

# LSSIP 2019 - MALTA

## 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**

**Director NM – Network Manager**

**EUROCONTROL**





Document Title	LSSIP Year 2019 for Malta
Info Centre Reference	20/01/15/26
Date of Edition	07/04/20
LSSIP Focal Point	Roland Camilleri - <a href="mailto:roland.camilleri@transport.gov.mt">roland.camilleri@transport.gov.mt</a> - TM-CAD
LSSIP Contact Person	Bernd Hill - <a href="mailto:bernd.hill@eurocontrol.int">bernd.hill@eurocontrol.int</a> - EUROCONTROL/NMD/INF/PAS
LSSIP Support Team	<a href="mailto:Issip.support@eurocontrol.int">Issip.support@eurocontrol.int</a>
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.transport.gov.mt/aviation/air-navigation-services-aerodromes-690">https://www.transport.gov.mt/aviation/air-navigation-services-aerodromes-690</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
Transport Malta Civil Aviation Directorate (CAD)	Charles PACE	Director General for Civil Aviation	
Malta Air Traffic Services (MATS)	Kenneth CHIRCOP	Chief Executive Officer	





# TABLE OF CONTENTS

Executive Summary .....	1
Introduction.....	7
1. National ATM Environment.....	8
1.1. Geographical Scope .....	8
1.2. National Stakeholders .....	10
2. Traffic and Capacity.....	18
2.1. Evolution of traffic in Malta.....	18
2.2. MALTA ACC.....	19
3. Implementation Projects.....	22
3.1. National projects .....	22
3.2. FAB projects.....	24
3.3. Multinational projects .....	26
4. Cooperation activities .....	27
4.1. FAB Co-ordination .....	27
4.2. Multinational cooperation initiatives.....	29
5. Implementation Objectives Progress .....	30
5.1. State View: Overall Objective Implementation Progress.....	30
5.2. Objective Progress per SESAR Key Feature .....	31
5.3. ICAO ASBU Implementation Progress .....	34
5.4. Detailed Objectives Implementation progress.....	35
6. Annexes .....	55
A. Specialists involved in the ATM implementation reporting for Malta.....	55
B. National stakeholders organisation charts.....	56
C. Implementation Objectives' links with SESAR KF, ASBU blocks and more .....	60
D. SESAR Solutions implemented in a voluntary way.....	64
E. Military Organisations Infrastructure.....	71
F. Glossary of abbreviations .....	72



# Executive Summary

## National ATM Context

Member State of:



The main National Stakeholders involved in ATM in Malta are the following:

- Ministry for Transport, Infrastructure and Capital Projects (MTIP)
- Ministry for Tourism & Consumer Protection (MTCP)
- Authority for Transport in Malta - Civil Aviation Directorate (TM-CAD)
- Bureau of Air Accident Investigation (BAAI)
- Malta Air Traffic Services Ltd (MATS)
- Malta International Airport plc (MIA)
- Malta International Airport – (METOFFICE)

Main airport covered by LSSIP: Malta International Airport (LMML)

## Traffic and Capacity

Summer Forecast (May to October inclusive)



For MALTA ACC the average en-route delay per flight remained at zero minutes per flight in summer 2019.

Malta is part of:



The BLUE MED FAB

Number of national projects: 9

Number of FAB projects: 8

Number of multinational projects: 2

### Summary of 2019 developments:

In the years 2018 to 2019, Free Route Airspace (AOM21.2), Automated Support for Conflict Detection, Resolution Support Information and Conformance Monitoring (ATC12.1) and Improve Runway Safety by Preventing Runway Excursions (SAF11) were deployed.

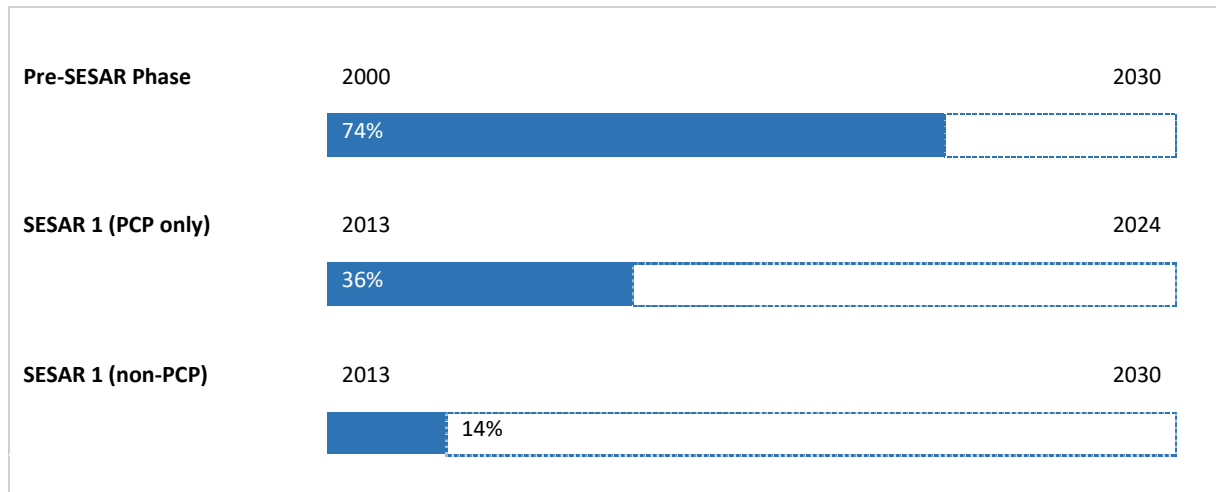
For the year 2020, Objectives for New Pan-European Network Service (COM12), Electronic Terrain and Obstacle Data (INF07), Implementation of ground-ground automated co-ordination processes (ITY-COTR), Migrate from AFTN to AMHS (COM10), Ensure Quality of Aeronautical Data and Aeronautical Information (ITY-ADQ), Electronic Dialogue as Automated Assistance to Controller during Coordination and Transfer (ATC17) and Common Flight Message Transfer Protocol (ITY-FMTP) are planned by MATS to be deployed.

## 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.

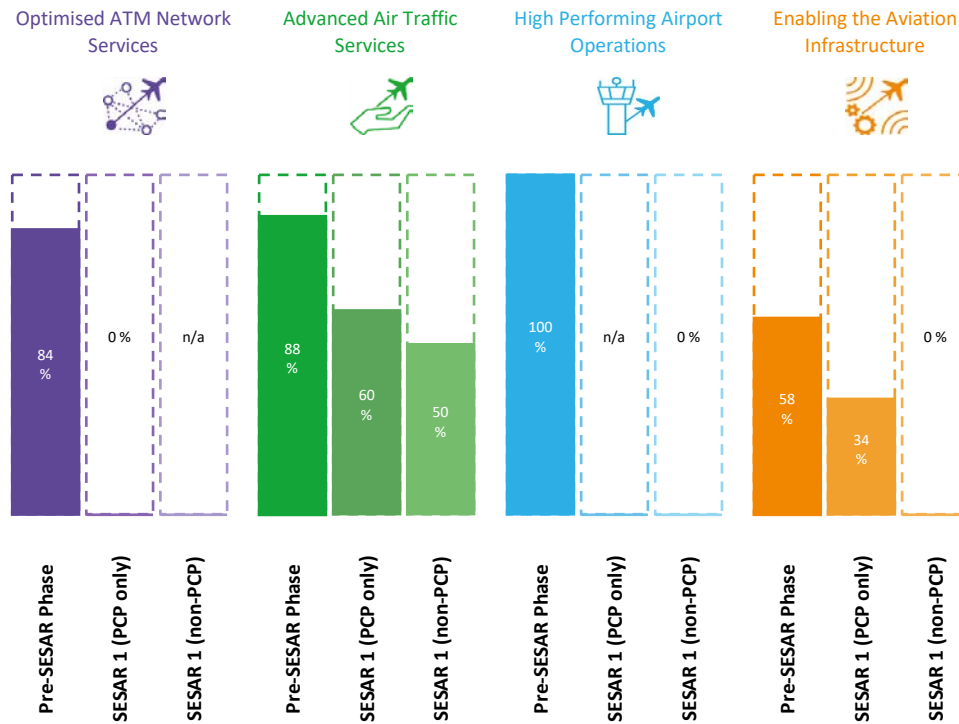
It shows the average implementation progress for all objectives grouped by SESAR Phases, excluding those for which the State is outside the applicability area as defined on a yearly basis in the European ATM Master Plan (Level 3) 2019, i.e. disregarding the declared “NOT APPLICABLE” LSSIP progress status.

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



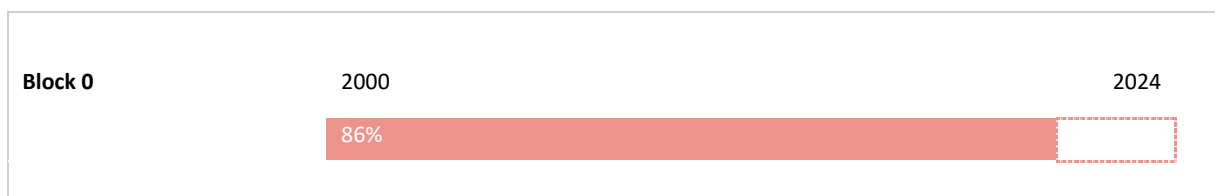
## Progress per SESAR Key Feature and Phase

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**

**- Free Route Airspace**

AOM21.2 - 100 % progress

**- Automated Support for Conflict Detection, Resolution Support Information and Conformance Monitoring**

ATC12.1 - 100 % progress

**- Improve Runway Safety by Preventing Runway Excursions**

SAF11 – 100%

By 2020	By 2021	By 2022	By 2023+
<ul style="list-style-type: none"> <li><b>- New Pan-European Network Service (NewPENS)</b> COM12 - 38 % progress</li> <li><b>- Electronic Terrain and Obstacle Data (eTOD)</b> INF07 - 03 % progress</li> <li><b>- Implementation of ground-ground automated co-ordination processes</b> ITY-COTR - 93 % progress</li> <li><b>- Migrate from AFTN to AMHS</b> COM10 - 72 % progress</li> <li><b>- Ensure Quality of Aeronautical Data and Aeronautical Information</b> ITY-ADQ - 55 % progress</li> <li><b>- Electronic Dialogue as Automated Assistance to Controller during Coordination and Transfer</b> ATC17 - 90 % progress</li> <li><b>- Common Flight Message Transfer Protocol (FMTP)</b> ITY-FMTP - 72 % progress</li> </ul>	<ul style="list-style-type: none"> <li><b>- RNP Approach Procedures to instrument RWY</b> NAV10 - 85 % progress</li> <li><b>- Aircraft Identification</b> ITY-ACID - 45 % progress</li> <li><b>- Initial ATC Air-Ground Data Link Services</b> ITY-AGDL - 37 % progress</li> <li><b>- RNAV 1 in TMA Operations</b> NAV03.1 - 48 % progress</li> <li><b>- Implement enhanced tactical flow management services</b> FCM01 - 67 % progress</li> <li><b>- Interactive Rolling NOP</b> FCM05 - 00 % progress</li> </ul>		<ul style="list-style-type: none"> <li><b>- 8,33 kHz Air-Ground Voice Channel Spacing below FL195</b> ITY-AGVCS2 - 79 % progress</li> <li><b>- Information Exchanges using the SWIM Yellow TI Profile</b> INF08.1 - 00 % progress</li> </ul>

Airport Objectives - Luqa Airport

✓ Deployed in 2018 - 2019                      None

By 2020	By 2021	By 2022	By 2023+
- Continuous Descent Operations (CDO) ENV01 - 08 % progress			

