



SUPPORTING
EUROPEAN
AVIATION

AIM SWIM Services

European Approach

June 2026

Dennis Hart, Pedro Fernandez



AIM SWIM

Context

Regulatory Requirements

Technical Specs and Guidance

Common Projects

Follow up Activities

eEAD and DNOTAM

AIM SWIM Context

Context

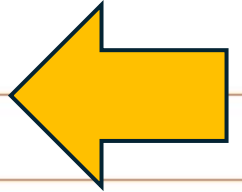
Regulatory Requirements

Technical Specs and Guidance

Common Projects

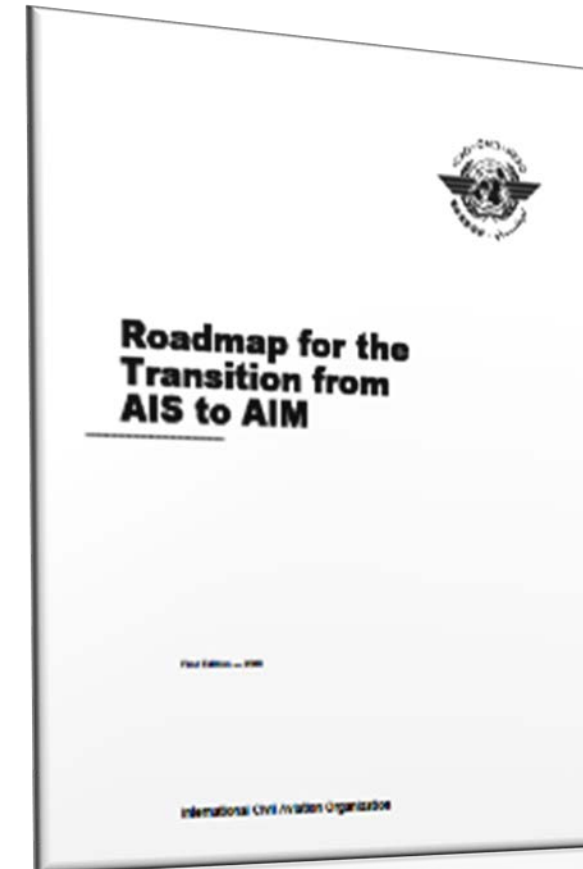
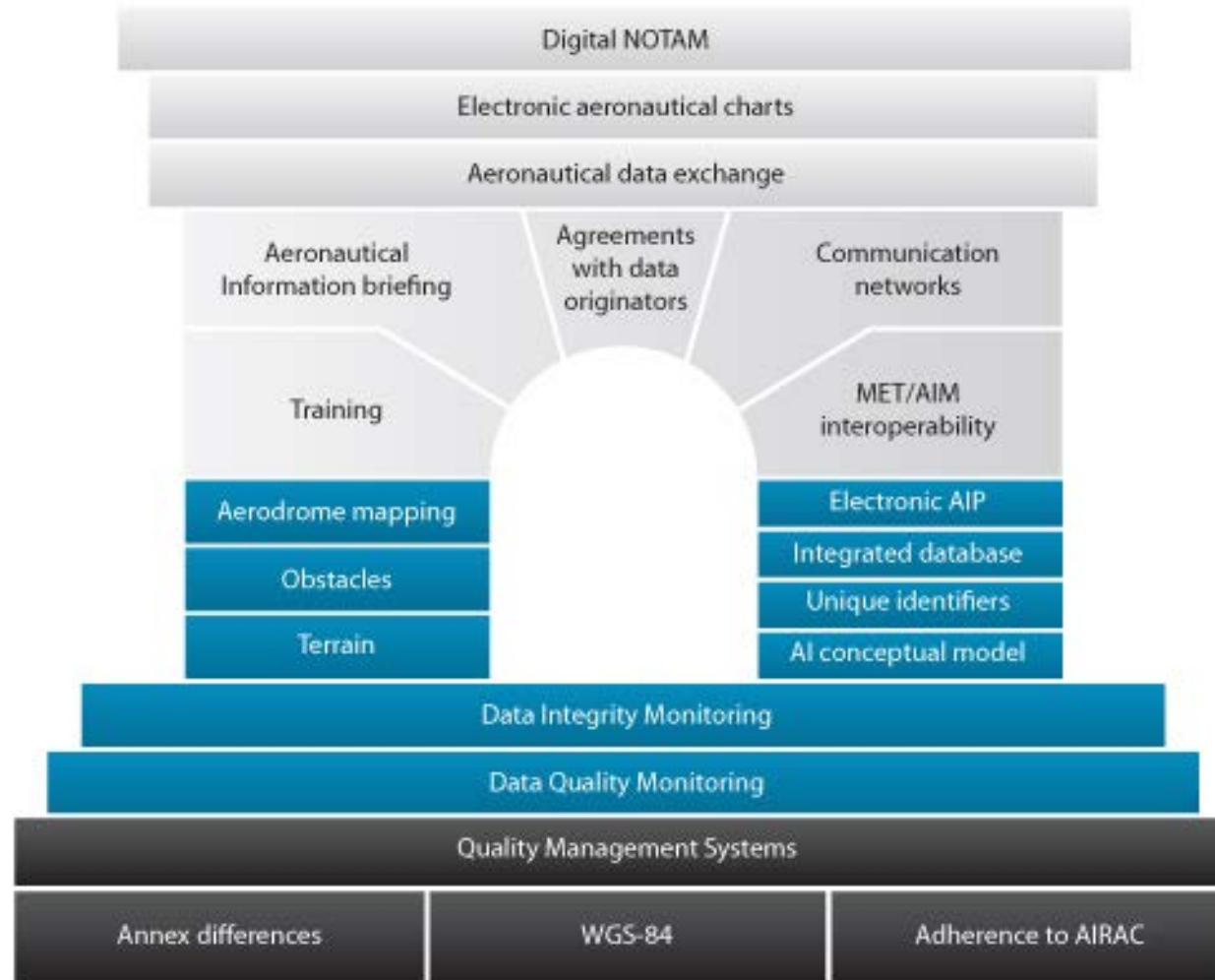
Follow up Activities

eEAD and DNOTAM

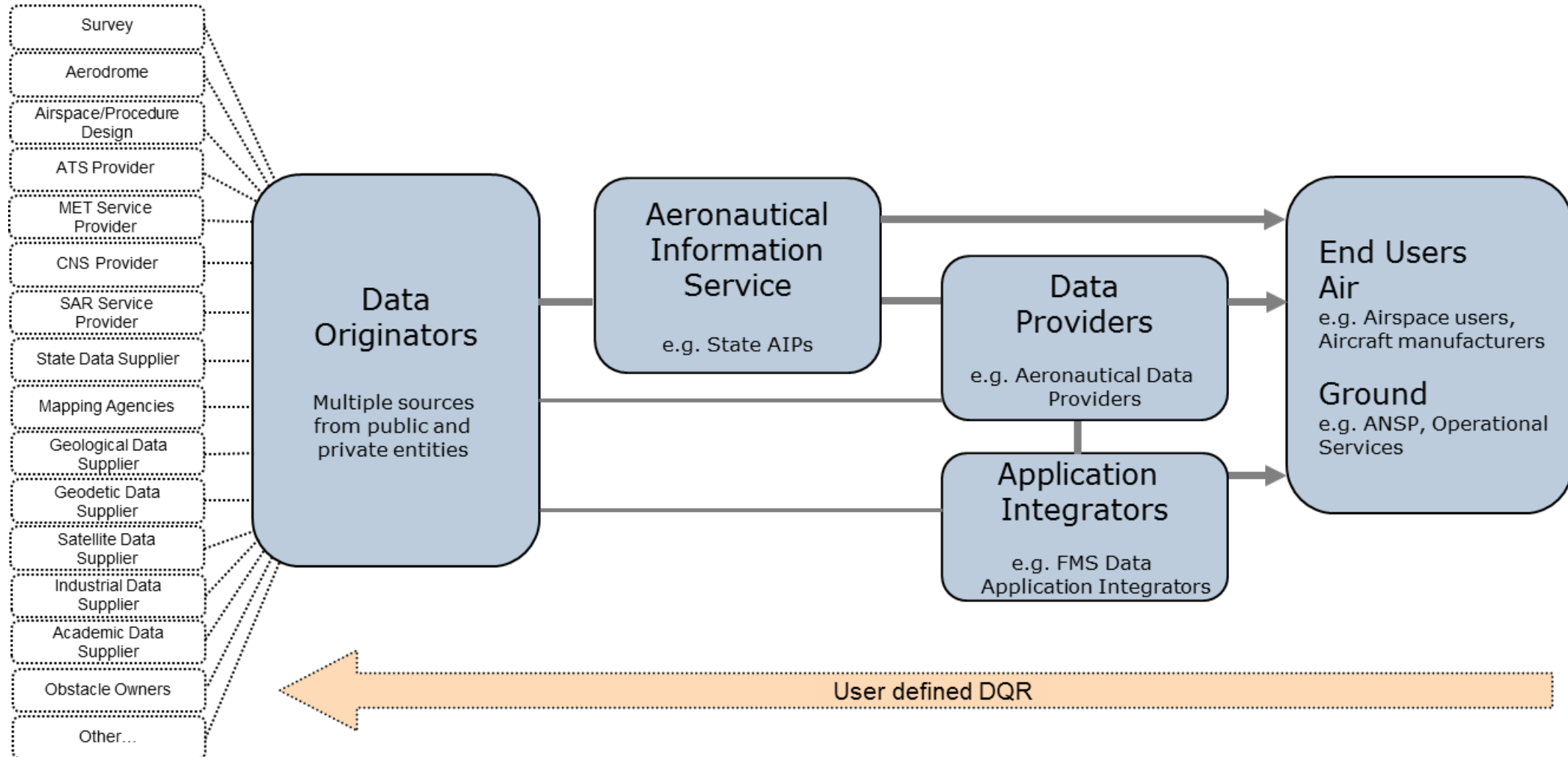


Digitalization of Aeronautical Information

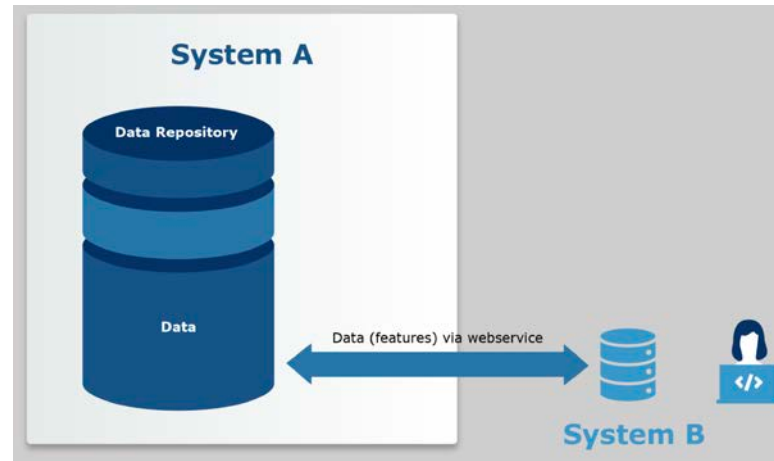
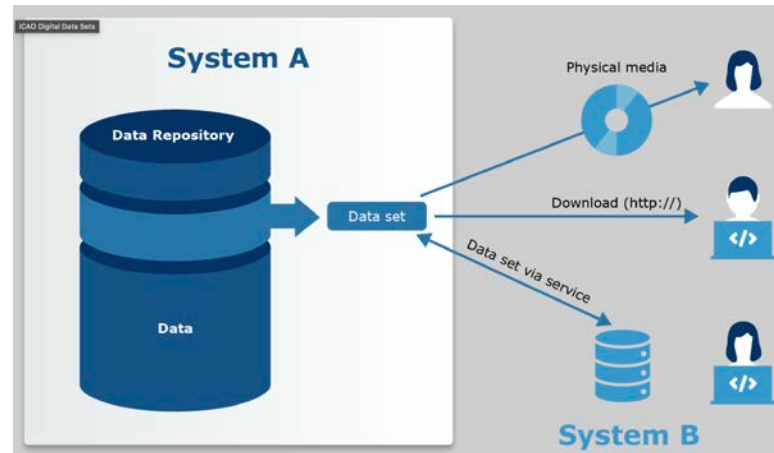
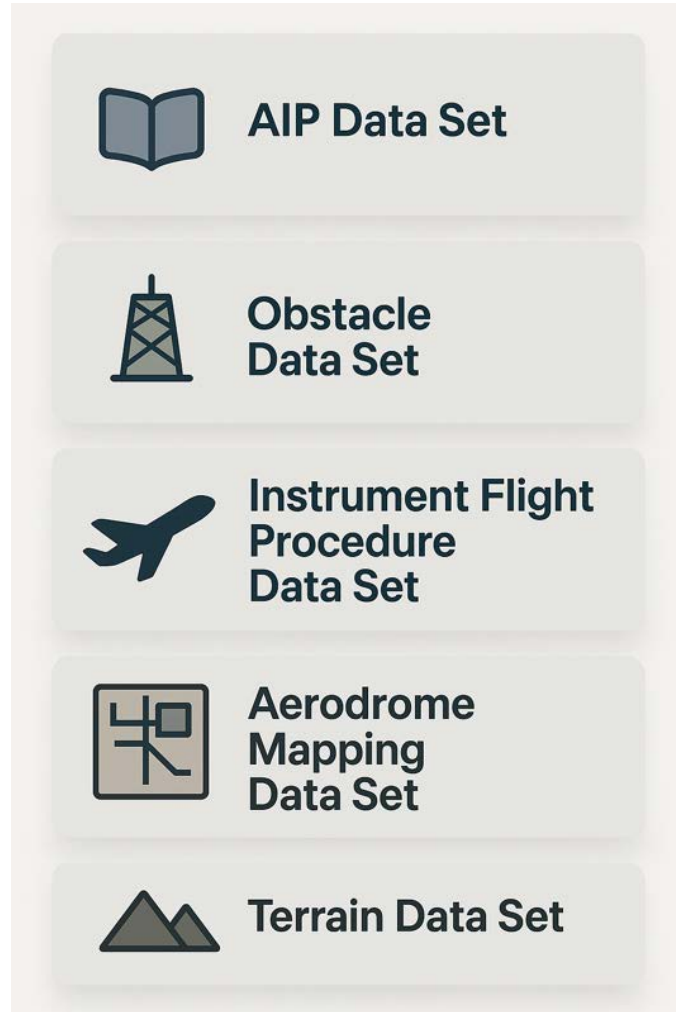
AIS to AIM Roadmap



Roles and responsibilities



Digital Data Scope and Distribution



SWIM Services

ADAS

AIFS

DNOTAM

AMAP

...

