016_027_ 2016_131	GND Impleme Rights C AF3 Impleme AF5 Europea for Rigt AF4 ADP-ND	entation of GBA perations Dept entation of Volf n Deployment it Object Interco P Integration -	AF, AF2 , and Family 4.2. S (operation in the and training of flight cre Roadmap perability Extended Implementa	European love for the implemented if Composition (EFV (EFV (EFV) (Composition) (Compos	i Service week i has not yet sa i Stockholm Ark
List of Controls Control	CEF-funded #020AF3 #104AF1 #136AF2 #137AF2 15 025 AF5 A	I initiatives awarded Borealis Free Route Airspa Lower Airspace Optimizatio A-COM Optimization Enhancement of Airport Sa at Stockholm Arlanda Airpor Sub-regional SWM MET dej	d to Swedish St ce (Part I) m fety Nets art ployment	5.6.2 Eakehold LFV LFV Swedav Swedav SMHI	0% 80% (0% 0% (ers (ia (20% Dec 2024 10% - 2015_309_AFI_ 2015_320 2015_320 2016_027_ 2016_131_ 2016_141	GND Implem Rights C AF3 Implem AF5 Europea for Right AF4 ADP-ND AF5 Deoloy	entation of GBA perations Dept entation of Voll n Deployment it Object Interc P Integration - SWIM governar	If a second s Roadmap perability Extended Implementance	Erropean leve Erropean leve (to be implemented i Com Lev LFV LFV LFV LFV LFV LFV LFV LFV	al Jerra Anda Insanzi yet saka In Stackhalm Ani pleted proje es AB
List of Controls Control	CEF-funded #020AF3 #104AF1 #136AF2 #137AF2 115_025_AF5_A 2015 098 AF5	I initiatives awarder Borealis Free Route Airspa Lower Airspace Optimizatio A-CDM Optimization Enhancement of Airport Sa at Stockholm Arlanda Airpo Sub-regional SWIM MET dep to support NEFRA (part A) Implementing redundant W	d to Swedish St ce (Part I) in ifety Nets art ployment /AN	5.6.2 Eakehold LFV Swedav Swedav SMHI LFV	U% 80% (0% 0% (ers (ia (2015_309_AFI_ 2015_309_AFI_ 2015_320_ 2016_027_ 2016_131_ 2016_141_ 2016_150 	GND Implem Rights (AF3 Implem AF5 Europes for Rigi AF4 AOP-NO AF5 Deploy AF2 Enabler:	entation of GBA perations Dept entation of Volf n Deployment t Object Interco P Integration - SWIM governars for Airport S	AF , AF2 , and Family 4.2. S (operation in the and training of flight cre Roadmap perability Extended Implementa ince wrface Movement	European leve Extrapean leve (to be implemented i (w) Nova Airlini LFV LFV LFV LFV LFV Swedavia LFV Swedavia	al Jerra Ande Ins nor yet sta In Stockholm And pleted proje as AB
List of	CEF-funded #020AF3 #104AF1 #136AF2 #137AF2 115_025_AF5_A 2015_098_AF5 2015_099_AF5	I initiatives awarded Borealis Free Route Airspa Lower Airspace Optimization A-COM Optimization Enhancement of Airport Sa at Stockholm Arlanda Airpor Sub-regional SWIM MET de to support NEFRA (part A) Implementing redundant W DK-SE FAB Aeronautical Da	d to Swedish St ce (Part I) in ifety Nets art playment /AN ita Quality (ADQ)	5.6.2 Eakehold LFV Swedav Swedav SMHI LFV	0% 80% (0% 0% (ers (ia (20% Dec 2024 10% - 2015_309_AFI_ 2015_320 2016_027_ 2016_131_ 2016_141_ 2016_150_ 2016 159	GND Impleme Rights C AF3 Impleme AF5 Europea for Fligh AF4 ADP-ND AF5 Deploy AF5 Deploy AF2 Felated AF6 DLS Imp	entation of GBA perations Dept intation of Voll n Deployment t Object Interc P Integration - SWIM governar to Safety Nets to Safety Nets lementation P	If a second seco	Erropean leve Erropean leve (to be implemented i Com LFV LFV LFV LFV LFV LFV LFV LFV	al verne Ande Ins not yet sta In Stackholm Ark pleted proje as AB
List of Controls Contre	CEF-funded #020AF3 #104AF1 #136AF2 #137AF2 115_025_AF5_A 2015_098_AF5 2015_099_AF5 2015_099_AF5	I initiatives awarder Borealis Free Route Airspa Lower Airspace Optimizatio A-CDM Optimization Enhancement of Airport Sa at Stockholm Arlanda Airpo Sub-regional SWIM MET dej to support NEFRA (part A) Implementing redundant W DK-SE FAB Aeronautical Da More efficient Flicht Planni	d to Swedish St ce (Part I) on offety Nets ort ployment /AN ta Quality (ADQ)	5.6.2 5.6.2 LFV LFV Swedav Swedav Swedav Swedav LFV LFV	U% 80% (0% 0% (ers (ia (20% Dec 2024 10% - 2015_309_AFI_ 2015_320_ 2016_027_ 2016_131_ 2016_141_ 2016_150_ 2016_159_ 2016_161_	GND Implem Rights (AF3 Implem AF5 Europea for Righ AF4 ADP-NO AF5 Deploy AF5 Deploy AF5 Deploy AF5 DLS Imp AF6 DLS Imp	Intation of GBA perations Dept Intation of Voll In Deployment It Object Interco P Integration - P Integration - SWIM governar Is for Airport S to Safety Nets lementation Pri-	AF , AF2 , and family 4.2. S (operation in the and training of fight crea- perability Extended Implementa ance wrface Movement roject – Path 2 roject – Path 1	European love Extrapean love (a to be implemented 1 (a) (b) (c) (c) (c) (c) (c) (c) (c) (c) (c) (c	al Jerra Ande Ins not yet sta In Stackholm Ark oletted proje es AB
