sesar DEPLOYMENT MANAGER

NETWORK MANAGER

European FF-ICE/R1 Implementation roadmap

(Edition 3, 2026)

Version 1.0

Authoring and approval – Control Page

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1. Introduction

1.1. Scope & content of the document

This document consists of the FF-ICE/R1 Implementation Roadmap, third edition, as referred in the Work-Package 3 of the PMP (NM/SDM-FF-ICE/R1-PMP-v1.0) of the NM-SDM Initiative. The first version of the roadmap was published in spring 2024 and the second one in spring 2025.

It provides the best-as-possible consolidated view of the current status and planning of the implementation of FF- ICE/R1 across the CP1 mandated Stakeholders based upon the information collected through:

- the Monitoring Exercise 2025, for which a specific process was put in place where SDM collected FF-ICE implementation planning and status information from ANSPs' (see section 4) and feeding the EUROCONTROL Local Single Sky ImPlementation (LSSIP+) tool on that based on the answers received.. As in previous years, ad-hoc templates were used to collect relevant information for Airspace Users;
- bilateral meetings with Stakeholders where possible and necessary;
- direct input by NM (as part of the NM / SDM FF-ICE Support Initiative);
- analysis of flight plans related "events" (e.g. creation, update, delay, notification of arrival, notification of departure) recorded by NM considering use of FF-ICE B2B services (eFPL related) and ICAO FPL2012 AFTN messages.

It also provides a consolidated analysis of the planning situation, highlighting in particular the main issues hinting towards the implementation, the assessed risks and actions envisaged to address those issues and risks.

Further to this consolidated view and analysis, the Annex of the document provides further details regarding the information reported by each ANSP in the framework of the SDP Monitoring Exercise 2025.

1.2. Intended audience and review

The FF-ICE/R1 implementation roadmap serves as a document to communicate the progress of the overall implementation of FF-ICE / R1 on a yearly basis to all impacted Stakeholders for information and steering of the NM/SDM FF-ICE initiative.

The current document is the third version of the FF-ICE/R1 Implementation Roadmap. It is provided for consultation to the SDM Stakeholders through the Stakeholders Consultation Process which also includes an NDOP / NDTECH consultation in accordance with the following planning.

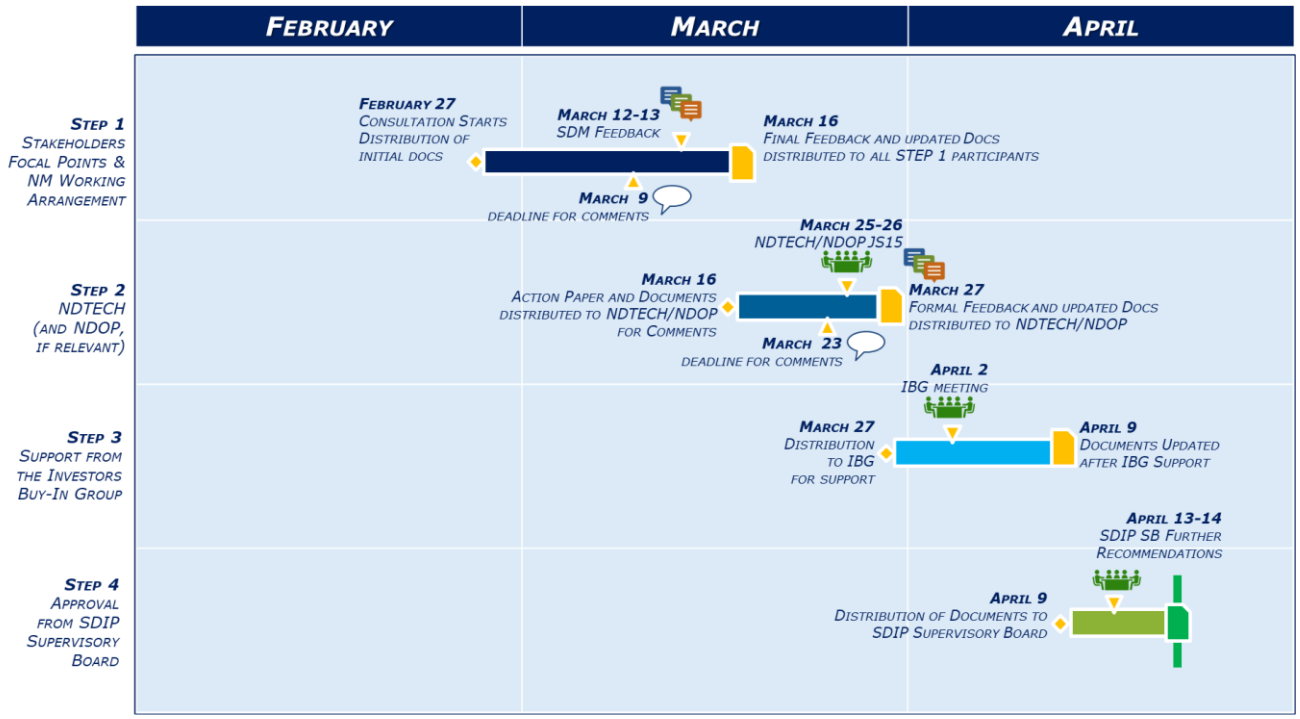


Figure 1 - SDM Stakeholders Consultation Process for FF-ICE Implementation Process

2. CP1 FF-ICE / R1 requirements

This section provides an overview of the CP1 FF-ICE/R1 requirements documents that serve as the baseline for the Stakeholders to develop their own implementation requirements and related implementation plans as reported in this document.

All referred documents are available on the Website of the SESAR Deployment Manager.

2.1. CP1 and the SESAR Deployment Programme

Regulation (EU) 2021/116 (also referred as CP1) lays down a set of six ATM functionalities (AFs) to be implemented across the European ATM Network up to 2027. CP1 AFs are also divided into 20 sub-ATM functionalities (sub-AFs), which are integral parts of AFs and contribute to their respective scope.

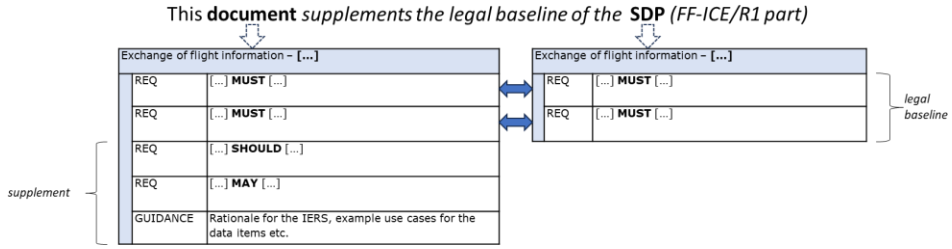
CP1, through Sub AF 5.6 (Flight Information Exchange), as part of the AF5 Family SWIM, mandates that the FF-ICE/R1 Filing, Trial, Data Publication, Flight Data Request and Notification Services are provided by the Network Manager (NM) and consumed by Airspace Users (or their designated representatives) - for the Filing Service. Also the Air Navigation Service Providers' (ANSPs) Systems are mandated to consume the Data Publication-, Flight Data Request-, Notification-, Filing Services depending on the System concerned- by December 31, 2025.

The SESAR Deployment Programme provides a common workplan to all operational stakeholders involved in the deployment of Regulation (EU) n. 2021/116, so called Common Project One (CP1), clearly defining the scope of the implementation activities (in terms of technical and operational requirements), the synchronisation needs, as well as the suggested deployment approach (through defining implementation milestones per each different category of implementing Stakeholders) per each Sub AF.

2.2. Information Exchange requirements

SDM, in collaboration with NM, has developed requirements complementing the current system requirements from the SDP. They provide details and clarity about the FF-ICE/R1 Information Exchange Requirements (IERs) to be satisfied by mandated stakeholders. The IERs outlined herein serve as a cornerstone for harmonizing operations, fostering collaboration, and ensuring compliance with the regulatory imperatives set forth in CP1.

The Information Exchange Requirements complement the legal baseline of the SESAR deployment program (SDP) 2025, specifically addressing the details of implementing CP1 FF-ICE/R1 information exchanges. The FF-ICE/R1 IERs define for each service the information data that are mandatory ("must"), the information data that are recommended to maximise the benefits of the FF-ICE/R1 implementation in Europe from the SDP ("should") or that are optional / nice to have ("may").



An updated version of the IERs document will be sent for consultation in April (and later published) considering the results of the current working-group on aircraft performance data (see next section).

2.3. Situation regarding "Flight Performance Data"

Section 5.1.6 ATM sub-functionality on flight information exchange (Yellow profile) of the Annex of the Commission Implementing Regulation (EU) 2021/116 (CP1) specifies at a high level the flight plan information exchanges to be enabled by FF-ICE services, letting for the Deployment Programme to specify this further:

"Operational stakeholders must implement services that support the exchange of flight information using the SWIM yellow profile, **as specified in the deployment programme**: (a) related to FF-ICE Release 1 Services:

— flight plan and routes generation and validation

— flight plans, 4D trajectory, **flight performance data**, flight status;

— flights lists and detailed flight data;"

….."

The SESAR Deployment Programme refines, through FF-ICE requirement FFICE-011, which are those flight performance data, i.e. the aircraft take-off mass, the performance climb and descent profile and the climb and descent speed schedule, that shall be provided in the submitted eFPL.

The SESAR Deployment Programme and the initial version of the FF-ICE/R1 IERs (published in 2024) are referring to ICAO Doc 9965 Edition 2 Volume II (i.e. the ICAO Manual on FF-ICE Implementation Guidance draft 0.993) with regards to the specifications of these aircraft performance data.

These documents (SESAR Deployment Programme 2024 and FF-ICE/R1 IERs were duly consulted with concerned Stakeholders through a formal SDM Consultation Process.

During Q1 2025, as it was stressed by NM&SDM that initial testing were not showing much evidence of the provision of performance data by CFSPs/AUs (mainly for the performance climb and descent profile and the climb and descent speed schedule), a discussion started regarding the provision of such data. It concerned the nature of the ICAO Manual FF-ICE Guidance -being a draft-, the legal possibility for CFSPs/AUs to provide such data and the exact specifications of these data.

The main conclusion of this discussion was that the specifications of these flight performance data in the ICAO Manual on FF-ICE Implementation Guidance were too generic / high level and not sufficiently detailed to ensure the provision of homogeneous performance data by CFSPs/AUs and of their beneficial use by NM / ANSPs Systems.

Therefore, a working group was created consisting of CFSPs, AU, NM and ANSPs representatives under the chairmanship of the SDM to develop and agree on refined specifications of the performance data (to be described in a new version of the FF-ICE/R1 IERs document) as well as use cases for the ground systems (NM & ANSPs).

In particular, the new FF-ICE/R1 IERs document will be consulted through an SDM Stakeholders Consultation that will start on 15 April 2026.

Considering the situation described above, **it is acknowledged that the (CFSPs/AUs) implementation of FF-ICE flight plans cannot anticipate and respect specifications yet in development and the provision of aircraft performance data by (CFSPs/)AUs has not been monitored for the current FF-ICE roadmap.**

As an initial step it is expected that CFSPs/AUs provide valid aircraft take-off mass data in their current implementation and are capable of upgrading their implementation accordingly throughout 2026.

Coherently, **NM and ANSPs may from now consider the operational use of aircraft take-off mass while the operational usage of additional performance data could happen later. This will only be possible after the provision of sufficient and consistent performance data and the evaluation of their quality can be performed**.

2.4. FF-ICE/R1 Ground Use cases

CP1 mandates a harmonised implementation of FF-ICE/R1, moving to a new exchange mechanism (SWIM Yellow Profile) and the usage of the new information contained in the eFPL in the ground systems.. The NM / SDM FF-ICE initiative has developed, in cooperation with impacted operational Stakeholders, a use case document. The use case document is being reviewed and a new version will be published at the time of the consultation of SDP Supporting Material 2026.

The objectives of the FF-ICE/R1 use case document are to:

- Provide a set of flight planning use cases that enable the production and distribution of FF-ICE flight plans (eFPLs) by using the Network Manager B2B (NM B2B) FF-ICE/R1 services as mandated by CP1 and the SESAR Deployment Programme.
- Provide a set of use cases to enable the use and consumption of FF-ICE/R1 information data by the Network Manager and ANSPs as mandated by CP1 and the SESAR Deployment Programme. The use cases described in the document are not mandatory but guidance material to support the elaboration of own use cases. It is however mandated that the ANSPs make use of the new data in their ground systems especially their Flight data processing systems.

The use cases described are not exhaustive but encompass some common views on the essential implementation of FF-ICE/R1. Additional use cases may be required and developed directly by Operational Stakeholders to address other operational usages of eFPL information in their ground systems and related operational processes.

3. Reported Implementation roadmap: Analysis per category of Stakeholders / per category of Systems

3.1. States' AIC and AIP

Before operating in the airspace of any EU Member State (and Norway/Switzerland), airspace users need to ensure they comply with local laws. While the CP1 regulation may not be read or even be known by airspace users beyond Europe, there are mechanisms to facilitate the communication of such important operational changes.

As has been done in the past for topics such as Reduced Vertical Separation Minima (RVSM), Radio frequency change (8,33kHz), Basic Air Navigation (B-RNAV), Data Link Service (DLS), an aeronautical information circular (AIC) stating the new rules for flight plan filing should be accessible to the whole community of airspace users.

The publication of such an AIC will ensure awareness of local requirements in individual states. This publication would serve to:

- raise awareness globally among EU and non-EU airspace users about the obligation to transition to the new flight plan format by no later than 31 December 2025;
- ensure early State involvement in the transition from the existing (FPL2012) to the new flight plan format (eFPL);
- initiate the national process of planning the full transition to eFPL for all traffic, considering that initially only IFR is mandated, but all traffic will be impacted in the longer term with a confirmed global FPL2012 sunset date of 2034 agreed at Air Navigation Conference 14 in 2024 (AN-CONF/14);
- ensure national coordination among all stakeholders affected by this transition to a new flight plan format, even those not mandated by the regulation.

During the last year, the NM / SDM Support Initiative has promoted the publication of AICs by States in different fora (i.e. the NSA Coordination Platform meetings, the NDOP/NDTECH meetings) with advising to publish such an AIC as soon as possible and proposing a draft AIC specimen.

A formal action related to AIC publication has been identified as part of NDOP/NDTECH in 2024 and reporting of AIC publication thereby required. As by now, AICs have been published by all EU-Member States except by Greece and Switzerland.

Thereafter, it is also essential that States' AIP (Aeronautical Information Publication) are updated accordingly. Draft text was developed and provided by NM to States/ANSPs via the NETOPS and NDOP in 2025 and monitoring of the publication will continue to be pursued there.

At the current date, Poland, Latvia and Romania have already published their update to their AIP.

- Ensure the full publication of the EU FF-ICE/R1 AIC, making it accessible to all relevant stakeholders for comprehensive understanding and compliance.
  - *(status in 2025) Closed (States not having published AIC should move on to publish updated AIPs)*

- Ensure the full publication of updated AIPs in relation to FF-ICE / R1
  - *(status in 2026, with extension to AIPs), On-going*

3.2. NM FF-ICE/R1 B2B implementation and validation Planning

The Network Manager (NM) had already performed its implementation quite in advance of the mandated deadline and is providing NM FF-ICE/R1 B2B services (Filing, Trial, Notification, Flight data request, Publication) for their use either by AUs/CFSPs or by ANSPs.

Besides this implementation, NM is also affected by the other Operational Stakeholders' implementation and their usage of the NM FF-ICE/R1 B2B provided services. NM has put in place a validation process leading to their operational usage.

As outlined in the *Operational Deployment of the NM B2B Services,* every client application of the B2B API needs to be validated before being allowed to connect to the OPS environment. This process has been EASA approved and rigorously followed since 2016.

To start with, the implementing stakeholder must request and obtain a NM B2B PREOPS certificate (or update the existing one with the correct profile) for the access and use of the identified services in the NM PREOPS platform so that they can process with their technical testing as much as needed. Further on, there is a process implemented by NM to ensure an appropriate "operational validation" takes place before obtaining an OPS certificate allowing access these services in the NM OPS environment

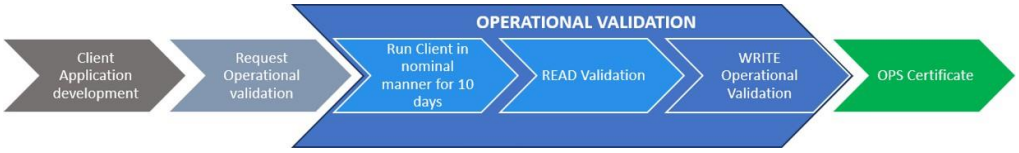


Figure 2 NM B2B Validation process

- **READ Validation:** A READ validation will be required for every Operational Validation

  A testing period of 10 days is required where the user shall run the client application in nominal manner (as intended to be used in OPS). Once customer informs NM B2B that 10 days testing period is finished, validation analysis will start. The outcome of the validation will be communicated to the customer as soon as available

  Note that the 10-day rule was initially set as an arbitrary / nominal timeframe to ensure the following:

  - Sufficient data consumption
  - A period of the usage of the B2B services long enough to prevent any single day's anomalies (e.g., temporary service unavailability) from skewing results
  - Adequate time to test all use cases under varying conditions

  With the recent introduction of monitoring tools, our Technical Operational Validations have become more precise.

  As a result, we may now consider reducing the Technical Operational Validation period, provided there is sufficient usage and, most importantly, that the Customer Organization thoroughly tests all their interactions.

  If these 2 aspects are satisfied, NM and Customer Organisation could agree on the reduced time for the Technical Operational Validation.

- **WRITE Validation*:*** A WRITE validation will be required in case the client application intends to use of any WRITE service

  The WRITE validation is organised as a session

  (in case of WRITE validation there is no usage monitoring during several days period). Duration of the WRITE Operational Validation session depend on the extent of the Use Cases and type of validated services

  In general, the approximate duration of the Operational Validation is between 1h and 2h per validated service

Every new user will be required to pass an Operational Validation in order to get NM B2B OPS certificate. Having an OPS certificate for other B2B services does not exclude the need to go through this process for FF-ICE/R1 services. Expected duration of the entire process until obtaining the OPS certificate is around 3 months.

The actual duration will depend on the circumstances (failed validation sessions, timely provided Use Cases, etc.)

Once it has obtained an OPS certificate, the corresponding Operational Stakeholder may use the related NM FF-ICE/R1 B2B services on the NM OPS platform.

The fact that an Operational Stakeholder has obtained such a certificate does not mean that it has completed its implementation and complied with the CP1 mandate.

Operational completion will only happen when the Operational Stakeholder uses systematically and correctly the NM FF-ICE/R1 B2B services in its daily operations.

For an AU, that means that all its flight plans (for all IFR/GAT flights (including military GAT)), and any subsequent updates, are filed through the NM B2B FF-ICE/R1 filing service (i.e. not using FPL2012 AFTN messaging then) and the information present for any filed flight plan is coherent to the information requirements expressed in the FF-ICE/R1 Information Exchange Requirements published by the SDM.

NM will not be in the position to provide any "acceptance certificate" that could guarantee such completion but is reflecting on developing a post-ops monitoring process that would allow to provide significant information regarding this completion.

On ANSP's side, that means that access to flight plan (information) and provision of departure / arrival notifications is systematically performed in conformance to CP1 / SDP requirements using all mandated NM FF-ICE/R1 B2B services, including the fact that the eFPL information is used by ATM systems in coherence with CP1 / SDP requirements.

NM will not be in the position to provide any "acceptance certificate" that could guarantee such completion but is also reflecting on developing a post-ops monitoring process that would allow to provide significant information regarding such completion.

Until that is reached, NM will still have to operate in the so-called mixed-mode environment accommodating both modes (FF-ICE/R1 - eFPL, FPL2012) and related processes.

3.3. Airspace Users

CP1 mandates all Airspace Users operating IFR/GAT or mixed VFR/IFR flights (including military GAT) in the EATMN Airspace to file eFPLs using the FF-ICE/R1 Filing service. VFR, OAT and mixed OAT/GAT are not mandated by CP1.

CP1 also applies to military when they fly IFR/GAT but does NOT apply to OAT.

These requirements then apply indirectly to ATS Reporting Offices (AROs) and Computer Flight plan Service Providers (CFSPs) when filing eFPLs on behalf of Airspace Users.

3.3.1. Airspace Users' reported implementation plans

Most Airspace Users are aware of their obligations regarding FF-ICE/R1, among others thanks to an SDM AU awareness campaign involving frequent meetings and outreach efforts across various forums. Additionally, long-standing collaboration with the FAA has now been extended to include Canada, further enhancing AUs' awareness in these countries. Engagement with Korea and China, has also contributed to this effort, along with ongoing activities in ICAO regional coordination.

In Europe, more than 800 different airspace users operate annually, encompassing commercial aviation, general aviation, and military operations. This diversity presents significant challenges for monitoring and implementation efforts.

Individual implementation plans were received from 83 Airspace Users in Q4 2025 through the SDP Monitoring Exercise 2025, managed by SDM[1], compared to only 49 received last year.

According to the monitoring campaign, 17 Airspace Users reported to already file eFPL in operations, 41

[1] *The Airspace Users were requested to fill in a questionnaire regarding the implementation status of CP1, thus also the implementation status for FF-ICE/R1.*

reported to plan to be capable of filing FF-ICE operationally by the end of 2025 and another 17 reported to plan to achieve this capability in 2026. This list is not reported here as the next sections 3.3.2 and 3.3.3 provide more factual information on the status of implementation by AUs.

3.3.2. Status of "Airspace Users' Filing service" validation by NM

The table below provides a table listing all **90 AUs having obtained an OPS certificate for the filing service by 02/02/2026** and therefore being able to file FF-ICE (eFPL) flight plans by that date. These 90 AUs represent **56,40% of 2025 traffic**.

Acropolis Aviation
Aegean Airlines
Air Baltic
Air Cairo
Air Canada
Air Dolomiti (DLA)
Air France
Air Incheon
Air India
Air Lingus
Air Nostrum
Air Serbia
Airbus Operations SAS
Airbus Transport International (Beluga)
Airest AS
ASL Airlines Limited (Ireland)
Austrian Airlines (AUA)
Avianca Airlines
Avion Express
Azerbaijan Airlines
BBN Airlines (HAVA YOLLARI VE TASIMICAILIK A)
BH Air
Biman Bangladesh Airlines
British Airways
Cathay Pacific Airways
China Airlines (TPE)
China Eastern Airlines
City Flyer
Condor
Corsair
Croatia Airlines
DHL Worldwide Network
Discover Airlines (OCN)
easyJet Airline Company Limited (UK)
Edelweiss Air
Electra Airways Ltd
Emirates Airlines
Enter Air

Ethiopian Airlines
Etihad Airways
EuroFlyer
European Air Charter
Eurowings Aviation
Evelop Airlines SL
Fly Level
Free Bird Airlines
Gulf Air
Iberia Express
Japan Airlines
Kalitta Air LLC
KLM Royal Dutch Airlines
LAN Cargo Columbia
LATAM Airlines Chile
LATAM Airlines Peru
Lot Polish Airlines
Lufthansa (DLH)
Lufthansa Cargo (GEC)
Lufthansa City (LHX)
Lufthansa CityLine (CLH)
MNG Airlines
Nippon Cargo Airlines
Norwegian Air Shuttle
Nouvelair Tunisie
Oman Air
Pegasus Hava Tasimaciligi A.S. (IST)
Privilege Style
Qatar Airways (DOH)
Riyadh Air
Royal Jordanian Airlines
Ryanair Ltd
SAS Group
Saudi Arabian Airlines
Scandinavian Airlines Ireland Ltd - SAS
SKYLINE EXPRESS AIRLINES LLC
Special Purpose Aviation Operator (BGF)
Srilankan Airlines Ltd.
SunExpress
Swiss International Air Lines
TAM Linhas Aereas
Tarom Romanian Air Transport
Thai Airways
Transavia Netherlands
TUI Group (BLX, JAF, NBT, NOS, TFl, TOM, UBT)

Turkish Airlines
Vietnam Airlines
Virgin Atlantic
Volotea
Vueling Airlines
WestJet
WizzAir Hungary Ltd.

Figure 3 List of AUs with an operational certificate for the NM B2B FF-ICE service

In supplement of this list, it shall be noted that there are about **130 other airlines that are registered being linked through a declaration of use to CFSPs having obtained an Operational Certificate** and therefore for which FF-ICE (eFPL) flight plans could also be filed by that date.

In total, that makes for **about 220[2] AUs, accounting for 59,59% of 2025 traffic, which should be in capacity to file FF-ICE (eFPL) flight plans by 02 February 2026**.

3.3.3. Actual "flight events analysis" (period 02 February – 08 February 2026)

As described in section 3.2, the FF-ICE / R1 implementation work for an AU does not finish with the obtention of the OPS certificate but requires that all relevant flight plans are filed using the FF-ICE filing service and all updates equally.

Then, to have a first evaluation of the level of implementation by different AUs, the **NM / SDM FF-ICE Initiative has analysed a week-period, between 02 February and 08 February 2026**, considering the recording of flight plans "events" (creation, cancellation, update, request, notification) from the FF-ICE filing / notifications / flight data request services or from AFTN (FPL2012) messaging.

The tables below present a high-level analysis of these flight events as the following:

- The tables list **all AUs that have at least filed one FF-ICE flight plan (eFPL) during the period**. There are **95 AUs** -to be compared with the 200 having the capability to do so-. These 95 AUs represent 40,94% of 2025 traffic.

  In total, they were **195.593 filed flight plans** during the period**, 15,68% of which were FF-ICE (eFPL)** -filed through the NM B2B FF-ICE filing service- and **84,32% FPL2012** -filed though AFTN messaging (about 74%) or NM B2B FPL2012 filing service (about 10%)-.

- The tables list then for each AU (under the "creation message" tab), the % of FF-ICE flight plans (eFPL) filed, the % of FPL2012 filed and the total number of flight plans filed.

  Both tables present the same information, in alphabetical order of the AUs' names for the first table and by the amount of FF-ICE flight plans filed for the second table.

  It should be noted that the analysis considers all IFPZ flights and did not filter out flights for which the filing of an eFPL is not mandated -i.e. flights which do not depart or arrive from an airport located in the EATMN+ (EU27 +Norway, Switzerland) and that do not fly the EATMN+ airspace-.

  That could be done in a next step to allow analysing at a finer grain, but the corresponding SQL procedure will need to be implemented.

- The tables list also for each AU (under the "update event" tab) how any update to an initially submitted flight plan has been made, either through using the FF-ICE filing service (%) or sending any relevant FPL2012 message (%), and then the total number of these updates.

  There, the same limitation as above can be expressed (no filtering on the EATMN+ area).

[2] Note that there are more than 850 airlines filing flight plans to IFPS yearly.

In additiont, it should be noted that post-departure delay messages could not be yet filtered out (lacking for the time being of the appropriate SQL procedure to do so). The transfer of such post-departure to an FF-ICE service is part of FF-ICE / R2 and therefore not in CP1.

Then, it should also be understood that updating a flight plan using the FF-ICE filing service may only be done if the initial flight plan was an eFPL (using FF-ICE filing service for an update requires using a Global Unique Flight Identifier (GUFI) that is only available when an eFPL has been created). Therefore, it is normal that FPL2012 updates exist when there are FPL2012 flight plans.

	Creation Message (IFPL)			Update Events (ICH, ICNL, IDLA, IFPL Messages)		
Airline	FF-ICE	FPL2012	Total No.	FF-ICE	FPL2012	Total No.
ABSA AEROLINHAS BRASILEIRAS S/A	40,00%	60,00%	5	28,57%	71,43%	7
AEGEAN AIRLINES	76,73%	23,27%	1908	75,73%	24,27%	4899
AIR ARABIA	4,73%	95,27%	296	3,42%	96,58%	644
AIR CALEDONIE INTERNATIONAL	16,67%	83,33%	6	0,00%	100,00%	3
AIR DOLOMITI	65,24%	34,76%	797	62,94%	37,06%	653
AIR FRANCE	58,32%	41,68%	5425	25,80%	74,20%	5722
AIR MAURITIUS LIMITED	42,86%	57,14%	28	6,67%	93,33%	15
AIRBUS TRANSPORT INTERNATIONAL (ATI)	69,17%	30,83%	133	54,15%	45,85%	229
AIRLEC AIR ESPACE	41,67%	58,33%	36	37,65%	62,35%	85
AIRZETA CO., LTD	50,00%	50,00%	32	5,00%	95,00%	20
AJET HAVA TASIMACILIGI ANONIM SIRKETI	5,41%	94,59%	2812	2,22%	97,78%	4063
ALPHA AVIATION S.R.O.	50,00%	50,00%	58	47,13%	52,87%	87
AMC AVIATION SP. Z O. O.	42,59%	57,41%	54	55,45%	44,55%	110
AMERIJET INTERNATIONAL (FT.LAUDERDALE, FL)	100,00%	0,00%	3	20,00%	80,00%	5
ARKIA ISRAEL INLAND AIRLINES	11,64%	88,36%	232	33,79%	66,21%	219
AUSTRIAN AIRLINES (AUA) AG	87,92%	12,08%	1805	73,97%	26,03%	1045
AVION EXPRESS	100,00%	0,00%	8	76,00%	24,00%	25
AVION EXPRESS MALTA LTD	100,00%	0,00%	3	100,00%	0,00%	5
AZERBAIJAN HAVA YOLLARI, NATIONAL AIRLINE	80,72%	19,28%	695	32,47%	67,53%	619
BBN AIRLINES	62,96%	37,04%	27	21,92%	78,08%	73
BH AIR	100,00%	0,00%	2	62,50%	37,50%	8
BRIDGES AIR CARGO	18,18%	81,82%	11	13,33%	86,67%	15
CARGOJET AIRWAYS LTD	100,00%	0,00%	4	100,00%	0,00%	1
CATHAY PACIFIC AIRWAYS LTD.	81,27%	18,73%	251	19,38%	80,63%	160
CAVOK AIRLINES	27,27%	72,73%	11	37,50%	62,50%	16
COMPANIA NATIONALA DE TRANSPORTURI AERIENE ROMANE TAROM S.A.	97,76%	2,24%	402	87,32%	12,68%	284
COMPASS CARGO AIRLINES	10,00%	90,00%	10	7,69%	92,31%	26
CORENDON AIRLINES EUROPE	87,93%	12,07%	58	32,26%	67,74%	62
CORENDON DUTCH AIRLINES B.V.	71,15%	28,85%	52	9,09%	90,91%	77
CORSAIR	81,51%	18,49%	119	50,30%	49,70%	169
CROATIA AIRLINES	76,87%	23,13%	415	68,75%	31,25%	496
CYPRUS AIRWAYS	81,82%	18,18%	77	49,54%	50,46%	323
DC AVIATION GMBH, STUTTGART	94,19%	5,81%	86	75,51%	24,49%	98
DC AVIATION LTD.	100,00%	0,00%	12	73,68%	26,32%	19
DEUTSCHE LUFTHANSA, AG, KOELN	60,16%	39,84%	5670	55,92%	44,08%	5917
EASY JET SWITZERLAND SA	75,82%	24,18%	732	48,22%	51,78%	562
EASYJET EUROPE AIRLINE GMBH	68,33%	31,67%	3647	38,89%	61,11%	2952

EASYJET UK LTD	67,90%	32,10%	4530	38,14%	61,86%	3201
EDELWEISS AIR AG	37,46%	62,54%	291	18,36%	81,64%	523
EMIRATES	92,11%	7,89%	1432	30,22%	69,78%	1327
ENAC	0,72%	99,28%	277	0,00%	100,00%	125
ETHIOPIAN AIRLINES CORPORATION	26,87%	73,13%	521	14,62%	85,38%	212
ETIHAD AIRWAYS	32,06%	67,94%	811	25,54%	74,46%	505
EUROLINK GMBH	26,32%	73,68%	19	14,00%	86,00%	50
EUROPEAN AIR TRANSPORT, LEIPZIG	0,82%	99,18%	1348	0,00%	100,00%	1406
EW DISCOVER GMBH	60,54%	39,46%	294	67,42%	32,58%	264
FLEET AIR INTERNATIONAL LTD	31,25%	68,75%	32	57,33%	42,67%	75
FLIGHT CALIBRATION SERVICES LTD	50,00%	50,00%	4	0,00%	100,00%	3
FLY ONE	8,73%	91,27%	126	6,52%	93,48%	92
FREE BIRD AIRLINES (HURKUS HAVAYOLU TASIMACILIK VE TICARET A.S.)	4,76%	95,24%	105	6,25%	93,75%	64
GARUDA INDONESIA AIRWAYS, PT.	50,00%	50,00%	4	25,00%	75,00%	8
GP AVIATION LTD.	39,58%	60,42%	144	40,99%	59,01%	161
HONG KONG AIR CARGO CARRIER	100,00%	0,00%	29	33,33%	66,67%	24
INTERGLOBE AVIATION PRIVATE LTD (T/A INDIGO)	12,87%	87,13%	101	2,14%	97,86%	187
IRISH AIR CORPS	52,94%	47,06%	17	20,00%	80,00%	30
ITALFLY S.R.L.	33,33%	66,67%	9	40,00%	60,00%	5
JAZEERA AIRWAYS	84,62%	15,38%	39	59,26%	40,74%	54
K5-AVIATION GMBH, GAMMELSDORF	100,00%	0,00%	11	83,33%	16,67%	6
KALITTA AIR, LLC (YPSILANTI, MI)	100,00%	0,00%	28	63,64%	36,36%	22
LAN CARGO S.A.	79,31%	20,69%	29	41,79%	58,21%	67
LAN PERU S.A.	100,00%	0,00%	14	25,00%	75,00%	4
LINEA AEREA NACIONAL DE CHILE (LAN)	68,00%	32,00%	25	35,71%	64,29%	14
LOT - POLSKIE LINIE LOTNICZE	95,60%	4,40%	2114	30,18%	69,82%	3144
LUFTHANSA CARGO AG, FRANKFURT (MAIN)	51,87%	48,13%	214	23,60%	76,40%	339
LUFTHANSA CITY AIRLINES GMBH	38,76%	61,24%	387	30,93%	69,07%	624
MNG HAVAYOLLARI VE TASIMACILIK A.S.	48,00%	52,00%	150	5,38%	94,62%	130
NALJETS LTD	31,58%	68,42%	19	0,00%	100,00%	14
NATIONAL AIR CARGO GROUP, INC. (YPSILANTI, MI)	49,09%	50,91%	55	36,18%	63,82%	152
OMNI AIR INTERNATIONAL, INC. (TULSA, OK)	100,00%	0,00%	2	0,00%	100,00%	1
PEGASUS HAVA TASIMACILIGI A.S. (PEGASUS)	95,20%	4,80%	4916	30,14%	69,86%	4041
PRIV'AIR	46,15%	53,85%	26	42,65%	57,35%	68
ROYAL BRUNEI AIRLINES	71,43%	28,57%	7	30,77%	69,23%	13
ROYAL JORDANIAN	71,20%	28,80%	250	19,25%	80,75%	239
RYANAIR	0,01%	99,99%	18996	0,00%	100,00%	12175
SAUDI ARABIAN AIRLINES	90,57%	9,43%	562	64,89%	35,11%	356
SCANWINGS OY, FINLAND	60,53%	39,47%	38	40,74%	59,26%	27
SKY EXPRESS S.A.	95,15%	4,85%	969	56,39%	43,61%	532
SRILANKAN AIRLINES	15,15%	84,85%	33	0,00%	100,00%	8
SVENSKT AMBULANSFLYG	51,93%	48,07%	181	46,36%	53,64%	151
SWIFTAIR S.A.	2,12%	97,88%	378	1,03%	98,97%	194
SWISS AIR AMBULANCE LTD (HELICOPTER RESCUE GUARD)	85,71%	14,29%	7	100,00%	0,00%	1
SWISS INTERNATIONAL AIR LINES LTD	4,74%	95,26%	2258	1,52%	98,48%	2231
TAM - LINHAS AEREAS S.A.	84,89%	15,11%	139	18,81%	81,19%	101

THAI AIRWAYS INTERNATIONAL LTD.	99,51%	0,49%	203	20,50%	79,50%	161
TOYO AVIATION	42,42%	57,58%	33	57,14%	42,86%	28
TURISTIK HAVA TASIMACILIK A.S.	81,58%	18,42%	38	59,26%	40,74%	27
TURK HAVA YOLLARI (TURKISH AIRLINES CO.)	0,16%	99,84%	9260	0,06%	99,94%	12658
T'WAY AIR CO., LTD	8,33%	91,67%	36	22,22%	77,78%	9
UR AIRLINES	27,27%	72,73%	22	0,00%	100,00%	10
US TRANSPORTATION COMMAND	58,49%	41,51%	53	48,08%	51,92%	52
VUELING AIRLINES	0,41%	99,59%	3378	0,29%	99,71%	3855
WESTERN GLOBAL AIRLINES, LLC (ESTERO, FL)	100,00%	0,00%	1	100,00%	0,00%	3
WESTJET AIRLINES LTD	96,43%	3,57%	28	100,00%	0,00%	7
WORLD2FLY	88,00%	12,00%	50	72,55%	27,45%	51
ZEUSCH AVIATION BV	86,67%	13,33%	15	76,47%	23,53%	17

Figure 4 List of AUs having filed operationally eFPLs and related % over period 02/02 – 08/02 (alphabetical order)

The analysis of the % of eFPL (FF-ICE) / FPL2012 flight plan creation provides an indication of how these different Airspace Users were progressing towards the implementation of filing consistently FF-ICE flight plans by the beginning of February.

Out of these 95 AUs, we can see already **12** -relatively small operators- **that file 100% FF-ICE** while another **9 operators** -amongst them some bigger airlines- **above 90% and 12 operators above 80%.**

The NM / SDM Initiative will continue monitoring such figures on a periodical basis (e.g. every three to four months) and do further analysis / actions such as, e.g.:

- Communicating on the progress achieved in the implementation.
- Addressing those main AUs that have not yet gone operationally with FF-ICE or that show no progress in the FF-ICE filing rate of implementation in order to get information on any issues and motivate implementation strengthening.
- Analyzing the information for AUs that have an FF-ICE filing rate of 80%+, yet not 100% or very close to that, in order to assess any reasonable reason for that (e.g. analysis of the AFTN address that identifies filing from an ARO System that is not yet FF-ICE compatible or from any other System not being the main one used for flight plans filing) and discuss with the relevant AUs the assessment as relevant.

As regard the percentage of FF-ICE / AFTN (FPL2012) flight plans related "events", the current analysis, considering the limitations expressed above, may only point that **for a number of AUs there is a significant positive discrepancy (e.g. > 20) between the percentage of FF-ICE (eFPL) filed flight plans and the percentage of FF-ICE flight plan events**.

This may reveal that **update of FF-ICE (eFPL) filed flight plans may not be yet performed consistently using FF-ICE filing services** but still partially through AFTN messaging. This may be due in particular to **other Systems, in supplement of an AU main filing System, being used by this AU to perform such updates** and which have not been updated to be FF-ICE capable (e.g. DLA messaging may be sent by ATC towers, handling agents…).

The NM / SDM Initiative will continue monitoring such figures on a periodical basis (e.g. every three to four months) and do further analysis / actions such as, e.g.:

- Applying an (SQL) filtering procedure to only keep updates related to filed eFPLs.
- Analyzing from AFTN addresses / discussions with AUs the origin of updates, see any issues (e.g. System used not planned for FF-ICE update, System used in specific airports for updates and not belonging to an AU / not planned for FF-ICE) and seeking the mitigation / resolution of such issues.