Regulatory Requirements



REGULATORY FRAMEWORK – SWIM

Developed and consulted by all stakeholders



Vision for EU Digital Sky

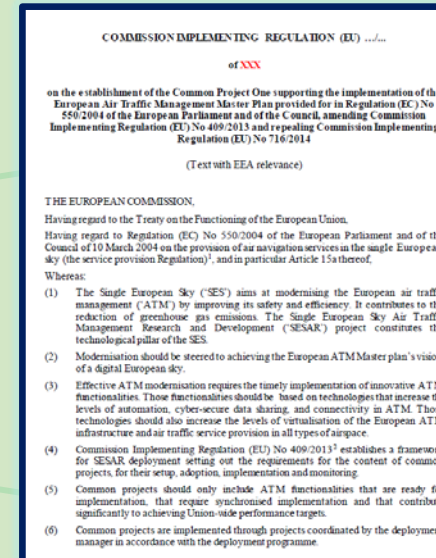
Essential Operational Changes

PILOT COMMON
PROJECT REG. (EU)
N.716/2014



2014 - 2021

COMMON PROJECT
ONE REG. (EU)
N.116/2021



2021-2027

SESAR DEPLOYMENT
PROGRAMME (SDP)



SESAR Deployment
Programme 2024

Final Version

13th September 2024

Workplan for CP1 Deployment

12/06-12

First time MP
with EOC

27/06-14

PCP Regulation
in Force

27/06-17

Start of PCP
Review

Reg Update process

02/02-21

CP1 Regulation
Approval

12/08-22

SDP 2022
Approval

31/12-25

SWIM Deadline

31/12-27

Last CP1 Impl
dates

AIM CP1 Services

5.1.3. ATM sub-functionality on Aeronautical information exchange

General

Operational stakeholders must implement the following services that support the exchange of the aeronautical information using the SWIM yellow profile technical infrastructure as described in the deployment programme:

- (a) notification of the activation of an airspace reservation/restriction ('ARES');
- (b) notification of the de-activation of an ARES;
- (c) pre-notification of the activation of an ARES;
- (d) notification of the release of an ARES;
- (e) aeronautical information feature on request; filtering possible by feature type, name and an advanced filter with spatial, temporal and logical operators;
- (f) query ARES information;
- (g) digital aerodrome charts;
- (h) ASM level 1;
- (i) airspace use plans (AUP, UUP) – ASM level 2 and 3;
- (j) digital NOTAM.

AIFS



AMAP



DNOTAM



CP1 System Requirements

System requirements

- (a) All the services listed in point 5.1.3 must comply with applicable SWIM specifications.
- (b) ATM systems operated by stakeholders referred to in point 5.3 must have the capacity to use the aeronautical information exchange services including digital NOTAM.
- (c) AIS systems operated by the stakeholders referred to in point 5.3 must have the capacity to provide digital NOTAM in accordance with the Eurocontrol specification for improving the pre-flight information bulletins (PIB) services for the airports referred to in point 5.3.

Harmonized

SWIM Specs, DNOTAM Spec

Use of Information

ATM systems capacity to use

Technical specifications and guidance



CP1 AIM Services

Aeronautical information feature Service

The Aeronautical Information Feature Service provides on-request aeronautical information features as a data service. It allows the query and retrieval of aeronautical data based on optional filters that may include feature type, feature name and spatial, temporal and logical operators.

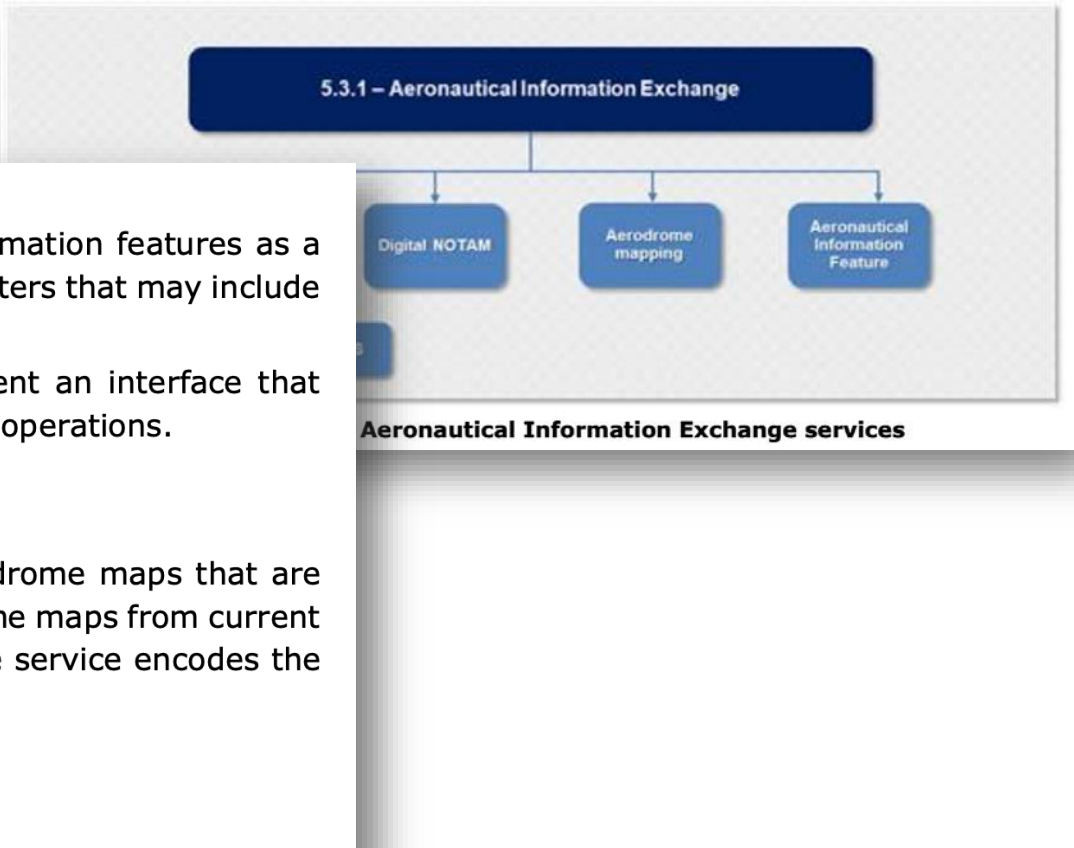
Airspace users are not mandated by CP1 in AF5 but are recommended to implement an interface that consumes the information provided by the service and to use the information in daily operations.

Aerodrome Mapping Service

The Aerodrome Mapping Service provides a capability on-request aeronautical aerodrome maps that are generated from aerodrome mapping data. The service generates aeronautical aerodrome maps from current or next AIRAC cycle aerodrome mapping data available in the service back-end. The service encodes the aeronautical aerodrome maps in a graphic format.

Digital NOTAM Service

The Digital NOTAM service provides event (Digital NOTAM) information as enables dynamic data sharing of aeronautical data updates. It provides digital related to aeronautical information of a temporary nature or provided on shore enables both textual and graphical representation to the end-user.



Service	Service Provider	Service Consumer
Digital NOTAM	AISP	ANSP
Aerodrome mapping	AISP ⁽³⁴⁾	ANSP, AU (both recommended)
Aeronautical Information Feature	AISP	ANSP

(34) Depending on local considerations and agreements, the aerodrome mapping service could be provided by the ANSP and/or the AO

Transversal SWIM Requirements

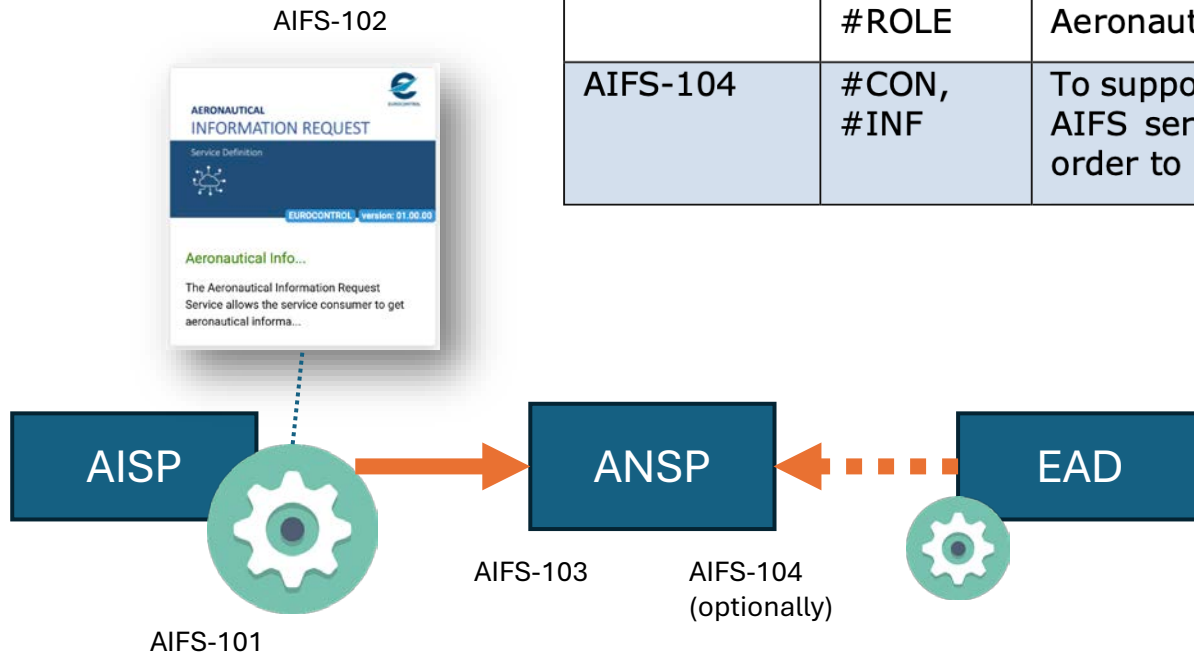
Service Providers are required to deploy information services that will fulfil the following GENERAL REQUIREMENTS:

ID	Type	Requirement
REQ-GEN-1	#PRO	Users of SWIM servicers shall use communication protocols and implement infrastructure requirements as defined in EUROCONTROL SWIM TI YP specification
REQ-GEN-2	#PRO	To ensure confidentiality, integrity or authenticity for information exchange using SWIM services, the use of digital certificates shall be implemented as defined in Family 5.2.1
REQ-GEN-3	#PRO	Services shall be described based on: • EUROCONTROL Service Description specification • EUROCONTROL Information Definition specification
REQ-GEN-4	#PRO	SWIM services shall be published in the SWIM Service Registry. The service provider may decide to conform to a published service definition (if available and applicable). The service provider identifies the applicable service definitions that are published in the SWIM Registry and adapts its implementation to conform to such definitions if required



AIFS Requirements

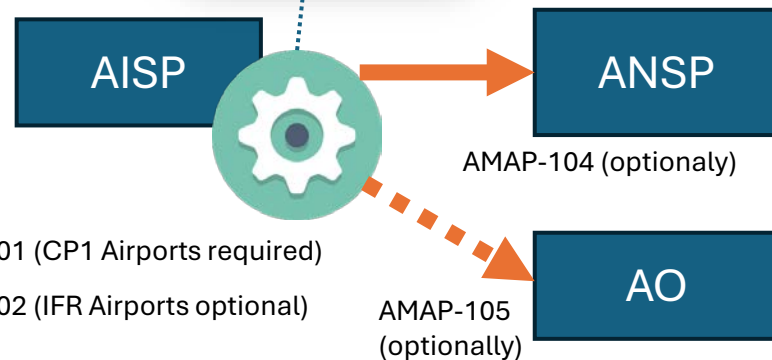
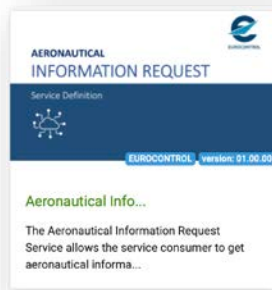
ID	Type	Requirement
AIFS-101	#PRO, #ROLE	The Aeronautical Information Feature Service shall be provided by all AISPs in CP1 mandated states.
AIFS-102	#PRO, #REF	The service should be implemented as specified in the European SWIM Registry based on EUROCONTROL Aeronautical Information Request Service definition.
AIFS-103	#CON, #ROLE	All ANSPs in CP1 mandated states shall consume information from the Aeronautical Information Feature Service.
AIFS-104	#CON, #INF	To support the operational activities of the ANSP the consumption of multiple AIFS services or consolidated consumption from EAD may be required in order to obtain information for the entire geographical scope required.