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List of	CEF-funded #020AF3 #104AF1 #136AF2 #137AF2 115_025_AF5_A 2015_099_AF5 2015_099_AF5 2015_118_AF5 015_174_AF5_A 115_207_AF3_A 115_227_AF3_A	Initiatives awarder Borealis Free Route Airspa Lower Airspace Optimization A-COM Optimization Enhancement of Airport Sa at Stockholm Arlanda Airpor Sub-regional SWIM MET de to support NEFRA (part A) Implementing redundant W DK-SE FAB Aeronautical Da More efficient Flight Planni NewPENS Stakeholders cor procurement and deployme Harmonisation of Tech ATM including support of FRA ar Borealis FRA Implementation	d to Swedish St ce (Part I) in ifety Nets art playment /AN ita Quality (ADQ) ing intribution for the ent of NewPENS of Platform in 5 ANSP ind preparation of PCP an (Part 2)	5.6.2 5.6.2 LFV LFV Swedav Swedav SWHI LFV LFV LFV LFV LFV	0% 80% (0% 0% (ers (ia (ia	 2015_309_AFI_ 2015_309_AFI_ 2015_320_ 2016_027_ 2016_131_ 2016_141_ 2016_150_ 2016_159_ 2016_161_ 2016_166_ 2017_022_ 2017_060 	GND Impleme Rights C AF3 Impleme AF5 Europea for Right AF4 AOP-NO AF5 Deploy AF2 Enabler: related AF6 DLS Imp AF6 DLS Imp Ground AF1 Stockho AF2 Synchri optimizz AF5 ADD Co	entation of GBA perations Dept entation of Voll n Deployment t Object Interco P Integration - P Integration - SWIM governar s for Airport S to Safety Nets lementation P lementation P lementation P istakeholders im Arlanda Air onized stakehol tion at airport mponents in th	AF , AF2 , and family 4.2. S (operation in the and training of flight crea- Roadmap perability Extended Implementa ince urface Movement roject - Path 1 port RNP Project (SAA der decision on proce level e SWIM fnfrastructure	European leve European leve (A to be implemented 1 (Complemented 1 (FV) (FV) (FV) (FV) (FV) (FV) (FV) (FV)	a Joerna Ande In Stackholm Ark In Stackholm Ark Poleted proje es AB
List of	CEF-funded #020AF3 #104AF1 #136AF2 #136AF2 #137AF2 015_098_AF5 2015_099_AF5 2015_099_AF5 2015_118_AF5 015_174_AF5_A 115_227_AF3_A 115_227_AF3_A	Initiatives awarder Borealis Free Route Airspa Lower Airspace Optimization A-CDM Optimization Enhancement of Airport Sa at Stockholm Arlanda Airpo Sub-regional SWIM MET de to support NEFRA (part A) Implementing redundant W DK-SE FAB Aeronautical Da More efficient Right Plannii NewPENS Stakeholders cor procurement and deployme Harmonisation of Tech ATM including support of FRA ar Borealis FRA Implementatio ADD implementation Stockl	d to Swedish St ce (Part I) on art ployment /AN ta Quality (ADQ) ng ntribution for the ent of NewPBNS r[Platform in 5 ANSP nd preparation of PCF an (Part 2) holm Arlanda	5.6.2 5.6.2 Eakehold LFV LFV Swedav Swedav SWHI LFV LFV LFV LFV LFV LFV LFV Swedav	u% 80% (0% 0% (ers (ia (ia	20% Dec 2024 10% - 2015_309_AFI_ 2015_320_ 2016_027_ 2016_131_ 2016_141_ 2016_150_ 2016_159_ 2016_161_ 2016_166_ 2017_022_ 2017_060_ 2017_061	GND Implem Rights (AF3 Implema AF5 Europea Gor Rigi AF4 ADP-ND AF5 Deploy AF5 Deploy AF5 Deploy AF5 DLS Imp AF6 DLS Imp Ground AF6 DLS Imp Ground AF1 Stockhe AF2 Synchring AF5 ADD Co upstrea AF5 Application	entation of GBA perations Dept entation of Volf n Deployment t Dipict Interco P Integration - SWIM governar s for Airport S SWIM governar s for Airport S to Safety Nets lementation Pr lementation Pr le	AF , AF2 , and family 4.2. S (operation in the and training of fight cre Roadmap perability Extended Implementa ince wrface Movement roject - Path 2 roject - Path 1 s port RNP Project (SAA ider decision on proce level e SWIM Infrastructure on in the full data chain ecurity to ANSP	European leve European leve (a to be implemented i (b) Comp (FV) (FV) (FV) (FV) (FV) (FV) (FV) (FV)	n Joer Ande In Stackholm Ark In Stachholm Ark In Stachhol
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List of	CEF-funded #020AF3 #104AF1 #136AF2 #136AF2 15_025_AF5_A 2015_099_AF5 2015_099_AF5 2015_174_AF5_A 15_207_AF3_A 15_227_AF3_A 2015_288_AF5 2015_290_AF2 2015_291_AF2 2015_292_AF2	Initiatives awarder Borealis Free Route Airspa Lower Airspace Optimization A-CDM Optimization Enhancement of Airport Sa at Stockholm Arlanda Airpor Sub-regional SWIM MET de to support NEFRA (part A) Implementing redundant W DK-SE FAB Aeronautical Da More efficient Right Plannin NewPBNS Stakeholders cor procurement and deployme Harmonisation of Tech ATM including support of FRA ar Borealis FRA Implementatio ADD implementation Stockl Initial ADP A-SMGCS Level 2 implement DMAN Stockholm Arlanda A Implementation of OTP	d to Swedish St ce (Part 1) an art ployment (AN ta Quality (ADQ) ng ntribution for the ent of NewPBNS A Platform in 5 ANSP nd preparation of PCP an (Part 2) holm Arlanda	5.6.2 5.6.2 Eakehold LFV Swedav Swedav SWHI LFV LFV LFV LFV LFV Swedav Swedav Swedav Swedav	U% 80% (0% 0% (0% ((ia ia ia ia ia ia ia	20% Dec 2024 10% - 2015_309_AFI_ 2015_320_ 2016_027_ 2016_131_ 2016_141_ 2016_150_ 2016_159_ 2016_166_ 2017_060_ 2017_066_ 2017_064_ 2017_084_ 2017_088_	GND Impleme Rights C AF3 Impleme AF5 Europea Gor Rigi AF4 ADP-ND AF5 Deploy AF5 Deploy AF5 Deploy AF5 DLS Imp Ground AF6 DLS Imp Ground AF6 DLS Imp Ground AF6 DLS Imp Ground AF7 Synchri Optimizz AF5 ADD Co US Impleme AF5 Impleme AF5 Stockho AF5 Stockho AF5 Stockho CODPAN AF5 Stockho CODPAN AF5 Stockho CODPAN AF5 Stockho CODPAN AF5 Stockho CODPAN AF5 Stockho CODPAN AF5 Stockho CODPAN	entation of GBA perations Dept entation of Volf n Deployment t Dipict Interco P Integration - SWIM governars for Airport S SWIM governars to Safety Nets lementation Pr lementation Pr lem	AF , AF2 , and Family 4.2. S (operation in the and training of fight cre and training of fight cre Roadmap perability Extended Implementa ince wrface Movement roject – Path 2 roject – Path 2 roject – Path 1 s port RNP Project (SAA ider decision on proce level e SWIM Infrastructure in in the full data chain ecurity to ANSP LFV sed SWIM (Y) solution general PCP complianc Cyber Security at port policies & procedure: st framework	Erropean love Erropean love (a to be implemented 1 (a) (b) (c) (c) (c) (c) (c) (c) (c) (c) (c) (c	Nova Airlines .