# 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;

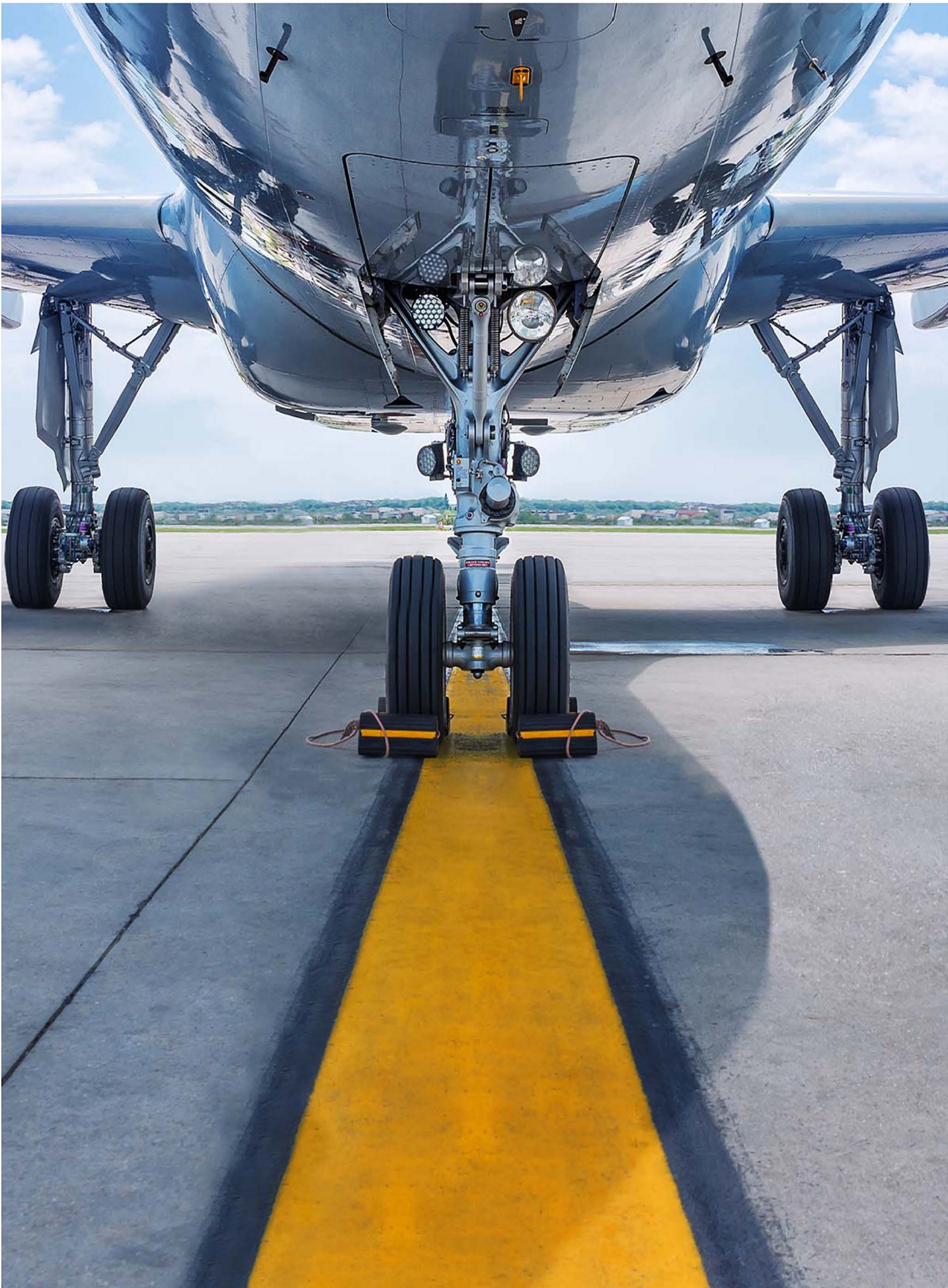
**Chapter 3** provides the main Implementation Projects (at national, FAB and multinational level) which contribute directly to the implementation of the MP Operational Improvements and/or Enablers and Implementation Objectives. The Level 1 document covers a high-level list of the projects showing the 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.*

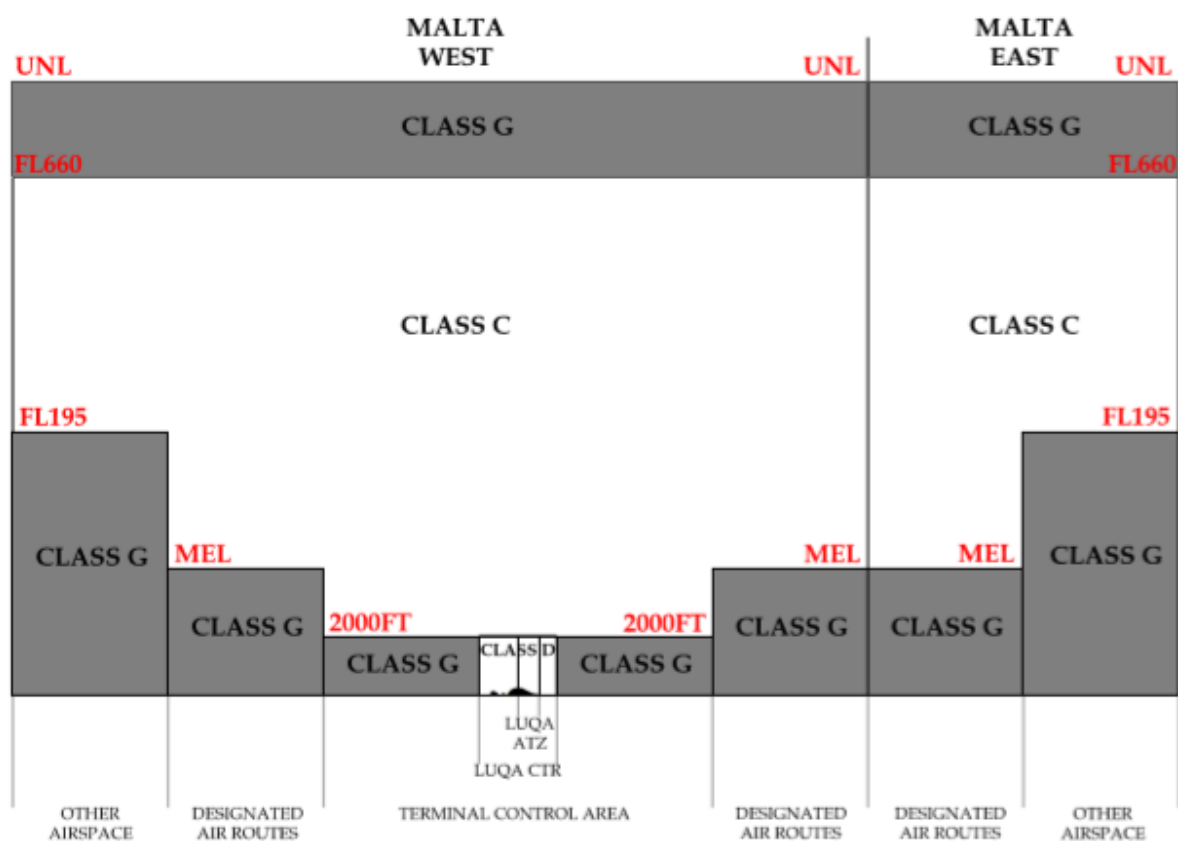






## Airspace Classification and Organisation

The figure below represents the Maltese Airspace Organisation and Classification.



## ATC Units

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

ATC Unit	Number of sectors		Associated FIR(s)	Remarks
	En-route	TMA		
Malta ACC	2		Malta FIR,UIR	
Malta APP		1	Malta TMA	

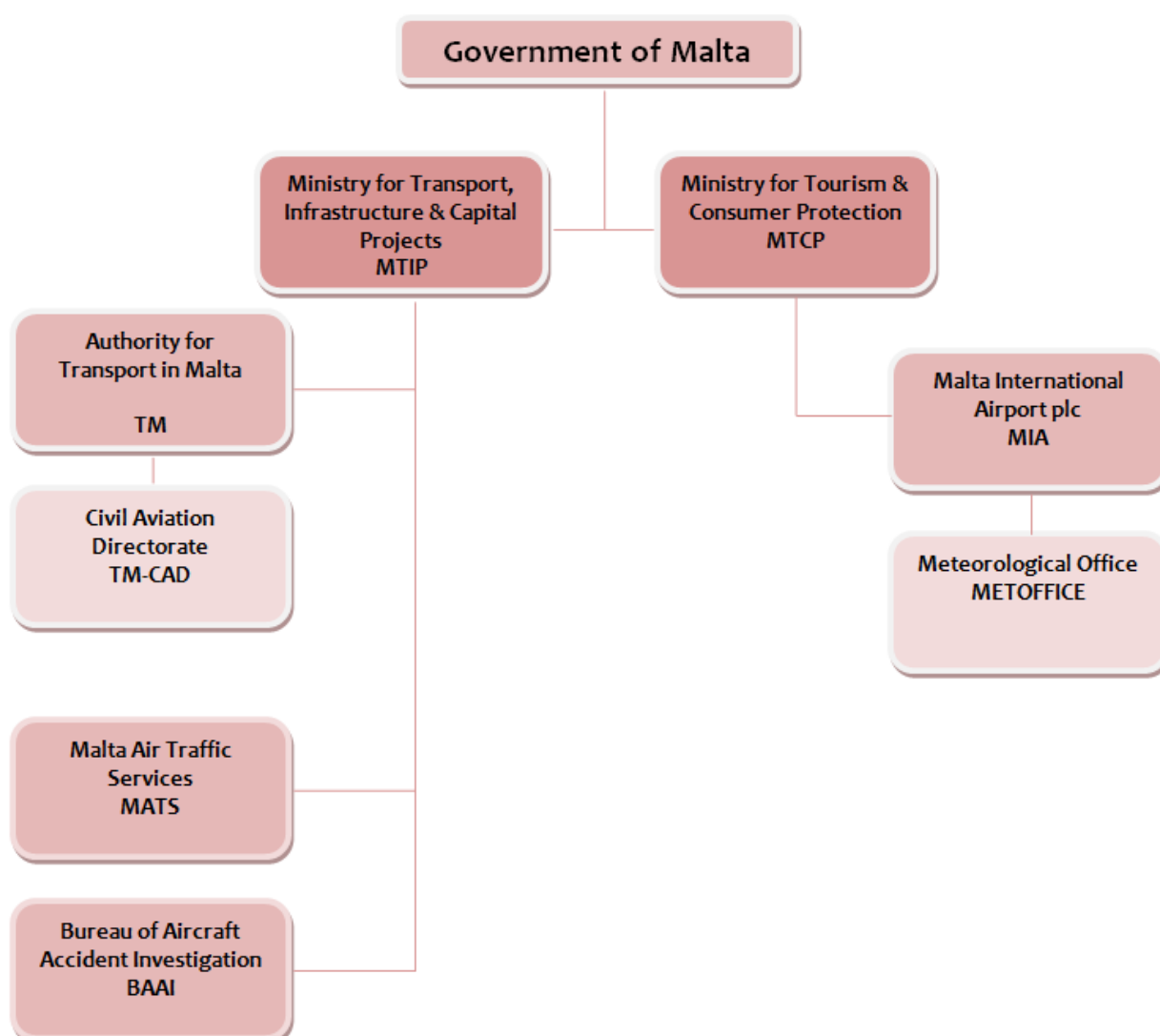


## 1.2. National Stakeholders

The main National Stakeholders involved in ATM in Malta are the following:

- Ministry for Transport, Infrastructure and Capital Projects (MTIP)
- Ministry for Tourism & Consumer Protection (MTCP)
- Authority for Transport in Malta - Civil Aviation Directorate (TM-CAD)
- Bureau of Air Accident Investigation (BAAI)
- Malta Air Traffic Services Ltd (MATS)
- Malta International Airport plc (MIA)
- Malta International Airport – (METOFFICE)

Their activities are detailed in the following subchapters and their relationships are shown in the diagram below.



## Civil Regulator(s)

### General Information

Civil Aviation in Malta is the responsibility of the Authority for Transport in Malta. The different national entities having regulatory responsibilities in ATM are summarised in the table below. The TM-CAD is further detailed in the following sections.

Activity in ATM:	Organisation responsible	Legal Basis
Rule-making	TM-CAD	Authority for Transport in Malta Act, Cap. 499, Laws of Malta, Article 9
Safety Oversight	TM-CAD	Authority for Transport in Malta Act, Cap. 499, Laws of Malta, Article 9
Enforcement actions in case of non-compliance with safety regulatory requirements	TM-CAD	Authority for Transport in Malta Act, Cap. 499, Laws of Malta, Article 9
Airspace	TM-CAD	Authority for Transport in Malta Act, Cap. 499, Laws of Malta, Article 9
Economic	TM-CAD	Authority for Transport in Malta Act, Cap. 499, Laws of Malta, Article 9
Environment	TM-CAD	Authority for Transport in Malta Act, Cap. 499, Laws of Malta, Article 9
Security	TM-CAD	Authority for Transport in Malta Act, Cap. 499, Laws of Malta, Article 9
Accident investigation	Bureau of Air Accident Investigation (BAAI)	Civil Aviation (Investigation of Air Accidents and Incidents) Regulations SL499.22

## Civil Aviation Directorate of Malta (TM-CAD)

The ATM safety regulation in Malta is the responsibility of the Civil Aviation Directorate (CAD), which forms part of the Authority for Transport in Malta (TM) and functions as a regulator for all aviation activities in Malta.

The main objectives are to ensure that activities are carried out safely and in conformity with international standards, which Malta applies in line with its membership in organisations such as ICAO, ECAC, EASA, EU and EUROCONTROL.

TM-CAD is institutionally separated from the ANSP, Malta Air Traffic Services Limited (MATS).