Due to the continued discussions on "aircraft performance data" (see section 2.3), no detailed monitoring / analysis has yet been performed on the provision of such data within the filed eFPLs. A rough analysis on a single day (19/02/2026) showed that only 4.55% of the filed eFPL contained a performance profile and 2.05% a speed schedule. A refined analysis will be performed after the consultation of the SDP Supporting Material 2026 / the updated FF-ICE Interface Exchange Requirements (IERs).

As a conclusion, **FF-ICE implementation by AUs (and CFSPs) has significantly progressed** in a few months (by beginning of December, only a very few airlines had their operational certificates and were filing some eFPLs) **and the progress is expected to increase significantly in the very next months**.

Yet, significant work remains for AUs (and their CFSPs, and AROs) to implement FF-ICE/R1 in Europe in a full consistent manner allowing the full achievement of anticipated benefits and a horizon where mixed mode operation no longer exists.

3.3.4. Actions

A list of support actions was identified last year and reviewed for this roadmap edition whose status is provided below:

- Engage directly with AUs to discuss and understand their FF-ICE/R1 rollout plans, including their testing schedules and NM B2B validation processes and their intentions to provide complete data according to the FF-ICE/R1 Information Exchange Requirements.
  - *(status in 2025) On-going, NM (B2B validation team) is engaged with CFSPs / AUs having started their PREOPS testing to support them and define further an operational validation planning with them*
  - *(status in 2026) Done*

- Continue the ongoing awareness campaign to ensure that all mandated AUs are informed and up-to-date on their responsibilities.
  - *(status in 2025) On-going. Several communication actions were performed last year including running of SDM FF-ICE information workshops dedicated to AUs by video conference, communication about FF-ICE/R1 implementation in international fora (e.g. EU TBO symposium), development of a NM Webpage dedicated to FF-ICE/R1 implementation*.
  - *(status in 2026) On-going. SDM AUs' awareness workshops to be continued in 2026. Decision to be made within the year whether to continue the information to AUs.*

- Develop a post-filing monitoring process to analyse eFPL content, verifying that all required information is included. This may involve reviewing sample eFPLs filed both in PreOps and, more importantly, in OPS.
  - *(status in 2025) To be done*
  - *(status in 2026) Done, see section 3.3.3, and to be continued and improved, see also section 3.3.3*

- Enhance global awareness of FF-ICE/R1 implementation in Europe, fostering global interoperability for AUs. Continue collaboration with the FAA and Nav Canada and start the collaboration with ICAO Paris who has been tasked regionally to support FF-ICE/R1 implementation.
  - *(status in 2025) On-going, contact with ICAO Paris established and their inclusion in FPFDE Subgroup and other distribution list already done. There will additionally also be a link with the FF- ICE initiative and the ICAO Paris ensuring efficient coordination and no duplication of work., see also 3.3.1*
  - *(status in 2026), to be continued, (e.g. NM and SDM contributed and participated to an ICAO FF-ICE Workshop in Paris in February)*

3.4. ANSPs implementation planning: ACCs / APPs / TWRs

CP1 mandates that all aeronautical information, flight information and cooperative network data exchanges must be implemented by area control centres of the EATMN (as defined in CIR (EU) 2021/116, Annex, point 5.3), by the airports referred in the point 1.2 of the Annex of CP1 regulation, aeronautical information service providers and by the Network Manager.

Therefore, the FF-ICE/R1 implementation concerns the ANSPs providing ATS services in:

- ACCs in the EU Member States, Switzerland and Norway (EU27+2)
- Approach control units serving the airports[3] listed
- Aerodrome control towers operating in the airports listed

The rollout of FF-ICE/R1 will be gradual, where ground stakeholders will update their system transitioning to FF-ICE/R1 both through updates and implementation of new systems. It is common for ANSPs to establish initial operational capabilities before fully implementing the system. These initial steps include data exchange via SWIM, setting up gateways, and partial system integrations, laying the groundwork for comprehensive implementation including the modifications of systems and procedures to actually make use of the new information provided through eFPL.

Furthermore, it is to be noted that ARO's implementation date is not considered when developing the State/ANSPs overall implementation picture in this but is reported separately in section 3.5.

3.4.1. Reported planning information

The planning information individually reported by States/ANSPs is presented in the sections below through different charts presenting the global overviews at European level for a better general understanding of the situation.

The Annex provides for each State/ANSP more detailed information on the planning of implementation as reported during the Monitoring Exercise 2025 and further refined through bilateral interactions. This information (when available) is useful to understand any current progress, the complexity and approach to the implementation (i.e. which systems are concerned –per ACC-, potential use of "gateways/brokers" interfacing NM B2B FF-ICE/R1 Services for the benefit of several ATM systems, relations between TWR Systems and APP/ACC Systems), the different (if any) implementation dates per type of service.

3.4.1.1. Overall implementation planning (Country level)

The figures in that section provide respectively with:

- the realized or planned operational implementation dates reported by each State (/mandated ANSP) during the Monitoring Exercise 2025, meaning the operational usage of each FF-ICE service and of the relevant FF-ICE information in the mandated ACCs/APPs/Airports by the concerned ground ATM Systems,
- comparisons between the overall estimated implementation dates reported at the level of States/ANSPs in the FF-ICE Roadmaps 2024 and 2025.

[3] *Adolfo Suarez Madrid-Barajas, Amsterdam Schiphol, Barcelona El Prat, Berlin Brandenburg, Brussels National, Copenhagen Kastrup, Dublin, Düsseldorf International, Frankfurt International, Milan-Malpensa, Munich Franz Josef Strauss, Nice Cote d'Azur, Palma De Mallorca Son Sant Joan, Paris CDG, Paris Orly, Rome-Fiumicino, Stockholm Arlanda, Vienna Schwechat. (Additionally, Switzerland (Zurich Airport) and Norway (Oslo Gardermoen) are mandated by national law, although not mentioned in CP1)*

Implementation Roadmap – Country level

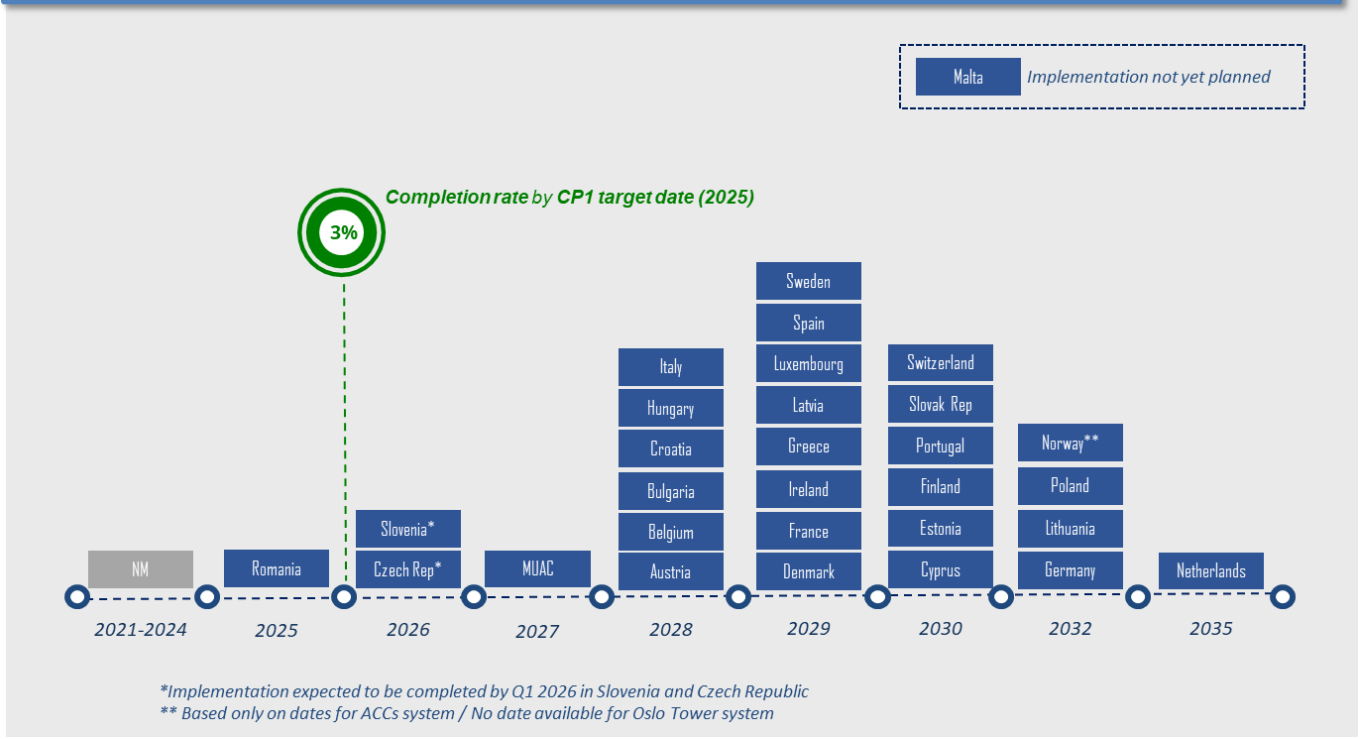


Figure 5 States/ANSPs' Implementation Planning -not including AROs- (Country level)

Number of States/ANSPs' completion per year

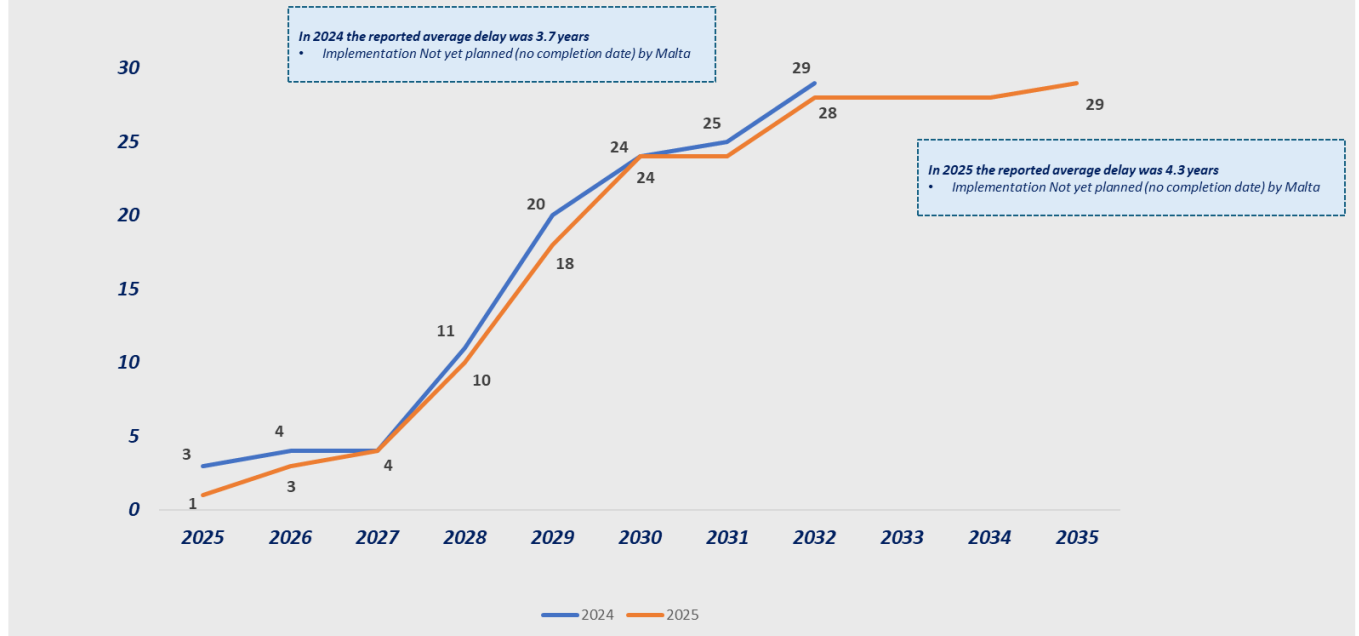


Figure 6 Comparison between 2025 and 2024 monitoring – Number of States' completion per year

3.4.1.2. Implementation Planning (ACC level)

The figures in that section provide respectively with:

- the realized or planned implementation date per each mandated ACC,
- the same planning "represented" in terms of the traffic accounted per each ACC in 2025, and providing a comparison with last year.

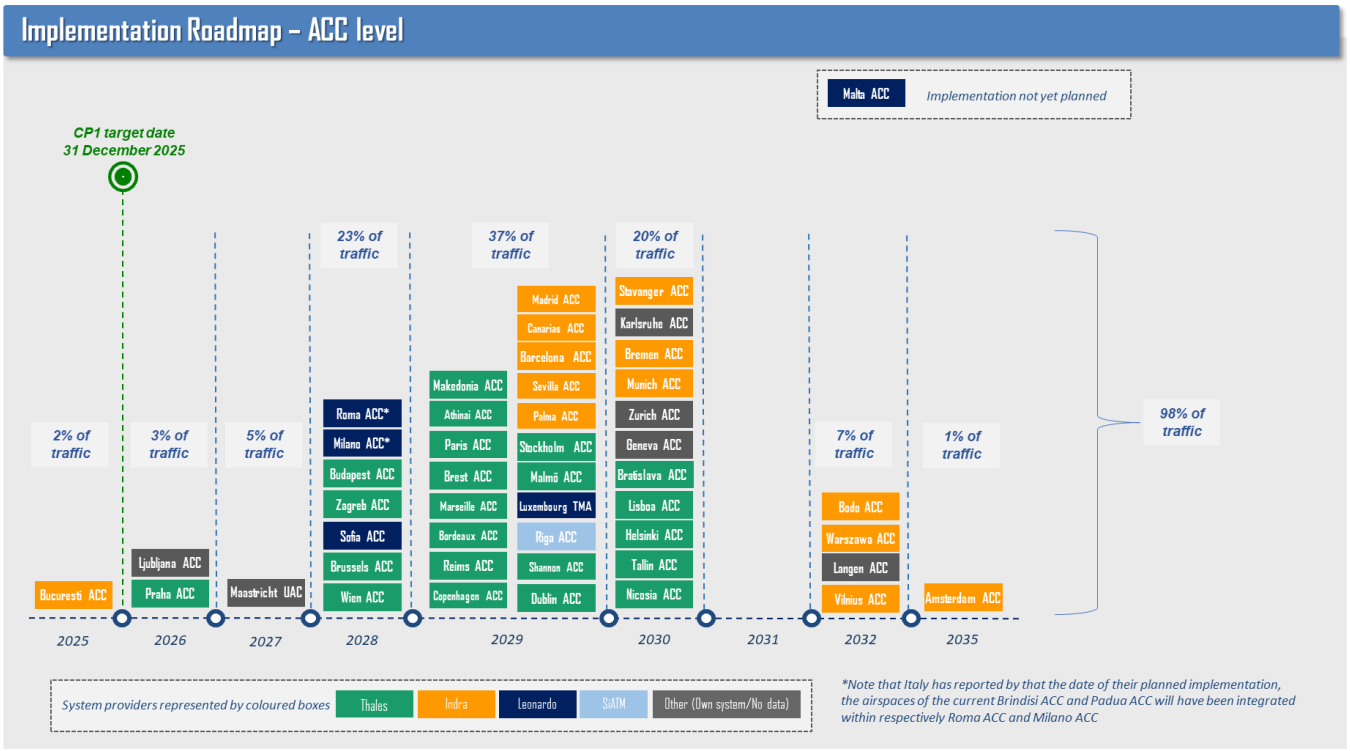


Figure 7 - ANSPs' Implementation Planning - ACC level

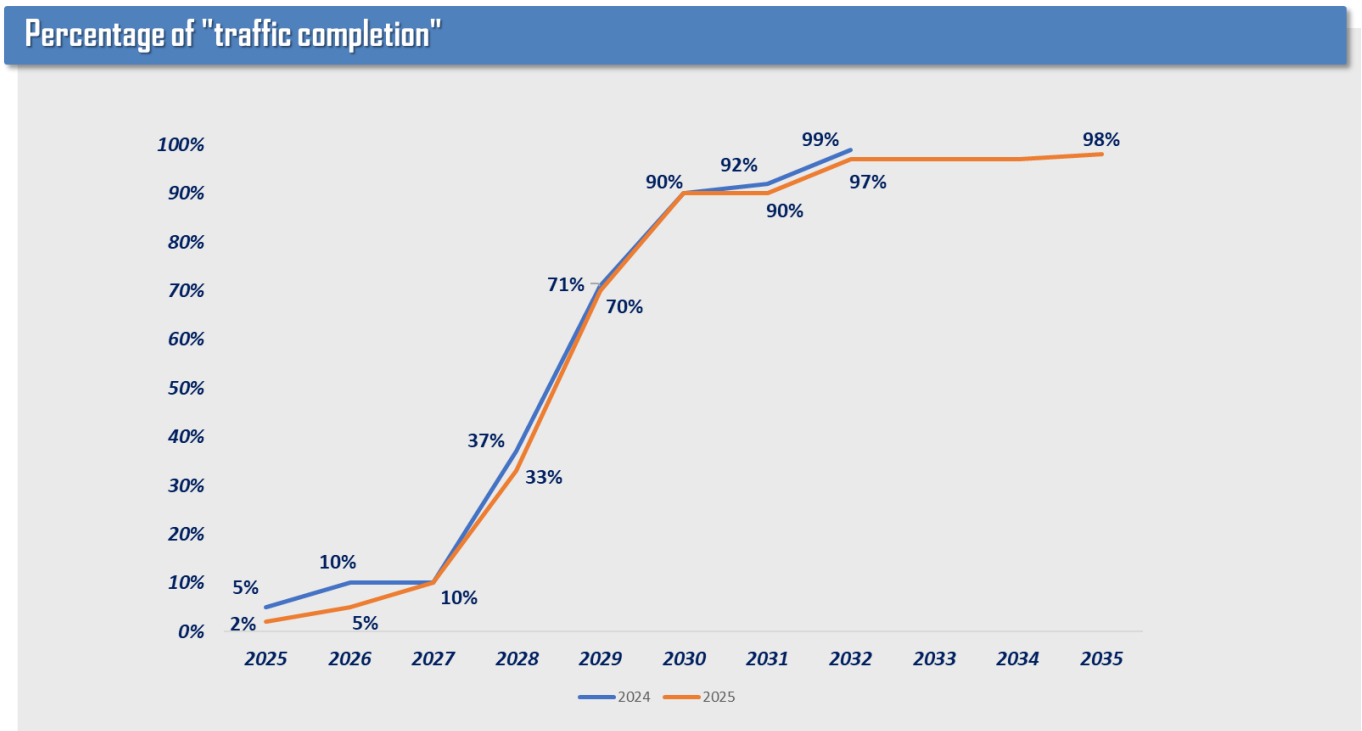


Figure 8 - Comparison between 2024 and 2025 monitoring - "Traffic completion" per year

3.4.1.3. Implementation Planning (APP level)

The figure in that section provides the realized or planned implementation date per each mandated APP.

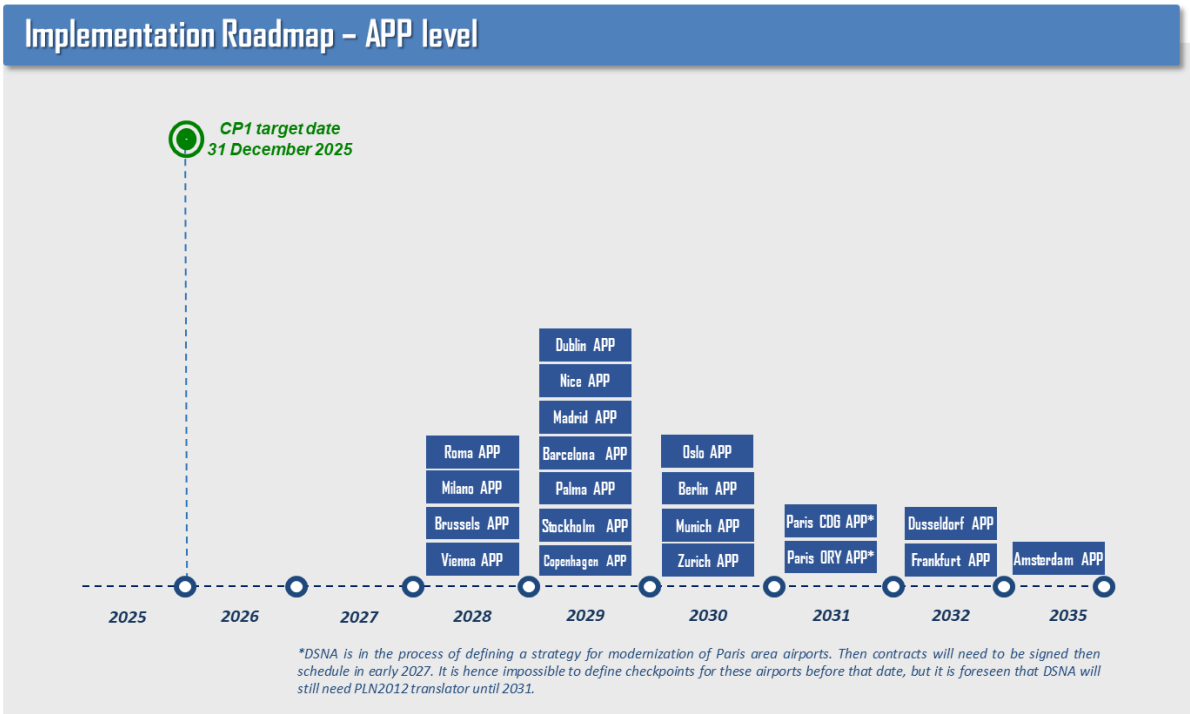


Figure 9 - Planned implementation of FF-ICE/R1 in APPs

To be noted that, for all mandated approach control units serving the airports referred in CP1, the associated Approach (APP) systems are an integral part of the Area Control Centre (ACC) above, except in France where the APP operates independently from the ACC.

3.4.1.4. Implementation Planning (Airport/TWR level)

The figure in that section provides the realized or planned implementation date for TWR Systems per each mandated airport.

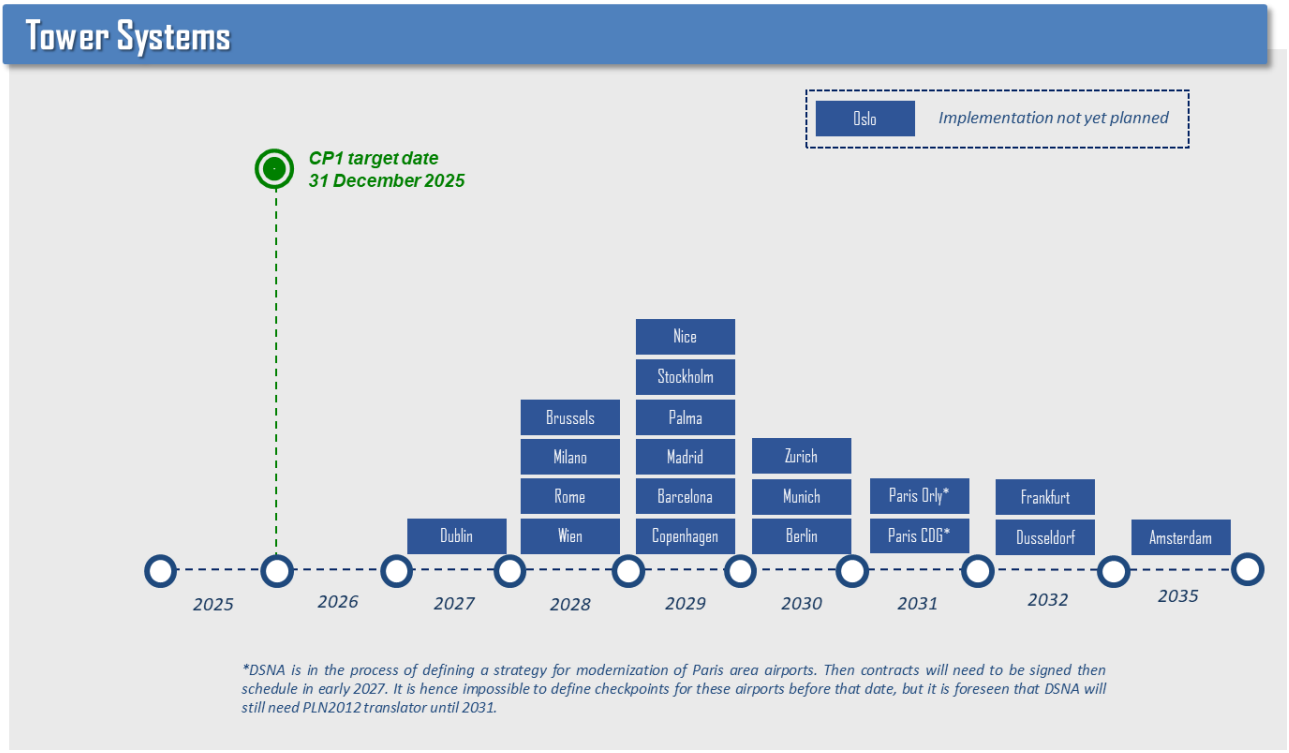


Figure 10 - Planned implementation of FF-ICE/R1 in TWR Systems per airport

3.4.1.5. Implementation Planning (FF-ICE service level)

The figures in that section provide the realized or planned implementation dates of operational usage of each of the FF-ICE service per each ANSP.

Data Publication Service

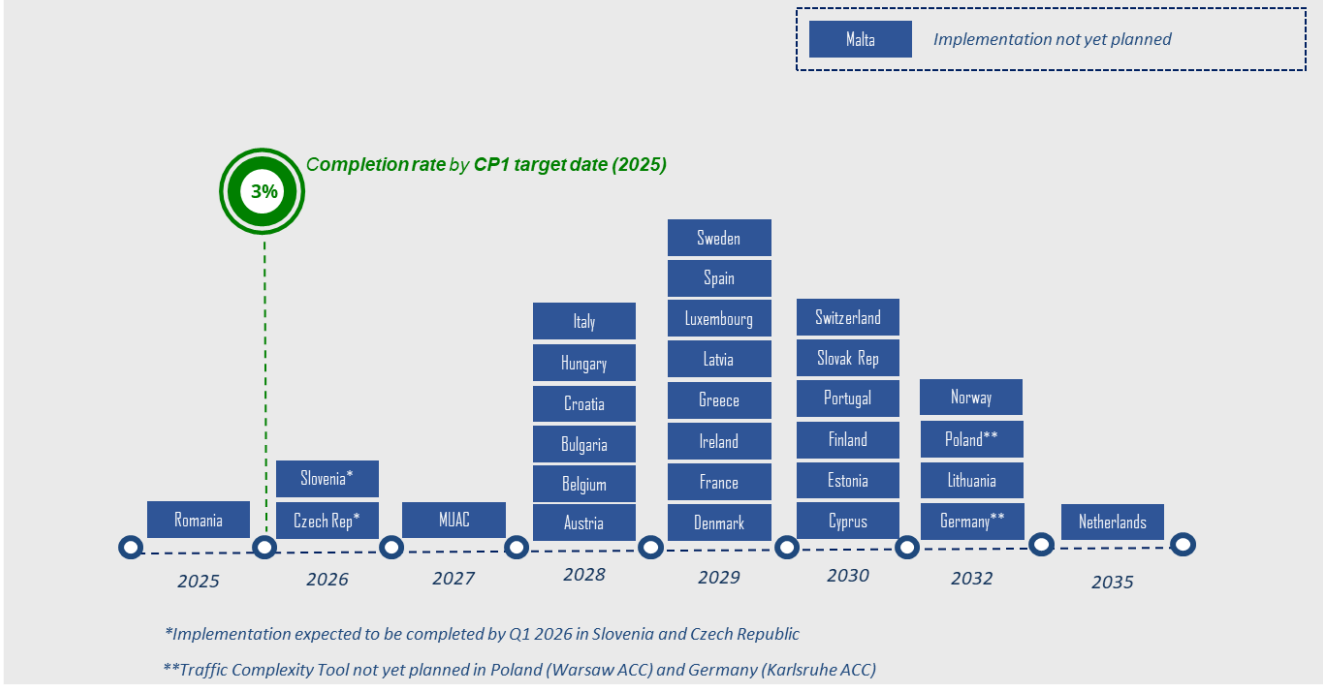


Figure 11 - ANSPs' Implementation Planning (Data Publication service – Country level)

Flight Data Request Service

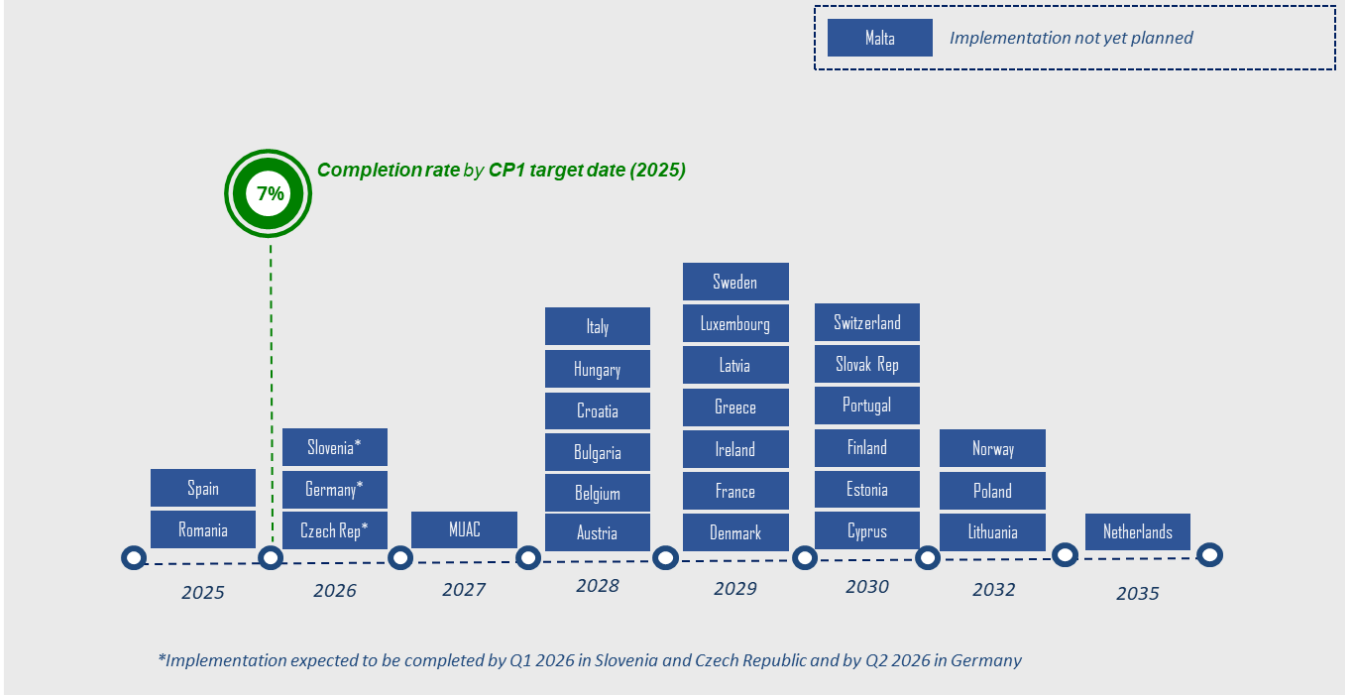


Figure 12 - ANSPs' Implementation Planning (Flight Data request service – Country level)

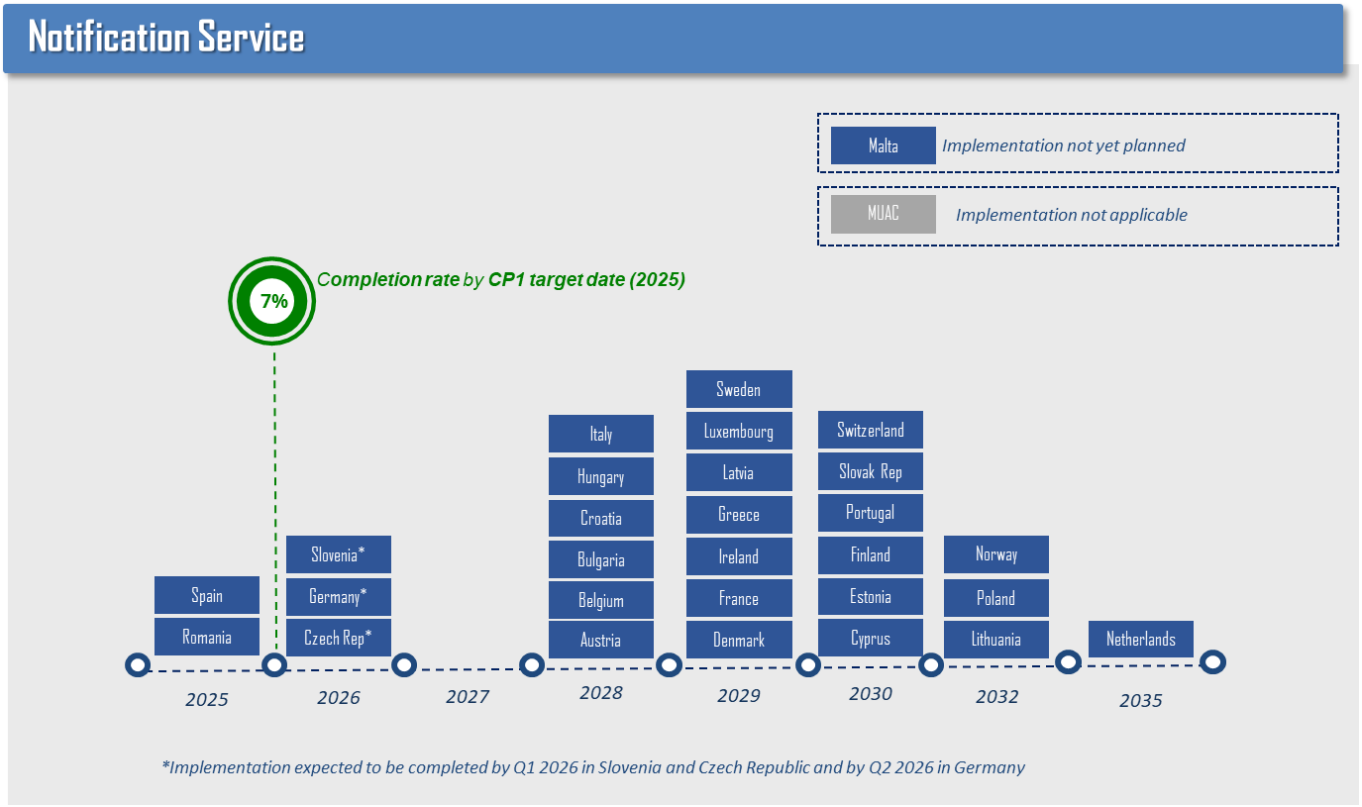
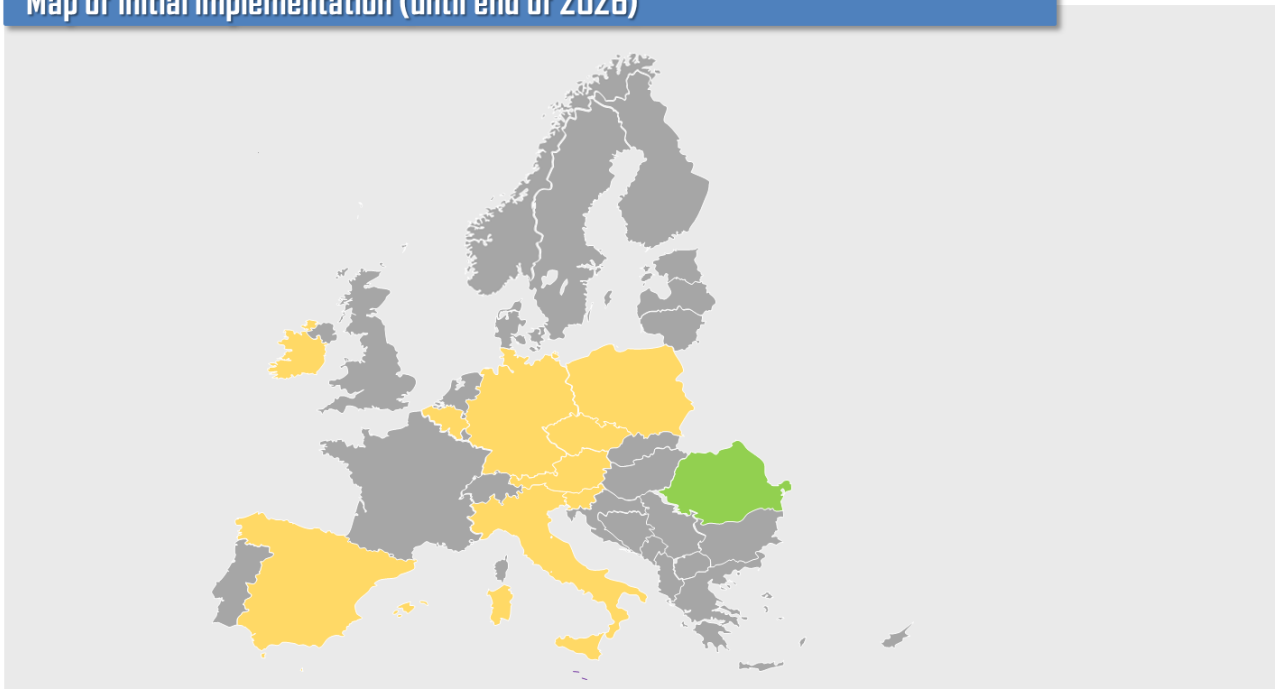


Figure 13 - ANSPs' Implementation Planning (Notification service – Country level)

3.4.1.6. Initial implementations

On the positive side and in addition to the completed implementation by Romatsa in 2025 and the ones planned for Czech Republic and Slovenia in early 2026, some other partial operational implementations are planned by different ANSPs at an earlier date than their final implementation date. This is depicted in the following figures.

Map of initial implementation (until end of 2026)



Initial implementations (until end of 2026)

Austria
Austrocontrol plans to have implemented a SWIM infrastructure and have an operational validation of the three services (Publication, Flight Data request and notification) by the end of 2026

Belgium
Skeyes plans to have implemented a SWIM infrastructure/node and have an operational validation of the three services (Publication, Flight Data request and notification) by September 2026

Czech Republic
ANS Czech Republic plans full operational completion by Q1 2026.

Germany
DFS has already performed an operational validation of the Flight Data Request and Notification services based upon their "SWIM Connectivity ATFM / ASM" System, and intend to run these services operationally from their Central Service (that would provide FF-ICE departure / arrival notifications for the German mandated airports)

Italy
ENAV plans to have implemented a SWIM gateway and have an operational validation of the three services (Publication, Flight Data request and notification) by the end of 2026

Ireland
AirNav Ireland plans to have an operational validation of the consumption of the Publication Service for its Dublin iATS Tower System by Q3 2026

Maastricht
MUAC plans that the MUAC's support screen (screen) will be able to use operationally the flight data request service by October 2026

Poland
PANSA plans operational usage of Client FF-ICE Application. The Client will be working next to PANSA's Traffic Gateway/Broker, with operational use of Data Publication, Flight Data Request and Notification Services.

Romania
ROMATSA reports operational implementation of FF-ICE services by end of 2025.

Slovenia
Slovenia Control plans full operational completion by Q1 2026.

Spain
ENAIRE uses operationally the flight data request and notification service (from their ICARO System) from end of December 2025

Figure 14 - Map of early and partial implementations

3.4.2. SDM Analysis

Of the three ANSPs (Czech Republic, Romania, Slovenia) which had planned (at the time of the previous FF-ICE Implementation Roadmap) to complete their **operational implementation by the end of 2025 in conformance with CP1 deadline**, only **ROMATSA has achieved that objective**. However, it should be noted that **the delays reported by ANS CR and Slovenia Contral are minimal as they are planning their implementation by the end of Q1 2026.**

It should be noted, however, that due to the current discussion on aircraft performance data (see section 2.3), these ATC Systems cannot consistently make use ofe aircraft performance data yet. **This operational usage of aircraft performance data**, and related benefits assessment, **will still need to be monitored** in due time **for those ANSPs having reported or soon to report an operational implementation of the usage of eFPLs**.

