

# LSSIP 2019 - ITALY

## LOCAL SINGLE SKY IMPLEMENTATION

Level 1 - Implementation Overview





# FOREWORD

*"We manage a seamless European airspace by linking together the elements of the European air traffic management system. Focusing on performance of the European network, we ensure that flights reach their destination safely, on time, with the least possible impact on environment and in a cost-efficient way".*

With this mission, as Director NM, I must ensure to develop and operate effectively and efficiently the air traffic management network in Europe and beyond, to meet current and future airspace and ground capacity needs, in full partnership with all operational stakeholders.

In particular, one of the NM activities through the Infrastructure Division, is to focus on the planning and monitoring of the European ATM implementation of the SES objectives at the local level according to EU legislation.

For more than 26 years, the Local Single Sky ImPlementation (LSSIP) documents are expressing yearly the commitment of civil and military national organisations (Regulators and National Supervisory Authorities), Air Navigation Service Providers and Airport Operators, towards the implementation of the European ATM Master Plan (Level 3).

These documents provide an extensive and harmonised picture, for the benefit of the ATM community at large, of how all ECAC States as well as States having a Comprehensive Agreement with EUROCONTROL, and stakeholders concerned, are progressing in planning and deploying the mature elements of the European ATM Master Plan and the European aviation policies.

The reliability and quality of the data provided by the national stakeholders is of such a high quality that it allowed, for the fifth consecutive year, for the information in the LSSIP documents to constitute the sole source of information for the development of ICAO's Aviation System Block Upgrades (ASBUs) Implementation Monitoring Report in the ICAO EUR Region. EUROCONTROL undertakes this work, on behalf of ICAO, for all 55 ICAO/EUR States in accordance with the Global Air Navigation Plan (GANP).

In addition, EUROCONTROL is developing efficient practices to avoid unnecessary duplication of reporting. We are cooperating with the SESAR Deployment Manager, the SESAR Joint Undertaking, the European Defence Agency and NATO on optimising the reporting mechanisms for relevant stakeholders by collecting some of the information needed on their behalf through the LSSIP process.

I would like to thank all the stakeholders for their engagement and substantial effort spent in contributing to the production of this LSSIP document. I see this as a proof of commitment to the principles of transparency and partnership, to the benefit of the entire ATM community!

I wish you a good read!



**Jacopo PRISSINOTTI**

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**EUROCONTROL**



Document Title	LSSIP Year 2019 for Italy
Info Centre Reference	20/01/15/21
Date of Edition	04/05/2020
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Status	Released
Intended for	Agency Stakeholders
Available in	<a href="https://www.EUROCONTROL.int/service/local-single-sky-implementation-monitoring">https://www.EUROCONTROL.int/service/local-single-sky-implementation-monitoring</a>

Reference Documents	
LSSIP Documents	<a href="https://www.eurocontrol.int/service/local-single-sky-implementation-monitoring">https://www.eurocontrol.int/service/local-single-sky-implementation-monitoring</a>
Master Plan Level 3 – Plan Edition 2019	<a href="https://www.eurocontrol.int/publication/european-atm-master-plan-implementation-plan-level-3-2019">https://www.eurocontrol.int/publication/european-atm-master-plan-implementation-plan-level-3-2019</a>
Master Plan Level 3 – Report Year 2019	<a href="https://www.eurocontrol.int/publication/european-atm-master-plan-implementation-report-level-3-2019">https://www.eurocontrol.int/publication/european-atm-master-plan-implementation-report-level-3-2019</a>
European ATM Portal	<a href="https://www.atmmasterplan.eu/">https://www.atmmasterplan.eu/</a>
STATFOR Forecasts	<a href="https://www.eurocontrol.int/statfor">https://www.eurocontrol.int/statfor</a>
National AIP	<a href="https://www.enav.it/sites/public/en/Servizi/areonautical-information.html">https://www.enav.it/sites/public/en/Servizi/areonautical-information.html</a>
FAB Performance Plan	<a href="http://www.bluedmed.aero/index.php">http://www.bluedmed.aero/index.php</a>



# APPROVAL SHEET

The following authorities have approved all parts of the LSSIP Year 2019 document and the signatures confirm the correctness of the reported information and reflect the commitment to implement the actions laid down in the European ATM Master Plan Level 3 (Implementation View) – Edition 2019.

Stakeholder / Organisation	Name	Position	Signature and date
ENAC (also on behalf of national airports)	Alessandro CARDI	Deputy Director General	 signed on 4./5./20
ENAV SpA	Roberta NERI	Chief Executive Officer	 signed on 17./04./2020
Italian Air Force (ITAF)	Col. AArán Luca BAIONE	Chief of Military Air Circulation General Office	 signed on 01/04/2020



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# Executive Summary

## National ATM Context

Member State of:



Main national stakeholders:

- The Civil Aviation Authority (CAA), ENAC
- The Navigation Services Agency, ENAV SpA
- The Air Force, ITAF
- The Airports operators, SEA, AdR and SAVE

Italy is one of the founding member of European Union and member of EUROCONTROL since 1996.

The separation between the regulatory and the ATM service provider functions is effectively in place in Italy since 2004.

ENAC, the Italian Civil Aviation Authority, has been appointed as regulator and National Supervisory Authority in November 2004 with dedicated law 265/2004. This appointment has been included in the code of Air Law (change to Italian Navigation Code) in Italy, which was issued in June 2005. ENAC is also responsible for the regulation for environmental matters in ATM.

ENAV SpA is the Company designated by the Italian State for the management and control of general air traffic (GAT) in Italy. ENAV S.p.A. is a result of the transformation of the National Agency for Flight Assistance into a joint-stock Company, which occurred in 2001, after the previous transformation into a State-Controlled Enterprise in 1996.

In 2016, ENAV was listed on the stock exchange, rising from the status of a single member company to subsidiary company. It is controlled for the 53,4% by the Ministry of Economy and Finance and supervised by the Ministry of Infrastructures and Transport.

Italian Air Force (ITAF) reports to the Ministry of Defence. ITAF has adapted its organisational structure in order to generate functional separation between the high level body Air Force Staff (SMA UCAM – Ufficio Circolazione Aerea Militare) accountable for services' internal supervision and the units responsible for the provision of Air Navigation Services (Major Commands).

In accordance with the European Community Regulation 550/2004, article 7, paragraph 5, the Italian Air Force is authorised to provide ATS, CNS and MET Services to General Air Traffic (GAT) without certification. ANS to GAT are provided by ITAF under the supervision of ENAC and in accordance with a special agreement signed by the two organizations.

Main airports covered by LSSIP2019:

- Milano Linate
- Milano Malpensa
- Roma Fiumicino
- Venezia Tessera

## Traffic and Capacity

Summer Forecast (May to October inclusive)



The summer en-route delay in Brindisi ACC and Rome ACC during summer 2019 remained at zero.



Padova ACC



Italy is part of:

The BLUE MED FAB



Number of national projects: 14

Number of FAB projects: 8

### Summary of 2019 developments:

For the year 2019, the Objective - Short Term Conflict Alert (STCA) for TMAs (ATC02.9) was implemented in Italy. Milano Malpensa Airport implemented the Objective on Advanced Surface Movement Guidance and Control System A-SMGCS Surveillance (AOP04.1).

For the year 2020, the Objectives to Migrate from AFTN to AMHS (COM10), Harmonise Operational Air Traffic (OAT) and General Air Traffic (GAT) Handling (AOM13.1), RNAV 1 in TMA Operations (NAV03.1), Surveillance Performance and Interoperability (ITY-SPI) and Ensure the Quality of Aeronautical Data and Aeronautical Information (ITY-ADQ) are foreseen to be implemented in Italy.

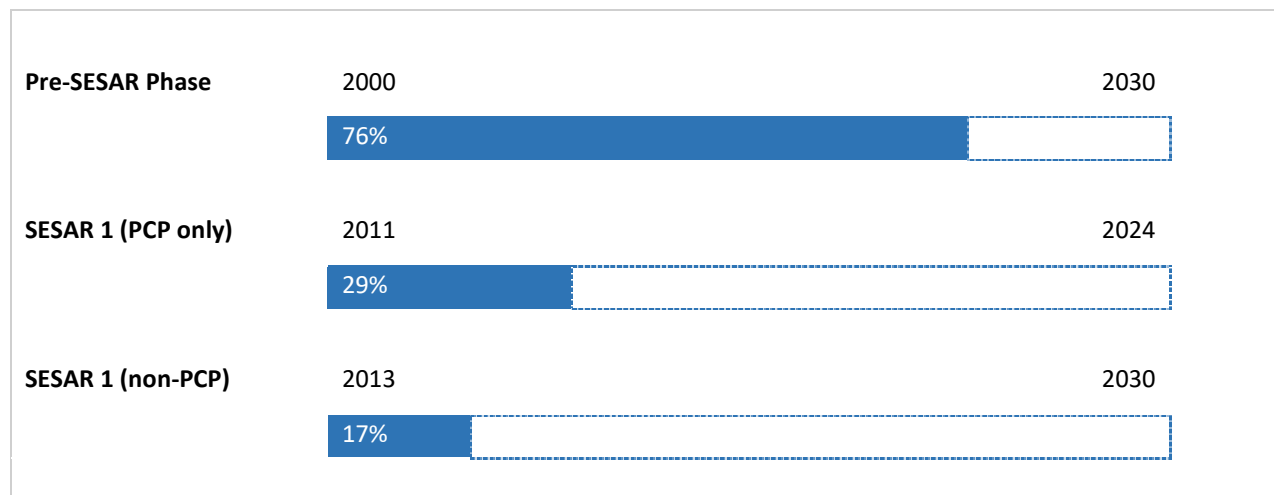
For Italian Airports, the Objective on Advanced Surface Movement Guidance and Control System A-SMGCS Surveillance (AOP04.1) is foreseen to be implemented for Roma Fiumicino Airport in the year 2020.

## Progress per SESAR Phase

The figure below shows the progress made so far in the implementation of the SESAR baseline (Pre-SESAR and SESAR1 non-PCP) and the PCP elements.

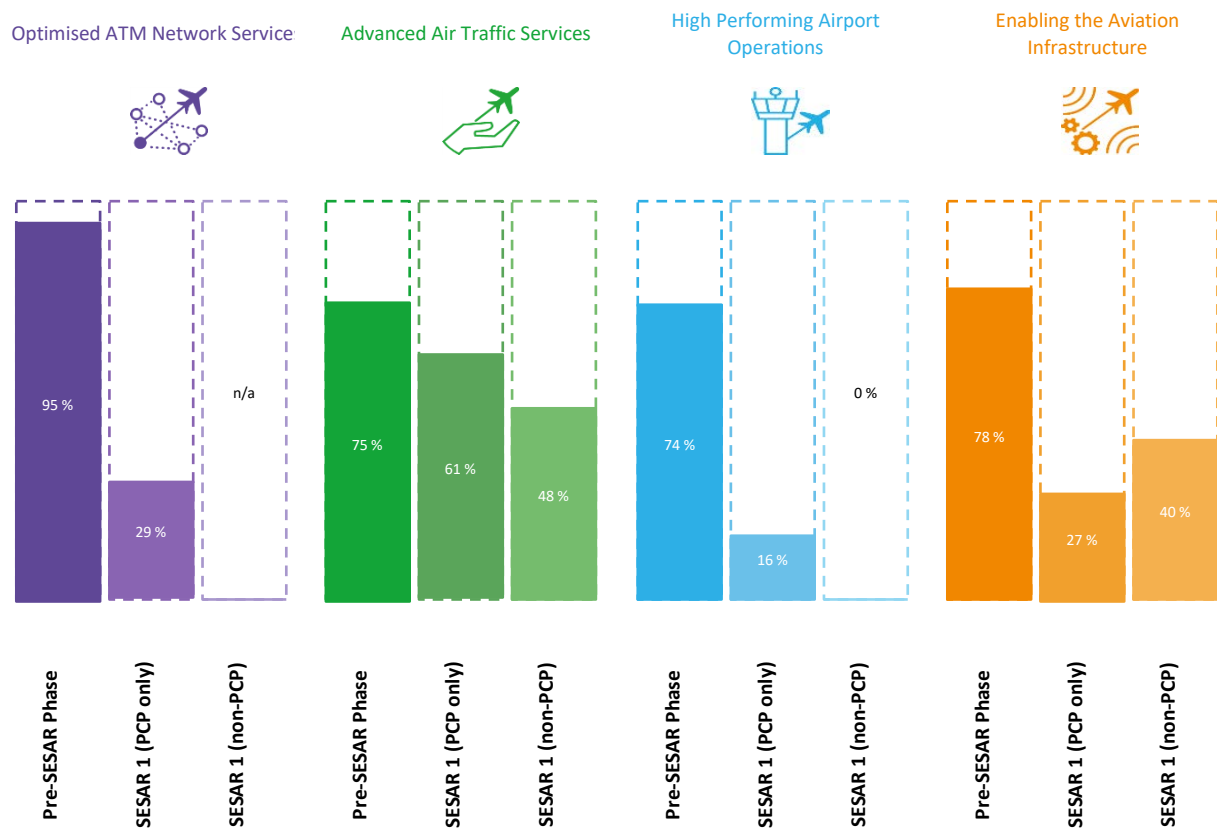
It shows the average implementation progress for all objectives grouped by SESAR Phases, excluding those for which the State is outside the applicability area as defined on a yearly basis in the European ATM Master Plan (Level 3) 2019, i.e. disregarding the declared “NOT APPLICABLE” LSSIP progress status.

The SESAR 1 (non-PCP) progress in the graphics below for this State is based on the following objectives: AOP14, AOP15, AOP16, AOP17, AOP18, ATC02.9, ATC18, ATC19, ATC20, NAV12 and COM11.2.



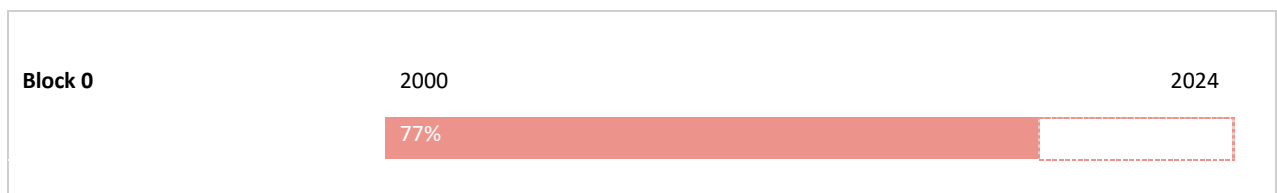
## Progress per SESAR Key Feature and Phase

The figure below shows the progress made so far, per SESAR Key Feature, in the implementation of the SESAR baseline and the PCP elements. The percentages are calculated as an average, per Key Feature, of the same objectives as in the previous paragraph.



## ICAO ASBUs Progress Implementation

The figure below shows the progress made so far in the implementation of the ICAO ASBUs Block 0. The overall percentage is calculated as an average of the relevant Objectives contributing to each of the relevant ASBUs; this is a summary of the table explained in Chapter 5.3 – ICAO ASBU Implementation Progress.



## ATM Deployment Outlook

### State Objectives



Deployed in 2018 - 2019

- Short Term Conflict Alert (STCA) for  
TMAs  
ATC02.9 - 100 % progress

By 2020	By 2021	By 2022	By 2023+
<ul style="list-style-type: none"> <li>- Migrate from AFTN to AMHS</li> <li>COM10 - 92 % progress</li> <li>- Harmonise Operational Air Traffic (OAT) and General Air Traffic (GAT) Handling</li> <li>AOM13.1 - 85 % progress</li> <li>- RNAV 1 in TMA Operations</li> <li>NAV03.1 - 78 % progress</li> <li>- New Pan-European Network Service (NewPENS)</li> <li>COM12 - 58 % progress</li> <li>- Surveillance Performance and Interoperability</li> <li>ITY-SPI - 88 % progress</li> <li>- ASM Support Tools to Support Advanced FUA (AFUA)</li> <li>AOM19.1 - 20 % progress</li> <li>- Ensure Quality of Aeronautical Data and Aeronautical Information</li> <li>ITY-ADQ - 78 % progress</li> <li>- ATS IFR Routes for Rotorcraft Operations</li> <li>NAV12 - 40 % progress</li> </ul>	<ul style="list-style-type: none"> <li>- Traffic Complexity Assessment</li> <li>FCM06 - 20 % progress</li> <li>- Short Term ATFCM Measures (STAM) - Phase 2</li> <li>FCM04.2 - 05 % progress</li> <li>- Management of Pre-defined Airspace Configurations</li> <li>AOM19.4 - 55 % progress</li> <li>- RNP Approach Procedures to instrument RWY</li> <li>NAV10 - 50 % progress</li> <li>- RNP 1 in TMA Operations</li> <li>NAV03.2 - 23 % progress</li> <li>- Information Exchange with En-route in Support of AMAN</li> <li>ATC15.1 - 25 % progress</li> <li>- Interactive Rolling NOP</li> <li>FCM05 - 25 % progress</li> <li>- Full Rolling ASM/ATFCM Process and ASM Information Sharing</li> <li>AOM19.3 - 40 % progress</li> <li>- Arrival Management Extended to En-route Airspace</li> <li>ATC15.2 - 20 % progress</li> <li>- Extended Flight Plan</li> <li>FCM08 - 05 % progress</li> <li>- ASM Management of Real-Time Airspace Data</li> <li>AOM19.2 - 40 % progress</li> </ul>	<ul style="list-style-type: none"> <li>- Electronic Terrain and Obstacle Data (eTOD)</li> <li>INF07 - 09 % progress</li> </ul>	<ul style="list-style-type: none"> <li>- Ground-Based Safety Nets</li> <li>ATC02.8 - 57 % progress</li> <li>- Automated Support for Conflict Detection, Resolution Support Information and Conformance Monitoring</li> <li>ATC12.1 - 60 % progress</li> <li>- Electronic Dialogue as Automated Assistance to Controller during Coordination and Transfer</li> <li>ATC17 - 40 % progress</li> <li>- Information Exchanges using the SWIM Yellow TI Profile</li> <li>INF08.1 - 25 % progress</li> <li>- Aircraft Identification</li> <li>ITY-ACID - 77 % progress</li> <li>- Voice over Internet Protocol (VoIP) in En-Route</li> <li>COM11.1 - 20 % progress</li> <li>- Voice over Internet Protocol (VoIP) in Airport/Terminal</li> <li>COM11.2 - 40 % progress</li> <li>- 8,33 kHz Air-Ground Voice Channel Spacing below FL195</li> <li>ITY-AGVCS2 - 79 % progress</li> </ul>

## Airport Objectives - Venezia Airport



Deployed in 2018 - 2019

None

By 2020	By 2021	By 2022	By 2023+
<b>- Advanced Surface Movement Guidance and Control System A-SMGCS Surveillance (former Level 1)</b> AOP04.1 - 25 % progress	<b>- Initial Airport Operations Plan</b> AOP11 - 05 % progress		<b>- Continuous Descent Operations (CDO)</b> ENV01 - 80 % progress

## Airport Objectives - Roma Fiumicino Airport



Deployed in 2018 - 2019

None

By 2020	By 2021	By 2022	By 2023+
<b>- Advanced Surface Movement Guidance and Control System (A-SMGCS) Runway Monitoring and Conflict Alerting (RMCA) (former Level 2)</b> AOP04.2 - 18 % progress <b>- Advanced Surface Movement Guidance and Control System A-SMGCS Surveillance (former Level 1)</b> AOP04.1 - 59 % progress <b>- Improve Runway and Airfield Safety with Conflicting ATC Clearances (CATC) Detection and Conformance Monitoring Alerts for Controllers (CMAC)</b> AOP12 - 25 % progress <b>- AMAN Tools and Procedures</b> ATC07.1 - 48 % progress <b>- Initial Airport Operations Plan</b> AOP11 - 30 % progress			<b>- Continuous Descent Operations (CDO)</b> ENV01 - 80 % progress

## Airport Objectives - Milano Malpensa Airport



Deployed in 2018 - 2019

None

By 2020	By 2021	By 2022	By 2023+
<ul style="list-style-type: none"> <li>- Initial Airport Operations Plan</li> <li>AOP11 - 14 % progress</li> <li>- Improve Runway and Airfield Safety with Conflicting ATC Clearances (CATC) Detection and Conformance Monitoring Alerts for Controllers (CMAC)</li> <li>AOP12 - 81 % progress</li> </ul>	<ul style="list-style-type: none"> <li>- AMAN Tools and Procedures</li> <li>ATC07.1 - 48 % progress</li> <li>- Advanced Surface Movement Guidance and Control System A-SMGCS Surveillance (former Level 1)</li> <li>AOP04.1 - 78 % progress</li> <li>- Advanced Surface Movement Guidance and Control System (A-SMGCS) Runway Monitoring and Conflict Alerting (RMCA) (former Level 2)</li> <li>AOP04.2 - 44 % progress</li> </ul>		<ul style="list-style-type: none"> <li>- Continuous Descent Operations (CDO)</li> <li>ENV01 - 80 % progress</li> </ul>

## Airport Objectives - Milano Linate Airport



Deployed in 2018 - 2019

- Advanced Surface Movement Guidance and Control System A-SMGCS Surveillance (former Level 1)
- AOP04.1 - 100 % progress

By 2020	By 2021	By 2022	By 2023+
<ul style="list-style-type: none"> <li>- Advanced Surface Movement Guidance and Control System (A-SMGCS) Runway Monitoring and Conflict Alerting (RMCA) (former Level 2)</li> <li>AOP04.2 - 33 % progress</li> </ul>	<ul style="list-style-type: none"> <li>- Initial Airport Operations Plan</li> <li>AOP11 - 05 % progress</li> </ul>		<ul style="list-style-type: none"> <li>- Continuous Descent Operations (CDO)</li> <li>ENV01 - 60 % progress</li> </ul>



# Introduction

The Local Single Sky ImPlementation (LSSIP) documents, as an integral part of the Master Plan (MP) Level 3 (L3)/LSSIP mechanism, constitute a short/medium term implementation plan containing ECAC States' actions to achieve the Implementation Objectives as set out by the MP Level 3 and to improve the performance of their national ATM System. This LSSIP document describes the situation in the State at the end of December 2019, together with plans for the next years.

**Chapter 1** provides an overview of the ATM institutional arrangements within the State, the membership of the State in various international organisations, the organisational structure of the main ATM players - civil and military - and their responsibilities under the national legislation. In addition, it gives an overview of the Airspace Organisation and Classification, the ATC Units;

**Chapter 2** provides a comprehensive picture of the situation of Air Traffic, Capacity and ATFM Delay per each ACC in the State. It shows the evolution of Air Traffic and Delay in the last five years and the forecast for the next five years. It also presents the achieved performance in terms of delay during the summer season period and the planned projects assumed to offer the required capacity which will match the foreseen traffic increase and keep the delay at the agreed performance level;

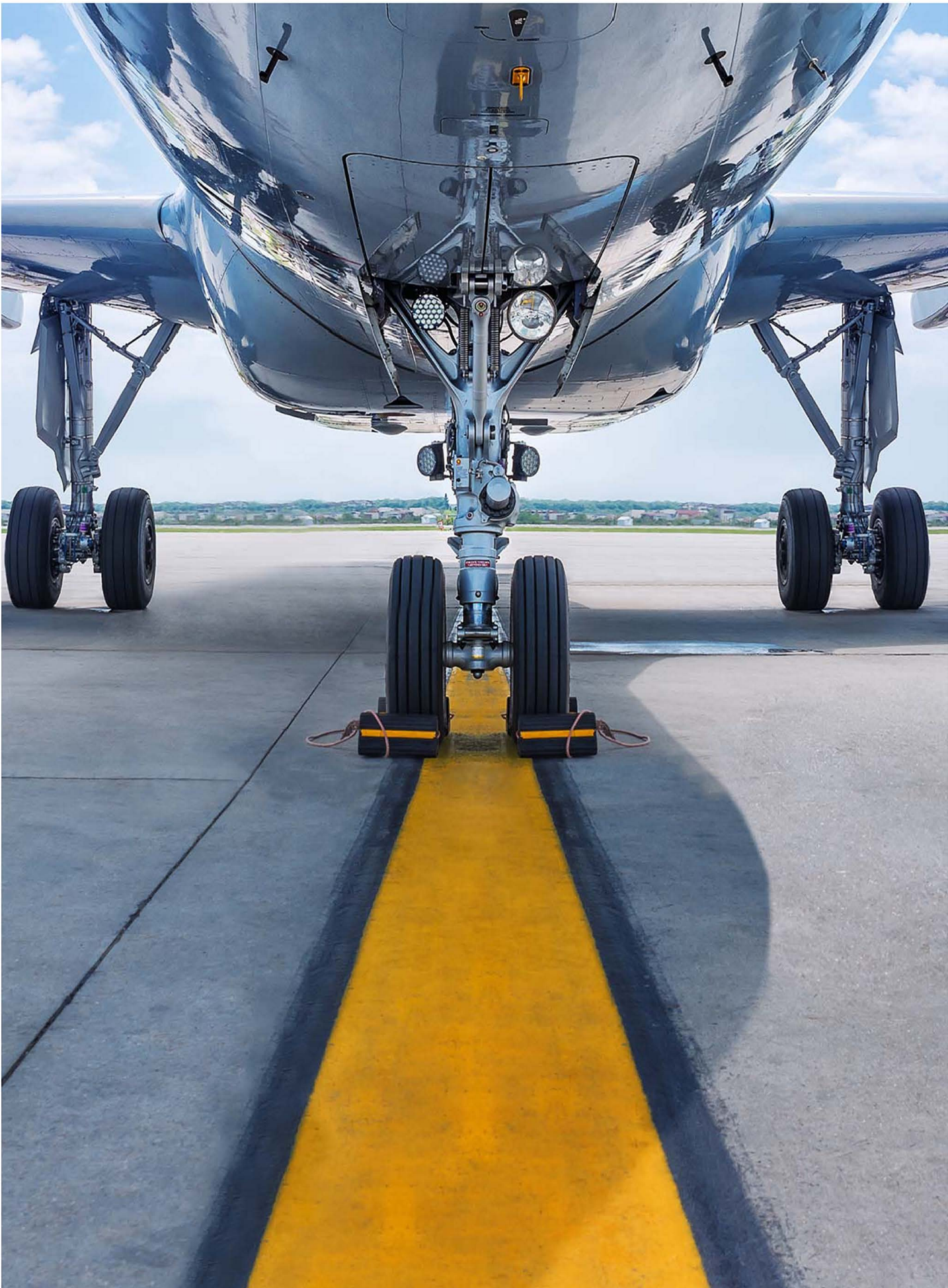
**Chapter 3** provides the main Implementation Projects (at national and FAB level) which contribute directly to the implementation of the MP Operational Improvements and/or Enablers and Implementation Objectives. The Level 1 document covers a high-level list of the projects showing the applicable links. All other details like description, timescale, progress made and expected contribution to the ATM Key Performance Areas provided by the State per each project are available in the Level 2 document;

**Chapter 4** deals with other cooperation activities beyond Implementation Projects. It provides an overview of the FAB cooperation, as well as all other multinational initiatives, which are out of the FAB scope. The content of this chapter generally is developed and agreed in close cooperation between the States concerned;

**Chapter 5** contains aggregated information at State level covering the overall level of implementation, implementation per SESAR Key Feature and implementation of ICAO ASBUs. In addition, it provides the high-level information on progress and plans of each Implementation Objective. The information for each Implementation Objective is presented in boxes giving a summary of the progress and plans of implementation for each Stakeholder. The conventions used are presented at the beginning of the section.

*The Level 1 document is completed with a separate document called LSSIP Level 2. This document consists of a set of tables organised in line with the list of Implementation Objectives. Each table contains all the actions planned by the four national stakeholders (REG, ASP, MIL and APO) to achieve their respective Stakeholder Lines of Action (SLoAs) as established in the European ATM Master Plan L3 Implementation Plan Edition 2019. In addition, it covers a detailed description of the Implementation Projects for the State as extracted from the LSSIP Data Base.*

*The information contained in Chapter 5 – Implementation Objectives Progress is deemed sufficient to satisfy State reporting requirements towards ICAO in relation to ASBU (Aviation System Block Upgrades) monitoring.*



# 1. National ATM Environment

## 1.1. Geographical Scope

### International Membership

Italy is a Member of the following international organisations in the field of ATM:

Organisation		Since
CANSO	✓	1996 (founding member)
ECAC	✓	1996 (founding member)
EUROCAE	✓	2009
EUROCONTROL	✓	1996
European Union	✓	1957(founding member)
EASA	✓	2003
ICAO	✓	1949
NATO	✓	1949 (founding member)
SESAR Joint Undertaking	✓	2009
SESAR Deployment Manager	✓	2014 (member of consortium)
EDA	✓	2004

## Geographical description of the FIR(s)

The geographical scope of this document addresses the three Italian FIRs (Brindisi UIR/FIR, Milan UIR/FIR, Rome UIR/FIR) as established by the relevant ICAO Regional Air Navigation Agreements. The division flight level (DFL) separating upper from lower ATS airspace is FL 195.

Italian UIRs/FIRs are surrounded by UIRs/FIRs of 10 States, namely France (Marseille), Switzerland (Genève, Zurich), Austria (Wien), Slovenia (Ljubljana), Croatia (Zagreb), Serbia (Belgrade), Albania (Tirana), Greece (Athens), Malta (Malta) and Tunisia (Tunis) which is a non-ECAC bordering state.

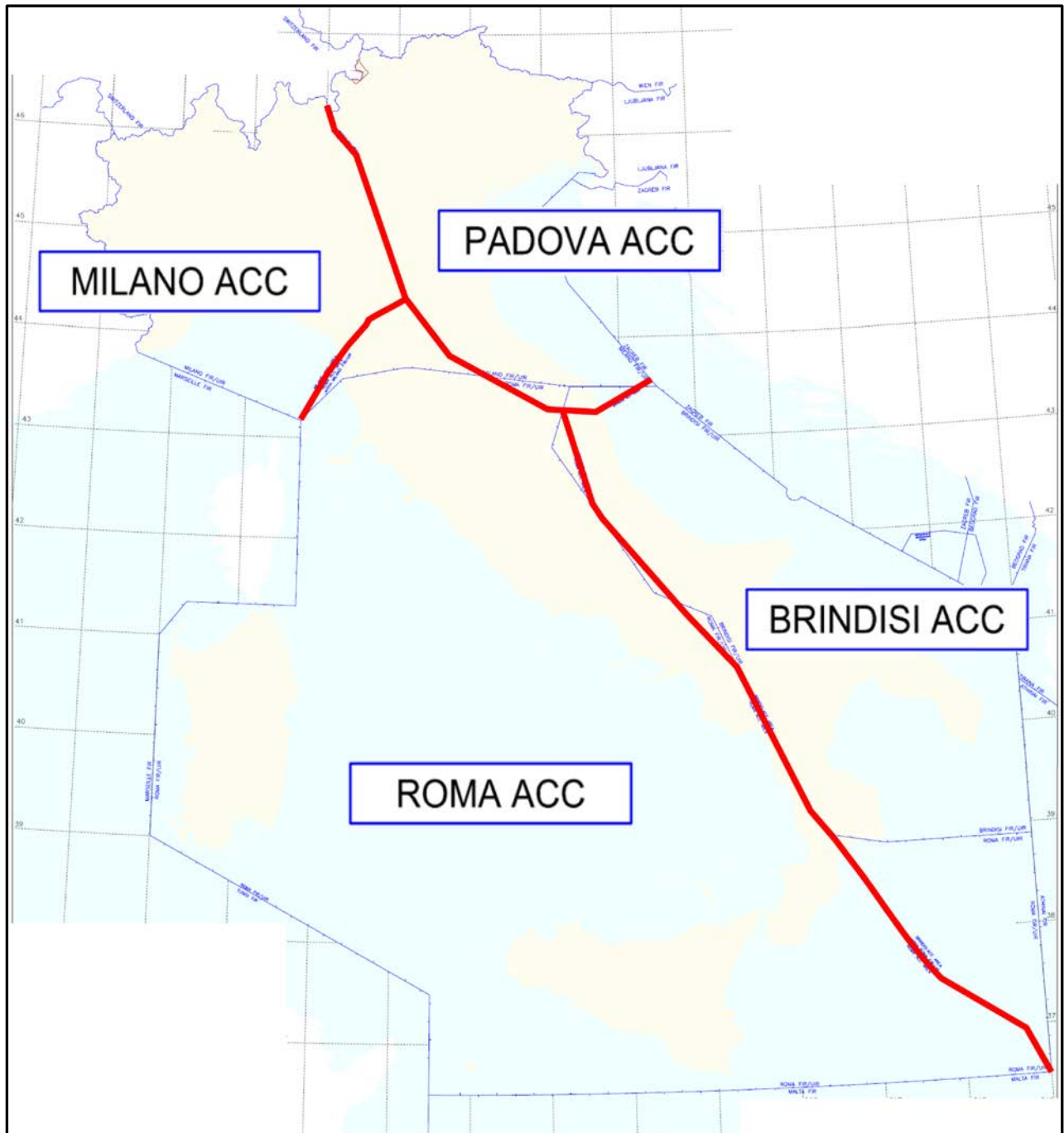


Figure 1 – Italian airspace

## Airspace Classification and Organisation

Italian airspace is divided vertically in:

- UPPER airspace, above FL 195;
- LOWER airspace, from GND to FL 195 included.

The Italian Upper Airspace, identified by Brindisi, Milano and Roma UIRs, has been divided in two parts differently classified:

- from above FL 195 to FL 660 class “C” (Free Route Airspace FRAIT is established above FL305 and within the external lateral limits of the Italian ACCs areas of responsibility)
- above FL 660 class “G”

The Italian Lower Airspace is divided into three Flight Information Regions (Milano FIR, Roma FIR and Brindisi FIR).

The Italian Lower Airspace is classified “G” with the exception of other airspaces, differently classified due to the air traffic service provided (e.g. TMA, CTA, routes, CTR under ENAV or military jurisdiction and ATZ of controlled aerodromes within CTR).