Annual Report published:	Y	<a href="https://www.transport.gov.mt/transport-malta/annual-report-673">https://www.transport.gov.mt/transport-malta/annual-report-673</a>
National Civil Aviation Master Plan (CAMP):	Y	<p>Malta published a National Transport Strategy, 2050 and Transport Master Plan, 2025 in December 2016. These can be found at the following link: <a href="http://www.transport.gov.mt/transport-strategies/strategies-policies-actions/national-transport-strategy-and-master-plan">http://www.transport.gov.mt/transport-strategies/strategies-policies-actions/national-transport-strategy-and-master-plan</a></p> <p>The documents are national strategic and development plans.</p> <p>The National Transport Strategy, 2050 contains long-term vision, strategic goals and targets.</p> <p>The sections of the Transport Master Plan, 2025 contains 10 year assessment, targets and plans and for aviation these are found in the following sections:</p> <p>2.7 External Aviation Operational Objectives</p> <p>2.8 Objectives common to all modes</p> <p>5 Environmental Considerations</p> <p>7 Targets, Delivery and Timelines</p> <p>In particular, relevant estimated costs of implementation have been identified in section 7.2 and the timelines, environmental impact and state aid assessment for each measure in section 7.3.</p>

Further information about TM-CAD is provided on the following web site:

<http://www.transport.gov.mt/aviation>

The Organisation Chart of TM-CAD is available in Annex B.

## Air Navigation Service Providers

### Malta Air Traffic Services Limited (MATS)

#### Service provided

<b>Governance:</b>	Joint stock company	<b>Ownership:</b> 100% State Owned
<b>Services provided</b>	<b>Y/N</b>	<b>Comment</b>
ATC en-route	Y	
ATC approach	Y	
ATC Aerodrome(s)	Y	
AIS	Y	
CNS	Y	
MET	N	This service is provided by Malta International Airport plc - METOFFICE
ATCO training	N	MATS is certified by Transport Malta Civil Aviation Directorate as a Training Organisation to provide Unit Training and some continuation training for ATCOs in accordance with ATCO licensing Commission Regulations.  Initial ATCO Basic and Rating Training is conducted by a certified training organisation in accordance with relative EU Regulations.
Others	N	
Additional information:		
Provision of services in other State(s):	Y	MATS provides Air Traffic Services to a portion of airspace within the Rome UIR/FIR.  By agreement with ENAV (the Italian Air Traffic Services Provider), MATS also provides en-route services to all aircraft in the portion of the Rome FIR encompassed by the green line and the Malta FIR boundary in Figure 1 which shows the area in which MATS provides services. In this airspace, which forms part of the Malta West Sector, MATS uses the same procedures and communications as those used in the Malta FIR.
Annual Report published:	Y	<a href="https://www.maltats.com/wp-content/uploads/2020/01/MATS-AR-2018.pdf">https://www.maltats.com/wp-content/uploads/2020/01/MATS-AR-2018.pdf</a>

Further information about MATS is provided on the following web site: <http://www.maltats.com>

The Organisation Chart of MATS is available in Annex B.

## ATC systems in use

Main ANSP part of any technology alliance <sup>1</sup>	N	
--	---	--

## FDPS

Specify the manufacturer of the ATC system currently in use:	LEONARDO
Upgrade <sup>2</sup> of the ATC system is performed or planned?	Yes. Completed
Replacement of the ATC system by the new one is planned?	No
ATC Unit	ACC & APP

## SDPS

Specify the manufacturer of the ATC system currently in use:	LEONARDO
Upgrade of the ATC system is performed or planned?	Yes. Completed
Replacement of the ATC system by the new one is planned?	No
ATC Unit	ACC & APP

---

<sup>1</sup> Technology alliance is an alliance with another service provider for joint procurement of technology from a particular supplier (e.g. COOPANS alliance)

<sup>2</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

Malta International Airport plc (MIA) is registered as a limited company and manages Luqa International Airport, being the only international airport in Malta for arrivals and departures of scheduled and non-scheduled flights. Malta International Airport is a member of the ACI-EUROPE (Airport Council International - Europe).

Feedback from MIA regarding their performance during 2019 and planned projects was not received by the time this publication went in for print.

The Gozo Heliport is a small heliport on the island of Gozo in Malta, near the town of Xewkija. It has two 22 meter wide concrete helipads, connected by asphalt. Currently, no scheduled flights operate from the heliport and is only used for the transport of medical patients needing urgent treatment in Malta.

### 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

The airport covered by this LSSIP document is Malta International Airport (LMML).

The EUROCONTROL Public Airport Corner also provides information for the following airport(s):

[https://ext.eurocontrol.int/airport\\_corner\\_public/LMML](https://ext.eurocontrol.int/airport_corner_public/LMML)

## Military Authorities

The Military Authority in Malta is the Armed Forces of Malta (AFM). The AFM has neither regulatory nor service provision responsibilities and their aircraft fleet is intended only for coastal patrol and SAR activities.

The Organisation Chart of the Armed Forces of Malta is available in Annexes.

## Regulatory role

### Regulatory framework and rule-making

OAT		GAT	
OAT and provision of service for OAT governed by national legal provisions?	N	Provision of service for GAT by the Military governed by national legal provisions?	N
Level of such legal provision: None		Level of such legal provision: None	
Authority signing such legal provision: None		Authority signing such legal provision: None	
These provisions cover:		These provisions cover:	
Rules of the Air for OAT	N		
Organisation of military ATS for OAT	N	Organisation of military ATS for GAT	N
OAT/GAT Co-ordination	N	OAT/GAT Co-ordination	N
ATCO Training	N	ATCO Training	N
ATCO Licensing	N	ATCO Licensing	N
ANSP Certification	N	ANSP Certification	N
ANSP Supervision	N	ANSP Supervision	N
Aircrew Training	N	ESARR applicability	N
Aircrew Licensing	N		



Additional Information: The Armed Forces of Malta do not have any ATM regulatory role. Their aircraft fleet is intended only for coastal patrol and SAR activities.			Additional Information: The Armed Forces of Malta do not have any ATM regulatory role. Their aircraft fleet is intended only for coastal patrol and SAR activities.		
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	N		National AIP	N
	National Military AIP	N		National Military AIP	N
	EUROCONTROL eAIP	N		EUROCONTROL eAIP	N
	Other:	N		Other:	N

## Oversight

OAT	GAT
National oversight body for OAT: None	NSA (as per SES reg. 550/2004) for GAT services provided by the military: None
Additional information: The Armed Forces of Malta do not have any ATM regulatory role. Their aircraft fleet is intended only for coastal patrol and SAR activities.	Additional information: The Armed Forces of Malta do not have any ATM regulatory role. Their aircraft fleet is intended only for coastal patrol and SAR activities.

## Service Provision role

OAT				GAT			
Services Provided:				Services Provided:			
En-Route	N	These services are provided by MATS		En-Route	N		
Approach/TMA	N	These services are provided by MATS		Approach/TMA	N		
Airfield/TWR/GND	N	These services are provided by MATS		Airfield/TWR/GND	N		
AIS	N	These services are provided by MATS		AIS	N		
MET	N	This service is provided by Malta International Airport METOFFICE		MET	N		
SAR	Y	SAR Services are provided by Armed Forces of Malta		SAR	N		
TSA/TRA monitoring	N	These services are provided by MATS		FIS	N		
Other:		None		Other:			
Additional Information: The Armed Forces of Malta do not have any ATM service provision role. Their aircraft fleet is intended only for coastal patrol and SAR activities. Any services to OAT are provided by MATS or, in the case of MET by Malta International Airport METOFFICE .				Additional Information: The Armed Forces of Malta do not have any ATM service provision role. Their aircraft fleet is intended only for coastal patrol and SAR activities. Any services to OAT are provided by MATS or, in the case of MET by Malta International Airport METOFFICE .			

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: The Armed Forces of Malta do not have any ATM service provision role. Their aircraft fleet is intended only for coastal patrol and SAR activities. Any services to OAT are provided by MATS or, in the case of MET by Malta International Airport - METOFFICE.					
The European Commission has been informed accordingly on 19 <sup>th</sup> July 2013					

## User role

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

If Military fly OAT-IFR inside controlled airspace, specify the available options:					
Free Routing		N/A	Within specific corridors only		N/A
Within the regular (GAT) national route network		N/A	Under radar control		N/A
Within a special OAT route system		N/A	Under radar advisory service		N/A

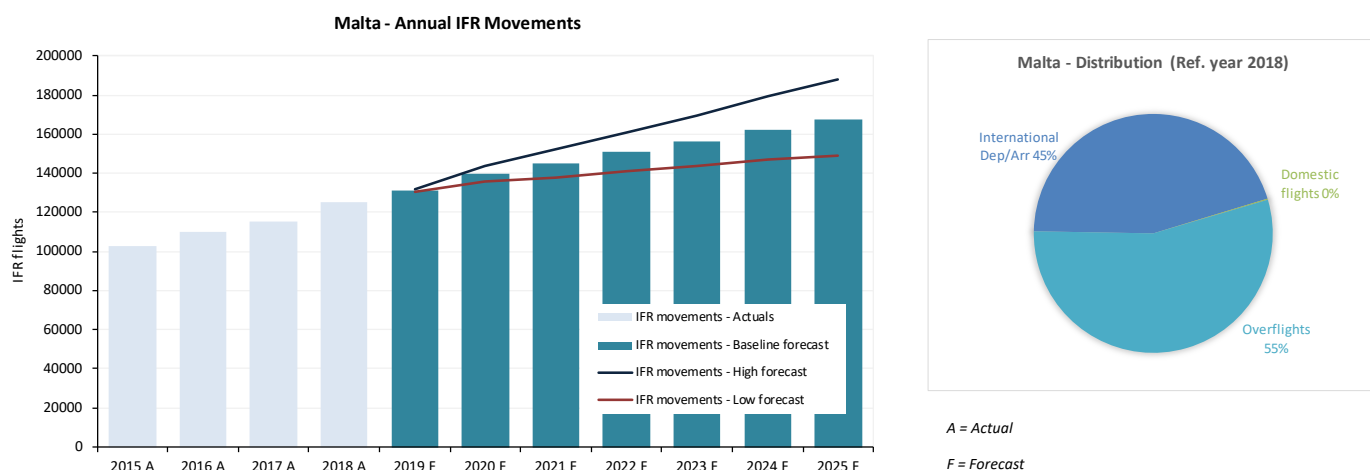
If Military fly GAT-IFR inside controlled airspace, specify existing special arrangements:									
No special arrangements					Y	Exemption from Route Charges			Y
Exemption from flow and capacity (ATFCM) measures					N	Provision of ATC in UHF			Y
CNS exemptions:	RVSM	N	8.33	N	Mode S	N	ACAS		N
Others:	None								

## Flexible Use of Airspace (FUA)

Military in Malta applies FUA requirements as specified in the Regulation No 2150/2005:	N/A
FUA Level 1 implemented:	N/A
FUA Level 2 implemented:	N/A
FUA Level 3 implemented:	N/A

## 2. Traffic and Capacity

### 2.1. Evolution of traffic in Malta



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
Malta	H				5.6%	8.8%	6.2%	5.5%	5.3%	5.6%	5.0%
	B	7.1%	5.3%	8.2%	4.9%	6.5%	3.8%	3.8%	3.6%	3.9%	3.2%
	L				4.2%	4.2%	1.6%	2.1%	1.9%	2.2%	1.6%
ECAC	B	2.8%	4.0%	3.8%	1.1%	2.3%	1.9%	2.2%	1.8%	1.9%	1.4%

#### 2019

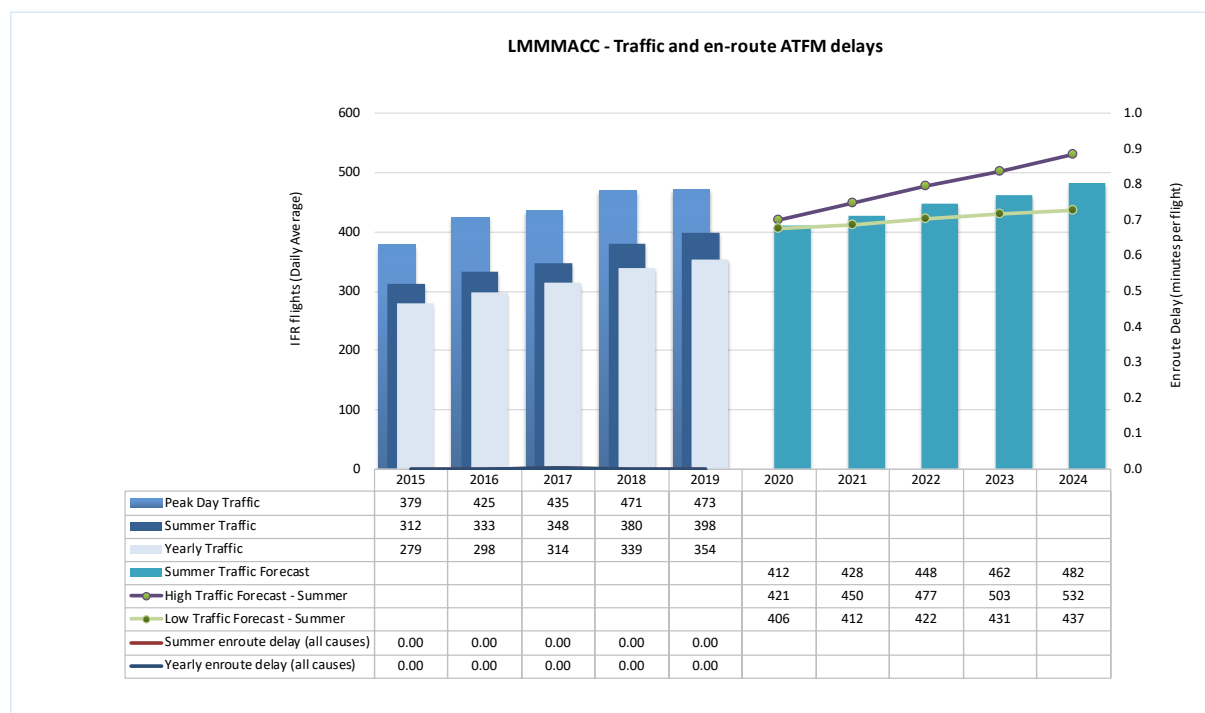
Traffic in Malta increased by 4.5% in 2019 compared to 2018.