ENAIRE also **implemented operationally the Notification / Flight Data Request services** in their ICARO System.

Besides the four (4) States / ANSPs listed above, it is worth mentioning that another **seven (7) States have planned some initial implementations**, either at a validation level or at an operational level, **in 2026**.

Otherwise, the **substantial delays**, already visible in last two years regarding the ANSPs' planned operational implementation of FF-ICE/R1 in Europe compared to the CP1 target date (31/12/2025) **are confirmed by this year reporting** and no ANSP has reported an earlier planned implementation date (**the average delay with regards to the mandated date of implementation being now 4.3 years compared with 3.7 years previously**), with even the **latest implementation planned in 2035 while it was 2032 last year**.

The following elements of last year's analysis stay stable/are still valid:

- Many ANSPs have chosen to implement FF-ICE/R1 capabilities as part of their implementation of new ATC/FDP Systems and not as update to their existing systems, which is indeed confirmed this year. This reflects that FF-ICE/R1 implementation delays are mostly due to many ANSPs' strategies, which they report as driven by rationalised investments and achievable planning.
- On top of existing planned, the strategy of implementation of new systems (and their operational rollout) creates a greater uncertainty on the planning as this is riskier than an update of current systems as undertaken by the three first ANSPs having completed their implementation or planning for an implementation by early this year.
- Another planning element where uncertainty still exists is the implementation planning per ACC where a state's airspace is covered by several ACCs. France, Greece, Ireland, Italy, Spain and Sweden did not provide different dates for their implementation in different ACCs. This remains to be seen whether this reflects an actual capability to deploy accordingly (particularly in the case of a new System and not an update of an existing one) or rather a lack of refined planning to that level yet. This uncertainty may even be higher in the case of France that operates specific Approach Control Centres related to their mandated airports (while in the case of other mandated airports, the approach control is ensured by the ACC (ATC System)).

Otherwise, it should be noted that the CP1 regulatory scope of implementation does not cover the whole spectrum of the EATMN ATS for FF-ICE / R1, in particular regarding the notification service where departure and arrival notifications are often provided to NM by airports' ATS. This results that the CP1 implementation of the notification service may only be partial regarding all departures / arrivals within a country.

This regulatory gap is intended to be covered through a proposal that will be made by the SDM as part the next CP1 extended scope.

In most cases, Tower systems rely on flight plan information provided by Air Navigation Service Providers (ANSPs), specifically from the Flight Data Processing (FDP) system (this dependency is illustrated in the different "systems' design diagrams" provided for each State in the Annex of this document).

As a result, **most of the TWR systems are dependent on the FF-ICE/R1 implementation within the core ATC systems of the associated ACCs/APPs and the current planning reflects this**.

The **planning provided by ANSPs and Airports regarding the impacted TWR systems**[4] show generally **similar completion dates as the ones of associated ACCs / APPs, and hence the same delays**. As the implementation is much simpler for TWR systems, this planning approach seems reasonable.

However, ANSPs operate TWR systems supplied by multiple manufacturers. This **fragmentation may introduce some challenges not assessed yet and risks exist for higher delays**.

After having developed in 2025 a high-level TWR Systems impact assessment (see action below reporting on that), SDM will aim at engaging progressively with the stakeholders. The first TWR implementation being Dublin planned in 2027, the rest between 2028 and 2035- with different ANSPs'/airports' implementers to verify the robustness of their planning considering their target architecture and the different TWR Systems impacted.

Due to the significant delays already visible in the previous editions of the FF-ICE Implementation Roadmap, SDM was questioned regarding the impacts of such delays. SDM performed then an AF5-AF6 sensitivity analysis (as delays impact were also sought for AF6). The analysis took an assumption of a 5-year delays of the implementation (as a worst-case scenario) whereas in this year's version of the roadmap the average delay computed is 4.2 years.

The results of the analysis were the following. The potential loss of monetary benefits associated with a postponement of 5.6.1 (5 years delay) is estimated at €463m between 2025 and 2035. This is a reduction of around 9% of all the value associated to FF-ICE or less than 1% of overall benefits of CP1 (all families for 2014-2040). In a per flight value, this represents less than €3.5 per flight for the period considered.

3.4.3. Actions

This section provides for an update of the NM & SDM support actions related to ANSPs' CP1 FF-ICE Implementation:

- To continue to support the ANSPs in the use case work elaborating on the assessed benefits derived from the implementation.
  - *(status in 2025) Done for the elaboration of initial use cases (see 2.3). SDM will now monitor the implementation of use cases as part of ANSPs' test and operational system to reflect on that appropriately.*
  - *(status in 2026) Closed. This action has been replaced with the activity related to specifying Performance Data and defining beneficial use cases (see section 2.3 Situation regarding "Flight Performance Data").*

- To organise bilateral discussions with ANSPs to allow an elaboration of their planning to the level of details required (e.g. per ACC and mandated Approach control unit) and discuss further any possible mitigation actions to accelerate implementation process as discussed in particular during the IBG consultation meeting. This will include engaging with the ANSPs who haven't reported yet in this monitoring exercise.
  - (*status 2025) Done*
  - *(status 2026) ongoing*

- To provide technical support to the stakeholders in their implementations through bilateral meetings and workshops (e.g. within the FPFDE Sub-group)
  - *(status in 2025,) Done (e.g. regular topics at FPFDE, specific ANSPs FF-ICE/R1 first implementation lessons learned workshop)*

[4] TWR Systems of the airports referred in CP1 (*Adolfo Suarez Madrid-Barajas, Amsterdam Schiphol, Barcelona El Prat, Berlin Brandenburg, Brussels National, Copenhagen Kastrup, Dublin, Düsseldorf International, Frankfurt International, Milan-Malpensa, Munich Franz Josef Strauss, Nice Cote d'Azur, Palma De Mallorca Son Sant Joan, Paris CDG, Paris Orly, Rome-Fiumicino, Stockholm Arlanda, Vienna Schwechat. - Additionally, Switzerland (Zurich Airport) and Norway (Oslo Gardermoen) are mandated by national law, although not mentioned in CP1)*

- *(status in 2026) on-going*

- To continue engaging with the Manufacturers to discuss their technical readiness and any issues potentially impacting on the ANSPs' consolidated planning.
  - *(status in 2025) Done (meetings held with different main ATM Systems providers)*
  - *(status in 2026) to be continued as necessary*

- To reflect on whether / how the monitoring should include other States (e.g. UK) also willing to implement FF-ICE / R1
  - (*status in 2025) To be done*
  - *(status in 2026) Closed. SDM will not seek to monitor other States, but NM will within its normal obligations*

- To make a full mapping of Airport/TWR systems impacted by the FF-ICE/R1 implementation.
  - *(status in 2025) To be done*
  - (*status in 2026) Closed, the action was superseded by the production of the document European FF-ICE/R1 Implementation Roadmap / TWR Systems Impact Assessment (see next action for full explanation*)

- To evaluate the need to support the Stakeholders in developing any Use Cases for TWR related Systems.
  - (*status in 2025) It was decided to pause this action, as the use and quality of the additional data in the eFPLs are still to be assessed by the ANSPs. Secondly, as indicated in the previous assessment, the additional data available in the eFPL, do not indicate the need/opportunity to elaborate new use cases for the TWR/airport environment. Despite the initial conclusion, SDM will engage with ANSPs to seek potential relevant functional/operational use cases. This activity is expected to be restarted in 2026*
  - (*status in 2026) The activity re-started with the development of a document European FF-ICE/R1 Implementation Roadmap / TWR Systems Impact Assessment that concludes, besides the required technical adaptation to adapt indirectly or directly to the eFPL format information, the use of GUFI as the only recommended / mandated use case.*

- To engage with TWR system manufacturers ensuring the full manufacturer awareness of the requirements.
  - (*status in 2025) Ongoing, SDM will collect TWR system manufacturers' information from ANSPs and Airports and progress this action thereafter.*
  - *(status in 2026) Closed, considering that the use of GUFI as the only recommended / mandated use case, it was deemed not necessary to approach TWR System manufacturers as the work is not assessed as complex*.

- To organise bilateral discussions with ANSPs / Airports to allow their completion of the TWR Systems planning information to the level of details required (e.g. per each type of System concerned) and discuss further any possible mitigation actions.
  - (*status in 2025) On-going*
  - *(status in 2026) This action has paused in 2025, with SDM concentrating on developing*

the TWR Systems Impact Assessment document. The action will re-start later this year with organizing a first discussion with the earlier implementing Stakeholder, i.e. Dublin airport planning for implementation in 2027.

3.5. ATS Reporting Offices (AROs)

ATS Reporting Offices (AROs) are mandated and designated by EU Member States to facilitate flight plan filing for AUs.

Considering the current flight plans submitted through AROs, this concerns approximately 2.5% of European IFR traffic.

While AROs are not explicitly mentioned in CP1, AROs would need to enhance their capabilities to accommodate CP1 FF-ICE / R1 requirements, for AUs filing IFR flight plans through local AROs to be compliant with CP1.

In that perspective, AROs should at least consume the Filing Service and the Flight Data Request Service, as provided by the Network Manager.

From a regulatory point of view, it could not be clarified, when States/ANSPs continue after 31/12/2025 to provide an ARO (ATS Reporting Office) capability for AUs -for the most part in relation to General Aviation or Business Aviation-, whether the FF-ICE mandate / obligation "applies implicitly" to the State / ANSP or remains with an AU (as when using a CFSP System).

This explains why the (monitoring of) AROs implementation by ANSPs is not formally identified as part of the SDP monitoring view but only in this FF-ICE Implementation Roadmap.

Monitoring AROs' implementation is performed through a dedicated questionnaire. This questionnaire collects information on their implementation plans for all CP1-mandated FF-ICE/R1 services, including the Filing Service, Notification Service, and Flight Data Request Service.

3.5.1. Reported Planning

All 29 states have responded to the questionnaire. Of these, 18 states have indicated varying implementation timelines stretching from 2026 to 2030. Eleven states have not provided expected implementation dates, part of them expressing that their timelines depend on the availability of FF-ICE/R1 capabilities in eEAD. Romania is included twice in the following picture as they intend to use both eEAD and an industry System in a redundant mode.

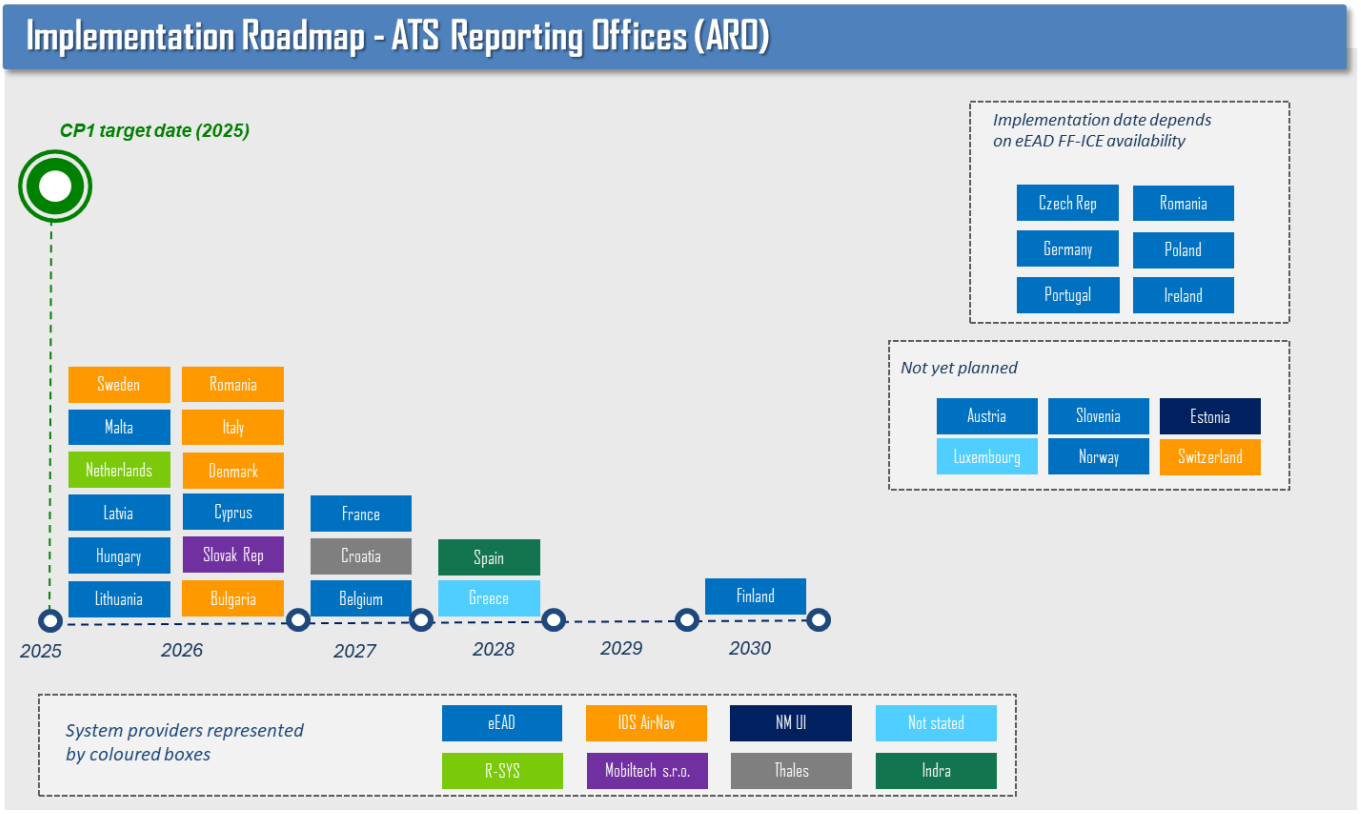


Figure 15 - ARO's Implementation Planning (Country level)

3.5.2. SDM Analysis

With the introduction of FF-ICE/R1, the role of ARO systems is shifting from basic office functions—such as checking and forwarding flight plans for general aviation—to more advanced capabilities, including trajectory calculation required for the eFPL. This necessitates a significant evolution from today's relatively simple systems.

As anticipated in our analysis of last year, **no implementation was completed in 2025** -although Stakeholders planned for nine (9) implementations in 2025-. It is expected that the planning is now more reliable.

There are now **twelve (12) implementations planned for 2026,** five (5) of them based upon an IDS AirNav System, five (5) of them based upon eEAD, one based upon R-SYS System and the last one based upon Mobiltech s.r.o.

It is to be noted that EUROCONTROL plans the availability of FF-ICE/R1 capabilities within eEAD in Q4 2026. The roll- of operational functionality by an ANSP will then depend on their use of eEAD in B2B or B2C and any required adaptation, training etc. Therefore a completed implementation and operational roll-out in 2026 seems very challenging.

Concerning the implementations based upon an IDS AirNAv System, it is to be noted that Italy plans to implement by the end of Q2 2026 so an early good test of feasibility for other Stakeholders foreseeing the same industrial solution. Next, Slovak Republic is also planning implementation by June 2026 based upon a Mobiltech industrial solution.

3.5.3. Actions

- Follow up meetings with the industry to ensure that the solutions and systems being developed and delivered are full consistent with what is mandated by CP1
  - (*status in 2025) On-going*
  - *(status in 2026) New meetings will be organized in a sequence following the planning of operational implementation*

- Extend the NM B2B validation process to AROs, including any monitoring process
  - *(status in 2025) To be started*
  - *(status in 2026) To be started (no ARO yet having a operational validation with NM)*

3.6. Military Stakeholders

Military Stakeholders are also affected by the CP1 regulation and are required to ensure that civil-military information exchanges continue seamlessly. According to the CP1 regulation, when deploying SWIM functionality, Member States must guarantee that civil-military cooperation is maintained as required by point 3.2 of Annex VIII of Regulation (EU) 2018/1139.

Currently, military aircraft operators file flight plans either through their own systems or via the local ARO office. When operating as General Air Traffic (GAT), they would be required to file an electronic Flight Plan (eFPL) by December 31, 2025, in line with commercial traffic CP1 FF-ICE/R1 requirements.

Monitoring of military Stakeholders' implementation related to CP1 is performed through questionnaires sent through EDA. This year, seven of them provided answers to the questionnaires. All acknowledged the FF-ICE implementation requirement.

Two States ((Portugal, Spain) reported that they are "using" a CFSP / already compliant with FF-ICE or and therefore should be capable of providing eFPL soon / in 2026, Austria reported using a CFSP / Industry System currently being adapted and that their planning for filing eFPL is by the end of 2026, Belgium reporting using a military ARO based upon eEAD and reported the filing of eFPL will then depend on the eEAD timeline (currently eEAD FF-ICE capability planned by end of 2026), France reported using a specific military CFSP System that needs to be adapted and that their planning for filing eFPL is by the end of 2027, Slovenia reported using the ARO system operated by their ANSP but did not provide a date for filing of eFPL (note that Slovenia has indicated "not yet planned " for its ARO System), and Germany reported having no planning yet.

We can see that the awareness and acknowledgement of military FF-ICE requirement is better than last year as none answered "not applicable", although we cannot be sure why the other military authorities did not answer the questionnaire.

SDM will continue having communication actions to raise Military FF-ICE/R1 awareness.

3.7. Further monitoring of the Implementation roadmap planning

As written in previous sections related to actions, bilateral discussions will be continued between the NM/SDM FF-ICE initiative and implementing Stakeholders to refine further the different planning available as necessary and provide any implementation support as required.

The next version of the Implementation Roadmap will be available in early 2027 after Stakeholders 2026 SDP monitoring information is available.

4. Individual ANSP Roadmaps

This section provides detailed information reported by States / ANSPs in the framework of the SDP Monitoring Exercise 2025.

SDM has supplemented this information with an architecture diagram for each ANSP, providing a high-level interpretation of the FF-ICE/R1 implementation design across the main ACC, APP, and TWR systems. These diagrams are based on the submitted reports and the discussions held with the respective ANSPs.

The "FF-ICE/R1 Service Deployment Overview" tables present the planned timeframe for the deployment of each FF-ICE Service. Within these tables, a "?" indicates that no planning date has yet been received and that we currently do not have visibility of the expected timeline. An "N/A" indicates that a date is not expected, as the corresponding system is not applicable to the specific milestone or checkpoint.

For example, if an ANSP's FDP consumes FF-ICE services via a broker or SWIM platform, planning dates would only be expected for the FDP in relation to "DM2 – Operational Use." In this case, "DM1 – Connectivity" would apply solely to the broker or SWIM platform, not to the FDP itself.

4.1. Austria FF-ICE Release 1 Implementation Roadmap

Introduction

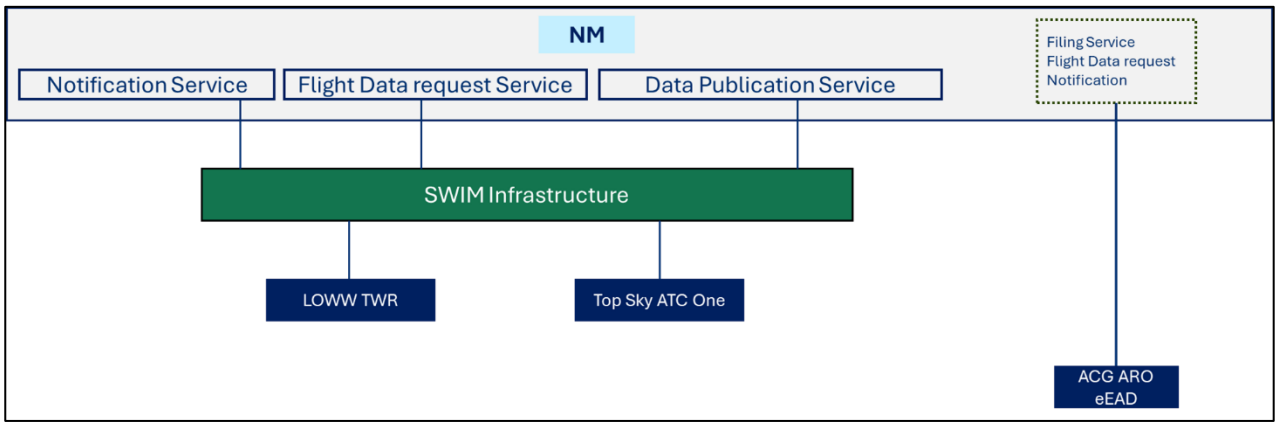
Austro Control (ACG) is part of the COOPANS Alliance, and there are no plans to use NM FF-ICE/R1 Formats and services in COOPANS Legacy System for 2026. Native processing of NM FF-ICE/R1 will be implemented in the next Generation ATM system (TopSky ATC One) in 2027. Full operational capabilities will be available by the end of Q3 2028. The contract with Thales for the COOPANS alliance was signed in 2024.

ACG is currently deploying SWIM infrastructure to serve all SWIM stakeholders, including LOWW TWR, where a tender was published and the contract was awarded for the ITWP (Integrated Tower Working Position/upgraded TWR system). The legacy system will not be upgraded. ITWP will not consume eFPLs from the ATC One FDP or directly from NM. Instead, the SWIM Core will act as an intermediary for both TopSky ATC One and ITWP.

For ARO, ACG depends on the availability of eEAD, where ACG will use the eEAD updated filing function for the filing of eFPLs.

FF-ICE/R1 selected architecture approach

In the case of Austria, the approach is covering all FF-ICE services: Flight Data Request, Notification and Data Publication Service.



FF-ICE/R1 Service deployment overview

Flight Data Request Service

	Checkpoint 1	***Checkpoint 2***	***Checkpoint 3***	***Checkpoint 4***	***Checkpoint 5***
Location	Start of implementation	Start of implementation and testing on NM pre-ops	Start of validation testing on NM pre-ops	DM1: Connectivity End of testing (Connectivity readiness)	DM2: Operational use Request of flight plan, supplementary flight plan and flight status information is done via the Flight Data Request Service provided by the Network Manager
SWIM Infrastructure	01/072025	01/01/2026	01/06/2026	31/12/2026	N/A
Comment				Detailed deployment planning and test scheduling is ongoing.	
Wien ACC/FDP		N/A	N/A	N/A	01/03/2028
Comment					
LOWW TWR		N/A	N/A	N/A	01/03/2028
Comment					

Notification Service

	Checkpoint 1	***Checkpoint 2***	***Checkpoint 3***	***Checkpoint 4***	***Checkpoint 5***
Location	Start of implementation	Start of implementation and testing on NM pre-ops	Start of validation testing on NM pre-ops	DM1: Connectivity End of testing (Connectivity readiness)	DM2 Operational use: Departure and arrival information is shared using the notification service provided by the Network Manager
SWIM Infrastructure	01/07/2025	01/01/2026	01/06/2026	31/12/2026	N/A
Comment				Deployment planning and test scheduling is ongoing.	
Wien ACC/FDP		N/A	N/A	N/A	01/03/2028
Comment					
LOWW TWR		N/A	N/A	N/A	01/03/2028
Comment					

Data Publication Service

	Checkpoint 1	***Checkpoint 2***	***Checkpoint 3***	***Checkpoint 4***	***Checkpoint 5***	***Checkpoint 6***	***Checkpoint 7***	***Checkpoint 8***
Location	Start of implementation	Start of implementation and testing on NM pre-ops	Start of validation testing on NM pre-ops	DM1: Connectivity End of testing (Connectivity readiness)	Service in operations	System is using the GUFI	System is using the operator flight plan version	DM2 Operational use: System is using information from the eFPL (when provided) including aircraft take Off Mass, the performance climb and descent profiles and the climb and descent speed schedule, and route/trajectory information to compute their trajectory. Please indicate which of this information the system may be using
SWIM Infrastructure	01/07/2025	01/01/2026	01/06/2026	31/12/2026	N/A	N/A	N/A	N/A
Comment								
Wien ACC/FDP		N/A	N/A	N/A	01/01/2028	01/05/2028	01/06/2028	01/03/2028
Comment						Earliest assumed date. Detailed planning is still ongoing and dates may change.	Earliest assumed date. Detailed planning is still ongoing and dates may change.	eFPL use will be achieved with the upgraded ATM System.
LOWW TWR		N/A	N/A	N/A	01/01/2028	01/05/2028	01/06/2028	01/03/2028
Comment						Earliest assumed date. Detailed planning is still ongoing and dates may change.	Earliest assumed date. Detailed planning is still ongoing and dates may change.	eFPL use will be achieved with the upgraded ATM System.

4.2. Belgium FF-ICE Release 1 Implementation Roadmap

Introduction

Belgium acknowledges that all systems consuming flight plans are impacted. For Belgium this includes at least the following systems: FDP, SWIM node, TCAST (Traffic Complexity Tool), AMS (Airport Movement System) and the EAD.

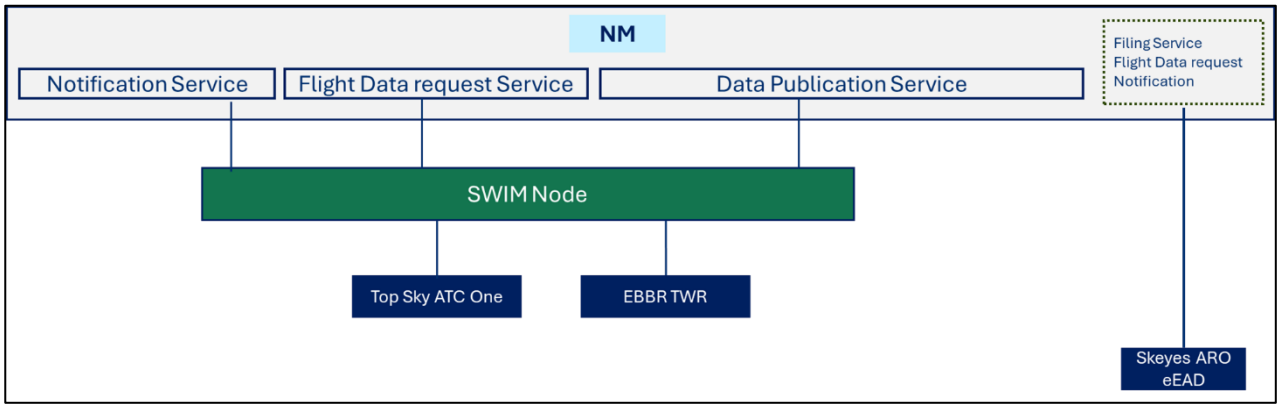
Skeyes has initiated a project to implement a SWIM infrastructure by Q4 2026, centred around a SWIM node. The implementation of FF-ICE/R1, and specifically the Data Publication Service, the Flight Data Request Service and the Notification Service, are crucial for the advancement of the current ATM system. Skeyes is dedicated to deploying the necessary FF-ICE/R1 services by the end of 2028, in conjunction with the deployment of its upgraded ATM system (TopSky-ATC One) where a contract was signed in 2024 with Thales.

Furthermore, Skeyes actively participates in the Flight Plan and Flight Data Evolution Sub-Group (FPFDE SG). This sub-group is responsible for developing the implementation roadmap, specifications, requirements, and use cases for the FF-ICE services.

In terms of the consumption of the FF-ICE services, skeyes will utilise a SWIM node, which will provide a common connection to systems using the FF-ICE data, such as the TopSky-ATC One system as well as their TWR systems at EBBR.

FF-ICE/R1 selected architecture approach

In the case of Belgium, the approach is covering all FF-ICE services: Flight Data Request, Notification and Data Publication Service.



FF-ICE/R1 Service deployment overview

Flight Data Request Service

	Checkpoint 1	***Checkpoint 2***	***Checkpoint 3***	***Checkpoint 4***	***Checkpoint 5***
Location	Start of implementation	Start of implementation and testing on NM pre-ops	Start of validation testing on NM pre-ops	DM1: Connectivity End of testing (Connectivity readiness)	DM2: Operational use Request of flight plan, supplementary flight plan and flight status information is done via the Flight Data Request Service provided by the Network Manager
SWIM Node	01/02/2026	01/07/2026	01/08/2026	30/09/2026	N/A
Comment					
Brussels ACC/FDP	31/12/2026	30/06/ 2027	30/09/2027	30/09/2027	31/12/2028
Comment					
EBBR TWR	N/A	N/A	N/A	N/A	N/A
Comment					

Additional comments

Skeyes has initiated a project to implement a System Wide Information Management (SWIM) infrastructure by Q4 2026, centered around a SWIM node.

The implementation of Flight and Flow Information for a Collaborative Environment (FF-ICE/R1), and specifically the Data Request Service, is crucial for the advancement of the current Air Traffic Management (ATM) system. Skeyes is dedicated to deploying the necessary FF-ICE/R1 services by the end of 2028, in conjunction with the deployment of its upgraded ATM system.

The EBBR TWR Systems do not have the operational use of flight data requests.

Notification Service

	Checkpoint 1	***Checkpoint 2***	***Checkpoint 3***	***Checkpoint 4***	***Checkpoint 5***
Location	Start of implementation	Start of implementation and testing on NM pre-ops	Start of validation testing on NM pre-ops	DM1: Connectivity End of testing (Connectivity readiness)	DM2 Operational use: Departure and arrival information is shared using the notification service provided by the Network Manager
SWIM Node	01/02/2026	01/07/2026	01/08/2026	30/09/2026	N/A
Comment					
Brussels ACC/FDP	31/12/2026	30/06/2027	30/09/2027	30/09/2027	31/12/2028
Comment					
EBBR TWR	N/A	N/A	N/A	N/A	31/12/2028
Comment					

Additional comments

Skeyes has initiated a project to implement a System Wide Information Management (SWIM) infrastructure by Q4 2026, centered around a SWIM node.

The implementation of Flight and Flow Information for a Collaborative Environment (FF-ICE/R1), and specifically the Notification Service, is crucial for the advancement of the current Air Traffic Management (ATM) system. Skeyes is dedicated to deploying the necessary FF-ICE/R1 services by the end of 2028, in conjunction with the deployment of its upgraded ATM system.

Data Publication Service

	Checkpoint 1	Checkpoint 2	Checkpoint 3	Checkpoint 4	Checkpoint 5	Checkpoint 6	Checkpoint 7	Checkpoint 8
Location	Start of implementation	Start of implementation and testing on NM pre-ops	Start of validation testing on NM pre-ops	DM1: Connectivity End of testing (Connectivity readiness)	Service in operations	System is using the GUFI	System is using the operator flight plan version	DM2 Operational use: System is using information from the eFPL (when provided) including aircraft take Off Mass, the performance climb and descent profiles and the climb and descent speed schedule, and route/trajectory information to compute their trajectory. Please indicate which of this information the system may be using
SWIM Node	01/02/2026	01/07/2026	01/08/2026	30/09/2026		N/A	N/A	N/A
Comment								
Brussels ACC/FDP	31/12/2026	30/06/2027	30/09/2027	30/09/2027	31/12/2028	31/12/2028	31/12/2028	31/12/2028
Comment The Air Traffic Management (ATM) System is planned to consume and use the Aircraft Takeoff Mass from the aircraft performance data. The capability of integrating and operational use of additional aircraft performance data, including Climb and Descent Profiles and Climb and Descent Speed Schedules, are currently under elaboration.								
EBBR TWR	N/A	N/A	N/A	N/A	31/12/2028	31/12/2028	31/12/2028	31/12/2028
Comment								
Brussels ACC, Traffic Complexity Tool	30/06/2026	30/09/2026	30/09/2026	31/12/2026	31/12/2026	31/12/2026	31/12/2026	31/12/2026
Comment								

Additional comments

Skeyes has initiated a project to implement a System Wide Information Management (SWIM) infrastructure by Q4 2026, centered around a SWIM node.

The implementation of Flight and Flow Information for a Collaborative Environment (FF-ICE/R1), and specifically the Data Publication Service, is crucial for the advancement of the current Air Traffic Management (ATM) system. Skeyes is dedicated to deploying the necessary FF-ICE/R1 services by the end of 2028, in conjunction with the deployment of its upgraded ATM system.

The Air Traffic Management (ATM) System is planned to consume and use the Aircraft Takeoff Mass from the aircraft performance data. The capability of integrating and operational use of additional aircraft performance data, including Climb and Descent Profiles and Climb and Descent Speed Schedules, are currently under elaboration and their consumption is to be analysed along with the ATM system provider.

4.3. Bulgaria FF-ICE Release 1 Implementation Roadmap

Introduction

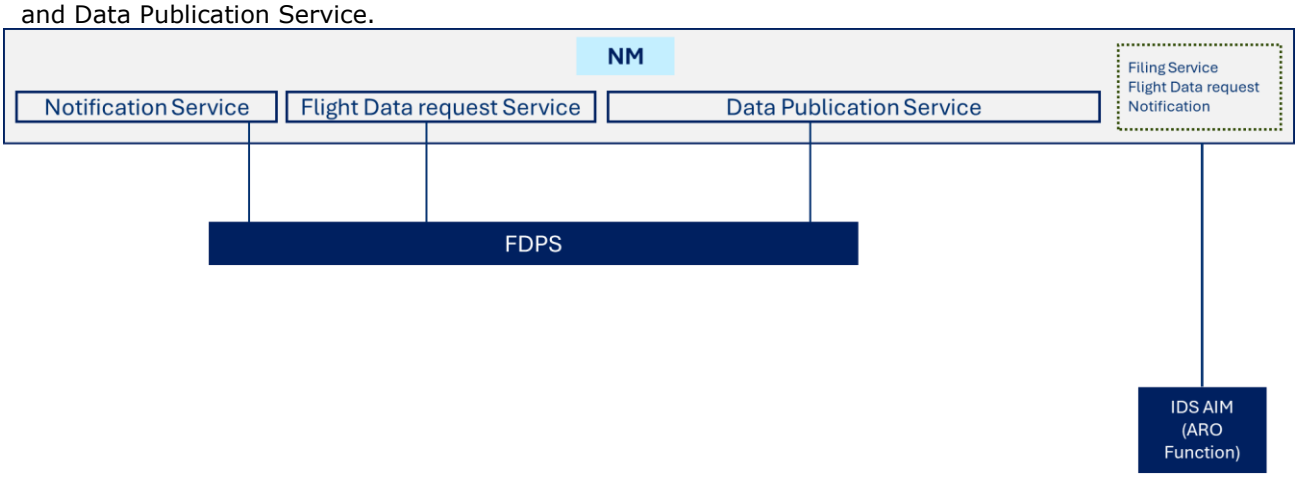
BULATSA plans to sign a contract with its ATM system provider Leonardo by the end of 2025 and has already fully specified the new ATM system. The system will include a data front-end processor for communication with NM and will leverage enhanced data for trajectory computation.

For the integration of ARO with FF-ICE/R1 services, BULATSA has already signed a contract with IDS AirNav.

For the integration with the FF-ICE/R1 service of a local flight data processing system (STON), which is independent of the ATM system, BULATSA has already signed a contract with LIREX, a Bulgarian software company. The STON system provides flight information to the local software systems operating in BULATSA, both for ANSP and ARO.

FF-ICE/R1 selected architecture approach

In the case of Bulgaria, the approach is covering all FF-ICE services; Flight Data Request, Notification and Data Publication Service.



FF-ICE/R1 Service deployment overview

Flight Data Request Service

	Checkpoint 1	***Checkpoint 2***	***Checkpoint 3***	***Checkpoint 4***	***Checkpoint 5***
Location	Start of implementation	Start of implementation and testing on NM pre-ops	Start of validation testing on NM pre-ops	DM1: Connectivity End of testing (Connectivity readiness)	DM2: Operational use Request of flight plan, supplementary flight plan and flight status information is done via the Flight Data Request Service provided by the Network Manager
Sofia ACC/FDP	15/04/2026	01/10/2026	30/06/2027	31/12/2027	30/05/2028
Sofia STON	11/11/2025	18/03/2026	01/08/2026	01/02/2027	01/05/2027
Comment					

Additional comments

The delay between Checkpoint 4 and the following Checkpoints is due to training period restrictions (ATCO and ATSEP).

Notification Service

	Checkpoint 1	***Checkpoint 2***	***Checkpoint 3***	***Checkpoint 4***	***Checkpoint 5***
Location	Start of implementation	Start of implementation and testing on NM pre-ops	Start of validation testing on NM pre-ops	DM1: Connectivity End of testing (Connectivity readiness)	DM2 Operational use: Departure and arrival information is shared using the notification service provided by the Network Manager
Sofia ACC/FDP	15/04/2026	01/10/2026	30/06/2027	31/12/2027	30/05/2028
Sofia STON	11/11/2025	18/03/2026	01/08/2026	01/02/2027	01/05/2027
Comment					

Additional comments

The delay between Checkpoint 4 and the following Checkpoints is due to training period restrictions (ATCO and ATSEP).

Data Publication Service

	Checkpoint 1	***Checkpoint 2***	***Checkpoint 3***	***Checkpoint 4***	***Checkpoint 5***	***Checkpoint 6***	***Checkpoint 7***	***Checkpoint 8***
Location	Start of implementation	Start of implementation and testing on NM pre-ops	Start of validation testing on NM pre-ops	DM1: Connectivity End of testing (Connectivity readiness)	Service in operations	System is using the GUFI	System is using the operator flight plan version	DM2 Operational use: System is using information from the eFPL (when provided) including aircraft take Off Mass, the performance climb and descent profiles and the climb and descent speed schedule, and route/trajectory information to compute their trajectory. Please indicate which of this information the system may be using
Sofia ACC/FDP	15/04/2026	01/10/2026	30/06/2027	31/12/2027	30/05/2028	30/05/2028	30/05/2028	30/05/2028
Sofia STON	11/11/2025	18/03/2026	01/08/2026	01/02/2027	01/05/2027	01/05/2027	01/05/2027	01/05/2027
Comment								

Additional comments

The delay between Checkpoint 4 and the following Checkpoints is due to training period restrictions (ATCO and ATSEP).

4.4. Croatia FF-ICE Release 1 Implementation Roadmap

Introduction

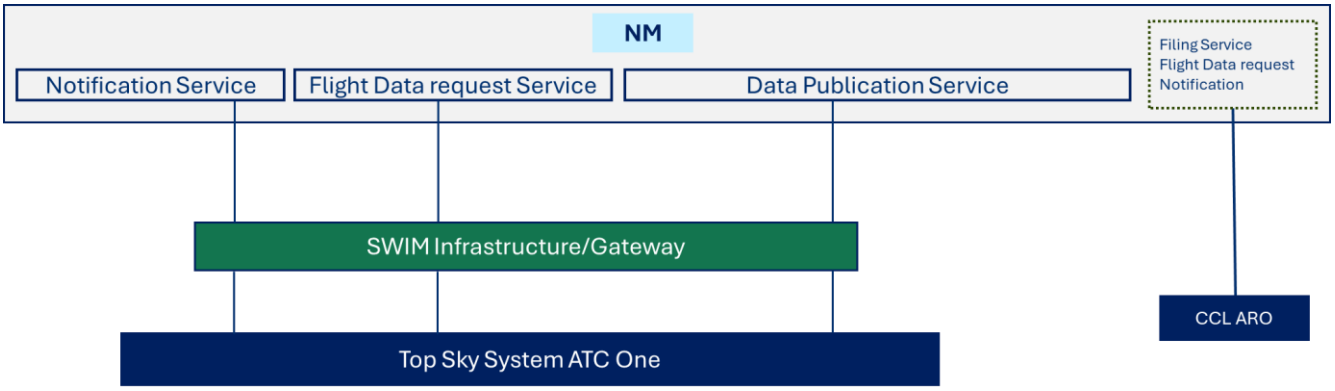
As a member of the COOPANS alliance, Croatia Control are aligned with the other COOPANS members in terms of FF-ICE/R1 implementation. Consequently, there are no plans to consume NM FF-ICE/R1 formats in their current major ATM system (TopSky) for 2026 and 2027.