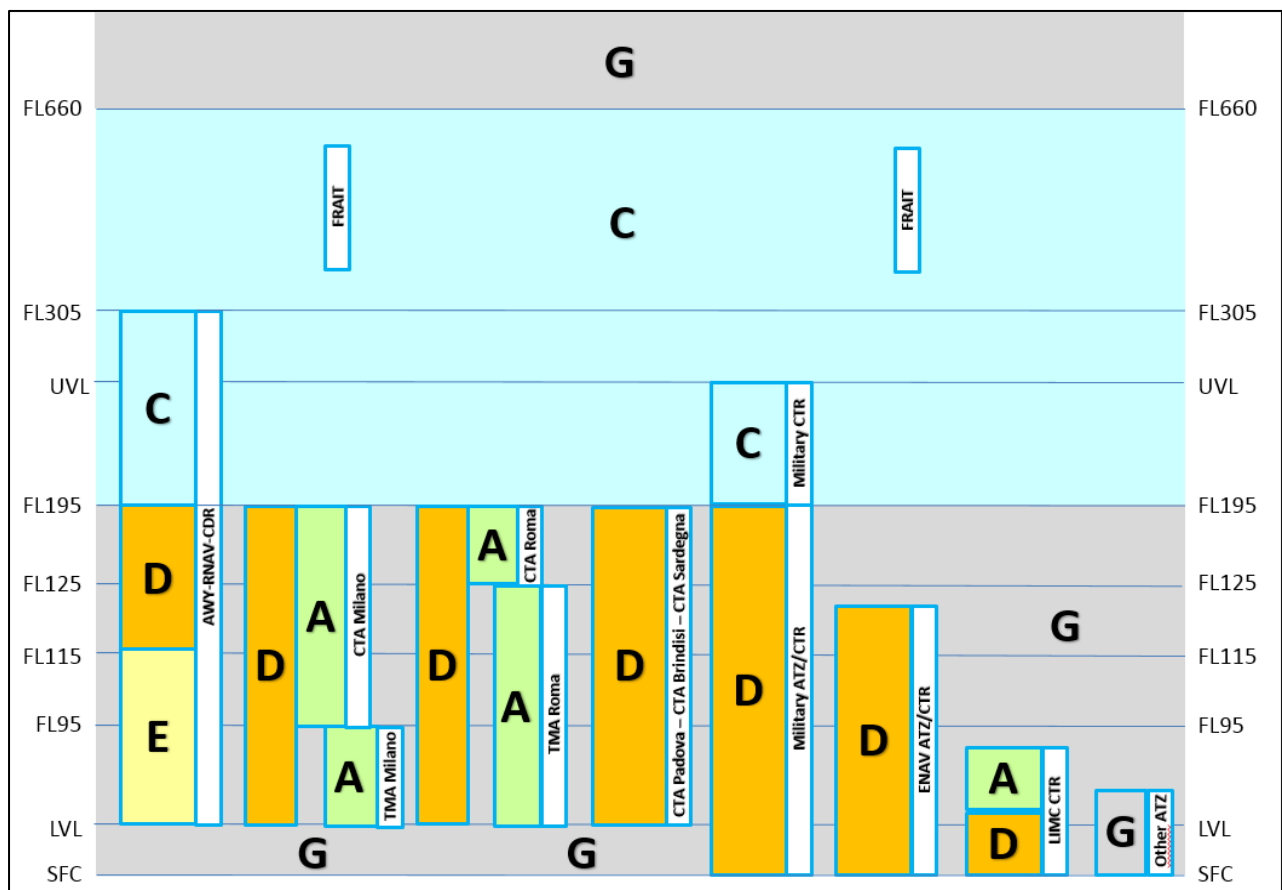


Figure 2 – Airspace classification

## TMA

Two TMAs exist in Italian FIR: Milano and Roma with the following characteristics and airspace classification<sup>1</sup>:

<b>TMA Milano</b>	FL95 included Lower vertical limit (between 2000 and 5500 FT AMSL)	<b>CLASS "A"</b>
<b>TMA Roma</b>	FL125 included Lower vertical limit (between 1000 FT AMSL and FL115)	<b>CLASS "A"</b>

## CTA

Five CTAs exist in Italian FIR within the areas of responsibility (AoR) of relevant Italian ACC2:

<b>Milano CTA Zone 1</b>	FL195 included FL95	<b>CLASS "A"</b>
<b>Milano CTA Zone 2-17</b>	FL195 included Lower vertical limit (between 3000 FT AMSL and FL175)	<b>CLASS "D"</b>
<b>Padova CTA</b>	FL195 included Lower vertical limit (between 4500 FT AMSL and FL165)	<b>CLASS "D"</b>
<b>Roma CTA Zone 1</b>	FL195 included FL125	<b>CLASS "A"</b>
<b>Roma CTA Zone 2-6</b>	FL195 included Lower vertical limit (between FL95 and FL165)	<b>CLASS "D"</b>
<b>Brindisi CTA Zone 1-4 and 6</b>	FL195 included Lower vertical limit (between 4000 FT AMSL and FL125)	<b>CLASS "D"</b>
<b>Brindisi CTA Zone 5</b>	FL125 included 4000 FT AMSL	<b>CLASS "D"</b>
<b>Sardegna CTA</b>	Upper vertical limit (between 2500 FT AMSL and FL105) Lower vertical limit (between 1500 FT AMSL and FL85)	<b>CLASS "D"</b>

<sup>1</sup> for details see AIP Italy – ENR 2.1.1

<sup>2</sup> for details see AIP Italy – ENR 2.1.1.4

### **CTR<sup>3</sup>**

Italian CTRs are divided in CTRs under ENAV jurisdiction and CTRs under the jurisdiction of Italian Air Force (ITAF). In both cases, air traffic services are provided on the basis of the classification of the CTR airspace.

#### **CTRs under ENAV JURISDICTION:**

Alghero, Ancona, Apulia, Bergamo, Bologna, Firenze, Genova, Grottaglie, Lamezia, Linate, Lugano, Malpensa (from GND to 2000 FT)<sup>4</sup>, Napoli, Olbia, Palermo, Pantelleria, Parma, Perugia, Pescara, Reggio Calabria, Roma, Ronchi dei Legionari, Torino, Venezia and Verona CTRs are classified “D”.

#### **CTRs under MILITARY JURISDICTION:**

Cagliari, Gioia del Colle and Pisa CTRs from FL 195 to upper limit are classified: “C”.

Amendola, Aviano, Cagliari, Catania, Frosinone, Gioia del Colle, Grazzanise, Grosseto, Latina, Lecce, Piacenza, Pisa, Pratica, Trapani and Treviso CTRs from lower limit up to upper limit or FL 195 are classified: “D”.

### **ATZ**

ATZ of controlled aerodromes located within CTR adopt the same classification of the CTR.

The following ATZ of controlled aerodromes and not located in CTRs, are classified “G”: Guidonia, Lampedusa, Luni/Sarzana, Roma/Urbe and Viterbo.

Cuneo Levaldigi ATZ is classified “D” when aerodrome control service is provided, is classified “G” in other periods.

ATZ of uncontrolled aerodromes are classified “G”.

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<sup>3</sup> For details see AIP Italy – ENR2.1.2

<sup>4</sup> Malpensa CTR - Zone 2 is classified “A” from 1500 FT AMSL excluded to 2000 FT AMSL

## ATC Units

The ATC units in the Italian airspace, which are of concern to this LSSIP are the following:

ATC Unit	Number of sectors		Associated FIR(s)	Remarks
	En-route	TMA		
Brindisi ACC	5 + 2 FIC		Brindisi FIR/UIR, Roma FIR/UIR	ATC + FIS service: GND to UNL within and over Brindisi FIR/UIR, plus small part of the South Eastern airspace of Rome FIR/UIR GND
Milano ACC	17 + 2 FIC	6 <sup>5</sup>	Western part of Milano FIR/UIR, Milano TMA <sup>2</sup> , Linate CTR, Malpensa CTR, Bergamo CTR, Lugano CTR	ATC + FIS service: Western part of Milano FIR/UIR from GND to UNL
Padova ACC	14 + 2 FIC		Eastern part of Milano FIR/UIR, Roma FIR	ATC + FIS service: Eastern part of Milano UIR/FIR from GND to UNL plus part of north eastern part of Roma FIR GND to UNL
Roma ACC	16 + 2 FIC	7 <sup>6</sup>	Roma FIR/UIR, Roma TMA <sup>2</sup> , Roma CTR.	ATC + FIS service: Roma FIR/UIR, except part of the South Eastern airspace of Rome FIR/UIR GND to UNL managed by Brindisi

Military ATS units (authorized by the Italian State to provide ATS to GAT without certification) are directly responsible for the provision of ATC services to several airports and CTRs located within airspace under military jurisdiction.

This is in line with Article 2 of Regulation (UE) No 2018/1139 of the European Parliament and of the Council of 4 July 2018 in the field of aerodromes, air traffic management and air navigation services and in line with Regulation 550/2004, article 7, paragraph 5.

The ITAF ATC Units handling Civil Aviation flights are:

ITAF ATC Unit	Maximum number of ATC positions in Ops	Associated Airspace	Remarks
Decimomannu	X	CTR Cagliari	APP service to Cagliari
Istrana	X	CTR Treviso	APP service to Treviso Sant'Angelo
Pisa	X	CTR + ATZ Pisa	APP/TWR service
Sigonella	X	CTR Catania	APP service to Catania and Comiso
Trapani	X	CTR + ATZ Trapani	APP/TWR service
Grosseto	X	CTR + ATZ Grosseto	APP service to Grosseto and Siena Ampugnano and TWR service
Amendola	X	CTR Amendola	APP service to Foggia Gino Lisa
Aviano	X	CTR Aviano	APP service to Udine Campoformido

<sup>5</sup> APP for LIMC, LIME, LIML, LSZA.

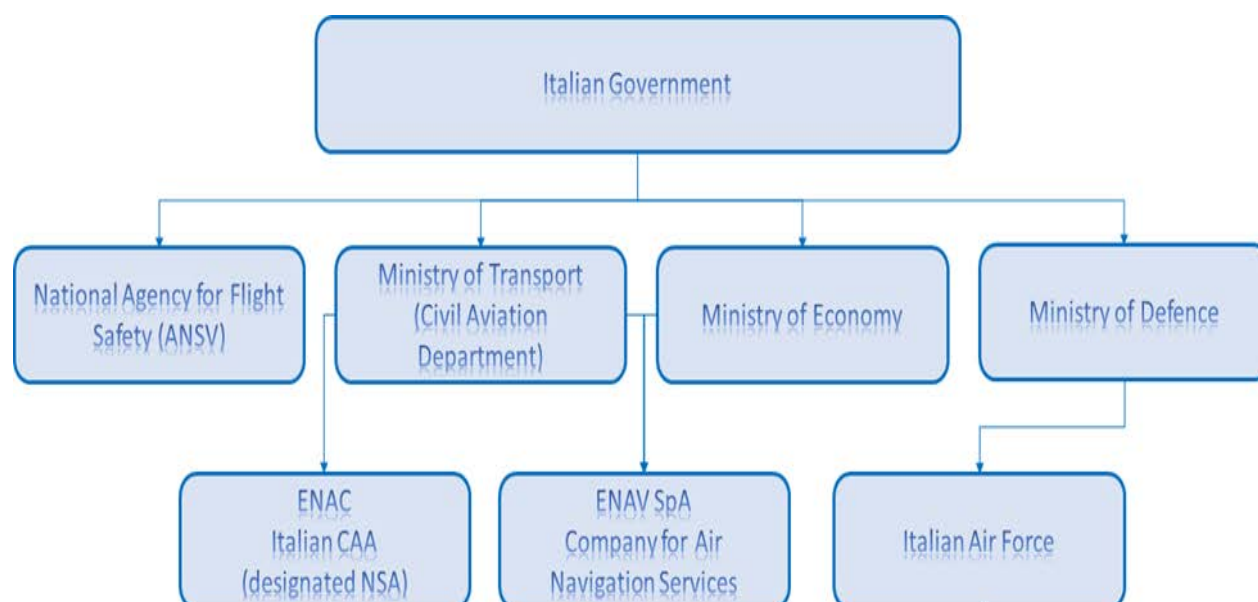
<sup>6</sup> APP for LIRF, LIRA and LIRU (Roma CTR).

## 1.2. National Stakeholders

The main ATM National Stakeholders are:

1. National Agency for Flight Safety - Agenzia Nazionale per la Sicurezza del Volo (ANSV) under the authority of the Presidency of the Council of Ministers of Italy and responsible for accident and serious incident investigations;
2. Civil Aviation Authority - Ente Nazionale per l'Aviazione Civile (ENAC) under the authority of the Ministry of Transport;
3. Italian Company for Air Navigation Services - Società Nazionale per l'Assistenza al Volo (ENAV SpA) under the authority of the Ministry of Economy and the Ministry of Transport;
4. Italian Air Force (ITAF) - Aeronautica Militare (AM) under the authority of the Ministry of Defence;
5. Operational Coordination Committee (CCO) - A Joint National High Level Body (strategic board) composed of senior representatives from ENAC, ENAV and ITAF.

Their activities are, if relevant for this Document, detailed in the following subchapters and their relationships are shown in the diagram below.



**Figure 3 - Italian ATM stakeholder relationship**

## Civil Regulator(s)

Civil Aviation in Italy is the responsibility of the Ministry of Infrastructures and Transport. The different national entities having regulatory responsibilities in ATM are summarised in the table below. The NSA's are further detailed in the following sections.

Activity in ATM:	Organisation responsible	Legal Basis
Rule-making	EU and/or ENAC	Art. 2 of D.Lgs. 25 luglio 1997, n. 250. Istituzione dell'Ente nazionale per l'aviazione civile (E.N.A.C.)
Safety Oversight	ENAC	Art. 687 of Codice della Navigazione
Enforcement actions in case of non-compliance with safety regulatory requirements	ENAC	Art. 687 of Codice della Navigazione
Airspace	ENAC, ITAF, ENAV	Art. 687 of Codice della Navigazione DPR 90/2010
Economic	Ministry of Economy and Finance / M of IT and ENAC review annually ANS charges in cooperation with Ministry Economy and Finance and Ministry of Defence	Art. 687 of Codice della Navigazione
Environment	Ministry of the Environment / ENAC	Art. 687 of Codice della Navigazione
Security	Ministry of Interior and Ministry of Defence, ENAC	
Accident investigation	Agenzia Nazionale per la Sicurezza del Volo (ANSV)	Legislative decree n. 66 of the 25th of February 1999

Safety oversight of ANS to civil flights by military units is performed by ITAF according to the MOU signed on 22 September 2014, between ENAC, on behalf of Minister of Transport, and ITAF, on behalf of Minister of Defence.

## ENAC

ENAC, the Italian Civil Aviation Authority, has been appointed as regulator and National Supervisory Authority for ATM/ANS in November 2004 with dedicated law 265/2004. This appointment has been included in the basic code of Air Law (change to Italian Navigation Code) in Italy - issued in June 2005 - thus completely implementing the separation of regulation and safety oversight from the service provision. ENAC is also responsible for the regulation for environmental matters in ATM.

ENAC is under the supervision of the Ministry of Infrastructures and Transport, which remains responsible for the Italian civil aviation policy.

Historically ENAC, founded in 1997, had indeed been the Civil Aviation Authority responsible for airworthiness matters, aircraft maintenance, organisations and technical personnel approval, aircrew licensing, airport construction, building and operation, as well as the Authority supervising the safety and issuing certificates and licences to Aircraft Operators.

Being responsible for Airport Regulation, in 2002, ENAC issued a national Regulation for oversight and certification of Airport Operators on the basis of ICAO Annex 14.

Italian Territory is divided into Airport Districts ("Direzioni Aeroportuali") each one headed by an Airport Director which performs various regulatory and administrative tasks, and in particular the coordination between State agencies operating on the airport (Police, Custom Services, Firefighting Services) and the airport operators.

Most of the Italian airports are managed by airport operators, responsible for airport operations and safety, under total concession by ENAC. The relevant air traffic services are provided by either ENAV S.p.A., or ITAF (Italian Air Force), or the same airport operators in few minor airports (AFIS services).

The Ministry of Economy acts as economic regulator by giving the final approval of the proposed user charges, however the well consolidated SES regulation on charging schemes assigns to the NSA the oversight on user charge definition process.

Annual Report published:	Y	ENAC Bilancio Sociale, published on ENAC website: <a href="https://www.enac.gov.it/pubblicazioni/enac-autorita-per-laviazione-civile-rapporto-bilancio-sociale-2018">https://www.enac.gov.it/pubblicazioni/enac-autorita-per-laviazione-civile-rapporto-bilancio-sociale-2018</a>
National Civil Aviation Master Plan (CAMP):	N	National CAMP is referenced in ICAO resolutions below: <ul style="list-style-type: none"> <li>• A39-23: No Country Left Behind (NCLB) Initiative (Draws the attention of Contracting States requesting technical cooperation and technical assistance to the advantages to be derived from well-defined projects based on civil aviation master plans)</li> <li>• A39-25: Aviation's contribution towards the United Nations 2030 Agenda for Sustainable Development (Urges Member States to enhance their air transport systems by effectively implementing SARPs and policies while at the same time including and elevating the priority of the aviation sector into their national development plans supported by robust air transport sector strategic plans and civil aviation master plans, thereby leading to the attainment of the SDGs)</li> <li>• A39-26: Resource Mobilization (Requests the Secretary General to develop guidance material to assist States in including and elevating the priority of the aviation sector into their national development plans and developing robust air transport sector strategic plans and civil aviation master plans).</li> </ul>

Further information about ENAC is provided on the following web site: <http://www.enac.gov.it/>

The Organisation chart of ENAC is shown in Annex B.

## Air Navigation Service Provider(s)

### ENAV S.p.A.

Created in 1996 as Ente Nazionale di Assistenza al Volo (ENAV) from the transformation of AAAVTAG (Azienda Autonoma di Assistenza al Volo per il Traffico Aereo Generale) in an economic public institution. Afterwards, it becomes ENAV S.p.A. in 2001, in the frame of the wider process of liberalization and privatisation of air transport market, with the aim of reaching efficiency objectives, increase quality and reliability of services, ensuring high levels of security and quality.

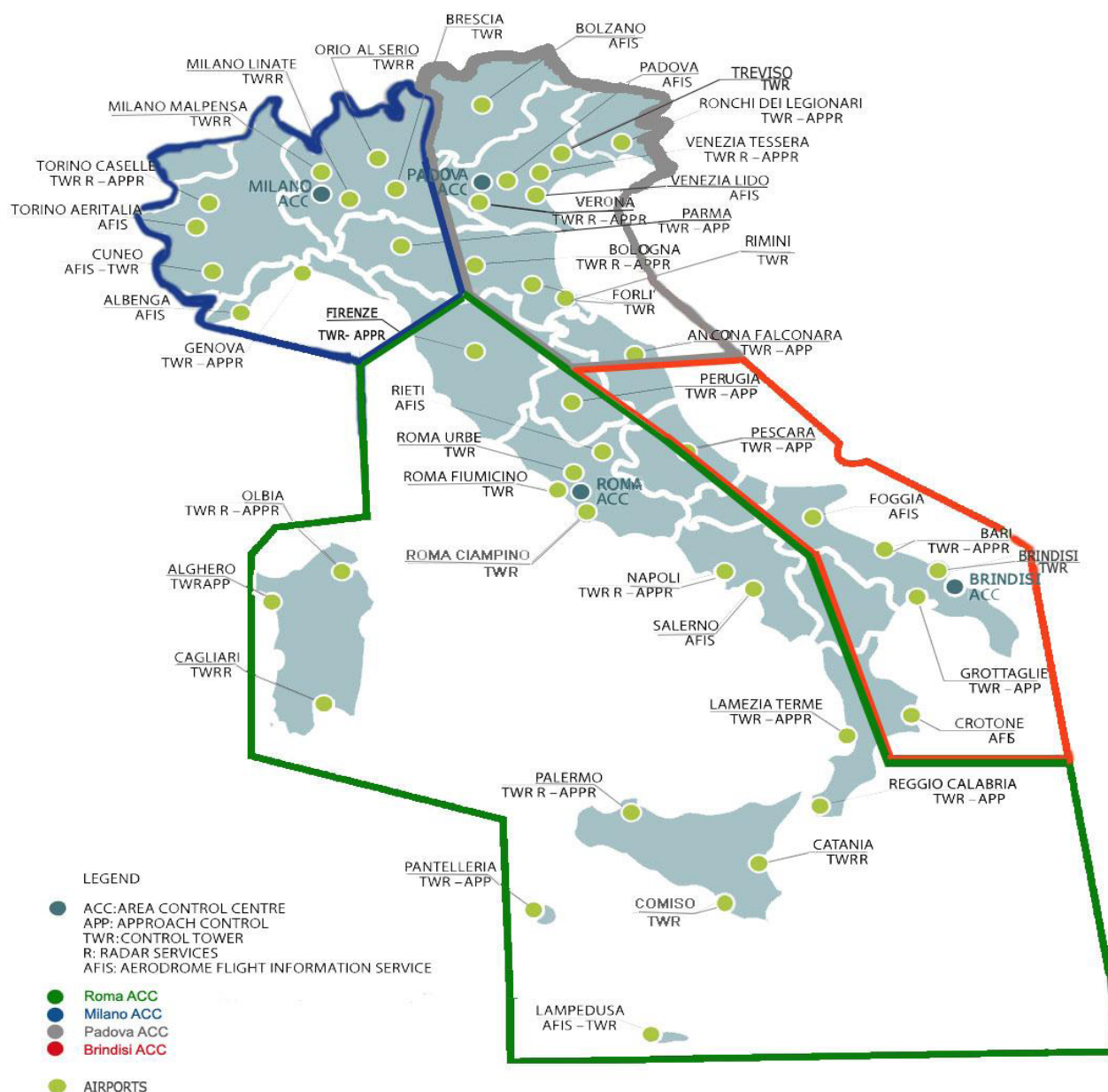
ENAV inherited civil air traffic management that until 1979 was under the responsibility of Aeronautica Militare Italiana and afterwards, from 1982, of AAAVTAG.

Since 2016, ENAV SpA is a publicly traded joint-stock company.

### Service provided

Air Navigation Services (ANS) in Italy for GAT are provided by ENAV S.p.A. within the Airspace respectively assigned by National Law.

Governance:	Publicly traded Joint-Stock Company	Ownership:	Controlled by the Ministry of Economy and Finance and supervised by the Ministry of Infrastructures and Transport
Services provided	Y/N	Comment	
ATC en-route	Y		
ATC approach	Y		
ATC Aerodrome(s)	Y		
AIS	Y		
CNS	Y		
MET	Y		
ATCO training	Y		
Others	Y	APRON management shared with Airport Operators	
Additional information:			
Provision of services in other State(s):	Y	Austria, Switzerland, France, Croatia, Slovenia and Serbia	
Annual Report published:	Y	<a href="https://www.enav.it/sites/public/it/InvestorRelations/Bilanci-e-Relazioni.html">https://www.enav.it/sites/public/it/InvestorRelations/Bilanci-e-Relazioni.html</a>	



**Figure 4 - Italian ATSUs under ENAV jurisdiction**

Every 4 years ENAV signs specific programme and service contracts with the Ministry of Economy and Finance, which acts also as economic regulator, by approving the proposed user charges.

ENAV web address is: [www.enav.it](http://www.enav.it)

The Organisation chart of ENAV is shown in Annex B.

## ATC Systems in use

Main ANSP part of any technology alliance <sup>7</sup>	Y	DSNA <sup>8</sup>
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### FDPS

Specify the manufacturer of the ATC system currently in use:	Techno Sky
Upgrade <sup>9</sup> of the ATC system is performed or planned?	<p>The following changes have been performed in 2018:</p> <ul style="list-style-type: none"> <li>• MTCD implementation in Brindisi ACC</li> <li>• Data link implementation in all Italian ACCs</li> <li>• Reorganisation of Italian airspace</li> <li>• Free Route operations above FL305</li> <li>• Move of Olbia's remote APP to the Roma ACC</li> </ul> <p>The following changes have been performed in 2019:</p> <ul style="list-style-type: none"> <li>• MTCD implementation in remaining ACCs</li> </ul> <p>The following changes have been planned in 2020:</p> <ul style="list-style-type: none"> <li>• AMAN implementation in Roma ACC</li> </ul>
Replacement of the ATC system by the new one is planned?	2023
ATC Unit	All ATC Units

### SDPS

Specify the manufacturer of the ATC system currently in use:	LEONARDO
Upgrade of the ATC system is performed or planned?	<p>The following changes have been performed in 2018:</p> <ul style="list-style-type: none"> <li>• MTCD implementation in Brindisi ACC</li> <li>• Data link implementation in all Italian ACCs</li> <li>• Reorganisation of Italian airspace</li> <li>• Free Route operations above FL305</li> <li>• Move of Olbia's remote APP to the Roma ACC</li> </ul> <p>The following changes have been performed in 2019:</p> <ul style="list-style-type: none"> <li>• MTCD implementation in remaining ACCs</li> </ul> <p>The following changes have been planned in 2020:</p> <ul style="list-style-type: none"> <li>• AMAN implementation in Roma ACC</li> <li>• Replacement of MRT surveillance tracker component with ARTAS tracker</li> </ul>
Replacement of the ATC system by the new one is planned?	2023
ATC Unit	All ATC Units

<sup>7</sup> Technology alliance is an alliance with another service provider for joint procurement of technology from a particular supplier (e.g. COOPANS alliance)

<sup>8</sup> The partnership with DSNA, the French ANS provider, is related to Coflight programme

<sup>9</sup> Upgrade is defined as any modification that changes the operational characteristics of the system (SES Framework Regulation 549/2004, Article 2 (40))

## Airports

### General information

Major airports, whose land belongs to the Italian civilian administration, are operated by stock companies under concession by ENAC.

Two types of concession exist:

- “normal” which allows the Airport Operator to manage the land side and the air terminal, while the air side remains responsibility of ENAC; they are only awarded for minor airports.
- “total” concession including the air side.

Signs and markings are under the responsibility of the airside operator. At some airports, lighting is implemented and managed by the ANSP (ENAV), in others directly by the Airport Operator. In any case, ENAC certification includes lighting on the runway and taxiways.

Assoaeroporti is the association of the Airport Operators. A different association (Assoclearance) is responsible to support the allocation of the available slots among operators of public scheduled services based on EU Regulation 793/2004.

### Airport(s) covered by the LSSIP

Referring to the List of Airports in the European ATM Master Plan Level 3 Implementation Plan Edition 2019 – Annex 2, it is up to the individual State to decide which additional airports will be reported through LSSIP for those Objectives. Therefore, the following airports are covered in this LSSIP:

- Milano Linate
- Milano Malpensa
- Roma Fiumicino
- Venezia Tessera

## Military Authorities

The Italian Air Force is the Military Authority involved in ATM in Italy. ITAF reports to the Ministry of Defence. The Italian Air Force has adapted its organisational structure in order to generate functional separation between the high level body Air Force Staff (SMA UCAM – Ufficio Generale Circolazione Aerea Militare) accountable for services' internal supervision and the units responsible for the provision of Air Navigation Services (Major Commands).

In accordance with the European Community Regulation 550/2004, article 7, paragraph 5, the Italian Air Force is authorised to provide ATS, CNS and MET Services to General Air Traffic (GAT) without certification.

In accordance with a specific MoU ITAF – ENAC signed on 22.09.2014, ITAF ensures internal supervision and ANS provision to GAT in compliance with EC regulations. ITAF provides supervision results to ENAC accordingly.

ITAF web address is: [www.aeronautica.difesa.it](http://www.aeronautica.difesa.it)

The regulatory, service provision and user role in ATM are detailed below.

Military Authority organizational arrangements are included in Annexes.

## Regulatory role

### Regulatory framework and rule making

OAT		GAT	
OAT and provision of service for OAT governed by national legal provisions?	Y	Provision of service for GAT by the Military governed by national legal provisions?	Y
Level of such legal provision. State Law ( TUOM DPR 90/2010 dated 15/03/2010 and COM Dec Lgs 66 dated 15/03/2010)		Level of such legal provision: State Law ( TUOM DPR 90/2010 dated 15/03/2010 and COM Dec Lgs 66 dated 15/03/2010)	
Authority signing such legal provision: President of Italian Republic and the Parliament		Authority signing such legal provision: President of Italian Republic and the Parliament	
These provisions cover:		These provisions cover:	
Rules of the Air for OAT	Y		
Organisation of military ATS for OAT	Y	Organisation of military ATS for GAT	Y
OAT/GAT Co-ordination	Y	OAT/GAT Co-ordination	Y
ATCO Training	Y	ATCO Training	Y
ATCO Licensing	Y	ATCO Licensing	N
ANSP Certification	Y	ANSP Certification	Y
ANSP Supervision	Y	ANSP Supervision	Y
Aircrew Training	Y	ESARR applicability	Y
Aircrew Licensing	Y		
Additional Information: None		Additional Information: None	
Means used to inform airspace users (other than military) about these provisions:		Means used to inform airspace users (other than military) about these provisions:	
National AIP	Y	National AIP	Y
National Military AIP	Y	National Military AIP	Y
EUROCONTROL eAIP	N	EUROCONTROL eAIP	N
Other:	Y	Other:	Y

## Oversight

OAT	GAT
National oversight body for OAT: ITAF	ITAF ensures internal supervision on ANS provided to GAT in compliance with EC regulations and in accordance with a specific MoU (ITAF – ENAC as National Supervisory Authority). ITAF provides supervision results to ENAC accordingly
Additional information: None	Additional information: None

## Service Provision role

ITAF was the sole national ANSP until 1980. Afterwards a civil ANSP was established. Since then, ITAF has been providing ANS to GAT in designated airspaces and military airports open to civilian traffic.

The current legal framework of Service provision is in accordance with Italian state law “Decreto del Presidente della Repubblica, art. 99 DPR 90/2010”, which establishes the competency of Chief of Air Staff, Italian Air Force (ITAF) provides ANS to civil traffic in GAT in the airspace /airports under military responsibility.

In accordance with Regulation (UE) No 2018/1139, ITAF provides ANS to GAT within the respectively air space established by national law, ensuring a level of safety that is at least as effective as that required by the essential requirements as defined in the above mentioned SES Regulation.

Performance and capability levels related to ANS provision by ITAF to civil air traffic are strictly related to:

- The fulfilment of the military priorities and function defined by MOD;
- The financial resources allocated for the specific function on the yearly air force budget;
- The strength of human resources authorized for the specific function.

ITAF provide ANS within the Airspace assigned by National Law. Details are exploded in the following paragraph. ANS to OAT (operational air traffic) are provided by ITAF within Italian FIRs. Air traffic services to OAT are provided by ITAF with the 4 SCCAM (Coordination and Control Service for the Air Force) co-located within ENAV’s ACCs and the other Military ATC Units for TWR and APP Services.

The SCCAM location inside the ENAV’s ACC ensures close cooperation between civil and military Air Traffic Controllers with the provision of services (GAT by ENAV, OAT by ITAF) regulated by local Letters of Agreement in accordance with Italian legislation. The co-location of civil and military controllers in the same operational room allows them to use the same fully integrated equipment.

OAT	GAT
Services Provided:	Services Provided:
En-Route Y	En-Route N
Approach/TMA Y	Approach/TMA Y
Airfield/TWR/GND Y	Airfield/TWR/GND Y
AIS Y	AIS N
MET Y	MET Y
SAR Y	SAR Y
TSA/TRA monitoring Y	FIS Y
Other: FIS & CNS Y	Other: CNS Y
Additional Information: None	Additional Information: None

Military ANSP providing GAT services SES certified?	N	If YES, since:	N/A	Duration of the Certificate:	N/A
Certificate issued by:	N/A	If NO, is this fact reported to the EC in accordance with SES regulations?	Y		
Additional Information:					

## User role

IFR inside controlled airspace, Military aircraft can fly?	OAT only	N	GAT only	N	Both OAT and GAT	Y
--	----------	---	----------	---	------------------	---

If Military fly OAT-IFR inside controlled airspace, specify the available options:

Free Routing	Y	Within specific corridors only	N
Within the regular (GAT) national route network	Y	Under radar control	Y
Within a special OAT route system	Y	Under radar advisory service	Y

If Military fly GAT-IFR inside controlled airspace, specify existing special arrangements:

No special arrangements					Exemption from Route Charges			Y
Exemption from flow and capacity (ATFCM) measures				Y	Provision of ATC in UHF			Y
CNS exemptions:	RVSM	Y	8.33	Y	Mode S	Y	ACAS	Y
Others:	None							

## Flexible Use of Airspace (FUA)

Military in Italy applies FUA requirements as specified in the Regulation No 2150/2005: Y

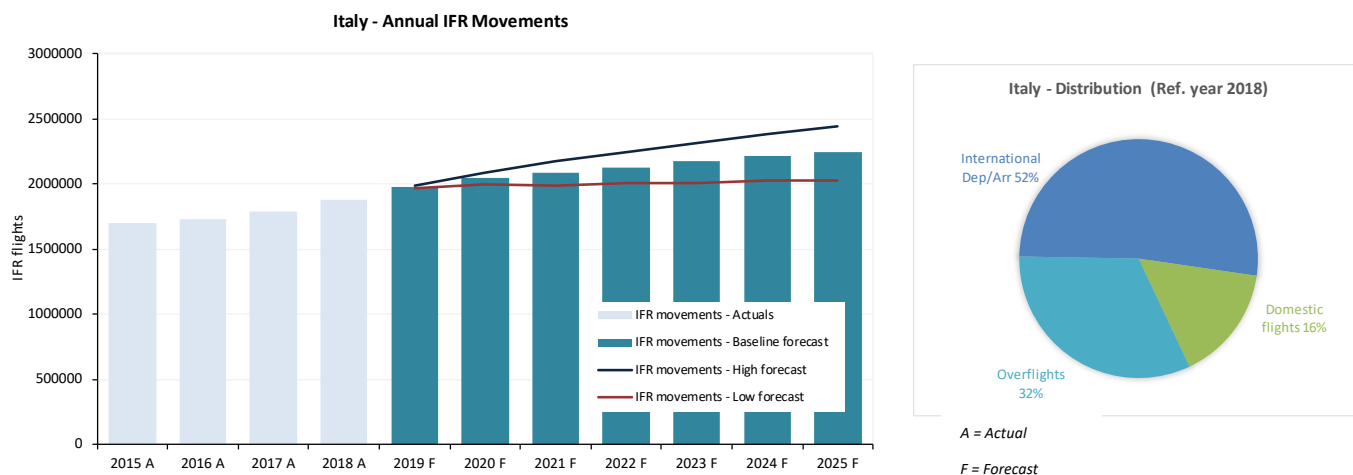
FUA Level 1 implemented: Y

FUA Level 2 implemented: Y

FUA Level 3 implemented: Y

## 2. Traffic and Capacity

### 2.1. Evolution of traffic in Italy



EUROCONTROL Seven-Year Forecast (Autumn 2019)											
IFR flights yearly growth		2016 A	2017 A	2018 A	2019 F	2020 F	2021 F	2022 F	2023 F	2024 F	2025 F
Italy	H				5.5%	5.3%	3.9%	3.3%	3.0%	3.1%	2.6%
	B	2.2%	3.0%	5.3%	5.2%	3.5%	1.9%	2.2%	1.9%	2.1%	1.4%
	L				4.7%	1.4%	-0.3%	0.6%	0.5%	0.6%	0.0%
ECAC	B	2.8%	4.0%	3.8%	1.1%	2.3%	1.9%	2.2%	1.8%	1.9%	1.4%

#### 2019

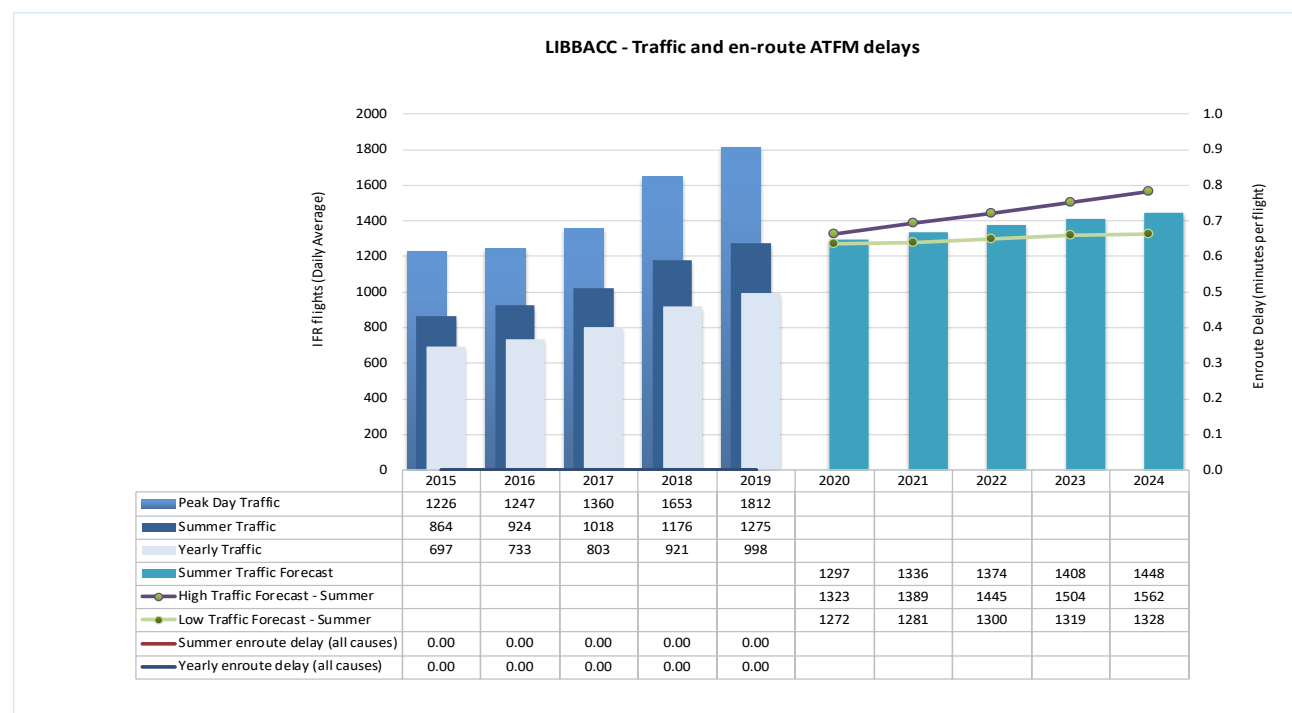
Traffic in Italy increased by 4.5% in 2019 compared to 2018.