#### 2020-2025

The EUROCONTROL Seven Year Forecast predicts an average annual traffic growth between 2.3% and 6.1% throughout the planning cycle, with an average baseline growth of 4.1%.

## 2.2. MALTA ACC

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



### Performance summer 2019

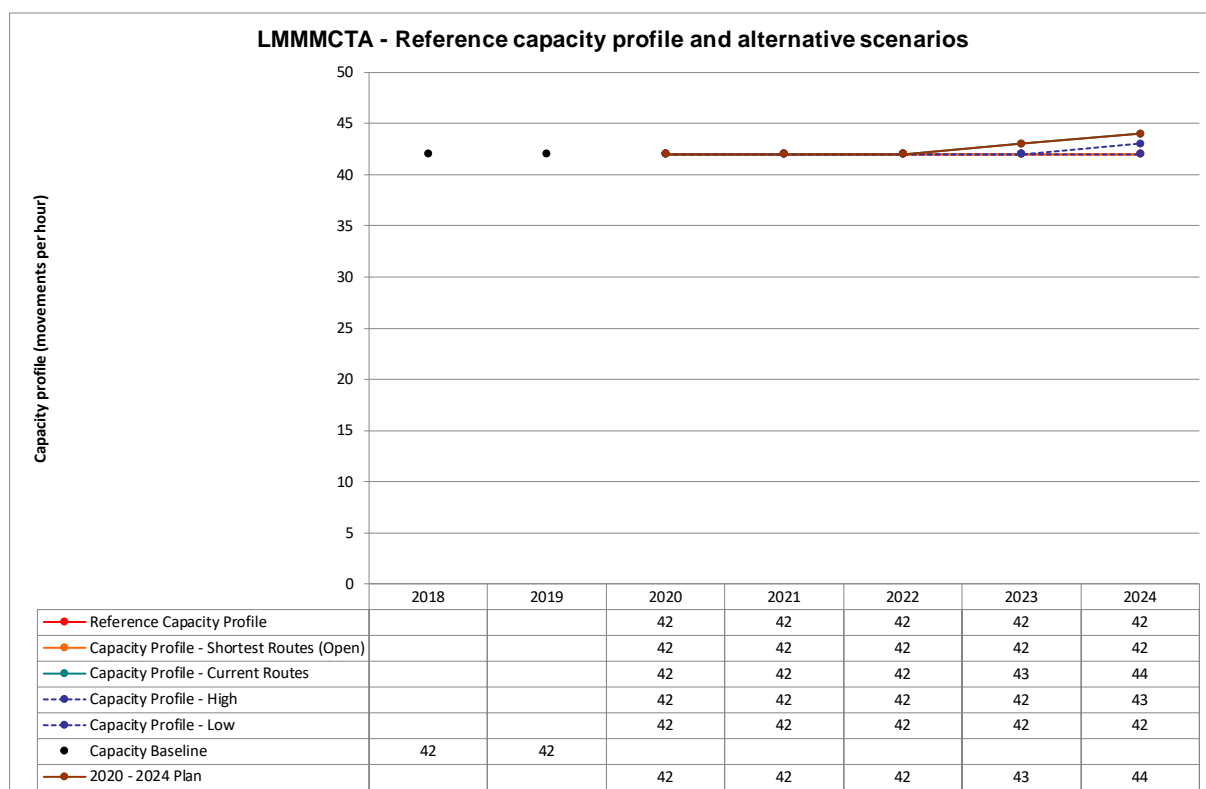
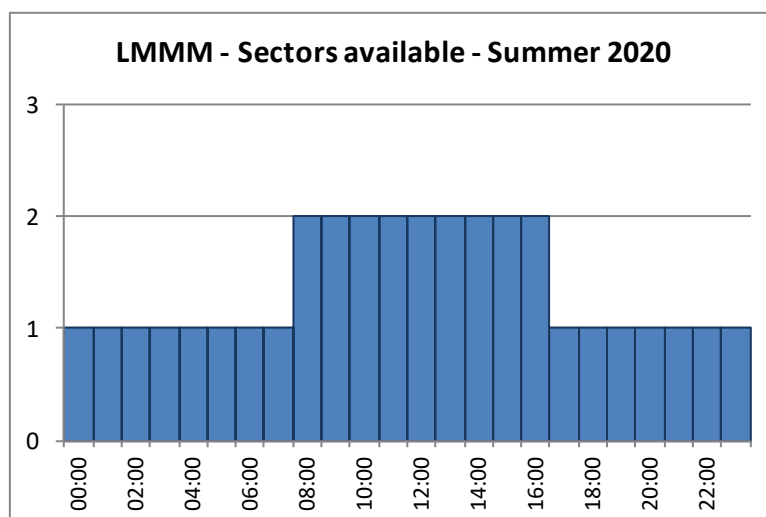
Malta ACC	Traffic evolution (2019 vs 2018)		En-route Delay (min. per flight)			Capacity (2019 vs 2018)		
	Traffic Forecast		Actual Traffic	All reasons	ACC Reference Value	Planned	Achieved	Capacity gap?
	Current Routes	Shortest Routes						
	Year	H: 6.2% B: 5.0% L: 2.1%						
Summer			+4.8%	0.00		Sufficient	42 (+0%)	No
The average en-route delay per flight remained at zero minutes per flight in summer 2019. The ACC capacity baseline was measured with ACCESS. During June and July, the average peak 1 hour demand was 31 flights and the peak 3 hour demand was 27 flights per hour.								
Operational actions				Achieved	Comments			
Maximum configuration: 2 sectors				Yes				

## Planning Period 2020-2024 – summer

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		Free route airspace Phase III – FL195+			
Airspace Management Advanced FUA					
Airport & TMA Network Integration		RNAV SID/STARs in the TMA			
Cooperative Traffic Management					
Airspace					
Procedures					
Staffing					
Technical					
Capacity					
Significant Events					
Max sectors	2	2	2	2	2
Planned Annual Capacity Increase	Sufficient capacity to meet demand				
Reference profile Annual % Increase	0%	0%	0%	0%	0%
Difference Capacity Plan v. Reference Profile	Sufficient capacity to meet demand				
Annual Reference Value (min)	0.02	0.02	0.02	0.02	0.02
Additional information					



2020-2024 Planning Period Outlook
Malta ACC has sufficient capacity to cope with expected demand during the current planning cycle.

## 3. Implementation Projects

The tables below presents the high-level information about the main projects currently ongoing in <State>. 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:
ADS-B	MATS (MT)	The implementation of ADS-B in the East Sector has been implemented on the 5 December 2019. ADS-B in the West Sector will be implemented during 2020.	Ongoing.	L3: ITY-SPI
AMHS	MATS (MT)	-	Factory acceptance testing on the new AHMS system is planned for Q1 of 2020	L3: COM10
Automatic Safety Monitoring Tool (ASMT)	MATS (MT)	Works will start immediately when the ATM system is commissioned.	Documentation of ASMT policies are being drafted at local level. Initial talks have started with EUROCONTROL on Technical Aspects.	-
Backup VCS	MATS (MT)	2021	-	-
Enroute PSR replacement	MATS (MT)	Implementation by end April 2019	Project complete	-

Name of project:	Organisation(s):	Schedule:	Status:	Links:
FMTP	MATS (MT)	Discussion with neighbouring ANSPs and communication service providers. Implementation by end 2021	The ATM system has been upgraded for FMTP capability. The upgraded system shadow mode operations is ongoing. Following the shadow mode operations, MATS will seek to replace the existing OLDI on X.25 to IPv.6	L3: ITY-FMTP
INTRAC Phase 2	MATS (MT)	Target Implementation date: Winter 2021	Planning Stage	L3: NAV10
LMML Advanced TWR	MATS (MT)	Starting towards the end of 2021	-	-
Tower / ACC / AIS / Support Services Centre	MATS (MT)	Planning phase.	-	-



### 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
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 Airspace Malta	MATS (MT)	<p>Free Route Airspace Malta (FRAM) has been divided in 3 stages. To date we have implemented Stage 1 and Stage 2 - DCT Routing scenario.</p> <p>The FRAM project has been divided into 3 stages:  FRA from FL335+ to be implemented in 08 Dec 2016  FRA from FL315+ to be implemented by Dec 2017  FRA from FL195+ to be implemented by Dec 2018</p>	Project being addressed at FAB level	L3: AOM21.2
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

Name of project:	Organisation(s):	Schedule:	Status:	Links:
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
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

### 3.3. Multinational projects

Name of project:	Organisation(s):	Schedule:	Status:	Links:
AMHS	MATS (MT)	Factory acceptance testing on the new AHMS system is planned for Q1 of 2020	Implementation is planned for 2020.	L3: COM10
CPDLC	MATS (MT)	Datalink is available on the Upgraded ATM System. Connection to the ATN is delayed due to technical issues encountered by all operators.	Testing and Feasibility study is ongoing.	L3: ITY-AGDL

## 4. Cooperation activities

### 4.1. FAB Co-ordination

The BLUE MED FAB is the European central/south-eastern FAB (Functional Airspace Block) initiative, whose partners are the EU Member States of Cyprus, Greece, Italy and Malta. 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 solutions and the deployment of identified technical enablers are being implemented through a solid Implementation Programme, that 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 added value 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 desires to result 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 dedicated Safety working group has been established in order to ensure the correct application of the Safety work plan as defined in BLUE MED Definition Phase.</p>
<b>Capacity</b> 	<p>The Route Network Catalogue &amp; Free Route Operations 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>The Flight Efficiency Plan developed by BLUE MED ANSPs allows for a reduction in flight time, fuel consumption and carbon dioxide emissions by aircrafts. This activity aims at developing a periodic report on the BLUE MED Flight Efficiency improvements, to be shared with the Airspace Users.</p>

## 4.2. Multinational cooperation initiatives

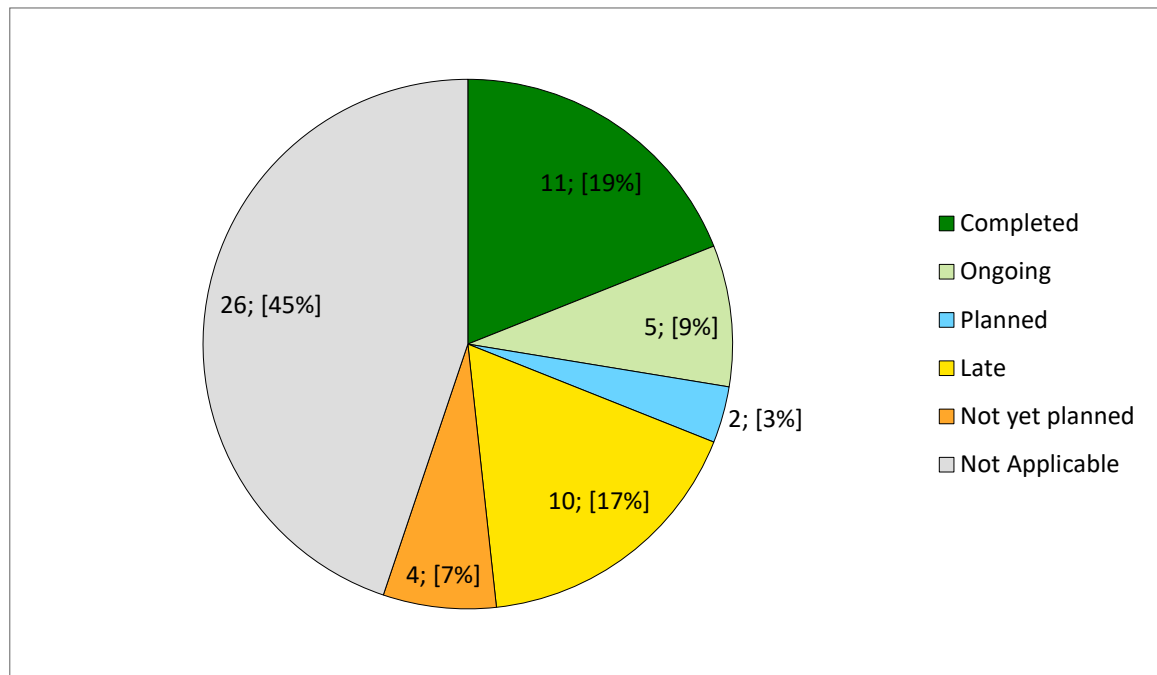
An Agreement of Cooperation between ENAV and MATS is in place and was renewed in 2013. The main objectives of the bilateral agreement are:

- To ensure compliance with the SES regulatory framework with a view to meet airspace users expectations;
- To ensure full endorsement of the principles and the provisions contained in the Performance Scheme;
- To meet promptly the requirements arising from the SESAR Programme;
- To improve strategic cooperation to meet targets fixed at European level and to better support their respective decision making processes;
- To strengthen the cooperation at FAB level;
- To cooperate at decision-making level following ongoing technical/operational Projects and Initiatives;
- To collaborate in the identification of local requirements for improved operational procedures and ANS training;
- To improve the coordination in the CNS/ATM domain, thus allowing optimisation of resources, alignment of the technical chain with the SESAR deliveries as well as compliance with the ESSIP process.