Native processing of NM FF-ICE/R1 information will be implemented within the main ATM system upgrade that will take place in Q1/2028. While the new ATM System Top Sky ATC One will be capable of consuming FF-ICE services directly, CCL similar to other COOPANS stakeholders will consume the services through a dedicated own SWIM infrastructure.

In terms of the ARO functionality, Croatia Control has decided to upgrade the Thales' AIM system to the version compliant with the CP1/AF5.6 in ARO.

FF-ICE/R1 selected architecture approach

In the case of Croatia, the approach is covering all FF-ICE services; Flight Data Request, Notification and Data Publication Service. Additionally, Filling Service will be available by ARO by Q3/2026..



FF-ICE/R1 Service deployment overview

Flight Data Request Service

	Checkpoint 1	***Checkpoint 2***	***Checkpoint 3***	***Checkpoint 4***	***Checkpoint 5***
Location	Start of implementation	Start of implementation and testing on NM pre-ops	Start of validation testing on NM pre-ops	DM1: Connectivity End of testing (Connectivity readiness)	DM2: Operational use Request of flight plan, supplementary flight plan and flight status information is done via the Flight Data Request Service provided by the Network Manager
Zagreb ACC/FDP	06/08/2024	31/12/2026		30/09/2027	28/02/2028
Comment		For the main ATM system implementation and testing on NM pre-ops is expected Q4/2026.	For the main ATM system validation testing on NM pre-ops is expected Q4/2026 and Q2/2027.	For the main ATM system connectivity shall be ready by Q3/2027.	For the main ATM system, operational use is foreseen by 28/02/2028.
Comment					

Additional comments

Exact dates for NM pre-ops testing depend on readiness of Zagreb ATC1 test platform, dates still under schedule negotiation with supplier of ATM system.

CCL does not expect significant changes to the SWIM TI during the implementation beyond configuration changes. For this purpose, CCL considers SWIM TI as part of the communication infrastructure and not part of the Functional System requiring changes.

The SWIM TI will interface with NM for the sole function of establishing secure connection between CCL and NM using EACP PKI infrastructure. In this moment we do not plan for SWIM TI to be an end-consumer of any service at the application layer. End systems will subscribe to the NM services through the secure connection between SWIM TI and NM.

Notification Service

	Checkpoint 1	***Checkpoint 2***	***Checkpoint 3***	***Checkpoint 4***	***Checkpoint 5***
Location	Start of implementation	Start of implementation and testing on NM pre-ops	Start of validation testing on NM pre-ops	DM1: Connectivity End of testing (Connectivity readiness)	DM2 Operational use: Departure and arrival information is shared using the notification service provided by the Network Manager
Zagreb ACC/FDP	06/08/2024	31/12/2026		30/09/2027	28/02/2028
Comment		For the main ATM system implementation and testing on NM pre-ops is expected Q4/2026.	For the main ATM system validation testing on NM pre-ops is expected Q4/2026 and Q2/2027.	For the main ATM system connectivity shall be ready by Q3/2027.	For the main ATM system, operational use is foreseen by 28/02/2028.
Comment					

Additional comments

Exact dates for NM pre-ops testing depend on readiness of Zagreb ATC1 test platform, dates still under schedule negotiation with supplier of ATM system.

CCL does not expect significant changes to the SWIM TI during the implementation beyond configuration changes. For this purpose, CCL considers SWIM TI as part of the communication infrastructure and not part of the Functional System requiring changes.

The SWIM TI will interface with NM for the sole function of establishing secure connection between CCL and NM using EACP PKI infrastructure. In this moment we do not plan for SWIM TI to be an end-consumer of any service at the application layer. End systems will subscribe to the NM services through the secure connection between SWIM TI and NM.

Data Publication Service

	Checkpoint 1	Checkpoint 2	Checkpoint 3	Checkpoint 4	Checkpoint 5	Checkpoint 6	Checkpoint 7	Checkpoint 8
Location	Start of implementation	Start of implementation and testing on NM pre-ops	Start of validation testing on NM pre-ops	DM1: Connectivity End of testing (Connectivity readiness)	Service in operations	System is using the GUFI	System is using the operator flight plan version	DM2 Operational use: System is using information from the eFPL (when provided) including aircraft take Off Mass, the performance climb and descent profiles and the climb and descent speed schedule, and route/trajectory information to compute their trajectory. Please indicate which of this information the system may be using
Zagreb ACC/FDP	06/08/2024	31/12/2026		30/09/2027	28/02/2028	28/02/2028	28/02/2028	28/02/2028
Comment For the main ATM system, operational use is foreseen by 28/02/2028		For the main ATM system implementation and testing on NM pre-ops is expected Q4/2026.	For the main ATM system validation testing on NM pre-ops is expected Q4/2026 and Q2/2027.	For the main ATM system connectivity shall be ready by Q3/2027.				
Comment								

Additional comments

Exact dates for NM pre-ops testing depend on readiness of Zagreb ATC1 test platform, dates still under schedule negotiation with supplier of ATM system.

CCL does not expect significant changes to the SWIM TI during the implementation beyond configuration changes. For this purpose, CCL considers SWIM TI as part of the communication infrastructure and not part of the Functional System requiring changes.

The SWIM TI will interface with NM for the sole function of establishing secure connection between CCL and NM using EACP PKI infrastructure. In this moment we do not plan for SWIM TI to be an end-consumer of any service at the application layer. End systems will subscribe to the NM services through the secure connection between SWIM TI and NM.

4.5. Cyprus FF-ICE Release 1 Implementation Roadmap

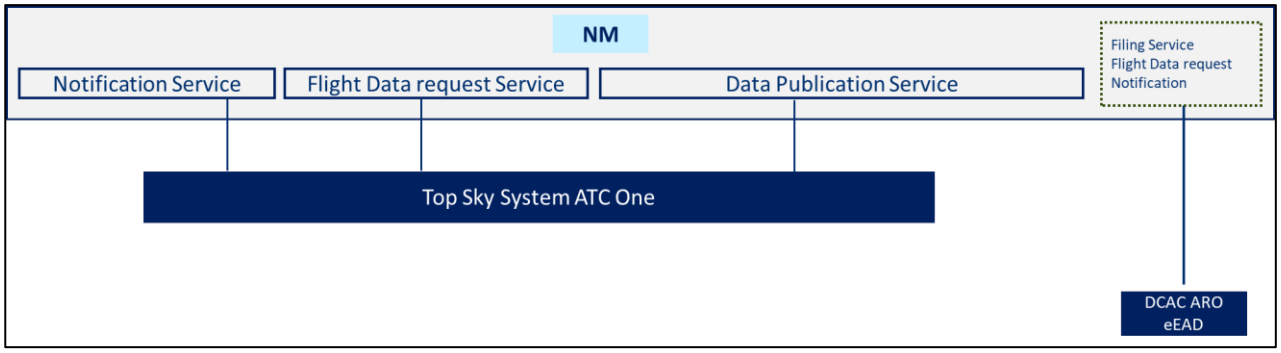
Introduction

DCAC is about to embark on a new project with its ATM system provider Thales to upgrade the current ATM system including additional CP1 functionalities as well as hardware. This approach would be an interim stepping stone towards acquiring the future ATM system (Top Sky ATC ONE) by THALES which will allow compliance with the CP1 requirements. Full compliance with the CP1 requirements is planned by the end of 2030.

Based on the current architecture planning, the DCAC FDP will consume the NM B2B services directly rather than through a SWIM gateway. With regards to ARO FF-ICE/R1 implementation DCAC is relying on the system of eEAD.

FF-ICE/R1 selected architecture approach

In the case of Cyprus, the approach is covering all FF-ICE services: Flight Data Request, Notification and Data Publication Service.



FF-ICE/R1 Service deployment overview

Flight Data Request Service

	Checkpoint 1	***Checkpoint 2***	***Checkpoint 3***	***Checkpoint 4***	***Checkpoint 5***
Location	Start of implementation	Start of implementation and testing on NM pre-ops	Start of validation testing on NM pre-ops	DM1: Connectivity End of testing (Connectivity readiness)	DM2: Operational use Request of flight plan, supplementary flight plan and flight status information is done via the Flight Data Request Service provided by the Network Manager
Nicosia ACC/FDP	01/05/2030	01/09/2030	01/10/2030?	31/12/2030	31/12/2030
Comment					

Additional comments

Testing dates and checkpoints are based on contractual estimations. The dates will be updated in future roadmap editions as the ATM upgrading project dates become more accurate.

Notification Service

	Checkpoint 1	***Checkpoint 2***	***Checkpoint 3***	***Checkpoint 4***	***Checkpoint 5***
Location	Start of implementation	Start of implementation and testing on NM pre-ops	Start of validation testing on NM pre-ops	DM1: Connectivity End of testing (Connectivity readiness)	DM2 Operational use: Departure and arrival information is shared using the notification service provided by the Network Manager
Nicosia ACC/FDP	01/05/2030	01/09/2030	01/10/2030	31/12/2030	31/12/2030
Comment					

Additional comments

Testing dates and checkpoints are based on contractual estimations. The dates will be updated in future roadmap editions as the ATM upgrading project dates become more accurate.

Data Publication Service

	Checkpoint 1	***Checkpoint 2***	***Checkpoint 3***	***Checkpoint 4***	***Checkpoint 5***	***Checkpoint 6***	***Checkpoint 7***	***Checkpoint 8***
Location	Start of implementation	Start of implementation and testing on NM pre-ops	Start of validation testing on NM pre-ops	DM1: Connectivity End of testing (Connectivity readiness)	Service in operations	System is using the GUFI	System is using the operator flight plan version	DM2 Operational use: System is using information from the eFPL (when provided) including aircraft take Off Mass, the performance climb and descent profiles and the climb and descent speed schedule, and route/trajectory information to compute their trajectory. Please indicate which of this information the system may be using
Nicosia ACC/FDP	01/05/2030	01/09/2030	01/10/2030	31/12/2030	?	?	?	31/12/2030
Comment								

Additional comments

Testing dates and checkpoints are based on contractual estimations. The dates will be updated in future roadmap editions as the ATM upgrading project dates become more accurate.

4.6. Czech Republic FF-ICE Release 1 Implementation Roadmap

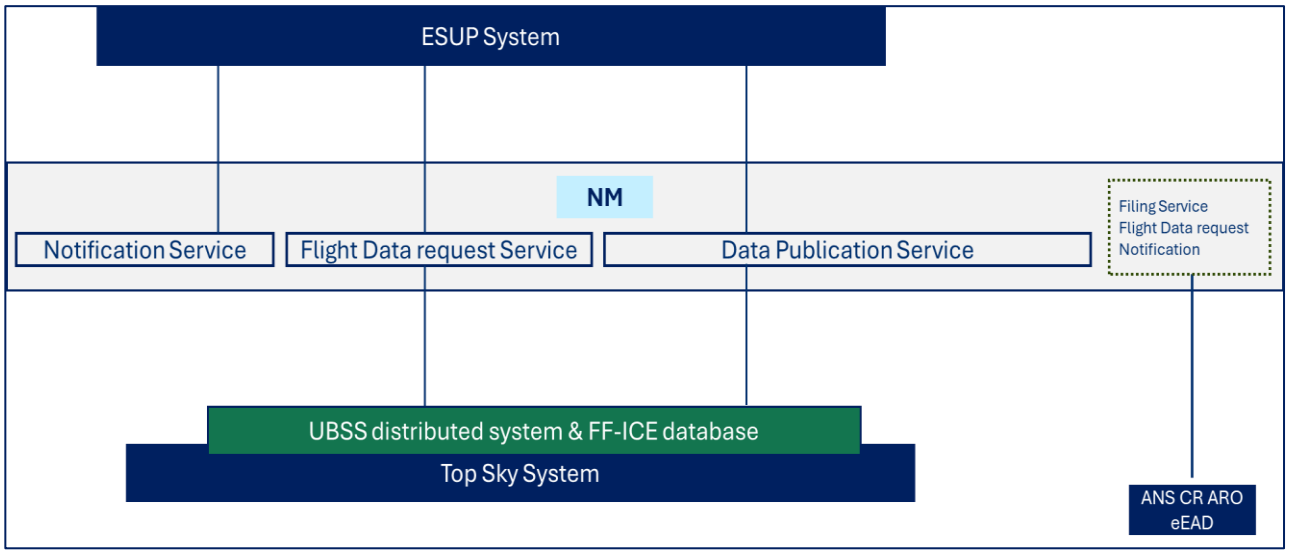
Introduction

ANS CR will have implemented all of 3 needed services of FF-ICE (Flight Data Request Service, Notification Service and Data Publication Service) by Q1 2026 .

ANS CR has one main Flight Data Processing System TopSky, and one supporting/fallback system: ESUP. These main and fallback system work together, and there is a proprietary interface for data exchange between the two systems, while communication with the NM will be implemented on both of them.

FF-ICE/R1 Service deployment Overview

In the case of the Czech Republic, the approach is covering all FF-ICE services: Flight Data Request, Notification and Data Publication Service.



FF-ICE/R1 Service deployment overview

Flight Data Request Service

	Checkpoint 1	***Checkpoint 2***	***Checkpoint 3***	***Checkpoint 4***	***Checkpoint 5***
Location	Start of implementation	Start of implementation and testing on NM pre-ops	Start of validation testing on NM pre-ops	DM1: Connectivity End of testing (Connectivity readiness)	DM2: Operational use Request of flight plan, supplementary flight plan and flight status information is done via the Flight Data Request Service provided by the Network Manager
Praha ACC/FDP	01/02/2024	01/06/2025	01/06/2025	28/02/2026	30/03/2026
Comment Main and fallback system work together – there is a proprietary interface for data exchange between the two systems, while communication with the NM will be implemented on both of them.					

Additional comments

Checkpoints 4 and 5 are impacted by NMOC release Wave 2.1. This release brings very important improvements (P/S subscription changes and others), which are implemented into NMOC OPS systems in November 2025. All shadow mode validations therefore must start after this date.

Data Request service is used for initial download of FDPS database.

PREOPS tests were requested 10.10.2025 (CRM-00078333), OPSVAL report from NMOC was received 19.12.2025.

Request for OPS certificate (Topsky) was sent 23.12.2025, CRM-00080752, delivery in progress. When OPS certificate is received, we will conduct detailed shadow tests to complete validation of operational usability. Status (29.1.26) – in progress, ANS received invoice (200 EUR) 23.1.2026.

Notification Service

	Checkpoint 1	***Checkpoint 2***	***Checkpoint 3***	***Checkpoint 4***	***Checkpoint 5***
Location	Start of implementation	Start of implementation and testing on NM pre-ops	Start of validation testing on NM pre-ops	DM1: Connectivity End of testing (Connectivity readiness)	DM2 Operational use: Departure and arrival information is shared using the notification service provided by the Network Manager
Praha ACC/FDP	01/02/2024	01/06/2025	01/06/2025	28/02/2026	30/03/2026
Comment					

Additional comments

Checkpoints 4 and 5 are impacted by NMOC release Wave 2.1. This release brings very important improvements (P/S subscription changes, changes in Notification Service XML contents and others), which are implemented into NMOC OPS systems in November 2025 and PREOPS system in September. All shadow mode validations and PREOPS Notification Service validations therefore must start after these dates.

Status (as of end of 2025)– waiting for NMOC to perform WRITE tests.

Request to NMOC to upgrade PREOPS certificate with services allowed to use Notification services for non-eFPL flights was sent 29.10.2025 (CRM-00078039). Upgrade was done 19.12.2025. Local tests were completed 23.12.2025.

Request to perform WRITE tests was sent to NMOC 23.12.2025 (CRM-00080062).

Data Publication Service

	Checkpoint 1	***Checkpoint 2***	***Checkpoint 3***	***Checkpoint 4***	***Checkpoint 5***	***Checkpoint 6***	***Checkpoint 7***	***Checkpoint 8***
Location	Start of implementation	Start of implementation and testing on NM pre-ops	Start of validation testing on NM pre-ops	DM1: Connectivity End of testing (Connectivity readiness)	Service in operations	System is using the GUFI	System is using the operator flight plan version	DM2 Operational use: System is using information from the eFPL (when provided) including aircraft take_Off_Mass, the performance climb and descent profiles and the climb and descent speed schedule, and route/trajectory information to compute their trajectory. Please indicate which of this information the system may be using.
Praha ACC/FDP	01/02/2024	01/06/2025	01/06/2025	28/02/2026	30/03/2026		30/03/2026	30/03/2026
Comment								

Additional comments

Checkpoints from 4 to 8 are impacted by NMOC release Wave 2.1. This release brings very important improvements (P/S subscription changes), which are implemented into NMOC OPS systems in November 2025. All shadow mode validations therefore must start after this date.

Checkpoints from 6 to 8 will be implemented in order to be CP1 compliant, nevertheless full development is matter of future implementation.

For implementation of 31/12/2025 system will use take_Off_Mass for trajectory calculation and trajectory information (including TOC/TOD data) for HMI presentation. Integration of climb/descend profiles and speed profile into trajectory computation is matter of further development.

GUFI will be used at the end of transition phase (when all flight plans are filed as eFPL). Before this time, IFPLID is used as primary association key.

Performance profiles and speed schedule are not used – reason – they are not available in eFPL messages, SDM initiated activity to define how they should look like and how shall be used.

4.7. Denmark FF-ICE Release 1 Implementation Roadmap

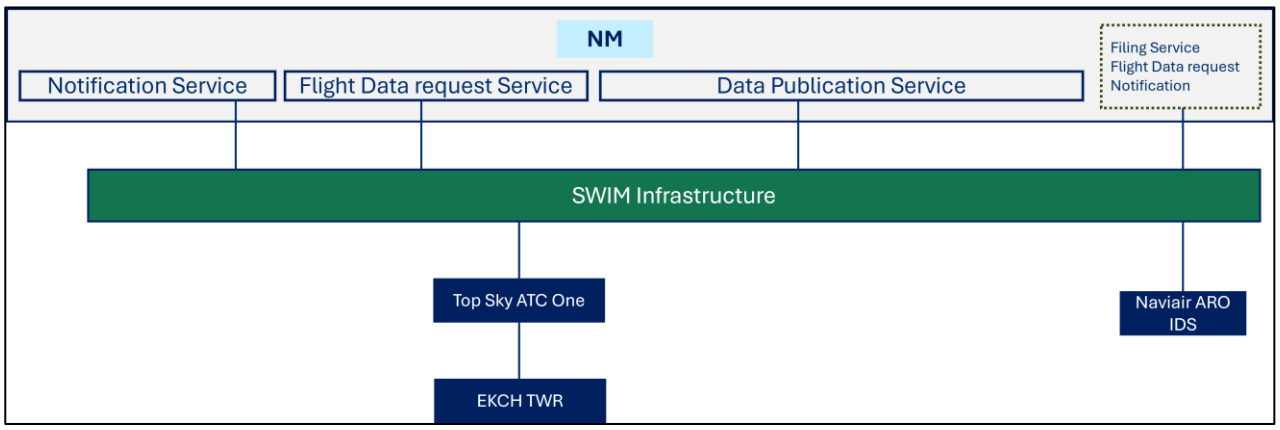
Introduction

Naviair is part of the COOPANS alliance who recently signed a new contract with Thales for a major system update implementing TopSky ATC ONE. Given the magnitude of the entire project and that implementation is taking place across 6 countries, it will be a stepwise implementation. Naviair is placed in the last implementation bracket, meaning operational use of the services is anticipated between 2027 and 2029. However, Naviair is currently implementing a SWIM gateway (NAVISWIM) estimated to become operational by the end of 2029. There are no plans to consume NM FF-ICE/R1 Formats in COOPANS Legacy System for 2025.

For the data publication service, the EKCH TWR A-SMGCS is owned and under the responsibility of Copenhagen Airport and will be connected to Naviair's FDP. Therefore, the upgrade of this system i.e to use the GUFI is dependent on Naviar's implementation of the upgraded COOPANS ATC One system planned for 2027-2029.

FF-ICE/R1 selected architecture approach

In the case of Denmark, the approach is covering all FF-ICE services: Flight Data Request, Notification and Data Publication Service. The FDP will be the source for all relevant information for the TWR systems, including the A- SMGCS.



FF-ICE/R1 Service deployment overview

Flight Data Request Service

	Checkpoint 1	***Checkpoint 2***	***Checkpoint 3***	***Checkpoint 4***	***Checkpoint 5***
Location	Start of implementation	Start of implementation and testing on NM pre-ops	Start of validation testing on NM pre-ops	DM1: Connectivity End of testing (Connectivity readiness)	DM2: Operational use Request of flight plan, supplementary flight plan and flight status information is done via the Flight Data Request Service provided by the Network Manager
Copenhagen ACC/FDP	N/A	N/A	N/A	N/A	31/12/2029
Comment					Procedures will be in place and training conducted before the implementation
NaviSWIM		31/12/2024	31/12/2029	31/12/2029	N/A
Comment NaviSWIM is only for connectivity (communication platform). Naviair SWIM infrastrusture will therefore be in place.				Naviair will consume and use the NM Flight Data Request Service	
EKCH TWR	N/A	N/A	N/A	N/A	?
Comment					
EKCH A-SMGCS	N/A	N/A	N/A	N/A	?
Comment					

Additional comments

Naviair will consume and use the NM Flight Data Request Service. Procedures will be in place and training conducted before the implementation. COOPANS contract regarding system upgrade to ATC One, has been signed with Thales and the project is ongoing. Given the magnitude of the entire project and that implementation is taking place across 6 countries, it will be a stepwise implementation. Naviair is placed in the last implementation bracket.

Notification Service

	Checkpoint 1	***Checkpoint 2***	***Checkpoint 3***	***Checkpoint 4***	***Checkpoint 5***
Location	Start of implementation	Start of implementation and testing on NM pre-ops	Start of validation testing on NM pre-ops	DM1: Connectivity End of testing (Connectivity readiness)	DM2 Operational use: Departure and arrival information is shared using the notification service provided by the Network Manager
Copenhagen ACC/FDP	N/A	N/A	N/A	N/A	31/12/2029
Comment					
NaviSWIM		31/12/2024	31/12/2029	31/12/2029	N/A
Comment NaviSWIM is only for connectivity (communication platform). Naviair SWIM infrastrusture will therefore be in place.					
EKCH TWR	N/A	N/A	N/A	N/A	?
Comment					
EKCH A-SMGCS	N/A	N/A	N/A	N/A	?
Comment					

Additional comments

Notification Service can be accepted in a SWIM Compliant Format. There are no plans to consume NM FF-ICE/R1 Formats in COOPANS Legacy System for 2025. Native processing of NM FF-ICE/R1 will be implemented in next Generation ATM system in 2027-2029.

Data Publication Service

	Checkpoint 1	Checkpoint 2	Checkpoint 3	Checkpoint 4	Checkpoint 5	Checkpoint 6	Checkpoint 7	Checkpoint 8
Location	Start of implementation	Start of implementation and testing on NM pre-ops	Start of validation testing on NM pre-ops	DM1: Connectivity End of testing (Connectivity readiness)	Service in operations	System is using the GUFI	System is using the operator flight plan version	DM2 Operational use: System is using information from the eFPL (when provided) including aircraft take Off Mass, the performance climb and descent profiles and the climb and descent speed schedule, and route/trajectory information to compute their trajectory. Please indicate which of this information the system may be using
Copenhagen ACC/FDP		?	?		?	?	?	31/12/2029
Comment								COOPANS contract regarding system upgrade to ATC One, has been signed with Thales and the project is ongoing. Given the magnitude of the entire project and that implementation is taking place across 6 countries, it will be a stepwise implementation. Naviair is placed in the last implementation bracket.
NaviSWIM		31/12/2024	31/12/2029	31/12/2029				?
Comment				COOPANS contract regarding system upgrade to ATC One, has been signed with Thales and the projct is ongoing. Given the magnitude of the entire project and that implementation is taking place across 6 countries, it will be a stepwise implementation. Naviair is placed in the last implementation bracket.				
EKCH TWR		N/A	N/A	N/A				05/12/2029
Comment								
EKCH A-SMGCS		N/A	N/A	N/A				?
Comment								

4.8. Estonia FF-ICE Release 1 Implementation Roadmap

Introduction

The planned implementation date for Estonia's FF-ICE services is May 31, 2030, aligning with the upgrade of the ATM system. EANS is working closely with Fintraffic as part of the Finest collaboration, which aims to establish a single FDP serving two ACCs and managing the airspace of both Finland and Estonia. EANS mainly plans to consume FF-ICE/R1 services through a SWIM Infrastructure/gateway layer acting as a SWIM gateway, rather than through a direct connection with NM.

EANS is not mandated to but plans to update the TWR system and is required to introduce a new Tower (TWR) system to facilitate the transition to the FF-ICE requirements. Since the TWR system receive their input from the Flight Data Processing (FDP) system, the implementation timeline for the new TWR system will align with that of the FDP's new system deployment.

Regarding ARO FF-ICE implementation, EANS currently uses Frequentis as its provider, which was committed to delivering a CP1 FF-ICE-compliant solution. While EANS initially aimed for implementation by 2025, the complexity of the process has led to delays. In 2024 it was first mentioned and in 2025 confirmed that CADAS ATS (Frequentis system) will not have functionalities to support Filing and Data Publication Services (system is not capable of ingesting trajectory information and filing eFPL).

After finding that out, we focused on implementing the system with the functionalities it had.

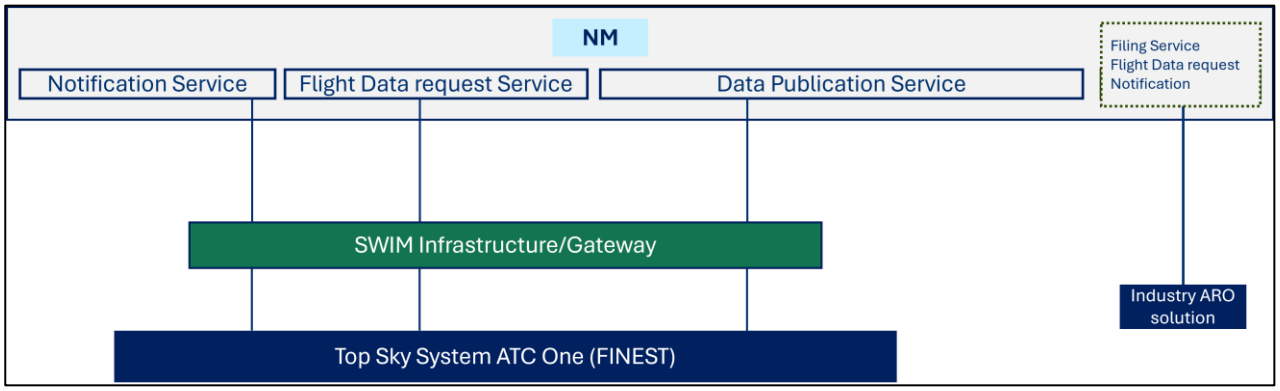
We are currently finalizing the inhouse implementation of the system and testing all its functionalities. The testing process has encountered some challenges from the supplier side due to which we are unsure when this process can be finished. After the inhouse implementation is finished, we need to contact NM and agree on the validation timeline.

We plan to analyse the current situation regarding ARO FF-ICE implementation and compile a detailed roadmap towards in Q1 2026. The timeline will also depend on NM availability for validation.

For Filing and Data Publication Services we plan to take NMUI Flight into use and are in the queue to get access to the system. This timeline will depend on the time we get access to NMUI Flight.

FF-ICE/R1 selected architecture approach

In the case of Estonia, the approach is covering all FF-ICE services; Flight Data Request, Notification and Data Publication Service.



FF-ICE/R1 Service deployment overview
Flight Data Request Service

	Checkpoint 1	***Checkpoint 2***	***Checkpoint 3***	***Checkpoint 4***	***Checkpoint 5***
Location	Start of implementation	Start of implementation and testing on NM pre-ops	Start of validation testing on NM pre-ops	DM1: Connectivity End of testing (Connectivity readiness)	DM2: Operational use Request of flight plan, supplementary flight plan and flight status information is done via the Flight Data Request Service provided by the Network Manager
SWIM Infrastructure/ Gateway	01/02/2028	01/09/2028	01/03/2029	30/10/2029	N/A
Comment Planned to consume NM B2B services (ATM systems and ARO briefing (CADAS ATS) + NMUI). Currently testing ARO systems capability. ATM capability testing starts in 2029.	ATM system implementation starts.	System is delivered and configured for testing.	FAT for ATM system is planned. NM testing starts right after FAT has been accepted and plan to finish by SAT tests.	SAT for ATM system is planned.	
Tallinn ACC/FDP	N/A	N/A	N/A	N/A	31/05/2030
Comment Planned to consume NM B2B services: - ATM systems: ACC 2030 and TWR systems 2030+ (for TWR systems date not decided) - rTWR: TBD					The foreseen implementation date of the three FF-ICE services is 31/05/2030 in line with the deployment of the upgrade of the ATM system.

Additional comments

We plan to consume NM B2B services. - -

ATM systems: ACC 2030 - activities planned; TWR systems 2030+ (for TWR systems date not decided).

The foreseen implementation date of the three FF-ICE services is 31/05/2030 in line with the deployment of the upgrade of the ATM system.

FlightDataRequestService:

RQP: FlightDataRequest

RQS: FlightDataRequest

When in the Center Terminal a message with above type is sent to the IFPS, then the corresponding B2B service is used for transmitting the data via FF-ICE service instead of AFTN/AMHS message. A system parameter allows to enable/disable the submission of the data via NM B2B. When disabled the message is sent out in the traditional way via AFTN/AMHS ICAO text messages.

Checkpoint dates are indicative.

Notification Service

	Checkpoint 1	***Checkpoint 2***	***Checkpoint 3***	***Checkpoint 4***	***Checkpoint 5***
Location	Start of implementation	Start of implementation and testing on NM pre-ops	Start of validation testing on NM pre-ops	DM1: Connectivity End of testing (Connectivity readiness)	DM2 Operational use: Departure and arrival information is shared using the notification service provided by the Network Manager
SWIM Infrastructure/ Gateway	01/02/2028	01/09/2028	01/03/2029	30/10/2029	N/A
Comment Planned to consume NM B2B services (ATM systems and ARO briefing (CADAS ATS) + NMUI). Currently testing ARO systems capability. ATM capability testing starts in 2029.	ATM system implementation starts.	System is delivered and configured for testing.	FAT for ATM system is planned.	SAT for ATM system is planned.	
Tallinn ACC/FDP	N/A	N/A	N/A	N/A	31/05/2030
Comment Planned to consume NM B2B services: - ATM systems: ACC 2030 and TWR systems 2030+ (for TWR systems date not decided) - rTWR: TBD					The foreseen implementation date of the three FF-ICE services is 31/05/2030 in line with the deployment of the upgrade of the ATM system.

Additional comments

We plan to consume NM B2B services. - -

ATM systems: ACC 2030 - activities planned; TWR systems 2030+ (for TWR systems date not decided).

The foreseen implementation date of the three FF-ICE services is 31/05/2030 in line with the deployment of the upgrade of the ATM system.

Notification Service:

DEP: FlightDepartureRequest

ARR: FlightArrivalRequest

When in the Center Terminal a message with above type is sent to the IFPS, then the corresponding B2B service is used for transmitting the data via FF-ICE service instead of AFTN/AMHS message. A system parameter allows to enable/disable the submission of the data via NM B2B. When disabled the message is sent out in the traditional way via AFTN/AMHS ICAO text messages.

Checkpoint dates are indicative.

Data Publication Service

	Checkpoint 1	*Checkpoint 2*	*Checkpoint 3*	*Checkpoint 4*	*Checkpoint 5*	*Checkpoint 6*	*Checkpoint 7*	*Checkpoint 8*
Location	Start of implementation	Start of implementation and testing on NM pre-ops	Start of validation testing on NM pre-ops	DM1: Connectivity End of testing (Connectivity readiness)	Service in operations	System is using the GUFI	System is using the operator flight plan version	DM2 Operational use: System is using information from the eFPL (when provided) including aircraft take Off Mass, the performance climb and descent profiles and the climb and descent speed schedule, and route/trajectory information to compute their trajectory. Please indicate which of this information the system may be using
SWIM Infrastructure/ Gateway	01/02/2028	01/09/2028	01/03/2029	30/10/2029				N/A
Comment Planned to consume NM B2B services (ATM systems and ARO briefing (CADAS ATS) + NMUI). Currently testing ARO systems capability. ATM capability testing starts in 2029.	ATM system implementation starts.	System is delivered and configured for testing.	FAT for ATM system is planned.	SAT for ATM system is planned.				
Tallinn ACC/FDP	N/A	N/A	N/A	N/A	01/02/2028	01/09/2028	01/03/2029	31/05/2030
Comment Planned to consume NM B2B services: - ATM systems: ACC 2030 and TWR systems 2030+ (for TWR systems date not decided) - rTWR: TBD					The foreseen implementation date of the three FF-ICE services is 31/05/2030 in line with the deployment of the upgrade of the ATM system.	Functionality delivered for ATM system.	Functionality delivered for ATM system.	Functionality delivered for ATM system. We assume the system will be capable of using all the relevant data.

Additional comments

We plan to consume NM B2B services. - -

ATM systems: ACC 2030 - activities planned; TWR systems 2030+ (for TWR systems date not decided). The foreseen implementation date of the three FF-ICE services is 30/05/2030 in line with the deployment of the upgrade of the ATM system. When in the Center Terminal a message with above type is sent to the IFPS, then the corresponding B2B service is used for transmitting the data via FF-ICE service instead of AFTN/AMHS message. A system parameter allows to enable/disable the submission of the data via NM B2B. When disabled the message is sent out in the traditional way via AFTN/AMHS ICAO text messages.

4.9. Finland FF-ICE Release 1 Implementation Roadmap

Introduction

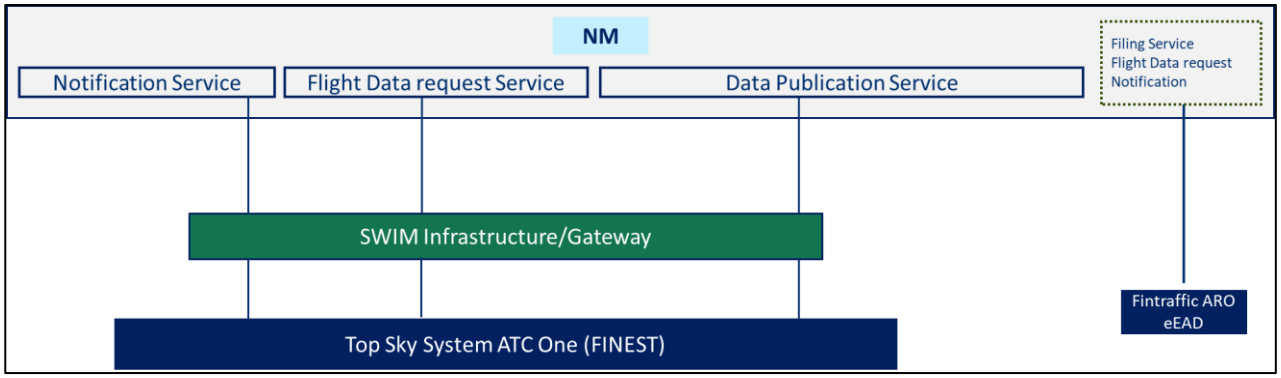
Fintraffic currently operates the TopSky ATC system from Thales but does not plan to upgrade it. Instead, negotiations are underway with Thales for a new ATC system, TopSky ATC One, which is expected to support and consume FF-ICE/R1 services by the end of Q1 2030. Until then, system messages will continue to be exchanged via AFTN/AMHS.

As planned, the next-generation ATC system will serve as the FDP for both Estonia and Finland's ACCs as part of the Finest collaboration. Fintraffic ANS also plans to use a SWIM gateway to interface between its ATM system and FF-ICE/R1 NM B2B services while relying on eEAD for ARO capability updates.

Waiting for NM FF-ICE/R1 development and implementation of new ATM system to be fully compliant with related FF-ICE CP1 requirements.

FF-ICE/R1 selected architecture approach

In the case of Finland, the approach is covering all FF-ICE services; Flight Data Request, Notification and Data Publication Service.



FF-ICE/R1 Service deployment overview

Flight Data Request Service

	Checkpoint 1	***Checkpoint 2***	***Checkpoint 3***	***Checkpoint 4***	***Checkpoint 5***
Location	Start of implementation	Start of implementation and testing on NM pre-ops	Start of validation testing on NM pre-ops	DM1: Connectivity End of testing (Connectivity readiness)	DM2: Operational use Request of flight plan, supplementary flight plan and flight status information is done via the Flight Data Request Service provided by the Network Manager
Helsinki ACC/FDP	31/01/2029	30/06/2029	30/09/2029	31/12/2029	31/03/2030
Comment					

Notification Service

	Checkpoint 1	***Checkpoint 2***	***Checkpoint 3***	***Checkpoint 4***	***Checkpoint 5***
Location	Start of implementation	Start of implementation and testing on NM pre-ops	Start of validation testing on NM pre-ops	DM1: Connectivity End of testing (Connectivity readiness)	DM2 Operational use: Departure and arrival information is shared using the notification service provided by the Network Manager
Helsinki ACC/FDP	31/01/2029	30/06/2029	30/09/2029	31/12/2029	31/03/2030
Comment					

Additional comments

ATM System upgrade available from system supplier by the end of 2029. Until the deployment of the new system messages will be exchanged via AFTN/AMHS.

Data Publication Service

	Checkpoint 1	***Checkpoint 2***	***Checkpoint 3***	***Checkpoint 4***	***Checkpoint 5***	***Checkpoint 6***	***Checkpoint 7***	***Checkpoint 8***
Location	Start of implementation	Start of implementation and testing on NM pre-ops	Start of validation testing on NM pre-ops	DM1: Connectivity End of testing (Connectivity readiness)	Service in operations	System is using the GUFI	System is using the operator flight plan version	DM2 Operational use: System is using information from the eFPL (when provided) including aircraft take Off Mass, the performance climb and descent profiles and the climb and descent speed schedule, and route/trajectory information to compute their trajectory. Please indicate which of this information the system may be using
Helsinki ACC/FDP	31/01/2029	30/06/2029	30/09/2029	31/12/2029	31/03/2030	31/03/2030	31/03/2030	31/03/2030
Comment ATM System upgrade available from system supplier Q4/2029								

Additional comments

ATM System upgrade available from system supplier by the end of 2029.

4.10. France FF-ICE Release 1 Implementation Roadmap

Introduction

Experimentation of FF-ICE communication between Coflight (4-FLIGHT FDPS) and NM FF-ICE services successfully achieved in summer 2022.

Experimentation results contributed to define and initiate the industrialisation process of the functionality in 4-FLIGHT roadmap. Actual plan for implementation is 4-FLIGHT_V4.1 for winter 2028-2029 after alignment of all French ACC on common 4-FLIGHT _V4.0 by winter 2027-2028.