#### 2020-2024

The EUROCONTROL Seven-Year Forecast predicts an average annual increase between 0.5% and 3.5%, with a baseline growth of 2.2% for Italy during the planning cycle.

## 2.2. ACC BRINDISI

### Traffic and en-route ATFM delays 2015-2024



### Performance summer 2019

Brindisi ACC	Traffic evolution (2019 vs 2018)		En-route Delay (min. per flight)			Capacity (2019 vs 2018)		
	Traffic Forecast		Actual Traffic	All reasons	ACC Reference Value	Planned	Achieved	Capacity gap?
	Current Routes	Shortest Routes						
Year	H: 7.4%	+4%	+8.4%	0.00	0.02	118 (+10%)	116 (+8%)	No
Summer	B: 6.1% L: 4.3%		+8.4%	0.00				
Average en-route delay per flight remained at zero, the same as during summer 2018.								
The ACC capacity baseline was measured with ACCESS at 116. During the measured period (June and July), the average peak 1 hour demand was 96 and the average peak 3 hour demand was 88.								
Operational actions				Achieved	Comments			
Improved airspace management				Yes				
PBN Program				Ongoing	To be implemented in Bari by end of 2020 and in Brindisi by end of 2021			
Improved ATFCM, including STAM				Yes				
Airspace management and ATS route assessment and/or improvements according to network needs, Airspace Users expectations, ENAV’s Flight Efficiency Plan and BLUEMED FAB implementation				Yes				
Recruitment of ATCOs if necessary				Yes	No recruitment was necessary for 2019			
Flexible opening scheme according to traffic demand and system enablers implementation				Yes				
Maximum configuration: 5 sectors				Yes	Up to 6 sectors were open			

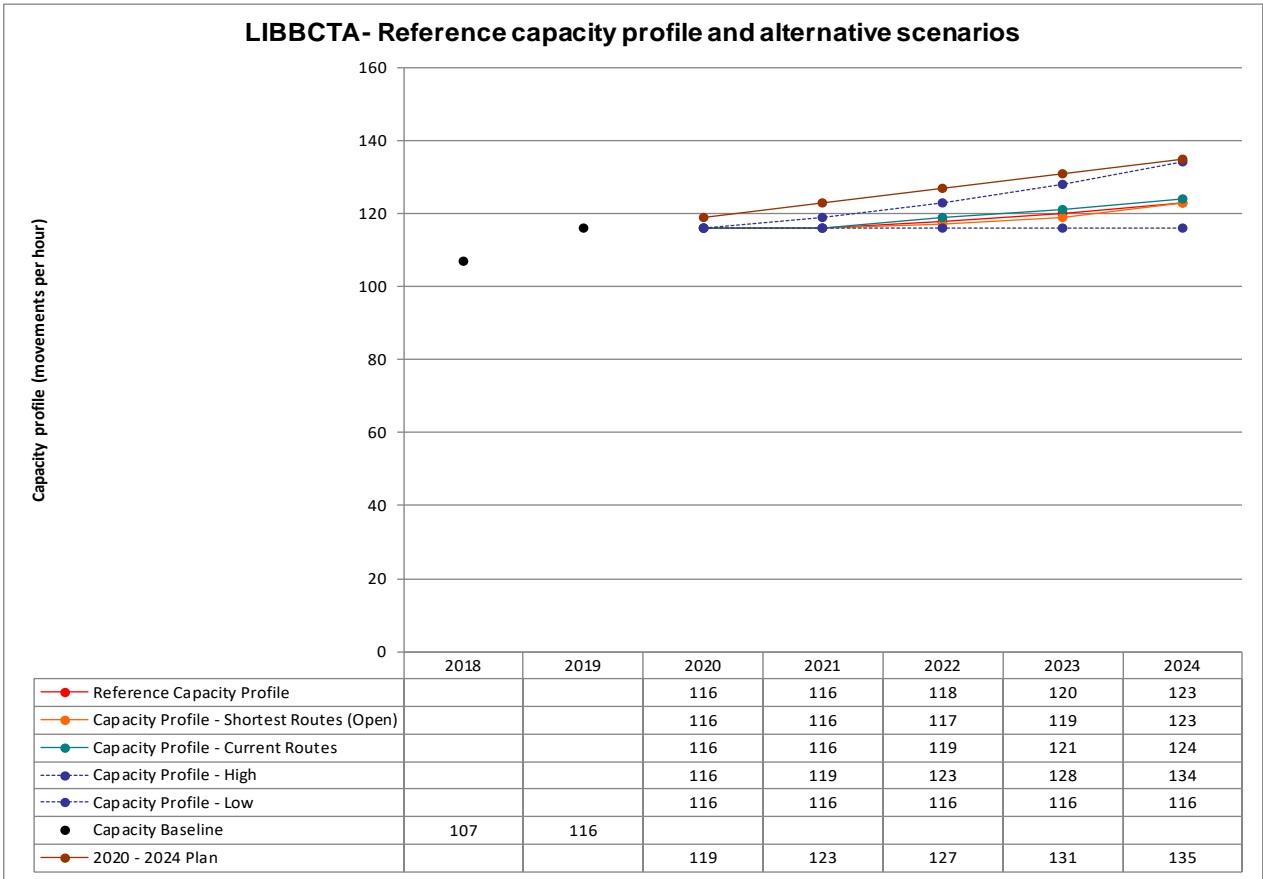
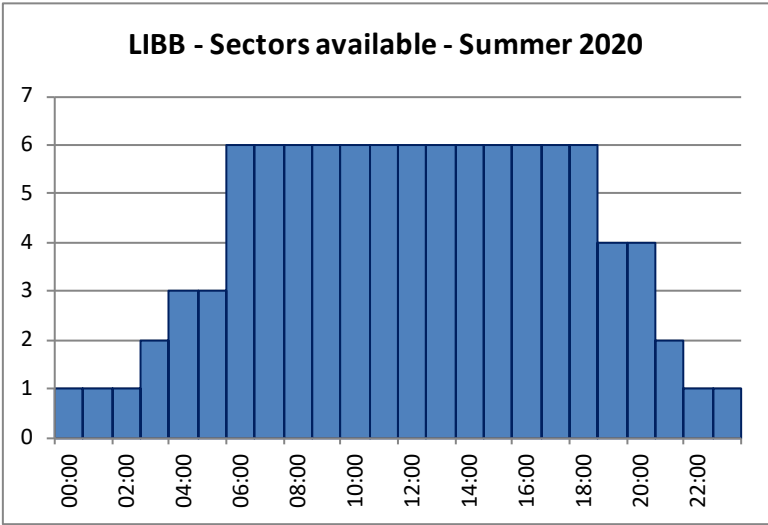
## Planning Period 2020-2024

The planning focuses on the summer season to reflect the most demanding period of the year from a capacity perspective. This approach ensures consistency with the previous planning cycles.

The measures for each year are the measures that will be implemented before the summer season.

Summer Capacity Plan					
	2020	2021	2022	2023	2024
Free Route Airspace					
Airspace Management Advanced FUA	Improved airspace management				
Airport & TMA Network Integration		PBN Program Bari	PBN Program Brindisi		
Cooperative Traffic Management	Improved ATFCM, including STAM				
Airspace	Airspace management and ATS route assessment and/or improvements according to network needs, Airspace Users expectations, ENAV's Flight Efficiency Plan and BLUEMED FAB implementation				
Procedures					
Approach Service Re-allocation		Apulia Project			
Staffing	Recruitment of ATCOs is necessary				
Technical		4Flight ATM system implementation			
				ADSB	
Capacity	Flexible opening scheme according to traffic demand and system enablers implementation				
Significant Events					
Max sectors	6	6	6	6	6
Planned Annual Capacity Increase	3%	3%	3%	3%	3%
Reference profile Annual % Increase	0%	0%	2%	2%	2%
Difference Capacity Plan v. Reference Profile	2.6%	6.0%	7.6%	9.2%	9.8%
Annual Reference Value (min)	0.05	0.05	0.05	0.04	0.04
Additional information					

An outline of available sector configuration for summer 2020:

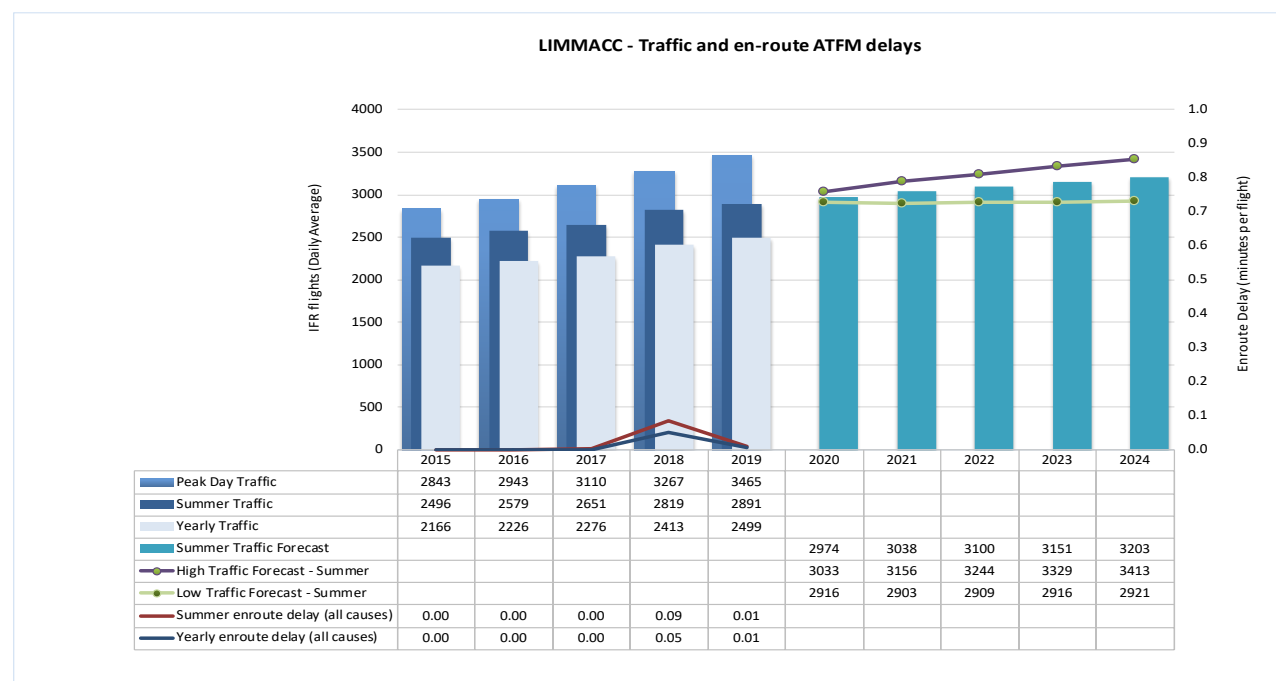


**2020-2024 Planning Period Outlook**

No problems are foreseen for Brindisi during the planning cycle. Capacity enhancement measures planned are in the order of fine tuning the capacity already existing and to support any possible improvement in Flight Efficiency.

## 2.3. ACC MILANO

### Traffic and en-route ATFM delays 2015-2024



### Performance summer 2019

Milan ACC	Traffic evolution (2019 vs 2018)		En-route Delay (min. per flight)			Capacity (2019 vs 2018)		
	Traffic Forecast		Actual Traffic	All reasons	ACC Reference Value	Planned	Achieved	Capacity gap?
	Current Routes	Shortest Routes						
Year	H: 5.5% B: 5.0%	-4%	+3.6%	0.01	0.09			
Summer	L: 3.3%		+2.5%	0.01		211 (+5%)	218 (+8%)	No
Average en-route delay per flight decreased from 0.09 minutes per flight in summer 2018 to 0.01 minutes per flight during Summer 2019.								
ACC capacity baseline was measured with ACCESS at 218. During the measured period (June and July), the average peak 1 hour demand was 211 and the average peak 3 hour demand was 201.								
Operational actions					Achieved	Comments		
Improved airspace management					Yes			
PBN Program					Ongoing	To be implemented in Torino by end of 2021		
Trombone implementation LIMC/LIML/LIME					Yes			
Improved ATFCM, including STAM					Yes			
Airspace management and ATS route assessment and/or improvements according to network needs, Airspace Users expectations, ENAV's Flight Efficiency Plan and BLUEMED FAB implementation					Yes			
Torino Project					No	Postponed to 2022		
Recruitment of ATCOs if necessary					Yes	No recruitment was necessary for 2019		
Flexible opening scheme according to traffic demand and system enablers implementation					Yes			
Maximum configuration: 23 sectors					Not required	20 sectors were sufficient		

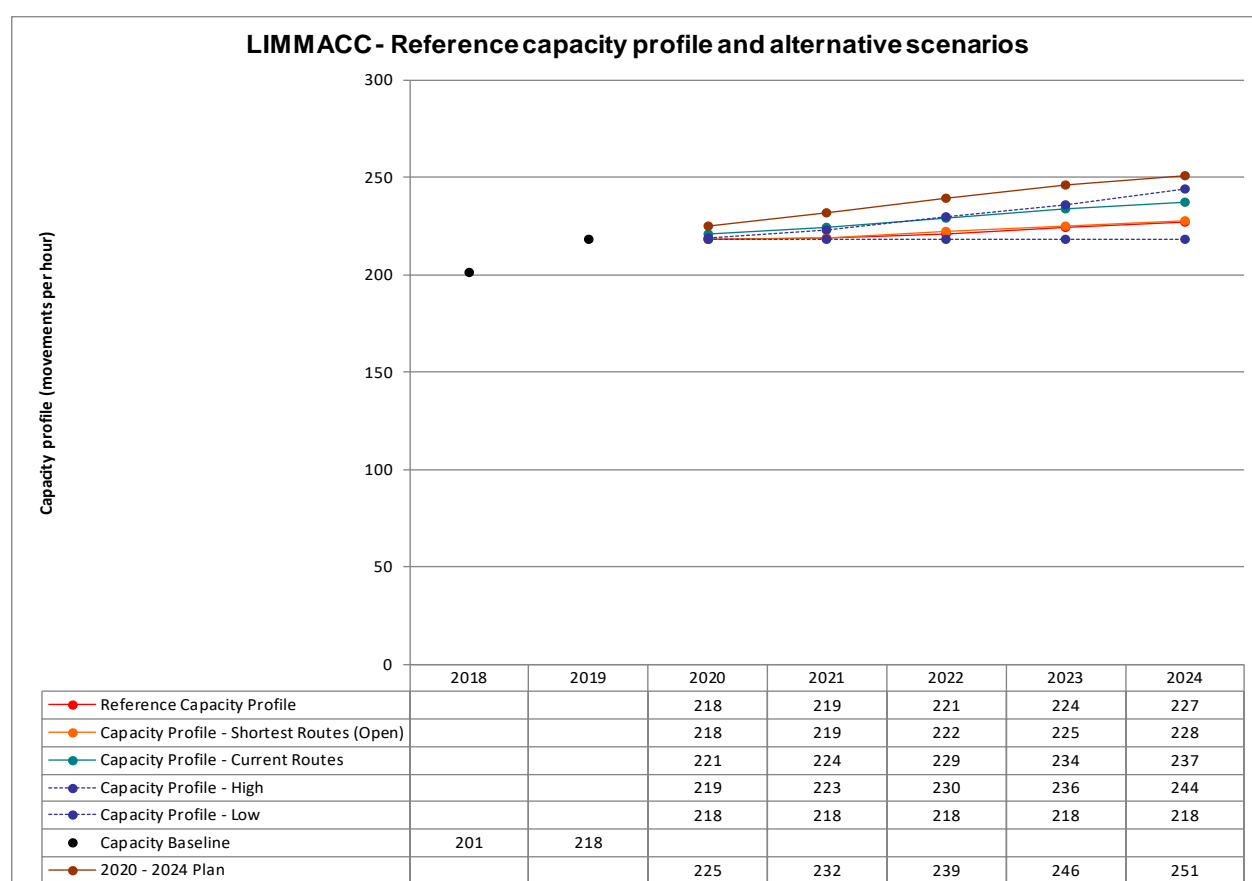
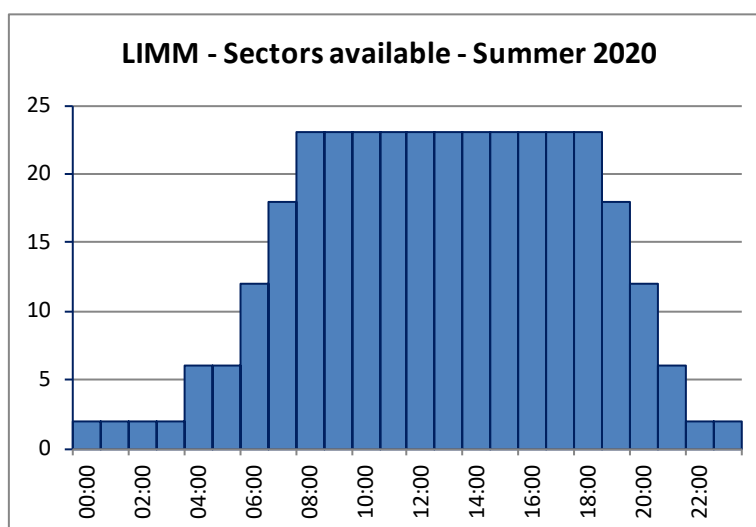
## Planning Period 2020-2024

The planning focuses on the summer season to reflect the most demanding period of the year from a capacity perspective. This approach ensures consistency with the previous planning cycles.

The measures for each year are the measures that will be implemented before the summer season.

Summer Capacity Plan					
	2020	2021	2022	2023	2024
Free Route Airspace					
Airspace Management Advanced FUA	Improved airspace management				
Airport & TMA Network Integration			PBN Program Torino		
		Evaluation and implementation of AMAN//Extended AMAN			
Cooperative Traffic Management	Improved ATFCM, including STAM				
Airspace	Airspace management and ATS route assessment and/or improvements according to network needs, Airspace Users expectations, ENAV's Flight Efficiency Plan and BLUEMED FAB implementation				
Procedures					
Approach Service Re-allocation		Verona Project	Torino Project	Genova Project	
Staffing	Recruitment of ATCOs if necessary				
Technical				ADSB	
Capacity	Flexible opening scheme according to traffic demand and system enablers implementation				
Max sectors	23	24	25	26	26
Planned Annual Capacity Increase	3%	3%	3%	3%	2%
Reference profile Annual % Increase	0%	0%	1%	1%	1%
Current routes profile Annual % Increase	1%	1%	2%	2%	1%
Difference Capacity Plan v. Reference Profile	3.2%	5.9%	8.1%	9.8%	10.6%
Difference Capacity Plan v. Current routes Profile	1.8%	3.6%	4.4%	5.1%	5.9%
Annual Reference Value (min)	0.14	0.14	0.11	0.09	0.09
Additional information					

An outline of available sector configuration for summer 2020

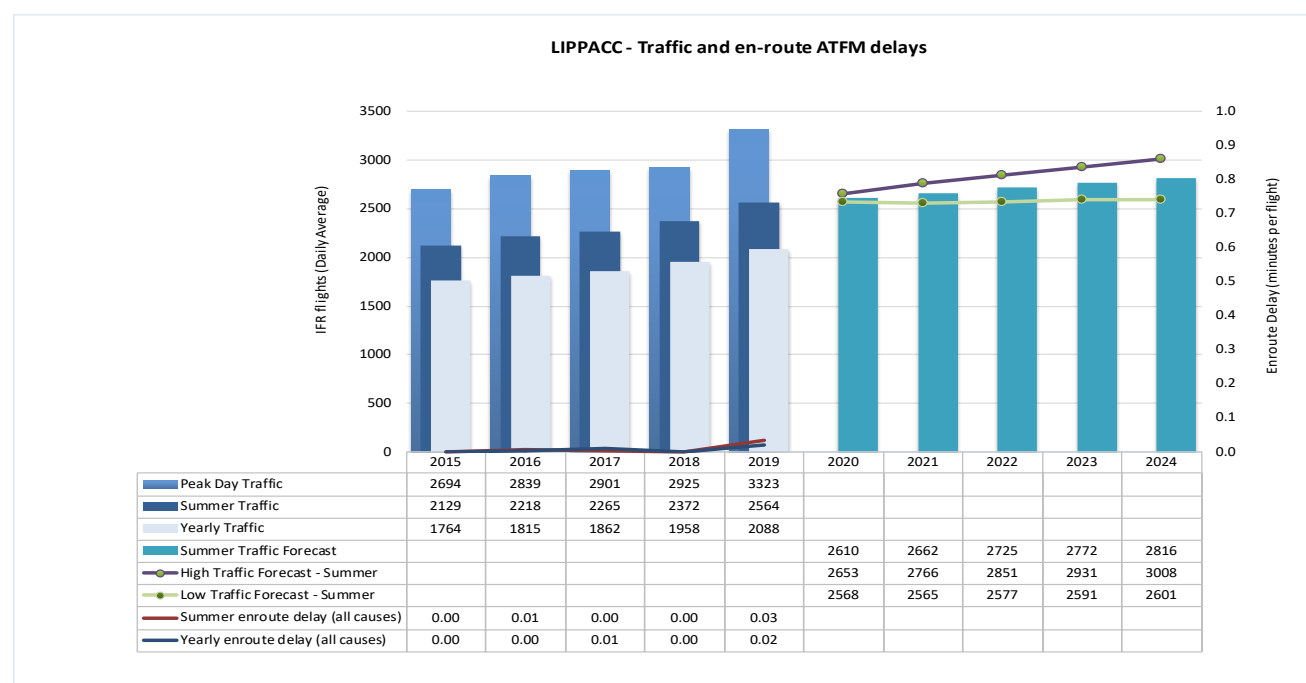


#### 2020-2024 Planning Period Outlook

No capacity issues are foreseen for Milan ACC during the planning period. Capacity enhancement measures planned are in the order of fine tuning the capacity already existing and to support any possible improvement in Flight Efficiency.

## 2.4. ACC PADOVA

### Traffic and en-route ATFM delays 2015-2024



### Performance summer 2019

Padova ACC	Traffic evolution (2019 vs 2018)		En-route Delay (min. per flight)			Capacity (2019 vs 2018)		
	Traffic Forecast		Actual Traffic	All reasons	ACC Reference Value	Planned	Achieved	Capacity gap?
	Current Routes	Shortest Routes						
Year	H: 5.8% B: 5.2%	+7%	+6.6%	0.02	0.09	216 (+4.5%)	220 (+6%)	No
Summer	L: 3.5%		+8.1%	0.03				
Average en-route delay per flight slightly increased to 0.03 minutes per flight in summer 2019, all the delays were due to Weather. The ACC capacity baseline was measured with ACCESS at 220. During the measured period (June and July) the average peak 1 hour demand was 198 and the average peak 3 hour demand was 188.								
Operational actions					Achieved	Comments		
Improved airspace management					Yes			
PBN Program					Ongoing	To be implemented in Trieste by end of 2021		
Improved ATFCM, including STAM					Yes			
Airspace management and ATS route assessment and/or improvements according to network needs, Airspace Users expectations, ENAV's Flight Efficiency Plan and BLUEMED FAB implementation					Yes			
Ronchi Project					No	Postponed to end 2020		
Recruitment of ATCOs if necessary					Yes	No recruitment was necessary for 2019		
Flexible opening scheme according to traffic demand and system enablers implementation					Yes			
Maximum configuration: 14 sectors					Not required	13 sectors were sufficient		

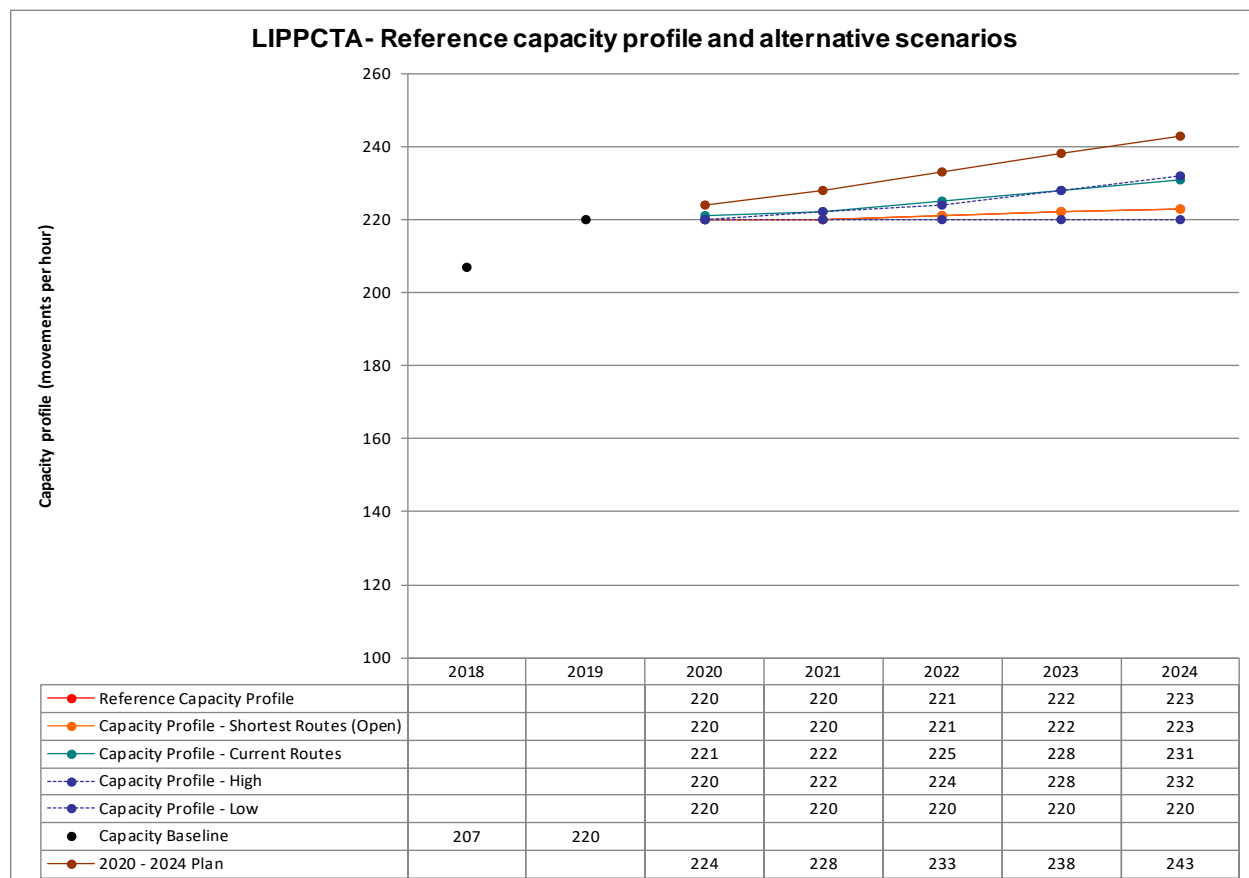
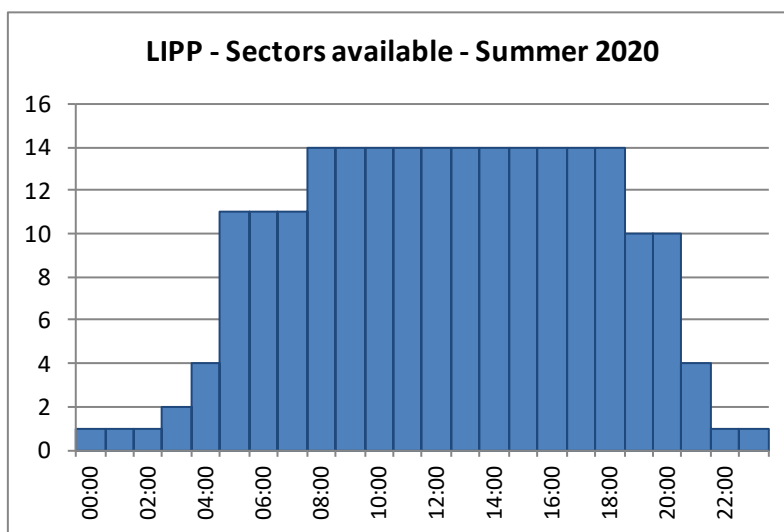
## Planning Period 2020-2024

The planning focuses on the summer season to reflect the most demanding period of the year from a capacity perspective. This approach ensures consistency with the previous planning cycles.

The measures for each year are the measures that will be implemented before the summer season.

Summer Capacity Plan					
	2020	2021	2022	2023	2024
Free Route Airspace					
Airspace Management Advanced FUA	Improved airspace management				
Airport & TMA Network Integration		PBN Program Trieste			
Cooperative Traffic Management	Improved ATFCM, including STAM				
Airspace	Airspace management and ATS route assessment and/or improvements according to network needs, Airspace Users expectations, ENAV's Flight Efficiency Plan and BLUEMED FAB implementation				
Procedures					
Staffing	Recruitment of ATCOs if necessary				
Approach Service Re-allocation		Verona Project			
		Ronchi Project			
Technical				ADSB	
Capacity	Flexible opening scheme according to traffic demand and system enablers implementation				
Significant Events					
Max sectors	14	14	14	15	15
Planned Annual Capacity Increase	2%	2%	2%	2%	2%
Reference profile Annual % Increase	0%	0%	0%	0%	0%
Current routes profile Annual % Increase	0.5%	0.5%	1%	1%	1%
Difference Capacity Plan v. Reference Profile	1.8%	3.6%	5.4%	7.2%	9.0%
Difference Capacity Plan v. Current routes Profile	1.4%	2.7%	3.6%	4.4%	5.2%
Annual Reference Value (min)	0.16	0.16	0.13	0.11	0.11
Additional information					

An outline of available sector configuration for a typical weekday and a weekend day for summer 2020

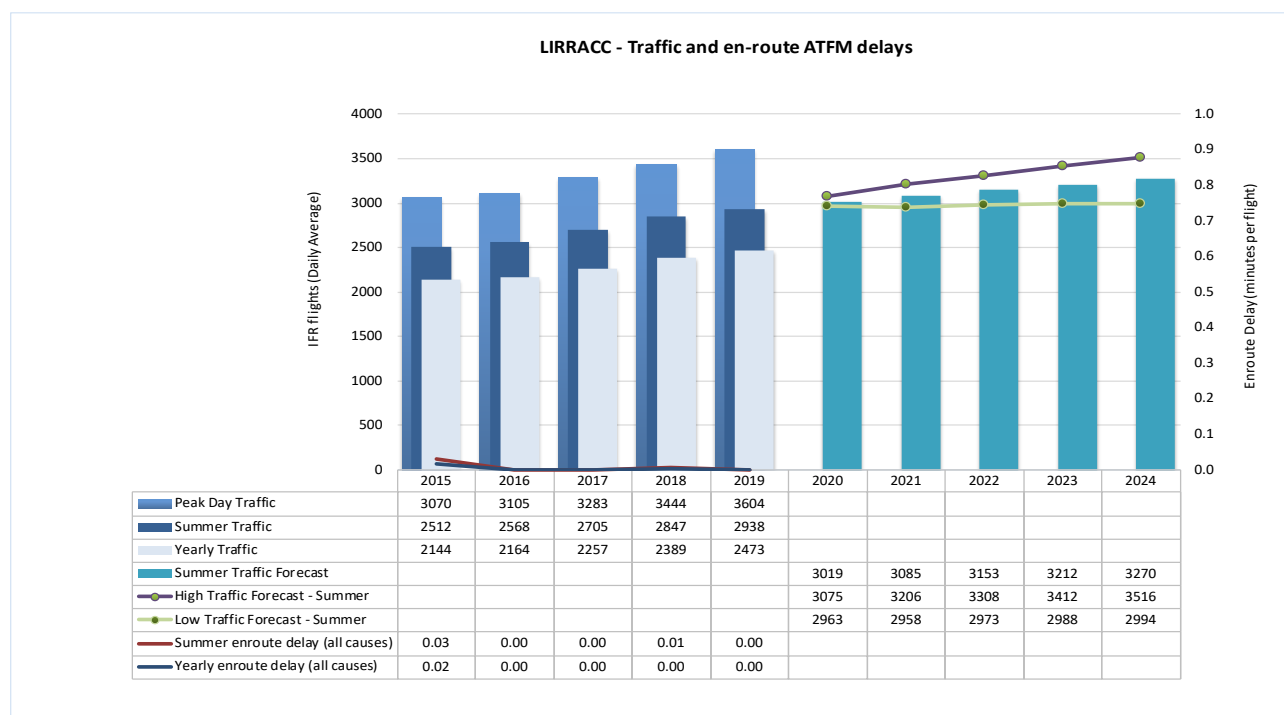


#### 2020-2024 Planning Period Outlook

No problems are foreseen for Padova ACC during the planning cycle. Capacity enhancement measures planned are in the order of fine tuning the capacity already existing and to support any possible improvement in Flight Efficiency.