## 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).



In the year 2019, Free Route Airspace (AOM21.2) and Automated Support for Conflict Detection, Resolution Support Information and Conformance Monitoring (ATC12.1) were deployed.

For the year 2020, Objectives for New Pan-European Network Service (COM12), Electronic Terrain and Obstacle Data (INF07), Implementation of ground-ground automated co-ordination processes (ITY-COTR), Migrate from AFTN to AMHS (COM10), Ensure Quality of Aeronautical Data and Aeronautical Information (ITY-ADQ), Electronic Dialogue as Automated Assistance to Controller during Coordination and Transfer (ATC17) and Common Flight Message Transfer Protocol (ITY-FMTP) are planned by MATS to be deployed.

MIA plans to deploy the Objective for Continuous Descent Operations (ENV01) by end of 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.

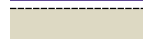
Note: The detailed table of links between Implementation Objectives and SESAR Key Features is available in Annex C: Implementation Objectives' links with SESAR, ICAO and DP.

Legend:

▲ ## % = Expected completion / % Progress

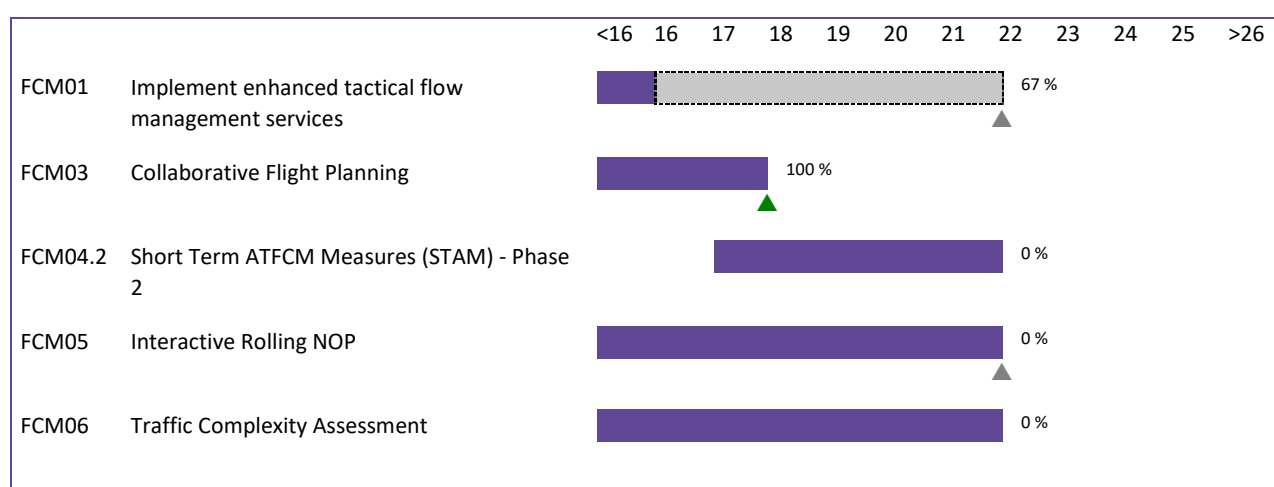
▲ 100% = Objective completed

 = Implementation Objective timeline (different colour per KF)

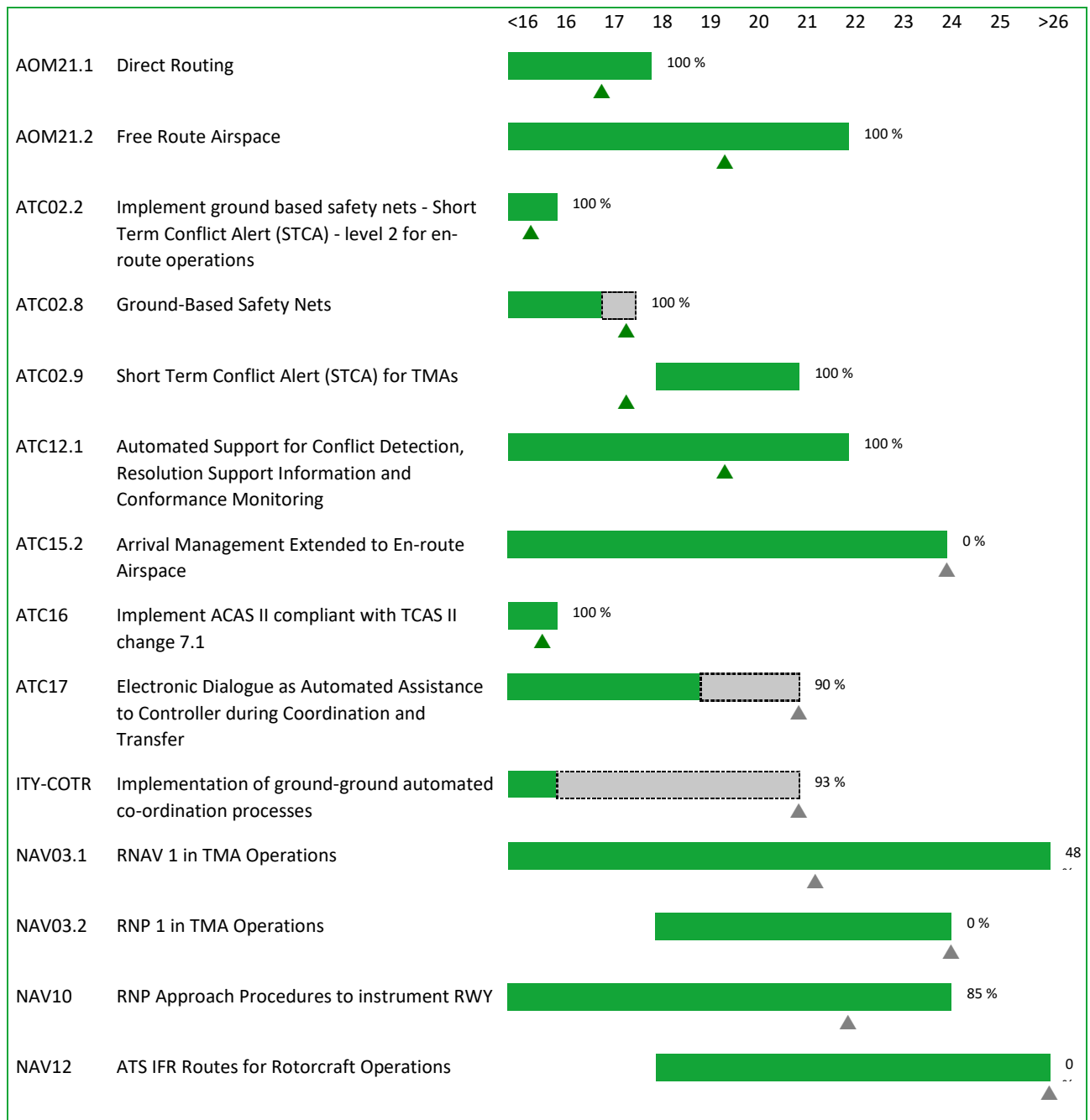
 = Completion beyond Implementation Objective timeline