AMAP Requirements

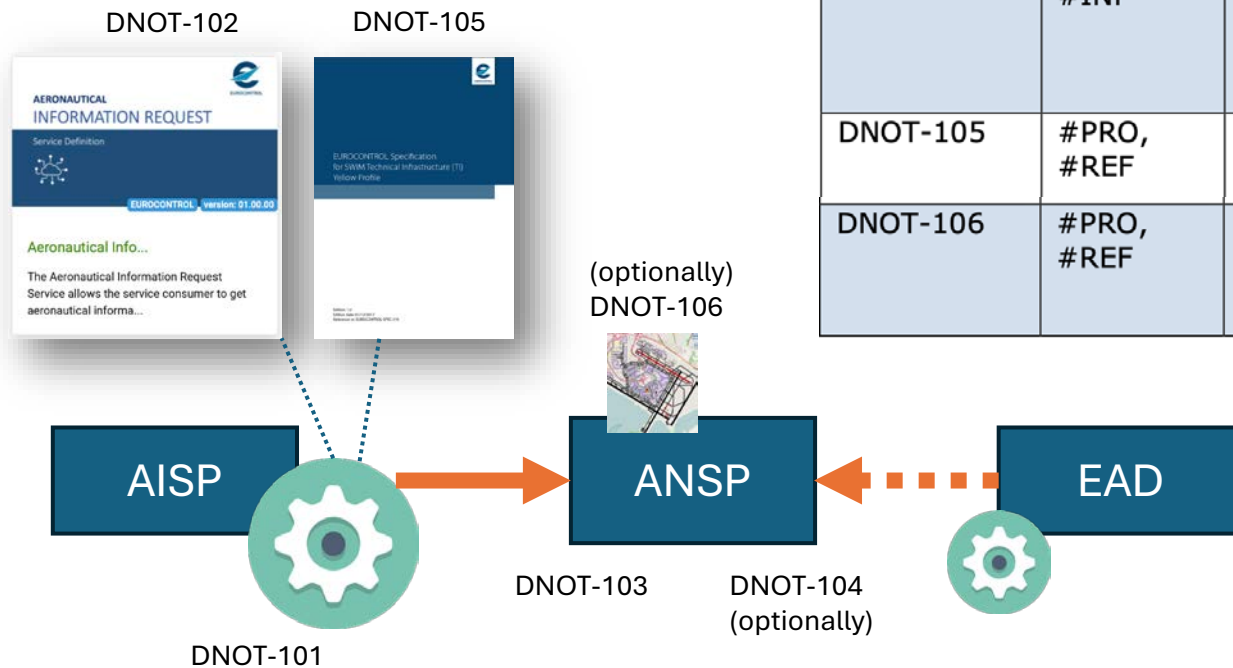
ID	Type	Requirement
AMAP-101	#PRO, #ROLE	The Aerodrome Mapping Service shall be provided by all AISPs ³¹ that are responsible for the publication of aerodrome mapping information for CP1 mandated airports.
AMAP -102	#PRO, #ROLE	The Aerodrome Mapping Service may be provided by all AISPs ³¹ that are responsible for the publication of aerodrome mapping information for airports serving IFR flights.
AMAP -103	#PRO, #REF	The service should be implemented as specified in the European SWIM Registry based on EUROCONTROL Aeronautical Aerodrome Map Request Service definition.
AMAP -104	#CON, #ROLE	ANSPs of states with CP1 mandated airports may consume the Aerodrome Mapping Service.
AMAP -105	#CON, #ROLE	AOs of CP1 mandated airports may consume the Aerodrome Mapping Service.

AMAP-103



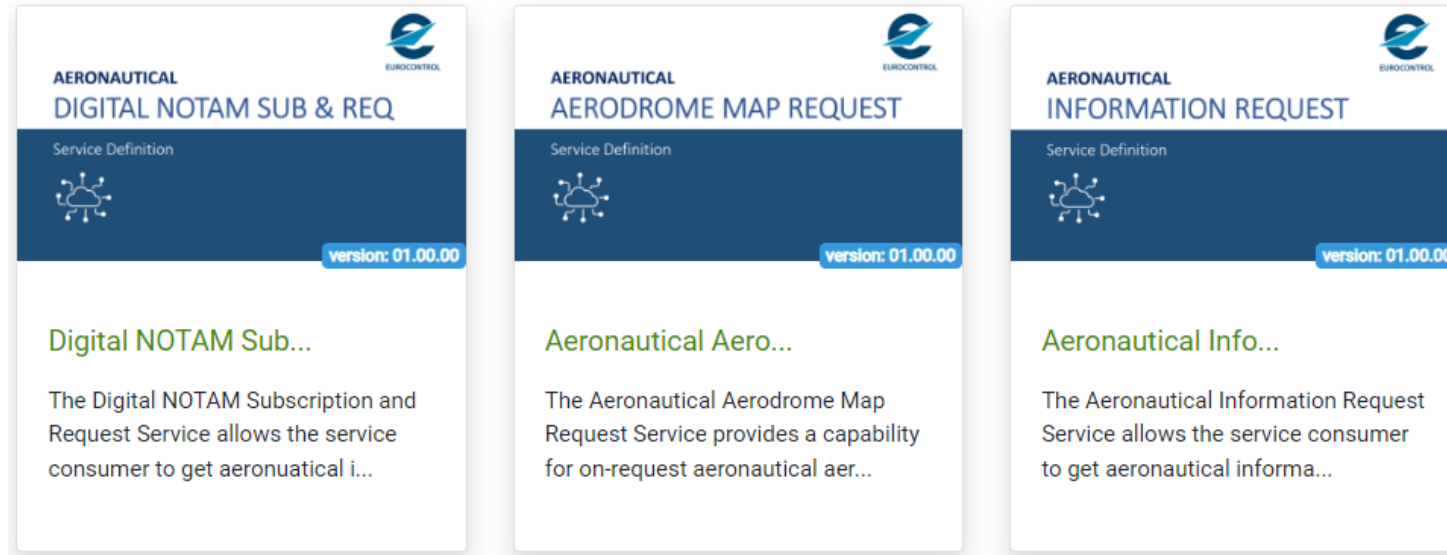
DNOTAM Requirements

ID	Type	Requirement
DNOT-101	#PRO, #ROLE	The Digital NOTAM Service shall be provided by all AISPs in CP1 mandated states.
DNOT -102	#PRO, #REF	The service should be implemented as specified in the European SWIM Registry based on EUROCONTROL Digital NOTAM Subscription and Request service definition.
DNOT -103	#CON, #ROLE	All ANSPs in CP1 mandated states shall consume information from the Digital NOTAM Service.
DNOT -104	#CON, #INF	In order to support the operational activities of the ANSP the consumption of multiple Digital NOTAM services or consolidated consumption from EAD may be required in order to obtain information for the entire geographical scope required.
DNOT-105	#PRO, #REF	The service shall be implemented in alignment with EUROCONTROL Digital NOTAM Specification for the encoding of event scenarios in
DNOT-106	#PRO, #REF	The digital graphical Pre-flight Information Bulletins (ePIB) provided by ANSPs in CP1 mandated states may use information consumed from Digital NOTAM services.



A3SG Service Definitions

- Published in SWIM Registry
 - <https://eur-registry.swim.aero/service-definitions>
- Referenced by SESAR Deployment Programme



- 1.Service Definition Identification
- 2.Service Identification
- 3.Service Abstract
- 4.Service Definition Provider
- 5.Geographical Extent of Information
- 6.Service Categories
- 7.Service Standard Reference
- 8.Operational Environment
- 9.Service Functions
- 10.Service Access and Use Conditions
- 11.Security Constraints
- 12.Quality of Service
- 13.Quality of Data
- 14.Source of Information
- 15.Service Validation Information
- 16.Application Message Exchange Pattern
- 17.Service Behavior
- 18.Service Monitoring
- 19.Service Interfaces
- 20.SWIM TI Profile and Interface Bindings
- 21.Service Interface Protocols and Data Format
- 22.Service Operations
- 23.Service Messages
- 24.Information Definition (Minimum) and (Extended)
- 25.Filter Encoding
- 26.Machine-Readable Service Interface Definition
- 27.Model View
- 28.Abbreviations and Acronyms
- 29.Appendix A: References
- 30.Appendix B: Information Definition
- 31.Appendix C: Operational Needs

SWIM Specifications

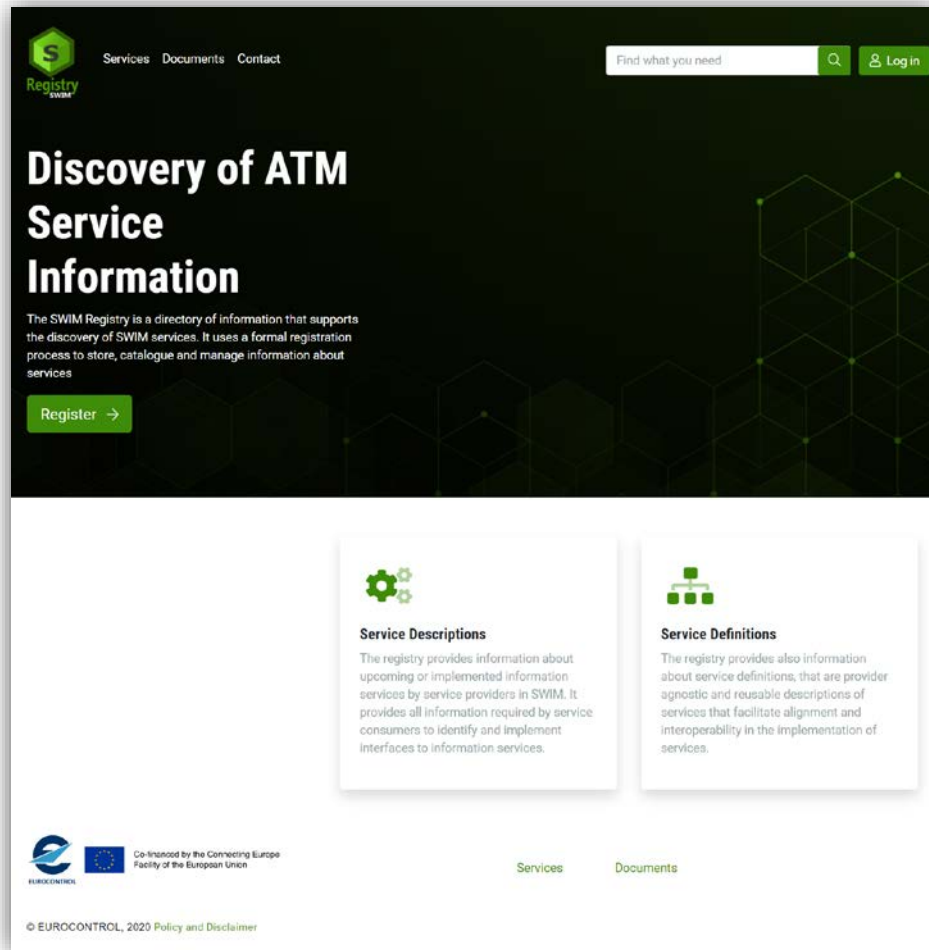


- **SWIM Service Definition:** Provides requirements for service definitions .
- **SWIM Service Description:** Provides requirements for describing information services.
- **SWIM Information Definition:** Provides requirements for information exchange definitions conform the semantics of the ATM Information Reference Model (AIRM)
- **SWIM Technical Infrastructure YP:** Provides requirements for IT infrastructure capabilities and interfaces

<https://www.eurocontrol.int/concept/system-wide-information-management>

SWIM Registry

<https://eur-registry.swim.aero>



The screenshot shows the homepage of the SWIM Registry. At the top, there is a navigation bar with links for 'Services', 'Documents', and 'Contact'. A search bar with the placeholder text 'Find what you need' and a 'Log in' button are also present. The main heading is 'Discovery of ATM Service Information'. Below this, a paragraph explains that the SWIM Registry is a directory of information that supports the discovery of SWIM services. A 'Register' button with a right arrow is located below the text. The bottom section features two columns: 'Service Descriptions' and 'Service Definitions', each with a brief description of the registry's purpose. The footer includes the EUROCONTROL logo, the European Union flag, and the text 'Co-financed by the Connecting Europe Facility of the European Union'. A copyright notice for EUROCONTROL, 2020, and a 'Policy and Disclaimer' link are at the very bottom.

Services Documents Contact

Find what you need

Discovery of ATM Service Information

The SWIM Registry is a directory of information that supports the discovery of SWIM services. It uses a formal registration process to store, catalogue and manage information about services

[Register →](#)

Service Descriptions

The registry provides information about upcoming or implemented information services by service providers in SWIM. It provides all information required by service consumers to identify and implement interfaces to information services.

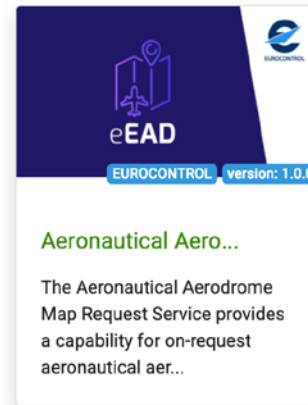
Service Definitions

The registry provides also information about service definitions, that are provider agnostic and reusable descriptions of services that facilitate alignment and interoperability in the implementation of services.

[Services](#) [Documents](#)

Co-financed by the Connecting Europe Facility of the European Union

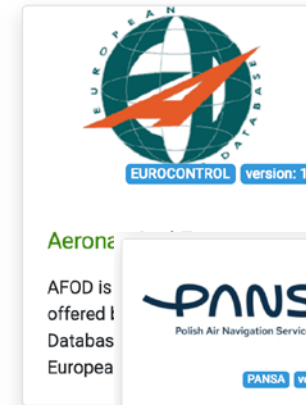
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eEAD
EUROCONTROL version: 1.0.0

Aeronautical Aero...

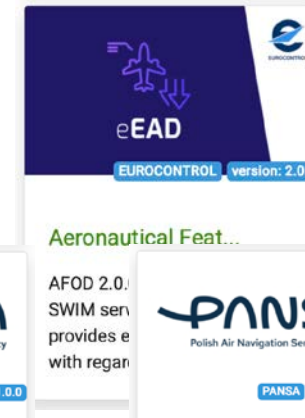
The Aeronautical Aerodrome Map Request Service provides a capability for on-request aeronautical aer...



AFOD
EUROCONTROL version: 1.0

Aeronautical Aero...

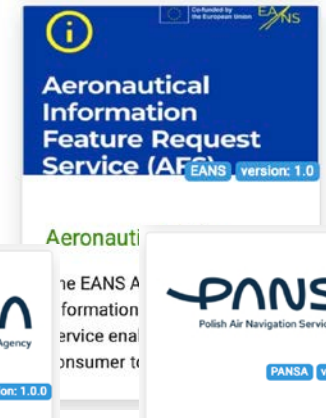
AFOD is offered by the European Database Agency



eEAD
EUROCONTROL version: 2.0.0

Aeronautical Feat...