## 2.5. ACC ROMA

### Traffic and en-route ATFM delays 2015-2024



### Performance summer 2019

Rome ACC	Traffic evolution (2019 vs 2018)		En-route Delay (min. per flight)			Capacity (2019 vs 2018)		
	Traffic Forecast		Actual Traffic	All reasons	ACC Reference Value	Planned	Achieved	Capacity gap?
	Current Routes	Shortest Routes						
Year	H: 5.2%	No significant impact	+3.5%	0.00	0.05			
Summer	B: 4.4% L: 2.9%		+3.2%	0.00		234 (+3%)	241 (+6%)	No
Average en-route delay per flight remained at zero minutes per flight in Summer 2019.								
The ACC capacity baseline was assessed with ACCESS at 241. During the measured period (June and July), the average peak 1 hour demand was 218 and the average peak 3 hour demand was 207.								
Operational actions				Achieved	Comments			
Improved airspace management				Yes				
PBN Program				Ongoing	To be implemented in Napoli by end of 2021			
Improved ATFCM, including STAM				Yes				
Airspace management and ATS route assessment and/or improvements according to network needs, Airspace Users expectations, ENAV's Flight Efficiency Plan and BLUEMED FAB implementation				Yes				
Lamezia Project				No	Postponed to end 2020			
Recruitment of ATCOs if necessary				Yes	No recruitment was necessary for 2019			
Flexible opening scheme according to traffic demand and system enablers implementation				Yes				
Maximum configuration: 23 sectors				Yes				

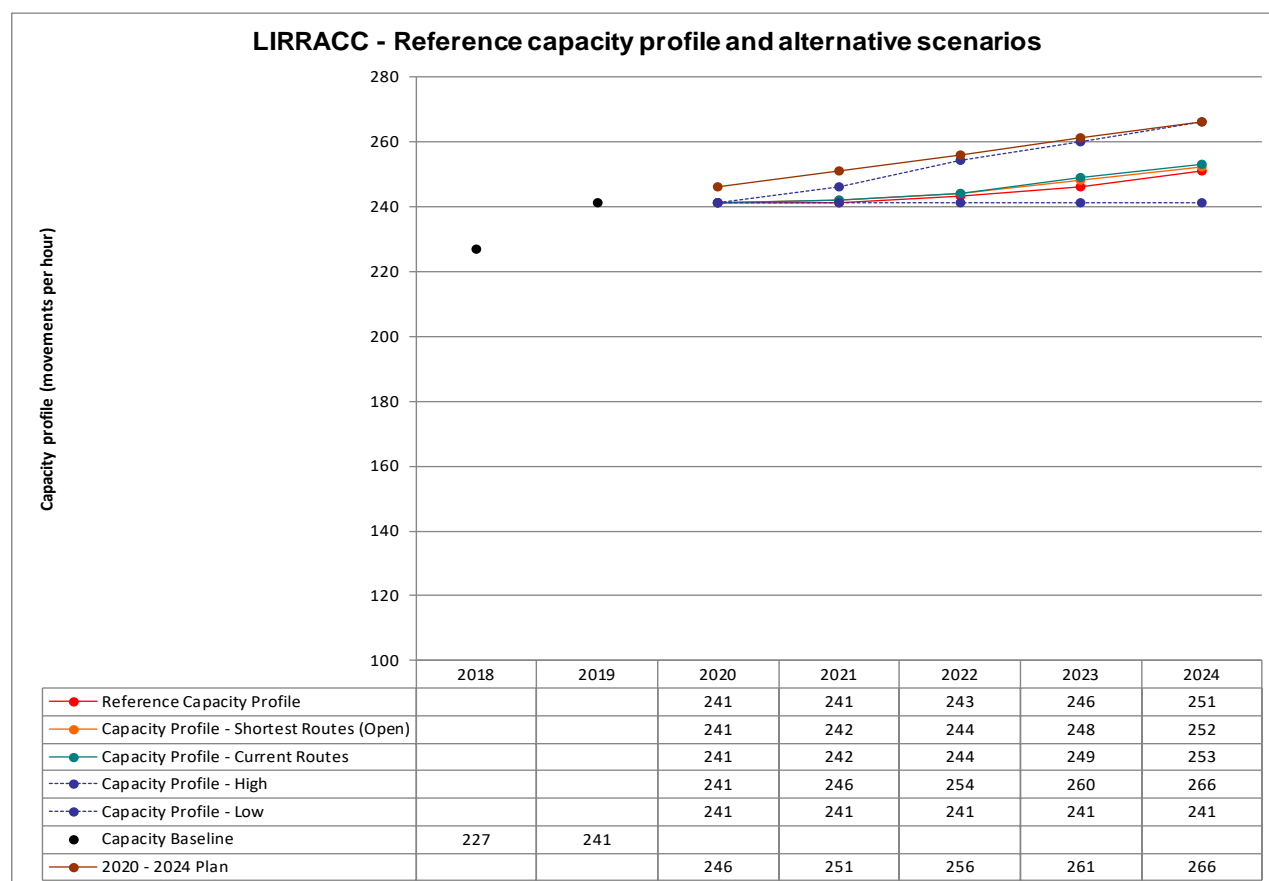
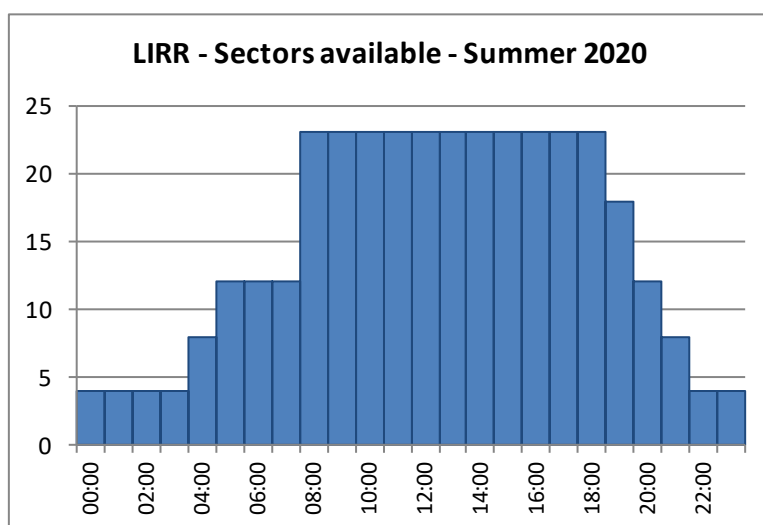
## Planning Period 2020-2024

The planning focuses on the Summer season to reflect the most demanding period of the year from a capacity perspective. This approach ensures consistency with the previous planning cycles.

The measures for each year are the measures that will be implemented before the summer season.

Summer Capacity Plan					
	2020	2021	2022	2023	2024
Free Route Airspace					
Airspace Management Advanced FUA	Improved airspace management				
Airport & TMA Network Integration		PBN Program Napoli			
		Evaluation and implementation of AMAN/Extended AMAN			
Cooperative Traffic Management	Improved ATFCM, including STAM				
Airspace	Airspace management and ATS route assessment and/or improvements according to network needs, Airspace Users expectations, ENAV's Flight Efficiency Plan and BLUEMED FAB implementation				
Procedures					
Staffing	Recruitment of ATCOs if necessary				
Approach Service Re-allocation		Lamezia Project	Firenze Project	Palermo Project	
				Napoli Project	
Technical				ADSB	
				4Flight ATM system implementation	
Capacity	Flexible opening scheme according to traffic demand and system enablers implementation				
Significant Events					
Max sectors	23	24	25	27	27
Planned Annual Capacity Increase	2%	2%	2%	2%	2%
Reference profile Annual % Increase	0%	0%	1%	1%	2%
Difference Capacity Plan v. Reference Profile	2.1%	4.1%	5.3%	6.1%	6.0%
Annual Reference Value (min)	0.14	0.14	0.11	0.09	0.09
Additional information					

An outline of available sector configuration for summer 2020



#### 2020-2024 Planning Period Outlook

No problems are foreseen for Roma ACC during the planning cycle. Capacity enhancement measures planned are in the order of fine tuning the capacity already existing and to support any possible improvement in Flight Efficiency.

## 3. Implementation Projects

The tables below presents the high-level information about the main projects currently ongoing in Italy. The details of each project are available in Chapter 2 of the Level 2 - Detailed Implementation Status document.

### 3.1. National projects

Name of project:	Organisation(s):	Schedule:	Status:	Links:
4Flight	ENAV (IT)	2013-2021	Ongoing	L3: ATC02.8, ATC12.1, ATC17
A-SMGCS Level 1 & 2 and safety nets integration	ENAV (IT)	2016-2020	Ongoing	L3: AOP04.1, AOP04.2, AOP12
ADS-B Completion	ENAV (IT)	2014-2020	Ongoing	L3: ITY-ACID
AMAN Extended Horizon	ENAV (IT)	2016-2021	Ongoing	L3: ATC07.1, ATC15.1, ATC15.2
ASM Tool Implementation	ENAV (IT)	2016-2020	Ongoing	L3: AOM19.1, AOM19.2, AOM19.3
Aeronautical Data Quality system interface evolution (ADQ2)	ENAV (IT)	2017-2021	Ongoing	L3: ITY-ADQ
Airport System Upgrade	ENAV (IT)	2014-2019	Completed	L3: AOP04.1
Datalink system implementation	ENAV (IT)	2016-2018	Completed	L3: ITY-AGDL
Free Route Airspace Implementation	ENAV (IT)	2014-2017	Completed	L3: AOM21.2
NOAS (New Operational Area System)	ENAV (IT)	2011-2017	Completed	L3: ITY-ADQ
RNP1 and APV procedures	ENAV (IT)	2017-2020	Ongoing	L3: NAV03.2, NAV10
Traffic Complexity Tool implementation	ENAV (IT)	2017-2020	Ongoing	L3: FCM06
VCS ACC VoIP	ENAV (IT)	2016-2021	Ongoing	L3: COM11.1
eTOD	ENAV (IT)	2012-2017	Completed	L3: INF07, ITY-ADQ

### 3.2. FAB projects

Name of project:	Organisation(s):	Schedule:	Status:	Links:
Air-to-ground Datalink services	DCAC - Air Navigation Service Provider (CY), ENAV (IT), HANSP (GR), MATS (MT)	2014-2021	The work for this objective is now under the scope of the IDP program of SESAR. The ANSP is planning the finalisation of the project by end 2021.	L3: ITY-AGDL
BLUE MED Free Route Airspace Implementation	DCAC - Air Navigation Service Provider (CY), ENAV (IT), HANSP (GR), MATS (MT)	2014-2022	The project is planned with the purchase of a new ATM system.	L3: AOM21.2
BLUEGNSS	ENAV (IT)	2016-2018	Completed	L3: NAV10
BLUEMED ADQ	DCAC - Air Navigation Service Provider (CY), ENAV (IT), HANSP (GR), MATS (MT)	2014-2019	Parts of the requirement are partially completed. Changes in the infrastructure and personnel training are under study. The project is expected to be completed by end of 2019.	L3: ITY-ADQ
Free Route Operations	DCAC - Air Navigation Service Provider (CY), ENAV (IT), HANSP (GR), MATS (MT)	2014-2022	The project is planned with the purchase of a new ATM system.	L3: AOM21.2
Migration to IPv6 Network	DCAC - Air Navigation Service Provider (CY), ENAV (IT), HANSP (GR), MATS (MT)	2014-2020	The CNS provider (CYTA) is planning to migrate to VoIP by 2020 in line with the FAB agreement. The project is heavily dependent on the implementation of a national IP network.	L3: COM11.1

Name of project:	Organisation(s):	Schedule:	Status:	Links:
RNP Approach Procedures with APV	DCAC - Air Navigation Service Provider (CY), ENAV (IT), HANSP (GR), MATS (MT)	2018-2024	An implementation roadmap has been defined in relation to the Design and Publication of RNP APCH and shall follow the completion of NAV03. The roadmap is in line with PBN IR	L3: NAV10
Safety Management	DCAC - Air Navigation Service Provider (CY), ENAV (IT), HANSA (GR), MATS (MT)	31/12/2019	Safety data exchange management and FAB Just Culture declaration have been achieved. Harmonisation of use of SMS tools is ongoing	L3: SAF11

## 4. Cooperation activities

### 4.1. FAB Co-ordination

The BLUE MED FAB project is the European central/south-eastern FAB initiative. It represents the natural European gate dedicated to air traffic flows coming from Africa and the Middle East, namely among the regions with the prospective fastest growing trend in the next future.

In 2013, the Civil Aviation Authority of Israel signed a Memorandum of Understanding with the BLUE MED FAB for its involvement in the initiative.

Today, the BLUE MED FAB is in its Implementation Phase, a coordinated deployment initiative in which operational and technical improvements are being delivered through a solid Implementation Programme, which is at the same time a summary and a plan of all the activities deployed or to be undertaken by the BLUE MED working groups and task forces. This is bringing benefit to the Airspace Users in terms of enhanced efficiency, reduced delays and costs and lower environmental impact.







The major projects include Free Route Operations at FAB level, Cross-border and ATFCM optimisation, AGDL System development, SUR infrastructure rationalization, Ground/Ground IP Network implementation, NEW PENS and Complementary OLDI Messages implementation.

Other activities, some of which have to be implemented to meet SES requirements, include Aeronautical Data Quality, FAB-wide Radar Maintenance Plan, ATM System upgrade and Common Strategy and Alignment with the SESAR Programme.

In addition, a number of initiatives are being undertaken in the Safety domain, Human Resources domain and in the Performance Framework.

All the above-mentioned projects and initiatives have the objective of achieving the capacity, safety, efficiency, economic performance and environmental benefits that the European Commission expects from the implementation of the Single European Sky.

All steps are also being coordinated with other FABs through an intense inter-FAB cooperation in the areas of Operations, Communication and Performance.

<b>Safety</b> 	<p>A Safety working group is established in order to ensure the correct application of the Safety work plan as defined within the BLUE MED Implementation Programme.</p>
<b>Capacity</b> 	<p>Free Route Operations together with airspace' s reorganisation projects along with the PBN Implementation Roadmap will enhance capacity both in terminal and en route sectors.</p>
<b>Cost Efficiency</b> 	<p>All the operational and technical projects aim at optimising cost-efficiency.</p>
<b>Security</b> 	<p>ANSPs are committed to protect their organisations and systems from cyber threats.</p>
<b>Operational efficiency</b> 	<p>A continuous efficiency in operations is ensured through, among others, a number of technical projects, such as AGDL, IP network, complementary OLDI messages, surveillance maintenance plan, ATM system upgrade.</p>
<b>Environment</b> 	<p>All the benefits coming from the implementation of the activities described within the BLUE MED Implementation Programme are yearly recorded in the Flight Efficiency Plan in terms of flight time, fuel consumption and carbon dioxide emissions by aircraft reductions.</p> <p>Flight Efficiency Plan outputs are periodically shared with the Airspace Users in dedicated meetings.</p>

## 4.2. Multinational cooperation initiatives

### **Letter of Agreements (LOA) with adjacent States/ATS units**

ENAV has in place Letters of Agreement (LOA) with the following ACCs/APPs of ANSPs of Adjacent States:

- LoA Brindisi ACC - Athina ACC/Kerkira APP → last update 27.02.2020
- LoA Brindisi ACC - Beograd ATCC → last update 27.02.2020
- LoA Brindisi ACC - Tirana ACC → last update 27.02.2020
- LoA Brindisi ACC - Zagreb ATCC (ACC Zagreb - APP Split- APP Dubrovnik) → last update 27.02.2020
- LoA Milano ACC - Ginevra ACC → last update 05.12.2019
- LoA Milano ACC - Marsiglia ACC → last update 31.01.2019
- LoA Milano ACC - Zurigo ACC → last update 05.12.2019
- LoA Milano ACC – Nizza APP → last update 05.12.2019
- LoA Milano ACC – Bastia APP → last update 10.11.2016
- LoA Milano ACC – Lugano APP → last update 30.01.2020
- LoA Padova ACC - Karlsruhe ACC → last update 31.01.2020
- LoA Padova ACC - Ljubljana ACC - APP Portorož → last update 02.12.2019
- LoA Padova ACC - Monaco ACC → last update 30.01.2020
- LoA Padova ACC - Wien ACC – Innsbruck - Klagenfurt APP → last update 27.02.2020
- LoA Padova ACC - Zagreb ATCC (ACC Zagreb - APP Zadar - APP Pula - APP Split) → last update 27.02.2020
- LoA Padova ACC - Zurigo ACC → last update 30.01.2020
- LoA Roma ACC - Malta ACC → last update 30.01.2020
- LoA Roma ACC - Marsiglia ACC → last update 07.11.2019
- LoA Roma ACC - Tunisi ACC → last update 11.10.2018
- LoA Roma ACC – Ajaccio APP → last update 13.09.2018
- LoA Roma ACC – Bastia APP → last update 10.11.2016

## **A6 Alliance**

The A6 Alliance was founded in 2011 by six ANSP members of the SESAR JU – DFS (Germany), DSNA (France), AENA (Spain) renamed later to ENAIRE, ENAV (Italy), NATS (UK) and NORACON – a consortium of Austro Control (Austria), AVINOR (Norway), EANS (Estonia), Finavia (Finland), IAA (Ireland), LFV (Sweden) and Naviar (Denmark).

In 2015, PANSO became a full member of the A6 Alliance. At the same time, the COOPANS consortium replaced NORACON in all A6 activities and the B4 Consortium joined A6 in the area of SESAR 2020.

The A6 Alliance has also concluded a collaboration agreement with Skyguide in relation to SESAR 2020 R&D activities, as well as with ROMATSA and HungaroControl in relation to SESAR Deployment Manager.

The A6 Alliance plays a significant role in Research & Development through active participation in the SESAR Programme.

The A6+ partners participate in 68 of the 80 ATM-solution projects, leading 30 of them. Furthermore, the A6+ partners hold an active role in transversal activities including the Masterplan and in Very Large Scale Demonstrations.

Since the launch of SESAR 1, members of the A6 Alliance have achieved significant results together with other SJU partners (development of 63 successfully completed SESAR solutions).

The members of the A6 Alliance control more than 80 % of EU air traffic. They are responsible for more than 70 % of the investment in the future air traffic management infrastructure.

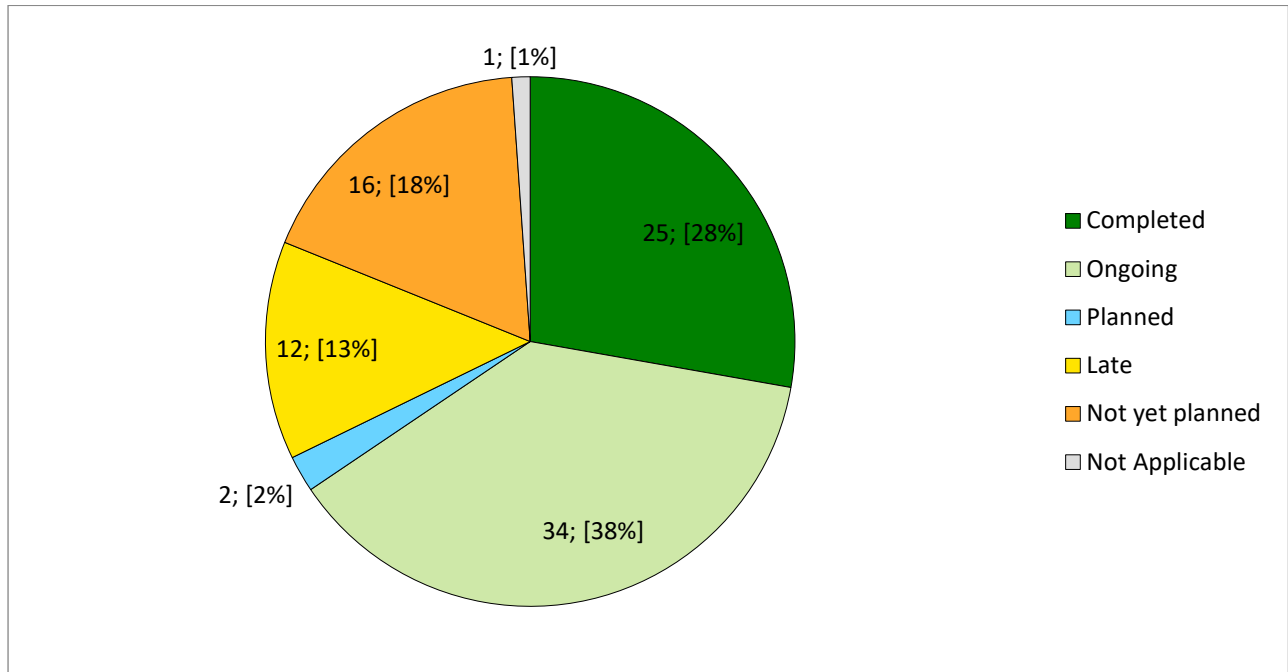
Areas of ENAV involvement in 2019:

- a) preparation of positions regarding operational/technical, policy and legal regulations proposals prepared or led by the EU institutions/bodies together with other partners (Airspace Architecture Study, Wise Persons Group, RP3, CEF funding, PCP Review, etc.);
- b) participation in the SESAR Joint Undertaking (mainly focusing on a successful closing of Wave 1 and preparing the call for Wave 2 of SESAR 2020 Programme), SESAR Deployment Manager and initiatives/projects financed by INEA (SWIM, DLS, etc.);
- c) A6 activities: develop proposals for improvement of the ATM system in Europe and drive their implementation (e.g. SESAR Digital Backbone).

## 5. Implementation Objectives Progress

### 5.1. State View: Overall Objective Implementation Progress

The graph below shows progress for all Implementation Objectives (applicable and not applicable to the State).



For the year 2019, the Objective - Short Term Conflict Alert (STCA) for TMAs (ATC02.9) was implemented in Italy. Milano Malpensa Airport implemented the Objective on Advanced Surface Movement Guidance and Control System A-SMGCS Surveillance (AOP04.1).

For the year 2020, the Objectives to Migrate from AFTN to AMHS (COM10), Harmonise Operational Air Traffic (OAT) and General Air Traffic (GAT) Handling (AOM13.1), RNAV 1 in TMA Operations (NAV03.1), Surveillance Performance and Interoperability (ITY-SPI) and Ensure Quality of Aeronautical Data and Aeronautical Information (ITY-ADQ) are foreseen to be implemented in Italy.

For Italian Airports, the Objective on Advanced Surface Movement Guidance and Control System A-SMGCS Surveillance (AOP04.1) is foreseen to be implemented for Roma Fiumicino Airport in the year 2020.

## 5.2. Objective Progress per SESAR Key Feature

The Implementation objectives progress charts per Key Feature below show progress only for Implementation Objectives applicable to the State/airport and which are not local objectives.

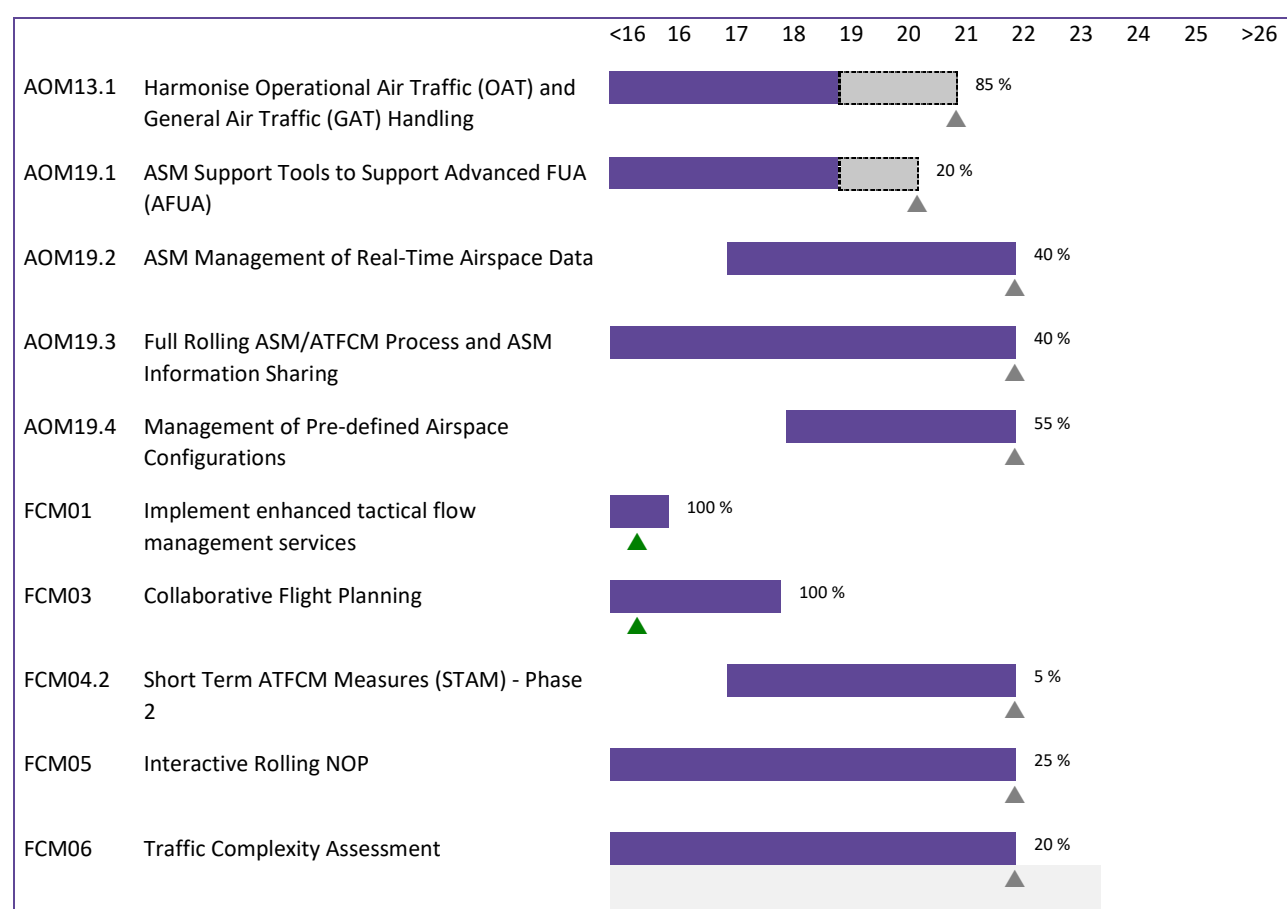
Note: The detailed table of links between Implementation Objectives and SESAR Key Features is available in Annex C: Implementation Objectives' links with SESAR, ICAO and DP.

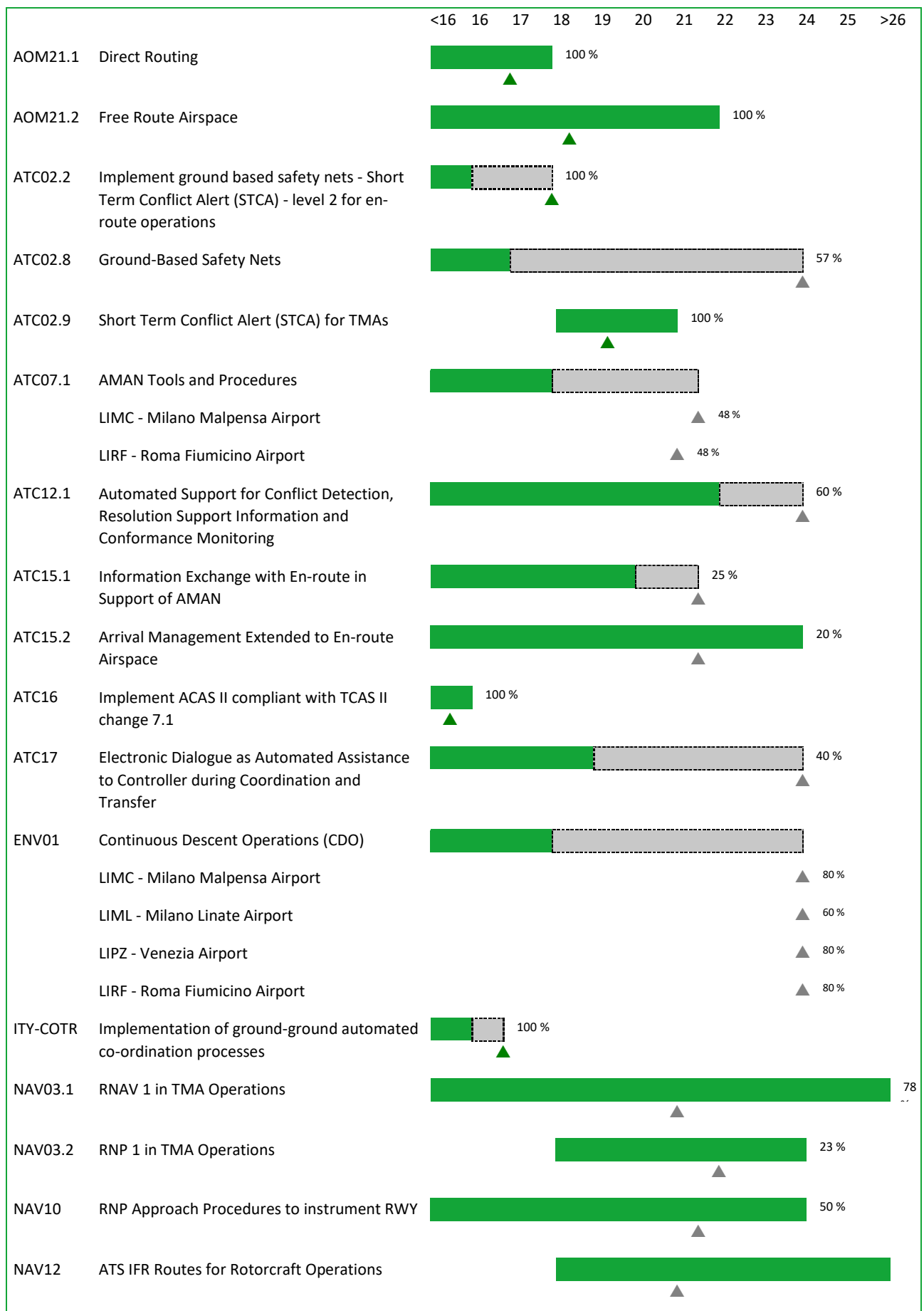
Legend:

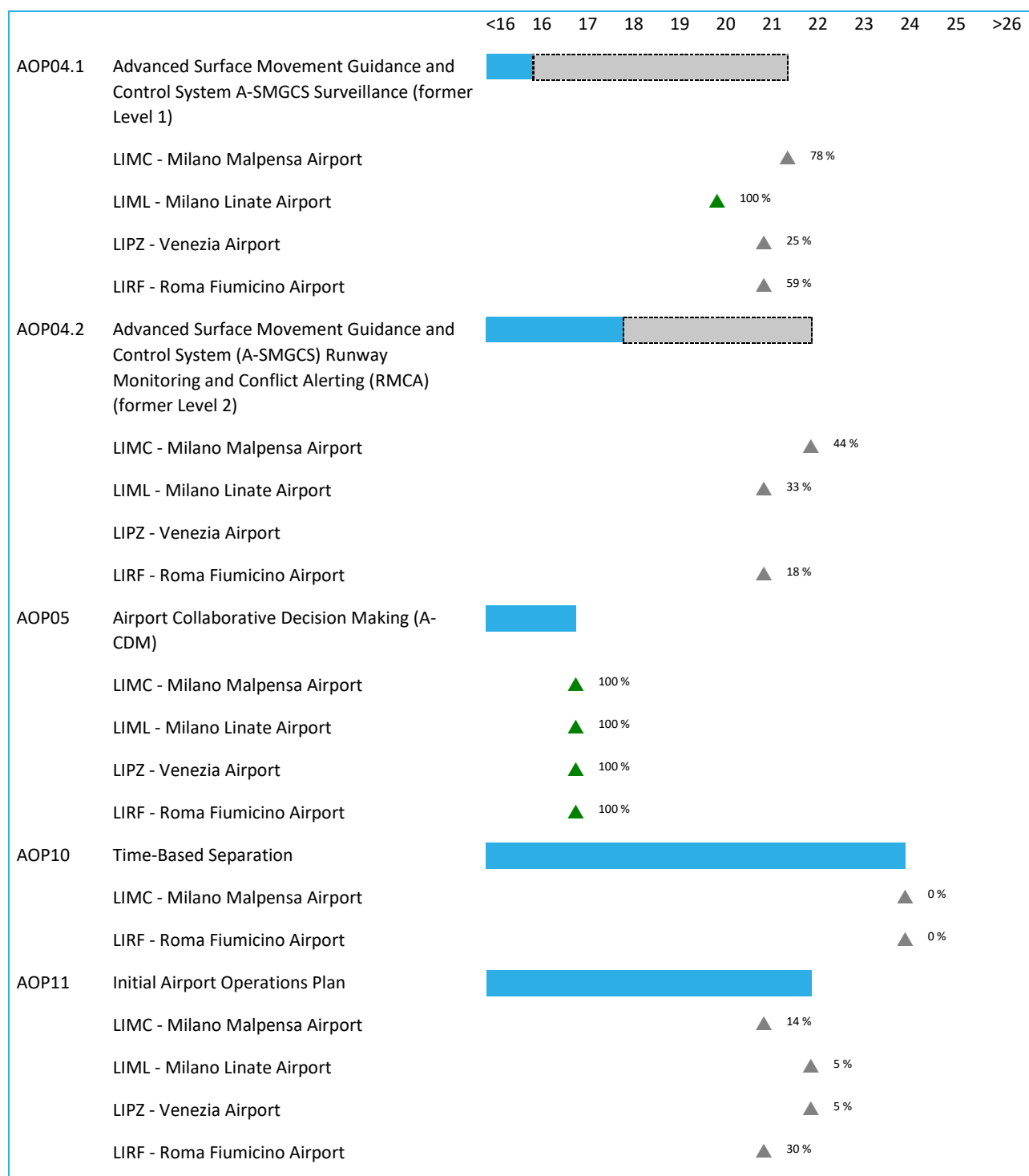
- ▲ ## % = Expected completion / % Progress
- ▲ 100% = Objective completed
-  = Implementation Objective timeline (different colour per KF)
-  = Completion beyond Implementation Objective timeline