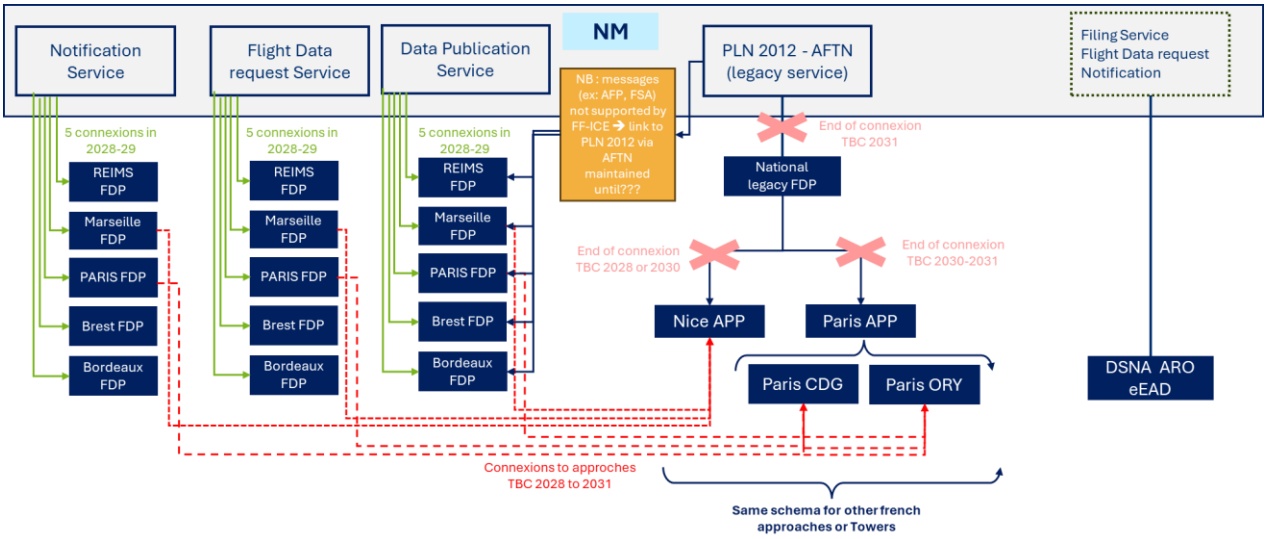
The architecture options have been clarified and will rely on 5 distinct connexions to NM FF ICE service from our 5 ACCs.. FF-ICE implementation with 4-FLIGHT will allow the 5 ACCs to be connected by march 2029 as the aim should be to deploy 4-FLIGHT_V4.1 within all 5 ACCs during the same winter.

With regard to Approaches and Towers (using CAUTRA legacy FDPS), the plan from 2027 is to connect them step by step to their regional relevant ACC with 4-FLIGHT FDPS so that they benefit from FF-ICE implementation up to the decommissioning of CAUTRA legacy system.

In the meantime, the legacy system (CAUTRA) should use NM translator (FF-ICE to FPL2012). This period could end by year 2031. Hence APP and TWR Not yet planned as dependent on the actual implementation at ACC level. To be updated in the next LSSIP+ cycles. Specific attention is needed for this operation concerning connection of Paris ACC Orly and CDG. A long process of modernisation of CDG ATC tools and components will be needed prior to this system evolution.

FF-ICE/R1 selected architecture approach

In the case of France, the approach is covering all FF-ICE services; Flight Data Request, Notification and Data Publication Service.



FF-ICE/R1 Service deployment overview

Flight Data Request Service

	Checkpoint 1	***Checkpoint 2***	***Checkpoint 3***	***Checkpoint 4***	***Checkpoint 5***
Location	Start of implementation	Start of implementation and testing on NM pre-ops	Start of validation testing on NM pre-ops	DM1: Connectivity End of testing (Connectivity readiness)	DM2: Operational use Request of flight plan, supplementary flight plan and flight status information is done via the Flight Data Request Service provided by the Network Manager
Reims ACC/FDP	28/09/2026	21/02/2028	24/04/2028	19/06/2028	31/12/2029
Comment					
Paris ACC/FDP	28/09/2026	21/02/2028	24/04/2028	19/06/2028	31/12/2029
Comment					
LFPG TWR		?	?	?	?

Comment					
LFPG APP		?	?	?	?
Comment					
LFPO TWR		?	?	?	?
Comment					
LFPO APP		?	?	?	?
Comment					
Brest ACC/FDP	28/09/2026	21/02/2028	24/04/2028	19/06/2028	31/12/2029
Comment					
Marseille ACC/FDP	28/09/2026	21/02/2028	24/04/2028	19/06/2028	31/12/2029
Comment					
Bordeaux ACC/FDP	28/09/2026	21/02/2028	24/04/2028	19/06/2028	31/12/2029
Comment					
LFMN TWR	28/09/2026	21/02/2028	24/04/2028	19/06/2028	31/12/2029
Comment					
LFMN APP	28/09/2026	21/02/2028	24/04/2028	19/06/2028	31/12/2029
Comment					

Additional comments

DSNA is in the process of defining a strategy for modernisation of Paris area airports. Then contracts will need to be signed then schedule in early 2027. It is hence impossible to define checkpoints for these airports before that date but it is foreseen that DSNA will still need PLN2012 translator until 2031.

Notification Service

	Checkpoint 1	***Checkpoint 2***	***Checkpoint 3***	***Checkpoint 4***	***Checkpoint 5***
Location	Start of implementation	Start of implementation and testing on NM pre-ops	Start of validation testing on NM pre-ops	DM1: Connectivity End of testing (Connectivity readiness)	DM2 Operational use: Departure and arrival information is shared using the notification service provided by the Network Manager
Reims ACC/FDP	28/09/2026	21/02/2028	24/04/2028	19/06/2028	31/12/2029
Comment					
Paris ACC/FDP	28/09/2026	21/02/2028	24/04/2028	19/06/2028	31/12/2029
Comment					
LFPG TWR		?	?	?	?
Comment					
LFPG APP		?	?	?	?
Comment					
LFPO TWR		?	?	?	?
Comment					
LFPO APP		?	?	?	?
Comment					
Brest ACC/FDP	28/09/2026	21/02/2028	24/04/2028	19/06/2028	31/12/2029
Comment					
Marseille ACC/FDP	28/09/2026	21/02/2028	24/04/2028	19/06/2028	31/12/2029
Comment					
Bordeaux ACC/FDP	28/09/2026	21/02/2028	24/04/2028	19/06/2028	31/12/2029
Comment					
LFMN TWR	28/09/2026	21/02/2028	24/04/2028	19/06/2028	31/12/2029
Comment					
LFMN APP	28/09/2026	21/02/2028	24/04/2028	19/06/2028	31/12/2029
Comment					

Additional comments

DSNA is in the process of defining a strategy for modernisation of Paris area airports. Then contracts will need to be signed then schedule in early 2027. It is hence impossible to define checkpoints for these airports before that date but it is foreseen that DSNA will still need PLN2012 translator until 2031.

Data Publication Service

	Checkpoint 1	***Checkpoint 2***	***Checkpoint 3***	***Checkpoint 4***	***Checkpoint 5***	***Checkpoint 6***	***Checkpoint 7***	***Checkpoint 8***
Location	Start of implementation	Start of implementation and testing on NM pre-ops	Start of validation testing on NM pre-ops	DM1: Connectivity End of testing (Connectivity readiness)	Service in operations	System is using the GUFI	System is using the operator flight plan version	DM2 Operational use: System is using information from the eFPL (when provided) including aircraft take Off Mass, the performance climb and descent profiles and the climb and descent speed schedule, and route/trajectory information to compute their trajectory. Please indicate which of this information the system may be using
Reims ACC/FDP	28/09/2026	21/02/2028	24/04/2028	19/06/2028	31/12/2029	31/12/2029	31/12/2029	31/12/2029
Comment								
Paris ACC/FDP	28/09/2026	21/02/2028	24/04/2028	19/06/2028	31/12/2029	31/12/2029	31/12/2029	31/12/2029
Comment								
LFPG TWR		?	?	?				?
Comment								
LFPG APP		?	?	?				?
Comment								
LFPO TWR		?	?	?				?
Comment								
LFPO APP		?	?	?				?
Comment								
Brest ACC/FDP	28/09/2026	21/02/2028	24/04/2028	19/06/2028	31/12/2029	31/12/2029	31/12/2029	31/12/2029
Comment								
Marseille ACC/FDP	28/09/2026	21/02/2028	24/04/2028	19/06/2028	31/12/2029	31/12/2029	31/12/2029	31/12/2029
Comment								
Bordeaux ACC/FDP	28/09/2026	21/02/2028	24/04/2028	19/06/2028	31/12/2029	31/12/2029	31/12/2029	31/12/2029
Comment								
LFMN TWR	28/09/2026	21/02/2028	24/04/2028	19/06/2028	31/12/2029	31/12/2029	31/12/2029	31/12/2029
Comment								
LFMN APP	28/09/2026	21/02/2028	24/04/2028	19/06/2028	31/12/2029	31/12/2029	31/12/2029	31/12/2029
Comment								

Additional comments

DSNA is in the process of defining a strategy for modernisation of Paris area airports. Then contracts will need to be signed then schedule in early 2027. It is hence impossible to define checkpoints for these airports before that date but it is foreseen that DSNA will still need PLN2012 translator until 2031.

4.11. Germany FF-ICE Release 1 Implementation Roadmap

Introduction

DFS plans to consume the Notification and Flight Data Request Service via a designated central gateway/broker. Both services will be used in an automation-context, by a central service. The solution is technically ready and has already passed NM OPS validation. The operational use for both services is expected to be achieved by Q2/2026.

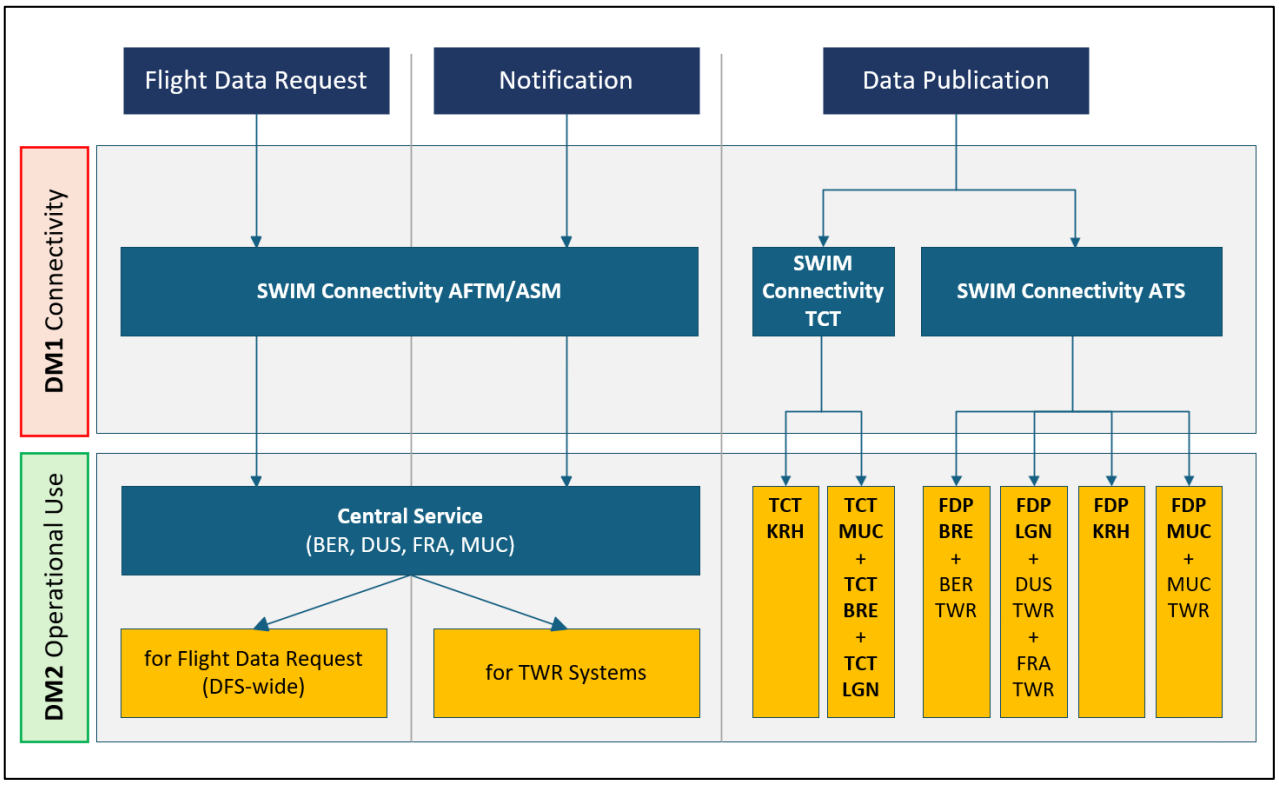
The Data Publication Service is implemented through a phased approach.

- A CEF project is underway to upgrade the traffic complexity tools (TCTs) for the lower airspace area control centres (ACC). The objective is to incorporate relevant eFPL information into trajectory calculations of the TCTs, in order to improve time- and location-based entry predictions for FIRs and ATC sectors. Thus, the accuracy of the TCTs simulation results is increased and leads to a better and more realistic understanding of expected traffic amount and complexity in ATC sectors. Capacity and safety aspects are addressed.
- Additionally, DFS is deploying SWIM Gateways to connect with NM B2B and consume FF-ICE services. The connections to NM will be handled through these gateways, ensuring a standardized and efficient interface.
- As for the flight data processing systems, DFS will need to iteratively update its systems. The plan is to provide the required functionality for the four ACCs in Germany starting in 2030 and enabling full FF-ICE implementation nationwide by 2032.

For ARO, DFS currently relies on EAD and will continue to use eEAD systems moving forward.

FF-ICE/R1 selected architecture approach

In the case of Germany, the approach is covering all FF-ICE services[5]: Flight Data Request, Notification and Data Publication Service.



[5] *TCT tool is able to consume Eurcontrol'EFD and NM B2B flight data (FF-ICE eFPL)*

FF-ICE/R1 Service deployment overview

Flight Data Request

	Checkpoint 1	***Checkpoint 2***	***Checkpoint 3***	***Checkpoint 4***	***Checkpoint 5***
Location	Start of implementation	Start of implementation and testing on NM pre-ops	Start of validation testing on NM pre-ops	DM1: Connectivity End of testing (Connectivity readiness)	DM2: Operational use Request of flight plan, supplementary flight plan and flight status information is done via the Flight Data Request Service provided by the Network Manager
SWIM Connectivity ATFM/ASM	-	01/04/2025	01/08/2025	18/11/2025	N/A
Comment Gateway for SWIM connectivity AFTM/ASM					
Central Service	N/A	N/A	N/A	N/A	30/06/2026
Comment					

Additional comments

DFS plans to consume the Flight Data Request Service via a designated central gateway/broker. The Flight Data Request Services will be used in an automation-context, by a central service. The service has only one use case for centralized processing of flight events. This replaces modification of individual TWR and ACC systems. The solution is technically ready and has passed NM OPS validation (see DM1). The delay for DM2 is due to unforeseen complications related to training of operational staff.

Notification Service

	Checkpoint 1	***Checkpoint 2***	***Checkpoint 3***	***Checkpoint 4***	***Checkpoint 5***
Location	Start of implementation	Start of implementation and testing on NM pre-ops	Start of validation testing on NM pre-ops	DM1: Connectivity End of testing (Connectivity readiness)	DM2 Operational use: Departure and arrival information is shared using the notification service provided by the Network Manager
SWIM Connectivity ATFM/ASM	-	01/04/2025	01/08/2025	18/11/2025	N/A
Comment Gateway for SWIM connectivity AFTM/ASM					
Central Service	N/A	N/A	N/A	N/A	30/06/2026
Comment					

Additional comments

DFS plans to consume the Notification Service via a designated central gateway/broker. All Notification Service requirements are implemented in a centralized automated service, having access to arrival and departure events. This replaces modification of individual TWR systems. The solution is technically ready and has passed NM OPS validation (see DM1). The delay for DM2 is due to unforeseen complications related to training of operational staff.

Data Publication Service

	Checkpoint 1	***Checkpoint 2***	***Checkpoint 3***	***Checkpoint 4***	***Checkpoint 5***	***Checkpoint 6***	***Checkpoint 7***	***Checkpoint 8***
Location	Start of implementation	Start of implementation and testing on NM pre-ops	Start of validation testing on NM pre-ops	DM1: Connectivity End of testing (Connectivity readiness)	Service in operations	System is using the GUFI	System is using the operator flight plan version	DM2 Operational use: System is using information from the eFPL (when provided) including aircraft take Off Mass, the performance climb and descent profiles and the climb and descent speed schedule, and route/trajectory information to compute their trajectory. Please indicate which of this information the system may be using
SWIM Connectivity TCT	-	01/04/2025	01/08/2025	28/02/2026	N/A	N/A	N/A	N/A
Comment Gateway for SWIM connectivity AFTM/ASM. This gateway/broker is planned to connect the Traffic Complexity Tools (see respective DM2).								
Langen TCT	N/A	N/A	N/A	N/A	30/06/2026	30/06/2026	N/A	30/06/2026
Comment								
Munich TCT	N/A	N/A	N/A	N/A	30/06/2026	30/06/2026	N/A	30/06/2026
Comment								
Karlsruhe TCT	N/A	N/A	N/A	N/A	TBD	TBD	TBD	TBD
Comment								
Bremen TCT	N/A	N/A	N/A	N/A	30/06/2026	30/06/2026	N/A	30/06/2026
Comment								
SWIM Connectivity ATS	-	30/06/2028	30/03/2029	30/06/2029	N/A	N/A	N/A	N/A
Comment Gateway for SWIM connectivity ATS. This gateway/broker is planned to connect the FDPs and TWR systems (see respective DM2).								
Langen ACC/FDP	N/A	N/A	N/A	N/A	TBD	TBD	TBD	31/12/2032
Comment								
EDDF TWR	N/A	N/A	N/A	N/A	TBD	TBD	TBD	31/12/2032
Comment								
EDDL TWR	N/A	N/A	N/A	N/A	TBD	TBD	TBD	31/12/2032
Comment								
Munich ACC/FDP	N/A	N/A	N/A	N/A	TBD	TBD	TBD	31/12/2030
Comment								
EDDM TWR	N/A	N/A	N/A	N/A	TBD	TBD	TBD	31/12/2030

Comment								
Karlsruhe UAC	N/A	N/A	N/A	N/A	TBD	TBD	TBD	31/12/2030
Comment								
Bremen ACC/FDP	N/A	N/A	N/A	N/A	TBD	TBD	TBD	31/12/2030
Comment								
EDDB TWR	N/A	N/A	N/A	N/A	TBD	TBD	TBD	31/12/2030
Comment								

Additional comments

The implementation of the data publication service will be completed in several steps. The connection and use of eFPL data in traffic complexity tools in ACCs will technically be completed by end of 2025 (operational use by Q1/2026). The prerequisites for the connection of ATS systems via SWIM are currently being established. For the use of eFPL data in FDP systems, an initial implementation plan has been developed. The plan extends into the 2030s, which is relatively late compared to other stakeholders and the CP1 deadline. However, DFS is currently reassessing the timeline with the aim of developing a more ambitious FF-ICE/R1 schedule.

FF-ICE/R1 related deployments for use of performance data (speed schedule and takeoff mass) in the DFS FDPS, are also dependent on the relevant data being available in time for ATS system change specification and implementation. Therefore, the milestones quoted are subject to confirmation of adequate dates for (test) data availability by Airspace Users and NM API changes (if required).

4.12. Greece FF-ICE Release 1 Implementation Roadmap

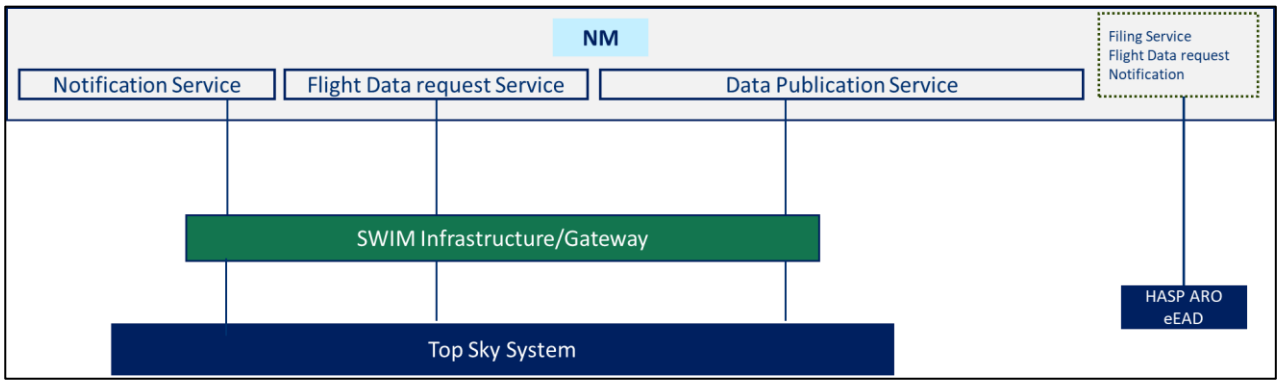
Introduction

HASP is currently in negotiations for the implementation of a new ATM system with their system provider THALES. It is anticipated that this new ATM system will be implemented by 2029. Although no contract has been signed yet, HASP anticipate this Service to be completed within Q4 2029.

As a result, there is a lack of clarity relating to the deployment architecture of the FDP and through what means HASP will consume and use the FF-ICE/R1 services.

FF-ICE/R1 selected architecture approach

In the case of Greece, the approach is covering all FF-ICE services: Flight Data Request, Notification and Data Publication Service.



FF-ICE/R1 Service deployment overview

Flight Data Request Service

	Checkpoint 1	***Checkpoint 2***	***Checkpoint 3***	***Checkpoint 4***	***Checkpoint 5***
Location	Start of implementation	Start of implementation and testing on NM pre-ops	Start of validation testing on NM pre-ops	DM1: Connectivity End of testing (Connectivity readiness)	DM2: Operational use Request of flight plan, supplementary flight plan and flight status information is done via the Flight Data Request Service provided by the Network Manager
Athinai ACC/FDP	31/03/2026	30/06/2028	30/06/2028	30/09/2028	31/12/2029
Makedonia ACC/FDP	31/03/2026	30/06/2028	30/-6/2028	30/09/2028	31/12/2029

Additional comments

HASP has planned the implementation of this Objective. The upgrade of DPS/ATM system is in progress in order to ensure full CP1 compliance by the end of 2029. The implementation will include two identical systems, Main and Back up ATC-1 Systems, which will be operating at Athinai & Makedonia ACCs, ATH APP & TWR, LGRP APP & TWR, LGKR APP & TWR and LGTS APP & TWR.

The signature of the contract with Thales is expected within Q1 2026, when the implementation starts.

SAT is planned for Q2 2028, when the implementation and testing on NM pre-ops will start. The validation will follow (Q2 2028).

More precise dates will be available after the SDR review, Q3 2026.

Notification Service

	Checkpoint 1	***Checkpoint 2***	***Checkpoint 3***	***Checkpoint 4***	***Checkpoint 5***
Location	Start of implementation	Start of implementation and testing on NM pre-ops	Start of validation testing on NM pre-ops	DM1: Connectivity End of testing (Connectivity readiness)	DM2 Operational use: Departure and arrival information is shared using the notification service provided by the Network Manager
Athinai ACC/FDP	31/03/2026	30/06/2028	30/06/2028	30/09/2028	31/12/2029
Makedonia ACC/FDP	31/03/2026	30/06/2028	30/06/2028	30/09/2028	31/12/2029

Additional comments

HASP has planned the implementation of this Objective. The upgrade of DPS/ATM system is in progress in order to ensure full CP1 compliance by the end of 2028. The implementation will include two identical systems, Main and Back up ATC-1 Systems, which will be operating at Athinai & Makedonia ACCs, ATH APP & TWR, LGRP APP & TWR, LGKR APP & TWR and LGTS APP & TWR.

The signature of the contract with Thales is expected within Q1 2026, when the implementation starts.

SAT is planned for Q2 2028, when the implementation and testing on NM pre-ops will start. The validation will follow (Q2 2028).

More precise dates will be available after the SDR review, Q3 2026.

Data Publication Service

	Checkpoint 1	***Checkpoint 2***	***Checkpoint 3***	***Checkpoint 4***	***Checkpoint 5***	***Checkpoint 6***	***Checkpoint 7***	***Checkpoint 8***
Location	Start of implementation	Start of implementation and testing on NM pre-ops	Start of validation testing on NM pre-ops	DM1: Connectivity End of testing (Connectivity readiness)	Service in operations	System is using the GUFI	System is using the operator flight plan version	DM2 Operational use: System is using information from the eFPL (when provided) including aircraft take Off Mass, the performance climb and descent profiles and the climb and descent speed schedule, and route/trajectory information to compute their trajectory. Please indicate which of this information the system may be using
Athinai ACC/FDP,	31/03/2026	30/062028	30/06/2028	30/09/2028	31/12/2029	YES	It's not clarified yet	31/12/2029 The system may be using: • Aircraft take off mass • The performance climb and descent profiles • Route/trajectory information to compute the trajectory
Makedonia ACC/FDP	31/03/2026	30/06/2028	30/06/2028	30/09/2028	31/12/2029	YES	It's not clarified yet	31/12/2029 The system may be using: • Aircraft take off mass • The performance climb and descent profiles • Route/trajectory information to compute the trajectory

Additional comments

The new system is under development, therefore there is a lack of clarity relating to the functionalities of the new FDP.

4.13. Hungary FF-ICE Release 1 Implementation Roadmap

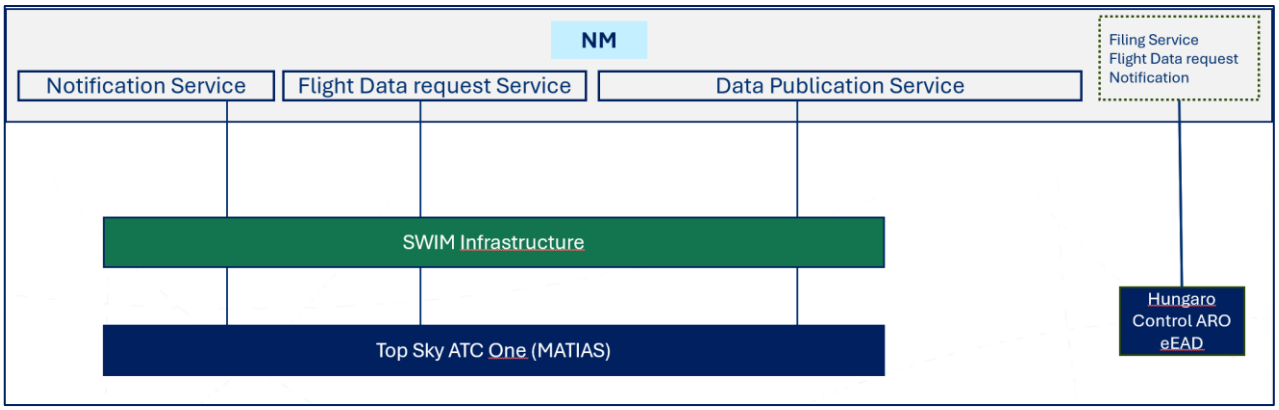
Introduction

HungaroControl's implementation of MATIAS Build 14 will unlock the capability for HungaroControl to consume the FF-ICE/R1 Data Publication, Notification, and Flight Data Request services. A contract has already been signed with system supplier Thales in this regard. HungaroControl is upgrading the ground systems in order to process and receive the eFPL and will also make operational use of it.

HungaroControl plans to establish a direct connection between its FDP and the FF-ICE/R1 NM B2B services, allowing these services to be consumed without the use of a gateway. However, there is some uncertainty regarding the long-term implementation, as HungaroControl is considering both an upgrade to its current Matias system and the potential adoption of Thales' latest TopSky ATC One system.

FF-ICE/R1 selected architecture approach

In the case of Hungary, the approach is covering all FF-ICE services: Flight Data Request, Notification and Data Publication Service.



FF-ICE/R1 Service deployment overview

Flight Data Request Service

	Checkpoint 1	***Checkpoint 2***	***Checkpoint 3***	***Checkpoint 4***	***Checkpoint 5***
Location	Start of implementation	Start of implementation and testing on NM pre-ops	Start of validation testing on NM pre-ops	DM1: Connectivity End of testing (Connectivity readiness)	DM2: Operational use Request of flight plan, supplementary flight plan and flight status information is done via the Flight Data Request Service provided by the Network Manager
Budapest ACC/FDP	09/12/2024	30/09/2028	31/10/2028	30/11/2028	31/12/2028
Comment Implementation of MATIAS Build 14 will make capable the system for Flight Information Exchange (Yellow Profile) – Flight Data Request Service.	Preparation period of the implementation of MATIAS Build14 is started with negotiations and specification of the required system upgrade. Contract is signed with Thales.				Implementation of MATIAS Build 14 (TopSky ATC One) will make capable the system for Flight Information Exchange (Yellow Profile) – Flight Data Request Service.
SWIM Infrastructure	31/03/2026	31/07/2027	31/12/2027	30/06/2028	31/12/2028
Comment *The SWIM Infrastructure* empower HungaroControl to ensure continuous, reliable data connectivity with the NM and other SWIM-based services, while efficiently distributing operational information across its all	Preparation period of the implementation of SWIM Infrastructure has already started with internal and external negotiations and specification of the required capabilities.				By introducing the SWIM Infrastructure, HungaroControl achieves a unified, resilient and standards-based data exchange environment that enhances interoperability with European SWIM services, while enabling its ATM systems to access, share and distribute operational information more reliably,

related ATM systems					efficiently and securely

Additional comments

HungaroControl intends to comply with the relevant requirements. Implementation of MATIAS Build 14 (TopSky ATC One) will make capable the system for Flight Information Exchange (Yellow Profile) – Data Publication Service. HungaroControl is upgrading the ground systems in order to process and receive the eFPL and will also make operational use of it.

"HungaroControl plans to perform testing on NM pre-ops via both the SWIM infrastructure and directly between NM and the FDP, as indicated in the table above."

Notification Service

	Checkpoint 1	***Checkpoint 2***	***Checkpoint 3***	***Checkpoint 4***	***Checkpoint 5***
Location	Start of implementation	Start of implementation and testing on NM pre-ops	Start of validation testing on NM pre-ops	DM1: Connectivity End of testing (Connectivity readiness)	DM2 Operational use: Departure and arrival information is shared using the notification service provided by the Network Manager
Budapest ACC/FDP	09/12/2024	30/09/2028	31/10/2028	30/11/2028	31/12/2028
Comment Implementation of MATIAS Build 14 will make capable the system for Flight Information Exchange (Yellow Profile) – Notification Service.	Preparation period of the implementation of MATIAS Build14 is started with negotiations and specification of the required system upgrade. Contract is signed with Thales.				Implementation of MATIAS Build 14 (TopSky ATC One) will make capable the system for Flight Information Exchange (Yellow Profile) – Notification Service.
SWIM Infrastructure	31/03/2026	31/07/2027	31/12/2027	30/06/2028	31/12/2028
Comment *The SWIM Infrastructure* empower HungaroControl to ensure continuous, reliable data connectivity with the NM and other SWIM-based services, while efficiently distributing operational information across its all related ATM systems	Preparation period of the implementation of SWIM Infrastructure has already started with internal and external negotiations and specification of the required capabilities.				By introducing the SWIM Infrastructure, HungaroControl achieves a unified, resilient and standards-based data exchange environment that enhances interoperability with European SWIM services, while enabling its ATM systems to access, share and distribute operational information more reliably, efficiently and securely

Additional comments

HungaroControl intends to comply with the relevant requirements. Implementation of MATIAS Build 14 (TopSky ATC One) will make capable the system for Flight Information Exchange (Yellow Profile) – Notification Service. HungaroControl is upgrading the ground systems in order to process and receive the eFPL and will also make operational use of it.HungaroControl plans to perform testing on NM pre-ops via both the SWIM infrastructure and directly between NM and the FDP, as indicated in the table above.

Data Publication Service

	Checkpoint 1	*Checkpoint 2*	*Checkpoint 3*	*Checkpoint 4*	*Checkpoint 5*	*Checkpoint 6*	*Checkpoint 7*	*Checkpoint 8*
Location	Start of implementation	Start of implementation and testing on NM pre-ops	Start of validation testing on NM pre-ops	DM1: Connectivity End of testing (Connectivity readiness)	Service in operations	System is using the GUFI	System is using the operator flight plan version	DM2 Operational use: System is using information from the eFPL (when provided) including aircraft take Off Mass, the performance climb and descent profiles and the climb and descent speed schedule, and route/trajectory information to compute their trajectory. Please indicate which of this information the system may be using
Budapest ACC/FDP	09/12/2024	30/09/2028	31/10/2028	30/11/2028	31/12/2028	31/12/2028	31/12/2028	31/12/2028
Comment Implementation of MATIAS Build 14 will make capable the system for Flight Information Exchange (Yellow Profile) – Data Publication Service.	Preparation period of the implementation of MATIAS Build14 is started with negotiations and specification of the required system upgrade. Contract is signed with Thales.							Implementation of MATIAS Build 14 (TopSky ATC One) will make capable the system for Flight Information Exchange (Yellow Profile)– Flight Data Request Service.
SWIM Infrastructure	31/03/2026	31/07/2027	31/12/2027	30/06/2028	31/12/2028	31/12/2028	31/12/2028	31/12/2028
Comment The SWIM Infrastructure empower HungaroControl to ensure continuous, reliable data connectivity with the NM and other SWIM-based services, while efficiently distributing operational information across its all related ATM systems	Preparation period of the implementation of SWIM Infrastructure has already started with internal and external negotiations and specification of the required capabilities.							By introducing the SWIM Infrastructure, HungaroControl achieves a unified, resilient and standards-based data exchange environment that enhances interoperability with European SWIM services, while enabling its ATM systems to access, share and distribute operational information more reliably, efficiently and securely

Additional comments

By introducing the SWIM Infrastructure, HungaroControl achieves a unified, resilient and standards-based data exchange environment that enhances interoperability with European SWIM services, while enabling its ATM systems to access, share and distribute operational information more reliably, efficiently and securely.

HungaroControl plans to perform testing on NM pre-ops via both the SWIM infrastructure and directly between NM and the FDP, as indicated in the table above.

4.14. Ireland FF-ICE Release 1 Implementation Roadmap

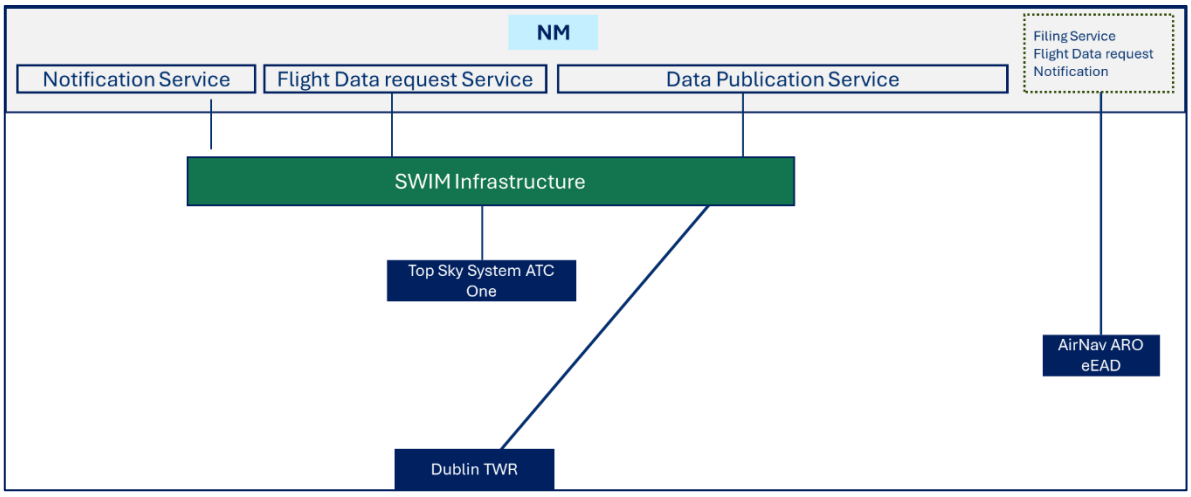
Introduction

AirNav Ireland is part of the COOPANS alliance who recently signed a contract for a major system update moving to the TopSky ATC One from Thales. Presently, there are no plans to consume NM FF-ICE/R1 formats in the COOPANS Legacy System for 2025. Native processing of NM FF-ICE/R1 will be implemented in next the Generation ATM system in 2029.

AirNav Ireland operates distinct TWR and ACC systems. It is anticipated that AirNav's ATM system will consume the FF-ICE/R1 services via a SWIM infrastructure layer acting as a gateway. The TWR system (iATS) will consume the NM B2B data publication services directly, enabling full compliance with FF-ICE for the TWR system earlier than the FDP already in Q1 2027.

FF-ICE/R1 selected architecture approach

In the case of Ireland, the approach is covering all FF-ICE services: Flight Data Request, Notification and Data Publication Service.



FF-ICE/R1 Service deployment overview

Flight Data Request Service

	Checkpoint 1	***Checkpoint 2***	***Checkpoint 3***	***Checkpoint 4***	***Checkpoint 5***
Location	Start of implementation	Start of implementation and testing on NM pre-ops	Start of validation testing on NM pre-ops	DM1: Connectivity End of testing (Connectivity readiness)	DM2: Operational use Request of flight plan, supplementary flight plan and flight status information is done via the Flight Data Request Service provided by the Network Manager
Dublin ACC/FDP	31/12/2025	30/06/2026	30/03/2028	31/12/2028	01/05/2029
Comment		Testing will commence as part of EXODUS Project (V1 ATC One Software) Testing with V2 Software will commence in Q2 2027 Target Version for Commissioning V2.4			
Shannon ACC/FDP	31/12/2025	30/06/2026	30/03/2028	31/12/2028	01/02/2029
Comment		Testing will commence as part of EXODUS Project (V1 ATC One Software) Testing with V2 Software will commence in Q2 2027 Target Version for Commissioning V2.4			
EIDW TWR	31/12/2025	30/09/2026	30/09/2026	30/09/2026	31/03/2027
Comment					

Additional comments

FF-ICE/R1 will be implemented in next Generation ATM system in 2029.

Notification Service

	Checkpoint 1	***Checkpoint 2***	***Checkpoint 3***	***Checkpoint 4***	***Checkpoint 5***
Location	Start of implementation	Start of implementation and testing on NM pre-ops	Start of validation testing on NM pre-ops	DM1: Connectivity End of testing (Connectivity readiness)	DM2 Operational use: Departure and arrival information is shared using the notification service provided by the Network Manager
Dublin ACC/FDP	31/12/2025	30/06/2026	31/03/2028	31/12/2028	01/05/2029
Comment		Testing with V2 Software will commence in Q2 2027 Target Version for Commissioning V2.4	Testing with V2 Software will commence in Q2 2027 Target Version for Commissioning V2.4		
Shannon ACC/FDP	31/12/2025	30/06/2026	31/03/2028	31/12/2028	01/02/2029
Comment		Testing with V2 Software will commence in Q2 2027 Target Version for Commissioning V2.4	Testing with V2 Software will commence in Q2 2027 Target Version for Commissioning V2.4		
EIDW TWR	31/12/2025	30/09/2026	30/09/2026	30/09/2026	31/03/2027
Comment					

Additional comments

FF-ICE/R1 will be implemented in next Generation ATM system in 2029.

Data Publication Service

	Checkpoint 1	***Checkpoint 2***	***Checkpoint 3***	***Checkpoint 4***	***Checkpoint 5***	***Checkpoint 6***	***Checkpoint 7***	***Checkpoint 8***
Location	Start of implementation	Start of implementation and testing on NM pre-ops	Start of validation testing on NM pre-ops	DM1: Connectivity End of testing (Connectivity readiness)	Service in operations	System is using the GUFI	System is using the operator flight plan version	DM2 Operational use: System is using information from the eFPL (when provided) including aircraft take Off Mass, the performance climb and descent profiles and the climb and descent speed schedule, and route/trajectory information to compute their trajectory. Please indicate which of this information the system may be using
Dublin ACC/FDP	31/12/2025	30/06/2026	30/03/2028	31/12/2028	01/05/2029	01/05/2029	31/12/2029	31/12/2029
Comment		Testing will commence as part of EXODUS Project (V1 ATC One Software) Testing with V2 Software will commence in Q2 2027 Target Version for Commissioning V2.4						
Shannon ACC/FDP	31/12/2025	30/062026	30/03/2028	31/12/2028	01/02/2029	01/02/2029	31/12/2029	31/12/2029
Comment		Testing will commence as part of EXODUS Project (V1 ATC One Software) Testing with V2 Software will commence in Q2 2027 Target Version for Commissioning V2.4						
EIDW TWR	31/12/2025	30/09/2026	30/09/2026	30/09/2026	31/03/2027	31/03/2027	31/03/2027	31/03/2027
Comment								

Additional comments

FF-ICE/R1 will be implemented in next Generation ATM system in 2029.