AFOD 2.0: SWIM service provides e with regan



Aeronautical Information Feature Request Service (AFRS)
EANS version: 1.0

Aeronauti

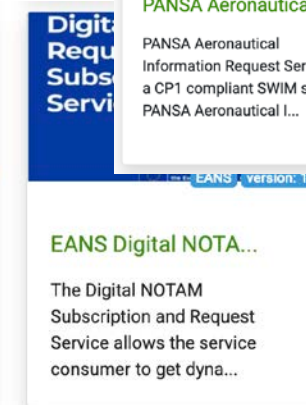
the EANS A information service enal consumer to



Aeronautical Aerodrome Map Request Service (MAP)
EANS version: 1.0

EANS Aeronautical...

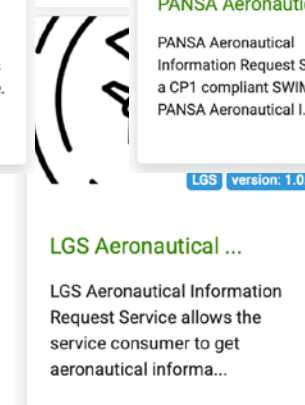
The Aeronautical Aerodrome Map Request Service provides a capability for on-request aeronautical aer...



Digital NOTAM Subscription and Request Service
EANS version: 1.0

EANS Digital NOTA...

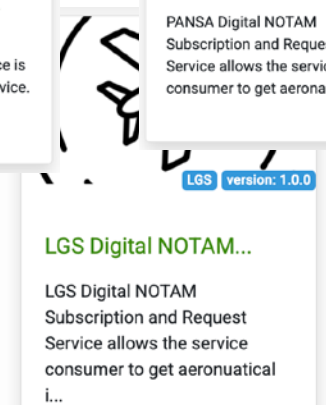
The Digital NOTAM Subscription and Request Service allows the service consumer to get dyna...



PANS Aeronautical Information Request Service
LGS version: 1.0.0

LGS Aeronautical ...

LGS Aeronautical Information Request Service allows the service consumer to get aeronautical informa...



PANS Digital NOTAM Subscription and Request Service
LGS version: 1.0.0

LGS Digital NOTAM...

LGS Digital NOTAM Subscription and Request Service allows the service consumer to get aeronautical i...

Operational Data Catalogue (ODC)

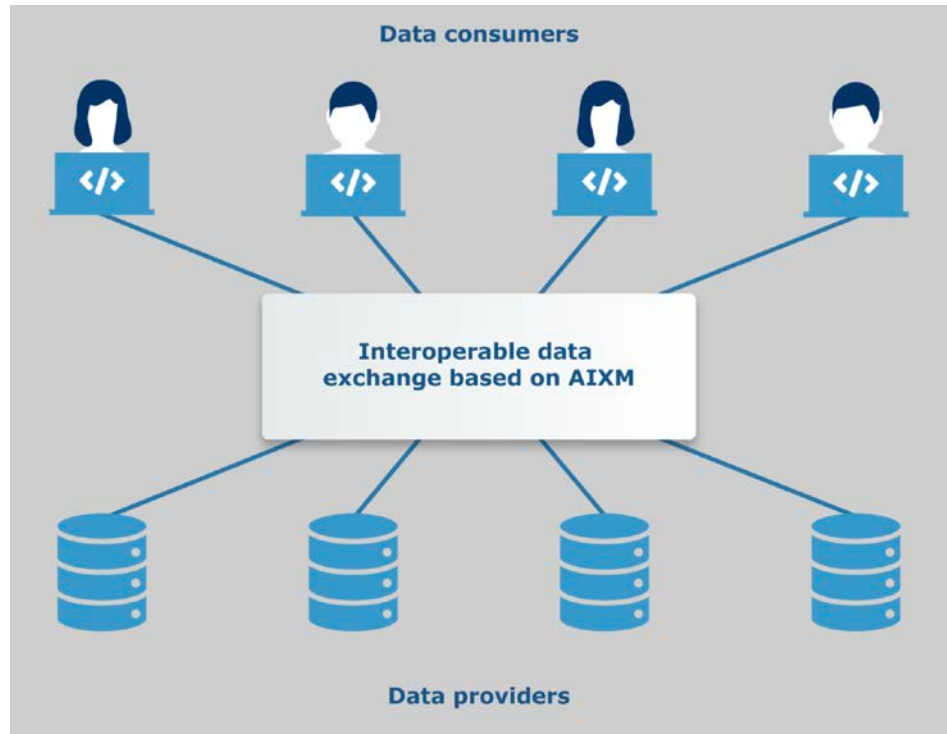


- In support of Regulatory compliance (CP1 5.3.1 and 2017/373)

AIS.TR.210 Exchange of aeronautical data and aeronautical information
Except for terrain data, the exchange format of aeronautical data shall:

 - (a) enable the exchange of data for both individual features and feature collections;
 - (b) enable the exchange of baseline information as a result of permanent changes;
 - (c) be structured in accordance with the subjects and properties of the aeronautical data catalogue, and be documented through a mapping between the exchange format and the aeronautical data catalogue.
- Mapping the exchange format and the aeronautical data catalogue.
 - Includes AIXM 5.1.1 Features, Objects and Attributes
- Identifies information items needed to support implementation of:
 - ICAO Digital Data Sets
 - CP1 information requirements
 - Support the Digital NOTAM scenarios (including static elements necessary)
 - NM systems
 - EAD stakeholder needs (survey)

AIM Static Data – AIXM Reference Material



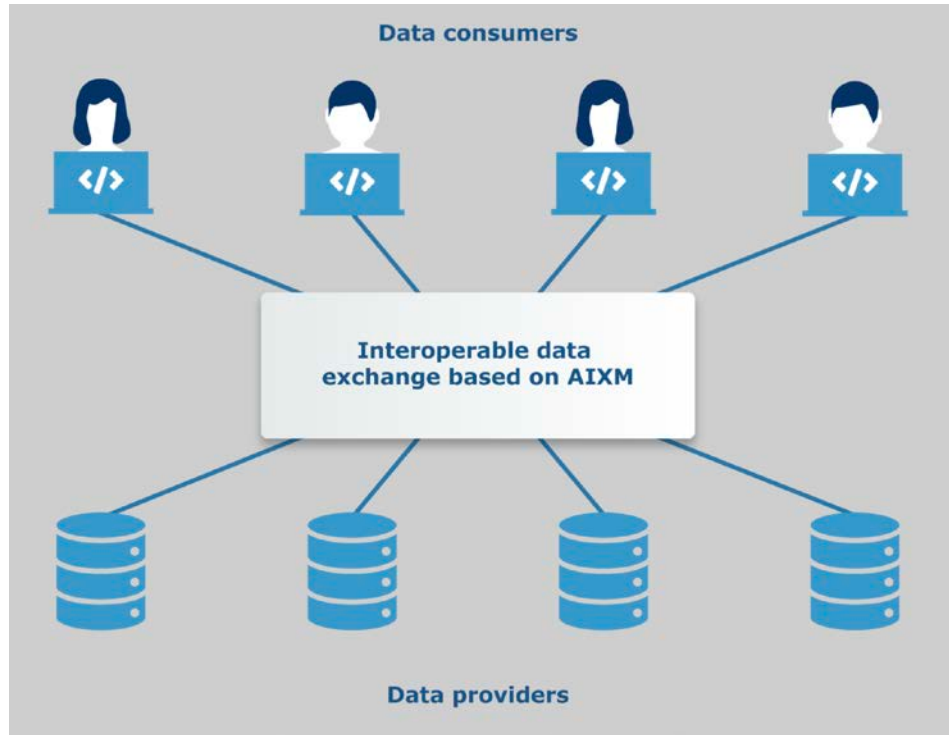
Purpose

- Supporting syntactic correctness of AIXM data
- And ensures that the data is fit for purpose

For the exchange of AIM static data, the AIXM flexibility needs to be constrained with rules that limit the coding possibilities and ensure that the data is fit for the intended use

- AIXM Coding Guidelines (specify)
https://ext.eurocontrol.int/aixm_confluence/display/ACG
- AIXM Business Rules (verify)
<https://aixm.aero/page/business-rules>

DNOTAM – AIXM Reference Material



- Digital NOTAM Specification
https://ext.eurocontrol.int/aixm_confluence/display/DNOTAM/Digital+NOTAM+Specification
- DNOTAM Production Guidelines
https://ext.eurocontrol.int/aixm_confluence/display/DNOTAM/NOTAM+Production+Guidelines

AIC for AIM SWIM Services

AIS.OR.320 Aeronautical information circular (AIC)

- An AIS provider shall issue as an AIC any of the following:
 - (a) a long-term forecast of any major change in legislation, regulations, procedures or facilities;
 - (b) information of a purely explanatory or advisory nature which affects flight safety;
 - (c) information or notification of an explanatory or advisory nature, concerning technical, legislative or purely administrative matters.

CIR 2017/373

Publication of SWIM Services in AIP

PANS-IM requires information services to be included in the AIP

5.3 INFORMATION SERVICE OVERVIEW PUBLICATION

5.3.1 Information service providers shall inform consumers where they can access the information service overviews and the metadata on information services therein.

5.3.2 The uniform resource locator (URL) where information service overviews are publicized shall be included in the AIP. In case a SWIM registry is used (see 5.4), the URL shall be the one of the registry.

Note 1.— To mitigate the risk of inconsistencies, a limited number of locations where service overviews are made available by the information service providers is preferred.

PANS-AIM specifies a concrete section in the AIP: GEN 3.7.

GEN 3.7 Information services GEN 3.7.1 System-wide information management (SWIM) registry(ies)/Information service overview(s) When SWIM registries are used, the corresponding Uniform Resource Locator (URL) of each registry is provided. Otherwise, a list of the URLs where information service overviews can be found is provided. <i>Note.— SWIM registries provide a list of available information services with corresponding information service overviews.</i>

EU 373/2017 will be amended to include these requirements

GEN 3.7 Information services

GEN 3.7.1 SWIM Registry(s) / Information Service Overview(s)

When SWIM registries are used, the corresponding Uniform Resource Locator (URL) of each registry is provided. Otherwise, a list of the URLs where information service overviews can be found are provided.

Rationale:

The proposed amendment is based on the content of ICAO State Letter 2023/06 (13 February 2023) and the intent is to make SWIM registries and their associated information service overviews discoverable to information service consumers by publicising the Uniform Resource Locators (URLs) in the AIP.

AIM SWIM Common Project



ACADIA

Accelerating the digitalization
of aeronautical information

Context

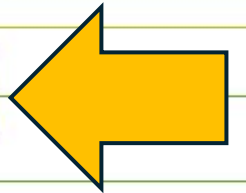
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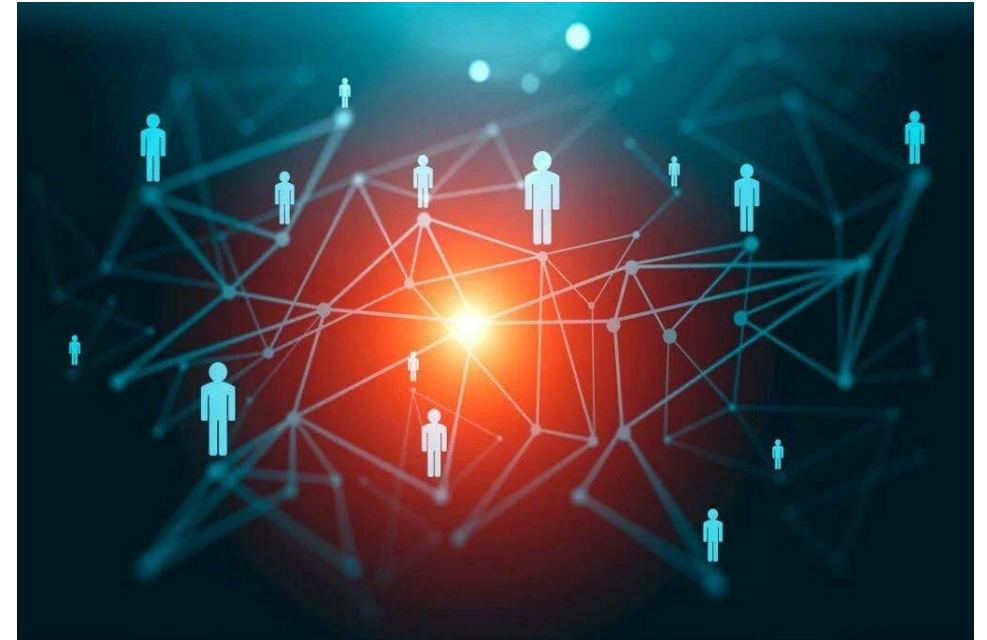
Follow up Activities

eEAD and DNOTAM



AIM SWIM Common Project

- **Common goal**
 - Harmonize digitalization of AIM
- **Different Roles and Responsibilities**
 - AISP, ANSP, AO/DO, System Providers
- **Different skills**
 - Analyst, system integrators, operational staff...
- **Different enablers**
 - Data, Systems, Personnel, Procedures
- **Multiple Dependencies**