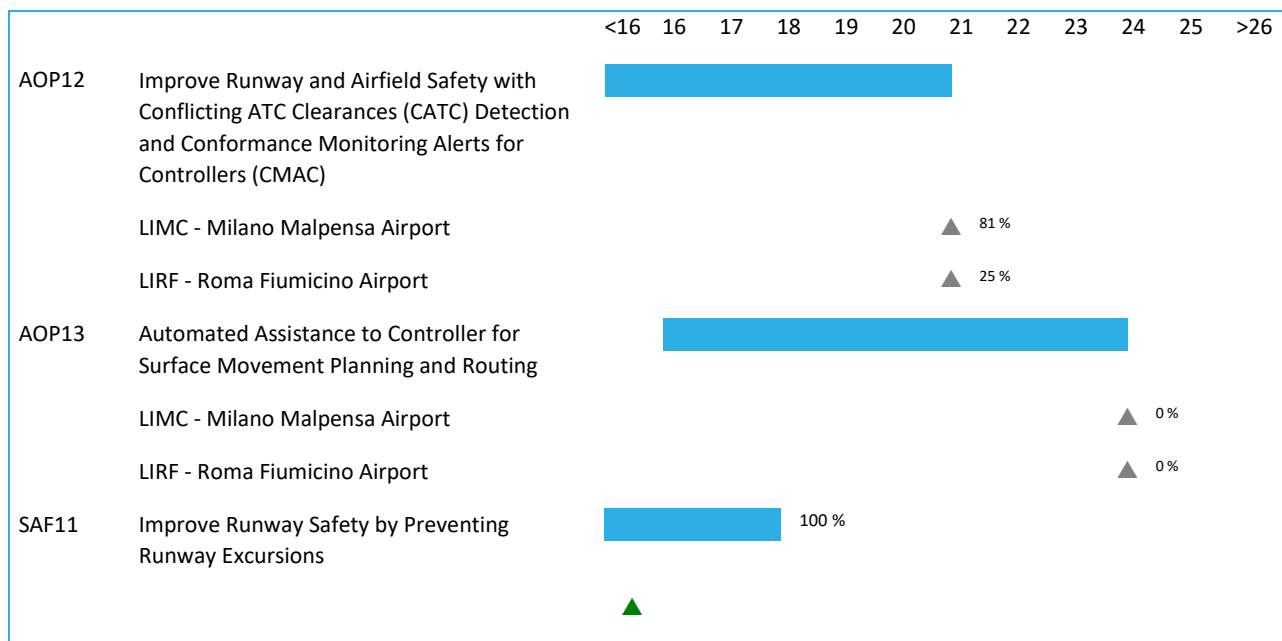


### Optimised ATM Network Services

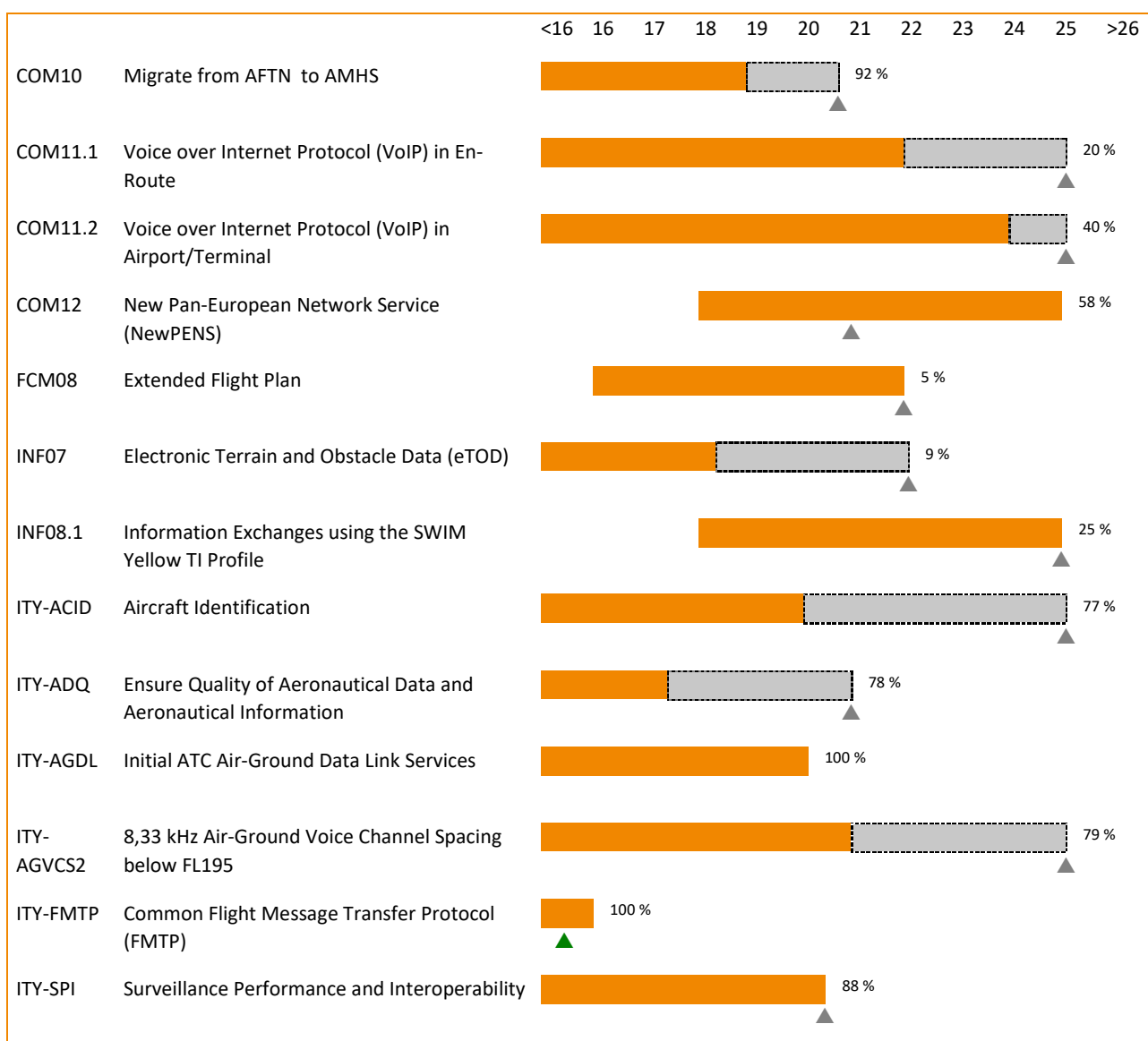








### Enabling Aviation Infrastructure

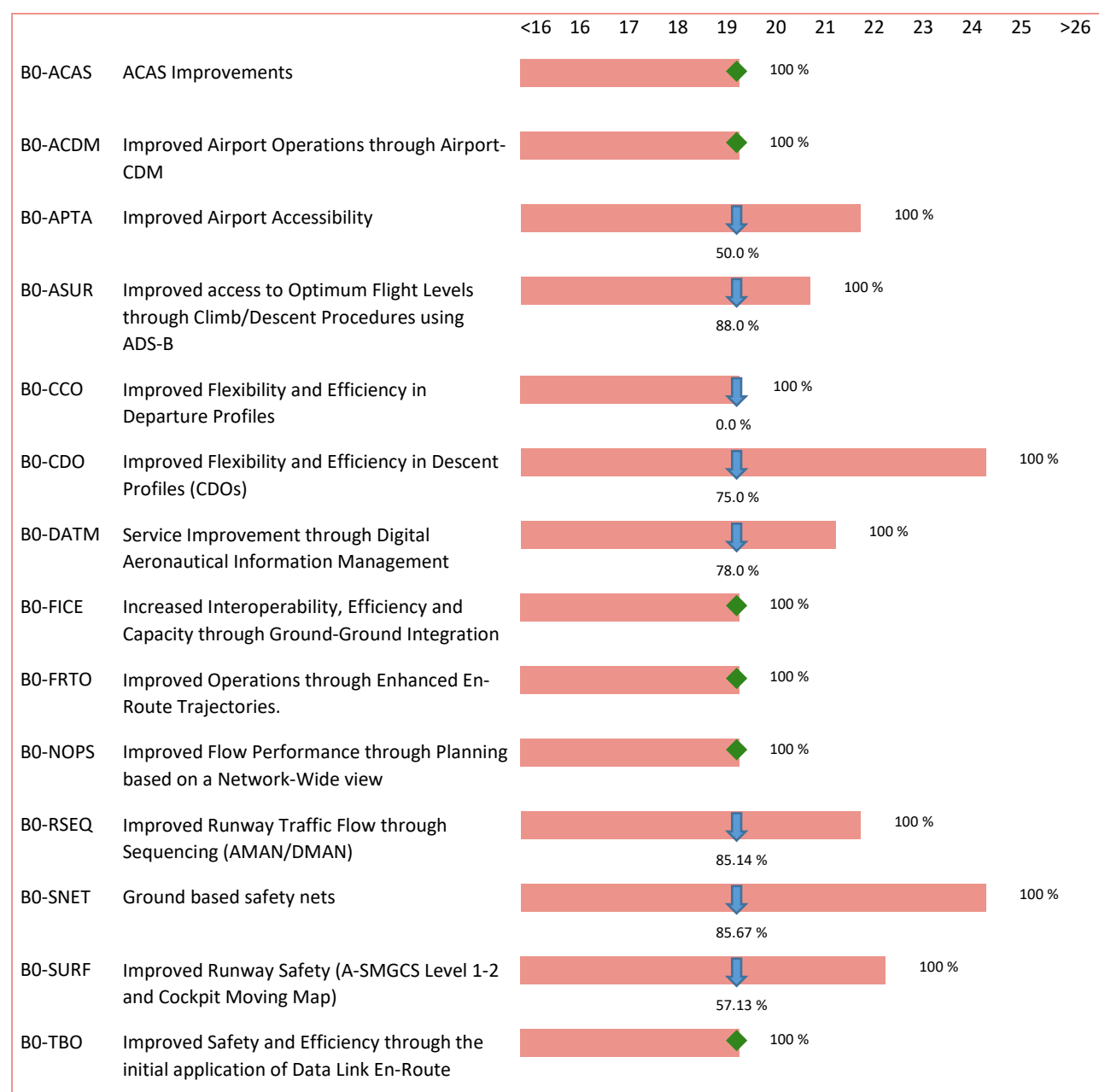
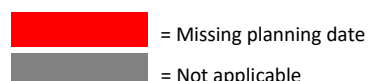
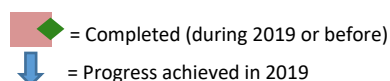


### 5.3. ICAO ASBU Implementation Progress









The following table shows, for each of the ASBU Block 0 modules, the overall status, the final date foreseen for completion and the percentage of progress achieved in the current cycle.

These results were determined using the LSSIP Year 2019 declared statuses and progress of the relevant Implementation objectives in accordance with the mapping approved by the ICAO EUR EASPG/1 meeting (European Aviation System Planning Group).

Legend:



## 5.4. Detailed Objectives Implementation progress

Objective/Stakeholder Progress Code:			
Completed		Not yet planned	
Ongoing		Not Applicable	
Planned		Missing Data	
Late			

## Main Objectives

AOM13.1	<b>Harmonise Operational Air Traffic (OAT) and General Air Traffic (GAT) Handling</b> <u>Timescales:</u> Initial operational capability: 01/01/2012 Full operational capability: 31/12/2018	85%	Late
<b>Key Feature: Optimised ATM Network Services</b>			
<p>OAT/GAT management system currently used in Italy is basically consistent with the EUROAT requirements. Additional procedures/coordination are stated in bilateral agreements with adjacent States or put in place time by time in order to ensure national and adjacent States/FAB matching.</p> <p>OAT/GAT procedures is harmonised throughout the following activities:</p> <ul style="list-style-type: none"> <li>- National ASM Level 2 Manual</li> <li>- LARA tool</li> </ul>			31/12/2020
<b>REG (By:12/2018)</b>			
ENAC	OAT Regulatory Framework is an ITAF responsibility. National legislation in force (DPR 90/2010 dated 15/03/2010 and Civil Aviation Law - Codice della Navigazione) already states the definition and the coexistence of GAT and OAT. In addition, all regulation applicable to GAT is under European Commission and EASA responsibility.	%	Not Applicable
Mil. Authority	National legislation in force (DPR 90/2010 dated 15/03/2010 and Civil Aviation Law - Codice della Navigazione) already states the definition and the coexistence of GAT and OAT. In addition, all regulation applicable to GAT is under European Commission and EASA responsibility.	100%	Completed
<b>ASP (By:12/2018)</b>			
Mil. Authority	The EUROAT specifications are being introduced in the normal cycle of education, training and specialized formation in the ATS provision to OAT field including recurrent training activity.	100%	Completed
ENAV	Common methods of traffic management are already ensured by close cooperation between civil and military ATCOs, using the same or compatible radar systems, tools, procedures etc. The actions under ANSP responsibility have been completed. At FAB BLUE MED level a permanent commission (CMCC Civil Military Coordination Committee) has been established in order to ensure and implement all the necessary rules and procedures for GAT/OAT harmonization. OAT/GAT procedures have been harmonised with the following activities: <ul style="list-style-type: none"> <li>- National ASM Level 2 Manual (temporary suspended pending the definition of the priority criteria by the CAA/MIL)</li> <li>- LARA tool</li> <li>- Free Route Airspace</li> </ul>	100%	Completed
<b>MIL (By:12/2018)</b>			
Mil. Authority	ITAF is planning the implementation by 12/2020.	70%	Late
31/12/2020			

AOM19.1	<b>ASM Support Tools to Support Advanced FUA (AFUA)</b> <u>Timescales:</u> Initial operational capability: 01/01/2011 Full operational capability: 31/12/2018	20%	Ongoing
Links: B1-FRTO, B1-NOPS   Key Feature: Optimised ATM Network Services			
<p>ENAV target, according also to what requested by the EUROCONTROL Advanced FUA 2017 CONOPS document, is:</p> <ul style="list-style-type: none"> <li>- to follow a performance driven "modus operandi" based on the management of Airspace Configurations established with a collaborative civil-military airspace planning at the European Network level through an integrated ASM/ATFCM process and an extended planning phase into the day of operations;</li> <li>- to develop procedures and supporting tools useful to implement more dynamic and flexible elements in line with what requested by SESAR.</li> </ul> <p>Italian Air Force and ENAV cooperate to implement an advanced airspace management by the planned timeframe.</p> <p>The implementation roadmap is fully in line with Regulation 716/2014. Italy decided to give priority to the PCP deadline (for AFUA is 01.01.2022) and to report accordingly, therefore this Objective is considered "Ongoing" instead of "Late".</p>			
ASP (By:12/2018)			
ENAV	ENAV target, according also to what requested by the EUROCONTROL Advanced FUA 2017 CONOPS document, is: <ul style="list-style-type: none"> <li>- to follow a performance driven "modus operandi" based on the management of Airspace Configurations established with a collaborative civil-military airspace planning at the European Network level through an integrated ASM/ATFCM process and an extended planning phase into the day of operations;</li> <li>- to develop procedures and supporting tools useful to implement more dynamic and flexible elements in line with what requested by SESAR.</li> </ul> Italy decided to give priority to the PCP deadline (for AFUA is 01.01.2022) and to report accordingly, therefore this Objective is considered "Ongoing" instead of "Late".	20%	Ongoing  30/04/2020

AOM19.2	<b>ASM Management of Real-Time Airspace Data</b> <u>Timescales:</u> Initial operational capability: 01/01/2017 Full operational capability: 31/12/2021	40%	Ongoing
Links: B1-FRTO, B1-NOPS   Key Feature: Optimised ATM Network Services			
<p>ENAV to optimised ATM Network Services will implement enhanced Airspace Management (ASM) by automated, real time, continuous exchange services of ASM data during the tactical phase. ASM information (Airspace Reservation status) is shared between ASM systems, civil and military ATS units/systems and communicated to NM. These data are collected, saved and processed in order to be exchanged between ASM stakeholders and be made available to ATM actors; while some airspace users are not directly involved in ASM process, they will be notified by the NM.</p>			
ASP (By:12/2021)			
ENAV	ENAV to optimised ATM Network Services will implement enhanced Airspace Management (ASM) by automated, real time, continuous exchange services of ASM data during the tactical phase. ASM information (Airspace Reservation status) is shared between ASM systems, civil and military ATS units/systems and communicated to NM. These data are collected, saved and processed in order to be exchanged between ASM stakeholders and be made available to ATM actors; while some airspace users are not directly involved in ASM process, they will be notified by the NM.	40%	Ongoing  31/12/2021

AOM19.3	<b>Full Rolling ASM/ATFCM Process and ASM Information Sharing</b> <u>Timescales:</u> Initial operational capability: 01/01/2014 Full operational capability: 31/12/2021	40%	Ongoing
Links: B0-FRTO, B1-FRTO, B1-NOPS, B2-NOPS   Key Feature: Optimised ATM Network Services			
-			
The full rolling ASM/ATFCM process shall ensure a continuous, seamless and reiterative airspace planning and allocation based on airspace requests at any time period within strategic (level 1), pre tactical (level 2) and tactical (level 3) ASM levels; the process will also support the deployment of Airspace Configurations. It will result in the enhancement of the daily Network Operations Plan (NOP) allowing airspace users to better benefit from changes in airspace structures in real time.			31/12/2021
ASP (By:12/2021)			
ENAV	Systems, procedures and process will be improved and implemented to support a full rolling ASM/ATFCM process.	40%	Ongoing 31/12/2021
AOM19.4	<b>Management of Pre-defined Airspace Configurations</b> <u>Timescales:</u> Initial operational capability: 01/01/2018 Full operational capability: 31/12/2021	55%	Ongoing
Links: B1-FRTO, B1-NOPS   Key Feature: Optimised ATM Network Services			
-			
The implementation is ongoing.			31/12/2021
ASP (By:12/2021)			
ENAV	The implementation is ongoing.	55%	Ongoing 31/12/2021
AOM21.2	<b>Free Route Airspace</b> <u>Timescales:</u> Initial operational capability: 01/01/2015 Full operational capability: 31/12/2021	100%	Completed
Links: B0-FRTO, B1-FRTO   Key Feature: Advanced Air Traffic Services			
-			
Italy has developed a Free Route Airspace above FL305, fully compliant with the EU regulation 716/2014.			24/05/2018
ASP (By:12/2021)			
ENAV	Italy has developed a Free Route Airspace implementation program; it includes several steps. The first step was implemented at the end of 2013 (AIRAC 11-13 - e.d. 12DEC2013) based mainly on the creation of DCT segments across Italian ACC from FL365 available during night/holiday/weekend. In addition, the period of availability of most of the existing NGT Routes has been extended to WE. After this step, a number of NGT/WE DCTs have been transformed in NGT/WE segments of new/existing ATS routes in the occasion of other changes. The second step has been implemented at the beginning of 2015 (AIRAC 12-14 - e.d. 08JAN2015); during this phase, the same operational scenario envisaged in step one has been lowered to FL 315. Third step consisted of implementation of full Free Route Airspace; such step has been implemented in two phases according following roadmap: the 8th of December 2016 ENAV implemented the Free Route Concept in the Italian airspace above FL 335 (instead of FL365, initially planned). As a final step, Free Route Airspace has been implemented above FL305, on 24th May 2018, fully compliant with the EU regulation 716/2014.	100%	Completed 24/05/2018

<b>AOP04.1</b>	<b>Advanced Surface Movement Guidance and Control System A-SMGCS Surveillance (former Level 1)</b> <u>Timescales:</u> Initial operational capability: 01/01/2007 Full operational capability: 31/12/2011	<b>78%</b>	<b>Late</b>
<b>Links: B0-SURF   Key Feature: High Performing Airport Operations</b>			
<b>LIMC - Milano Malpensa Airport</b>			
ENAV has installed the required surveillance equipment. Training is ongoing and procedures waiting for approval. SEA has plans to install Mode S transponders. The implementation is in line with Regulation 716/2014 requirements and deadlines.			<b>30/06/2021</b>
<b>REG (By:12/2010)</b>			
ENAC	ENAC has activated a dedicated working group.	100%	<b>Completed</b> -
<b>ASP (By:12/2011)</b>			
ENAV	A-SMGCS Level 1 is fully operational in Milano Malpensa airport.	100%	<b>Completed</b> -
<b>APO (By:12/2010)</b>			
SEA - Aeroporti di Milano	SEA has planned to install Mode S transponder on ground vehicles.	40%	<b>Late</b> 30/06/2021

<b>AOP04.1</b>	<b>Advanced Surface Movement Guidance and Control System A-SMGCS Surveillance (former Level 1)</b> <u>Timescales:</u> Initial operational capability: 01/01/2007 Full operational capability: 31/12/2011	<b>100%</b>	<b>Completed</b>
<b>Links: B0-SURF   Key Feature: High Performing Airport Operations</b>			
<b>LIML - Milano Linate Airport</b>			
ENAV has installed the required surveillance equipment; SEA has installed Mode S transponders.			<b>31/12/2019</b>
<b>REG (By:12/2010)</b>			
ENAC	ENAC has activated a dedicated working group.	100%	<b>Completed</b> -
<b>ASP (By:12/2011)</b>			
ENAV	A-SMGCS Level 1 is fully operational in Milano Linate airport.	100%	<b>Completed</b> 31/12/2019
<b>APO (By:12/2010)</b>			
SEA - Aeroporti di Milano	SEA has installed Mode S transponders on ground vehicles.	100%	<b>Completed</b> -

AOP04.1	Advanced Surface Movement Guidance and Control System A-SMGCS Surveillance (former Level 1) <u>Timescales:</u> Initial operational capability: 01/01/2007 Full operational capability: 31/12/2011		25%	Late
	Links: B0-SURF   Key Feature: High Performing Airport Operations			
	LIPZ - Venezia Airport			
	Venice Airport is currently subject to important renovation works. As soon as possible, the required surveillance equipment will be installed and A-SMGCS operational procedures will be implemented.			31/12/2020
REG (By:12/2010)				
ENAC	ENAC has activated a dedicated working group.	100%	Completed	-
ASP (By:12/2011)				
ENAV	ENAV will install the required surveillance equipment and will implement the A-SMGCS operational procedures as soon as possible.	0%	Not yet planned	-
APO (By:12/2010)				
SAVE S.p.A.	SAVE has planned the implementation of the required surveillance by 2020 as a consequence of major works on the runway which will enable, through a technological improvement, to access the multilateration system.	0%	Planned	31/12/2020

AOP04.1	Advanced Surface Movement Guidance and Control System A-SMGCS Surveillance (former Level 1) <u>Timescales:</u> Initial operational capability: 01/01/2007 Full operational capability: 31/12/2011		64%	Ongoing
	Links: B0-SURF   Key Feature: High Performing Airport Operations			
	LIRF - Roma Fiumicino Airport			
	ENAV is going to install the required surveillance equipment. Aeroporti di Roma will complete the vehicles equipment. The implementation is in line with Regulation 716/2014 requirements and deadlines.			31/12/2020
REG (By:12/2010)				
ENAC	ENAC has activated a dedicated working group.	100%	Completed	-
ASP (By:12/2011)				
ENAV	ENAV is going to install the required surveillance equipment. Training and procedures will follow.	42%	Ongoing	31/12/2020
APO (By:12/2010)				
Aeroporti di Roma SpA	Aeroporti di Roma has installed ADS-B base station and vehicle transponders.	63%	Ongoing	31/12/2020

AOP04.2	<b>Advanced Surface Movement Guidance and Control System (A-SMGCS) Runway Monitoring and Conflict Alerting (RMCA) (former Level 2)</b> <u>Timescales:</u> Initial operational capability: 01/01/2007 Full operational capability: 31/12/2017		44%	Late
	<b>Links: B0-SURF   Key Feature: High Performing Airport Operations</b> <b>LIMC - Milano Malpensa Airport</b> <b>A-SMGCS Level 2 implementation is ongoing.</b>			
<b>ASP (By:12/2017)</b>				
ENAV	ENAV has implement A-SMGCS Restricted Area Alert and Conflict Clearances. The implementation of RWY incursion tool and alert is ongoing.	55%	Ongoing	31/12/2020
<b>APO (By:12/2017)</b>				
SEA - Aeroporti di Milano	SEA has implemented the Runway Incursion Prevention Control Alerting System and is waiting for related technical specification.	10%	Ongoing	31/12/2021

AOP04.2	<b>Advanced Surface Movement Guidance and Control System (A-SMGCS) Runway Monitoring and Conflict Alerting (RMCA) (former Level 2)</b> <u>Timescales:</u> Initial operational capability: 01/01/2007 Full operational capability: 31/12/2017		33%	Ongoing
	<b>Links: B0-SURF   Key Feature: High Performing Airport Operations</b> <b>LIML - Milano Linate Airport</b> <b>A-SMGCS Level 2 implementation is ongoing</b>			
<b>ASP (By:12/2017)</b>				
ENAV	ENAV has implement A-SMGCS Restricted Area Alert and Conflict Clearances. The implementation of RWY incursion tool and alert is ongoing.	43%	Ongoing	31/12/2020
<b>APO (By:12/2017)</b>				
SEA - Aeroporti di Milano	SEA has implemented the Runway Incursion Prevention Control Alerting System and is waiting for related technical specification.	0%	Planned	31/12/2020

AOP04.2	<b>Advanced Surface Movement Guidance and Control System (A-SMGCS) Runway Monitoring and Conflict Alerting (RMCA) (former Level 2)</b> <u>Timescales:</u> Initial operational capability: 01/01/2007 Full operational capability: 31/12/2017	0%	Not yet planned
Links: B0-SURF   Key Feature: High Performing Airport Operations			
LIPZ - Venezia Airport			
ENAV has no plans to implement A-SMGCS Level 2 at Venezia airport for the moment. SAVE will equip the airport with the appropriate runway/taxiway lights systems			-
ASP (By:12/2017)			
ENAV	ENAV has no plans to implement A-SMGCS Level 2 at Venezia airport for the moment.	0%	Not yet planned
APO (By:12/2017)			
SAVE S.p.A.	SAVE has put in place the SMGCS monitoring system requested by Annex 14 ICAO, Chapter 8 Aerodrome Design Manual part 5, Chapter 3. Implementation will follow ENAC specifications on SMGCS. Furthermore, major runways works from 2019 through 2020 will provide the airport with the appropriate runway/taxiway lights systems already agreed with the appointed ENAV reports, thus being ready for A-SMGCS Level 2 when ENAV will plan the implementation.	0%	Planned 31/12/2020

AOP04.2	<b>Advanced Surface Movement Guidance and Control System (A-SMGCS) Runway Monitoring and Conflict Alerting (RMCA) (former Level 2)</b> <u>Timescales:</u> Initial operational capability: 01/01/2007 Full operational capability: 31/12/2017	18%	Ongoing
Links: B0-SURF   Key Feature: High Performing Airport Operations			
LIRF - Roma Fiumicino Airport			
A-SMGCS Level 2 implementation is ongoing			31/12/2020
ASP (By:12/2017)			
ENAV	ENAV will implement A-SMGCS Level 2	20%	Ongoing 31/12/2020
APO (By:12/2017)			
Aeroporti di Roma SpA	Aeroporti di Roma will install the A-SMGCS control function equipment relevant to the Airport Operator responsibilities.	10%	Ongoing 31/12/2020

AOP05	<b>Airport Collaborative Decision Making (A-CDM)</b> <u>Timescales:</u> Initial operational capability: 01/01/2004 Full operational capability: 31/12/2016	100%	Completed
Links: B0-ACDM, B0-RSEQ   Key Feature: High Performing Airport Operations			
LIMC - Milano Malpensa Airport			
Airport management system services are implemented, provided by ANSP and AO in a coordinated way, each for its own remit. The full CDM implementation has been finalised			31/12/2016
ASP (By:12/2016)			
ENAV	Airport management system services are implemented, provided by ANSP and AO in a coordinated way, each for its own remit.	100%	Completed 31/12/2016
APO (By:12/2016)			
SEA - Aeroporti di Milano	Today airport management system services are implemented, provided by ANSP and AO in a coordinated way within one's remit.	100%	Completed -

<b>AOP05</b>	<b>Airport Collaborative Decision Making (A-CDM)</b> <u>Timescales:</u> Initial operational capability: 01/01/2004 Full operational capability: 31/12/2016	<b>100%</b>	<b>Completed</b>
<b>Links: B0-ACDM, B0-RSEQ   Key Feature: High Performing Airport Operations</b>			
<b>LIML - Milano Linate Airport</b>			
<b>Airport management system services are implemented, provided by ANSP and AO in a coordinated way, each for its own remit. The full CDM implementation has been finalised.</b>			<b>31/12/2016</b>
<b>ASP (By:12/2016)</b>			
ENAV	Airport management system services are implemented, provided by ANSP and AO in a coordinated way, each for its own remit.	100%	Completed 31/12/2016
<b>APO (By:12/2016)</b>			
SEA - Aeroporti di Milano	Today airport management system services are implemented, provided by ANSP and AO in a coordinated way within one's remit.	100%	Completed -

<b>AOP05</b>	<b>Airport Collaborative Decision Making (A-CDM)</b> <u>Timescales:</u> Initial operational capability: 01/01/2004 Full operational capability: 31/12/2016	<b>100%</b>	<b>Completed</b>
<b>Links: B0-ACDM, B0-RSEQ   Key Feature: High Performing Airport Operations</b>			
<b>LIPZ - Venezia Airport</b>			
<b>Airport management system services are implemented, provided by ANSP and AO in a coordinated way, each for its own remit. The full CDM implementation has been finalised.</b>			<b>31/12/2016</b>
<b>ASP (By:12/2016)</b>			
ENAV	Airport management system services are implemented, provided by ANSP and AO in a coordinated way, each for its own remit.	100%	Completed 31/12/2016
<b>APO (By:12/2016)</b>			
SAVE S.p.A.	Airport management system services are implemented, provided by ANSP and AO in a coordinated way, each for its own remit.	100%	Completed -

<b>AOP05</b>	<b>Airport Collaborative Decision Making (A-CDM)</b> <u>Timescales:</u> Initial operational capability: 01/01/2004 Full operational capability: 31/12/2016	<b>100%</b>	<b>Completed</b>
<b>Links: B0-ACDM, B0-RSEQ   Key Feature: High Performing Airport Operations</b>			
<b>LIRF - Roma Fiumicino Airport</b>			
<b>Airport management system services are implemented, provided by ANSP and AO in a coordinated way, each for its own remit. The full CDM implementation is finalised.</b>			<b>31/12/2016</b>
<b>ASP (By:12/2016)</b>			
ENAV	Airport management system services are implemented, provided by ANSP and AO in a coordinated way, each for its own remit.	100%	Completed 31/12/2016
<b>APO (By:12/2016)</b>			
Aeroporti di Roma SpA	Today airport management system services are implemented, provided by ANSP and AO in a coordinated way within one's remit. Aeroporti di Roma has completed all the activities necessary for A-CDM in adverse condition implementation.	100%	Completed -

<b>AOP10</b>	<b>Time-Based Separation</b> <u>Timescales:</u> Initial operational capability: 01/01/2015 Full operational capability: 31/12/2023	<b>0%</b>	<b>Not yet planned</b>
<b>Links: B1-RSEQ, B2-WAKE   Key Feature: High Performing Airport Operations</b>			
<b>LIMC - Milano Malpensa Airport</b>			
ENAV has envisaged interest to implement Time Based Separation at Milano Malpensa airport. The project is in the phase of internal analysis to assess the achievable operational benefits compared to the implementation costs.			-
<b>REG (By:12/2023)</b>			
ENAC	Regulator's actions will be eventually undertaken after ENAV "go/no go" decision on TBS implementation.	%	Not yet planned
<b>ASP (By:12/2023)</b>			
ENAV	ENAV has envisaged interest to implement Time Based Separation at Milano Malpensa airport. The project is in the phase of internal analysis to assess the achievable operational benefits compared to the implementation costs.	0%	Not yet planned

<b>AOP10</b>	<b>Time-Based Separation</b> <u>Timescales:</u> Initial operational capability: 01/01/2015 Full operational capability: 31/12/2023	<b>0%</b>	<b>Not yet planned</b>
<b>Links: B1-RSEQ, B2-WAKE   Key Feature: High Performing Airport Operations</b>			
<b>LIRF - Roma Fiumicino Airport</b>			
ENAV, at the moment, has no plans to implement Time Based Separation at Roma Fiumicino Airport due to a preliminary cost benefit analysis report that highlights an excessive cost related to its implementation considering the lack of effective operational benefits due to local weather conditions (prevalent winds study).			-
<b>REG (By:12/2023)</b>			
ENAC	Regulator's actions will be eventually undertaken after ENAV "go/no go" decision on TBS implementation.	0%	Not yet planned
<b>ASP (By:12/2023)</b>			
ENAV	ENAV, at the moment, has no plans to implement Time Based Separation at Roma Fiumicino Airport due to a preliminary cost benefit analysis report that highlights an excessive cost related to its implementation considering the lack of effective operational benefits due to local weather conditions (prevalent winds study).	0%	Not yet planned

<b>AOP11</b>	<b>Initial Airport Operations Plan</b> <u>Timescales:</u> Initial Operational Capability: 01/01/2015 Full Operational Capability: 31/12/2021	<b>14%</b>	<b>Ongoing</b>
<b>Links: B1-ACDM   Key Feature: High Performing Airport Operations</b>			
<b>LIMC - Milano Malpensa Airport</b>			
Initial Airport Operations Plan will be put in place according to PCP regulatory framework.			31/12/2020
<b>ASP (By:12/2021)</b>			
ENAV	The required data will be provided according to local agreement.	10%	Ongoing 31/12/2020
<b>APO (By:12/2021)</b>			
SEA - Aeroporti di Milano	Initial Airport Operations Plan will be put in place according to PCP regulatory framework.	15%	Ongoing 31/12/2020

AOP11	Initial Airport Operations Plan <u>Timescales:</u> Initial Operational Capability: 01/01/2015 Full Operational Capability: 31/12/2021		5%	Ongoing
	Links: B1-ACDM   Key Feature: High Performing Airport Operations			
	LIML - Milano Linate Airport			
	Initial Airport Operations Plan implementation is ongoing.			
	ASP (By:12/2021)			
ENAV	The required data will be provided according to local agreement.	10%	Ongoing	31/12/2021
APO (By:12/2021)				
SEA - Aeroporti di Milano	Initial Airport Operations Plan will be put in place according to PCP regulatory framework.	3%	Ongoing	31/12/2021

AOP11	Initial Airport Operations Plan <u>Timescales:</u> Initial Operational Capability: 01/01/2015 Full Operational Capability: 31/12/2021		5%	Ongoing
	Links: B1-ACDM   Key Feature: High Performing Airport Operations			
	LIPZ - Venezia Airport			
	Initial Airport Operations Plan implementation is ongoing.			
	ASP (By:12/2021)			
ENAV	The required data will be provided according to local agreement.	10%	Ongoing	31/12/2021
APO (By:12/2021)				
SAVE S.p.A.	Initial Airport Operations Plan will be put in place according to PCP regulatory framework.	3%	Ongoing	31/12/2021