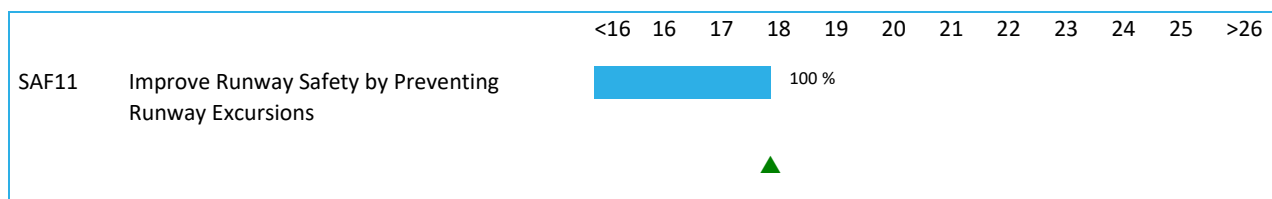
### Optimised ATM Network Services



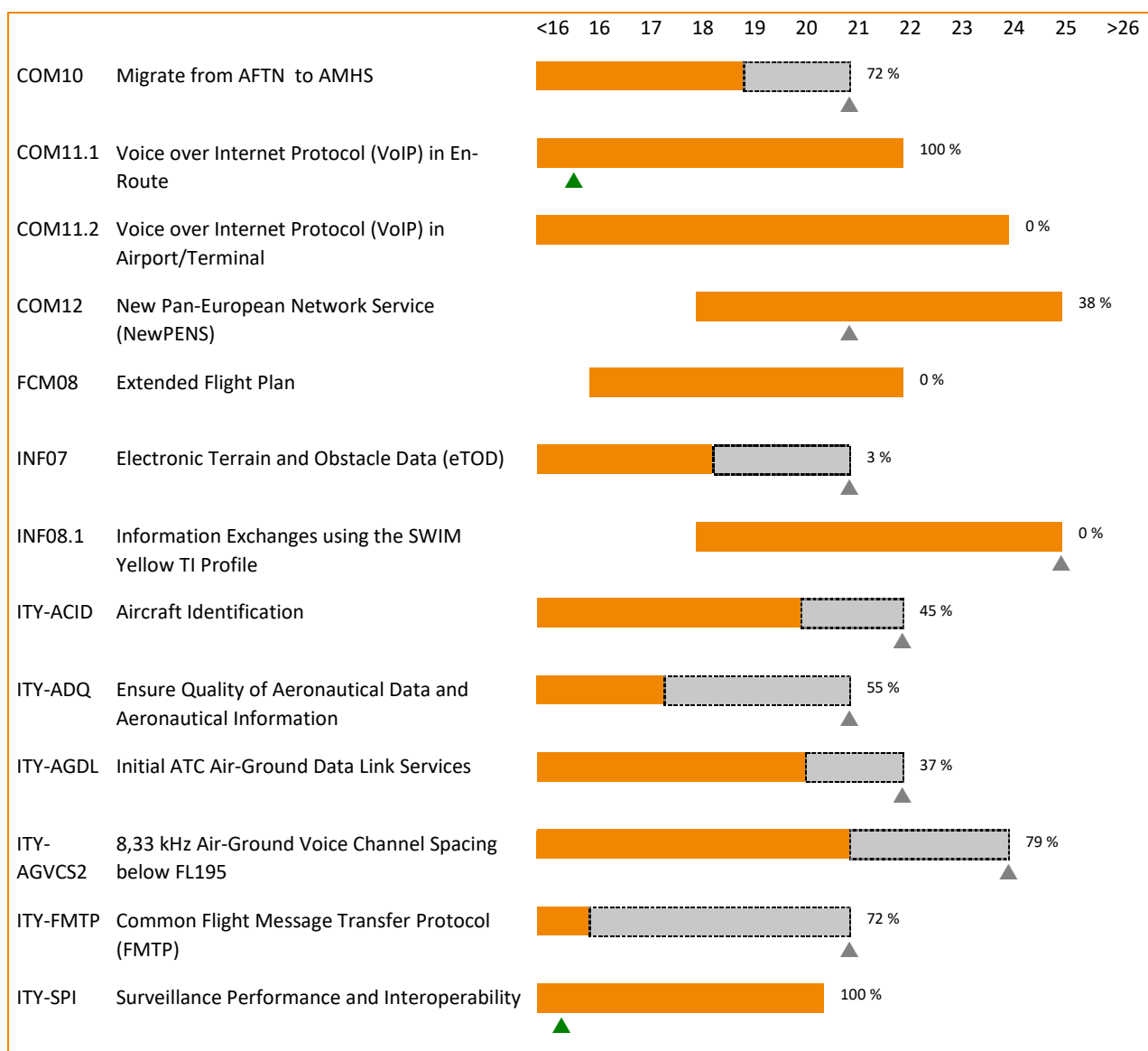




## High Performing Airport Operations



## Enabling Aviation Infrastructure

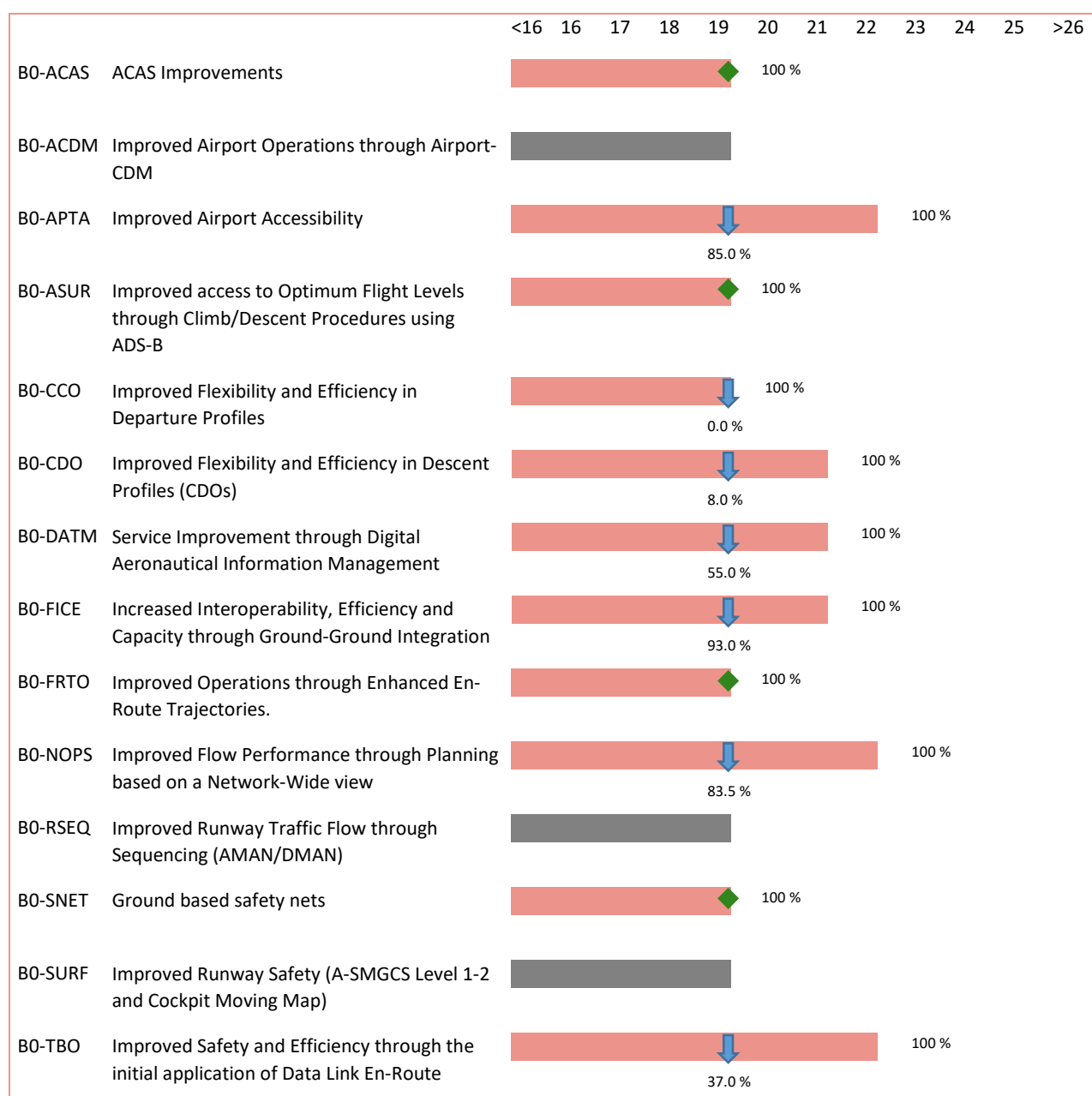


### 5.3. ICAO ASBU Implementation Progress








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	Harmonise Operational Air Traffic (OAT) and General Air Traffic (GAT) Handling	%	Not Applicable
	(Outside Applicability Area)		
	<u>Timescales:</u>		
	- not applicable -		
Key Feature: Optimised ATM Network Services			
-			
Harmonization of OAT and GAT handling is not required as the Air Wing of the Armed Forces of Malta does not operate combat aircraft. It has only SAR, coastal and maritime patrol missions.			-
KINDLY NOTE THAT MALTA IS EXEMPT FROM THIS OBJECTIVE - IMPLEMENTATION OBJECTIVE DETAILS DV REFER			
REG (By:12/2018)			
TM-CAD	Harmonization of OAT and GAT handling is not required as the Air Wing of the Armed Forces of Malta does not operate combat aircraft. It has only SAR, coastal and maritime patrol missions.	%	Not Applicable
			-
ASP (By:12/2018)			
MATS	Harmonization of OAT and GAT handling is not required as the Air Wing of the Armed Forces of Malta does not operate combat aircraft. It has only SAR, coastal and maritime patrol missions.	%	Not Applicable
			-
MIL (By:12/2018)			
AFM	Harmonization of OAT and GAT handling is not required as the Air Wing of the Armed Forces of Malta does not operate combat aircraft. It has only SAR, coastal and maritime patrol missions.	%	Not Applicable
			-
AOM19.1	ASM Support Tools to Support Advanced FUA (AFUA)	%	Not Applicable
	(Outside Applicability Area)		
	<u>Timescales:</u>		
	- not applicable -		
Links: B1-FRTO, B1-NOPS   Key Feature: Optimised ATM Network Services			
-			
The Air Wing of the Armed Forces of Malta does not operate combat aircraft. It has only SAR, coastal and maritime patrol missions. All Maltese Airspace is managed by the civil ANSP MATS.			-
ASP (By:12/2018)			
MATS	The Air Wing of the Armed Forces of Malta does not operate combat aircraft. It has only SAR, coastal and maritime patrol missions. All Maltese Airspace is managed by the civil ANSP MATS.	%	Not Applicable
			-

AOM19.2	ASM Management of Real-Time Airspace Data  (Outside Applicability Area) <u>Timescales:</u> - not applicable -	%	Not Applicable
Links: B1-FRTO, B1-NOPS   Key Feature: Optimised ATM Network Services			
-			
We request exemption from this objective since it is related to FUA, which as a State we are exempt from.			-
ASP (By:12/2021)			
MATS	We request exemption from this objective since it is related to FUA, which as a State we are exempt from.	%	Not Applicable -
AOM19.3	Full Rolling ASM/ATFCM Process and ASM Information Sharing  (Outside Applicability Area) <u>Timescales:</u> - not applicable -	%	Not Applicable
Links: B0-FRTO, B1-FRTO, B1-NOPS, B2-NOPS   Key Feature: Optimised ATM Network Services			
-			
No National ATM requirement.			-
ASP (By:12/2021)			
MATS	Request exemption for this objective, as we have no national ATM requirement.	%	Not Applicable -
AOM19.4	Management of Pre-defined Airspace Configurations  (Outside Applicability Area) <u>Timescales:</u> - not applicable -	%	Not Applicable
Links: B1-FRTO, B1-NOPS   Key Feature: Optimised ATM Network Services			
-			
According to the MP Level 3, this Objective is Not Applicable for Malta.			-
ASP (By:12/2021)			
MATS	According to the MP Level 3, this Objective is Not Applicable for Malta.	%	Not Applicable -
AOM21.2	Free Route Airspace <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			
-			
FRA introduced in the Malta FIR on 08 Dec 2016. The ATS route network was retained. Full FRA within LMMUIR above FL195+ with ATS route network withdrawn is planned for December 2020. Malta does not intend to implement [AOM21.2-ASP03 Implement dynamic sectorisation] as it is exempt from the PCP.			30/06/2019
ASP (By:12/2021)			
MATS	FRA project is planned in conformance to the timeline stipulated in IDP and LSSIP.	100%	Completed 30/06/2019

<b>AOP04.1</b>	<b>Advanced Surface Movement Guidance and Control System A-SMGCS Surveillance (former Level 1)</b> <u>Timescales:</u> - not applicable -	%	<b>Not Applicable</b>
<b>Links: B0-SURF   Key Feature: High Performing Airport Operations</b>			
<b>LMML - Luqa Airport</b> <b>(Outside Applicability Area)</b>			
<b>Malta International Airport is not part of applicability area.</b>			-
<b>REG (By:12/2010)</b>			
TM-CAD	Malta International Airport is not part of applicability area.	%	Not Applicable
			-
<b>ASP (By:12/2011)</b>			
MATS	Malta International Airport is not part of applicability area.	%	Not Applicable
			-
<b>APO (By:12/2010)</b>			
MIA	Malta International Airport is not part of applicability area.	%	Not Applicable
			-

<b>AOP04.2</b>	<b>Advanced Surface Movement Guidance and Control System (A-SMGCS) Runway Monitoring and Conflict Alerting (RMCA) (former Level 2)</b> <u>Timescales:</u> - not applicable -	%	<b>Not Applicable</b>
<b>Links: B0-SURF   Key Feature: High Performing Airport Operations</b>			
<b>LMML - Luqa Airport</b> <b>(Outside Applicability Area)</b>			
<b>Malta International Airport is not part of applicability area.</b>			-
<b>ASP (By:12/2017)</b>			
MATS	Malta International Airport is not part of applicability area.	%	Not Applicable
			-
<b>APO (By:12/2017)</b>			
MIA	Malta International Airport is not part of applicability area.	%	Not Applicable
			-

<b>AOP05</b>	<b>Airport Collaborative Decision Making (A-CDM)</b> <u>Timescales:</u> - not applicable -	%	<b>Not Applicable</b>
<b>Links: B0-ACDM, B0-RSEQ   Key Feature: High Performing Airport Operations</b>			
<b>LMML - Luqa Airport</b> <b>(Outside Applicability Area)</b>			
<b>Malta International Airport is not part of applicability area.</b>			-
<b>ASP (By:12/2016)</b>			
MATS	Malta International Airport is not part of applicability area.	%	Not Applicable
			-
<b>APO (By:12/2016)</b>			
MIA	Malta International Airport is not part of applicability area.	%	Not Applicable
			-

<b>AOP10</b>	<b>Time-Based Separation</b> <u>Timescales:</u> - not applicable -	%	<b>Not Applicable</b>
<b>Links: B1-RSEQ, B2-WAKE   Key Feature: High Performing Airport Operations</b>			
<b>LMML - Luqa Airport</b> <b>(Outside Applicability Area)</b>			
<b>Malta international Airport is not part of the applicability area.</b>			-
<b>REG (By:12/2023)</b>			
TM-CAD	Malta International Airport is not part of applicability area.	%	Not Applicable
			-
<b>ASP (By:12/2023)</b>			
MATS	Malta International Airport is not part of applicability area.	%	Not Applicable
			-

<b>AOP11</b>	<b>Initial Airport Operations Plan</b> <u>Timescales:</u> - not applicable -	%	<b>Not Applicable</b>
<b>Links: B1-ACDM   Key Feature: High Performing Airport Operations</b>			
<b>LMML - Luqa Airport</b> <b>(Outside Applicability Area)</b>			
<b>-Malta International Airport is not part of the applicability area.</b>			-
<b>ASP (By:12/2021)</b>			
MATS	Malta International Airport is not part of applicability area.	%	Not Applicable
			-
<b>APO (By:12/2021)</b>			
	Malta International Airport is not part of applicability area.	%	Not Applicable
			-

<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> - not applicable -	%	<b>Not Applicable</b>
<b>Links: B2-SURF   Key Feature: High Performing Airport Operations</b>			
<b>LMML - Luqa Airport</b> <b>(Outside Applicability Area)</b>			
<b>Malta International Airport is not part of the applicability area.</b>			-
<b>ASP (By:12/2020)</b>			
MATS	Malta International Airport is not part of applicability area.	%	Not Applicable
			-
<b>APO (By:12/2020)</b>			
MIA	Malta International Airport is not part of applicability area.	%	Not Applicable
			-

AOP13	Automated Assistance to Controller for Surface Movement Planning and Routing <u>Timescales:</u> - not applicable -	%	Not Applicable
Links: B1-ACDM, B1-RSEQ, B2-SURF   Key Feature: High Performing Airport Operations			
LMML - Luqa Airport (Outside Applicability Area)			
Malta is not part of the applicability area.			-
REG (By:12/2023)			
TM-CAD	Malta International Airport is not part of applicability area.	%	Not Applicable
			-
ASP (By:12/2023)			
MATS	Malta International Airport is not part of applicability area.	%	Not Applicable
			-