OBJECTIVES OVERVIEW

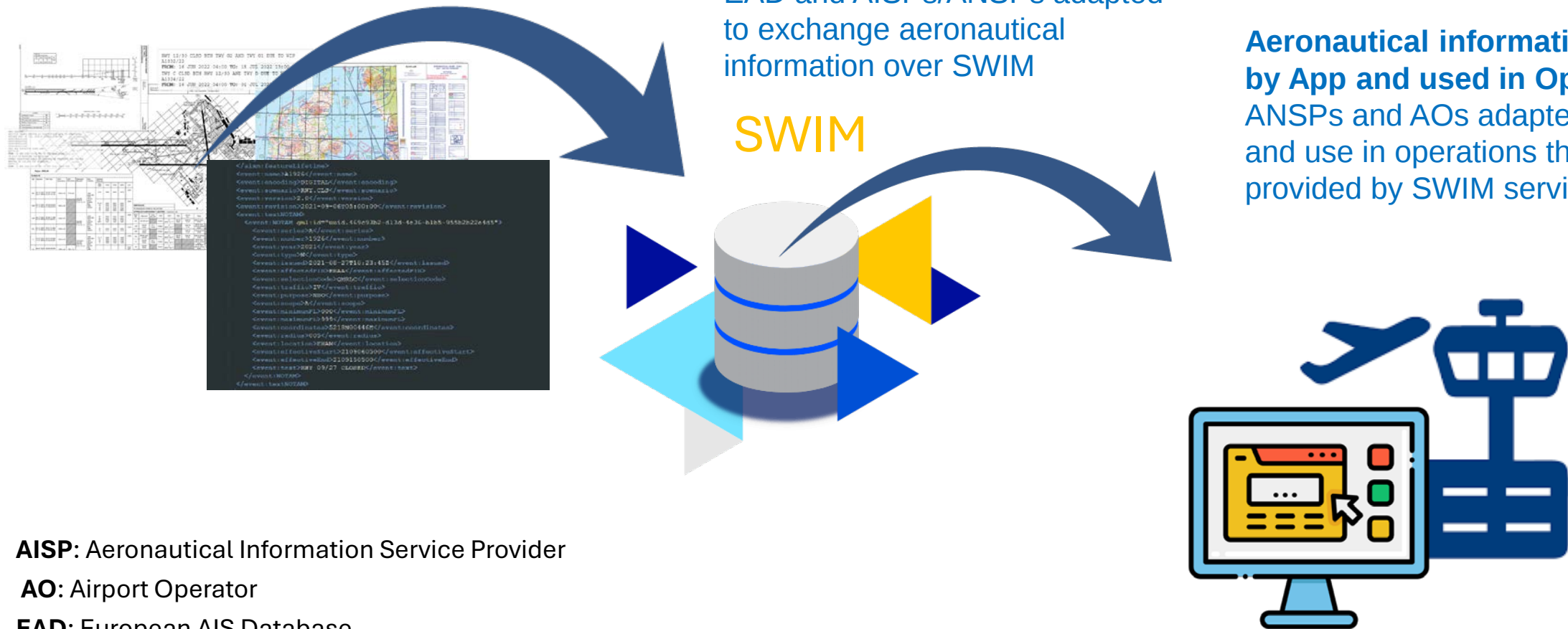
Aeronautical information becomes available in a digital form

Digitalisation and data completeness efforts by AISPs, data originators and EAD.

Aeronautical information exchanged via SWIM services

EAD and AISPs/ANSPs adapted
to exchange aeronautical
information over SWIM

Aeronautical information consumed by App and used in Ops
ANSPs and AOs adapted to consume and use in operations the information provided by SWIM services

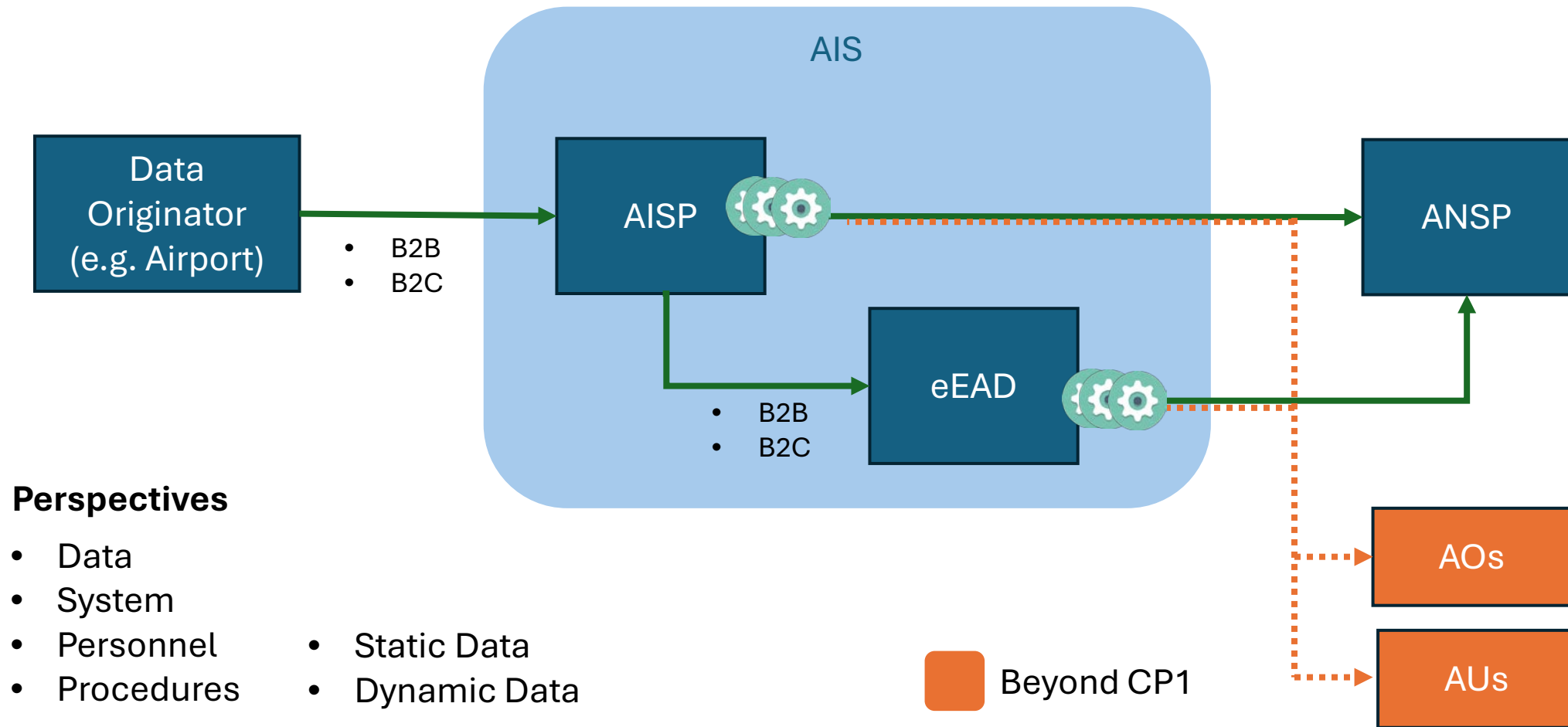
**AISP:** Aeronautical Information Service Provider