AOP11	Initial Airport Operations Plan <u>Timescales:</u> Initial Operational Capability: 01/01/2015 Full Operational Capability: 31/12/2021		40%	Ongoing
	Links: B1-ACDM   Key Feature: High Performing Airport Operations			
	LIRF - Roma Fiumicino Airport			
	Initial Airport Operations Plan will be put in place according to PCP regulatory framework.			
	ASP (By:12/2021)			
ENAV	The required data will be provided according to local agreement.	10%	Ongoing	31/12/2020
APO (By:12/2021)				
Aeroporti di Roma SpA	Initial Airport Operations Plan project is ongoing.	50%	Ongoing	31/12/2020

<b>AOP12</b>	<b>Improve Runway and Airfield Safety with Conflicting ATC Clearances (CATC) Detection and Conformance Monitoring Alerts for Controllers (CMAC)</b> <u>Timescales:</u> Initial operational capability: 01/01/2015 Full operational capability: 31/12/2020	<b>81%</b>	<b>Ongoing</b>
<b>Links: B2-SURF   Key Feature: High Performing Airport Operations</b>			
<b>LIMC - Milano Malpensa Airport</b>			
<b>Conflicting ATC Clearances (CATC) will be implemented according to PCP regulatory framework. A number of alarms related to Conformance Monitoring Alerts for Controllers (CMAC) is operational.</b>			<b>31/12/2020</b>
<b>ASP (By:12/2020)</b>			
ENAV	ENAV has completed the implementation of Conflicting ATC Clearances (CATC). A number of alarms related to Conformance Monitoring Alerts for Controllers (CMAC) are operational as well.	75%	Ongoing 31/12/2020
<b>APO (By:12/2020)</b>			
SEA - Aeroporti di Milano	Monitoring of clearances and phraseology is already in place.	100%	Completed -

<b>AOP12</b>	<b>Improve Runway and Airfield Safety with Conflicting ATC Clearances (CATC) Detection and Conformance Monitoring Alerts for Controllers (CMAC)</b> <u>Timescales:</u> Initial operational capability: 01/01/2015 Full operational capability: 31/12/2020	<b>25%</b>	<b>Ongoing</b>
<b>Links: B2-SURF   Key Feature: High Performing Airport Operations</b>			
<b>LIRF - Roma Fiumicino Airport</b>			
<b>Conflicting ATC Clearances (CATC) will be implemented according to PCP regulatory framework. A number of alarms related to Conformance Monitoring Alerts for Controllers (CMAC) is operational.</b>			<b>31/12/2020</b>
<b>ASP (By:12/2020)</b>			
ENAV	ENAV has plans to implement Conflicting ATC Clearances (CATC) and a number of alarms related to Conformance Monitoring Alerts for Controllers (CMAC)	30%	Ongoing 31/12/2020
<b>APO (By:12/2020)</b>			
Aeroporti di Roma SpA	Staff will be trained according to ENAV implementation plan.	10%	Ongoing 31/12/2020

<b>AOP13</b>	<b>Automated Assistance to Controller for Surface Movement Planning and Routing</b> <u>Timescales:</u> Initial operational capability: 01/01/2016 Full operational capability: 31/12/2023	<b>0%</b>	<b>Not yet planned</b>
<b>Links: B1-ACDM, B1-RSEQ, B2-SURF   Key Feature: High Performing Airport Operations</b>			
<b>LIMC - Milano Malpensa Airport</b>			
<b>ENAV has no plan yet for this functionality. Regulator's actions will be eventually undertaken after ENAV implementation actions.</b>			-
<b>REG (By:12/2023)</b>			
ENAC	Regulator's actions will be eventually undertaken after ENAV implementation actions.	0%	Not yet planned -
<b>ASP (By:12/2023)</b>			
ENAV	ENAV has no plan yet for this functionality.	0%	Not yet planned -

AOP13	<b>Automated Assistance to Controller for Surface Movement Planning and Routing</b> <u>Timescales:</u> Initial operational capability: 01/01/2016 Full operational capability: 31/12/2023	0%	Not yet planned
Links: B1-ACDM, B1-RSEQ, B2-SURF   Key Feature: High Performing Airport Operations			
LIRF - Roma Fiumicino Airport			
ENAV has no plan yet for this functionality. Regulator's actions will be eventually undertaken after ENAV implementation actions.			-
REG (By:12/2023)			
ENAC	Regulator's actions will be eventually undertaken after ENAV implementation actions.	0%	Not yet planned
ASP (By:12/2023)			
ENAV	ENAV has no plan yet for this functionality.	0%	Not yet planned
ATC02.8	<b>Ground-Based Safety Nets</b> <u>Timescales:</u> Initial operational capability: 01/01/2009 Full operational capability: 31/12/2016	57%	Late
Links: B0-SNET, B1-SNET   Key Feature: Advanced Air Traffic Services			
The implementation of APW is in operation with the implementation of DAIW. The implementation of MSAW and APM Level 2 is foreseen in the frame of 4Flight Programme by 2023. ITAF has planned to implement APW, MSAW and APM functions.			31/12/2023
ASP (By:12/2016)			
Mil. Authority	ITAF has planned to implement APW, MSAW and APM functions.	63%	Late
ENAV	The implementation of APW is in operation with the implementation of Danger Area Infringement Warning (DAIW) implementation. The implementation of MSAW and APM Level 2 is foreseen in the frame of 4Flight Programme by 2023.	50%	Late
ATC02.9	<b>Short Term Conflict Alert (STCA) for TMAs</b> <u>Timescales:</u> Initial operational capability: 01/01/2018 Full operational capability: 31/12/2020	100%	Completed
Links: B0-SNET, B1-SNET   Key Feature: Advanced Air Traffic Services			
According to EUROCONTROL Guidelines for Short Term Conflict Alert, the system shall be enhanced by safety nets which shall be subject to agreed common performance characteristics. ENAV has implemented safety nets like improving alerting performance and reports by the ATCOs			30/04/2019
ASP (By:12/2020)			
ENAV	According to EUROCONTROL Guidelines for Short Term Conflict Alert, the system shall be enhanced by safety nets, which shall be subject to agreed common performance characteristics. ENAV has implemented safety nets like improving alerting performance and reports by the ATCOs.	100%	Completed

ATC07.1	<b>AMAN Tools and Procedures</b> <u>Timescales:</u> Initial operational capability: 01/01/2007 Full operational capability: 31/12/2019	48%	Ongoing
Links: B0-RSEQ   Key Feature: Advanced Air Traffic Services			
LIMC - Milano Malpensa Airport			
ENAV is going to implement AMAN concept, investing in a solution able to offer the functionalities of the Basic AMAN, Information exchange and the feasibility to extend the operational horizon of the tool from the TMA to the En-route scenario (Extended AMAN), according to Regulation 716/2014 system requirements and timescale.			30/06/2021
ASP (By:12/2019)			
ENAV	ENAV is going to implement AMAN concept, investing in a solution able to offer the functionalities of the Basic AMAN, Information exchange and the feasibility to extend the operational horizon of the tool from the TMA to the En-route scenario (Extended AMAN), according to Regulation 716/2014 system requirements and timescale.	48%	Ongoing
			30/06/2021

ATC07.1	<b>AMAN Tools and Procedures</b> <u>Timescales:</u> Initial operational capability: 01/01/2007 Full operational capability: 31/12/2019	48%	Ongoing
Links: B0-RSEQ   Key Feature: Advanced Air Traffic Services			
LIRF - Roma Fiumicino Airport			
ENAV is going to implement AMAN concept, investing in a solution able to offer the functionalities of the Basic AMAN, Information exchange and the feasibility to extend the operational horizon of the tool from the TMA to the En-route scenario (Extended AMAN), according to Regulation 716/2014 system requirements and timescale.			31/12/2020
ASP (By:12/2019)			
ENAV	ENAV is going to implement AMAN concept, investing in a solution able to offer the functionalities of the Basic AMAN, Information exchange and the feasibility to extend the operational horizon of the tool from the TMA to the En-route scenario (Extended AMAN), according to Regulation 716/2014 system requirements and timescale.	48%	Ongoing
			31/12/2020

ATC12.1	<b>Automated Support for Conflict Detection, Resolution Support Information and Conformance Monitoring</b> <u>Timescales:</u> Initial operational capability: 01/01/2015 Full operational capability: 31/12/2021	60%	Late
Links: B1-FRTO   Key Feature: Advanced Air Traffic Services			
-			
Conflict detection has been implemented and put into operations, resolution support information and conformance monitoring will be partially operating on current ATC System (SATCAS) and fully embedded in the new ATC system 4Flight.			31/12/2023
ASP (By:12/2021)			
ENAV	Conflict detection has been implemented and put into operations, resolution support information and conformance monitoring will be partially operating on current ATC System (SATCAS) and fully embedded in the new ATC system 4Flight.	60%	Late
			31/12/2023

ATC15.1	<b>Information Exchange with En-route in Support of AMAN</b> <u>Timescales:</u> Initial operational capability: 01/01/2012 Full operational capability: 31/12/2019	25%	Ongoing
Links: B1-RSEQ   Key Feature: Advanced Air Traffic Services			
-			
ENAV is going to implement AMAN concept, investing in a solution able to offer the functionalities of the Basic AMAN, Information exchange and the feasibility to extend the operational horizon of the tool from the TMA to the En-route scenario (Extended AMAN), according to Regulation 716/2014 system requirements and timescale.			30/06/2021
ASP (By:12/2019)			
ENAV	ENAV is going to implement AMAN concept, investing in a solution able to offer the functionalities of the Basic AMAN, Information exchange and the feasibility to extend the operational horizon of the tool from the TMA to the En-route scenario (Extended AMAN), according to Regulation 716/2014 system requirements and timescale.	25%	Ongoing
			30/06/2021
ATC15.2	<b>Arrival Management Extended to En-route Airspace</b> <u>Timescales:</u> Initial operational capability: 01/01/2015 Full operational capability: 31/12/2023	20%	Ongoing
Links: B1-RSEQ   Key Feature: Advanced Air Traffic Services			
-			
ENAV is going to implement AMAN concept, investing in a solution able to offer the functionalities of the Basic AMAN, Information exchange and the feasibility to extend the operational horizon of the tool from the TMA to the En-route scenario (Extended AMAN), according to Regulation 716/2014 system requirements and timescale.			30/06/2021
ASP (By:12/2023)			
ENAV	ENAV is going to implement AMAN concept, investing in a solution able to offer the functionalities of the Basic AMAN, Information exchange and the feasibility to extend the operational horizon of the tool from the TMA to the En-route scenario (Extended AMAN), according to Regulation 716/2014 system requirements and timescale.	20%	Ongoing
			30/06/2021
ATC17	<b>Electronic Dialogue as Automated Assistance to Controller during Coordination and Transfer</b> <u>Timescales:</u> Initial operational capability: 01/01/2013 Full operational capability: 31/12/2018	40%	Late
Key Feature: Advanced Air Traffic Services			
-			
ENAV will upgrade and put into service the ATC system to support electronic dialogue procedures in transfer of communication process as well as coordination process by 12/2023, according to new ATM system implementation timeframe.			31/12/2023
ASP (By:12/2018)			
ENAV	ENAV will upgrade and put into service the ATC system to support electronic dialogue procedures in transfer of communication process as well as coordination process by 12/2023, according to new ATM system implementation timeframe.	40%	Late
			31/12/2023

COM10	<b>Migrate from AFTN to AMHS</b> <u>Timescales:</u> Initial operational capability: 01/12/2011 Full operational capability: 31/12/2018	92%	Late
<b>Key Feature: Enabling the Aviation Infrastructure</b>			
-			
Migration to AMHS is ongoing.			30/09/2020
<b>ASP (By:12/2018)</b>			
ENAV	Migration to AMHS is ongoing.	92%	Late
			30/09/2020

COM11.1	<b>Voice over Internet Protocol (VoIP) in En-Route</b> <u>Timescales:</u> Initial operational capability: 01/01/2013 Full operational capability: 31/12/2021	35%	Late
<b>Key Feature: Enabling the Aviation Infrastructure</b>			
-			
The VCSs have been procured and installed in 3 ACCs. The fourth and last VCS will be procured and installed by 31/12/2020. The transition to the operational use of VoIP is foreseen after the upgrade of ENAV's IP network (31/12/2020) and the procurement and installation of the VoIP Radios in all remote Radio sites (31/12/2025). ITAF is planning the migration.			31/12/2025
<b>ASP (By:12/2021)</b>			
Mil. Authority	ITAF is planning the migration.	10%	Ongoing
			31/12/2020
ENAV	The VCSs have been procured and installed in 3 ACCs. The fourth and last VCS will be procured and installed by 31/12/2020. The transition to the operational use of VoIP is foreseen after the upgrade of ENAV's IP network (31/12/2020) and the procurement and installation of the VoIP Radios in all remote Radio sites (31/12/2025).	50%	Late
			31/12/2025

COM11.2	<b>Voice over Internet Protocol (VoIP) in Airport/Terminal</b> <u>Timescales:</u> Initial operational capability: 01/01/2013 Full operational capability: 31/12/2023	40%	Late
<b>Key Feature: Enabling the Aviation Infrastructure</b>			
-			
The objective is to migrate the Airport/Terminal ATM voice services to VoIP for inter-center telephony and for the links to the ground radio stations.			31/12/2025
<b>ASP (By:12/2023)</b>			
ENAV	The objective is to migrate the Airport/Terminal ATM voice services to VoIP for inter-center telephony and for the links to the ground radio stations.	40%	Late
			31/12/2025
Mil. Authority	The objective is to migrate the Airport/Terminal ATM voice services to VoIP for inter-center telephony and for the links to the ground radio stations.	10%	Ongoing
			31/12/2023

COM12	<b>New Pan-European Network Service (NewPENS)</b> <u>Timescales:</u> Initial operational capability: 01/01/2018 Full operational capability (33 ANSPs): 31/12/2020		35%	Ongoing
	Links: B1-SWIM   Key Feature: Enabling the Aviation Infrastructure			
ENAV and AdR are progressing with the migration to New PENS.				31/12/2020
ASP (By:12/2024)				
ENAV	Tender procedure for the provision of New PENS infrastructure has been completed, backbone deployed and connectivity infrastructure implemented. Service migration is ongoing.	-	53%	Ongoing 31/12/2020
APO (By:12/2024)				
Aeroporti di Roma SpA	ADR is planning the migration in due time.		0%	Planned 31/12/2020
ENV01	<b>Continuous Descent Operations (CDO)</b> <u>Timescales:</u> Initial operational capability: 01/07/2007 Full operational capability: 31/12/2023		80%	Ongoing
	Links: B0-CDO, B1-CDO   Key Feature: Advanced Air Traffic Services			
LIMC - Milano Malpensa Airport				
In 2012, AIC A6 has been published in AIP Italia providing airspace users with information about implementation of CDO techniques by ENAV in terminal airspaces under its jurisdiction. CDO are tactically implemented under radar vectoring, and almost all STARs published by ENAV can potentially be flown according to CDOs, because STARs have mainly "at or above" altitude restrictions not forcing the aircraft to fly steady segments or to cross fixes at specified altitudes.  In addition to the rules and procedures already established in AIC 06/2012, earmarked procedures for CDO will be gradually phased in. In a first implementation stage, they will be performed mainly night-time, but also daytime according to traffic situation.				31/12/2023
ASP (By:12/2023)				
ENAV	In 2012, AIC A6 has been published in AIP Italia providing airspace users with information about implementation of CDO techniques by ENAV in terminal airspaces under its jurisdiction. CDO are tactically implemented under radar vectoring, and almost all STARs published by ENAV can potentially be flown according to CDOs, because STARs have mainly "at or above" altitude restrictions not forcing the aircraft to fly steady segments or to cross fixes at specified altitudes.  In addition to the rules and procedures already established in AIC 06/2012, earmarked procedures for CDO will be gradually phased in. In a first implementation stage, they will be performed mainly night-time, but also daytime according to traffic situation.		75%	Ongoing 31/12/2023
APO (By:12/2023)				
SEA - Aeroporti di Milano	SEA supports CDOps in full cooperation with ENAV.		100%	Completed -

ENV01	<b>Continuous Descent Operations (CDO)</b> <u>Timescales:</u> Initial operational capability: 01/07/2007 Full operational capability: 31/12/2023	60%	Ongoing
<b>Links: B0-CDO, B1-CDO   Key Feature: Advanced Air Traffic Services</b>			
<b>LIML - Milano Linate Airport</b>			
<p>In 2012, AIC A6 has been published in AIP Italia providing airspace users with information about implementation of CDO techniques by ENAV in terminal airspaces under its jurisdiction. CDO are tactically implemented under radar vectoring, and almost all STARs published by ENAV can potentially be flown according to CDOs, because STARs have mainly "at or above" altitude restrictions not forcing the aircraft to fly steady segments or to cross fixes at specified altitudes.</p> <p>In addition to the rules and procedures already established in AIC 06/2012, earmarked procedures for CDO will be gradually phased in. In a first implementation stage, they will be performed mainly night-time, but also daytime according to traffic situation.</p>			31/12/2023
<b>ASP (By:12/2023)</b>			
ENAV	<p>In 2012, AIC A6 has been published in AIP Italia providing airspace users with information about implementation of CDO techniques by ENAV in terminal airspaces under its jurisdiction. CDO are tactically implemented under radar vectoring, and almost all STARs published by ENAV can potentially be flown according to CDOs, because STARs have mainly "at or above" altitude restrictions not forcing the aircraft to fly steady segments or to cross fixes at specified altitudes.</p> <p>In addition to the rules and procedures already established in AIC 06/2012, earmarked procedures for CDO will be gradually phased in. In a first implementation stage, they will be performed mainly night-time, but also daytime according to traffic situation.</p>	50%	Ongoing
<b>APO (By:12/2023)</b>			
SEA - Aeroporti di Milano	SEA supports CDOps in full cooperation with ENAV.	100%	Completed

ENV01	<b>Continuous Descent Operations (CDO)</b> <u>Timescales:</u> Initial operational capability: 01/07/2007 Full operational capability: 31/12/2023	80%	Ongoing
<b>Links: B0-CDO, B1-CDO   Key Feature: Advanced Air Traffic Services</b>			
<b>LIPZ - Venezia Airport</b>			
<p>In 2012, AIC A6 has been published in AIP Italia providing airspace users with information about implementation of CDO techniques by ENAV in terminal airspaces under its jurisdiction. CDO are tactically implemented under radar vectoring, and almost all STARs published by ENAV can potentially be flown according to CDOs, because STARs have mainly "at or above" altitude restrictions not forcing the aircraft to fly steady segments or to cross fixes at specified altitudes.</p> <p>In addition to the rules and procedures already established in AIC 06/2012, earmarked procedures for CDO will be gradually phased in. In a first implementation stage, they will be performed mainly night-time, but also daytime according to traffic situation.</p>			31/12/2023
<b>ASP (By:12/2023)</b>			
ENAV	<p>In 2012, AIC A6 has been published in AIP Italia providing airspace users with information about implementation of CDO techniques by ENAV in terminal airspaces under its jurisdiction. CDO are tactically implemented under radar vectoring, and almost all STARs published by ENAV can potentially be flown according to CDOs, because STARs have mainly "at or above" altitude restrictions not forcing the aircraft to fly steady segments or to cross fixes at specified altitudes.</p> <p>In addition to the rules and procedures already established in AIC 06/2012, earmarked procedures for CDO will be gradually phased in. In a first implementation stage, they will be performed mainly night-time, but also daytime according to traffic situation.</p>	75%	Ongoing
<b>APO (By:12/2023)</b>			
SAVE S.p.A.	SAVE supports CDOps in full cooperation with ENAV.	100%	Completed

ENV01	<b>Continuous Descent Operations (CDO)</b> <u>Timescales:</u> Initial operational capability: 01/07/2007 Full operational capability: 31/12/2023	80%	Ongoing
Links: B0-CDO, B1-CDO   Key Feature: Advanced Air Traffic Services			
LIRF - Roma Fiumicino Airport			
In 2012, AIC A6 has been published in AIP Italia providing airspace users with information about implementation of CDO techniques by ENAV in terminal airspaces under its jurisdiction. CDO are tactically implemented under radar vectoring, and almost all STARs published by ENAV can potentially be flown according to CDOs, because STARs have mainly "at or above" altitude restrictions not forcing the aircraft to fly steady segments or to cross fixes at specified altitudes. In addition to the rules and procedures already established in AIC 06/2012, earmarked procedures for CDO will be gradually phased in. In a first implementation stage, they will be performed mainly night-time, but also daytime according to traffic situation.			31/12/2023
ASP (By:12/2023)			
ENAV	In 2012, AIC A6 has been published in AIP Italia providing airspace users with information about implementation of CDO techniques by ENAV in terminal airspaces under its jurisdiction. CDO are tactically implemented under radar vectoring, and almost all STARs published by ENAV can potentially be flown according to CDOs, because STARs have mainly "at or above" altitude restrictions not forcing the aircraft to fly steady segments or to cross fixes at specified altitudes. In addition to the rules and procedures already established in AIC 06/2012, earmarked procedures for CDO will be gradually phased in. In a first implementation stage, they will be performed mainly night-time, but also daytime according to traffic situation.	75%	Ongoing
APO (By:12/2023)			
Aeroporti di Roma SpA	AdR supports CDOs in full cooperation with ENAV.	100%	Completed
FCM03	<b>Collaborative Flight Planning</b> <u>Timescales:</u> Initial operational capability: 01/01/2000 Full operational capability: 31/12/2017	100%	Completed
Links: B0-NOPS   Key Feature: Optimised ATM Network Services			
ENAV is able to exchange FPL messages in ADEXP format. Implementation of AFP in ADEXP format automatically generated by the ATC system is completed.			31/12/2014
ASP (By:12/2017)			
ENAV	ENAV is able to exchange FPL messages in ADEXP format. Implementation of AFP in ADEXP format automatically generated by the ATC system is completed.	100%	Completed
FCM04.2	<b>Short Term ATFCM Measures (STAM) - Phase 2</b> <u>Timescales:</u> Initial operational capability: 01/11/2017 Full operational capability: 31/12/2021	5%	Ongoing
Key Feature: Optimised ATM Network Services			
ENAV is developing a local system.			31/12/2021
ASP (By:12/2021)			
ENAV	ENAV is developing a local system.	5%	Ongoing

FCM05	<b>Interactive Rolling NOP</b> <u>Timescales:</u> Initial operational capability: 01/09/2013 Full operational capability: 31/12/2021	25%	Ongoing
Links: B1-ACDM, B1-NOPS   Key Feature: Optimised ATM Network Services			
-			
ENAV is planning to upgrade ASM support system using AIXM5.1 B2B. Italian airports are providing the required data to the Network Manager for DDR.			31/12/2021
ASP (By:12/2021)			
ENAV	Integration of the automated ASM support systems with the Network will be performed.	0%	Planned
			31/12/2021
APO (By:12/2021)			
National Airports	Italian airports are providing the required data to the Network Manager for DDR.	50%	Ongoing
			31/12/2021

FCM06	<b>Traffic Complexity Assessment</b> <u>Timescales:</u> Initial operational capability: 01/01/2015 Full operational capability: 31/12/2021	20%	Ongoing
Links: B1-NOPS   Key Feature: Optimised ATM Network Services			
-			
All actions towards the implementation of Traffic Complexity Assessment tools are ongoing.			31/12/2021
ASP (By:12/2021)			
ENAV	All actions towards the implementation of Traffic Complexity Assessment tools are planned.	20%	Ongoing
			31/12/2021

FCM08	<b>Extended Flight Plan</b> <u>Timescales:</u> Initial operational capability: 01/01/2016 Full operational capability: 31/12/2021	5%	Ongoing
Links: B1-FICE   Key Feature: Enabling the Aviation Infrastructure			
-			
ENAV will upgrade the ground system and develop the associated procedures to be able to receive, process and distribute extended flight plan			31/12/2021
ASP (By:12/2021)			
ENAV	ENAV will upgrade the ground system and develop the associated procedures to be able to receive, process and distribute extended flight plan.	5%	Ongoing
			31/12/2021

INF07	<b>Electronic Terrain and Obstacle Data (eTOD)</b> <u>Timescales:</u> Initial operational capability: 01/11/2014 Full operational capability: 31/05/2018	9%	Late
<b>Key Feature: Enabling the Aviation Infrastructure</b>			
-			
Pending the availability of a national TOD policy and a national TOD implementation programme, ENAV (AIS provider) has nevertheless planned and implemented the required activities for the collection, management and provision of Terrain and Obstacle Data as follows: As far as Area 1 is concerned, Obstacles made known to AIS are available in ENAV Data Base; As far as Area 2 is concerned, Terrain and Obstacles data related to Aerodromes under ENAV jurisdiction are available in ENAV Data Base as per ICAO Annex 15. As far as Area 4 is concerned, Terrain and Obstacles data related to Aerodromes with ILS Cat III and II under ENAV jurisdiction are available in ENAV Data Base. Following the positive opinion given by EASA Committee on January 2020, the new AIS/AIM part will be in force by January 2022			31/01/2022
<b>REG (By:05/2018)</b>			
ENAC	Following the positive opinion given by EASA Committee on January 2020, the new AIS/AIM part will be in force by January 2022.	5%	Late 31/01/2022
<b>ASP (By:05/2018)</b>			
ENAV	Pending the availability of a national TOD policy and a national TOD implementation programme, ENAV (AIS provider) has nevertheless planned and implemented the required activities for the collection, management and provision of Terrain and Obstacle Data as follows: As far as Area 1 is concerned, Obstacles made known to AIS are available in ENAV Data Base; As far as Area 2 is concerned, Terrain and Obstacles data related to Aerodromes under ENAV jurisdiction are available in ENAV Data Base as per ICAO Annex 15; As far as Area 4 is concerned, Terrain and Obstacles data related to Aerodromes with ILS Cat III and II under ENAV jurisdiction are available in ENAV Data Base. The implementation is planned in accordance with Deployment programme timeline.	25%	Late 31/12/2020
<b>APO (By:05/2018)</b>			
National Airports	A plan/roadmap by the airport operator demonstrating the feasibility of implementation of TOD will be made available. The requirements defined in the national TOD policy and regulatory framework for airport operators are planned to be fulfilled once available.	0%	Late 31/12/2020

INF08.1	<b>Information Exchanges using the SWIM Yellow TI Profile</b> <u>Timescales:</u> Initial operational capability: 01/01/2018 Full operational capability: 31/12/2024		25%	Ongoing
	<b>Links: B1-DATM, B1-SWIM   Key Feature: Enabling the Aviation Infrastructure</b> -			
	<b>Italian stakeholders are putting in place all the necessary actions towards the implementation of SWIM Yellow Profile.</b>			31/12/2024
	<b>ASP (By:12/2024)</b>			
ENAV	ENAV is proceeding in the upgrade of the local ground network infrastructure in order to meet NewPENS requirements and in preparation of SWIM service delivery. ENAV is involved in the development of an AMHS gateway to AMQP (Advanced Message Queuing Protocol) for the Message Exchange of SWIM Compliant Applications.	25%	Ongoing	31/12/2024
<b>MIL (By:12/2024)</b>				
Mil. Authority	ITAF is proceeding in the upgrade of the local ground network infrastructure in order to meet NewPENS and SWIM requirements.	%	Ongoing	31/12/2024
<b>APO (By:12/2024)</b>				
Aeroporti di Roma SpA	The implementation is planned.	%	Planned	31/12/2024
SEA - Aeroporti di Milano	The implementation is planned.	%	Planned	31/12/2024
SAVE S.p.A.	The implementation is planned.	%	Planned	31/12/2024

ITY-ACID	<b>Aircraft Identification</b> <u>Timescales:</u> Entry into force of the Regulation: 13/12/2011 System capability: 02/01/2020		77%	Ongoing
	<b>Key Feature: Enabling the Aviation Infrastructure</b> -			
	<b>Downlinked aircraft identification is already performed through Mode S. However, further implementation is planned according to the national ADS-B Implementation Programme. Italian Air Force has upgraded the systems for the SCC in Milano, Padova, Roma and Brindisi. ITAF is planning to procure new surveillance systems for the APP Units to ensure the system capability by 2025.</b>			02/01/2025
	<b>ASP (By:01/2020)</b>			
ENAV	Downlinked aircraft identification is already performed through Mode S. However, further implementation is planned according to the national ADS-B Implementation Programme.	100%	Completed	-
Mil. Authority	Italian Air Force has upgraded the systems for the SCC in Milano, Padova, Roma and Brindisi. ITAF is planning to procure new surveillance systems for the APP Units to ensure the system capability by 2025.	30%	Ongoing	02/01/2025

ITY-ADQ	<b>Ensure Quality of Aeronautical Data and Aeronautical Information Timescales:</b> Entry into force of the regulation: 16/02/2010 Article 5(4)(a), Article 5(4)(b) and Article 6 to 13 to be implemented by: 30/06/2013 Article 4, Article 5(1) and Article 5(2), Article 5(3) and Article 5(4)(c) to be implemented by: 30/06/2014 All data requirements implemented by: 30/06/2017		80%	Late
	<b>Links: B0-DATM   Key Feature: Enabling the Aviation Infrastructure</b> -			
All electronic data will be compliant with all the requirements by 12/2020.				31/12/2020
<b>REG (By:06/2017)</b>				
Mil. Authority	ITAF has planned relevant activities.	75%	Late	31/12/2020
ENAC	For all airports (34) that have been certified according to Regulation 139/2014 + 5 airports according to Reg. 73/2010, formal agreements have been supervised in the framework of certification process.	70%	Late	31/12/2020
<b>ASP (By:06/2017)</b>				
ENAV	ENAV has implemented all data quality and process requirements. AIS data included in SDO minimum data set are regularly subject to EAD consistency review mechanisms. Following the acceptance of the legacy systems by the NSA, according to the provision of Reg. EC 1070/2009 , all subsequent new implementation and/or changes needed to comply fully with Reg. EU 73/2010 have followed the change management procedures approved by the NSA itself. Processes are well established between ENAV and the NSA in Safety Assessment, Change Management and related Declarations of Verification of Systems. Furthermore, ENAV has implemented a quality management system and has fulfilled safety and security objectives. Personnel requirements have been met. The common data set and digital exchange format requirements have been implemented on 11/2016; all electronic data will be compliant with all the requirements by 12/2020.	87%	Late	31/12/2020
Mil. Authority	ITAF has planned relevant activities.	55%	Late	31/12/2020
<b>APO (By:06/2017)</b>				
SEA - Aeroporti di Milano	Italian Airports are certified and audited by ENAC according to the "Regolamento per la Costruzione e l'esercizio degli Aeroporti" and specific Circulars.	100%	Completed	-
Aeroporti di Roma SpA	Italian Airports are certified and audited by ENAC according to the "Regolamento per la Costruzione e l'esercizio degli Aeroporti" and specific Circulars.	100%	Completed	-
SAVE S.p.A.	Italian Airports are certified and audited by ENAC according to the "Regolamento per la Costruzione e l'esercizio degli Aeroporti" and specific Circulars.	100%	Completed	-

ITY-AGDL	Initial ATC Air-Ground Data Link Services <u>Timescales:</u> Entry into force: 06/02/2009 ATS unit operational capability: 05/02/2018 Aircraft capability: 05/02/2020	100%	Completed
	Links: B0-TBO   Key Feature: Enabling the Aviation Infrastructure		
	-		
	The implementation of ATC air-ground data link services above FL-285 is completed.		
REG (By:02/2018)			
ENAC	All REG actions have been completed.	100%	Completed
ASP (By:02/2018)			
ENAV	The implementation of ATC air-ground data link services above FL-285 is completed.	100%	Completed
MIL (By:01/2019)			
Mil. Authority	The equipment of transport-type State aircraft is in accordance to EC 29/2009.	100%	Completed

ITY-AGVCS2	8,33 kHz Air-Ground Voice Channel Spacing below FL195 <u>Timescales:</u> Entry into force: 07/12/2012 New and upgraded radio equipment: 17/11/2013 New or upgraded radios on State aircraft: 01/01/2014 Interim target for freq. conversions: 31/12/2014 All radio equipment: 31/12/2017 All frequencies converted: 31/12/2018 State aircraft equipped, except those notified to EC: 31/12/2018 State aircraft equipped, except those exempted [Art 9(11)]: 31/12/2020		80%	Ongoing			
	Key Feature: Enabling the Aviation Infrastructure						
	-						
	Interim target (31/12/2018), has been achieved. With reference to the final target (2018), according to article 14, Italy, through the 8.33 National Coordinator (ENAC), communicated a list of exemptions to the Art.6 (10). The exemptions have been evaluated and accepted by the EC due to the limited impact on the network. The planned date for each frequency conversion has been uploaded on SAFIRE database. The conversions will be completed by 31/12/2025.				31/12/2025		
	REG (By:12/2018)						
	Mil. Authority	All the necessary actions have been done.				100%	Completed
	-						
	ENAC	The conversion of frequencies will be verified by the National Authority according to service providers plans and according to EC impact assessment.			100%	Completed	
-							
ASP (By:12/2018)							
ENAV	Due to airspace re-organization during the year 2014, following conversion schedule was adopted: 2 frequencies were converted on September 2015 and 2 frequencies were converted on march 2016. The 4 frequencies represent 100% of the eligible 25 kHz frequencies assigned to ACCs in Italy and reported in the central register (excluding assignments covered by Reg. 1079/2012 Art. 6 para. 4). With reference to the final target (2018), according to article 14, Italy, through the 8.33 National Coordinator (ENAC), communicated a list of exemptions to the Art.6 (10). The exemptions have been evaluated and accepted by the EC due to the limited impact on the network. The planned date for each frequency conversion has been uploaded on SAFIRE database. The conversions will be completed by 31/12/2025.	50%	Ongoing	31/12/2025			
Mil. Authority	With reference to the final target (2018), according to article 14, Italy, through the 8.33 National Coordinator (ENAC), communicated a list of exemptions to the Art.6 (10) by the end of 2017. The exemptions have been evaluated and accepted by the EC due to the limited impact on the network.	40%	Ongoing				
MIL (By:12/2020)							
Mil. Authority	ITAF has completed the implementation according to the requirements.	100%	Completed	-			
APO (By:12/2018)							
SEA - Aeroporti di Milano	Italian airports have completed the implementation.	100%	Completed	-			
Aeroporti di Roma SpA	Italian airports have completed the implementation.	100%	Completed	-			
SAVE S.p.A.	Italian airports have completed the implementation.	100%	Completed	-			