ATC02.8	Ground-Based Safety Nets <u>Timescales:</u> Initial operational capability: 01/01/2009 Full operational capability: 31/12/2016	100%	Completed
Links: B0-SNET, B1-SNET   Key Feature: Advanced Air Traffic Services			
Ground Base Safety Nets objective achieved 30.06.2017.			30/06/2017
ASP (By:12/2016)			
MATS	APW and MSAW function have been enabled in the current system for some time.	100%	Completed
			30/06/2017

ATC02.9	Short Term Conflict Alert (STCA) for TMA's <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			
This Objective was completed on 30/06/2017			30/06/2017
ASP (By:12/2020)			
MATS	This Objective was completed on 30/06/2017.	100%	Completed
			30/06/2017

ATC07.1	AMAN Tools and Procedures <u>Timescales:</u> - not applicable -	%	Not Applicable
Links: B0-RSEQ   Key Feature: Advanced Air Traffic Services			
LMML - Luqa Airport (Outside Applicability Area)			
Not required due to low traffic.			-
ASP (By:12/2019)			
MATS	Not required due to low traffic.	%	Not Applicable
			-



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	100%	Completed
Links: B1-FRTO   Key Feature: Advanced Air Traffic Services			
-			
The ATM system supports these tools and functions which will in turn provide enhanced performance benefits in Safety, Capacity and Cost effectiveness. The MONA functions have been integrated in the new ATM system.			30/06/2019
ASP (By:12/2021)			
MATS	The MONA functions have been integrated in the new ATM system.-	100%	Completed 30/06/2019

ATC15.1	<b>Information Exchange with En-route in Support of AMAN</b> <b>(Outside Applicability Area)</b> <u>Timescales:</u> - not applicable -	%	Not Applicable
Links: B1-RSEQ   Key Feature: Advanced Air Traffic Services			
-			
Malta is not part of the applicability area of this Objective.			-
ASP (By:12/2019)			
MATS	Malta is not part of the applicability area of this Objective.	%	Not Applicable -

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	%	Not Applicable
Links: B1-RSEQ   Key Feature: Advanced Air Traffic Services			
-			
Malta ACC and Luqa TWR are exempt from the Pilot Common Project and are exempt from this objective.			-
ASP (By:12/2023)			
MATS	Malta is exempt from the PCP	%	Not Applicable -

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	90%	Late
<b>Key Feature: Advanced Air Traffic Services</b>			
-			
The ATM system is capable of handling all the messages listed below and will be introduced to the system gradually. The messages include: PAC, COD, ROF, COF, TIM, HOP, MAS, SDM, RAP, RRV, CDN, ACP, RLC and SBY. These messages will be become operational gradually with ENAV.			31/12/2020
<b>ASP (By:12/2018)</b>			
MATS	The ATM system is capable of handling all the messages listed below and will be introduced to the system gradually. The messages include: PAC, COD, ROF, COF, TIM, HOP, MAS, SDM, RAP, RRV, CDN, ACP, RLC and SBY. These messages will be become operational gradually with ENAV.	90%	Late
			31/12/2020
COM10	<b>Migrate from AFTN to AMHS</b> <u>Timescales:</u> Initial operational capability: 01/12/2011 Full operational capability: 31/12/2018	72%	Late
<b>Key Feature: Enabling the Aviation Infrastructure</b>			
-			
MATS has installed and has Enhanced AMHS capability. We are waiting for neighbouring States to install AMHS to start with the testing phase to go operational.			31/12/2020
<b>ASP (By:12/2018)</b>			
MATS	Activity being coordinated with EUROCONTROL. MATS has installed AMHS and is waiting for neighbouring States to start the testing phase.	72%	Late
			31/12/2020
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	100%	Completed
<b>Key Feature: Enabling the Aviation Infrastructure</b>			
-			
The new VCSS supports VoIP and is operational.			31/12/2015
<b>ASP (By:12/2021)</b>			
MATS	New VCSS is operational.	100%	Completed
			31/12/2015
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	%	Not Applicable
<b>Key Feature: Enabling the Aviation Infrastructure</b>			
-			
No requirement for VoIP in Airport / Terminal.			-
<b>ASP (By:12/2023)</b>			
MATS	No requirement for VoIP in Airport / Terminal.	%	Not Applicable
			-

COM12	New Pan-European Network Service (NewPENS) <u>Timescales:</u> Initial operational capability: 01/01/2018 Full operational capability (33 ANSPs): 31/12/2020		38%	Ongoing
	Links: B1-SWIM   Key Feature: Enabling the Aviation Infrastructure			
	-			
	The implementation of NewPENS has started and is planned to be completed by end 2020.			
	ASP (By:12/2024)			
MATS	The implementation of this Objective is planned by end 2020.	58%	Ongoing 31/12/2020	
APO (By:12/2024)				
MIA	The implementation of this Objective is planned by end 2020.	0%	Planned 31/12/2020	
ENV01	Continuous Descent Operations (CDO) <u>Timescales:</u> - not applicable -		8%	Ongoing
	Links: B0-CDO, B1-CDO   Key Feature: Advanced Air Traffic Services			
	LMML - Luqa Airport (Outside Applicability Area)			
	Malta International Airport is not part of the list of airports for this objective.			
	ASP (By:12/2023)			
MATS	Malta International Airport is not part of the list of airports participating in this objective.	8%	Ongoing 31/12/2020	
APO (By:12/2023)				
MIA	Malta International Airport is not part of the list of airports participating in this objective.	%	Not Applicable -	
FCM03	Collaborative Flight Planning <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			
	-			
	Pending SLoAs were implemented by December 2017 with the implementation of the new system.			
	ASP (By:12/2017)			
MATS	Pending SLoAs were implemented by December 2017 with the implementation of the new system.	100%	Completed 31/12/2017	
FCM04.2	Short Term ATFCM Measures (STAM) - Phase 2 <u>Timescales:</u> Initial operational capability: 01/11/2017 Full operational capability: 31/12/2021		%	Not Applicable
	Key Feature: Optimised ATM Network Services			
	-			
	There is no plan yet to this objective			
	ASP (By:12/2021)			
MATS	There is no plan to this objective yet.	%	Not Applicable -	

FCM05	<b>Interactive Rolling NOP</b> <u>Timescales:</u> Initial operational capability: 01/09/2013 Full operational capability: 31/12/2021	0%	Planned
Links: B1-ACDM, B1-NOPS   Key Feature: Optimised ATM Network Services			
-			
Planned to be implemented by 2021. Plans are to use n-Connect and the NOP secure portal. ATFCM activities are being analysed.			31/12/2021
ASP (By:12/2021)			
MATS	Planned to be implemented by 2021.	0%	Planned
			31/12/2021
APO (By:12/2021)			
MIA	Discussion within EUACA on going for this purpose.	0%	Planned
			31/12/2021

FCM06	<b>Traffic Complexity Assessment</b> <u>Timescales:</u> Initial operational capability: 01/01/2015 Full operational capability: 31/12/2021	%	Not Applicable
Links: B1-NOPS   Key Feature: Optimised ATM Network Services			
-			
Malta is not a PCP State and is exempt from this objective.			-
ASP (By:12/2021)			
MATS	Malta is exempt from the PCP.	%	Not Applicable
			-

FCM08	<b>Extended Flight Plan</b> <u>Timescales:</u> Initial operational capability: 01/01/2016 Full operational capability: 31/12/2021	%	Not Applicable
Links: B1-FICE   Key Feature: Enabling the Aviation Infrastructure			
-			
Malta is exempt from the PCP			-
ASP (By:12/2021)			
MATS	MATS will look into this objective in the near future.	%	Not Applicable
			-

INF07	<b>Electronic Terrain and Obstacle Data (eTOD)</b> <u>Timescales:</u> Initial operational capability: 01/11/2014 Full operational capability: 31/05/2018	3%	Late
Key Feature: Enabling the Aviation Infrastructure			
-			
Electronic Terrain and Obstacle Data is high on the priority list. Several negotiations have started with the various stakeholders including the main terrain and obstacle data provider in order work towards the setting up of a roadmap, which will eventually lead to the TOD implementation.			31/12/2020
REG (By:05/2018)			
TM-CAD	Several negotiations with relevant bodies in the TOD processes have commenced with the purpose of setting up the necessary groundwork to establish a national TOD policy, which should be finalised during 2020.	3%	Late
			31/12/2020
ASP (By:05/2018)			
MATS	MATS is waiting for the national TOD policy before being in a position to develop a roadmap.	0%	Late
			31/12/2020
APO (By:05/2018)			
MIA	MIA is waiting for the national TOD policy before being in a position to develop a roadmap.	5%	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	%	Planned	
Links: B1-DATM, B1-SWIM   Key Feature: Enabling the Aviation Infrastructure				
-				
The Objective is planned to be implemented by 2024.			31/12/2024	
ASP (By:12/2024)				
MATS	The Objective is planned to be implemented by 2024.	-	%	Planned
				31/12/2024
MIL (By:12/2024)				
AFM	The Objective is planned to be implemented by 2024.	-	%	Planned
				31/12/2024
APO (By:12/2024)				
MIA	The Objective is planned to be implemented by 2024.	-	%	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	45%	Late
Key Feature: Enabling the Aviation Infrastructure			
-			
Progress has been achieved during 2019. ADS-B has been implemented in the East Sector and plans are underway to implement ADS-B in the West Sector in 2020 with Mode-S implementation planned for 2021.			31/12/2021
ASP (By:01/2020)			
MATS	ADSB implemented in East Sector. Full ADS-B capability in LMMM Airspace by end 2020. Mode-S implementation planned for 2021.	45%	Late
			31/12/2021

ITY-ADQ	<b>Ensure Quality of Aeronautical Data and Aeronautical Information</b> <u>Timescales:</u> 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		55%	Late
	<b>Links: B0-DATM   Key Feature: Enabling the Aviation Infrastructure</b> -			
<b>Formal arrangements have been concluded during 2019. Full implementation is planned to be achieved during 2020.</b>				31/12/2020
<b>REG (By:06/2017)</b>				
TM-CAD	Formal arrangements have been concluded during 2019. Full implementation is planned to be achieved during 2020.-	40%	Late	31/12/2020
<b>ASP (By:06/2017)</b>				
MATS	A formal SLA has been finalised.	61%	Late	31/12/2020
<b>APO (By:06/2017)</b>				
MIA	Several meeting were held with all stakeholders and a formal SLA was finalised during 2019.	55%	Late	31/12/2020

ITY-AGDL	<b>Initial ATC Air-Ground Data Link Services</b> <u>Timescales:</u> Entry into force: 06/02/2009 ATS unit operational capability: 05/02/2018 Aircraft capability: 05/02/2020		37%	Late
	<b>Links: B0-TBO   Key Feature: Enabling the Aviation Infrastructure</b> -			
<b>With the new ATM system upgrade in place the availability of this capability will be technically available by 2021.</b>				31/12/2021
<b>REG (By:02/2018)</b>				
TM-CAD	Planned to be technically available by end 2021.	7%	Late	31/12/2021
<b>ASP (By:02/2018)</b>				
MATS	Planned to be technically available by end 2021.	52%	Late	31/12/2021
<b>MIL (By:01/2019)</b>				
AFM	The Armed Forces of Malta do not have any ATC service or ATM Regulatory function. They also do not have any transport type aircraft.	%	Not Applicable	-

ITY-AGVCS2	<b>8,33 kHz Air-Ground Voice Channel Spacing below FL195</b> <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	79%	Late
	<b>Key Feature: Enabling the Aviation Infrastructure</b> -		
MATS is 8.33 ready however, the conversion of frequencies to 8.33kHz will be gradual due to local GA non-equipped aircraft using the only airport (LMML). The geographical position of Malta, out of the core area, and reviews/simulations carried out by the NM have demonstrated that the current 25 Mhz allocations pose limited network impact. In view of this, Malta has informed the Commission of local measures for the conversion of a number of frequencies as per Article 14(2) and (3) of EU Reg 1079/2012. The Commission has accepted these measures and the full implementation of this objective will be achieved by end 2023. To date 50% of frequencies have been converted.			31/12/2023
<b>REG (By:12/2018)</b>			
TM-CAD	MATS is 8.33 ready however, the conversion of frequencies to 8.33kHz will be gradual due to local GA non-equipped aircraft using the only airport (LMML). The geographical position of Malta, out of the core area, and reviews/simulations carried out by the NM have demonstrated that the current 25 Mhz allocations pose limited network impact. In view of this, Malta has informed the Commission of local measures for the conversion of a number of frequencies as per Article 14(2) and (3) of EU Reg 1079/2012. The Commission has accepted these measures and the full implementation of this objective will be achieved by end 2023. To date 50% of frequencies have been converted.	100%	Completed 31/12/2018
<b>ASP (By:12/2018)</b>			
MATS	MATS is 8.33 ready however, the conversion of frequencies to 8.33kHz will be gradual due to local GA non-equipped aircraft using the only airport (LMML). The geographical position of Malta, out of the core area, and reviews/simulations carried out by the NM have demonstrated that the current 25 Mhz allocations pose limited network impact. In view of this, Malta has informed the Commission of local measures for the conversion of a number of frequencies as per Article 14(2) and (3) of EU Reg 1079/2012. The Commission has accepted these measures and the full implementation of this objective will be achieved by end 2023.	62%	Late 31/12/2023
<b>MIL (By:12/2020)</b>			
AFM	All AFM aircraft have been equipped with 8.33 channel spacing.	100%	Completed 31/12/2013
<b>APO (By:12/2018)</b>			
MIA	ATC frequencies used for air-ground communications are operated by MATS. This SLoA is therefore not Applicable to MIA.	%	Not Applicable -