AO: Airport Operator

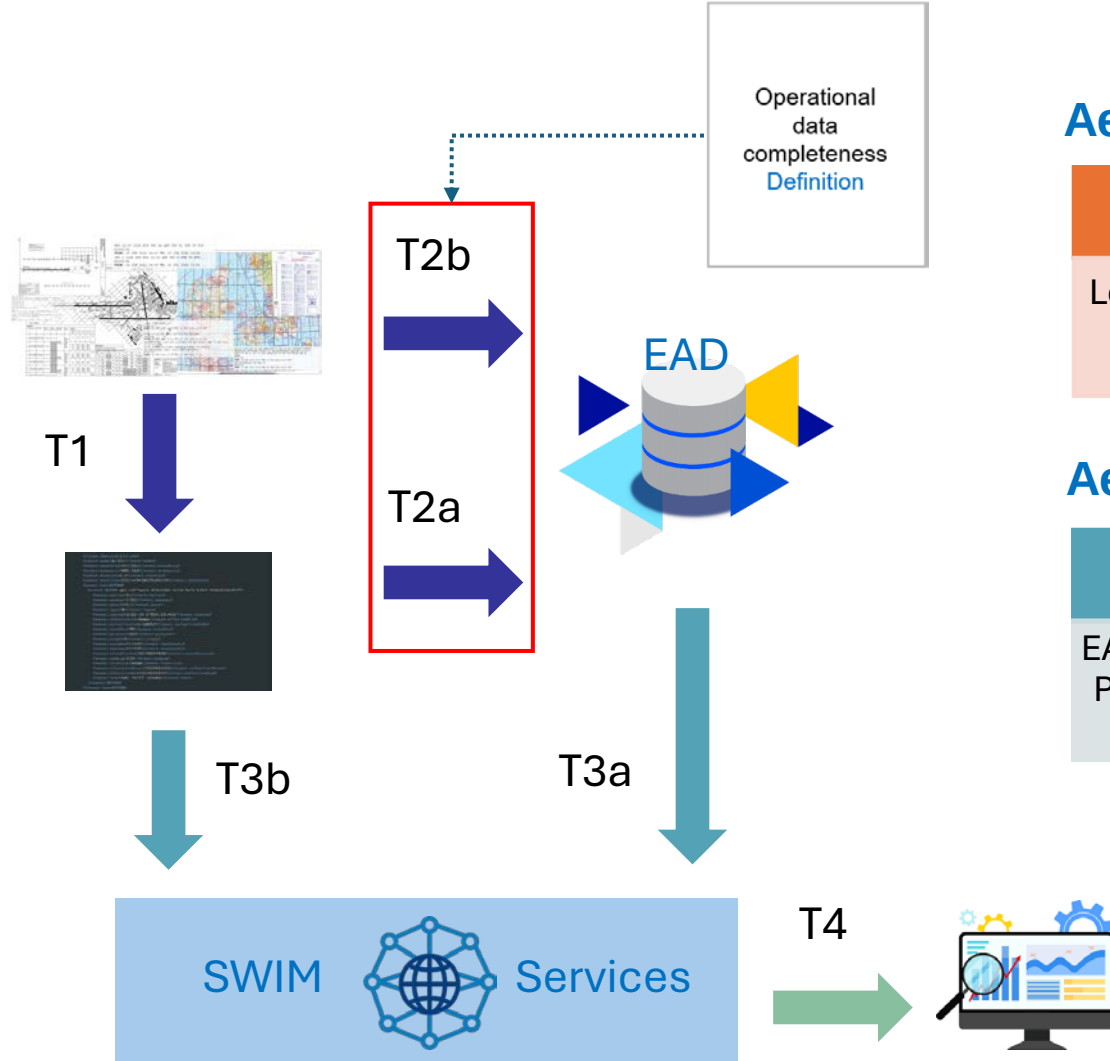
EAD: European AIS Database

ANSP: Air Navigation Service Provider

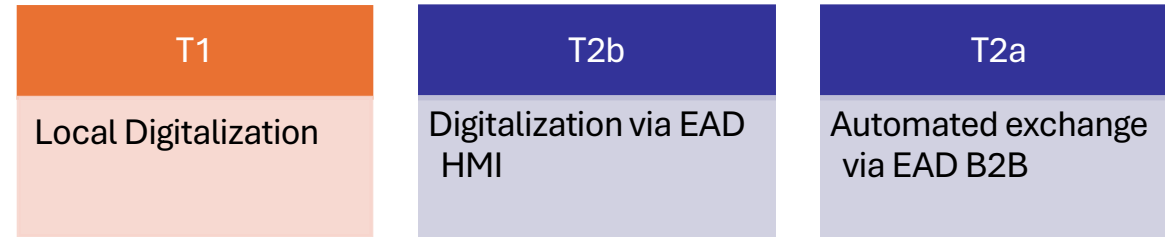
Dependencies – Organizational Overview



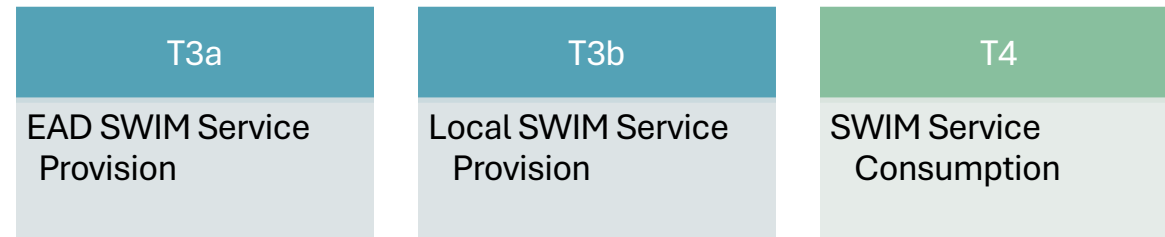
Tasks Overview



Aeronautical information becomes available in a digital form



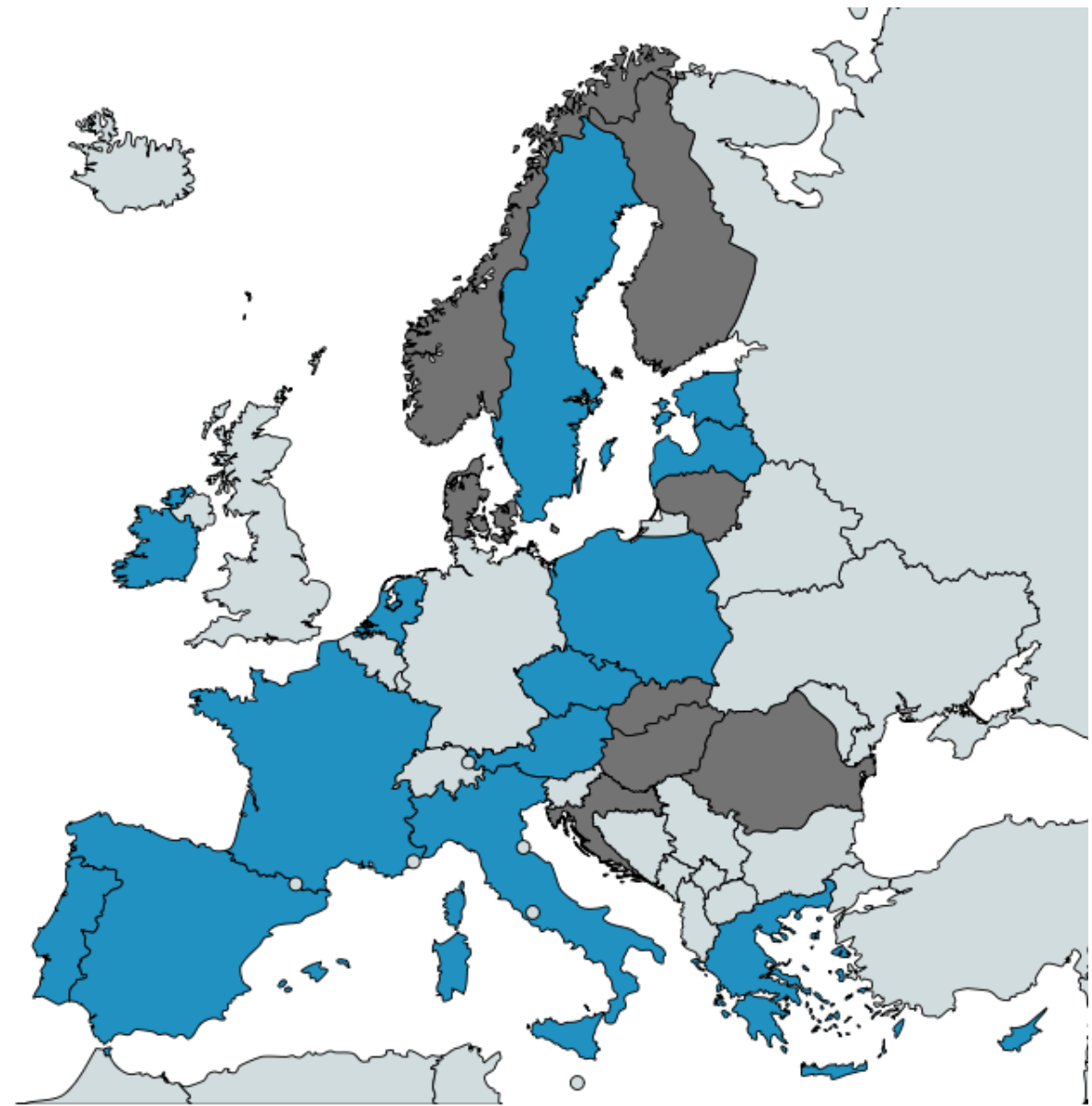
Aeronautical information exchanged via SWIM services



* T2a or T2b must be part of AISP project tasks

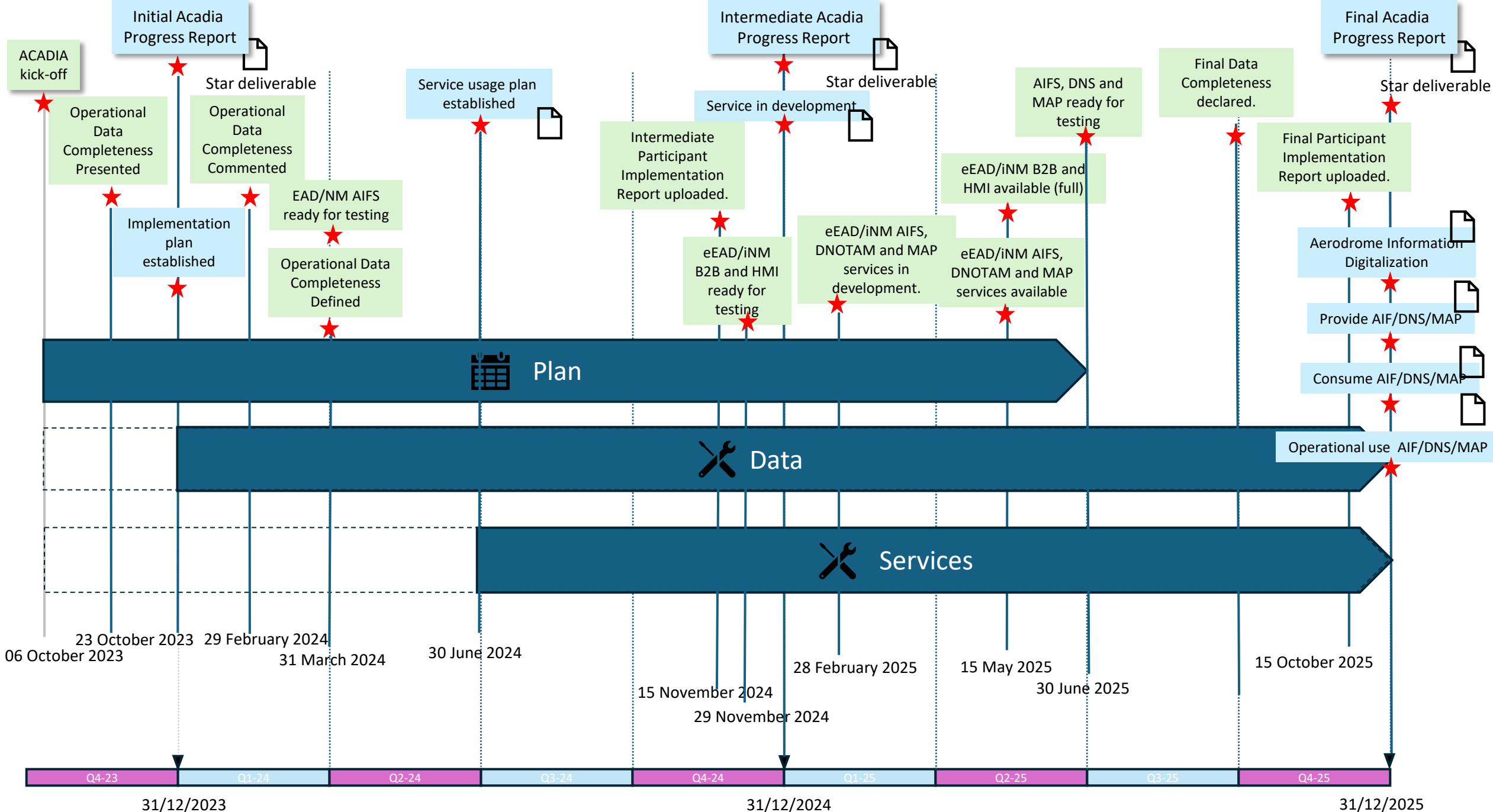
* Digitalization includes data completeness as per ODC

Project members		
EUROCONTROL NM (Project Coordinator)		
Geographical Scope	AISP/ANSP	AO
Austria	AUSTROCONTROL	
Cyprus	DCAC	
Croatia	Croatia Control	
Czech Republic	ANS CR	Letiště Praha (LKPR)
Denmark	NAVIAIR	CPH
Estonia	EANS	
Finland	Fintraffic	
France	DSNA	ADP
Greece	HASP	AIA
Hungary	Hungarocontrol	
Ireland	AIRNAV	DAA
Italy	ENAV	
Latvia	LGS	
Lithuania	Oro Navigacija	
Luxembourg	ANA	
Malta	MATS	
Netherlands	LVNL	SCHIPHOL Airport
Norway	Avinor	
Poland	PANSA	
Portugal	NAV Portugal	
Romania	ROMATSA	
Slovakia	LPS	
Spain	ENAIRE	AENA
Sweden	LFV	SWEDAVIA



Beneficiaries

Additional Partners



ACADIA project plan & milestones

Follow Up Activities

Context

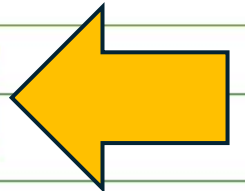
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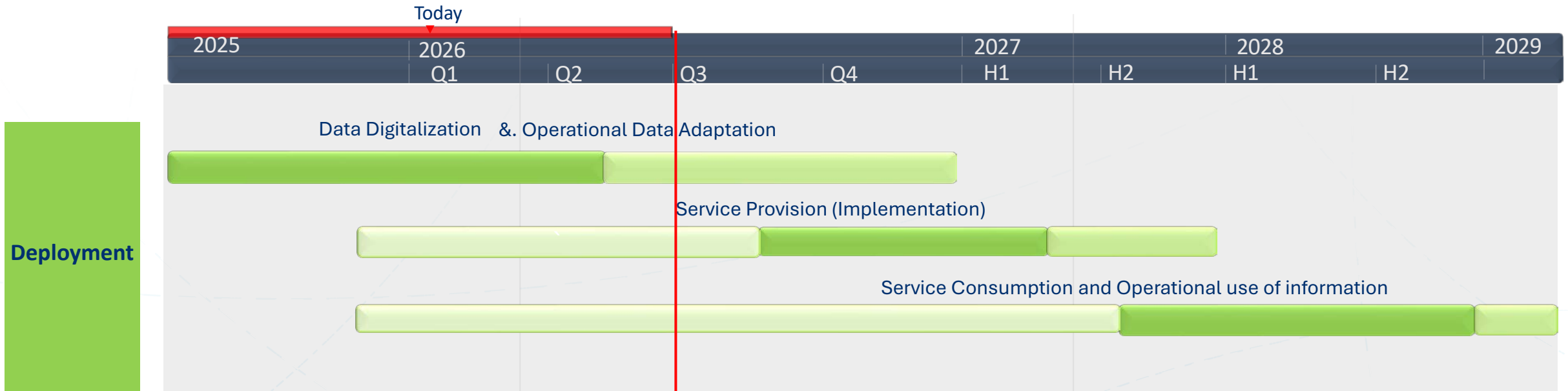
Common Projects

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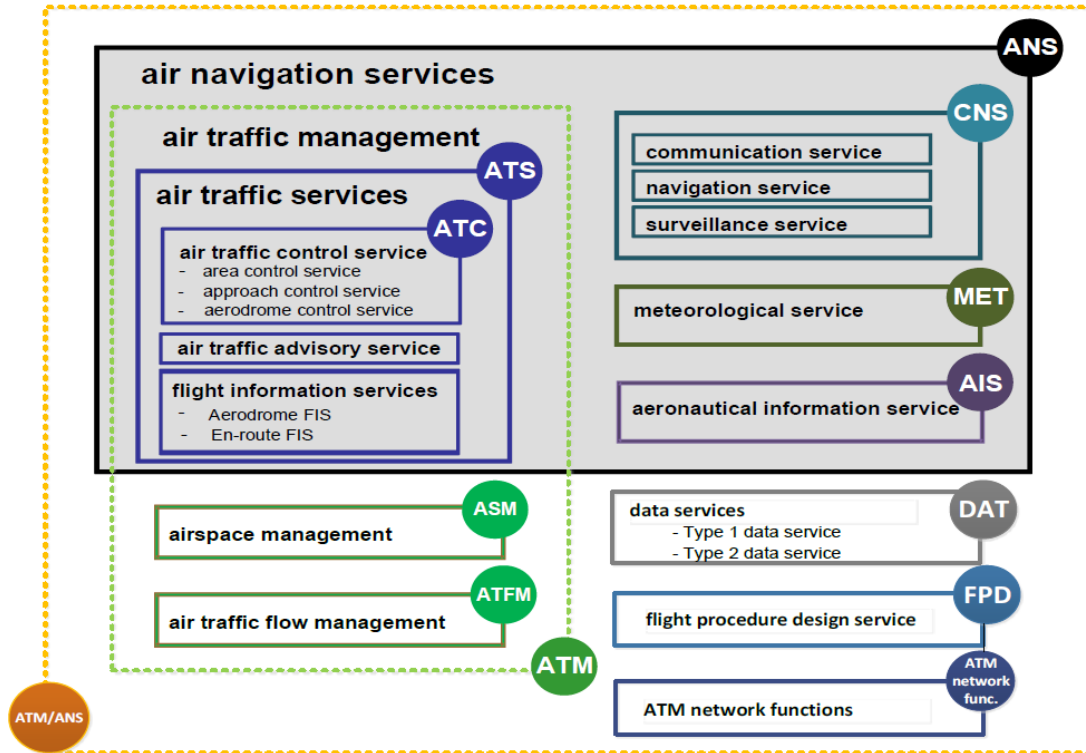
AIM SWIM CP1 Initiative Planning



ANSP System Consumption

CP1: ATM systems capacity to use

SDP: ANSP shall consume and use in operations



At least one ATM System
(EU 1139/2018)

Situational Awareness

- gaining awareness of planned changes to infrastructure status
- supporting daily operations in all weather conditions
- creation of pre-flight briefings

(Local) Static Data Management

- populate their own local database - cross-border or global aeronautical information
- production of charts
- terminal procedures design
- production of local digital data sets