ITY-FMTP	<b>Common Flight Message Transfer Protocol (FMTP)</b> <u>Timescales:</u> Entry into force of regulation: 28/06/2007 All EATMN systems put into service after 01/01/09: 01/01/2009 All EATMN systems in operation by 20/04/11: 20/04/2011 Transitional arrangements: 31/12/2012 Transitional arrangements when bilaterally agreed between ANSPs: 31/12/2014		100%	Completed
Links: B0-FICE, B1-FICE   Key Feature: Enabling the Aviation Infrastructure				
-				
ENAV has completed to migrate Flight Data Exchange to TCP/IP support version 6 according to the Interoperability Regulation EC 633/2007. Technical specifications are based on EUROCONTROL FDE-ICD. A Security policy has been defined. Technical development and implementation of TCP/IP for Italian ACCs cover the need of civil-military coordination at ACC level, being the military units/systems co-located and integrated in Italian ACCs.				30/06/2015
ASP (By:12/2014)				
ENAV	ENAV has completed to migrate Flight Data Exchange to TCP/IP support version 6 according to the Interoperability Regulation EC 633/2007. Technical specification are based on EUROCONTROL FDE-ICD. A Security policy has been defined. Technical development and implementation of TCP/IP for Italian ACCs cover the need of civil-military coordination at ACC level, being the military units/systems co-located and integrated in Italian ACCs.	100%	Completed	
			30/06/2015	
MIL (By:12/2014)				
Mil. Authority	This Objective is applicable for ITAF only referring to the SCC/AM. The technical development and implementation of TCP/IP for military units/systems co-located and integrated in Italian ACCs is under evaluation.	%	Not Applicable	
			-	
ITY-SPI	<b>Surveillance Performance and Interoperability</b> <u>Timescales:</u> Entry into force of regulation: 13/12/2011 ATS unit operational capability: 12/12/2013 EHS and ADS-B Out in transport-type State aircraft : 07/06/2020 ELS in transport-type State aircraft : 07/06/2020 Ensure training of MIL personnel: 07/06/2020 Retrofit aircraft capability: 07/06/2020		88%	Ongoing
Links: B0-ASUR   Key Feature: Enabling the Aviation Infrastructure				
-				
ENAV has transferred all surveillance data to other ANSPs (SkyGuide, DSNA, Slovenia Control, MATS and ITAF) through Asterix protocol. ANSP communicated to ENAC a Compliance Check List related to the deadline of 31st Dec 2013. The following articles are affected: 4, 5 (para 1 and 2), 7. State Aircraft will be equipped according to CE 1207/2011.				07/06/2020
REG (By:02/2015)				
ENAC	ANSP communicated to ENAC a Compliance Check List related to the deadline of 31st Dec 2013. The following articles are affected: 4, 5 (para 1 and 2), 7.	100%	Completed	
			-	
ASP (By:02/2015)				
ENAV	ENAV has transferred all surveillance data to other ANSPs (SkyGuide, DSNA, Slovenia Control, MATS and ITAF) through Asterix protocol.	100%	Completed	
			-	
MIL (By:06/2020)				
Mil. Authority	State Aircraft will be equipped according to CE 1207/2011.	67%	Ongoing	
			07/06/2020	

NAV03.1	RNAV 1 in TMA Operations <u>Timescales:</u> Initial operational capability: 01/01/2001 One SID and STAR per instrument RWY, where established: 25/01/2024 All SIDs and STARs per instrument RWY, where established: 06/06/2030		78%	Ongoing
Links: B0-CCO, B0-CDO, B1-RSEQ   Key Feature: Advanced Air Traffic Services				
-				
P-RNAV procedures are in place since 2011 in Milan and Rome TMAs. RNAV1 SIDs & STARs have been implemented in all major Italian airports. The Transition Plan is foreseen by 12/2020. ITAF has implemented RNAV (DME-DME) STARs and SIDs in Pratica di Mare/Rome CTR, STARs in Pisa CTR and RNAV LNAV RNP Approach for Pisa RWY 22L. Other SIDs and STARs (DME-DME) in Treviso CTR are under approval process.				31/12/2020
REG (By:06/2030)				
ENAC	-		10%	Ongoing 31/12/2020
ASP (By:06/2030)				
ENAV	ENAV has published the AIC A1/2011 about Introduction of Precision RNAV in the Terminal Airspace of Italy on 21 Apr 2011 and has officially introduced RNAV procedures in June 2011 in Milan and Rome TMAs. ATCOs specific training has been already done. RNAV SIDs and STARs have been implemented at selected CTAs and training has been provided to APP ATCOs. Some specific items are still under completion. A Transition Plan will be established by 12/2020.		87%	Ongoing 31/12/2020
Mil. Authority	ITAF has implemented RNAV (DME-DME) STARs and SIDs in Pratica di Mare/Rome CTR, STARs in Pisa CTR and RNAV LNAV RNP Approach for Pisa RWY 22L. Other SIDs and STARs (DME-DME) in Treviso CTR are under approval process.		100%	Completed 31/12/2019
NAV03.2	RNP 1 in TMA Operations <u>Timescales:</u> Start: 07/08/2018 All SIDs and STARs per instrument RWY, at PCP airports: 25/01/2024 One SID and STAR per instrument RWY, where established: 25/01/2024 All SIDs and STARs per instrument RWY, where established: 06/06/2030		23%	Ongoing
Links: B1-RSEQ   Key Feature: Advanced Air Traffic Services				
-				
ENAV has a project aiming at introducing RNP1+RF applications in Rome Fiumicino and Milano Malpensa Airport. Appropriate infrastructure for GNSS reversion already available within Roma and Milano TMA.				31/12/2021
REG (By:06/2030)				
ENAC	-	-	10%	Ongoing 31/12/2020
ASP (By:06/2030)				
ENAV	ENAV has a project aiming at introducing RNP1+RF applications in Rome Fiumicino and Milano Malpensa Airport. Appropriate infrastructure for GNSS reversion already available within Roma and Milano TMA.		25%	Ongoing 31/12/2021

NAV10	<b>RNP Approach Procedures to instrument RWY</b> <u>Timescales:</u> Initial operational capability: 01/06/2011 Instrument RWY ends without precision approach in EU SES States, at Non-PCP airports: 03/12/2020 Instrument RWY ends served by precision approach (including PCP airports): 25/01/2024 Instrument RWY ends without precision approach in EU SES States, at PCP airports: 25/01/2024	50%	Ongoing	
	<b>Links: B0-APTA   Key Feature: Advanced Air Traffic Services</b>			
	-			
	<b>ENAV has already implemented RNP APCH on several instrument runway ends and has planned the implementation in other national airports according to PBN IR and PCP Regulation.</b>			
	<b>REG (By:01/2024)</b>			
ENAC	ENAC set up a WG on PBN in order to prepare a radio navigation plan referred to satellite navigation.	55%	Ongoing 31/12/2020	
<b>ASP (By:01/2024)</b>				
ENAV	ENAV has worked at a national level on an implementation plan of APV/BARO and APV/SBAS inside a framework of a joint National Task Force with Italian Regulator and Italian Air Force. The task force has defined a national implementation plan for PBN operations in general and of APV approaches specifically. ENAV has started the introduction of APV/SBAS approaches inside National Airspace. A National Safety Case for the introduction of GNSS approaches inside Italian airspace has been defined and approved by the Regulator; the Safety Case is currently under revision in order to update some mitigations and to include the APV/BARO in the scope. ENAV has implemented LNAV, APV/SBAS and APV/BARO at major airports.	49%	Ongoing  17/06/2021	

NAV12	ATS IFR Routes for Rotorcraft Operations <u>Timescales:</u> Rotorcraft RNP0.3, RNP1 or RNAV1 ATS routes above FL150, where established.: 03/12/2020 One rotorcraft RNP0.3, RNP01 or RNAV1 SID and STAR per instrument RWY, where established.: 25/01/2024 Rotorcraft RNP0.3, RNP1 or RNAV1 ATS routes below FL150, where established.: 25/01/2024 All rotorcraft RNP0.3, RNP01 or RNAV1 SIDs and STARs per instrument RWY, where established.: 06/06/2030		54%	Ongoing
	Links: B1-APTA   Key Feature: Advanced Air Traffic Services			
	-			
	ENAV keeps working, at national level, on the implementation of Low Level IFR Routes and PinS Procedures, both Approach (down to LPV minima) and Departures. This activity is carried out inside a framework of a National Task Force actively contributed by ENAV, the Italian CAA, Helicopters Manufacturers and Helicopters Operators.			31/12/2020
	REG (By:06/2030)			
ENAC	-	10%	Ongoing 31/12/2020	
ASP (By:06/2030)				
ENAV	ENAV keeps working, at national level, on the implementation of Low Level IFR Routes and PinS Procedures, both Approach (down to LPV minima) and Departures. This activity is carried out inside a framework of a National Task Force actively contributed by ENAV, the Italian CAA, Helicopters Manufacturers and Helicopters Operators. The Task Force has defined and approved Guidance Material to support the Operational Implementation of LLR and PinS Procedures in the Italian Airspace. ENAV, according to these Guidelines, is designing LLR networks and PinS Procedures in different Italian Regions and Operational Scenarios (e.g. Trentino Alto Adige, Piemonte, Puglia regions). These Procedures, placed both in controlled and G - class airspace, are conceived to support HEMS (Helicopter Emergency Medical Service) Operations mainly. The ENAV Operations (Airspace Design and Consulting, Flight Inspection and Validation, AIM and MET Departments), International Strategies and Business Development Areas are refining, with the oversight of the Italian CAA, the definition of an overall process aimed to implement these procedures in the Italian AIP, making them available for Helicopters Operators. A first evidence of the work done so far is the publication of PinS Approaches and PinS Departures to connect Trento Airport and Cles Helipad in the Italian North-East mountainous area. These procedures have been used on an experimental basis in VMC for one year. They are still published in the AIP AIRAC Supplement S15/2018, effective from 31 JAN 2019 until 30 JAN 2020. Having regarded to the positive feedback provided by the involved stakeholders during the experimental phase, the CAA approved their publication in the AIRAC AMDT A13/2019. On August 2019, ECARO, a GSA (European Global Navigation Satellite System Agency) granted project, was kicked off. The project is looking to the second phase of EGNOS adoption in Italy. The project aims, among others, to the design and the implementation of a Low Level IFR Route Network for rotorcraft operations, based on the RNP 0.3 Navigation Specification.		63%	Ongoing   

SAF11	<b>Improve Runway Safety by Preventing Runway Excursions</b> <u>Timescales:</u> Initial operational capability: 01/09/2013 Full operational capability: 31/01/2018	100%	Completed	
	<b>Key Feature: High Performing Airport Operations</b>			
	-			
	ENAV, ITAF and Italian airports have implemented the applicable measures of the Action Plan. ENAC has implemented the relevant part of the European Action Plan for the Prevention of Runway Excursions.			
31/12/2013				
<b>REG (By:01/2018)</b>				
ENAC	ENAC has implemented the relevant part of the European Action Plan for the Prevention of Runway Excursions.	100%	Completed	
31/12/2013				
<b>ASP (By:12/2014)</b>				
ENAV	ENAV has implemented the applicable measures of the Action Plan.	100%	Completed	
31/12/2013				
Mil. Authority	ITAF has implemented the applicable measures of the Action Plan.	100%	Completed	
31/12/2013				
<b>APO (By:12/2014)</b>				
SEA - Aeroporti di Milano	Relevant Italian airports have implemented the applicable measures of the Action Plan.	100%	Completed	
31/12/2013				
Aeroporti di Roma SpA	Relevant Italian airports have implemented the applicable measures of the Action Plan.	100%	Completed	
31/12/2013				

## Additional Objectives for ICAO ASBU Monitoring

AOM21.1	<b>Direct Routing</b> <u>Timescales:</u> Initial Operational Capability: 01/01/2015 Full Operational Capability: 31/12/2017	100%	Completed
<b>Links: B0-FRTO, B1-FRTO   Key Feature: Advanced Air Traffic Services</b>			
<p><b>Direct Routing Network FL315+ has been fully implemented on January 08th 2015 according to AIRAC 12/2014.</b></p> <p>In accordance with European Route Network Improvement Plan (ERNIP) and Blue Med (Mediterranean FAB) Free Route initiative, a system of the Night/Weekend DCTs within Italian ACCs has been introduced with the aim to improve capacity and effectiveness and decrease environmental impact of flight operations while maintaining the required level of safety. The implementation of Night/Weekend DCTs has been defined as an intermediate step of gradual implementation of full Free Route Airspace Concept.</p> <p>Each DCT guarantee a reduction in distances travelled and consequent reduction of fuel consumptions and decrease of CO2 emissions compared to standard ATS network. Direct Routing Network are available from FL315 and above MON-FRI 2100-0600 UTC (summertime period 2100-0500 UTC) and Weekend H24.</p> <p>Following measures have been introduced jointly to the introduction of new DCTs:</p> <ul style="list-style-type: none"> <li>a) harmonization of activation/suspension periods of RAD/PTR (Profile Tuning Restrictions)/Night-route/Night-DCT.</li> <li>b) Night routes extension of availability</li> <li>c) New Night/Weekend DCTs</li> <li>d) New RPTs to link DCTs with existing network</li> <li>e) New RPTs to be used only as COP between ACCs</li> </ul> <p>On 8th December 2016, upper vertical limit of all DCTs have been lowered to FL335, according to Free Route Airspace implementation FL335 and above.</p>			08/12/2016
<b>ASP (By:12/2017)</b>			
ENAV	<p>Direct Routing Network FL315+ has been fully implemented on January 08th 2015 according to AIRAC 12/2014.</p> <p>In accordance with European Route Network Improvement Plan (ERNIP) and Blue Med (Mediterranean FAB) Free Route initiative, a system of the Night/Weekend DCTs within Italian ACCs has been introduced with the aim to improve capacity and effectiveness and decrease environmental impact of flight operations while maintaining the required level of safety. The implementation of Night/Weekend DCTs has been defined as an intermediate step of gradual implementation of full Free Route Airspace Concept.</p> <p>Each DCT guarantee a reduction in distances travelled and consequent reduction of fuel consumptions and decrease of CO2 emissions compared to standard ATS network. Direct Routing Network are available from FL315 and above MON-FRI 2100-0600 UTC (summertime period 2100-0500 UTC) and Weekend H24.</p> <p>Following measures have been introduced jointly to the introduction of new DCTs:</p> <ul style="list-style-type: none"> <li>a) harmonization of activation/suspension periods of RAD/PTR (Profile Tuning Restrictions)/Night-route/Night-DCT.</li> <li>b) Night routes extension of availability</li> <li>c) New Night/Weekend DCTs</li> <li>d) New RPTs to link DCTs with existing network</li> <li>e) New RPTs to be used only as COP between ACCs</li> </ul> <p>On 8th December, 2016 upper vertical limit of all DCTs have been lowered to FL335, according to Free Route Airspace implementation FL335 and above.</p>	100%	Completed

ATC02.2	Implement ground based safety nets - Short Term Conflict Alert (STCA) - level 2 for en-route operations <u>Timescales:</u> Initial operational capability: 01/01/2008 Full operational capability: 31/01/2013	100%	Completed
Links: B0-SNET   Key Feature: Advanced Air Traffic Services			
-			
Short Term Conflict Alert (STCA) - level 2 for en-route environment is in operations.			31/12/2017
ASP (By:01/2013)			
Mil. Authority	Short Term Conflict Alert (STCA) - level 2 for en-route environment is in operations.	100%	Completed -
ENAV	Short Term Conflict Alert (STCA) - level 2 for en-route environment is in operations.	100%	Completed 31/12/2017
ATC16	Implement ACAS II compliant with TCAS II change 7.1 <u>Timescales:</u> Initial operational capability: 01/03/2012 Full operational capability: 31/12/2015	100%	Completed
Links: B0-ACAS   Key Feature: Advanced Air Traffic Services			
-			
ENAC has completed all required actions. Dedicated training modules related to TCAS II changes 7.1 have been put in place by ENAV during the planned continuous training in the ATSUs. There are no plans for performance monitoring as the ANSP is not in the best position to monitor the ACAS performances. ACAS is an airborne-based system; consequently the better perspective should be left to the aircraft operators. Anyhow, ENAV has in place a reporting mechanism able to identify all the TCAS RA, that, if judged significant, are analysed			31/03/2012
REG (By:12/2015)			
ENAC	ENAC has completed all required actions.	100%	Completed -
ASP (By:03/2012)			
ENAV	Dedicated training modules related to TCAS II changes 7.1 have been put in place during the planned continuous training in the ATSUs. There are no plans for performance monitoring, as the ANSP is not in the best position to monitor the ACAS performances. ACAS is an airborne-based system; consequently, the better perspective should be left to the aircraft operators. Anyhow, ENAV has in place a reporting mechanism able to identify all the TCAS RA, that, if judged significant, are analysed.	100%	Completed 31/03/2012
MIL (By:12/2015)			
Mil. Authority	ITAF has implemented all relevant actions.	100%	Completed -
FCM01	Implement enhanced tactical flow management services <u>Timescales:</u> Initial operational capability: 01/08/2001 Full operational capability: 31/12/2006	100%	Completed
Links: B0-NOPS   Key Feature: Optimised ATM Network Services			
-			
Italian ACCs supply ETFMS with Standard Correlated Position Data. Slot information related to the flights is presented to the TWR controllers of the major aerodromes (via AOIS). This objective is not applicable to ITAF because all the ATFM data are processed via ENAV AOIS (Aeronautical Operational Information System).			31/12/2013
ASP (By:07/2014)			
ENAV	Italian ACCs supply ETFMS with Standard Correlated Position Data. Slot information correlated to the flights is presented to the TWR controllers of the major aerodromes (via AOIS).	100%	Completed 31/12/2013

ITY-COTR	<b>Implementation of ground-ground automated co-ordination processes</b> <u>Timescales:</u> Entry into force of Regulation: 27/07/2006 For putting into service of EATMN systems in respect of notification and initial coordination processes: 27/07/2006 For putting into service of EATMN systems in respect of Revision of Coordination, Abrogation of Coordination, Basic Flight Data and Change to Basic Flight Data: 01/01/2009 To all EATMN systems in operation by 12/2012: 31/12/2012	100%	Completed	
	Links: B0-FICE   Key Feature: Advanced Air Traffic Services			
	-			
	The national FPPS called AOIS/FDMAS will be able to exchange FPL messages in ADEXP format when the upgrading of AFTN will be completed. As from October 2008, the Italian ACCs started sending AFP messages in ADEXP format for all the cases via ACC AOIS terminal. The implementation of AFP in ADEXP format automatically generated by ATC system based on an ATC input subject to the FDP upgrade has been finalised by 12/2016.			
	ASP (By:12/2012)			
ENAV	The national FPPS called AOIS/FDMAS will be able to exchange FPL messages in ADEXP format when the upgrading of AFTN will be completed. As from October 2008, the Italian ACCs started sending AFP messages in ADEXP format for all the cases via ACC AOIS terminal. The implementation of AFP in ADEXP format automatically generated by ATC system based on an ATC input subject to the FDP upgrade has been finalised by 12/2016.	100%	Completed  31/10/2016	
MIL (By:12/2012)				
Mil. Authority	ITAF (SCC/AM) and ENAV use a common system for exchange Basic Flight Data.	100%	Completed 31/10/2016	

## Local Objectives

Note: Local Objectives are addressing solutions that are considered beneficial for specific operating environments, therefore for which a clear widespread commitment has not been expressed yet. They are characterised with no deadline and voluntary applicability area.

<b>AOP14</b>	<b>Remote Tower Services</b> <i><u>Applicability and timescale: Local</u></i>	%	<b>Planned</b>
Links: B1-RATS   Key Feature: High Performing Airport Operations			
LIIR - ENAV S.P.A - ITALIAN AGENCY FOR AIR NAVIGATION SERVICES			
ENAV has planned to implement Remote Tower on low traffic airports. The first Remote Tower is planned to be in operations within December 2021. ENAV plan foresees to progressively implement further local Remote Towers (digital TWR), and by 2024 to start the operations from a Remote Tower Centre.			31/12/2024
<b>AOP15</b>	<b>Enhanced traffic situational awareness and airport safety nets for the vehicle drivers</b> <i><u>Applicability and timescale: Local</u></i>	%	<b>Not yet planned</b>
Links: B2-SURF   Key Feature: High Performing Airport Operations			
LIMC - Milano Malpensa Airport			
These additional features will be considered after the implementation of full A-SMGCS.			-
<b>AOP15</b>	<b>Enhanced traffic situational awareness and airport safety nets for the vehicle drivers</b> <i><u>Applicability and timescale: Local</u></i>	%	<b>Planned</b>
Links: B2-SURF   Key Feature: High Performing Airport Operations			
LIPZ - Venezia Airport			
The implementation of safety nets for vehicle drivers is planned.			31/12/2021
<b>AOP15</b>	<b>Enhanced traffic situational awareness and airport safety nets for the vehicle drivers</b> <i><u>Applicability and timescale: Local</u></i>	%	<b>Not yet planned</b>
Links: B2-SURF   Key Feature: High Performing Airport Operations			
LIRF - Roma Fiumicino Airport			
Roma Fiumicino airport has no plans at the moment.			-
<b>AOP16</b>	<b>Guidance assistance through airfield ground lighting</b> <i><u>Applicability and timescale: Local</u></i>	%	<b>Not yet planned</b>
Links: B1-RSEQ, B2-SURF   Key Feature: High Performing Airport Operations			
LIMC - Milano Malpensa Airport			
A lighting system with remote individual control is already available, but the guidance assistance is not yet planned.			-
<b>AOP16</b>	<b>Guidance assistance through airfield ground lighting</b> <i><u>Applicability and timescale: Local</u></i>	%	<b>Not yet planned</b>
Links: B1-RSEQ, B2-SURF   Key Feature: High Performing Airport Operations			
LIPZ - Venezia Airport			
Venezia airport has not yet coordinated the implementation.			-
<b>AOP16</b>	<b>Guidance assistance through airfield ground lighting</b> <i><u>Applicability and timescale: Local</u></i>	%	<b>Not yet planned</b>
Links: B1-RSEQ, B2-SURF   Key Feature: High Performing Airport Operations			
LIRF - Roma Fiumicino Airport			
Rome Fiumicino airport has not yet planned the implementation.			-

AOP17	Provision/integration of departure planning information to NMOC <u>Applicability and timescale: Local</u>	%	Not yet planned
Links: B1-ACDM, B1-NOPS   Key Feature: High Performing Airport Operations			
LIIR - ENAV S.P.A - ITALIAN AGENCY FOR AIR NAVIGATION SERVICES			
For medium and small sized airports, departure times are currently sent via AOIS or through the ACC's FDPs. Landing estimates are received via AOIS.			-
AOP18	Runway Status Lights (RWSL) <u>Applicability and timescale: Local</u>	%	Not yet planned
Links: B2-SURF   Key Feature: High Performing Airport Operations			
LIMC - Milano Malpensa Airport			
Milano Malpensa airport has not planned the implementation.			-
AOP18	Runway Status Lights (RWSL) <u>Applicability and timescale: Local</u>	%	Not yet planned
Links: B2-SURF   Key Feature: High Performing Airport Operations			
LIPZ - Venezia Airport			
Venezia airport has not planned the implementation.			-
AOP18	Runway Status Lights (RWSL) <u>Applicability and timescale: Local</u>	%	Not yet planned
Links: B2-SURF   Key Feature: High Performing Airport Operations			
LIRF - Roma Fiumicino Airport			
Roma Fiumicino airport has not planned the implementation.			-
ATC18	Multi-Sector Planning En-route - 1P2T <u>Applicability and timescale: Local</u>	100%	Completed
Key Feature: Advanced Air Traffic Services			
-			
ENAV Systems support single multi-planner role associated to two adjacent tactical roles and procedures and working methods have been developed to cater for enhanced multi-planner needs. Multi-sector planner concept is in operational use in the following ENAV operational environment: <ul style="list-style-type: none"><li>- En-Route sectors: Rome ACC;</li><li>- Terminal sectors: Milano ACC and Roma ACC</li><li>- Approach unit: Bologna APP</li></ul>			-
ATC19	Enhanced AMAN-DMAN integration <u>Applicability and timescale: Local</u>	%	Not yet planned
Links: B2-RSEQ   Key Feature: Advanced Air Traffic Services			
-			
ENAV has no plans for this item at the moment.			-
ATC20	Enhanced STCA with down-linked parameters via Mode S EHS <u>Applicability and timescale: Local</u>	%	Not yet planned
Links: B1-SNET   Key Feature: Advanced Air Traffic Services			
-			
The implementation of this service is not planned yet.			-

ENV02	<b>Airport Collaborative Environmental Management</b> <i><u>Applicability and timescale: Local</u></i>	100%	Completed
Key Feature: High Performing Airport Operations			
LIMC - Milano Malpensa Airport			
With reference to noise emission, Italian legislation envisages airport commissions, chaired by ENAC, to which ENAV participates with an advisory role. SEA makes use of Airport Collaborative Decision Making process, which contributes to improving efficiency of airport operations thus bringing advantages also in terms of reduced fuel consumption and, potentially, noise emission. Moreover, in the framework of ENAV's Flight Efficiency Plan, the environmental effect of aircraft operations is part of the continuous training courses for ATCOs and courses for ATCOs students at ENAV Academy.			31/12/2015

ENV02	<b>Airport Collaborative Environmental Management</b> <i><u>Applicability and timescale: Local</u></i>	100%	Completed
Key Feature: High Performing Airport Operations			
LIML - Milano Linate Airport			
With reference to noise emission, Italian legislation envisages airport commissions, chaired by ENAC, to which ENAV participates with an advisory role. SEA makes use of Airport Collaborative Decision Making process, which contributes to improving efficiency of airport operations thus bringing advantages also in terms of reduced fuel consumption and, potentially, noise emission. Moreover, in the framework of ENAV's Flight Efficiency Plan, the environmental effect of aircraft operations is part of the continuous training courses for ATCOs and courses for ATCOs students at ENAV Academy.			31/12/2015

ENV02	<b>Airport Collaborative Environmental Management</b> <i><u>Applicability and timescale: Local</u></i>	100%	Completed
Key Feature: High Performing Airport Operations			
LIPZ - Venezia Airport			
With reference to noise emission, Italian legislation envisages airport commissions, chaired by ENAC, to which ENAV participates with an advisory role. SAVE makes use of Airport Collaborative Decision Making process, which contributes to improving efficiency of airport operations thus bringing advantages also in terms of reduced fuel consumption and, potentially, noise emission. Moreover, in the framework of ENAV's Flight Efficiency Plan, the environmental effect of aircraft operations is part of the continuous training courses for ATCOs and courses for ATCOs students at ENAV Academy.			31/12/2015

ENV02	<b>Airport Collaborative Environmental Management</b> <i><u>Applicability and timescale: Local</u></i>	100%	Completed
Key Feature: High Performing Airport Operations			
LIRF - Roma Fiumicino Airport			
With reference to noise emission, Italian legislation envisages airport commissions, chaired by ENAC, to which ENAV participates with an advisory role. ADR makes use of Airport Collaborative Decision Making process, which contributes to improving efficiency of airport operations thus bringing advantages also in terms of reduced fuel consumption and, potentially, noise emission. Moreover, in the framework of ENAV's Flight Efficiency Plan, the environmental effect of aircraft operations is part of the continuous training courses for ATCOs and courses for ATCOs students at ENAV Academy.			31/12/2015

ENV03	Continuous Climb Operations (CCO) <i>Applicability and timescale: Local</i>	100%	Completed
Links: B0-CCO   Key Feature: Advanced Air Traffic Services			
LIMC - Milano Malpensa Airport			
<p>Continuous Climb Operations implementation, from airspace and flight procedure point of view and from ATC operations perspective, can be considered fully ongoing on all the airports under ENAV jurisdiction. CCO is facilitated through the application and implementation of following items:</p> <ul style="list-style-type: none"> <li>- Design of PBN RNAV1 SIDs in most of the ATS units with radar service, resulting in an improved network with respect to arrival network, facilitating continuous climb</li> <li>- The design of both conventional and PBN SIDs is not normally using, as design principle, altitude restriction "at" or "at or below" type, that could limit climb profiles</li> <li>- ATC Units, as operational procedure, are normally providing climb instruction aiming at facilitating continuous climb</li> <li>- For some airports there are in place specific noise abatement procedures defined by the State and not under ENAV responsibility. Those procedures could have an impact on the aircraft configuration and speed, but not normally on climb clearance.</li> </ul>			31/12/2017

ENV03	Continuous Climb Operations (CCO) <i>Applicability and timescale: Local</i>	100%	Completed
Links: B0-CCO   Key Feature: Advanced Air Traffic Services			
LIML - Milano Linate Airport			
<p>Continuous Climb Operations implementation, from airspace and flight procedure point of view and from ATC operations perspective, can be considered fully ongoing on all the airports under ENAV jurisdiction. CCO is facilitated through the application and implementation of following items:</p> <ul style="list-style-type: none"> <li>- Design of PBN RNAV1 SIDs in most of the ATS units with radar service, resulting in an improved network with respect to arrival network, facilitating continuous climb</li> <li>- The design of both conventional and PBN SIDs is not normally using, as design principle, altitude restriction "at" or "at or below" type, that could limit climb profiles</li> <li>- ATC Units, as operational procedure, are normally providing climb instruction aiming at facilitating continuous climb</li> <li>- For some airports there are in place specific noise abatement procedures defined by the State and not under ENAV responsibility. Those procedures could have an impact on the aircraft configuration and speed, but not normally on climb clearance.</li> </ul>			31/12/2017

ENV03	Continuous Climb Operations (CCO) <i>Applicability and timescale: Local</i>	100%	Completed
Links: B0-CCO   Key Feature: Advanced Air Traffic Services			
LIPZ - Venezia Airport			
<p>Continuous Climb Operations implementation, from airspace and flight procedure point of view and from ATC operations perspective, can be considered fully ongoing on all the airports under ENAV jurisdiction. CCO is facilitated through the application and implementation of following items:</p> <ul style="list-style-type: none"> <li>- Design of PBN RNAV1 SIDs in most of the ATS units with radar service, resulting in an improved network with respect to arrival network, facilitating continuous climb</li> <li>- The design of both conventional and PBN SIDs is not normally using, as design principle, altitude restriction "at" or "at or below" type, that could limit climb profiles</li> <li>- ATC Units, as operational procedure, are normally providing climb instruction aiming at facilitating continuous climb</li> <li>- For some airports there are in place specific noise abatement procedures defined by the State and not under ENAV responsibility. Those procedures could have an impact on the aircraft configuration and speed, but not normally on climb clearance.</li> </ul>			31/12/2017

ENV03	Continuous Climb Operations (CCO) <i>Applicability and timescale: Local</i>	100%	Completed
Links: B0-CCO   Key Feature: Advanced Air Traffic Services			
LIRF - Roma Fiumicino Airport			
<p>Continuous Climb Operations implementation, from airspace and flight procedure point of view and from ATC operations perspective, can be considered fully ongoing on all the airports under ENAV jurisdiction. CCO is facilitated through the application and implementation of following items:</p> <ul style="list-style-type: none"> <li>- Design of PBN RNAV1 SIDs in most of the ATS units with radar service, resulting in an improved network with respect to arrival network, facilitating continuous climb</li> <li>- The design of both conventional and PBN SIDs is not normally using, as design principle, altitude restriction "at" or "at or below" type, that could limit climb profiles</li> <li>- ATC Units, as operational procedure, are normally providing climb instruction aiming at facilitating continuous climb</li> <li>- For some airports there are in place specific noise abatement procedures defined by the State and not under ENAV responsibility. Those procedures could have an impact on the aircraft configuration and speed, but not normally on climb clearance.</li> </ul>			31/12/2017



## 6. Annexes

### A. Specialists involved in the ATM implementation reporting for Italy

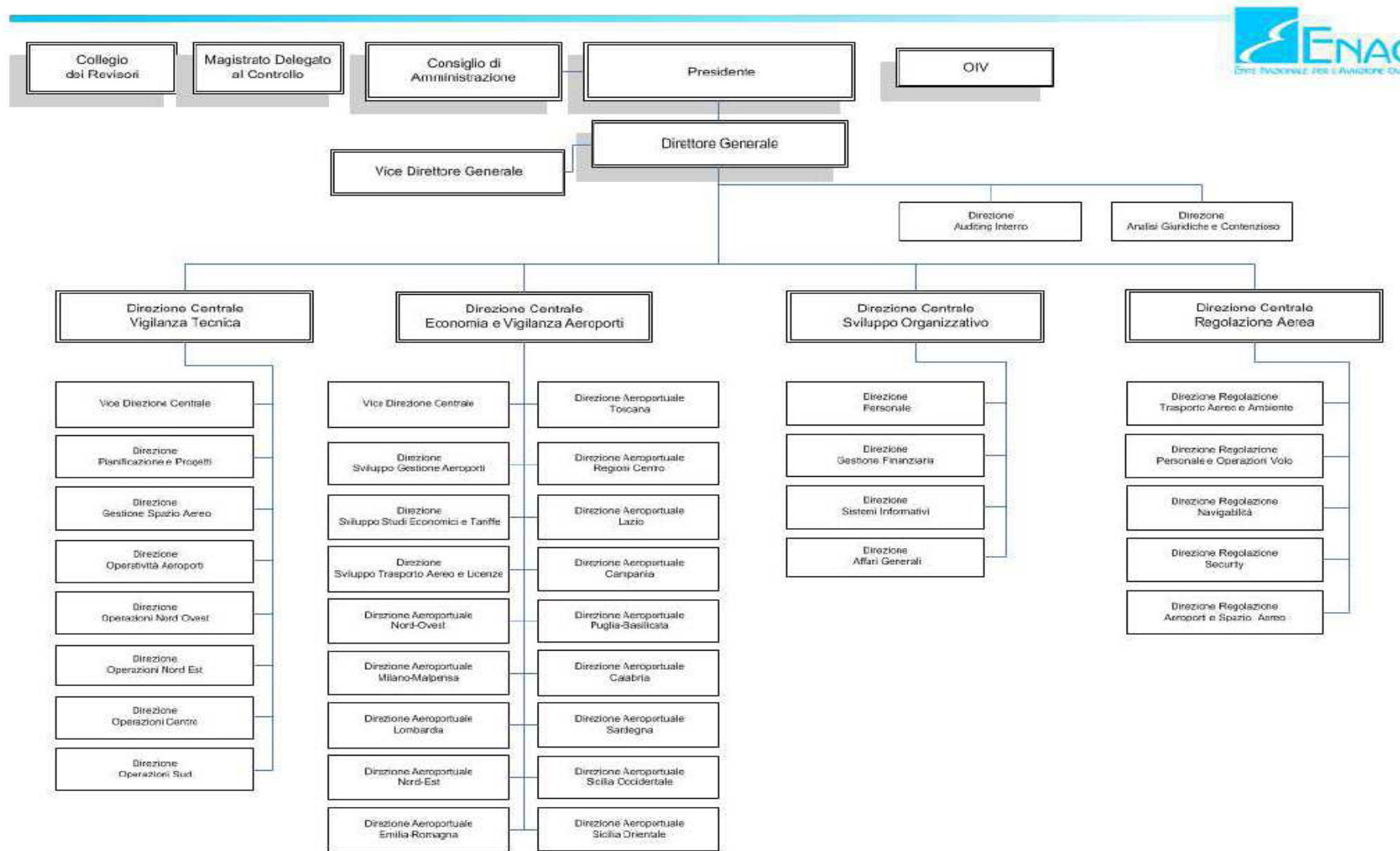
#### LSSIP Co-ordination

LSSIP Focal Points	Organisation	Name
LSSIP National Focal Point	ENAV	Andrea RUZZOLINI
LSSIP Focal Point for NSA/CAA	ENAC	Luca FALESSI
LSSIP Focal Point for ANSP	ENAV	Andrea RUZZOLINI
LSSIP Focal Point for Airport	SEA	Paolo SORDI
LSSIP Focal Point for Airport	SAVE	Francesco ROCCHETTO
LSSIP Focal Point for Airport	AdR	Marco PELLEGRINO
LSSIP Focal Point for Military	Italian Air Force	Carlo TIRELLI