4.15. Italy FF-ICE Release 1 Implementation Roadmap

Introduction

Italy currently has four ACCs—Rome, Milan, Brindisi, and Padua—all mandated to comply with the CP1 regulation. However, Brindisi is already undergoing a transition to become a Remote Tower Control Center (RTCC), and there are long-term plans for Padua to follow, though without concrete timelines. As a result, Italy's overall ATM system architecture is evolving, and ENAV has made a strategic decision to limit upgrades to Brindisi and Padua ACCs to only what is strictly necessary. Consequently, FF-ICE will be implemented solely in the Rome and Milan ACCs.

To support this transition, ENAV has developed a software layer capable of connecting to the NM FF-ICE service and exchanging information in accordance with the SWIM Yellow Profile (YP) specification. ENAV plans to integrate this FF-ICE/R1 service from NM, ensuring the incorporation of relevant eFPL data into operational ATM systems, including ATC systems, with a dedicated service usage plan in place. CRONOS (ENAV ARO) system will connect directly in an initial stage, with the intention of eventually connecting them via the SWIM gateway.

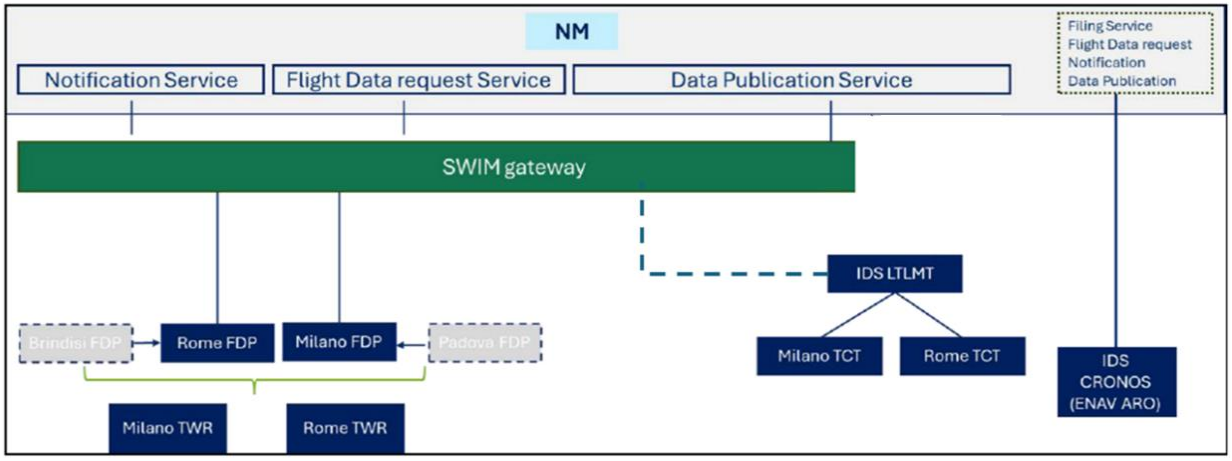
In a second stage also the system LTLMT (Traffic Complexity Tool) will be connected to the FF-ICE services (end of 2027).

In 2025, work began on specifying a component to facilitate the exchange of eFPL data with ATC systems. Connectivity is expected to be established by the end of 2026, with full integration into the new FDP system by 2028. This implementation follows the FF-ICE roadmap, which has been coordinated at the European level with other relevant stakeholders.

For ARO, ENAV will use a new system for flight plan submission, which will support the submission of flight plan (eFPL) through the NM FFICE services.

FF-ICE/R1 selected architecture approach

In the case of Italy, the approach is covering all FF-ICE services: Flight Data Request, Notification and Data Publication Service.



FF-ICE/R1 Service deployment overview

Flight Data Request Service

	Checkpoint 1	***Checkpoint 2***	***Checkpoint 3***	***Checkpoint 4***	***Checkpoint 5***
Location	Start of implementation	Start of implementation and testing on NM pre-ops	Start of validation testing on NM pre-ops	DM1: Connectivity End of testing (Connectivity readiness)	DM2: Operational use Request of flight plan, supplementary flight plan and flight status information is done via the Flight Data Request Service provided by the Network Manager
B2B Gateway		01/05/2026	30/09/2026	31/12/2026	N/A
Comment					
Milano ACC/FDP		N/A	N/A	N/A	31/12/2028
Comment					
Milano ACC/TCT		N/A	N/A	N/A	30/06/2027
Comment					
LIMC TWR		N/A	N/A	N/A	31/12/2028
Comment Tower Systems will be connected through the ACC systems					
Roma ACC/FDP		N/A	N/A	N/A	31/12/2028
Comment					
Roma ACC/TCT		N/A	N/A	N/A	30/06/2027
Comment					
LIRF TWR		N/A	N/A	N/A	31/12/2028
Comment Tower Systems will be connected through the ACC systems					

Additional comments

ENAV has developed a central system, acting as the NM B2B services gateway, to connect operational systems to NM services (internally referred to as the ENAV B2B Gateway). The development of a dedicated module for the FF-ICE service connection and the internal interface to ATM systems has started. The operational date for the FF-ICE module of the B2B Gateway is set to 31/12/2026.

The B2B Gateway is a software layer capable of exchanging information with NM B2B services in compliance with the SWIM Yellow Profile specification, including all relevant security requirements. The final system specification for the FF-ICE module was approved in November 2025.

The CP1 "connectivity" milestone, implemented through this component, will be reached by the end of 2026.

The CP1 "use in operation" milestone, which includes the integration of new eFPL data, will be achieved in 2028.

Specifically, the use of this service in the new Local Traffic Complexity Tool (LTLTM) is planned for June 2027, and its integration into the new FDP system is scheduled by the end of 2028, as reported in the common European plan ("FF-ICE roadmap") shared at SDM/NM level.

Padova and Brindisi ACC are planned to become RTCC; therefore, no long-term system evolutions are foreseen.

Notification Service

	Checkpoint 1	***Checkpoint 2***	***Checkpoint 3***	***Checkpoint 4***	***Checkpoint 5***
Location	Start of implementation	Start of implementation and testing on NM pre-ops	Start of validation testing on NM pre-ops	DM1: Connectivity End of testing (Connectivity readiness)	DM2 Operational use: Departure and arrival information is shared using the notification service provided by the Network Manager
B2B Gateway		01/05/2026	30/09/2026	31/12/2026	N/A
Comment					
Milano ACC/FDP		N/A	N/A	N/A	31/12/2028
Comment					
Roma ACC/FDP		N/A	N/A	N/A	31/12/2028
Comment					
LIMC TWR		N/A	N/A	N/A	31/12/2028
Comment Tower Systems will be connected through the ACC systems					
LIRF TWR		N/A	N/A	N/A	31/12/2028
Comment Tower Systems will be connected through the ACC systems					

Additional comments

ENAV has developed a central system, acting as the NM B2B services gateway, to connect operational systems to NM services (internally referred to as the ENAV B2B Gateway). The development of a dedicated module for the FF-ICE service connection and the internal interface to ATM systems has started. The operational date for the FF-ICE module of the B2B Gateway is set to 31/12/2026.

The B2B Gateway is a software layer capable of exchanging information with NM B2B services in compliance with the SWIM Yellow Profile specification, including all relevant security requirements. The final system specification for the FF-ICE module was approved in November 2025.

The CP1 "connectivity" milestone, implemented through this component, will be reached by the end of 2026.

The CP1 "use in operation" milestone, which includes the integration of new eFPL data, will be achieved in 2028.

Specifically, the use of this service in the new Local Traffic Complexity Tool (LTLTM) is planned for June 2027, and its integration into the new FDP system is scheduled by the end of 2028, as reported in the common European plan ("FF-ICE roadmap") shared at SDM/NM level.

Padova and Brindisi ACC are planned to become RTCC; therefore, no long-term system evolutions are foreseen.

Data Publication Service

	Checkpoint 1	***Checkpoint 2***	***Checkpoint 3***	***Checkpoint 4***	***Checkpoint 5***	***Checkpoint 6***	***Checkpoint 7***	***Checkpoint 8***
Location	Start of implementation	Start of implementation and testing on NM pre-ops	Start of validation testing on NM pre-ops	DM1: Connectivity End of testing (Connectivity readiness)	Service in operations	System is using the GUFI	System is using the operator flight plan version	DM2 Operational use: System is using information from the eFPL (when provided) including aircraft take Off Mass, the performance climb and descent profiles and the climb and descent speed schedule, and route/trajectory information to compute their trajectory. Please indicate which of this information the system may be using
B2B Gateway		01/05/2026	30/09/2026	31/12/2026	?	?	?	N/A
Comment								
Milano ACC/FDP		N/A	N/A	N/A	31/12/2028	31/12/2028	31/12/2028	31/12/2028
Comment								
Milano ACC/TCT		N/A	N/A	N/A	30/06/2027	30/06/2027	30/06/2027	30/06/2027
Comment								
LIMC TWR		N/A	N/A	N/A	?	?	?	31/12/2028
Comment Tower Systems will be connected through the ACC systems								
Roma ACC/FDP		N/A	N/A	N/A	31/12/2028	31/12/2028	31/12/2028	31/12/2028
Comment								
Roma ACC/TCT		N/A	N/A	N/A	30/06/2027	30/06/2027	30/06/2027	30/06/2027
Comment								
LIRF TWR		N/A	N/A	N/A	?	?	?	31/12/2028
Comment Tower Systems will be connected through the ACC systems								

Additional comments

ENAV has developed a central system, acting as the NM B2B services gateway, to connect operational systems to NM services (internally referred to as the ENAV B2B Gateway). The development of a dedicated module for the FF-ICE service connection and the internal interface to ATM systems has started. The operational date for the FF-ICE module of the B2B Gateway is set to 31/12/2026.

The B2B Gateway is a software layer capable of exchanging information with NM B2B services in compliance with the SWIM Yellow Profile specification, including all relevant security requirements. The final system specification for the FF-ICE module was approved in November 2025.

The CP1 "connectivity" milestone, implemented through this component, will be reached by the end of 2026.

The CP1 "use in operation" milestone, which includes the integration of new eFPL data, will be achieved in 2028.

Specifically, the use of this service in the new Local Traffic Complexity Tool (LTLTM) is planned for June 2027, and its integration into the new FDP system is scheduled by the end of 2028, as reported in the common European plan ("FF-ICE roadmap") shared at SDM/NM level.

Padova and Brindisi ACC are planned to become RTCC; therefore, no long-term system evolutions are foreseen.

4.16. Latvia FF-ICE Release 1 Implementation Roadmap

Introduction

LGS plans to implement FF-ICE/R1 services through a phased approach, with the first step set for completion by the December 31, 2027. This initial phase will involve updating the controller support system (ARO and ATFM unit support) to utilize FF-ICE/R1 mandatory services. This first block of ATC support systems, referred to as 'Module N1', is a legacy component of the existing ATM system.

As a part of the modernization process, Module N1 will then be substituted with a newly developed local SWIM platform, which will also serve as a foundation for the future ATM system. The N1 module functionalities will also be integrated into this new ATM system. FF-ICE/R1 services, provided as SWIM services, will also be fully implemented in the new ATM system, which is expected to be procured and operational by the end of 2029. The new ATC system will be designed to natively process eFPLs.

LGS will consume FF-ICE/R1 services using the local SWIM platform, which will be connected to iNM, eEAD and other SWIM stakeholders.

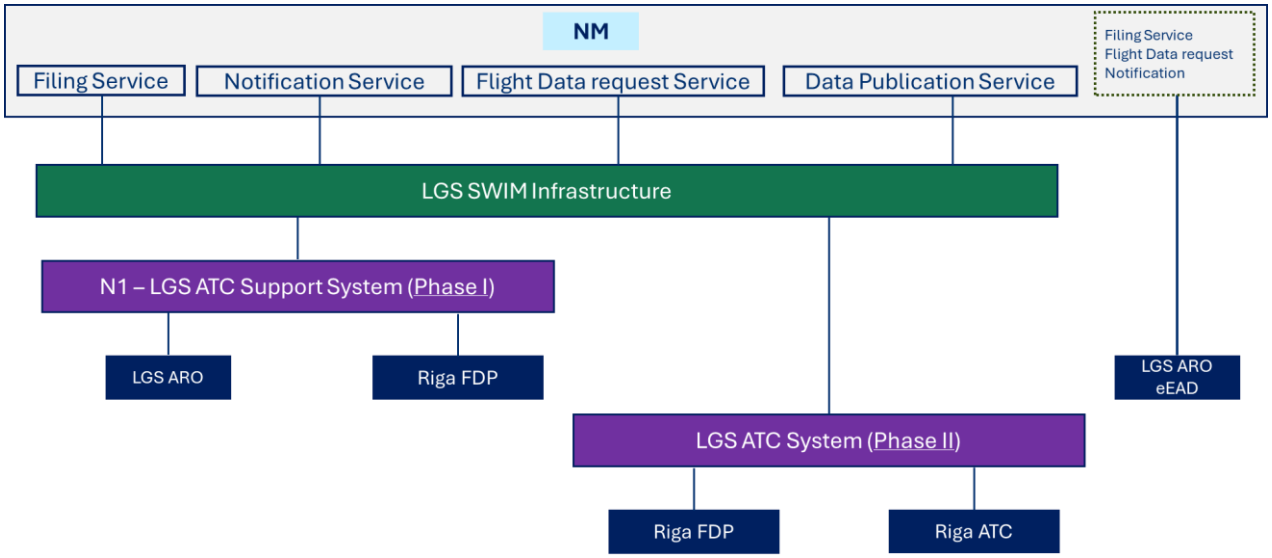
For ARO operations, LGS will use the eEAD system as the main system.

This will remain until the local ARO application becomes fully FF-ICE/R1 and SWIM compliant, which is planned for the end of 2027.

Since the NM eEAD with Support for ARO functionality will only be available from the end of 2026, as an intermediate step, ARO plans to file FF-ICE Flight Plans and Updates through the NMUI Flight application.

FF-ICE/R1 selected architecture approach

In the case of Latvia, the approach is covering all FF-ICE services: Flight Data Request, Notification and Data Publication Service.



FF-ICE/R1 Service deployment overview

Flight Data Request Service

	Checkpoint 1	***Checkpoint 2***	***Checkpoint 3***	***Checkpoint 4***	***Checkpoint 5***
Location	Start of implementation	Start of implementation and testing on NM pre-ops	Start of validation testing on NM pre-ops	DM1: Connectivity End of testing (Connectivity readiness)	DM2: Operational use Request of flight plan, supplementary flight plan and flight status information is done via the Flight Data Request Service provided by the Network Manager
LGS SWIM Infrastructure	01/06/2025	01/06/2026	10/01/2027	01/06/2027	31/12/2027
N1 module	01/06/2025	01/06/2026	10/01/2027	01/06/2027	31/12/2027
Comment					
Riga ACC/FDP	01/06/2025	01/07/2027	01/01/2028	31/12/2029	31/12/2029

Comment					

Additional comments

LGS plans to implement FF-ICE R1 services by 31.12.2027. These services will be implemented in ATC support systems and provide corresponding support to ARO and FDP units.

Notification Service

	Checkpoint 1	***Checkpoint 2***	***Checkpoint 3***	***Checkpoint 4***	***Checkpoint 5***
Location	Start of implementation	Start of implementation and testing on NM pre-ops	Start of validation testing on NM pre-ops	DM1: Connectivity End of testing (Connectivity readiness)	DM2 Operational use: Departure and arrival information is shared using the notification service provided by the Network Manager
LGS SWIM Infrastructure	01/06/2025	01/06/2026	10/01/2027	01/06/2027	31/12/2027
N1 module	01/06/2025	01/06/2026	10/01/2027	01/06/2027	31/12/2027
Comment					
Riga ACC/FDP	01/06/2025	01/07/2027	01/01/2028	31/12/2029	31/12/2029
Comment					

Additional comments

LGS plans to implement FF-ICE R1 services by 31.12.2027. These services will be implemented in ATC support systems and provide corresponding support to ARO and FDP units.

Data Publication Service

	Checkpoint 1	***Checkpoint 2***	***Checkpoint 3***	***Checkpoint 4***	***Checkpoint 5***	***Checkpoint 6***	***Checkpoint 7***	***Checkpoint 8***
Location	Start of implementation	Start of implementation and testing on NM pre-ops	Start of validation testing on NM pre-ops	DM1: Connectivity End of testing (Connectivity readiness)	Service in operations	System is using the GUFI	System is using the operator flight plan version	DM2 Operational use: System is using information from the eFPL (when provided) including aircraft take Off Mass, the performance climb and descent profiles and the climb and descent speed schedule, and route/trajectory information to compute their trajectory. Please indicate which of this information the system may be using
LGS SWIM Infrastructure	01/06/2025	01/06/2026	10/01/2027	01/06/2027	01/07/2027	01/08/2027	01/10/2027	31/12/2027
N1 module	01/06/2025	01/06/2026	10/01/2027	01/06/2027	01/07/2027	01/08/2027	01/10/2027	31/12/2027
Comment								
Riga ACC/FDP	01/06/2025	01/07/2027	01/01/2028	01/01/2029	01/06/2029	01/08/2029	01/10/2029	31/12/2029
Comment								

Additional comments

LGS plans to implement FF-ICE R1 services by 31.12.2027. These services will be implemented in ATC support systems and provide corresponding support to ARO and FDP units.

4.17. Lithuania FF-ICE Release 1 Implementation Roadmap

Introduction

The FF-ICE/R1 functionalities will be partially implemented by the end of 2026, but full operational deployment is expected beyond the CP1 deadline, with completion planned for 2032.

Oro Navigacija's current ATC system (iTEC v2, deployed in 2021) does not support FF-ICE features. To address this, a new system (iTEC SkyNex) is being developed and will be deployed in three phases, following the SkyNEX system deployment roadmap agreed upon by iTEC members and Indra, with full implementation targeted for 2032.

Oro Navigacija plans to consume FF-ICE/R1 services through an integrated SWIM platform, which will independently connect both the FDP and TWR systems. The expansion of this SWIM integration platform has begun in 2025, ensuring full operational capability for eFPL processing in both TWR and ACC systems by 2032. While Oro Navigacija will establish full connectivity with NM and start consuming FF-ICE services by the end of 2026, integration into the main ATC system will only be realized as part of the iTEC SkyNex rollout under the broader iTEC collaboration.

Implementation of All FF-ICE-related functionalities (INF10.19/20/21) is addressed in the ON's SWIM AF5 consolidated action plan. The plan includes:

- Extension of the SWIM integrational platform (deployed under INF10.5 ARES implementation scope): development, deployment and adaptation, ensuring FF-ICE data exchange by SWIM services
- Upgrade of Aerodrome ATM systems in Kaunas and Palanga (these cover not only Terminal, but also APP services and ACC Contingency Center) to consume and display FF-ICE data (by the end of 2026)
- Deployment of the future ACC ATM system (iTEC SkyNEX, in development)

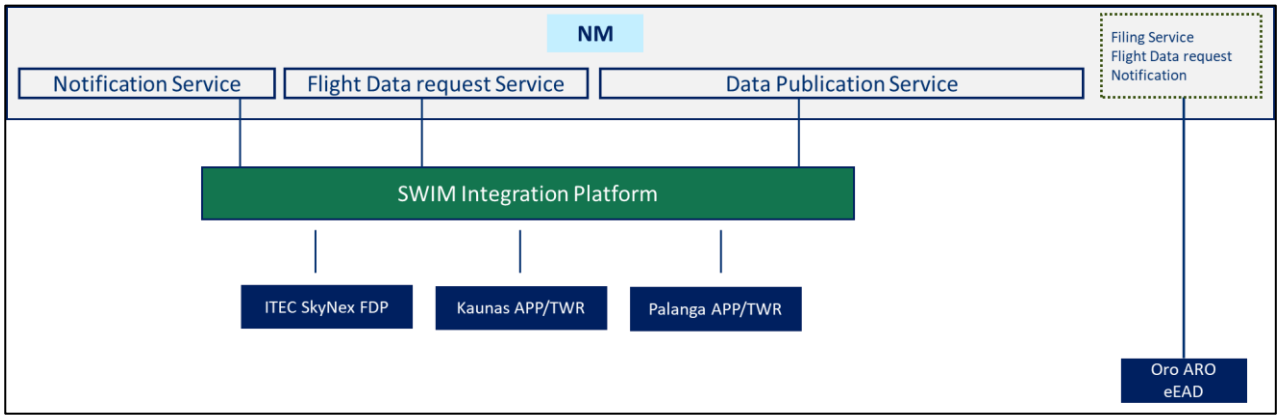
The functionalities will be partially implemented by the end of 2026, however, the full operational deadline is foreseen beyond CP1 deadline (in 2032):

- The current ATC system (ITEC v2, deployed in 2021) cannot handle the FF-ICE features. In fact, a new system is being developed and deployed (iTEC SkyNex) in three cycles until 2032 based on SkyNEX system deployment roadmap agreed by iTEC members and its technological partner Indra;
- Extension of the SWIM integrational platform will be implemented;
- ON is dependent on the suppliers for the implementation of FF-ICE SWIM services.

SWIM integration platform includes infrastructure elements and middleware. SWIM Integration platform is foreseen as a single ON communication node which will support exchange of all kinds of aviation data used by ON (yellow profile) Once deployed (initially to address AF5.3 functionalities), there will be the need to extend it for MET, FF_ICE and other linked functionalities. The extension will cover development, deployment and adaptation, ensuring the exchange MET/FF-ICE related data with internal and external systems according SWIM concept.

FF-ICE/R1 selected architecture approach

In the case of Lithuania, the approach is covering all FF-ICE services: Flight Data Request, Notification and Data Publication Service.



FF-ICE/R1 Service deployment overview

Flight Data Request Service

	Checkpoint 1	***Checkpoint 2***	***Checkpoint 3***	***Checkpoint 4***	***Checkpoint 5***
Location	Start of implementation	Start of implementation and testing on NM pre-ops	Start of validation testing on NM pre-ops	DM1: Connectivity End of testing (Connectivity readiness)	DM2: Operational use Request of flight plan, supplementary flight plan and flight status information is done via the Flight Data Request Service provided by the Network Manager
SWIM integration platform	10/01/2024	31/12/2026	31/12/2026	31/12/2026	N/A
Comment	FF-ICE/R1 documentation, data flow and system requirements analysis is made; the need for technical system amendments (upgrades) is identified; implementation plan is prepared and is ongoing.	As provided in the state-level comment, all FF-ICE functionalities are to be deployed in ACC only in 2032 (because of the SkyNex implementation roadmap approved at iTEC level), the testings will be planned accordingly, considering functionalities' maturity/readiness.	Same as previous	Same as previous	
Vilnius ACC/FDP		31/12/2032	31/12/2032	31/12/2032	31/12/2032
Comment					Same as previous comments

Additional comments

According to the implementation plan, the functionalities will be partially implemented in 2026, however, the full operational deadline is foreseen beyond CP1 deadline (in 2032):

- The current ATC system (ITEC v2, deployed in 2021) cannot handle the FF-ICE features. In fact, a new system is being developed and deployed (iTEC SkyNex) in three cycles until 2032 based on SkyNex system deployment roadmap agreed by iTEC members and its technological partner Indra;
- Only the FF-ICE functionalities at ARO position was planned to be achieved by December 2025 through Eurocontrol's eEAD capabilities (the deadline is pushed to the end of 2026 by EUROCONTROL) and adaptation of local equipment as well amendments (enabling FF-ICE) to Aerodrome ATC systems in Kaunas and Palanga (these cover not only Terminal, but also APP services and ACC Contingency);
- Extension of the SWIM integrational platform will be implemented;
- ON is dependent on the suppliers for the implementation of FF-ICE SWIM services. For ARO, ON is dependent on the timely EUROCONTROL service provision.

Notification Service

	Checkpoint 1	***Checkpoint 2***	***Checkpoint 3***	***Checkpoint 4***	***Checkpoint 5***
Location	Start of implementation	Start of implementation and testing on NM pre-ops	Start of validation testing on NM pre-ops	DM1: Connectivity End of testing (Connectivity readiness)	DM2 Operational use: Departure and arrival information is shared using the notification service provided by the Network Manager
SWIM integration platform	31/12/2026	31/12/2026	31/12/2026	31/12/2026	N/A
Comment	FF-ICE/R1 documentation, data flow and system requirements analysis is made; the need for technical system amendments (upgrades) is identified; implementation plan is prepared and is ongoing.	As provided in the state-level comment, all FF-ICE functionalities are to be deployed in ACC only in 2032 (because of the SkyNex implementation roadmap approved at iTEC level), the testings will be planned accordingly, considering functionalities' maturity/readiness.	Same as previous	Same as previous	
Vilnius ACC/FDP		31/12/2032	31/12/2032	31/12/2032	31/12/2032
Comment					

Additional comments

According to the implementation plan, the functionalities will be partially implemented in 2026, however, the full operational deadline is foreseen beyond CP1 deadline (in 2032):

- The current ATC system (ITEC v2, deployed in 2021) cannot handle the FF-ICE features. In fact, a new system is being developed and deployed (iTEC SkyNex) in three cycles until 2032 based on SkyNex system deployment roadmap agreed by iTEC members and its technological partner Indra;
- Only the FF-ICE functionalities at ARO position was planned to be achieved by December 2025 through Eurocontrol's eEAD capabilities (the deadline is pushed to the end of 2026 by EUROCONTROL) and adaptation of local equipment as well amendments (enabling FF-ICE) to Aerodrome ATC systems in Kaunas and Palanga (these cover not only Terminal, but also APP services and ACC Contingency);
- Extension of the SWIM integrational platform will be implemented;
- ON is dependent on the suppliers for the implementation of FF-ICE SWIM services. For ARO, ON is dependent on the timely EUROCONTROL service provision.

Data Publication Service

	Checkpoint 1	***Checkpoint 2***	***Checkpoint 3***	***Checkpoint 4***	***Checkpoint 5***	***Checkpoint 6***	***Checkpoint 7***	***Checkpoint 8***
Location	Start of implementation	Start of implementation and testing on NM pre-ops	Start of validation testing on NM pre-ops	DM1: Connectivity End of testing (Connectivity readiness)	Service in operations	System is using the GUFI	System is using the operator flight plan version	DM2 Operational use: System is using information from the eFPL (when provided) including aircraft take Off Mass, the performance climb and descent profiles and the climb and descent speed schedule, and route/trajectory information to compute their trajectory. Please indicate which of this information the system may be using
SWIM integration platform	10/01/2024	31/12/2026	31/12/2026	31/12/2026	N/A	N/A	N/A	N/A
Comment	FF-ICE/R1 documentation, data flow and system requirements analysis is made; the need for technical system amendments (upgrades) is identified; implementation plan is prepared and is ongoing.	As provided in the state-level comment, all FF-ICE functionalities are to be deployed in ACC only in 2032 (because of the SkyNex implementation roadmap approved at iTEC level), the testings will be planned accordingly, considering functionalities' maturity/readiness.	Same as previous	Same as previous	Same as previous	Same as previous	Same as previous	Same as previous
Vilnius ACC/FDP	31/12/2032	31/12/2032	31/12/2032	31/12/2032	31/12/2032	31/12/2032		31/12/2032
Comment					Same as previous			

Additional comments

According to the implementation plan, the functionalities will be partially implemented in 2026, however, the full operational deadline is foreseen beyond CP1 deadline (in 2032):

- The current ATC system (ITEC v2, deployed in 2021) cannot handle the FF-ICE features. In fact, a new system is being developed and deployed (iTEC SkyNex) in three cycles until 2032 based on SkyNex system deployment roadmap agreed by iTEC members and its technological partner Indra;
- Only the FF-ICE functionalities at ARO position was planned to be achieved by December 2025 through Eurocontrol's eEAD capabilities (the deadline is pushed to the end of 2026 by EUROCONTROL) and adaptation of local equipment as well amendments (enabling FF-ICE) to Aerodrome ATC systems in Kaunas and Palanga (these cover not only Terminal, but also APP services and ACC Contingency);

- Extension of the SWIM integrational platform will be implemented;
- ON is dependent on the suppliers for the implementation of FF-ICE SWIM services. For ARO, ON is dependent on the timely EUROCONTROL service provision.

4.18. Luxembourg FF-ICE Release 1 Implementation Roadmap

Introduction

From an operational perspective, implementing FF ICE R1 for the Luxembourg ARO means replacing the AFTN/AMHS terminal with a SWIM enabled ARO application, featuring a data oriented HMI, a FIXM based database and SWIM compliant interfaces (B2B, AMQP, etc.).
The future SWIM enabled ARO application is still in its specification phase, and several aspects of the transition remain open. In particular, the operational setup for the parallel period, during which FPL2012/AFTN/AMHS and eFPL/FIXM/SWIM will coexist, still needs to be defined. A modernisation project for the COM Centre and the ARO is planned for 2026 and this project will show the solutions for a SWIM compliant ARO. Only once this project is underway will we have a clear view of the technical options and the path toward full FF ICE R1 implementation.

FF-ICE/R1 selected architecture approach

In the case of Luxembourg, the approach is covering all FF-ICE service: Flight Data Request, Notification and Data Publication Service.

FF-ICE/R1 Service deployment overview

Flight Data Request Service

	Checkpoint 1	***Checkpoint 2***	***Checkpoint 3***	***Checkpoint 4***	***Checkpoint 5***
Location	Start of implementation	Start of implementation and testing on NM pre-ops	Start of validation testing on NM pre-ops	DM1: Connectivity End of testing (Connectivity readiness)	DM2: Operational use Request of flight plan, supplementary flight plan and flight status information is done via the Flight Data Request Service provided by the Network Manager
Luxembourg TMA/APP	30/09/2028	30/09/2028	31/03/2029	31/03/2029	31/12/2029
Comment		Progressive implementation and real-time testing in NM Pre-Ops. Operational transition phase with performance monitoring. Finalization of compliance assessment for full operational deployment,			

Notification Service

	Checkpoint 1	***Checkpoint 2***	***Checkpoint 3***	***Checkpoint 4***	***Checkpoint 5***
Location	Start of implementation	Start of implementation and testing on NM pre-ops	Start of validation testing on NM pre-ops	DM1: Connectivity End of testing (Connectivity readiness)	DM2 Operational use: Departure and arrival information is shared using the notification service provided by the Network Manager
Luxembourg TMA/APP	30/09/2028	30/09/2028	31/03/2029	31/03/2029	31/12/2029
Comment		Progressive implementation and real-time testing in NM Pre-Ops. Operational transition phase with performance monitoring. Finalization of compliance assessment for full operational deployment,	System validation and initial compliance testing with NM PreOps. Assessment of interoperability with the NM environment. Identification of potential operational or technical adjustments.		

Data Publication Service

	Checkpoint 1	***Checkpoint 2***	***Checkpoint 3***	***Checkpoint 4***	***Checkpoint 5***	***Checkpoint 6***	***Checkpoint 7***	***Checkpoint 8***
Location	Start of implementation	Start of implementation and testing on NM pre-ops	Start of validation testing on NM pre-ops	DM1: Connectivity End of testing (Connectivity readiness)	Service in operations	System is using the GUFI	System is using the operator flight plan version	DM2 Operational use: System is using information from the eFPL (when provided) including aircraft take Off Mass, the performance climb and descent profiles and the climb and descent speed schedule, and route/trajectory information to compute their trajectory. Please indicate which of this information the system may be using
Luxembourg TMA/APP	30/09/2028	31/03/2029	31/03/2029	31/03/2029	31/12/2029	31/12/2029	31/12/2029	31/12/2029
Comment		Progressive implementation and real-time testing in NM Pre-Ops. Operational transition phase with performance monitoring. Finalization of compliance assessment for full operational deployment,	System validation and initial compliance testing with NM PreOps. Assessment of interoperability with the NM environment. Identification of potential operational or technical adjustments.					

4.19. Malta FF-ICE Release 1 Implementation Roadmap

Introduction

MATS will be investing in an ATM System Upgrade with Leonardo and introduce FF-ICE with this upgrade. The procurement process will start in 2026.

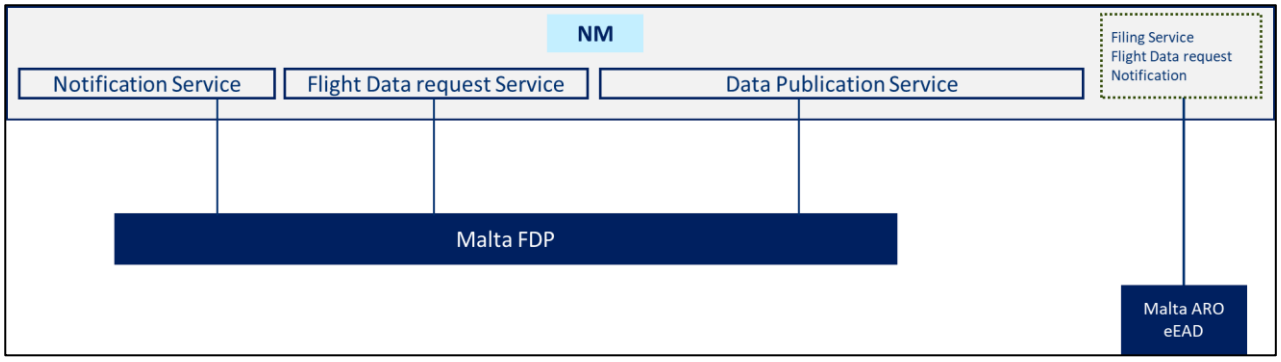
For ARO, Malta will rely on the eEAD Updates.

A major challenge affecting the implementation of this project is that the new ATM upgrade is highly dependent on new facilities (physical premises) at Malta Air Traffic Services. The multimillion project will include a new Tower, new ATCC, equipment rooms and office facilities.

To align with the regulatory requirements and avoid additional delays, MATS is planning to host the FF-ICE Test bed by mid-2027 [in a temporary location] to enable testing in parallel with the development of the new facilities.

FF-ICE/R1 selected architecture approach

In the case of Malta, the approach is covering all FF-ICE services; Flight Data Request, Notification and Data Publication Service.



FF-ICE/R1 Service deployment overview

Flight Data Request Service

	Checkpoint 1	***Checkpoint 2***	***Checkpoint 3***	***Checkpoint 4***	***Checkpoint 5***
Location	Start of implementation	Start of implementation and testing on NM pre-ops	Start of validation testing on NM pre-ops	DM1: Connectivity End of testing (Connectivity readiness)	DM2: Operational use Request of flight plan, supplementary flight plan and flight status information is done via the Flight Data Request Service provided by the Network Manager
Malta ACC/FDP	01/01/2027	?	?		
Comment					

Additional comments

Flight Information Exchange (Yellow Profile) - Project is part of the New ATM System Upgrade.

Notification Service

	Checkpoint 1	***Checkpoint 2***	***Checkpoint 3***	***Checkpoint 4***	***Checkpoint 5***
Location	Start of implementation	Start of implementation and testing on NM pre-ops	Start of validation testing on NM pre-ops	DM1: Connectivity End of testing (Connectivity readiness)	DM2 Operational use: Departure and arrival information is shared using the notification service provided by the Network Manager
Malta ACC/FDP	01/01/2027	?	?		
Comment					

Additional comments

Flight Information Exchange (Yellow Profile) - Notification Service planned with ATM Upgrade.

Data Publication Service

	Checkpoint 1	***Checkpoint 2***	***Checkpoint 3***	***Checkpoint 4***	***Checkpoint 5***	***Checkpoint 6***	***Checkpoint 7***	***Checkpoint 8***
Location	Start of implementation	Start of implementation and testing on NM pre-ops	Start of validation testing on NM pre-ops	DM1: Connectivity End of testing (Connectivity readiness)	Service in operations	System is using the GUFI	System is using the operator flight plan version	DM2 Operational use: System is using information from the eFPL (when provided) including aircraft take Off Mass, the performance climb and descent profiles and the climb and descent speed schedule, and route/trajectory information to compute their trajectory. Please indicate which of this information the system may be using
Malta ACC/FDP	01/01/2027	?	?	?	?	?	?	?
Comment Flight Information Exchange (Yellow Profile) - Data Publication not yet planned but will be considered in the future.								

Additional comments

Flight Information Exchange (Yellow Profile) - Data Publication planned with ATM Upgrade.

4.20. MUAC FF-ICE Release 1 Implementation Roadmap

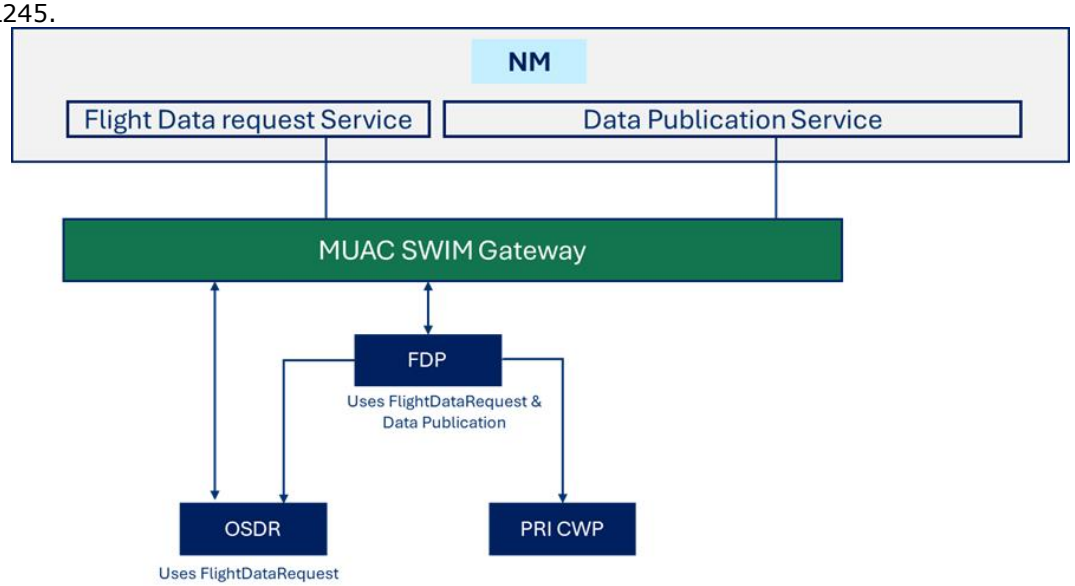
Introduction

MUAC will use a SWIM gateway to consume eFPLs from the Data Publication and Flight Data Request services. The responsibility of the gateway is limited to external communication with NM and transferring communications internally to the FDP. eFPLs sent from the SWIM gateway will be directed to the FDP and consumed natively, with the FDP processing the FIXM format without any conversion. The FDP will then then publish this information to the Primary CWP for ATCOs to work with.

The OSDR, which is MUAC's support screen will process eFPLs from two separate data flows. First, the FDP will forward data it has processed to the OSDR (similar to PRI CWP). Secondly, however, the OSDR can also request an eFPL directly from the SWIM Gateway for visualisation purposes only, allowing the ATCO to view the 4D profile of the flight. This mode of operation provides additionally redundancy during fallback operations. In such scenarios, the OSDR remains available as a support display, giving ATCOs continued access to enhanced flight-plan-related information. Having the 4D profile available through native eFPL consumption ensures greater situational awareness than today.