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	ATM Function	ality #1			ATM Function	ality # 2			ATM Function	ality #3	
Family	Gap coverage	Compl. Year	CEF Projects	Family	Gap coverage	Compl. Year	CEF Projects	Family	Gap coverage	Compl. Year	CEF Proje
1.1.1				2.1.1				3.1.1			
1.1.2	65% 35% 0%	•		2.1.2				3.1.2	30% 70% 0%	Dec 2021	
1.2.1	25% 75% 0%	Dec 2020		2.1.3				3.1.3			
1.2.2				2.1.4				3.1.4	45% 10% 45%	Dec 2021	
1.2.3	0% 100% 0%	Dec 2023		2.2.1				3.2.1	60% 0% 40%	Dec 2019	
1.2.4				2.3.1	0% 0% 100%	-		3.2.3			
1.2.5	0% 0% 100%	· · ·		2.4.1	0% 100% 0%	Dec 2023		3.2.4	0% 100% 0%	Dec 2021	
				2.5.1	0% 100% 0%	Dec 2018					
				2.5.2	0% 0% 100%	-					
	ATM Function	ality #4			ATM Function	ality #5			ATM Function	ality #6	
Family	ATM Function Gap coverage	ality #4 Compl. Year	CEF Projects	Family	ATM Function Gap coverage	a lity #5 Compl. Year	CEF Projects	Family	ATM Function Gap coverage	ality #6 Compl. Year	CEF Proje
Family 4.1.1	ATM Function Gap coverage	ality #4 Compl. Year	CEF Projects	Family 5.1.1	ATM Function	ality # 5 Compl. Year	CEF Projects	Family 6.1.1	ATM Function Gap coverage	ality #6 Compl. Year	CEF Proje
Family 4.1.1 4.1.2	ATM Function	ality #4 Compl. Year	CEF Projects	Family 5.1.1 5.1.2	ATM Functions Gap coverage	a lity # 5 Compl. Year Dec 2019	CEF Projects	Family 6.1.1 6.1.2	ATM Function	ality # 6 Compl. Year	CEF Proje
Family 4.1.1 4.1.2 4.2.2	ATM Function Gap coverage Gap C	ality #4 Compl. Year	CEF Projects	Family 5.1.1 5.1.2 5.2.1	ATM Functions	ality # 5 Compl. Year Dec 2019	CEF Projects	Family 6.1.1 6.1.2 6.1.3	ATM Function	ality # 6 Compl. Year	CEF Proje
Family 4.1.1 4.1.2 4.2.2 4.2.3	ATM Function Bap coverage Bap Coverage	ality #4 Compl. Year -	CEF Projects	Family 5.1.1 5.1.2 5.2.1 5.2.2	ATM Function: Gep coverage 10% 90% 0% 0% 100% 0%	ality # 5 Compl. Year Dec 2019	CEF Projects	Family 6.1.1 6.1.2 6.1.3 6.1.4	ATM Function	ality # 6 Compl. Year	CEF Proje
Family 4.1.1 4.1.2 4.2.2 4.2.3 4.2.4	ATM Function Bap coverage Coverage	ality #4 Compl. Year - Dec 2021	CEF Projects	Family 5.1.1 5.1.2 5.2.1 5.2.2 5.2.2 5.2.3	ATM Function: Bep coverage 10% 90% 0% 0% 00% 0% 0% 100% 0%	ality # 5 Compl. Year Dec 2019 -	CEF Projects	Family 6.1.1 6.1.2 6.1.3 6.1.4 6.1.5	ATM Function	ality #6 Compl. Year	CEF Proje
Family 4.1.1 4.2.2 4.2.2 4.2.3 4.2.4 4.3.1	ATM Function Bap coverage Bap coverage Bap covera	ality #4	CEF Projects	Family 5.1.1 5.2.1 5.2.1 5.2.2 5.2.3 5.2.3	ATM Function: Gep coverage 10% 90% 0% 0% 00% 0% 0% 100% 0% 0% 100% 0%	ality # 5 Compl. Year Dec 2019 - -	CEF Projects	Family 6.1.1 6.1.2 6.1.3 6.1.4 6.1.5	ATM Function	ality # 6 Compl. Year	CEF Proje
Family 4.1.1 4.2.2 4.2.3 4.2.4 4.3.1 4.3.2	ATM Function Bap coverage Bap coverage Bap	ality #4	CEF Projects	Family 5.1.1 5.2.1 5.2.1 5.2.2 5.2.3 5.3.1 5.3.1	ATM Function: Gep coverage 10% 90% 0% 0% 00% 0% 0% 100% 0% 0% 100% 0% 0% 20% 80%	ality # 5 Compl. Year Dec 2019 - - - - -	CEF Projects	Family 6.1.1 6.1.2 6.1.3 6.1.4 6.1.5	ATM Function:	ality #6	CEF Proje
Family 4.1.1 4.1.2 4.2.2 4.2.3 4.2.4 4.3.1 4.3.2 4.3.2	ATM Function Bap coverage Bap coverage B	ality # 4	CEF Projects	Family 5.1.1 5.1.2 5.2.1 5.2.2 5.2.3 5.2.3 5.3.1 5.4.1 5.5.1	ATM Function: Bap coverage 10% 90% 0% 0% 00% 0% 0% 100% 0% 0% 100% 0% 0% 20% 80% 0% 100% 0%	ality # 5 Compl. Year Dec 2019 - - - - - -		Family 6.1.1 6.1.2 6.1.3 6.1.4 6.1.5	ATM Function:	ality #6	CEF Proje
Family 4.1.1 4.2.2 4.2.2 4.2.3 4.2.4 4.3.1 4.3.2 4.4.2	ATM Function Bap coverage Bap coverage	ality # 4		Family 5.1.1 5.1.2 5.2.1 5.2.2 5.2.3 5.3.1 5.4.1 5.5.1 5.6.1	ATM Function: Bap coverage 10% 90% 0% 0% 00% 0% 0% 100% 0% 0% 100% 0% 0% 20% 80% 0% 100% 0% 0% 100% 0% 0% 30%	ality # 5 Compl. Year Dec 2019 - - - - - - - - - - - - -		Family 6.1.1 6.1.2 6.1.3 6.1.4 6.1.5	ATM Function:	ality #6	CEF Proje