Other Focal Points	Organisation	Name
Focal Point for NETSYS	ENAV	Carlo FACCHINI
Focal Point for NETSYS	ENAV	Lorenzo GHIRARDI

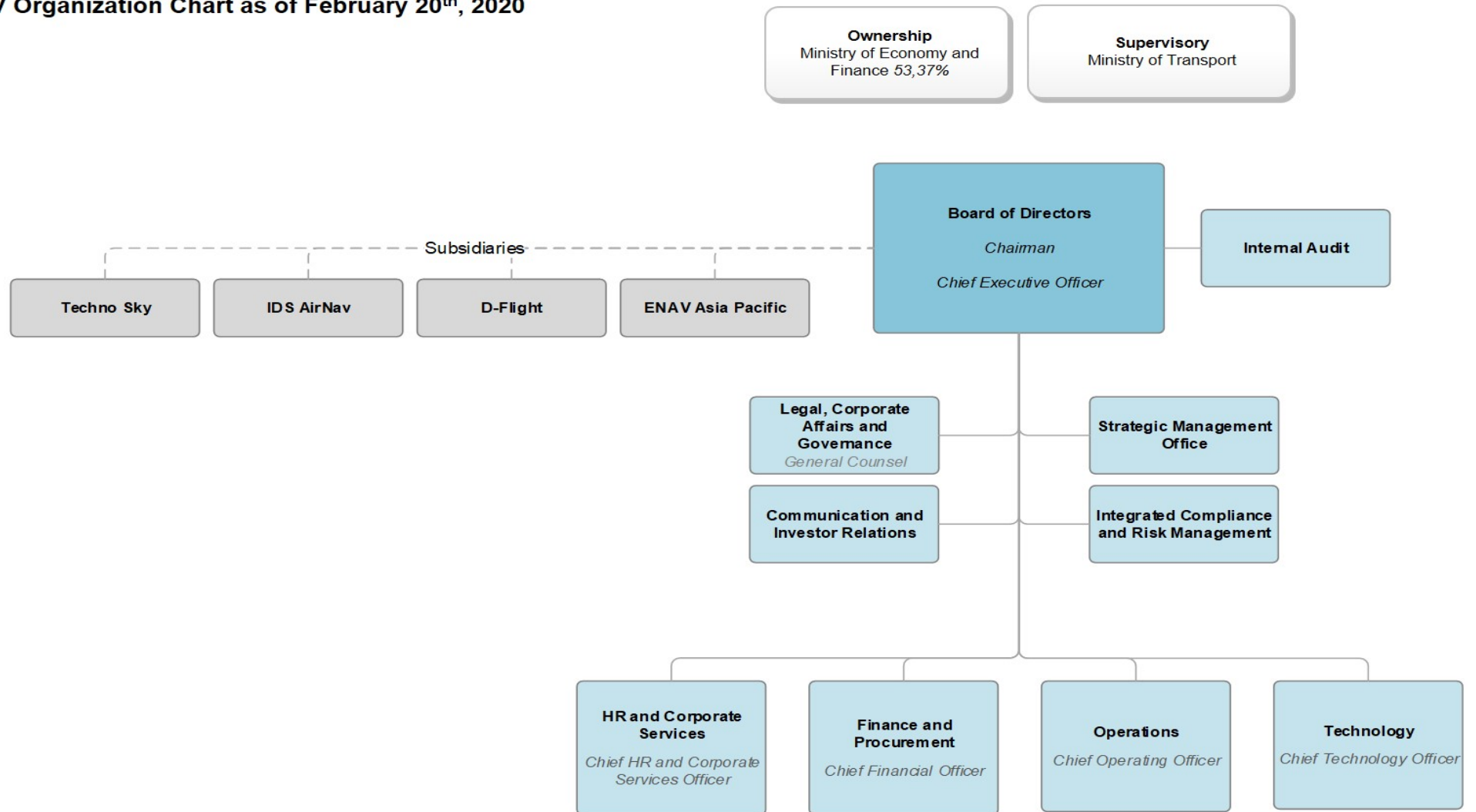
## B. National stakeholders organisation charts

### ENAC ORGANISATION CHART

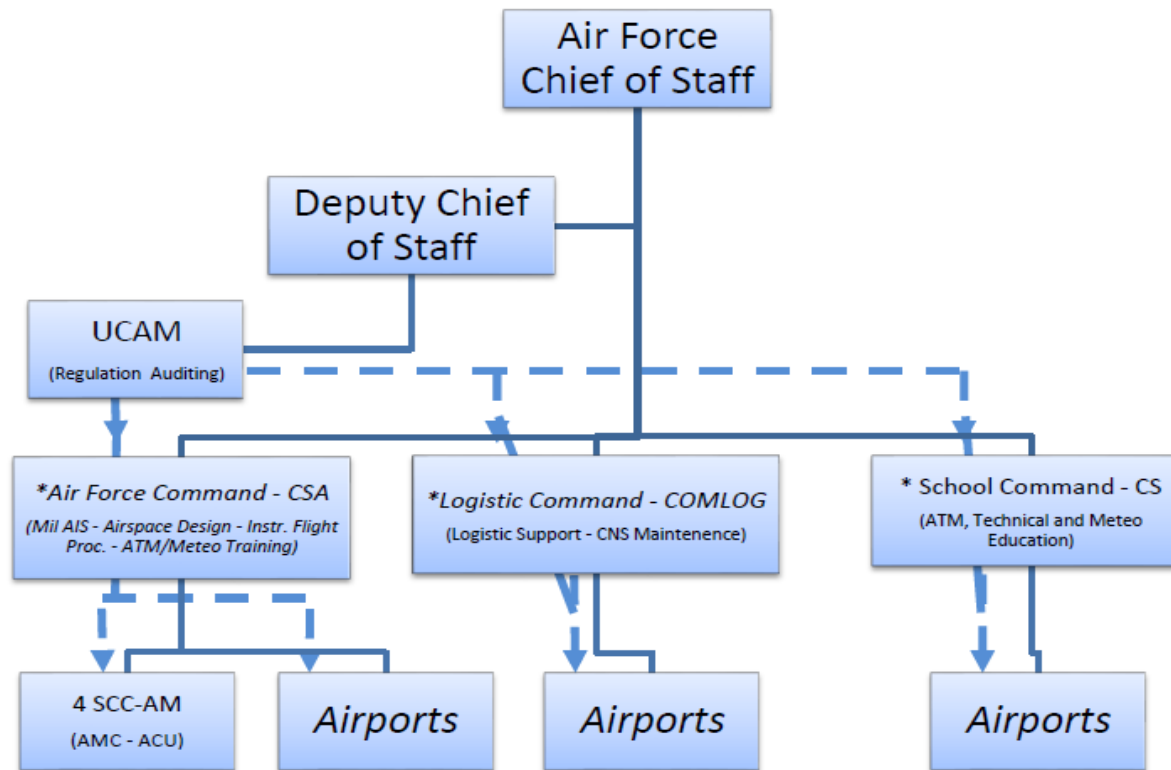


## ENAV ORGANISATION CHART

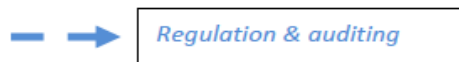
ENAV Organization Chart as of February 20<sup>th</sup>, 2020



## ITAF ANS ORGANISATION CHART



*\*3 Major Commands = ANS Provider (ATS, MET & CNS services)*




















## C. Implementation Objectives' links with SESAR KF, ASBU blocks and more

The table below (extracted from the MPL3 Progress Plan 2019) shows for each implementation objective, the links with the SESAR Key Features, Major ATM Changes, SESAR 1 Solutions, Deployment Program families, ICAO ASBU, EASA EPAS and AAS TP milestones.

Level 3 Implementation Objectives	SESAR Key Feature	Major ATM change	SESAR Solution	DP family	ICAO ASBU B0, B1, B2	EPAS	AAS TP
AOM13.1 - Harmonise OAT and GAT handling		FRA & A-FUA	-	-	-	-	-
AOM19.1 - ASM tools to support A-FUA		FRA & A-FUA	#31	3.1.1	B1-FRTO B1-NOPS	-	AM-1.8
AOM19.2 - ASM management of real-time airspace data		FRA & A-FUA	#31	3.1.2	B1-FRTO B1-NOPS	-	AM-1.8
AOM19.3 - Full rolling ASM/ATFCM process and ASM information sharing		FRA & A-FUA	#31	3.1.3	B1-FRTO B1-NOPS B2-NOPS	-	AM-1.8
AOM19.4 – Management of Pre-defined Airspace Configurations		FRA & A-FUA	#31	3.1.4	B1-FRTO B1-NOPS	-	-
FCM03 - Collaborative flight planning		ATFCM	-	4.2.3	B0-NOPS	-	AM-1.14
*FCM04.1 – STAM phase 1		ATFCM	-	4.1.1	-	-	-
FCM04.2 - STAM phase 2		ATFCM	#17	4.1.2	-	-	AM-1.11
FCM05 - Interactive rolling NOP		NOP	#20, #21	4.2.2 4.2.4	B1-ACDM B1-NOPS	-	AM-1.12
FCM06 - Traffic Complexity Assessment		ATFCM	#19	4.4.2	B1-NOPS	-	AM-1.13
FCM07 - Calculated Take-off Time (CTOT) to Target Times for ATFCM Purposes		ATFCM	#18	4.3.1 4.3.2	B1-NOPS	-	AM-1.9
FCM09 - Enhanced ATFM Slot swapping		ATFCM	#56	-	B1-NOPS	-	-
*AOM21.1 - Direct Routing		Free Route	#32	3.2.1 3.2.3	B0-FRTO B1-FRTO	-	-
AOM21.2 - Free Route Airspace		Free route	#33, #66	3.2.1 3.2.4	B1-FRTO	-	AM-1.6 AM-1.10 AM-5.1
ATC02.8 - Ground based safety nets		ATM Systems	-	3.2.1	B0-SNET B1-SNET	-	-
ATC02.9 – Enhanced STCA for TMAs		ATM Systems	#60	-	B0-SNET B1-SNET	MST.03 0	-
ATC07.1 - Arrival management tools		Enhanced Arrival Seq	-	1.1.1	B0-RSEQ	-	-
ATC12.1 - MONA, TCT and MTC		ATM Systems	#27, #104	3.2.1	B1-FRTO	-	AM-1.15 AM-5.1
ATC15.1 – Initial extension of AMAN to En-route		Enhanced Arrival Seq	-	1.1.2	B1-RSEQ	-	-
ATC15.2 - Extension of AMAN to En-route		Enhanced Arrival Seq	#05	1.1.2	B1-RSEQ	-	AM-1.3
ATC17 - Electronic Dialog supporting COTR		Free Route	-	3.2.1	-	-	AM-1.3



Level 3 Implementation Objectives	SESAR Key Feature	Major ATM change	SESAR Solution	DP family	ICAO ASBU B0, B1, B2	EPAS	AAS TP
ATC18 – Multi Sector Planning En-route – 1P2T		Free Route	#63	-	-	-	AM-4.3 AM-5.1
ATC19 - Enhanced AMAN-DMAN integration		Enhanced Arrival Seq	#54	-	B2-RSEQ	-	-
ATC20- Enhanced STCA with down-linked parameters via Mode S EHS		ATM Systems	#69	-	B1-SNET	-	-
ENV01 – Continuous Descent Operations		PBN	-	-	B0-CDO B1-CDO	-	-
ENV03 – Continuous Climb Operations		PBN	-	-	B0-CCO	-	-
NAV03.1 – RNAV1 in TMA Operations		PBN	#62	-	B0-CDO B0-CCO B1-RSEQ	RMT.06 39 RMT.04 45	-
NAV03.2 – RNP1 in TMA Operations		PBN	#09, #51	1.2.3 1.2.4	B1-RSEQ	RMT.06 39 RMT.04 45	-
NAV10 - RNP Approach Procedures to instrument RWY		PBN	#103	1.2.1 1.2.2	B0-APTA	RMT.06 39 RMT.04 45RMT. 0643	-
NAV12 – ATS IFR Routes for Rotorcraft Operations		PBN	#113	-	B1-APTA	MST.03 1	-
AOP04.1 - A-SMGCS Surveillance (former Level 1)		Surface mgt	#70	2.2.1	B0-SURF	-	-
AOP04.2 - A-SMGCS RMCA (former Level 2)		Surface mgt	-	2.2.1	B0-SURF	-	-
AOP05 - Airport CDM		Collaborative Apt	#106	2.1.1 2.1.3	B0-ACDM B0-RSEQ	-	-
AOP10 - Time Based Separation		Enhanced ops in vicinity of rwy	#64	2.3.1	B1-RSEQ B2-WAKE	-	-
AOP11 - Initial Airport Operations Plan		Collaborative Apt	#21	2.1.4	B1-ACDM	-	-
AOP12 - Improve RWY and Airfield safety with CATC detection and CMAC		Surface mgt	#02	2.1.2 2.5.1	B2-SURF	-	-
AOP13 – Automated assistance to Controller for Surface Movement planning and routing		Surface mgt	#22 #53	2.4.1	B1-ACDM B1-RSEQ B2-SURF	-	-
AOP14 – Remote Tower Services		Remote Tower	#12, #71, #52, #13	-	B1-RATS	RMT.06 24	-
AOP15 - Enhanced traffic situational awareness and airport SNET for the vehicle drivers		Surface mgt	#04	-	B2-SURF	-	-

Level 3 Implementation Objectives	SESAR Key Feature	Major ATM change	SESAR Solution	DP family	ICAO ASBU B0, B1, B2	EPAS	AAS TP
AOP16 - Guidance assistance through airfield ground lighting		Surface mgt	#47	-	B1-RSEQ B2-DURF	-	-
AOP17 - Provision/integration of departure planning information to NMOC		Collaborative Apt	#61	-	B1-ACDM B1-NOPS	-	-
AOP18 - Runway Status Lights (RWSL)		Surface mgt	#01	-	B2-SURF	-	-
ENV02 – Airport Collaborative Environmental Management		Collaborative Apt	-	-	-	-	-
NAV11 - Implement precision approach using GBAS CAT II/III based on GPS L1		Enhanced ops in vicinity of rwy	#55	-	B1-APTA	-	-
SAF11 - Improve runway safety by preventing runway excursions		Surface mgt	-	-	-	MST.00 7 RMT.05 70 RMT.07 03	-
COM10 - Migration from AFTN to AMHS		CNS rat.	-	-	-	-	-
COM11.1 - Voice over Internet Protocol (VoIP) in En-Route		CNS rat.	-	3.1.4	-	-	AM-1.3
COM11.2 - Voice over Internet Protocol (VoIP) in Airport/Terminal		CNS rat.	-	-	-	-	-
COM12 - NewPENS		Pre-SWIM & SWIM	-	5.1.2 5.2.1	B1-SWIM	-	-
FCM08 – Extended Flight Plan		Pre-SWIM & SWIM	#37	4.2.3	B1-FICE	-	AM-1.4
INF07 - Electronic Terrain and Obstacle Data (e-TOD)		Pre-SWIM & SWIM	-	1.2.2	-	RMT.07 03 RMT.07 04 RMT.07 22	-
INF08.1 - Information Exchanges using the SWIM Yellow TI Profile		Pre-SWIM & SWIM	#35, #46	5.1.3, 5.1.4, 5.2.1, 5.2.2, 5.2.3, 5.3.1, 5.4.1, 5.5.1, 5.6.1	B1-DATM B1-SWIM	-	AM-1.5

Level 3 Implementation Objectives	SESAR Key Feature	Major ATM change	SESAR Solution	DP family	ICAO ASBU B0, B1, B2	EPAS	AAS TP
INF08.2 - Information Exchanges using the SWIM Blue TI Profile		Pre-SWIM & SWIM	#28, #46	5.1.3, 5.1.4, 5.2.1, 5.2.2, 5.2.3, 5.6.2	B1-DATM B1-SWIM	-	AM-9.1
INF09 - Digital Integrated Briefing		Pre-SWIM & SWIM	#34	-	B1-DATM B1-SWIM	-	-
ITY-ACID - Aircraft identification		CNS rat.	-	-	-	-	-
ITY-ADQ - Ensure quality of aeronautical data and aeronautical information		Pre-SWIM & SWIM	-	1.2.2	B0-DATM	RMT.07 22 RMT.04 77	-
ITY-AGDL - Initial ATC air-ground data link services		Data link	-	6.1.1 6.1.3 6.1.4	B0-TBO	RMT.05 24	AM-1.1
ITY-AGVCS2 – 8.33 kHz Air-Ground Voice Channel Spacing below FL195		CNS rat.	-	-	-	-	-
ITY-FMTP - Apply a common flight message transfer protocol (FMTP)		Pre-SWIM & SWIM	-	-	B0-FICE B1-FICE	-	AM-1.3
ITY-SPI - Surveillance performance and interoperability		CNS rat.	-	-	B0-ASUR	RMT.06 79 RMT.05 19	-

\* AOM21.1 was achieved in 2017 and FCM04.1 was achieved in 2018, therefore they were removed from the Implementation Plan 2018/2019. They are kept in this table for traceability purposes.

Legend:


Objective's link to SESAR Key Feature:			
	Optimised ATM Network Services		High Performing Airport Operations
	Advanced Air Traffic Services		Enabling Aviation Infrastructure

## D. SESAR Solutions implemented in a voluntary way<sup>10</sup>

These SESAR Solutions are not included yet in the ATM MP L3 Plan.


EUROCONTROL is tasked by the SJU to identify the implementation progress of functionalities corresponding to validated SESAR Solutions published in the SJU Solutions Catalogue (<https://www.sesarju.eu/newsroom/brochures-publications/sesar-solutions-catalogue>), for which there is no implementation Objective (yet) in the ATM MP L3 Plan. This will allow to identify early movers and to gauge the interest generated by some of these functionalities, with the view of potentially addressing them with new Implementation Objectives in the ATM MPL3 Plan.

A facilitated questionnaire using the existing ATM MP L3 / LSSIP methodology is added to capture information on non-committed SESAR solutions. For practical reasons, since the LSSIP 2017 cycle the questionnaire is included in the LSSIP Annex.


SESAR Solution Code	SESAR Solution Title	Solution Description	Has the SESAR Solution been implemented in your State? (Y-N) - if "Yes" please report where	Are there implementation plans in your State for the SESAR Solution? (Y-N-N/A) - If "Yes" please report when and where implementation is planned - If "N/A" please provide justification
 <b>High Performing Airport Operations</b>				
#23	D-TAXI service for controller-pilot datalink communications (CPDLC) application	Use of data link communications between the Tower Controllers and the flight crew during surface movement. It is based on the D-TAXI service from the CPDLC application, as standardised by RTCA SC214/EUROCAE WG78 (DO-350 & DO-351). It also includes the access to this service for end users, through the Tower CWP for the ATCO and through the aircraft DCDU for the flight crew.	N	N
#48	Virtual block control in low visibility procedures (LVPs)	In low visibility conditions, the tower controller working positions are provided with Virtual Stop Bars (VSB) to improve low visibility operations and enhance controllers' situational awareness. Virtual Stop Bars can be used by the controller to reduce block-sizes once procedural control applies. Additional controller safety nets will be available to indicate violations of Stop Bars (including Virtual Stop Bars) and to monitor aircraft for any kind of unauthorised movement (Watch Dog).	N	N - Under evaluation


<sup>10</sup> Referred as 'Non-committed' SESAR solutions in the MP L3 Report.

SESAR Solution Code	SESAR Solution Title	Solution Description	Has the SESAR Solution been implemented in your State? (Y-N) - if "Yes" please report where	Are there implementation plans in your State for the SESAR Solution? (Y-N-N/A) - If "Yes" please report when and where implementation is planned - If "N/A" please provide justification
#116	De-icing management tool	<p>The solution increases the accuracy of information related to when the procedure is going to take place, how long it will take and when the aircraft will be ready to taxi for departure, which is currently calculated by predetermined estimates. The solution means that air traffic controllers no longer need to work without situational awareness of de-icing activities and needing to make their own estimates of when aircraft are ready for departure. The solution envisages that de-icing operations are no longer characterised by the A-CDM concept as 'adverse conditions', i.e. a state that is in need of collaborative recovery procedures, but rather a part of normal operations in the winter period. The DIMT allows for the scheduling and monitoring of de-icing operations. It is an internet browser-based tool that addresses three distinct procedures for de-icing:</p> <ul style="list-style-type: none"> <li>- Remote de-icing, which occurs at a specific location on the airport away from the parking stand;</li> <li>- On-stand de-icing, which occurs just before the aircraft leaves its stand; and</li> <li>- After-push de-icing, which occurs after the aircraft has pushed back from the stand and is positioned to start taxiing after de-icing.</li> </ul>	Y	Implemented in A-CDM airports as adverse conditions management. The airports tool for de-ice process management is improving to provide more accurate and predictable information.
#117	Reducing Landing Minima in Low Visibility Conditions using Enhanced Flight Vision Systems (EFVS)	<p>The SESAR Solution "Reducing landing minima in low visibility conditions using enhanced Flight vision systems (EFVS)" is intended for flight crews, and corresponds to the use of EFVS visual based technologies displayed in HUD or an equivalent display system. The objective is to provide operational credit in approach as permitted per EASA EU 965/2012 and its coming amendments (NPA 2018-06 AWO) to face to Low visibility conditions.</p> <p>Enabling EFVS operations with operational credits provides a greater availability of suitable destination and alternate aerodromes during periods of reduced visibility.</p> <p>This effectively reduces the number of weather-related delays, cancellations or diversions of flights to CAT II/III</p>	N/A	This is responsibility of aircraft operators

SESAR Solution Code	SESAR Solution Title	Solution Description	Has the SESAR Solution been implemented in your State? (Y-N) - if "Yes" please report where	Are there implementation plans in your State for the SESAR Solution? (Y-N-N/A) - If "Yes" please report when and where implementation is planned - If "N/A" please provide justification
		<p>aerodromes, permits shorter routings and reduced fuel costs, a faster return to scheduled operations, and less passenger inconveniences.</p> <p>A unique advantage of the EFVS on board solution is that it is mainly supported by the aircraft system instead of airports and the need of complex and costly ground infrastructures as those implemented in CATII/III airports.</p> <p>From a global ATM network standpoint, the EFVS operation allows to retain traffic at most of secondary aerodromes by providing operational credit at most of runway ends with precision or non-precision landing minima (LPV, LNAV/VNAV, ILS CAT1,...). The operational credit provided by EFVS is particularly important regarding secondary aerodromes because they usually have CAT1 or higher than CAT 1 RVR &amp; DA/DH minima and are therefore potentially more frequently impacted by adverse weather conditions.</p> <p>In addition, EFVS capability is a key operational advantage more especially for the business aviation community that is mainly composed of small/ medium operators with limited resources and operating frequently at small/ medium airports.</p> <p>Beyond operational credit, the Vision Systems such as the EFVS improves situational awareness in all weather conditions for all operators at all airports contributing supporting decision-making and increasing safety margin all the time.</p>		
 <div>Advanced Air Traffic Services</div>				
#06	Controlled time of arrival (CTA) in medium-density/ medium-complexity environments	The CTA (Controlled Time of Arrival) is an ATM imposed time constraint on a defined point associated with an arrival runway, using airborne capabilities to improve arrival management. When a time constraint is needed for a flight, the ground system may calculate a CTA as part of the arrival management process, and then it may be proposed to the flight	N	Not yet Possible planning according to XMAN full (LIMM e LIRR TMA) implementation (LIRR by 2020, LIMM in 2021)

SESAR Solution Code	SESAR Solution Title	Solution Description	Has the SESAR Solution been implemented in your State? (Y-N) - if "Yes" please report where	Are there implementation plans in your State for the SESAR Solution? (Y-N-N/A) - If "Yes" please report when and where implementation is planned - If "N/A" please provide justification
		for achievement by avionics within required accuracy. Airborne information may be used by the ground system in determining the CTA (e.g. ETA min/max) and in monitoring the implementation of the CTA.		
#08	Arrival management into multiple airports	The system provides support to coordination of traffic flows into multiple airports to enable a smooth delivery to the runways. The 'Center Manager' (CMAN) which accompanies the AMANs of the airports generates a combined planning for several arrival streams into different airports by calculating the sequence of aircraft flying towards an area where their routes intersect. By imposing an adequate spacing of the aircraft in that area, a Time To Lose (TTL) for the appropriate upstream E-TMA sector is calculated to meet this constraint. Both AMAN-TTL for the runway and TTL for the E-TMA sector are superimposed and presented to the upstream en-route sector controllers.	N	N/A - There are no adjacent operating environment with the necessary characteristics
#10	Optimised route network using advanced RNP	Based on Advanced-RNP navigation specification, design of optimised routes e.g. spaced parallel routes, Fixed Radius Transition (FRT) and Tactical Parallel Offset (TPO) further enhanced by onboard performance monitoring and alerting and the execution of more predictable aircraft behaviour	Y	Y - Trombones path implemented in Roma Fiumicino and Milano Malpensa; PMS path implementation foreseen in 2019 at Bergamo Airport.
#11	Continuous descent operations (CDO) using point merge	Progressive implementation of procedures for Continuous Descent Operations (CDO) and Continuous Climb Operations (CCO) in higher density traffic or to higher levels, optimised for each airport arrival/departure procedure	N	N - CDO not yet implemented; see #107 about Bergamo.
#105	Enhanced airborne collision avoidance system (ACAS) operations using the autoflight system	New altitude capture laws aim to reduce unnecessary ACAS alarms and reduce the risk of mid-air or near mid-air collisions between aircraft as a last-resort safety net, by automatically reducing the vertical rate at the approach of the selected flight level (only when a Traffic Advisories-TA occurs), leading to less traffic perturbation, while not increasing flight crew workload.	N/A	N/A This is responsibilities of aircraft operators

SESAR Solution Code	SESAR Solution Title	Solution Description	Has the SESAR Solution been implemented in your State? (Y-N) - if "Yes" please report where	Are there implementation plans in your State for the SESAR Solution? (Y-N-N/A) - If "Yes" please report when and where implementation is planned - If "N/A" please provide justification
#107	Point merge in complex terminal airspace	This new procedure design builds upon precision navigation technology (P-RNAV concept) for merging traffic into a single entry point, which allows efficient integration and sequencing of inbound traffic together with Continuous Descent Approaches (CDA).	Y	Y – Implemented in Bergamo Orio al Serio
#108	Arrival Management (AMAN) and Point Merge	Point Merge in high density environment and complex Extended TMA (E-TMA) sectors replaces radar vectoring with a more efficient and simplified traffic synchronisation mechanism that reduces communication workload and increases collective traffic predictability.	N	N – this concept will be implemented in accordance with SOL #06 and #08
#118	Basic EAP (Extended ATC Planning) function	<p>The basic Extended ATC Planner aims at bridging the gap between Air Traffic Flow and Capacity Management (ATFCM) and Air Traffic Control (ATC) providing real-time and fine-tuning measures to solve ATFCM hotspots and to perform early measures to alleviate complexity closest to ATC activities.</p> <p>The solution consists of an automated tool and associated procedures supporting the basic communication between the Local DCB position and the Controllers' Work Positions allowing the EAP and the ATC team in identifying, assessing and resolving local complexity situations. The basic EAP relies on a real time integrated process for managing the complexity of the traffic with capability to reduce traffic peaks through early implementation of fine-tuned solutions to solve workload imbalances at the local level, compatible with the short-term timeframe of execution phase of the flights.</p>	N	N ENAV is actively involved in SOL #44
		Optimised ATM Network Services		
#57	User-driven prioritisation process (UDPP) departure	Airspace Users are allowed to change among themselves (via the pre-departure management process in CDM airports) the priority order of flights in the pre-departure sequence. The departure time will be automatically communicated/coordinated with the Network Management Function (NMF) via the DPI message as described in the A-CDM concept.	N	N

SESAR Solution Code	SESAR Solution Title	Solution Description	Has the SESAR Solution been implemented in your State? (Y-N) - if "Yes" please report where	Are there implementation plans in your State for the SESAR Solution? (Y-N-N/A) - If "Yes" please report when and where implementation is planned - If "N/A" please provide justification
 <b>Enabling Aviation Infrastructure</b>				
#67	AOC data increasing trajectory prediction accuracy	Europe's vision to achieve high-performing aviation by 2035 builds on the idea of trajectory-based operations – meaning that aircraft can fly their preferred trajectory while minimising constraints due to airspace and service configurations. SESAR has introduced an early version, which makes use of flight planning data sourced from airline operational control (AOC) to help controllers optimise aircraft flight paths. This solution represents an initial step towards the extended flight plan solution and flight and flow information for a collaborative environment (FF-ICE).	N	N
#100	ACAS Ground Monitoring and Presentation System	The ACAS provides resolution advisories (RAs) to pilots in order to avoid collisions. Controllers rely on pilots to report RAs by radio as they occur in accordance with ICAO regulations. However these reports can come late, incomplete or are, absent in some instances. This solution consists of a set of monitoring stations and a server system, which enable the continuous monitoring and analysis of ACAS RAs and coordination messages between airborne units from the ground.	N	N
#101	Extended hybrid surveillance	This solution consists of an enhanced TCAS capability, adding passive surveillance methods and reducing the need for active Mode-S interrogations. By making fewer active interrogations, this solution allows the aircraft to significantly reduce the usage of the 1090 MHz frequency.	N	N
#102	Aeronautical mobile airport communication system (AeroMACS)	The aeronautical mobile airport communication system (AeroMACS) offers a solution to offload the saturated VHF datalink communications in the airport environment and support new services. The technical solution AeroMACS is based on commercial 4G technology and uses the IEEE 802.16 (WiMAX) standard. Designed to operate in reserved (aeronautical) frequency bands, AeroMACS can be used for ANSPs, airspace users and airport authority communications, in compliance with SESAR's future communication infrastructure (FCI) concept. AeroMACS is an international standard and supports	N	N - Under evaluation

SESAR Solution Code	SESAR Solution Title	Solution Description	Has the SESAR Solution been implemented in your State? (Y-N) - if "Yes" please report where	Are there implementation plans in your State for the SESAR Solution? (Y-N-N/A) - If "Yes" please report when and where implementation is planned - If "N/A" please provide justification
		globally harmonised and available capabilities according to ICAO Global Air Navigation Plan (GANP).		
#109	Air traffic services (ATS) datalink using Iris Precursor	The Iris Precursor offers a viable option for ATS datalink using existing satellite technology systems to support initial four-dimensional (i4D) datalink capability. The technology can be used to provide end-to-end air-ground communications for i4D operations, connecting aircraft and air traffic management ground systems.	N	N
#110	ADS-B surveillance of aircraft in flight and on the surface	The SESAR solution consists of the ADS-B ground station and the surveillance data processing and distribution (SDPD) functionality. The solution also offers mitigation techniques against deliberate spoofing of the ground system by outside agents. These techniques can also be used to cope with malfunctioning of avionics equipment. SESAR has contributed to the relevant standards, such as EUROCAE technical specifications, incorporating new functionalities developed for the ADS-B ground station, ASTERIX interface specifications as well as to the SDPD specifications.	N	Y - Plans to implement in the 4 ACCs by 2030
#114	Composite Surveillance ADS-B / WAM	By allowing the use of ADS-B data that has been validated against data derived in parallel by a WAM system, the system can help to reduce the number of interrogations and number of replies and therefore reduce the 1030/1090 MHz RF load and improve spectrum efficiency. It achieves this through the integration of validated data items into the WAM channel, thereby preventing a need to re-interrogate the data item. Since the two surveillance layers share hardware components, the system offers improved cost efficiency. Furthermore, the use of the system contributes to an improved security by successfully mitigating associated ADS-B threats. SESAR has contributed to the relevant standards, such as EUROCAE technical specifications for WAM and ADS-B that are implementing this "composite" concept.	N	Y - By 2023

## E. Military Organisations Infrastructure

This Annex is not produced in 2019. It will be updated every second year, therefore it will be produced as part of the LSSIP 2020 document.

In case information is sought on military infrastructure, previous LSSIP may be made available upon request to the respective Focal Point and/or Contact Person.

## F. Glossary of abbreviations

This Annex mainly shows the abbreviations that are specific to the LSSIP Document for Italy.

Other general abbreviations are in the Acronyms and Abbreviations document in:

<https://www.EUROCONTROL.int/airial/>

Term	Description
ACC	Area Control Center
ADR	Aeroporti di Roma for Airports Fiumicino and Campino
ADS	Automatic Dependent Surveillance
AF	ATM Functionality
AIS	Aeronautical Information Service
AMAN	Arrival Management
ANS	Air navigation services
ANSV	Agenzia Nazionale per la Sicurezza del Volo / National Agency for Flight Safety
AOP	Airport operations
APP	Approach Control Service
ASM	Airspace Management Service
ATFM	Air Traffic Flow Management
ATS	Air Traffic Services
CCO	Operational Coordination Committee
CNS/ATM	Communication Navigation Surveillance/Air Traffic Management
COM	Communication
DCAC	Department of Civil Aviation of Cyprus
ECAC	European Civil Aviation Conference
ENAC	Ente Nazionale per l'Aviazione Civile / Civil Aviation Authority
ENAV S.p.A.	Ente Nazionale di Assistenza al Volo S.p.A. / Italian Company for Air Navigation Services
ENV	Environment
FIR	Flight Information Region
FT	Fast Track
FUA	Flexible Use of Airspace
GNSS	Global Navigation Satellite System
ICAO	International Civil Aviation Organisation
ILS	Instrument Landing System
ITAF	Italian Air Force
MoD	Ministry of Defence
MSAW	Minimum safe altitude warning
MTCD	Medium term conflict detection
OLDI	On Line Data Interface
PCP	Pilot common Project
PDP	Preliminary Deployment Programme
RNAV	Area Navigation
S-AF	Sub ATM Functionality
SAVE S.P.A.	Save Group of Venice Marco Polo Airport and Treviso Airport
SEA	SEA Group of Airports Milano Linate, Milano Malpensa and Milano Malpensa Cargo