FF-ICE/R1 selected architecture approach

In the case of MUAC, the approach is covering the following FF-ICE services: Flight Data Request and Data Publication Service. The Notification service is not applicable for MUAC as they only cover upper airspace above FL245.



FF-ICE/R1 Service deployment overview

Flight Data Request Service

	Checkpoint 1	***Checkpoint 2***	***Checkpoint 3***	***Checkpoint 4***	***Checkpoint 5***
Location	Start of implementation	Start of implementation and testing on NM pre-ops	Start of validation testing on NM pre-ops	DM1: Connectivity End of testing (Connectivity readiness)	DM2: Operational use Request of flight plan, supplementary flight plan and flight status information is done via the Flight Data Request Service provided by the Network Manager
Maastricht OSDR	01/05/2026	01/07/2026	01/09/2026	31/10/2026	31/12/2026
Maastricht UAC/FDP	01/01/2026	01/05/2026	01/04/2027	31/10/2027	31/12/2027
Comment					

Additional comments

This covers the set up of the SWIM gateway, the EACP integration and the implementation of the Flight Data Request Service on the OSDR (MUAC's support screen).

Data Publication Service

	Checkpoint 1	***Checkpoint 2***	***Checkpoint 3***	***Checkpoint 4***	***Checkpoint 5***	***Checkpoint 6***	***Checkpoint 7***	***Checkpoint 8***
Location	Start of implementation	Start of implementation and testing on NM pre-ops	Start of validation testing on NM pre-ops	DM1: Connectivity End of testing (Connectivity readiness)	Service in operations	System is using the GUFI	System is using the operator flight plan version	DM2 Operational use: System is using information from the eFPL (when provided) including aircraft take Off Mass, the performance climb and descent profiles and the climb and descent speed schedule, and route/trajectory information to compute their trajectory. Please indicate which of this information the system may be using
Maastricht UAC/FDP	01/01/2026	01/05/2026	01/04/2027	31/10/2027	31/12/2027	31/12/2027	31/12/2027	31/12/2027 using only take Off Mass for trajectory computation
Comment								

Additional comments

This covers the set up of the SWIM gateway, the EACP integration and the implementation of the Data Publication Service (and Flight Data Request Service) on the MUAC FDPS.

4.21. Netherlands FF-ICE Implementation Roadmap

Introduction

LVNL will upgrade its systems so that, in addition to ICAO 2012 FPLs, they can also receive and process eFPLs distributed by the NM FF-ICE/R1 Publication Service and make use of the Notification and Flight Data Request services.

As an intermediary step, in 2023 LVNL initiated a project called Flight Data Services (FDS) as a replacement of their Home Briefing System and Aeronautical Data Access System. This system will consist of a service supporting receiving, creating, (re)transmit, processing, storage and search of ATS messages and flight data (flight plans) initially via AFTN and in a second phase connect to NM SWIM FF-ICE/R1 B2B Services estimated at the end of 2027, serving the same function. It will use the NM FF-ICE/R1 Publication Service, Flight Data Request service, the Notification service and for ARO also the Filing service.

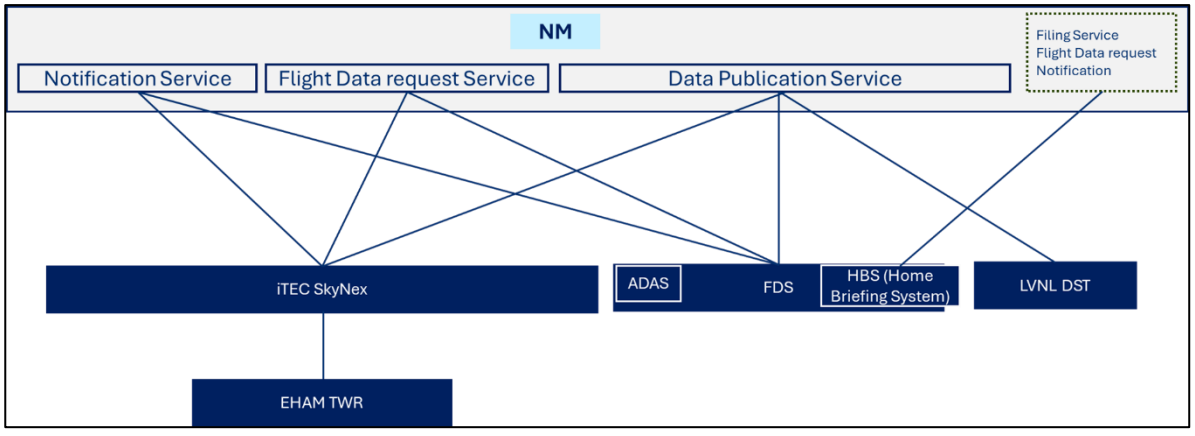
In parallel LVNL will continue working on the rollout of the iCAS ATM system, go-live planned for 2028. The current software version of this FDP system does not support communication with a SWIM service and does not support processing of eFPLs. The FF-ICE development is part of iTEC SkyNex, so the availability of the software required to use the FF-ICE/R1 SWIM services is subject to its planning.

LVNL is still investigating when eFPL information can be consumed via a SWIM service by the new air traffic control system iCAS and whether a temporary solution is feasible in the meantime. We have understood from INDRA that the FF-ICE module being developed for iTEC SkyNex can also be used for iCAS and can therefore be integrated (merged). However, the consequences this may have for the existing software still need to be investigated in detail. The planned implementation date is therefore still uncertain.

LVNL plan to use the Data Publication Service for the Traffic Complexity Tool (LVNL DST – Decision Support Tool). This system will consume the eFPLs directly from NM via the Data Publication Service. Implementation in DST is planned for 2026 and is expected to be operational in Q4 2026.

FF-ICE/R1 selected architecture approach

In the case of the Netherlands, the approach is covering all FF-ICE services: Flight Data Request, Notification and Data Publication Service.



FF-ICE/R1 Service deployment overview

Flight Data Request Service

	Checkpoint 1	***Checkpoint 2***	***Checkpoint 3***	***Checkpoint 4***	***Checkpoint 5***
Location	Start of implementation	Start of implementation and testing on NM pre-ops	Start of validation testing on NM pre-ops	DM1: Connectivity End of testing (Connectivity readiness)	DM2: Operational use Request of flight plan, supplementary flight plan and flight status information is done via the Flight Data Request Service provided by the Network Manager
Amsterdam ACC/FDP				31/12/2035	31/12/2035
Comment The current software version of the iCAS FDP system does not support communication with a SWIM service and does not support processing of eFPLs. The FF-ICE development is part of iTEC SkyNex, so the availability of the software required to use the FF-ICE/R1 SWIM services is subject to its planning. LVNL is still investigating when eFPL information can be consumed via a SWIM service by the new air traffic control system iCAS and whether a temporary solution is feasible in the meantime. We have understood from INDRA that the FF-ICE module being developed for iTEC SkyNex can also be used for iCAS and can therefore be integrated (merged). However, the consequences this may have for the existing software still need to be investigated in detail. The planned implementation date is therefore still uncertain.	Start of the production of the FF-ICE module developed for iTEC SkyNex.	The detailed planning still must be made.	The detailed planning still must be made.	The detailed planning still must be made.	Tentatively planned year for iTEC SkyNex implementation at LVNL. This may be possible sooner if the FF-ICE module developed for iTEC SkyNex can also be used for iCAS and this can be incorporated into the LVNL project portfolio.
Amsterdam ACC/FDS	01/01/2026			31/12/2027	31/12/2029
Comment LVNL will upgrade its systems for flight data to be able to consume the NM FF-ICE/R1 Flight Data Request Service when requiring access to the information of a particular eFPL. A project called Flight Data Services (FDS) was launched in 2023. This system will consist of a service supporting receiving, creating, (re)transmit, processing, storage and search of ATS messages and flight data (flight plans) via AFTN and in a second phase connect to NM SWIM FF-ICE/R1 Flight Data Request service for eFPLs.	Start of the second project phase with focus on the Homebriefing System (HBS) used for ARO and consuming FF-ICE services.	The detailed planning still must be made.	The detailed planning still must be made.	The detailed planning still must be made.	LVNL will use the NM FF-ICE/R1 Flight Data Request Service when requiring access to the information of a particular eFPL via Flight Data Services (FDS).
EHAM TWR		N/A	N/A	N/A	31/12/2035
Comment					In the planned system architecture, the iCAS FDP system will provide the connection to the Flight Data Request service and transmit the relevant data internally to the tower system for Schiphol Airport.

Additional comments

LVNL will upgrade its systems to be capable of receiving and processing eFPLs distributed by the NM FF-ICE/R1 Publication Service, in addition to ICAO 2012 FPLs. Flight plans are used by multiple systems and users.

In 2023 LVNL initiated a project called Flight Data Services (FDS) as a replacement of their Home Briefing System and Aeronautical Data Access System. This system will consist of a service supporting receiving, creating, (re)transmit, processing, storage and search of ATS messages and flight data (flight plans) initially via AFTN and in a second phase connect to NM SWIM FF-ICE/R1 B2B Services estimated at the end of 2026, serving the same function.LVNL will use the NM FF-ICE/R1 Flight Data Request Service when requiring access to the information of a particular eFPL via its Flight Data Services (FDS).

In parallel LVNL will continue working on the rollout of the iCAS ATM system, go-live planned for 2028. The current software version of this iCAS FDP system does not support communication with a SWIM service and does not support processing of eFPLs. The FF-ICE development is part of iTEC SkyNex, so the availability of the software required to use the FF-ICE/R1 SWIM services is subject to its planning. LVNL is still investigating when eFPL information can be consumed via a SWIM service by the new air traffic control system iCAS and whether a temporary solution is feasible in the meantime. We have understood from INDRA that the FF-ICE module being developed for iTEC SkyNex can also be used for iCAS and can therefore be integrated (merged). However, the consequences this may have for the existing software still need to be investigated in detail. The planned implementation date is therefore still uncertain.

In the planned system architecture, the FDP system will provide the connection to the Flight Data Request service and transmit the relevant data internally to the tower system for Schiphol Airport.

The planned implementation years are based on the iTEC SkyNex planning and current LVNL projectportfolio.

Notification Service

	Checkpoint 1	***Checkpoint 2***	***Checkpoint 3***	***Checkpoint 4***	***Checkpoint 5***
Location	Start of implementation	Start of implementation and testing on NM pre-ops	Start of validation testing on NM pre-ops	DM1: Connectivity End of testing (Connectivity readiness)	DM2 Operational use: Departure and arrival information is shared using the notification service provided by the Network Manager
Amsterdam ACC/FDP				31/12/2035	31/12/2035
Comment The current software version of the iCAS FDP system does not support communication with a SWIM Notification service. The FF-ICE development is part of iTEC SkyNex, so the availability of the software required to use the FF-ICE/R1 SWIM services is subject to its planning. LVNL is still investigating when eFPL information and notification can be consumed via a SWIM service by the new air traffic control system iCAS and whether a temporary solution is feasible in the meantime. We have understood from INDRA that the FF-ICE module being developed for iTEC SkyNex can also be used for iCAS and can therefore be integrated (merged). However, the consequences this may have for the existing software still need to be investigated in detail. The planned implementation date is therefore still uncertain.	Start of the production of the FF-ICE module developed for iTEC SkyNex	The detailed planning still must be made.	The detailed planning still must be made.	The detailed planning still must be made.	Tentatively planned year for iTEC SkyNex implementation at LVNL. This may be possible sooner if the FF-ICE module developed for iTEC SkyNex can also be used for iCAS and this can be incorporated into the LVNL project portfolio.
Amsterdam ACC/FDS	01/01/2026			31/12/2027	31/12/2029
Comment LVNL will upgrade its systems for flight data to be able to consume the NM FF-ICE/R1 Notification Service to be able to send departure and possibly also arrival information by the Flight Service Centre. A project called Flight Data Services (FDS) was launched in 2023. This system will consist of a service supporting receiving, creating, (re)transmit, processing, storage and search of ATS messages and flight data (flight plans) via AFTN and in a second phase connect to NM SWIM FF-ICE/R1 Notification Service.	Start of the second project phase with focus on the Homebriefing System (HBS) used for ARO and FF-ICE services.	The detailed planning still must be made.	The detailed planning still must be made.	The detailed planning still must be made.	The Flight Service Centre will use the NM FF-ICE/R1 Notification Service by the Flight Data Services (FDS) system.

Additional comments

In 2023 LVNL initiated a project called Flight Data Services (FDS) as a replacement of their Home Briefing System and Aeronautical Data Access System. This system will consist of a service supporting receiving, creating, (re)transmit, processing, storage and search of ATS messages and flight data (flight plans) initially via AFTN and in a second phase connect to NM SWIM FF-ICE/R1 B2B Services estimated at the end of 2027, serving the same function. LVNL will use the NM FF-ICE/R1 Notification Service to be able to send departure and possibly also arrival information by the Flight Service Centre (FSC).

In parallel LVNL will continue working on the rollout of the iCAS ATM system, go-live planned for 2028. The current software version of this iCAS FDP system does not support communication with a SWIM service and does not support processing of eFPLs. The FF-ICE development is part of iTEC SkyNex, so the availability of the software required to use the FF-ICE/R1 SWIM services is subject to its planning. LVNL is still investigating when eFPL information can be consumed via a SWIM service by the new air traffic control system iCAS and whether a temporary solution is feasible in the meantime. We have understood from INDRA that the FF-ICE module being developed for iTEC SkyNex can also be used for iCAS and can therefore be integrated (merged). However, the consequences this may have for the existing software still need to be investigated in detail. The planned implementation date is therefore still uncertain.

In the planned system architecture, the FDP system will provide the connection to the NM FF-ICE/R1 Notification Service and exchange the relevant data internally with the tower system for Schiphol Airport.

The planned implementation years are based on the iTEC SkyNex planning and current LVNL projectportfolio.

Data Publication Service

	Checkpoint 1	***Checkpoint 2***	***Checkpoint 3***	***Checkpoint 4***	***Checkpoint 5***	***Checkpoint 6***	***Checkpoint 7***	***Checkpoint 8***
Location	Start of implementation	Start of implementation and testing on NM pre-ops	Start of validation testing on NM pre-ops	DM1: Connectivity End of testing (Connectivity readiness)	Service in operations	System is using the GUFI	System is using the operator flight plan version	DM2 Operational use: System is using information from the eFPL (when provided) including aircraft take Off Mass, the performance climb and descent profiles and the climb and descent speed schedule, and route/trajectory information to compute their trajectory. Please indicate which of this information the system may be using
Amsterdam ACC/FDP				31/12/2035				31/12/2035
Comment The current software version of the iCAS FDP system does not support communication with a SWIM service and does not support processing of eFPLs. The FF-ICE development is part of iTEC SkyNex, so the availability of the software required to use the FF-ICE/R1 SWIM services is subject to its planning. LVNL is still investigating when eFPL information can be consumed via a SWIM service by the new air traffic control system iCAS and whether a temporary solution is feasible in the meantime. We have understood from INDRA that the FF-ICE module being developed for iTEC SkyNex can also be used for iCAS and can therefore be integrated (merged). However, the consequences this may have for the existing software still need to be investigated in detail. The planned implementation date is therefore still uncertain.	Start of the production of the FF-ICE module developed for iTEC SkyNex.	The detailed planning still must be made.	The detailed planning still must be made.	The detailed planning still must be made.	The detailed planning still must be made.	The detailed planning still must be made.	The detailed planning still must be made.	Tentatively planned year for iTEC SkyNex implementation at LVNL. This may be possible sooner if the FF-ICE module developed for iTEC SkyNex can also be used for iCAS and this can be incorporated into the LVNL project portfolio.
Amsterdam ACC/ Traffic Complexity System	01/01/2026			31/12/2026				31/12/2026
Comment LVNL implemented in Q1 2023 a Decision Support Tool (DST), including a local complexity tool, that use flight plan data available via the NM B2B Subscription	Start of the implementation in DST.	The detailed planning still must be made.	The detailed planning still must be made.	The detailed planning still must be made.	The detailed planning still must be made.	The detailed planning still must be made.	The detailed planning still must be made.	In operational use.

Management Service. The use of in the Data Publication Service to receive eFPLs for DST is planned.								
Amsterdam ACC/FDS	01/01/2026			31/12/2027				31/12/2029
Comment The system used for flight (plan) data by operational staff will be updated to be able to consume the NM FF-ICE/R1 Data Publication Service and process and display eFPLs in addition to ICAO 2012 FPLs. A project called Flight Data Services (FDS) to implement this was launched in 2023. FDS will consist of two main parts. The first part will enable Flight Data Assistants to review, search and modify flight messages entering the LVNL ATC systems (scheduled for Q1 2026). The second part of the FDS system will consist of new generation of Home Briefing (scheduled for Q4 2026). The interface with the Data Publication service is part of the system requirements.	Start of the second project phase with focus on the Homebriefing System (HBS) used for ARO and FF-ICE services.	The detailed planning still must be made.	The detailed planning still must be made.	The detailed planning still must be made.	The detailed planning still must be made.	The detailed planning still must be made.	The detailed planning still must be made.	In operational use.
EHAM TWR		N/A	N/A	N/A				31/12/2035
Comment In the planned system architecture, the iCAS FDP system will provide the connection to the Data Publication Service service and transmit the relevant data internally to the tower system for Schiphol Airport.								

Additional comments

LVNL will upgrade its systems to be capable of receiving and processing eFPLs distributed by the NM FF-ICE/R1 Publication Service, in addition to ICAO 2012 FPLs. Flight plans are used by multiple systems and users.

In 2023 LVNL initiated a project called Flight Data Services (FDS) as a replacement of their Home Briefing System and Aeronautical Data Access System. This system will consist of a service supporting receiving, creating, (re)transmit, processing, storage and search of ATS messages and flight data (flight plans) initially via AFTN and in a second phase connect to NM SWIM FF-ICE/R1 B2B Services estimated at the end of 2027, serving the same function.LVNL will use the NM FF-ICE/R1 Notification Service to be able to send departure and possibly also arrival information by the Flight Service Centre (FSC).

In parallel LVNL will continue working on the rollout of the iCAS ATM system, go-live planned for 2028. The current software version of this iCAS FDP system does not support communication with a SWIM service and does not support processing of eFPLs. The FF-ICE development is part of iTEC SkyNex, so the availability of the software required to use the FF-ICE/R1 SWIM services is subject to its planning. LVNL is still investigating when eFPL information can be consumed via a SWIM service by the new air traffic control system iCAS and whether a temporary solution is feasible in the meantime. We have understood from INDRA that the FF-ICE module being developed for iTEC SkyNex can also be used for iCAS and can therefore be integrated (merged). However, the consequences this may have for the existing software still need to be investigated in detail. The planned implementation date is therefore still uncertain. LVNL is also exploring the possibility of using the additional information in FF-ICE/R1 flight plans, such as performance data, in other ways.

LVNL implemented in Q1 2023 a Decision Support Tool (DST), including a local complexity tool, that use flight plan data available via the NM B2B Subscription Management Service. The use of in the Data Publication Service to receive eFPLs for DST is planned for Q4 2026.

In the planned system architecture, the iCAS FDP system will provide the connection to the Data Publication service and transmit the relevant data internally to the tower system for Schiphol Airport.

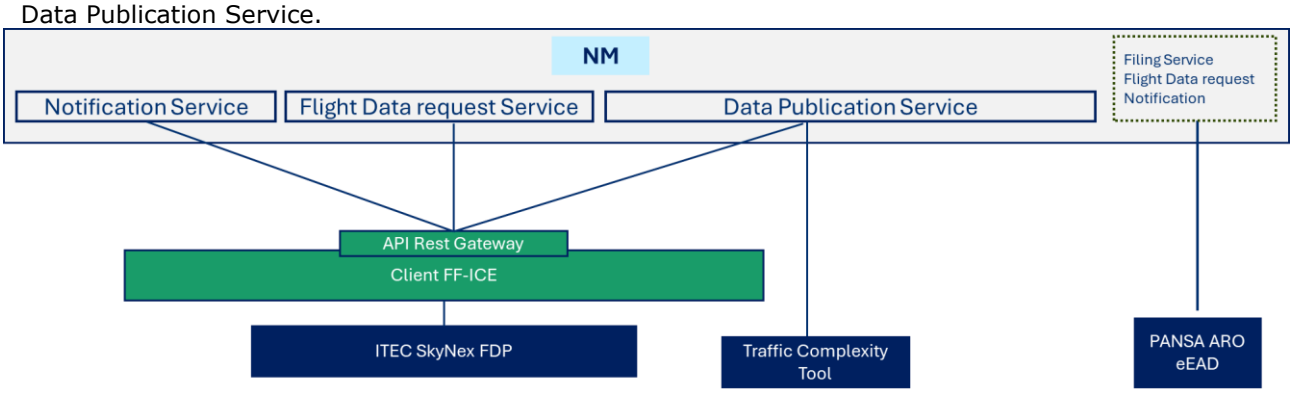
4.22. Poland FF-ICE Release 1 Implementation Roadmap

Introduction

PANSA can accommodate a partial completion of the full set of FF-ICE requirements by early 2026. The implementation of Publication, Notification, Data Request Services is being served in the Client FF-ICE system and will be used next to PANSA's TRAFFIC (Track Advisor for Flight Information Concerns) system, which serves as a tool used to validate and verify the operational data as flight plans.The full compliance regarding FF-ICE requirements will be achieved through the deployment of the new ATM system (iTEC), expected by 2032. The new ATM system will consume FF-ICE Flight Plans and necessary FF-ICE services TCT will directly connect with Data Publication Service and use only that Service.

FF-ICE/R1 selected architecture approach

In the case of Poland, the approach is covering all FF-ICE services: Flight Data Request, Notification and Data Publication Service.



FF-ICE/R1 Service deployment overview

Flight Data Request Service

	Checkpoint 1	***Checkpoint 2***	***Checkpoint 3***	***Checkpoint 4***	***Checkpoint 5***
Location	Start of implementation	Start of implementation and testing on NM pre-ops	Start of validation testing on NM pre-ops	DM1: Connectivity End of testing (Connectivity readiness)	DM2: Operational use Request of flight plan, supplementary flight plan and flight status information is done via the Flight Data Request Service provided by the Network Manager
Client FF-ICE	10/10/2025	01/12/2025	23/02/2026	27/02/2026	16/04/2026
Comment	Next to Traffic system development of an internal endpoint enabling external applications to send and receive information using flightDataRequest	Ready to start testing with NM – first attempt		Regarding the implementation status of the FF-ICE services (Flight Data Request, Notification and Data Publication services), a partial completion of the full set of FF-ICE requirements can be accommodated by early 2026 thanks to services implemented independently by PANSA.The full compliance regarding FF-ICE requirements will be achieved through the deployment of the new ATM system (iTEC), expected around 2032.	Regarding the implementation status of the FF-ICE services (Flight Data Request, Notification and Data Publication services), a partial completion of the full set of FF-ICE requirements can be accommodated by early 2026 thanks to services implemented independently by PANSA.The full compliance regarding FF-ICE requirements will be achieved through the deployment of the new ATM system (iTEC), expected around 2032.
Warszawa ACC/FDP	?	N/A	N/A	N/A	31/12/2032
Comment					

Notification Service

	Checkpoint 1	***Checkpoint 2***	***Checkpoint 3***	***Checkpoint 4***	***Checkpoint 5***

Location	Start of implementation	Start of implementation and testing on NM pre-ops	Start of validation testing on NM pre-ops	DM1: Connectivity End of testing (Connectivity readiness)	DM2 Operational use: Departure and arrival information is shared using the notification service provided by the Network Manager
Client FF-ICE	2/9/2024	30/06/2025	23/02/2026	27/02/2026	16/04/2026
Comment	Next to Traffic system development of an internal endpoint for sending information about take-offs and landings, along with a project of integration with tower systems	Ready to start testing with NM – first attempt			Regarding the implementation status of the FF-ICE services (Flight Data Request, Notification and Data Publication services), a partial completion of the full set of FF-ICE requirements can be accommodated by early 2026 thanks to services implemented independently by PANSA.The full compliance regarding FF-ICE requirements will be achieved through the deployment of the new ATM system (iTEC), expected around 2032.
Warszawa ACC/FDP	?	N/A	N/A	N/A	31/12/2032
Comment					

Data Publication Service

	Checkpoint 1	***Checkpoint 2***	***Checkpoint 3***	***Checkpoint 4***	***Checkpoint 5***	***Checkpoint 6***	***Checkpoint 7***	***Checkpoint 8***
Location	Start of implementation	Start of implementation and testing on NM pre-ops	Start of validation testing on NM pre-ops	DM1: Connectivity End of testing (Connectivity readiness)	Service in operations	System is using the GUFI	System is using the operator flight plan version	DM2 Operational use: System is using information from the eFPL (when provided) including aircraft take Off Mass, the performance climb and descent profiles and the climb and descent speed schedule, and route/trajectory information to compute their trajectory. Please indicate which of this information the system may be using
Warszawa ACC/FDP		N/A	N/A	N/A				31/12/2032
Comment								
Warszawa ACC/Traffic Complexity Tool	Not yet planned	Not yet planned	Not yet planned	Not yet planned	Not yet planned	Not yet planned	Not yet planned	
Comment								
Client FF-ICE	02/09/2024	30/06/2025	23/02/2026	27/02/2026	16/04/2026	16/04/2026	16/04/2026	16/04/2026
Comment	Next to PANSA's local system design and implementation of an architecture enabling the retrieval, storage and synchronization of information from publication Service. Ability to receive different types of events and provide NM response support	Ready to start testing with NM – first attempt						Regarding the implementation status of the FF-ICE services (Flight Data Request, Notification and Data Publication services), a partial completion of the full set of FF-ICE requirements can be accommodated by early 2026 thanks to services implemented independently by PANSA.The full compliance regarding FF-ICE requirements will be achieved through the deployment of the new ATM system (iTEC), expected around 2032.

4.23. Portugal FF-ICE Release 1 Implementation Roadmap

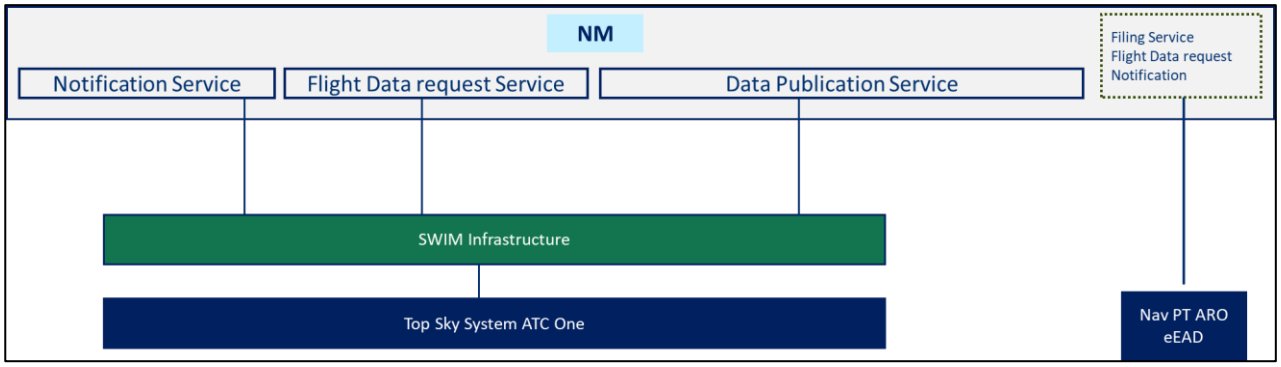
Introduction

Aligned with the other COOPANS members, there are no plans for NAV Portugal to consume NM FF-ICE/R1 formats in the COOPANS Legacy System for 2025. Native processing of NM FF-ICE/R1 will be implemented in next Generation TopSky ATC One ATM system in 2030.

NAV Portugal plans to consume FF-ICE/R1 services through a SWIM Infrastructure layer acting as a SWIM gateway, rather than through a direct connection with NM.

FF-ICE/R1 selected architecture approach

In the case of Portugal, the approach is covering all FF-ICE services: Flight Data Request, Notification and Data Publication Service.



FF-ICE/R1 Service deployment overview

Flight Data Request Service

	Checkpoint 1	***Checkpoint 2***	***Checkpoint 3***	***Checkpoint 4***	***Checkpoint 5***
Location	Start of implementation	Start of implementation and testing on NM pre-ops	Start of validation testing on NM pre-ops	DM1: Connectivity End of testing (Connectivity readiness)	DM2: Operational use Request of flight plan, supplementary flight plan and flight status information is done via the Flight Data Request Service provided by the Network Manager
Lisboa ACC/FDP	31/12/2029	28/02/2030	15/03/2030	25/03/2030	31/03/2030
Comment					

Notification Service

	Checkpoint 1	***Checkpoint 2***	***Checkpoint 3***	***Checkpoint 4***	***Checkpoint 5***
Location	Start of implementation	Start of implementation and testing on NM pre-ops	Start of validation testing on NM pre-ops	DM1: Connectivity End of testing (Connectivity readiness)	DM2 Operational use: Departure and arrival information is shared using the notification service provided by the Network Manager
Lisboa ACC/FDP	31/12/2029	28/02/2030	15/03/2030	25/03/2030	31/03/2030
Comment					

Data Publication Service

	Checkpoint 1	***Checkpoint 2***	***Checkpoint 3***	***Checkpoint 4***	***Checkpoint 5***	***Checkpoint 6***	***Checkpoint 7***	***Checkpoint 8***
Location	Start of implementation	Start of implementation and testing on NM pre-ops	Start of validation testing on NM pre-ops	DM1: Connectivity End of testing (Connectivity readiness)	Service in operations	System is using the GUFI	System is using the operator flight plan version	DM2 Operational use: System is using information from the eFPL (when provided) including aircraft take Off Mass, the performance climb and descent profiles and the climb and descent speed schedule, and route/trajectory information to compute their trajectory. Please indicate which of this information the system may be using
Lisboa ACC/FDP	31/12/2029	28/02/2030	15/03/2030	31/03/2030	31/12/2029	28/02/2030	15/03/2030	31/03/2030
Comment								

4.24. Romania FF-ICE Release 1 Implementation Roadmap

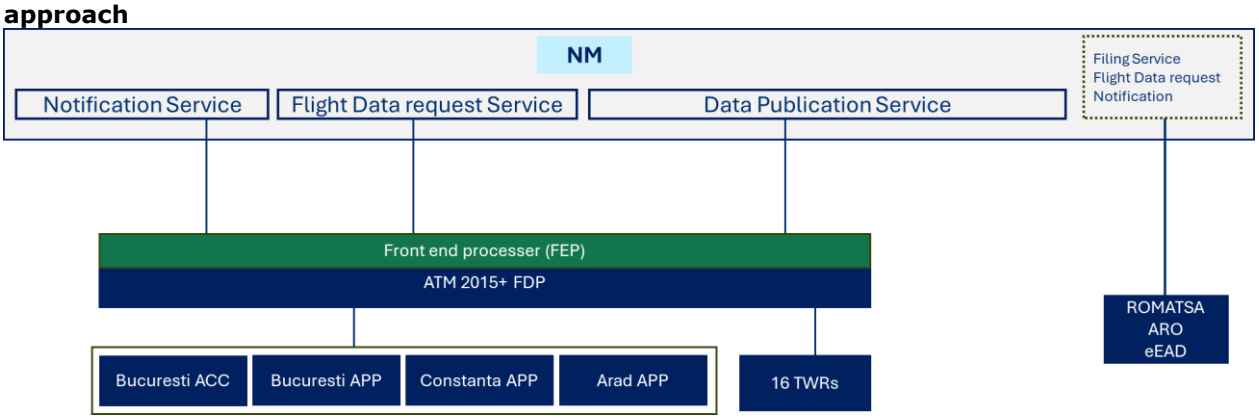
Introduction

ROMATSA new ATC system has been in operations since 2019. Subsequent upgrades have been implemented, the latest one being the FF-ICE functionalities.

The ROMATSA FF-ICE implementation project is under umbrella of the CLEAN ATM (CP1 Deployment – Synchronised Modernization of ATM – CLEAN ATM) proposal under the CEF CALL 2022, coordinated by the SDM. The deadline for the EU funded project for implementation of FF-ICE was 31.12.2025.

The project activities were carried out in accordance with the implementation calendar established by ROMATSA together with the supplier INDRA SISTEMAS SA, under the contract signed on 05.02.2024.

The SAT (System Acceptance Testing) session was successfully completed in July 2025. This milestone marked the formal validation of FF-ICE functionalities within the ATM system environment, confirming system stability, data integrity and full compliance with operational and technical requirements. Activities were carried out in coordination with NM to ensure a smooth operational transition of FF-ICE. The joint actions focus on operational validation and system interoperability to facilitate the integration of FF-ICE into daily operations. The system became operational on 17.12.2025.**FF-ICE/R1 selected architecture approach**



In the case of Romania, the approach is covering all FF-ICE services: Flight Data Request, Notification and Data Publication Service.

FF-ICE/R1 Service deployment overview

Flight Data Request Service

	Checkpoint 1	***Checkpoint 2***	***Checkpoint 3***	***Checkpoint 4***	***Checkpoint 5***
Location	Start of implementation	Start of implementation and testing on NM pre-ops	Start of validation testing on NM pre-ops	DM1: Connectivity End of testing (Connectivity readiness)	DM2: Operational use Request of flight plan, supplementary flight plan and flight status information is done via the Flight Data Request Service provided by the Network Manager
Bucuresti ACC/FF-ICE FEP	05/02/2024	28/03/2025	25/08/2025	03/12/2025	N/A
Comment					
Bucuresti ACC/FDP		N/A	N/A	N/A	17/12/2025
Comment					

Additional comments

FDR for flight plan (eFPL) implemented.

Notification Service

	Checkpoint 1	***Checkpoint 2***	***Checkpoint 3***	***Checkpoint 4***	***Checkpoint 5***
Location	Start of implementation	Start of implementation and testing on NM pre-ops	Start of validation testing on NM pre-ops	DM1: Connectivity End of testing (Connectivity readiness)	DM2 Operational use: Departure and arrival information is shared using the notification service provided by the Network Manager
Bucuresti ACC/FF-ICE FEP	05/02/2024	28/03/2025	25/08/2025	03/12/2025	N/A
Comment					
Bucuresti ACC/FDP		N/A	N/A	N/A	17/12/2025

Comment					

Additional comments
Implemented for ATM2015+ integrated TWR(16 TWRs)

Data Publication Service

	Checkpoint 1	***Checkpoint 2***	***Checkpoint 3***	***Checkpoint 4***	***Checkpoint 5***	***Checkpoint 6***	***Checkpoint 7***	***Checkpoint 8***
Location	Start of implementation	Start of implementation and testing on NM pre-ops	Start of validation testing on NM pre-ops	DM1: Connectivity End of testing (Connectivity readiness)	Service in operations	System is using the GUFI	System is using the operator flight plan version	DM2 Operational use: System is using information from the eFPL (when provided) including aircraft take Off Mass, the performance climb and descent profiles and, and route/trajectory information to compute their trajectory. Please indicate which of this information the system may be using
Bucuresti ACC/FF-ICE FEP	05/02/2024	28/03/2025	24/11/2025	03/12/2025	N/A	N/A	N/A	N/A
Comment								
Bucuresti ACC/FDP		N/A	N/A	N/A	17/12/2025	17/12/2025	17/12/2025	17/12/2025
Comment								

Additional comments

The ATM2025+S4D is using information from the eFPL (when provided) including aircraft take Off Mass, the performance climb and descent profiles for CWP/FDO operational HMI display and, and route/trajectory information to compute the trajectory.

4.25. Slovakia FF-ICE Release 1 Implementation Roadmap

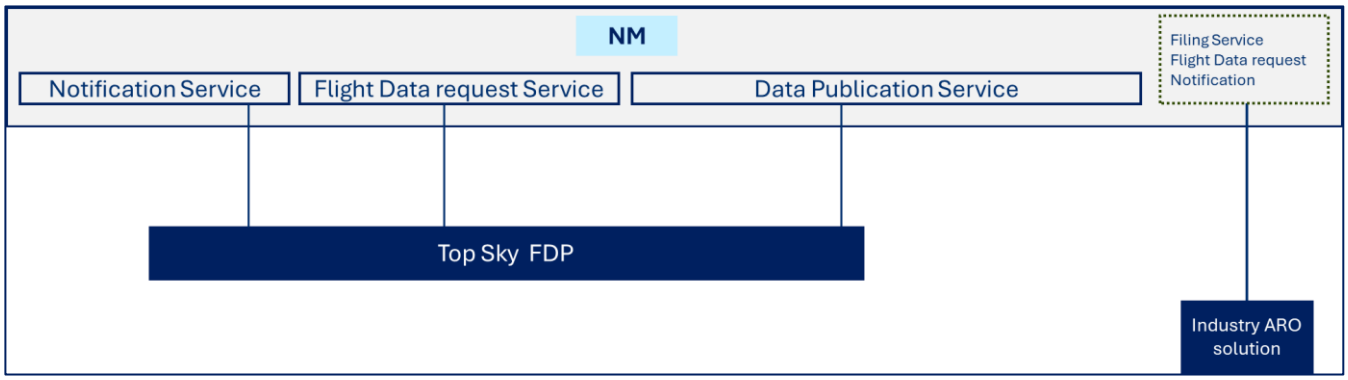
Introduction

Implementation of FF-ICE/R1 is part of a major system upgrade for Slovakia, which will be achieved in early 2030. In terms of architecture, Slovakia will consume the FF-ICE/R1 services directly from NM, instead of via a SWIM gateway.

NMP Flow is used for Traffic complexity management.

FF-ICE/R1 selected architecture approach

In the case of Slovakia, the approach is covering all FF-ICE services: Flight Data Request, Notification and Data Publication Service.



FF-ICE/R1 Service deployment overview

Flight Data Request Service

	Checkpoint 1	***Checkpoint 2***	***Checkpoint 3***	***Checkpoint 4***	***Checkpoint 5***
Location	Start of implementation	Start of implementation and testing on NM pre-ops	Start of validation testing on NM pre-ops	DM1: Connectivity End of testing (Connectivity readiness)	DM2: Operational use Request of flight plan, supplementary flight plan and flight status information is done via the Flight Data Request Service provided by the Network Manager
Bratislava ACC/FDP	27/11/2024	?	?	30/09/2029	31/03/2030
Comment					

Additional comments

The schedule of implementation, testing and validation on NM pre-ops is not established yet.

Notification Service

	Checkpoint 1	***Checkpoint 2***	***Checkpoint 3***	***Checkpoint 4***	***Checkpoint 5***
Location	Start of implementation	Start of implementation and testing on NM pre-ops	Start of validation testing on NM pre-ops	DM1: Connectivity End of testing (Connectivity readiness)	DM2 Operational use: Departure and arrival information is shared using the notification service provided by the Network Manager
Bratislava ACC/FDP	27/11/2024	?	?	30/09/2029	31/03/2030
Comment					

Additional comments

The schedule of implementation, testing and validation on NM pre-ops is not established yet.

Data Publication Service

	Checkpoint 1	***Checkpoint 2***	***Checkpoint 3***	***Checkpoint 4***	***Checkpoint 5***	***Checkpoint 6***	***Checkpoint 7***	***Checkpoint 8***
Location	Start of implementation	Start of implementation and testing on NM pre-ops	Start of validation testing on NM pre-ops	DM1: Connectivity End of testing (Connectivity readiness)	Service in operations	System is using the GUFI	System is using the operator flight plan version	DM2 Operational use: System is using information from the eFPL (when provided) including aircraft take Off Mass, the performance climb and descent profiles and the climb and descent speed schedule, and route/trajectory information to compute their trajectory. Please indicate which of this information the system may be using
Bratislava ACC/FDP	27/11/2024	?	?	30/09/2029	31/03/2030	31/03/2030	31/03/2030	31/03/2030
Comment	ATC system upgrade project has been initiated.							Based on current supplier information only aircraft take off mass will be used to compute trajectory.