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	Nu	mber gaps	85	Curre of imple	nt statu mentati	s on e			A	Already in	plemented 26	ln progres 55	s / Plan	ned							Not plar
			law	lan Batuick			_		land	an Harthnow	AIM Functi	onality #	1	Invi	an Stancted				Manah	actas Dissume	
Family	Gar			Compl Year	CEE Der	nierte	F	an envera		Compl V	age OFF Deal	ante	Ran covera		Compl Ver	CFF Deniante	1	an covera	Manch	Consol Vear	CEE Deal
111		p consinuț	3.	Comps. Tool		0,000			<u>40</u>			0%	100%	9.	Dec 2019		0%	40%	60%	Dec 2021	
1.1.2	0%	100%	0%	Dec 2023			85%	15%	0%	Mar 20	19 Yes	0%	100%	0%	Dec 2023	i —	0%	100%	0%	Dec 2021	
1.2.1	50%	0%	50%	Dec 2020			50%	0%	50%	Dec 20	19	50%	50%	0%	Dec 2019		15%	85%	0%	Dec 2023	Yes
.2.2		000/	20%	D 0000		_	C0 9/	FD 0/					0.000/	00/						D 2000	
2.3	U %	80%	20%	Dec 2023	Te	S	30%	30%	<u>U%</u>	Dec 204	ZZ Yes	30%	00%	<u>U%</u>	Dec 2020	Tes	U%		U%	Dec 2023	Yes
1.2.5	0%	0%	100%	· .			0%	0%	100%	-		0%	0%	100%	· .		0%	0%	100%	•	
											ATM Functio	onality #	2								
Franklar			Lond	lon Gatwick					Lond	on Heathrow	i (Lond	on Stansted				Manch	ester Ringway	
	Gap	p coveraç	ge	Compl. Year	CEF Pro	ojects	6	ap covera	ge	Compl. Y	ear CEF Proj	ects	Gap covera	ge	Compl. Year	CEF Projects		lap covera	le	Compl. Year	CEF Pro
2.1.1					<u> </u>							0%	100%	0%	Dec 2020		0%	100%	0%	Dec 2021	Yes
212					-	_	4							П%	Dec 2020	Vac			0%	Dec 2021	Ver
2.1.4	0%	100%	0%	Dec 2020	Ye	s	1					0%	100%	0%	Dec 2020	Yes	0%	100%	0%	Dec 2021	Yes
2.2.1	-			1			90%	10%	0%	Dec 20	18 Yes				-	í –	0%	100%	0%	Dec 2020	Yes
2.3.1	0%	100%	0%	Dec 2023	Ye	s				-							0%	0%	100%	· ·	
	П%	100%	0%	Dec 2023	Ye	s	0%	100%	0%	Dec 20	21	0%	100%	0%	Dec 2023		0%	100%	0%	Dec 2023	Yes
2.4.1	0/0	1000/	00/	D 2020	V-		00/	1000/	00/	D 20	71 V	00/	1000/	n 0/	D 2020	1	nu	1000/	n 0/	0 2020	V
2.4.1 2.5.1 2.5.2	0%	100% 0%	0% 100%	Dec 2020 -	Ye	s	0% 45%	100% 55%	0% 0%	Dec 20 Nov 20	21 Yes 18	0%	100%	0%	Dec 2020		0%	100%	0% 0%	Dec 2020 Dec 2020	Yes Yes
2.4.1 2.5.1 2.5.2	0% 0%	100% 0%	0% 100%	Dec 2020 -	Ye	s	0% 45%	100% 55%	0% 0%	Dec 20 Nov 20	21 Yes 18 Cionality 4	# 4 (Airoo) 100%) (0%	Dec 2020		0%	100% 100%	0%	Dec 2020 Dec 2020	Yes Yes
2.4.1 2.5.1 2.5.2	0%	100% 0%	0% 100% Lond	Dec 2020 - don Gatwick	Ye	S	0% 45%	100% 55%	0% 0%	Dec 20 Nov 20 ATM Fun on Heathrow	21 Yes 18 Ctionality #	# 4 (Airpo) 100%) rt Gap	0% 5)	Dec 2020		0%) 100%) 100%	0% 0% Manch	Dec 2020 Dec 2020 ester Ringway	Yes Yes
2.4.1 2.5.1 2.5.2 Family	0% 0% 0% 6ap	00% 0%	0% 100% Lond	Dec 2020 - don Gatwick Compl. Year	CEF Pro	ojects	0% 45%	100% 55% ap covera	0% 0% Londi	Dec 20 Nov 20 ATM Fun on Heathrow Compl. Y	21 Yes 18 ctionality a ear CEF Proj	# 4 (Airpo	nt Gap	92 D%	Dec 2020	CEF Projects) 100%) 100%)	0% 0% Manch	Dec 2020 Dec 2020 ester Ringway Compl. Year	Yes Yes CEF Proj
2.4.1 2.5.1 2.5.2 Family 4.2.4	0% 0% 6ap	100% 0%	0% 100% Lanc ge 100%	Dec 2020 - dan Batwick Campl, Year -	Ye	s	0% 45% 6 0%	100% 55% ap covera 100%	0% 0% Lond ge	Dec 20 Nov 20 ATM Fun on Heathrow Compl. Y Dec 20	21 Yes 18 ctionality a ear CEF Proj 19 Yes	# 4 (Airpo ects 0%	100% rt Gap Gap covera 100%	20% 20% 20%	Dec 2020	CEF Projects Yes) 100%) 100% jap coverag	0% 0% Manch le 0%	Dec 2020 Dec 2020 ester Ringway Campl, Year Dec 2021	Yes Yes CEF Proj
2.4.1 2.5.1 2.5.2 Family 4.2.4	0% 0% 6.4	100% 0%	0% 100% Lonc ge 100%	Dec 2020 - Jon Gatwick Compl. Year -	CEF Pro	s ojects	0% 45% 6 0%	100% 55% ap covera 100% unctio	0% 0% Lond ge 0% nality	Dec 20 Nov 20 ATM Fun on Heathrow Compl. Y Dec 20 # 3	21 Yes Ctionality # eer CEF Proj 19 Yes	# 4 (Airpo # 4 (Airpo ects 0%	100% rt Gap Gap covera 100% M Func	s) Lond ge 10%	Dec 2020 Jon Stansted Compl. Year Dec 2021 ty # 4 (Co	CEF Projects Yes untry Gaps		100% 100%	0% 0% Manch e 0%	Dec 2020 Dec 2020 ester Ringway Compl. Year Dec 2021	Ves Yes CEF Pro