Support to ATM Systems

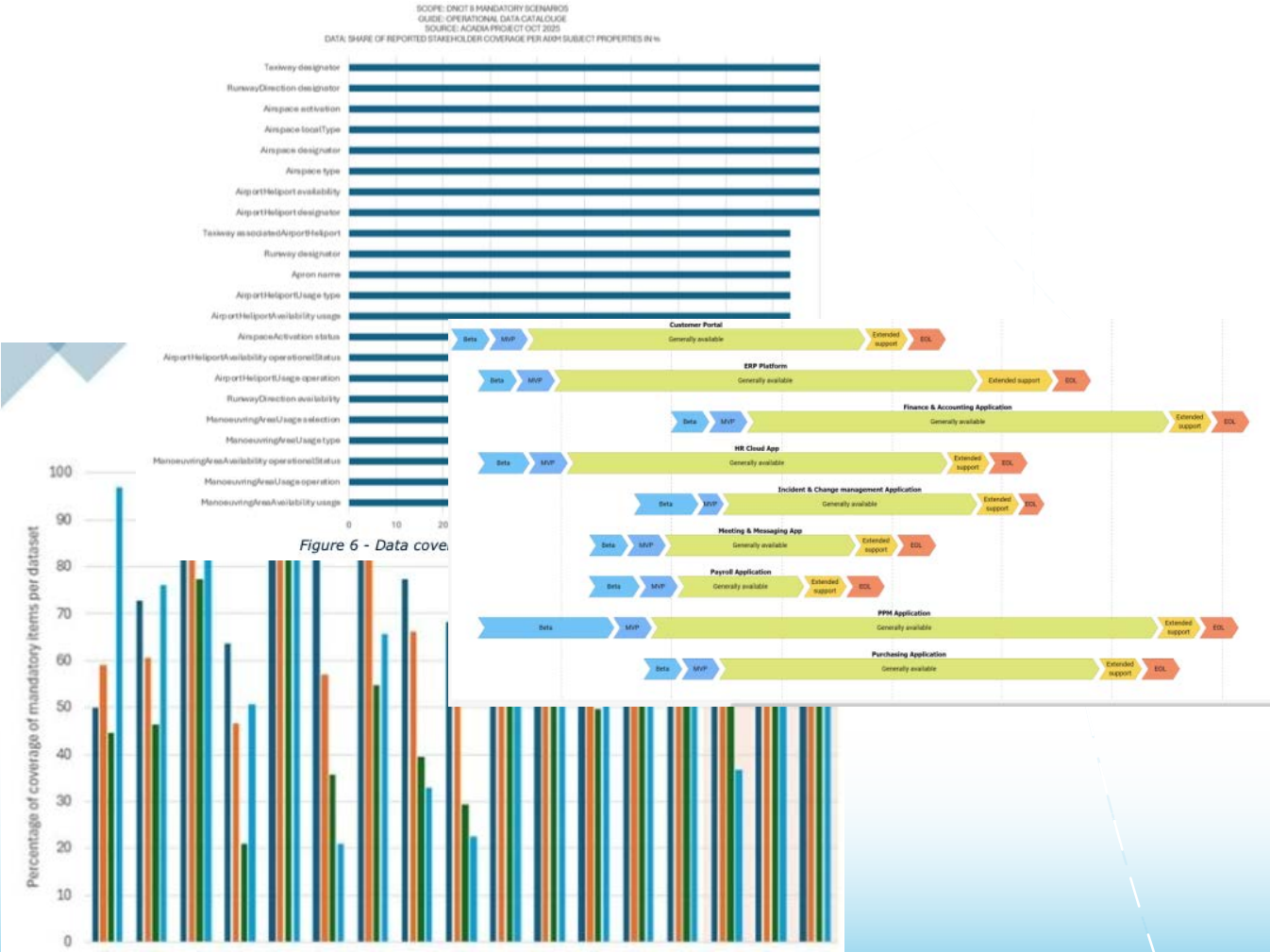
- support to air traffic services at aerodromes and within FIR
- efficient planning of departing flights

Validation and Verification

- perform validation and verification of their local systems

Initial List of use cases (identified in ACADIA)

AIM SWIM Roadmap



eEAD and DNOTAM

Context

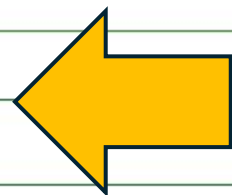
Regulatory Requirements

Technical Specs and Guidance

Common Projects

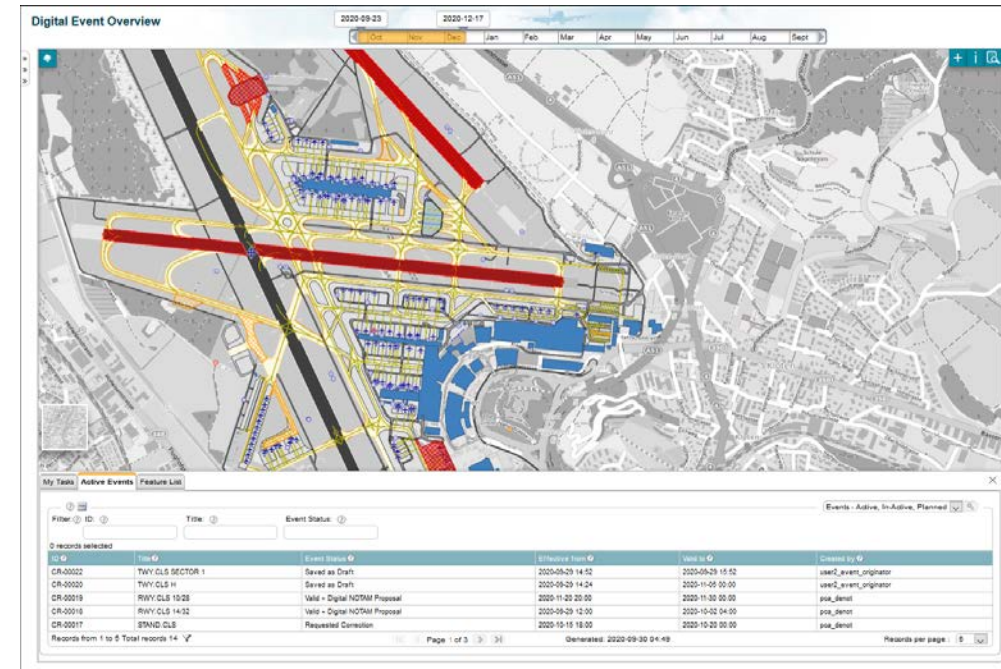
Follow up Activities

eEAD and DNOTAM



Digital NOTAM – *a deeper dive*

- The digital version of the conventional NOTAM
- Standardized and **structured** format
- Can be **graphically** represented in full
- Enhanced Searchability and **filtering**
- Distributed more efficiently through **SWIM web-services**



AIXM 5.1 – Digital NOTAM capability

TWY closure

- Currently, published as NOTAM

A0874/03 NOTAMN

Q) EBBU/QMXLC/IV/M/A/000/999/5054N00429E005

A) EBBR

B) 0308250500 C) 0310271600

<OK for computers>

E) TAXIWAYS OUTER 7 AND E6 CLSD

<not OK for computers>

- With Digital NOTAM - AIXM 5.1 encoded message
 - Something like this ...

<taxiway>

<name>OUTER 7</name>

<status>CLOSED</status>

</taxiway>

<taxiway>

<name>E6</name>

<status>CLOSED</status>

</taxiway>

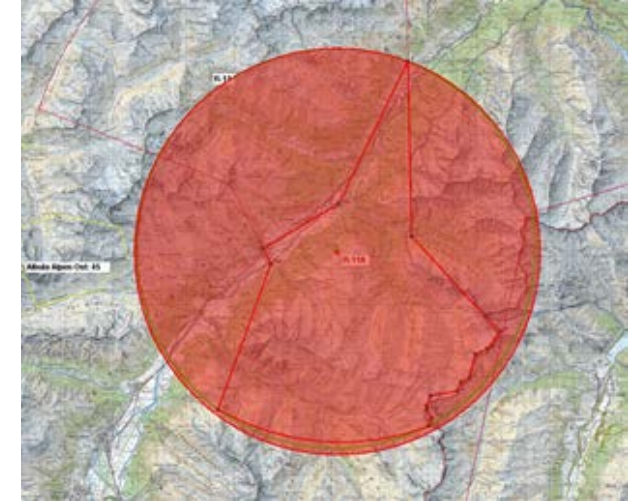


Digital NOTAM - example

```
<?xml version='1.0' encoding='UTF-8'?>
1 <message:AIXMBasicMessage xmlns:message="http://www.aixm.aero/schema/5.1.1/message"
  xmlns:gts="http://www.isotc211.org/2005/gts" xmlns:gco="http://www.isotc211.org/2005/gco"
  xmlns:xsd="http://www.w3.org/2001/XMLSchema" xmlns:gml="http://www.opengis.net/gml/3.2"
  xmlns:gss="http://www.isotc211.org/2005/gss" xmlns:aixm="http://www.aixm.aero/schema/5.1.1"
  xmlns:gssr="http://www.isotc211.org/2005/gssr" xmlns:gmd="http://www.isotc211.org/2005/gmd"
  xmlns:event="http://www.aixm.aero/schema/5.1/event" xmlns:xlink="http://www.w3.org/1999/xlink"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xsi:schemaLocation="http://www.aixm.aero/schema/5.1.1/message http://www.aixm.aero/schema/5.1.1/message/AIXM_BasicMessage.xsd
  http://www.aixm.aero/schema/5.1/event http://www.aixm.aero/schema/5.1.1/event/version_5.1-e/Event_Features.xsd"
  gml:id="M00001">
  <message:hasMember>
    <aixm:Airspace gml:id="uuid.28e6905-f99a-4ca7-a736-2c0787cdcf57">
      <gml:identifier codeSpace="urn:uuid:">028e6905-f99a-4ca7-a736-2c0787cdcf57</gml:identifier>
      <aixm:timeSlice>
        <aixm:AirspaceTimeSlice gml:id="ID_70">
          <gml:validTime>
            <gml:TimePeriod gml:id="ID_71">
              <gml:beginPosition>2018-06-30T06:00:00Z</gml:beginPosition>
              <gml:endPosition>2018-06-30T15:30:00Z</gml:endPosition>
            </gml:TimePeriod>
          </gml:validTime>
          <aixm:interpretation>TEMPDELTA</aixm:interpretation>
          <aixm:sequenceNumber>1</aixm:sequenceNumber>
          <aixm:activation> [23 lines]
          <aixm:extension>
            <event:AirspaceExtension gml:id="ID_80">
              2 <event:theEvent xlink:href="urn:uuid:2b64b247-dd56-4768-846b-183f96d47ec1"/>
              3 </event:AirspaceExtension>
            </aixm:extension>
          </aixm:AirspaceTimeSlice>
        </aixm:timeSlice>
      </aixm:Airspace>
    </message:hasMember>
    <message:hasMember>
      <event:Event gml:id="uuid.2b64b247-dd56-4768-846b-183f96d47ec1">
        4 <gml:identifier codeSpace="urn:uuid:">2b64b247-dd56-4768-846b-183f96d47ec1</gml:identifier>
        <event:timeSlice> [50 lines]
      </event:Event>
    </message:hasMember>
  </message:AIXMBasicMessage>
```

Benefits

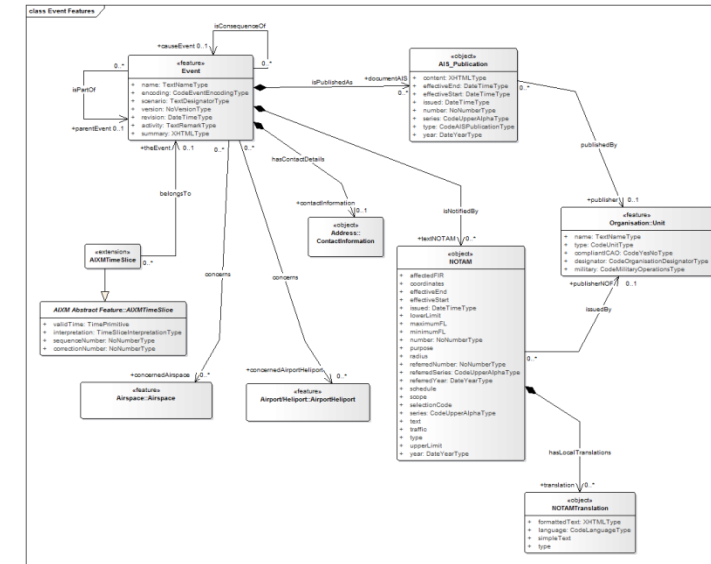
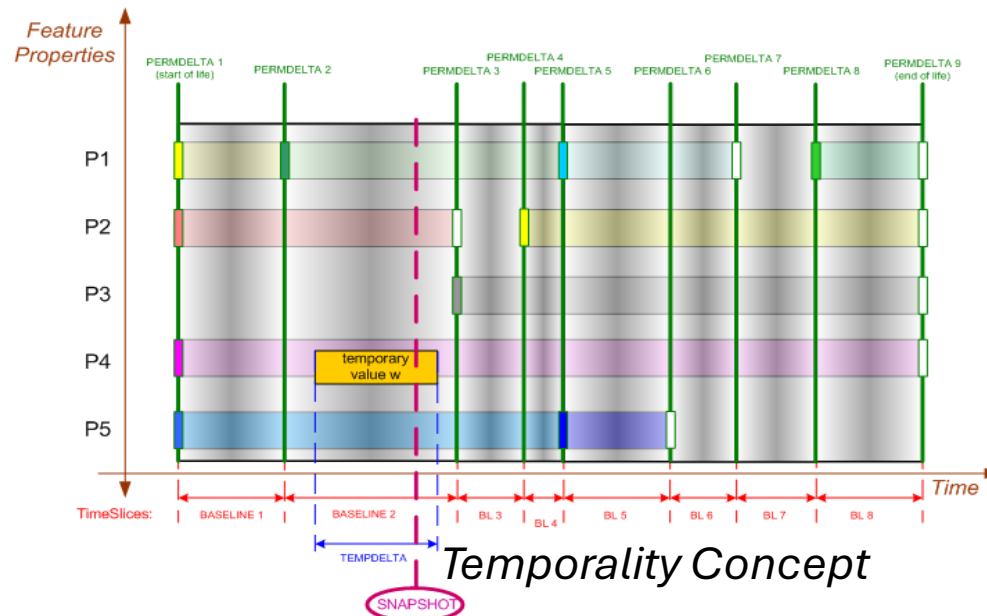
- Reducing ambiguity and the risk of misinterpretation that might occur with traditional, text-based NOTAMs
- Data validation / verification
- Automatic NOTAM Generation
- Integration possible with flight planning software and other digital tools, allowing for automated alerts and better decision-making support
 - Data for on-board applications
 - Integration with airspace management processes (such as FUA)
- Graphical NOTAM / briefing (ePIB)



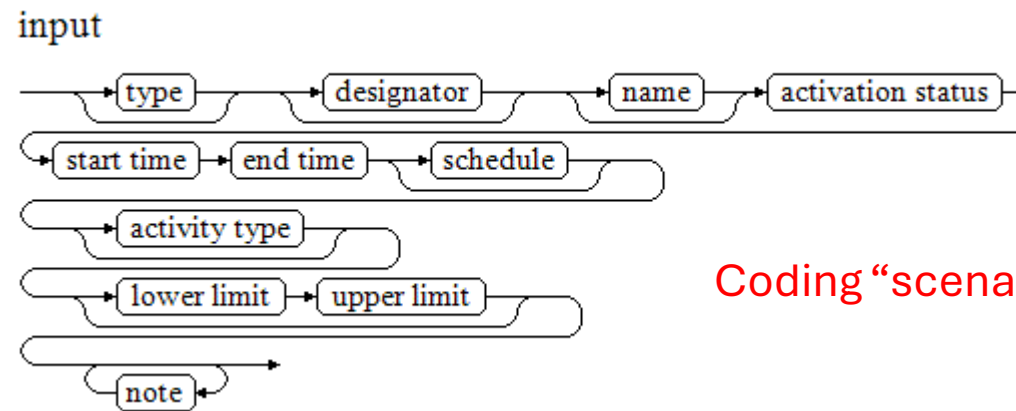
Digitally enhanced briefing (ePIB)