Additional comments

The schedule of implementation, testing and validation on NM pre-ops is not established yet.

4.26. Slovenia FF-ICE Release 1 Implementation Roadmap

Introduction

Slovenia Control develop their own FDPS in-house. When making previous architecture decisions relating to ADEXP, consumption of FF-ICE/R1 services via SWIM was therefore anticipated.

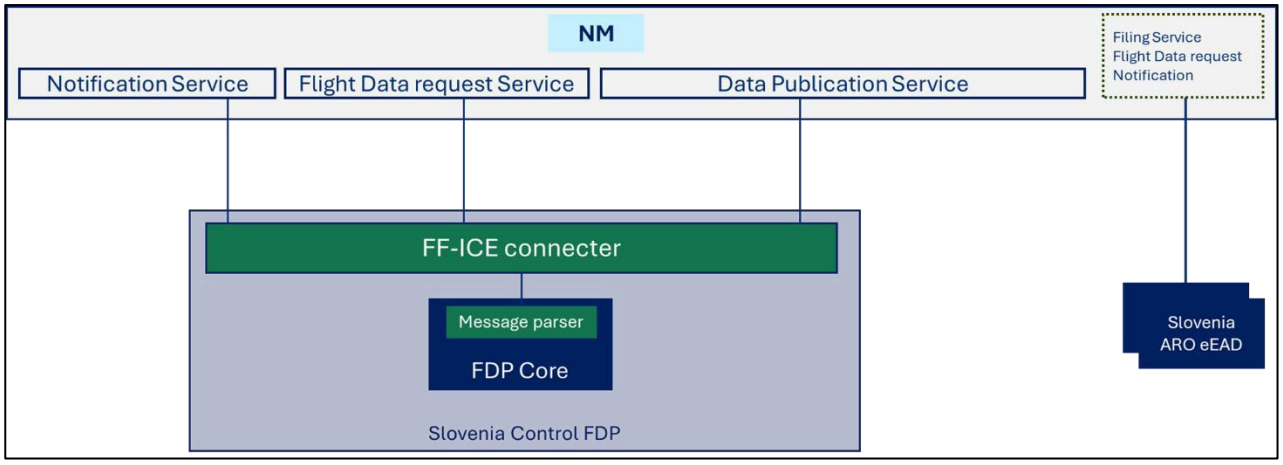
Slovenia Control are starting with the internal development of B2B connection module (FF-ICE connector), serving as a library which will allow to exchange data between any SWIM services (FIXM structure) and SCL systems. The library settings will then define which data is going to which system.

In addition, Slovenia Control's FDP core contains a message parser module, which is able to consume the FF-ICE data in FIXM format, and then extract the information in an internal message structure, to then be fed into the FDPS core.

Correspondingly, Slovenia will have full operational use of the FF-ICE/R1 Data Publication, Flight Data Request, and Notification Services by the Q1 2026.

FF-ICE/R1 selected architecture approach

In the case of Slovenia, the approach is covering all FF-ICE services: Flight Data Request, Notification and Data Publication Service.



FF-ICE/R1 Service deployment overview

Flight Data Request Service

	Checkpoint 1	***Checkpoint 2***	***Checkpoint 3***	***Checkpoint 4***	***Checkpoint 5***
Location	Start of implementation	Start of implementation and testing on NM pre-ops	Start of validation testing on NM pre-ops	DM1: Connectivity End of testing (Connectivity readiness)	DM2: Operational use Request of flight plan, supplementary flight plan and flight status information is done via the Flight Data Request Service provided by the Network Manager
FF-ICE Gateway (Library)	31/05/2023	10/06/2023	01/03/2025	31/10/2025	N/A
Comment Slovenia Control started with the internal development of B2B connection module (library), which will allow to exchange data between any SWIM services (FIXM structure) and SCL systems. Library settings will then define which data is going to which system.	The implementation plan is described in SUP SWIM NMB2B, v 1.0		Internal validation started on schedule. However, due to NM availability operational validation with NM was delayed.	Connectivity test were finished in September. We are waiting for final report from NM. Some internal tests are missing.	
Ljubljana ACC/FDP		N/A	N/A	N/A	31/03/2026
Comment					

Notification Service

	Checkpoint 1	***Checkpoint 2***	***Checkpoint 3***	***Checkpoint 4***	***Checkpoint 5***

Location	Start of implementation	Start of implementation and testing on NM pre-ops	Start of validation testing on NM pre-ops	DM1: Connectivity End of testing (Connectivity readiness)	DM2 Operational use: Departure and arrival information is shared using the notification service provided by the Network Manager
FF-ICE Gateway (Library)	31/05/2023	10/06/2023	01/03/2025	31/10/2025	N/A
Comment Slovenia Control started with the internal development of B2B connection module (library), which will allow to exchange data between any SWIM services (FIXM structure) and SCL systems. Library settings will then define which data is going to which system.			Internal validation started on schedule. However, due to NM availability operational validation with NM was delayed.	Connectivity test were finished in September. We are waiting for final report from NM. Some internal tests are missing.	
Ljubljana ACC/FDP		N/A	N/A	N/A	31/03/2026
Comment					

Data Publication Service

	Checkpoint 1	Checkpoint 2	Checkpoint 3	Checkpoint 4	Checkpoint 5	Checkpoint 6	Checkpoint 7	Checkpoint 8
Location	Start of implementation	Start of implementation and testing on NM pre-ops	Start of validation testing on NM pre-ops	DM1: Connectivity End of testing (Connectivity readiness)	Service in operations	System is using the GUFI	System is using the operator flight plan version	DM2 Operational use: System is using information from the eFPL (when provided) including aircraft take Off Mass, the performance climb and descent profiles and the climb and descent speed schedule, and route/trajectory information to compute their trajectory. Please indicate which of this information the system may be using
FF-ICE Gateway (Library)	31/05/2023	10/06/2023	01/03/2025	31/10/2025	N/A	N/A	N/A	N/A
Comment Slovenia Control started with the internal development of B2B connection module (library), which will allow to exchange data between any SWIM services (FIXM structure) and Slovenia Control systems. Library settings will then define which data is going to which system. The testing started in 2023 on the NM pre-ops system.		The testing started in 2023 on the NM pre-ops system. Slovenia Control first tested data transfer via the developed library. This year (from October 2024 onward), tests of data flow from the NM System to Slovenia Control's FDPS are also being carried out.	Internal validation started on schedule. However, due to NM availability operational validation with NM was delayed.	Connectivity test were finished in September. We are waiting for final report from NM. Some internal tests are missing.				
Ljubljana ACC/FDP		N/A	N/A	N/A	31/03/2026	15/10/2024	15/10/2024	31/03/2026
Comment					Operational implementation is planned for 15.12.2025. But we see the date 15.01.2026 to be more realistic because of our and CAA limited resources as we have many other changes with the same deadline.	Yes, GUFI is stored for each flight and used in flight arrival and departure requests.	System is using the latest version received.	System is using performance climb and descend profiles, and route trajectory information. Take-off mass is not used, because we are using climb/descend profiles or BADA with nominal values. We find take-off mass as a non-useful information. We don't use descent speed schedules as they are not available.

4.27. Spain FF-ICE Release 1 Implementation Roadmap

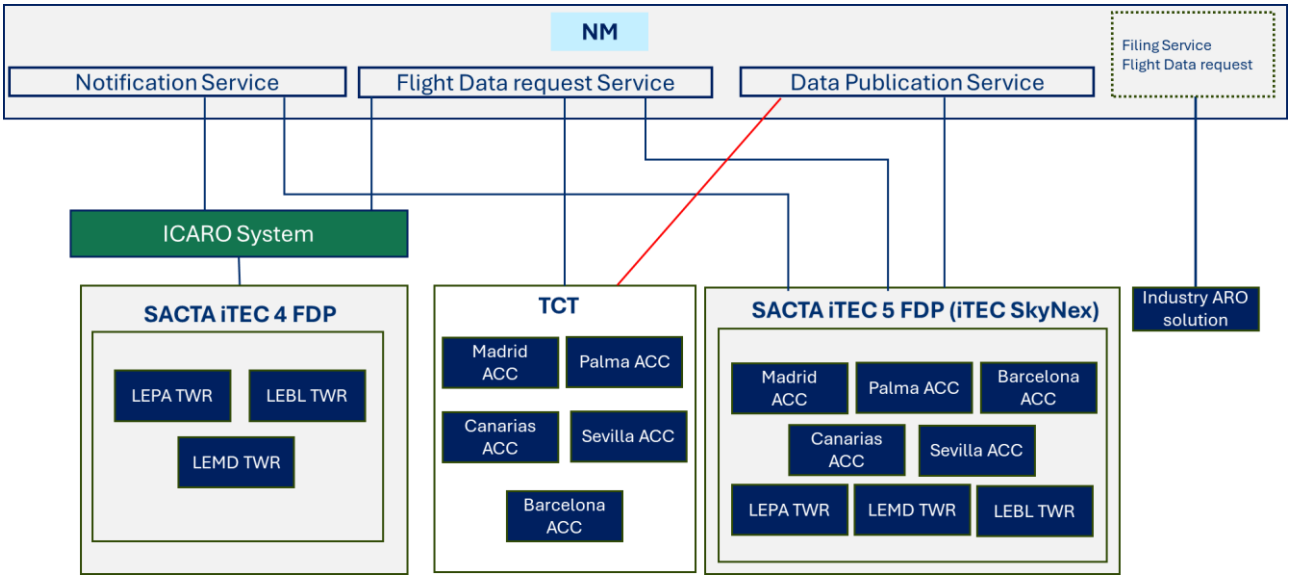
Introduction

To begin with, Spain will begin using the Flight Data Request and Notification Services for their 3 in-scope TWRs (LEPA, LEBL, and LEMD) at the end of 2025. This will be enabled through their ICARO system, via which the SACTA iTEC 4 FDP used by the TWRs will consume and use the services.

Meanwhile, the remaining systems – the TCT, and the ACC FDPs will consume the services directly from NM, utilising the new iTEC SkyNex system to be implemented in 2029. It is anticipated that implementation of SkyNex will take place in parallel across all sites, meaning operational use should be achieved at a similar time for all ACCs. The TWRs will also shift to this way of consumption/use upon deployment of the new iTEC SkyNex system.

FF-ICE/R1 selected architecture approach

In the case of Spain, the approach is covering all FF-ICE services: Flight Data Request, Notification and Data Publication Service.



FF-ICE/R1 Service deployment overview

Flight Data Request Service

	Checkpoint 1	***Checkpoint 2***	***Checkpoint 3***	***Checkpoint 4***	***Checkpoint 5***
Location	Start of implementation	Start of implementation and testing on NM pre-ops	Start of validation testing on NM pre-ops	DM1: Connectivity End of testing (Connectivity readiness)	DM2: Operational use Request of flight plan, supplementary flight plan and flight status information is done via the Flight Data Request Service provided by the Network Manager
ICARO	01/07/2024	30/09/2025	17/11/2025	09/12/2025	31/12/2025
Comment					
LEBL TWR	N/A	N/A	N/A	N/A	31/12/2025
Comment					
LEMD TWR	N/A	N/A	N/A	N/A	31/12/2025
Comment					
LEPA TWR	N/A	N/A	N/A	N/A	31/12/2025
Comment					

Notification Service

	Checkpoint 1	***Checkpoint 2***	***Checkpoint 3***	***Checkpoint 4***	***Checkpoint 5***
Location	Start of implementation	Start of implementation and testing on NM pre-ops	Start of validation testing on NM pre-ops	DM1: Connectivity End of testing (Connectivity readiness)	DM2 Operational use: Departure and arrival information is shared using the notification service provided by the Network Manager
ICARO	01/07/2024	30/09/2025	17/11/2025	09/12/2025	31/12/2025
Comment					
LEBL TWR	N/A	N/A	N/A	N/A	31/12/2025
Comment					
LEMD TWR	N/A	N/A	N/A	N/A	31/12/2025
Comment					
LEPA TWR	N/A	N/A	N/A	N/A	31/12/2025
Comment					

Data Publication Service

	Checkpoint 1	***Checkpoint 2***	***Checkpoint 3***	***Checkpoint 4***	***Checkpoint 5***	***Checkpoint 6***	***Checkpoint 7***	***Checkpoint 8***
Location	Start of implementation	Start of implementation and testing on NM pre-ops	Start of validation testing on NM pre-ops	DM1: Connectivity End of testing (Connectivity readiness)	Service in operations	System is using the GUFI	System is using the operator flight plan version	DM2 Operational use: System is using information from the eFPL (when provided) including aircraft take Off Mass, the performance climb and descent profiles and the climb and descent speed schedule, and route/trajectory information to compute their trajectory. Please indicate which of this information the system may be using
Barcelona ACC/FDP	01/07/2024	1/7/2029	30/09/2029	31/12/2029	31/12/2029	31/12/2029	31/12/2029	31/12/2029
Comment								
Canarias ACC/FDP	01/07/2024	1/7/2029	30/09/2029	31/12/2029	31/12/2029	31/12/2029	31/12/2029	31/12/2029
Comment								
Madrid ACC/FDP	01/07/2024	1/7/2029	30/09/2029	31/12/2029	31/12/2029	31/12/2029	31/12/2029	31/12/2029
Comment								
Palma ACC/FDP	01/07/2024	1/7/2029	30/09/2029	31/12/2029	31/12/2029	31/12/2029	31/12/2029	31/12/2029
Comment								
Sevilla ACC/FDP	01/07/2024	1/7/2029	30/09/2029	31/12/2029	31/12/2029	31/12/2029	31/12/2029	31/12/2029
Comment								
LEBL TWR	01/07/2024	1/7/2029	30/09/2029	31/12/2029	31/12/2029	31/12/2029	31/12/2029	31/12/2029
Comment								
LEMD TWR	01/07/2024	1/7/2029	30/09/2029	31/12/2029	31/12/2029	31/12/2029	31/12/2029	31/12/2029
Comment								
LEPA TWR	01/07/2024	1/7/2029	30/09/2029	31/12/2029	31/12/2029	31/12/2029	31/12/2029	31/12/2029
Comment								
Barcelona ACC/Traffic Complexity Tool	01/07/2024	1/7/2029	30/09/2029	31/12/2029	31/12/2029	31/12/2029	31/12/2029	31/12/2029
Comment								
Canarias ACC/Traffic Complexity Tool	01/07/2024	1/7/2029	30/09/2029	31/12/2029	31/12/2029	31/12/2029	31/12/2029	31/12/2029
Comment								
Madrid ACC/Traffic Complexity Tool	01/07/2024	1/7/2029	30/09/2029	31/12/2029	31/12/2029	31/12/2029	31/12/2029	31/12/2029
Comment								
Palma ACC/Traffic	01/07/2024	1/7/2029	30/09/2029	31/12/2029	31/12/2029	31/12/2029	31/12/2029	31/12/2029

Complexity Tool								
Comment								
Sevilla ACC/Traffic Complexity Tool	01/07/2024	1/7/2029	30/09/2029	31/12/2029	31/12/2029	31/12/2029	31/12/2029	31/12/2029
Comment								

4.28. Sweden FF-ICE Release 1 Implementation Roadmap

Introduction

As a member of the COOPANS alliance LFV is aligned with the other COOPANS members in terms of FF-ICE/R1 implementation being part of the system modernization (ATC One). Consequently, there are no plans to consume NM FF-ICE/R1 formats in the current ATM system (TopSky) for 2025. In alignment with the COOPANS ATC One roadmap, consumption and use of the FF-ICE/R1 services is anticipated for 2029.

To consume the FF-ICE/R1 SWIM Services LFV will utilise a central SWIM platform with the new TopSky ATC One system consuming and using the FF-ICE/R1 services via this platform.

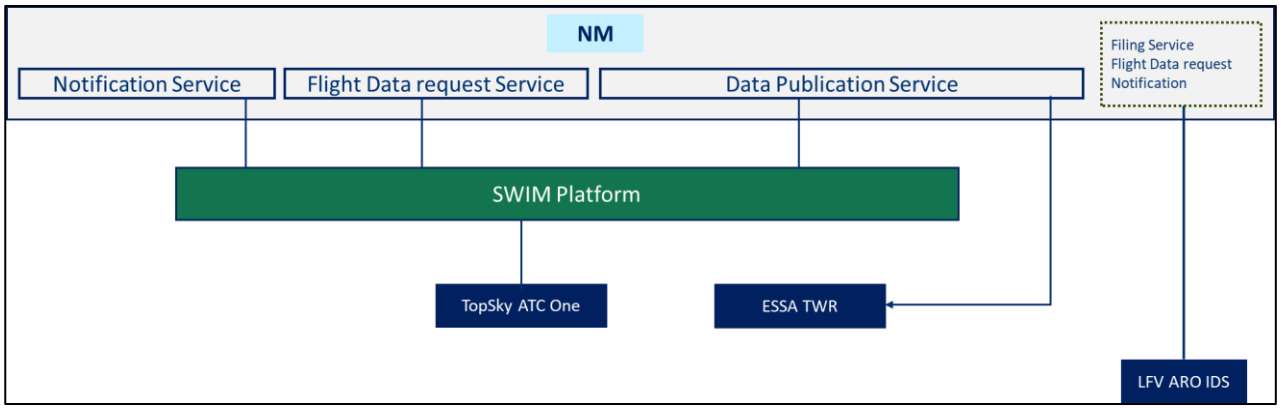
Since the approach control (APP) for Stockholm Arlanda Airport falls under the responsibility of ATCC Stockholm, the plans for upgrading the ATM system at ATS Arlanda will be aligned with the implementation schedule of ATC One.

Introducing upgrades at ATS Arlanda prior to the deployment of ATC One would not provide any tangible operational benefits to the airspace users. Such an approach would therefore not represent a responsible use of resources. LFV is committed to ensuring that investments are made in a cost-effective manner and only when they deliver clear operational value.

FF-ICE/R1 selected architecture approach

In the case of Sweden, the approach is covering all FF-ICE services: Flight Data Request, Notification and Data Publication Service.

In the architecture below, the ESSA TWR is shown consuming directly FF-ICE services but this is a not a definitive choice and it could consume via the SWIM platform instead.



FF-ICE/R1 Service deployment overview

Flight Data Request Service

	Checkpoint 1	***Checkpoint 2***	***Checkpoint 3***	***Checkpoint 4***	***Checkpoint 5***
Location	Start of implementation	Start of implementation and testing on NM pre-ops	Start of validation testing on NM pre-ops	DM1: Connectivity End of testing (Connectivity readiness)	DM2: Operational use Request of flight plan, supplementary flight plan and flight status information is done via the Flight Data Request Service provided by the Network Manager
SWIM Gateway	31/12/2028	31/12/2028	31/12/2028	31/12/2028	N/A
Comment					
Malmo ACC/FDP		N/A	N/A	N/A	10/01/2029
Comment					COOPANS ATC One Roadmap
Stockholm ACC/FDP		N/A	N/A	N/A	10/01/2029
Comment					COOPANS ATC One Roadmap
ESSA TWR Systems		N/A	N/A	N/A	10/01/2029
Comment					

Additional comments

LFV will have a SWIM platform with the technical capability to handle eFPL in place by the end of 2025.

However, the implementation of SWIM services for eFPL will be aligned with the planned deployment of ATC One and the upgrade of the TWR system at ATS Arlanda, as the services will not be operationally utilised prior to these upgrades. As a government-owned air navigation service provider LFV has a strong commitment to responsible financial management and the efficient use of funds. Therefore, no investments in operational deployment will be made until there is clear and demonstrable operational benefit doing so. Please note that the dates mentioned above are indicative and may be subject to change depending on the progress of the respective projects.

Notification Service

	Checkpoint 1	***Checkpoint 2***	***Checkpoint 3***	***Checkpoint 4***	***Checkpoint 5***
Location	Start of implementation	Start of implementation and testing on NM pre-ops	Start of validation testing on NM pre-ops	DM1: Connectivity End of testing (Connectivity readiness)	DM2 Operational use: Departure and arrival information is shared using the notification service provided by the Network Manager
SWIM Gateway	31/12/2028	31/12/2028	31/12/2028	31/12/2028	N/A
Comment					
Malmo ACC/FDP		N/A	N/A	N/A	10/01/2029
Comment					COOPANS ATC One Roadmap
Stockholm ACC/FDP		N/A	N/A	N/A	10/01/2029
Comment					COOPANS ATC One Roadmap

Additional comments

LFV will have a SWIM platform with the technical capability to handle eFPL in place by the end of 2025. However, the implementation of SWIM services for eFPL will be aligned with the planned deployment of ATC One and the upgrade of the TWR system at ATS Arlanda, as the services will not be operationally utilised prior to these upgrades.

As a government-owned air navigation service provider LFV has a strong commitment to responsible financial management and the efficient use of funds. Therefore, no investments in operational deployment will be made until there is clear and demonstrable operational benefit doing so. Please note that the dates mentioned above are indicative and may be subject to change depending on the progress of the respective projects.

Data Publication Service

	Checkpoint 1	***Checkpoint 2***	***Checkpoint 3***	***Checkpoint 4***	***Checkpoint 5***	***Checkpoint 6***	***Checkpoint 7***	***Checkpoint 8***
Location	Start of implementation	Start of implementation and testing on NM pre-ops	Start of validation testing on NM pre-ops	DM1: Connectivity End of testing (Connectivity readiness)	Service in operations	System is using the GUFI	System is using the operator flight plan version	DM2 Operational use: System is using information from the eFPL (when provided) including aircraft take Off Mass, the performance climb and descent profiles and the climb and descent speed schedule, and route/trajectory information to compute their trajectory. Please indicate which of this information the system may be using
SWIM Gateway	31/12/2028	31/12/2028	31/12/2028	31/12/2028	N/A	N/A	N/A	N/A
Comment								
Malmo ACC/FDP		N/A	N/A	N/A	10/01/2029	10/01/2029	10/01/2029	10/01/2029
Comment								
Stockholm ACC/FDP		N/A	N/A	N/A	10/01/2029	10/01/2029	10/01/2029	10/01/2029
Comment								
ESSA TWR Systems		N/A	N/A	N/A	10/01/2029	10/01/2029	10/01/2029	10/01/2029
Comment								

Additional comments

LFV will have a SWIM platform with the technical capability to handle eFPL in place by the end of 2025. However, the implementation of SWIM services for eFPL will be aligned with the planned deployment of ATC One and the upgrade of the TWR system at ATS Arlanda, as the services will not be operationally utilised prior to these upgrades. As a government-owned air navigation service provider LFV has a strong commitment to responsible financial management and the efficient use of funds. Therefore, no investments in operational deployment will be made until there is clear and demonstrable operational benefit doing so. Please note that the dates mentioned above are indicative and may be subject to change depending on the progress of the respective projects.

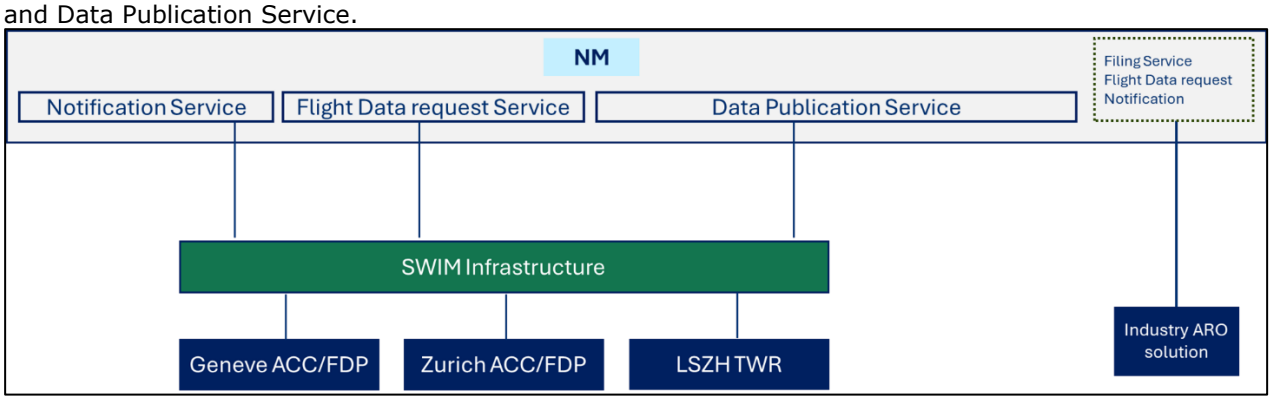
4.29. Switzerland FF-ICE Release 1 Implementation Roadmap

Introduction

Skyguide will implement a central SWIM infrastructure, which the FDPs of Geneve ACC and Zurich ACC will be connected to, and consuming/using the FF-ICE services. LSZH TWR will also be connected to this SWIM Infrastructure in the same manner.
Skyguide also anticipates using an industry ARO solution.

FF-ICE/R1 selected architecture approach

In the case of Switzerland, the approach is covering all FF-ICE services: Flight Data Request, Notification and Data Publication Service.



FF-ICE/R1 Service deployment overview

Flight Data Request Service

	Checkpoint 1	***Checkpoint 2***	***Checkpoint 3***	***Checkpoint 4***	***Checkpoint 5***
Location	Start of implementation	Start of implementation and testing on NM pre-ops	Start of validation testing on NM pre-ops	DM1: Connectivity End of testing (Connectivity readiness)	DM2: Operational use Request of flight plan, supplementary flight plan and flight status information is done via the Flight Data Request Service provided by the Network Manager
SWIM Infrastructure	31/12/2027	?	31/03/2029	30/06/2029	N/A
Comment	SWIM infrastructure in place; starts in 2027 and finish in June 2030				
Zurich ACC/FDP		N/A	N/A	N/A	30/06/2030
Comment					
Geneve ACC/FDP		N/A	N/A	N/A	30/06/2030
Comment					
LSZH TWR		N/A	N/A	N/A	30/06/2030
Comment					

Notification Service

	Checkpoint 1	***Checkpoint 2***	***Checkpoint 3***	***Checkpoint 4***	***Checkpoint 5***
Location	Start of implementation	Start of implementation and testing on NM pre-ops	Start of validation testing on NM pre-ops	DM1: Connectivity End of testing (Connectivity readiness)	DM2 Operational use: Departure and arrival information is shared using the notification service provided by the Network Manager
SWIM Infrastructure	31/12/2027	?	31/03/2029	30/06/2029	N/A
Comment					
Zurich ACC/FDP		N/A	N/A	N/A	30/06/2030
Comment					
Geneve ACC/FDP		N/A	N/A	N/A	30/06/2030
Comment					
LSZH TWR		N/A	N/A	N/A	30/06/2030
Comment					

Data Publication Service

	Checkpoint 1	***Checkpoint 2***	***Checkpoint 3***	***Checkpoint 4***	***Checkpoint 5***	***Checkpoint 6***	***Checkpoint 7***	***Checkpoint 8***
Location	Start of implementation	Start of implementation and testing on NM pre-ops	Start of validation testing on NM pre-ops	DM1: Connectivity End of testing (Connectivity readiness)	Service in operations	System is using the GUFI	System is using the operator flight plan version	DM2 Operational use: System is using information from the eFPL (when provided) including aircraft take Off Mass, the performance climb and descent profiles and the climb and descent speed schedule, and route/trajectory information to compute their trajectory. Please indicate which of this information the system may be using
SWIM Infrastructure		31/12/2027	31/03/2029	30/06/2029	N/A	N/A	N/A	N/A
Comment								
Zurich ACC/FDP		N/A	N/A	N/A	?	?	?	30/06/2030
Comment								
Geneve ACC/FDP		N/A	N/A	N/A	?	?	?	30/06/2030
Comment								
LSZH TWR		N/A	N/A	N/A	?	?	?	30/06/2030
Comment								

Additional comments

The SWIM Proof of Concept with Zürich airport used AMQP as protocol to push changes to the DARTS replacement SOA system. PoC did not focus on message payloads but on establishing communication bidirectionally while respecting security architecture.

4.30. Norway FF-ICE Release 1 Implementation Roadmap

Introduction

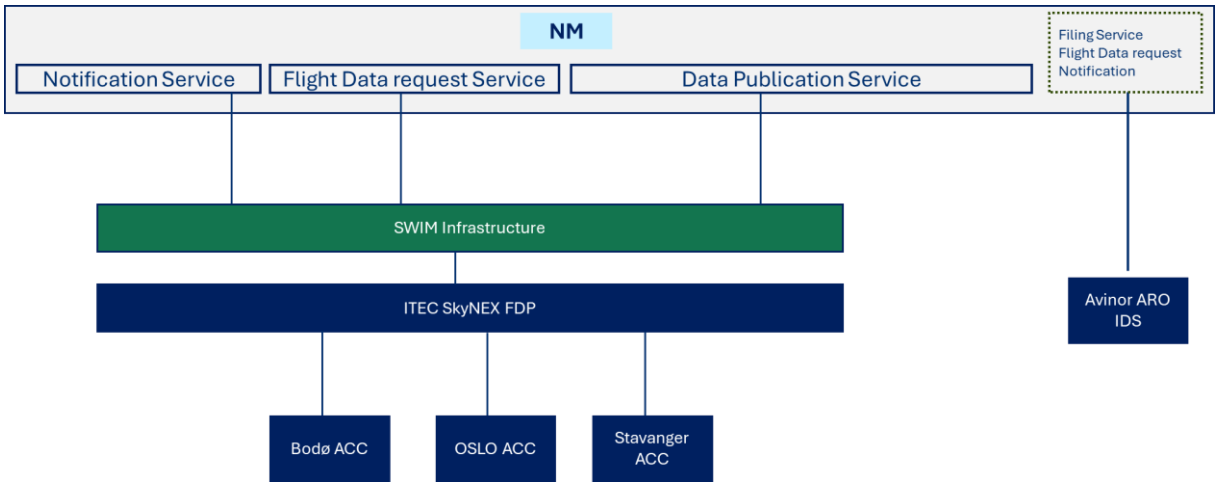
Avinor intends to follow the products delivered in the iTEC alliance where the next generation is planned to support FIXM models and support FF-ICE release 1. Local implementation is planned currently for 2030 in Norway South (Oslo ATCC and Stavanger ATCC) and 2032 in Norway North (Bodø ATCC). An iTEC system will be implemented in both Norway South and Norway North. Testing of functionality is planned to be conducted in common for the iTEC alliance.

There is also a project (NeTSO) replacing the complete TWR ATM system in Gardermoen TWR, planned for 2028. Implementation will be coordinated with iTEC implementation to reduce risk. Currently first implementation strategy is to not consume eFPL directly and Avinor has not decided on architecture strategy for flight plan consumption across systems.

The Norwegian AIS reporting office is common for all Norwegian airports and ANSP's. The Norwegian ARO service currently utilizes the Briefing Facility system. Avinor plans to align with the product development led by Eurocontrol through the eEAD solution, as part of the iNM initiative, where the introduction of an FF-ICE compliant Filing Service is foreseen.

FF-ICE/R1 selected architecture approach

In the case of Norway, the approach covering all FF-ICE services; Flight Data Request, Notification and Data Publication Service are illustrated below:



FF-ICE/R1 Service deployment overview

Flight Data Request Service

	Checkpoint 1	***Checkpoint 2***	***Checkpoint 3***	***Checkpoint 4***	***Checkpoint 5***
Location	Start of implementation	Start of implementation and testing on NM pre-ops	Start of validation testing on NM pre-ops	DM1: Connectivity End of testing (Connectivity readiness)	DM2: Operational use Request of flight plan, supplementary flight plan and flight status information is done via the Flight Data Request Service provided by the Network Manager
Bodo ACC/FDP	Not yet planned	Not yet planned	Not yet planned	Not yet planned	30/06/2032
Comment Avinor intends to follow the products delivered in the iTEC alliance where the next generation is planned to support FIXM models and support FF-ICE release 1. Local implemenation planned currently for 2030 in Norway South and 2032 for the whole of Norway including Bodø ACC. Avinor does not have a detailed timeline for these activities other than a target date for operational use	Deployment project not yet started. No detailed timeline is defined.				Norway has a roadmap where we implement the FF-ICE R1 consume capabilities in 2030 in Norway south and for all of Norway including Bodø in 2032.
Oslo-Stavanger ACC/FDP	Not yet planned	Not yet planned	Not yet planned	Not yet planned	30/06/2030
Comment Avinor intends to follow the products delivered in the iTEC alliance where the next generation is planned to support FIXM models and support FF-ICE release 1. Local implemenation planned currently for 2030 in Norway South and 2032 for the whole of Norway including Bodø ACC. Avinor does not have a detailed timeline for these activities other than a target date for operational use	Deployment project not yet started. No detailed timeline is defined.				Norway has a roadmap where we implement the FF-ICE R1 consume capabilities in 2030 in Norway south and for all of Norway including Bodø in 2032.
ENGM/TWR Systems	Not yet planned	Not yet planned	Not yet planned	Not yet planned	Not yet planned
Comment NETSO project initiated to replace the current ATM system. Currently first implementation strategy is to not consume eFPL directly and Avinor has not decided on architecture strategy for flight plan consumption across systems					NETSO project initiated to replace the current ATM system. Currently first implementation strategy is to not consume eFPL directly and Avinor has not decided on architecture strategy for flight plan consumption across systems

Notification Service

	Checkpoint 1	***Checkpoint 2***	***Checkpoint 3***	***Checkpoint 4***	***Checkpoint 5***
Location	Start of implementation	Start of implementation and testing on NM pre-ops	Start of validation testing on NM pre-ops	DM1: Connectivity End of testing (Connectivity readiness)	DM2 Operational use: Departure and arrival information is shared using the notification service provided by the Network Manager
Bodo ACC/FDP	Not yet planned	Not yet planned	Not yet planned	Not yet planned	30/06/2032
Comment Avinor intends to follow the products delivered in the iTEC alliance where the next generation is planned to support FIXM models and support FF-ICE release 1. Local implemenation planned currently for 2030 in Norway South and 2032 in Norway North. Contract signed for system development.					
Oslo-Stavanger ACC/FDP	Not yet planned	Not yet planned	Not yet planned	Not yet planned	30/06/2030
Comment Avinor intends to follow the products delivered in the iTEC alliance where the next generation is planned to support FIXM models and support FF-ICE release 1. Local implemenation planned currently for 2030 in Norway South and 2032 in Norway North. Contract signed for system development.					

Data Publication Service

	Checkpoint 1	Checkpoint 2	Checkpoint 3	Checkpoint 4	Checkpoint 5	Checkpoint 6	Checkpoint 7	Checkpoint 8
Location	Start of implementation	Start of implementation and testing on NM pre-ops	Start of validation testing on NM pre-ops	DM1: Connectivity End of testing (Connectivity readiness)	Service in operations	System is using the GUFI	System is using the operator flight plan version	DM2 Operational use: System is using information from the eFPL (when provided) including aircraft take Off Mass, the performance climb and descent profiles and the climb and descent speed schedule, and route/trajectory information to compute their trajectory. Please indicate which of this information the system may be using
Bodo ACC/FDP	Not yet planned	Not yet planned	Not yet planned	Not yet planned	Not yet planned	Not yet planned	Not yet planned	30/06/2032
Comment Avinor intends to follow the products delivered in the iTEC alliance where the next generation is planned to support FIXM models and support FF-ICE release 1. Local implemenation planned currently for 2030 in Norway South and 2032 in Norway North. Contract signed for system development through iTEC alliance	Deployment project not yet started. No detailed timeline is defined.							Norway has a roadmap where we implement the FF-ICE R1 consume capabilities in 2030 in Norway south and for all of Norway including Bodø in 2032.
Oslo-Stavanger ACC/FDP	Not yet planned	Not yet planned	Not yet planned	Not yet planned	Not yet planned	Not yet planned	Not yet planned	30/06/2030
Comment Avinor intends to follow the products delivered in the iTEC alliance where the next generation is planned to support FIXM models and support FF-ICE release 1. Local implemenation planned currently for 2030 in Norway South and 2032 in Norway North. Contract signed for system development through iTEC alliance	Deployment project not yet started. No detailed timeline is defined.							Norway has a roadmap where we implement the FF-ICE R1 consume capabilities in 2030 in Norway south and for all of Norway including Bodø in 2032.
ENGM/TWR Systems	Not yet planned	Not yet planned	Not yet planned	Not yet planned	Not yet planned	Not yet planned	Not yet planned	Not yet planned
Comment NETSO project initiated to replace the current ATM system. Currently first implementation strategy is to not consume eFPL directly and Avinor has not decided on architecture strategy for flight plan consumption across systems								NETSO project initiated to replace the current ATM system. Currently first implementation strategy is to not consume eFPL directly and Avinor has not decided on architecture strategy for flight plan consumption across systems

5. List of acronyms

Acronym	Meaning
ACC	Area Control Center
ADEXP	ATS Data Exchange Presentation
AF	ATM Functionality
AIC	Aeronautical Information Circular
AIS	Aeronautical Information Servis
AIM	Aeronautical Information Management
AMS	Airport Movement System
ANSP	Air Navigation Service Provider
AN-CONF	Air Navigation Conference
API	Application Programming Interface
APP	Approach
ARO	ATS Reporting Office
ATS	Air Traffic Services
A-SMGCS	Advanced Surface Movement Guidance and Control System
ATC	Air Traffic Control
ATM	Air Traffic Management
AU	Airspace User
B-RNAV	Basic Air Navigation
B2B	Business-to-Business
B2C	Business-to-Consumer
CFSP	Computer Flight Planning Service Providers
CP1	Common Project One Reg. (EU) n. 2021/116
DLS	Data Link Services
DM	Deployment Milestone
DMAN	Departure Manager
eEAD	Enhanced European AIS Database Service
EASA	European Union Aviation Safety Agency
EATMN	European Air Traffic Management Network
EFS	Electronic Flight Strip System
eFPL	FF-ICE Flight Plan
EU	European Union
FAA	Federal Aviation Administration
FDP	Flight Data Processing
FIXM	Flight information exchange model
FF-ICE / R1	Flight and Flow Information for a Collaborative Environment Release 1
FPL	Flight Plan
FPM	Flight Progress Messages
FPFDE	Flight Plan and Flight Data Evolution
FPL2012	ICAO Flight Plan 2012 Format

GAT	General Air Traffic
GUFI	Global Unique Flight Identifier

IBG	Investors Buy-in Group
ICAO	International Civil Aviation Organisation
IER	Information Exchange Requirements
IFPS	Integrated initial Flight Plan processing System
IFR	Instrument Flight Rules
ITWP	Integrated Tower Working Position
kHZ	kilohertz
LSSIP	Local Single Sky ImPlementation
MUAC	Maastricht Upper Area Control
NDOP	Network Directors of Operation
NDTECH	Network Directors of Technology
NewPENS	New Pan European Network Service
NM	Network Manager
NM B2B	Network Manager Business-to-Business Web Services
NSA	National Supervisory Authority
OAT	Operational Air Traffic
OPS	Operations
R&D	Research and Development
RVSM	Reduced Vertical Separation Minima
SDM	SESAR Deployment Manager
SDP	SESAR Deployment Programme
SESAR	Single European Sky ATM Research
SID	Standard Instrument Departures
SWIM	System Wide Information Management
TBO	Trajectory-Based Operations
TCT	Traffic Complexity Tool
TWR	Tower
VFR	Visual Flight Rules

6. Referenced documents

[1] FF-ICE/R1 Implementation Roadmap 2023, first edition

[2] Commission Implementing Regulation (EU) 2021/116 (Common Project 1 / CP1)

[3] SESAR Deployment Programme 2024

[4] Information Exchange Requirements FF-ICE/R1 (IERs)

[5] FF-ICE/R1 Use Cases document

[6] Operational Deployment of NM B2B Web Services document