2.4.1 2.5.1 2.5.2 Family 4.2.4	0% 0% 69	100% 0%	0% 100% Lonc ge	Jec 2020 - Jan Datwick Campl. Year -	CEF Pro	s	0% 45% 6 0% ATM Fe	100% 55% ap covera 100% Jnctio	Comp	Dec 20 Nov 20 ATM Fun on Heathrow Compl. Y. Dec 20 # 3 sl. Year	21 Yes 18 Ctionality a ear CEF Proj 19 Yes CEF Projects	# 4 (Airpo # 4 (Airpo ects 0% AT Family	100% rt Gap Gap covera 100% M Func 6	s) Lond ge tionali ap coverage	Dec 2020	CEF Projects Yes untry Gaps pl. Year CEF) 0% 0%) 0%) 0%) 0%) 0%	100% 100% jap coveras 100%	0% 0% Manch I ^e	Dec 2020 Dec 2020 ester Ringway Campi, Year Dec 2021	CEF Proj
2.4.1 2.5.1 2.5.2 Family	0% 0% 6ap	100% 0%	0% 100% Lond ge 100%	Jon Gatwick Compl. Year	CEF Pro	s ojects	0% 45% 6 0% ATM Ft 3ap cover: 30%	100% 55% ap covera 100% Unction age 0%	Comp	Dec 20 Nov 20 ATM Fun on Heathrow Compl. Y Dec 20 # 3 sl. Year	21 Yes 18 Ctionality a ear CEF Proj 19 Yes CEF Projects	# 4 (Airpo # 4 (Airpo ects 0% AT Family 4.1.1	100%	s) Lond ge tionali ap coverage	an Stansted Cempl, Year Dec 2021 ty # 4 (Co	CEF Projects Yes untry Gaps pl. Year CEF) 0% 0% 0% 0%	100% 100%	O% D% Manch (*	Dec 2020 Dec 2020 ester Ringway Compl. Year Dec 2021	CEF Pro
2.4.1 2.5.1 2.5.2 Family	0% 0% 0%	100% 0%	0% 100% Lanc ge	Dec 2020 - fan Gatwick Campi. Year -	Te Pro	s ojects 70%	0% 45% 6 0% 30% 30% 100%	100% 55% 55% 100% 100% 100% 100%	Comp D% Cond D% D% D% Comp Comp	Dec 20 Nov 20 ATM Fun an Heathrow Compl. Yr Dec 20 # 3 sl. Year - 2020	21 Yes 13 Ctionality # ser DEF Projects DEF Projects	# 4 (Airpo # 4 (Airpo ects 0% AT Family 4.1.1 4.1.2 4.2.2	100% rt Gap 6ap covera 100% M Func 0% 0%	S) Lond ge tionali ap coverage (100%)	an Stansted Compl. Year Dec 2021 ty #4 (Completed Completed Comple	CEF Projects Yes untry Caps pl. Yeer DEF c 2021) 0% 0%) 0%	100% 100%	O% O% Manch e	Dec 2020 Dec 2020 ester Ringway Compl. Year Dec 2021	CEF Proj
2.4.1 2.5.1 2.5.2 Family	870 0% 0% 6ap	IDD% D%	0%) 100%) Lonc ge 100%)	Dec 2020 - fan Gatwick Compl. Year -	CEF Pro	s ojects 70% 0%	0% 45% 6 0% 30% 30% 100% 55%	100% 55% 39 covera 100% 100% 398 0% 0%	Comp Comp Comp Comp Comp Comp Comp Comp	Dec 20 Nov 20 ATM Fun an Heathrow Compl. Y Dec 20 # 3 N. Year 2020 2020	21 Yes 18 Ctionality s ctionality s 19 Yes DEF Projects DEF Projects	# 4 (Airpo # 4 (Airpo ects 0% Family 4.1.1 4.1.2 4.2.2 4.2.3	100% rt Gap Gap covera 100% 100% M Func 0% 0% 0% 0% 0%	s) lond ge tionali ap covarage (100%) (25%)	Dec 2020 on Stansted Compl. Year Dec 2021 ty # 4 (Cc 0% Dec 2020	CEF Projects Yes untry Gaps yl, Yer c 2021 c 2021 c 2021) 0% 0%	100%) 100% 3ap coveras 100%	0% 0% Manch (¢	Dec 2020 Dec 2020 ester Regway Dempl. Year Dec 2021	CEF Pro
2.4.] 2.5.1 2.5.2 Family 4.2.4	870 0% 0% 8sp	IDD% D%	0% 100% Lonc 9 100%	Dec 2020 	CEF Pro	s ojects 70% 0% 45% 60%	0% 45% 6 0% 3ap cover 3ap cover 3ap 55% 0%	ap coveraa age 00% 00% 00% 00% 00%	0% 0% Lond 9 0% nality Comp Dec Dec	Dec 20 Nov 20 ATM Fun on Heathrow Compl. Y Dec 20 # 3 sl. Year 2020 2021 3	21 Yes	# 4 (Airpo # 4 (Airpo eets 0% Family 4.1.1 4.1.2 4.2.2 4.2.3 4.3.1	100% rt Gap Gap cavera 100% M Func 0% 0% 0% 0%	0% S) Lond ge tionali ap coverage (100%) (25%) (100%)	Dec 2020 an Starsted Compl. Year Dec 2021 ty #4 (Congle 0% 0% 0% 0% 0% 0% 0% 0%	CEF Projects Yes untry Gaps yL Year CEF c 2021 c 2021 c 2021) 0% 0% 0% 0%	100%) 100%) iap coverag	0% 0% Manch	Dec 2020 Dec 2020 ester Regway Compl. Yéar Dec 2021	CEF Proj