[illegible][illegible]

Digital NOTAM – key components



“Event” - extension



Coding “scenarios”

Digital NOTAM Event Specification - Purpose

Event data



Restricted area North of Sjællands Odde
TEMPORARY RESTRICTED AREA IS ESTABLISHED
daily from 08:00-17:00 between 07 NOV and 17 NOV
AS FOLLOWS NORTH OF SJÆLLANDS ODDE:
560028N 0111656E - 560643N 0111026E - 561500N 0112400E -
561500N 0113600E - 560112N 0114736E - 555730N 0113830E - 560028N 0111656E.
between SFC and 60000 FT AMSL
RELEVANT ATS UNITS REF. AIP DENMARK ENR 5.1 ITEM 3:
AARHUS APP/TWR, ACC KOEBENHAVN

Data encoding rules

Rules
Rules
Rules

Data validation rules

Digital NOTAM

AIXM 5.1 encoded data output

```
<message AddBasicMessage xmlns:message="http://www.aixm.aero/schema/5.1/message" x
<message:hasMember>
<event:Event gmi:id="e01">
<event:timeSlice>
<event:EventTimeSlice gmi:id="e01-1">
<gmi:validTime>
<!-- Note that this time should be the same as for the associated feature, see i
<gmi:TimePeriod gmi:id="e01-2">
<gmi:beginPosition>2009-11-07T08:00:00</gmi:beginPosition>
<gmi:endPosition>2009-11-17T17:00:00</gmi:endPosition>
</gmi:TimePeriod>
</gmi:validTime>
<aixm:interpretation>BASELINE</aixm:interpretation>
<aixm:sequenceNumber>1</aixm:sequenceNumber>
<aixm:featureLifetime>
<gmi:TimePeriod gmi:id="e01-3">
<gmi:beginPosition>2009-11-07T08:00:00</gmi:beginPosition>
<gmi:endPosition>2009-11-17T17:00:00</gmi:endPosition>
</gmi:TimePeriod>
</aixm:featureLifetime>
```

NOTAM production rules

Text NOTAM

ICAO Format

(Snnnn/yy NOTAMN

Q) EKDK/QRRCA/IV/BO /W /000/600/5606N01130E012

A) EKDK B) 0711010800 C) 0711011100

E) TEMPORARY RESTRICTED AREA ESTABLISHED

AS FOLLOWS (NORTH OF SJÆLLANDS ODDE):

560028N 0111656E - 560643N 0111026E - 561500N 0112400E -

561500N 0113600E - 560112N 0114736E - 555730N 0113830E -

560028N 0111656E.

Digital NOTAM Event Specification – Tech Resources

The screenshot shows a Confluence page titled "Digital NOTAM Specification". The left sidebar contains a navigation menu with "Digital NOTAM" and "Content" sections. Under "Content", there is a search bar and a list of items, including "Digital NOTAM Specification" which is currently selected. The main content area has a header "Digital NOTAM Specification" with a sub-header "Executive summary". Below this, there is a paragraph explaining the term "Digital NOTAM" and its purpose. To the right of the text, there is a diagram illustrating the relationship between an "Event" and a "Digital NOTAM". The diagram shows an "Event" (represented by an icon of an airport) leading to a "Digital NOTAM" (represented by a document icon). The "Digital NOTAM" is described as a data set made available through digital services containing information concerning the establishment, condition or change in any aeronautical facility, service, procedure or hazard, the timely knowledge of which is essential to personnel concerned with flight operations.

- [2.0] [APE.CLS] Apron portion - closure
- [2.0] [APE.LIM] Apron portion - usage limitation change
- [2.0] [APN.LIM] Apron - usage limitation change
- [2.0] [ATSA.ACT] Published ATS airspace - activation or deactivation - coding
- [2.0] [ATSA.NEW] Ad-hoc ATS airspace - creation - coding
- [2.0] [NAV.UNS] Navaid unserviceable - coding
- [2.0] [OBL.UNS] Obstacle lights unserviceable - coding
- [2.0] [OBS.NEW] New obstacle - coding
- [2.0] [RCP.CHG] Runway centreline point - displacement
- [2.0] [RDD.CHG] Runway declared distances - change
- [2.0] [RWY.LIM] Runway - usage limitation change
- [2.0] [SAA.ACT] Published special activity area - activation
- [2.0] [SAA.NEW] Ad-hoc special activity area - creation
- [2.0] [SFC.CON] Surface condition report - coding
- [2.0] [STAND.LIM] Aircraft stand - usage limitation change
- [2.0] [TWY.LIM] Taxiway - usage limitation change
- [2.0] OTHER
- [AD.LGT] Ground Light System unserviceable - coding
- [AGS.UNS] Airport Ground Service unserviceable - coding
- [DEI.IOP] De-icing in operation
- [FFS.CHG] Rescue and firefighting services change - coding
- [GNSS.UNS] - GNSS not available - coding
- [LVP.IOP] Low Visibility Procedures in operation
- [RTE.CLS] Route portion closure - coding
- [RTE.OPN] Route portion opening - coding
- [WLF.HZD] Wildlife Hazard
- [2.0] [AD.CLS] Aerodrome/Heliport - closure
- [2.0] [RWE.CLS] Runway portion - closure
- [2.0] [RWY.CLS] Runway - closure
- [2.0] [STAND.CLS] Aircraft stand - closure
- [2.0] [AD.LIM] Aerodrome/Heliport - usage limitation change
- [2.0] [APN.CLS] Apron - closure
- [2.0] [TWY.CLS] Taxiway - closure

<https://swim-eurocontrol.atlassian.net/wiki/spaces/DNOTAM/overview>

.... and how can the EAD Service help?

With the implementation of the new eEAD systems, all Digital NOTAM event scenarios including 'other' will be supported

Digital NOTAM Management Effective Date: 2026-04-21 00:00 → 2026-05-05 00:00 ☐ Date Range Create

Digital NOTAMs | Proposals (0) | Digitization Queue (0) | Correction Queue (2) | All Released Digital NOTAMs

AD-HOC SPECIAL ACTIVITY AREA - CREATION (SAA.NEW)

Type: TRA Designator: Name: Activity: TRAINING * Activation Status: INTERMITTENT

* Start Time: 2026-04-21 14:38 * End Time: 2026-05-02 00:00 Schedule: ☐ EST

Location Note:

* Airspace Volume:

Vertical Limits

* Lower Limit: 100 FL Lower Limit Reference: STD

Excluded Airspace(s):

Affected Airspace(s):

ICAO NOTAM Preview

NOTAM
Q) ??/QRTCA/IV/BO/W/100/300/??005
A) ?? B) 2604211438 C) 2605012359
E) Temporary Reserved Area established for training activities (intermittent use) within:

Digital NOTAM Management Effective Date: 2026-05-16 00:00 → 2026-06-30 00:00 ☐ Date Range Create

Digital NOTAMs | Proposals (3) | Digitization (0) | Corrections (2) | All Released Digital NOTAMs

RUNWAY - CLOSURE (RWY.CLS)

* Runway: EDDW BERLIN BRANDENBURG 06L/24R RWY Runway Surface Composition: ASPH

* Start Time: * End Time: Schedule: ☐ EST

Closure Reason (Due to ...)

Remarks:

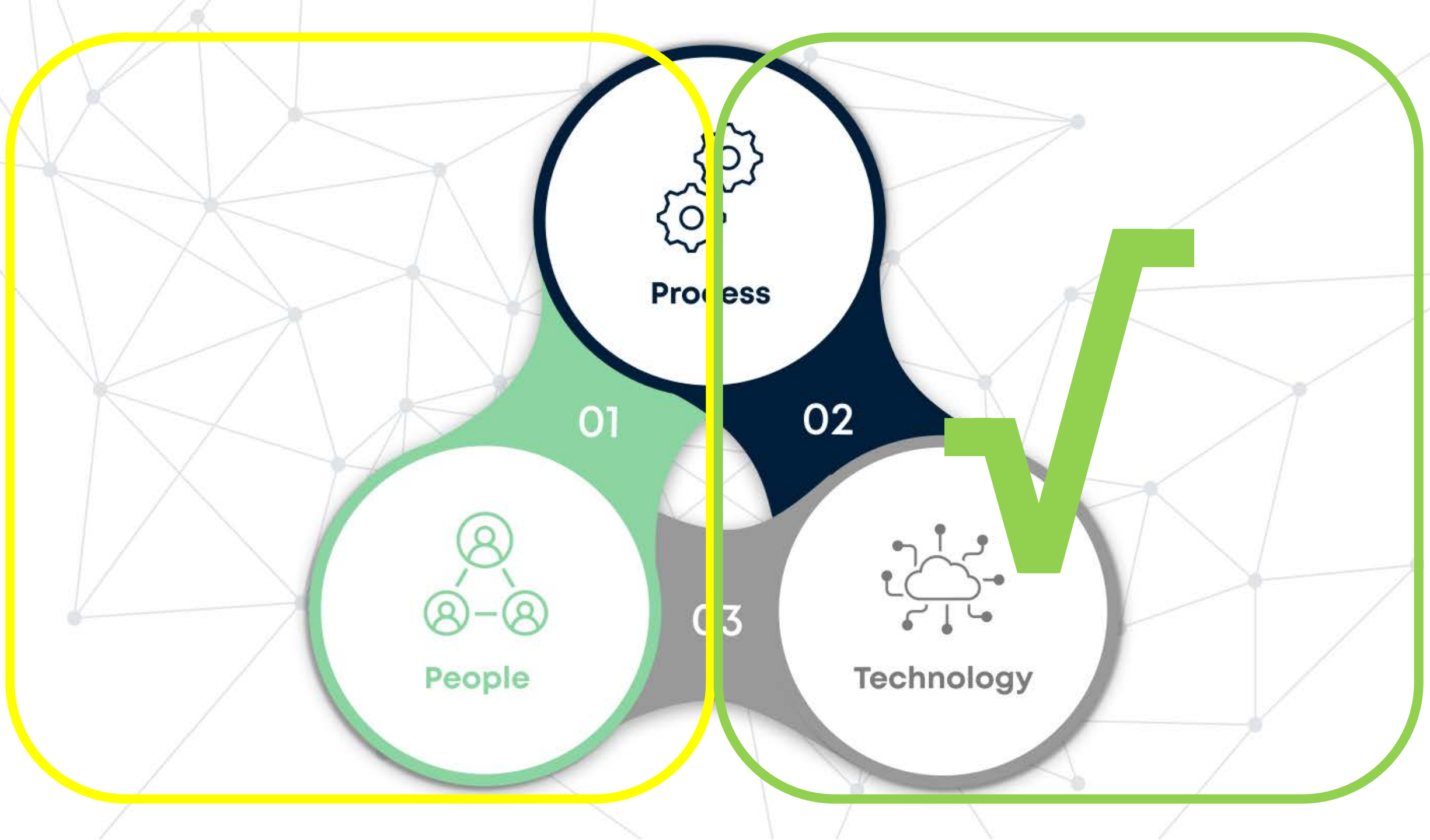
JUN 2026

MON	TUE	WED	THU	FRI	SAF	SUN	00	01
1	2	3	4	5	6	7	02	01
8	9	10	11	12	13	14	03	02
15	16	17	18	19	20	21	04	03
22	23	24	25	26	27	28	05	04
29	30	1	2	3	4	5	06	05
6	7	8	9	10	11	12	07	06
							08	07
							09	08
							10	09
							11	10
							12	11
							13	12
							14	13
							15	14
							16	15
							17	16
							18	17
							19	18
							20	19
							21	20
							22	21
							23	22
							24	23
							25	24
							26	25
							27	26
							28	27
							29	28
							30	29
							31	30

ICAO NOTAM Preview Language: English

NOTAM
Q) EDDW/QRTCA/IV/BO/W/100/300/??005
A) EDDW B) 2605160000 C) 2606300000
E) RWY 06L/24R closed.

Close Verify Save Send Proposal Release Proposal



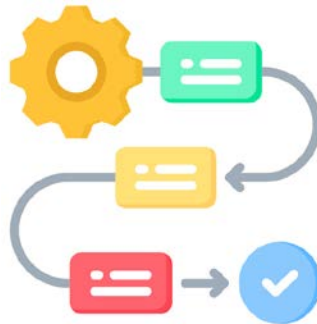
The technical SWIM Service is the easy part 😊

- The top three concern

1. Digital data
2. Digital data
3. Digital data

No digital data → no Digital NOTAM

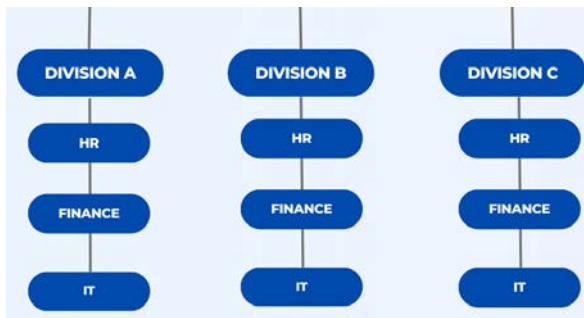
- People and process



The technical SWIM Service is the easy part 😊



- Difference between dynamic (NOTAM) and static data is fading
 - To consider:
 - Organisational separation/structures
 - Shifting responsibilities
 - Role of originators
 - Etc.



Supporting
European
Aviation



Thanks

swim@eurocontrol.int



NETWORK
MANAGER