2.4.1 2.5.1 2.5.2 Family 4.2.4	0% 0% 6ap	100% 0%	0% 100% Lance 100%	Dec 2020 	Temporal CEF Procession of the second	s ojetts 70% 0% 45% 60%	0% 45% 6 0% 30% 100% 55% 0%	100% 55% ap covera 100% age 00% 0%	0% 0% Land 0% 0% 0% Camp Camp Dec Dec	Dec 20 Nov 20 ATM Fun on Heathrow Compl. Y. Dec 20 # 3 N. Year - 2020 2021 2021 2021 2021 2020	21 Yes	# 4 (Airpo # 4 (Airpo eets 0% AT Family 4.1.1 4.1.2 4.2.2 4.2.3 4.3.1 4.3.2	100% rt Gap Bap cavera 100% 100% 0 0 0 0	0% S) London	Dec 2020 an Stansted Compl. Year Dec 2021 ty # 4 (Cru 0% Dec 0% Dec 0% 0% 0% 0% 0%	CEF Projects Yes untry Gaps yL Year c 2021 c 2021 c 2021 c 2021) 0% 0%	100%) 100%)	0% 0% Kanch	Dec 2020 Dec 2020 ester Regway Compl. Year Dec 2021	CEF Pro
2.4.1 2.5.1 2.5.2 Family	876 0% 6sp	IDD% D%	0% 100% Lanc 100%	Dec 2020 - San Batwick Compl. Year -	Ye CEF Pro 31.1 3.1.2 3.1.3 3.1.4 3.2.1 3.2.3 3.2.4	s s jojects 70% 0% 45% 60% 65%	0% 45% 6 0% 30% 100% 55% 0% 35%	100% 55% sp covera 100% 100% 0% 0% 0% 0% 0%	0% 0% <td>Dec 20 Nov 20 ATM Fun on Heathrow Compl. Yi Dec 20 # 3 st. Year - 2020 2021 2021 2020 4</td> <td>21 Yes 18 ctionality a ctionality a ear DEF Projects 19 Yes CEF Projects Yes</td> <td># 4 (Airpo # 4 (Airpo etts 0% AT Family 4.1.1 4.1.2 4.2.2 4.2.3 4.3.1 4.3.2 4.4.2</td> <td>rt Gap Gop caver 6 100% 0 0 0 0 0 0 0 0 0 0 0 0 0</td> <td>0% S) Lond Und Und Coverage Co</td> <td>In Starsted Compl. Year Dec 2021 ty # 4 (Co 0% De 0% De 0% De 0% De</td> <td>CEF Projects Yes untry Gaps vl. Year DEF c 2021 c 2021 c 2021 c 2021</td> <td>0% 0% 0%</td> <td>100% 100%</td> <td>0% 0% Manch</td> <td>Dec 2020 Dec 2020 ester Ringway Campi, Year Dec 2021</td> <td>Ves Ves</td>	Dec 20 Nov 20 ATM Fun on Heathrow Compl. Yi Dec 20 # 3 st. Year - 2020 2021 2021 2020 4	21 Yes 18 ctionality a ctionality a ear DEF Projects 19 Yes CEF Projects Yes	# 4 (Airpo # 4 (Airpo etts 0% AT Family 4.1.1 4.1.2 4.2.2 4.2.3 4.3.1 4.3.2 4.4.2	rt Gap Gop caver 6 100% 0 0 0 0 0 0 0 0 0 0 0 0 0	0% S) Lond Und Und Coverage Co	In Starsted Compl. Year Dec 2021 ty # 4 (Co 0% De 0% De 0% De 0% De	CEF Projects Yes untry Gaps vl. Year DEF c 2021 c 2021 c 2021 c 2021	0% 0% 0%	100% 100%	0% 0% Manch	Dec 2020 Dec 2020 ester Ringway Campi, Year Dec 2021	Ves Ves
2.4.1 2.5.1 2.5.2 Family	637 0% 638 0%	IDD% D%	0% 100% Lance 99 100%	Dec 2020 - fan Batwick Compl. Year -	Ye CEF Pre 31.1 31.2 31.3 31.4 32.1 3.2.3 3.2.4	s ojects 70% 60% 65%	0% 45% 8 0% 30% 30% 100% 55% 0% 35%	100% 55% sp coveral 100% unction 0%	0% 0% 1.and 98 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0%	Dec 20 Nov 20 ATM Fun on Heathrow Compl. Y Dec 20 # 3 N. Year 2020 2020 # 5 4 Year	21 Yes 18 ctionality s ctionality s ctionality s ear DEF Projects DEF Projects Yes Yes PEE Broacts	# 4 (Airpo # 4 (Airpo etts) # 0% AT Family 4.1.1 4.1.2 4.2.2 4.2.3 4.3.1 4.3.2 4.4.2	It00% It00% Gop cver30 It00% It	S) Land 92 10% tionali 100% 100% 100% 100%	In Starcted Compl. Year Dec 2021 ty # 4 (Co Compl. Year Dec 2021 ty # 4 (Co Co Co Co Co Co Co Co Co Co Co Co Co C	CEF Projects Yes untry Gaps vpl. Year CEF c 2021 c	Druiete	0 100% 100%	0% 0% Kanch	Dec 2020 Dec 2020 ester Regway Compl. Year Dec 2021	Ves Yes
2.4.1 2.5.1 2.5.2 Family 4.2.4	0% 0% 0%	D%	0% 100% Lance 98 100%	Dec 2020 - fan Gatwick Compl. Year - F	Ye CEF Pro- 3.1.1 3.1.2 3.1.3 3.1.3 3.1.4 3.2.1 3.2.3 3.2.4 3.2.4 3.2.4 3.2.4 3.2.3 3.2.4 3.2.4 3.2.1 3.2.3 3.2.4 3.2.1 3.2.3 3.2.4 3.2.1 3.2.3 3.2.4 3.2.1 3.2.3 3.2.4 3.2.1 3.2.3 3.2.4 3.2.1 3.2.3 3.2.4 3.2.1 3.2.3 3.2.4 3.2.1 3.2.3 3.2.4 3.2.1 3.2.3 3.2.4 3.2.1 3.2.3 3.2.4 3.2.1 3.2.3 3.2.4 3.2.1 3.2.3 3.2.4 3.2.1 3.2.3 3.2.4 3.2.1 3.2.4 3.2.1 3.2.3 3.2.4 3.2.3 3.2.4 3.2.3 3.2.4 3.2.3 3.2.4 3.2.3 3.2.4 3.2.1 3.2.3 3.2.4 3.2.1 3.2.3 3.2.4 3.2.1 3.2.3 3.2.4 3.2.1 3.2.3 3.2.4 3.2.1 3.2.3 3.2.4 3.2.1 3.2.3 3.2.4 3.2.1 3.2.3 3.2.4 3.2.1 3.2.1 3.2.3 3.2.4 3.2.1 3.2.1 3.2.3 3.2.4 3.2.1 3.2.1 3.2.1 3.2.3 3.2.4 3.2.1 3.	s j j j j j j j j j j j j j	0% 45% 6 0% 30% 30% 100% 55% 0% 35% 35%	100% 55% ap covera 100% 100% 100% 100% 100% 100% 100% 100% 100% 0%	0% 0% 1 and 9 9 0% 1 D% 1 D% 1 D% 1 D% 1 D% 1 D% 1 D% 1 D	Dec 20 Nov 20 Nov 20 AIM Fun On Hathraw Compl. Y. Dec 20 # 3 M. Year 2020 2021 2022 2020 # 5 M. Year	21 Yes 18 Ctionality = 1 Ctionality = 1 CtF Projects Yes Ves DtF Projects DtF Projects	# 4 (Airpo # 4 (Airpo etts)	IDD% rt Gap Gap cover IDD% IDD% <td>Coverage Coverage</td> <td>In Stanctod Compl. Year Dec 2021 ty # 4 (Con Complete Con Con Con Con Con Con Con Con Con Con</td> <td>CEF Projects Yes untry Gaps yl, Year c 2021 c 2021</td> <td>D% D% D</td> <td>100% 100%</td> <td>0% 0% Manch</td> <td>Dec 2020 Dec 2020 ester Regway Compl. Year Dec 2021</td> <td>Ves Ves</td>	Coverage Coverage	In Stanctod Compl. Year Dec 2021 ty # 4 (Con Complete Con Con Con Con Con Con Con Con Con Con	CEF Projects Yes untry Gaps yl, Year c 2021 c 2021	D% D	100% 100%	0% 0% Manch	Dec 2020 Dec 2020 ester Regway Compl. Year Dec 2021	Ves Ves
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2.4.1 2.5.1 2.5.2 Family 4.2.4	0% 0% 0%	D coveraç	0% 100% Lonco 100%	Dec 2020	Ye CF Pro 3.1.1 3.1.2 3.1.3 3.1.4 3.2.3 3.2.4 amily 5.1.1 5.1.2 5.2.3	s ojects j (70% 0% 60% 60% 60% 65% 65%	0% 45% 6 0% 30% 30% 100% 30% 100% 35% 0% 0% 35% 0% 0% 35% 0%	100% / 100\% / 10	0% 0% 0% sec 0% <td>Dec 20 Nov 20 ATM Fun on Heathrow Compl. Y. Dec 20 # 3 d. Year 2020 2021 2020 2020 2020 2020 2020 2020 2020 2020 2020 2020</td> <td>21 Yes 18 Ctionality : Ctionality : CDF Projects Yes CDF Projects Yes CDF Projects Yes</td> <td># 4 (Airpo # 4 (Airpo etts) etts) # 6.1.1 6.1.2 6.1.3</td> <td>100% rt Gap 69 cvvr3 100% 0% 0% 0% 0% 0% 0% 0%</td> <td>0% s) lend 0% 100% 100% 100% 100% 100% 100% 100% 100% 0%</td> <td>Dec 2020 an Stansted Compl. Year Dec 2021 ty # 4 (Cr 0%</td> <td>CEF Projects Yes untry Gaps yi, Year c 2021 c 2021</td> <td>0% 0% 0% <</td> <td>0 100% 100%</td> <td>0% 0% Is 0%</td> <td>Dec 2020 Dec 2020 ester Regway Campl. Year Dec 2021</td> <td>Ves</td>	Dec 20 Nov 20 ATM Fun on Heathrow Compl. Y. Dec 20 # 3 d. Year 2020 2021 2020 2020 2020 2020 2020 2020 2020 2020 2020 2020	21 Yes 18 Ctionality : Ctionality : CDF Projects Yes CDF Projects Yes CDF Projects Yes	# 4 (Airpo # 4 (Airpo etts) etts) # 6.1.1 6.1.2 6.1.3	100% rt Gap 69 cvvr3 100% 0% 0% 0% 0% 0% 0% 0%	0% s) lend 0% 100% 100% 100% 100% 100% 100% 100% 100% 0%	Dec 2020 an Stansted Compl. Year Dec 2021 ty # 4 (Cr 0%	CEF Projects Yes untry Gaps yi, Year c 2021 c 2021	0% 0% 0% <	0 100% 100%	0% 0% Is 0%	Dec 2020 Dec 2020 ester Regway Campl. Year Dec 2021	Ves
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			United K	ingdom				
	Number	Current status	Already implemented	In progr	ess / Planned		Not planned	
	of gaps	of implementation	26	55			4	
List of	CEF-funded	initiatives awarded to British Sta	keholders				✓ Completed proje	
	#020AF3	Borealis Free Route Airspace (Part 1)	NATS		2015_227_AF3_A	Borealis FRA Implementation (Part 2)	NATS	
	#091AF1	Enhanced Terminal Airspace (TMA) using RNP- Based Operations	London Gatwick		2015_269_AF3	Mil MTCD Advanced Controller Tools (FOURSIGHT)	uk mod	
	#092AF2	Enhanced Departure Management integrating airfield surface assets	London Gatwick	\bigcirc	2015_286_AF2	Introduction of Bectronic Right Strips	NATS	
	#094AF2	Time-based separation for Final Approach	London Gatwick		2015_298_AF2	A-SMGCS upgrade to provide airport safety nets and routing & planning functions	London Gatwick	
	#097AF2	Time Based Separation	London Heathrow, British Airways, NATS		2015_299_AF2	Integrated Ground Management (GMAN)	London Gatwick	
	#099AF2	Initial Airport Operational Plan (AOP)	London Heathrow		2016_027_AF5	European Deployment Roadmap for Right Object Interoperability	NATS	
	#100AF2	Airport Safety Nets associated with A-SMGCS Level 2 – Preparation for SMAN	London Heathrow		2016_041_AF2	Basic A-CDM implementation at London Stansted Airport	London Stansted	
	#117AF5	Implementation of Initial SWIM Capability (AF5) across NATS	NATS		2016_042_AFI	Enhanced Terminal Airspace using RNP Based Operations at STN	London Stansted	
	#119AFI	Manchester TMA Re-Development	NATS		2016_141_AF5	Deploy SWIM governance	NATS	
	#120AFla	London Airspace Management Programme (LAMP) (Part A)	NATS, London Heathrow		2016_150_AF2	Enablers for Airport Surface Movement related to Safety Nets	London Stansted, Manchester Ringway	
	#120AFIb	London Airspace Management Programme (LAMP) (Part 8)	British Airways		2016_159_AF6	DLS Implementation Project - Path 2	Arine, NATS	
	2015_016_AF2	ASMGCS Level 1 & 2	London Heathrow		2016_161_AF6	DLS Implementation Project – Path 1 "Ground" stakeholders	Arine	
	2015_060_AF2	Airport Operating Plan ADP	London Heathrow		2017_022_AF2	Synchronized stakeholder decision on process optimization at airport level	London Stansted, Manchester Ringway	
	2015_067_AF5	European Weather Radar Composite of Convection Information Service	UK Met Office		2017_023_AFI	Enhanced Terminal Airspace using RNP Based Operations at Manchester Ringway Airport	Manchester Ringway	
	2015_068_AF5	European Harmonised Forecasts of Adverse W (Icing, Turbulence, Convection and Winter weather)	eather UK Met Office		2017_024_AFI	RNP approaches to landing runways (23R, OSL and OSR) at Manchester Ringway Airport	Manchester Ringway	
	2015_069_AF5	European MET Information Exchange (MET-GATE)	UK Met Office		2017_025_AF5	Stakeholders' SWIM PKI and cyber security	Manchester Ringway	
	2015_113_AF4	ADP-NOP Integration	London Heathrow		2017_052_AF4	AOP-NOP Integration - Extended Implementation	London Stansted, Manchester Ringway	
	2015_137_AF5	European Meteorological Aircraft Derived Data Center (EMADDC)	UK Met Office		2017_084_AF5	SWIM Common PKI and policies & procedures for establishing a Trust framework	Manchester Ringway, NATS	
2	2015_174_AF5_A	NewPENS Stakeholders contribution for the procurement and deployment of NewPENS	NATS		2017_089_AF6	IPI - DLS European Target Solution assessment	Arinc, Inmarsat, NATS	



List of Acronyms

Acronym	Meaning				
A-CDM	Airport – Collaborative Decision Making				
AF	ATM Functionality				
AFUA	Advanced Flexible Use of Airspace				
AMAN	Arrival Manager				
ANSP	Air Navigation Service Provider				
ASM	AirSpace Management				
A-SMGCS	Advanced Surface Movement Guidance and Control Systems				
ATFCM	Air Traffic Flow and Capacity Management				
ATM	Air Traffic Management				
ATN	Aeronautical Telecommunication Network				
ATSP	Air Traffic Service Provider				
AU	Airspace Users				
CEF	Connecting Europe Facility				
DCT	Direct Routings				
DLS	Data Link Services				
DMAN	Departure Management				
DP	Deployment Programme				
ECAC	European Civil Aviation Conference				
EDA	European Defence Agency				
EFS	Electronic Flight Strips				
EPP	Extended Project Profile				
ERNIP	European Route Network Improvement Plan				
EU	European Union				
FPA	Framework Partnership Agreement				
FRA	Free Route Airspace				
iAOP	Initial Airport Operations Plan				
NM	Network Manager				
NOP	Network Operations Plan				
PBN	Performance Based Navigation				
РСР	Pilot Common Project				
PENS	Pan European Network Service				
PKI	Public Key Infrastructure				
RNP	Required Navigation Performance				
SESAR	Single European Sky ATM Research				
SJU	SESAR Joint Undertaking				
STAM	Short Term ATFCM Measures				
SWIM	System Wide Information Management				
TBS	Time Based Separation				
ТМА	Terminal Manoeuvring Area				



Notes