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		72%	Late
	<b>Links: B0-FICE, B1-FICE   Key Feature: Enabling the Aviation Infrastructure</b> -			
Verification of systems has been conducted and is part of the ATM system upgrade, which was launched in 2017. FMTP Project with the Italians has been launched and systems are ready. In 2020 MATS is focusing on setting up the procedures with Greece. Plans with Tunis are ongoing.				31/12/2020
<b>ASP (By:12/2014)</b>				
MATS	This activity is foreseen to be completed by Q4 2020	72%	Late	31/12/2020
<b>MIL (By:12/2014)</b>				
AFM	The Armed Forces of Malta do not provide any ATC service or Regulator function.	%	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		100%	Completed
	<b>Links: B0-ASUR   Key Feature: Enabling the Aviation Infrastructure</b> -			
Current radar data transfer is in ASTERIX format. Time stamping is not included. A safety assessment report including safety arguments for the changes has been delivered to DCAM and a notification of acceptance was sent. ANSP training plans are updated and a training package was developed and all staff affected by the changes to the surveillance infrastructure was trained.				31/12/2013
<b>REG (By:02/2015)</b>				
TM-CAD	A safety assessment reports provided by MATS was formally accepted by DCAM, which was communicated to MATS.	100%	Completed	31/12/2013
<b>ASP (By:02/2015)</b>				
MATS	Current radar data transfer is in ASTERIX format. Time stamping is not included. A safety assessment report including safety arguments for the changes has been delivered to DCAM and a notification of acceptance was received. The training plans are updated and a training package was developed and all staff affected by the changes to the surveillance infrastructure was trained.	100%	Completed	31/12/2013
<b>MIL (By:06/2020)</b>				
AFM	All aircraft are equipped with Mode S Enhanced Surveillance avionics. Training packages have been developed and necessary training is given.	100%	Completed	31/12/2013



NAV03.1	<b>RNAV 1 in TMA Operations</b> <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		48%	Ongoing
	Links: B0-CCO, B0-CDO, B1-RSEQ   Key Feature: Advanced Air Traffic Services			
	-			
	PBN National Plan has been approved and project is in progress.			
REG (By:06/2030)				
TM-CAD	PBN National Plan has been approved and project is in progress.	100%	Completed 31/12/2018	
ASP (By:06/2030)				
MATS	PBN National Plan has been approved and project has been launched.	39%	Ongoing 30/04/2021	

NAV03.2	<b>RNP 1 in TMA Operations</b> <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		%	Not Applicable
	Links: B1-RSEQ   Key Feature: Advanced Air Traffic Services			
	-			
	Malta does not intend to develop RNP-1 with Radius to Fix (RF) as there is no operational requirement to do so.			
REG (By:06/2030)				
TM-CAD	Malta does not intend to develop RNP-1 with Radius to Fix (RF) as there is no operational requirement to do so.	%	Not Applicable -	
ASP (By:06/2030)				
MATS	Malta does not intend to develop RNP-1 with Radius to Fix (RF) as there is no operational requirement to do so.	%	Not Applicable -	

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		85%	Ongoing
	<b>Links: B0-APTA   Key Feature: Advanced Air Traffic Services</b> -			
National regulatory material for APV procedures based on EASA AMC 20-27 and EASA AMC 20-28 have been published. VBARO will be considered and will be implemented in accordance with guidance material and then published in the National AIP by the required completion date.				31/12/2021
<b>REG (By:01/2024)</b>				
TM-CAD	National regulatory material for APV procedures based on EASA AMC 20-27 and EASA AMC 20-28 have been published.	100%	Completed	24/05/2018
MATS	PVBARO will be considered and will be implemented in accordance with guidance material and then published in the National AIP by the required completion date.	70%	Ongoing	31/12/2021
<b>ASP (By:01/2024)</b>				
MATS	PVBARO will be considered and will be implemented in accordance with guidance material and then published in the National AIP by the required completion date.	85%	Ongoing	31/12/2020
TM-CAD	Publication of coordinates falling under CAD's processes will be published in the National AIP by the required completion date.	100%	Completed	24/05/2018
NAV12	<b>ATS IFR Routes for Rotorcraft Operations</b> <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		%	Not Applicable
	<b>Links: B1-APTA   Key Feature: Advanced Air Traffic Services</b> -			
This objective is only applicable to States who already have established ATS routes / SID / STAR routes for rotorcraft operations.				-
<b>REG (By:06/2030)</b>				
TM-CAD	This objective is only applicable to States who already have established ATS routes / SID / STAR routes for rotorcraft operations.	%	Not Applicable	-
<b>ASP (By:06/2030)</b>				
MATS	This objective is only applicable to States who already have established ATS routes / SID / STAR routes for rotorcraft operations.	%	Not Applicable	-

SAF11	Improve Runway Safety by Preventing Runway Excursions  (Outside Applicability Area) <u>Timescales:</u> - not applicable -	100%	Completed
Key Feature: High Performing Airport Operations			
-			
TM-CAD will ensure that the EAPPRE is disseminated widely and focus on runway safety in their oversight activities while taking the appropriate measures in compliance with the Recommendations of the Action Plan			31/01/2018
REG (By:01/2018)			
TM-CAD	Runway Safety Team is in place and is composed of representatives of MATS, MIA, Airlines, Military and airport users. TM-CAD acts as an observer and ensures its oversight activities.	100%	Completed
			31/01/2018
ASP (By:12/2014)			
MATS	European Action Plan for runway excursions have been disseminated to the ATCO community. Appropriate measures are in place and briefing sessions (focusing on ATC involvement) have been conducted to the ATCO community.	100%	Completed
			31/12/2014
APO (By:12/2014)			
MIA	Responsibility for meeting APO provisions of European Action Plan for runway excursions has been established under the Airport Operations Department, MIA. Gap analysis for meeting APO EAPPRE provisions is underway.	100%	Completed
			31/12/2014

## Additional Objectives for ICAO ASBU Monitoring

<b>AOM21.1</b>	<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>			
-			
<b>Direct routing has been implemented</b>			<b>31/12/2016</b>
<b>ASP (By:12/2017)</b>			
MATS	Direct Routing has been implemented in the Malta FIR.	100%	Completed
			31/12/2016
<b>ATC02.2</b>	<b>Implement ground based safety nets - Short Term Conflict Alert (STCA) - level 2 for en-route operations</b> <u>Timescales:</u> Initial operational capability: 01/01/2008 Full operational capability: 31/01/2013	100%	Completed
<b>Links: B0-SNET   Key Feature: Advanced Air Traffic Services</b>			
-			
<b>Verification process was carried out by CAD. Operational staff have been trained in line with guidelines based on EUROCONTROL Specification Level 2 and safety assessment of changes in ATC systems and procedures meet STCA level 2 functionality and associated procedures.</b>			<b>31/12/2014</b>
<b>ASP (By:01/2013)</b>			
MATS	Operational staff have been trained in line with guidelines based on EUROCONTROL Specification Level 2 and safety assessment of changes in ATC systems and procedures meet STCA level 2 functionality and associated procedures.	100%	Completed
			31/12/2014
<b>ATC16</b>	<b>Implement ACAS II compliant with TCAS II change 7.1</b> <u>Timescales:</u> Initial operational capability: 01/03/2012 Full operational capability: 31/12/2015	100%	Completed
<b>Links: B0-ACAS   Key Feature: Advanced Air Traffic Services</b>			
-			
<b>Necessary measures for compliance to this objective have been completed.</b>			<b>31/12/2015</b>
<b>REG (By:12/2015)</b>			
TM-CAD	Necessary measures for compliance to this objective was completed by the end of 2015.	100%	Completed
			31/12/2015
<b>ASP (By:03/2012)</b>			
MATS	Training has been complete and performance monitoring will be picked up through the occurrence reporting mechanism.	100%	Completed
			31/10/2015
<b>MIL (By:12/2015)</b>			
AFM	The Air Wing of the Armed Forces of Malta does not possess any Transport type Aircraft where this Objective applies.	%	Not Applicable
			-

FCM01	<b>Implement enhanced tactical flow management services</b> <u>Timescales:</u> Initial operational capability: 01/08/2001 Full operational capability: 31/12/2006	67%	Late
Links: B0-NOPS   Key Feature: Optimised ATM Network Services			
-			
MATS has completed most of the SLoAs. In the coming period, MATS is evaluating the possibility on introducing DPLs SLoA 08 refers. There is no plan to implement FCM01-ASP01 due to lack of operational requirement.			31/12/2021
ASP (By:07/2014)			
MATS	Advanced TWR is one of the upcoming projects for MATS.	67%	Late
			31/12/2021

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	93%	Late
Links: B0-FICE   Key Feature: Advanced Air Traffic Services			
-			
ACT, ABI and LAM have been in operational use for some years. Remaining Actions will be completed with the new upgrade of the ATM system			31/12/2020
ASP (By:12/2012)			
MATS	ACT, ABI and LAM have been in operational use for some years. Remaining Actions will be completed with the new upgrade of the ATM system.	93%	Late
			31/12/2020
MIL (By:12/2012)			
AFM	The Armed Forces of Malta do not have any ATC service or ATM Regulatory function.	%	Not Applicable
			-

## 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>Applicability and timescale: Local</i>	%	<b>Not Applicable</b>
Links: B1-RATS   Key Feature: High Performing Airport Operations			
LMML - Luqa Airport			
MIA does not intend to implement Remote Tower Services for its main airport.			-
<b>AOP15</b>	<b>Enhanced traffic situational awareness and airport safety nets for the vehicle drivers</b> <i>Applicability and timescale: Local</i>	%	<b>Not yet planned</b>
Links: B2-SURF   Key Feature: High Performing Airport Operations			
LMML - Luqa Airport			
Studies/risk assessment reviews on whether this next level is required at LMML still needs to be assessed			-
<b>AOP16</b>	<b>Guidance assistance through airfield ground lighting</b> <i>Applicability and timescale: Local</i>	%	<b>Not yet planned</b>
Links: B1-RSEQ, B2-SURF   Key Feature: High Performing Airport Operations			
LMML - Luqa Airport			
Studies on whether this objective is required will be done at a later stage			-
<b>AOP17</b>	<b>Provision/integration of departure planning information to NMOC</b> <i>Applicability and timescale: Local</i>	%	<b>Not yet planned</b>
Links: B1-ACDM, B1-NOPS   Key Feature: High Performing Airport Operations			
LMML - Luqa Airport			
This objective is part of the Advanced Tower project which MATS are planning for 2021+.			31/12/2023
<b>AOP18</b>	<b>Runway Status Lights (RWSL)</b> <i>Applicability and timescale: Local</i>	%	<b>Not yet planned</b>
Links: B2-SURF   Key Feature: High Performing Airport Operations			
LMML - Luqa Airport			
The implementation of this Objective is not yet planned.			-
<b>ATC18</b>	<b>Multi-Sector Planning En-route - 1P2T</b> <i>Applicability and timescale: Local</i>	%	<b>Not Applicable</b>
Key Feature: Advanced Air Traffic Services			
-			
Not Applicable			-
<b>ATC19</b>	<b>Enhanced AMAN-DMAN integration</b> <i>Applicability and timescale: Local</i>	%	<b>Not Applicable</b>
Links: B2-RSEQ   Key Feature: Advanced Air Traffic Services			
-			
No requirement			-

ATC20	Enhanced STCA with down-linked parameters via Mode S EHS <i>Applicability and timescale: Local</i>	%	Not Applicable
Links: B1-SNET   Key Feature: Advanced Air Traffic Services			
-			
Not a national requirement			-

ENV02	Airport Collaborative Environmental Management <i>Applicability and timescale: Local</i>	%	Not Applicable
Key Feature: High Performing Airport Operations			
LMML - Luqa Airport			
Malta International Airport is not part of the list of airports participating in this objective.			-

ENV03	Continuous Climb Operations (CCO) <i>Applicability and timescale: Local</i>	25%	Ongoing
Links: B0-CCO   Key Feature: Advanced Air Traffic Services			
LMML - Luqa Airport			
CCO is one of the objectives planned to be implemented on completion of the MATS INTRAC project [new TMA, SIDs and STARs]			30/06/2020

## 6. Annexes

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

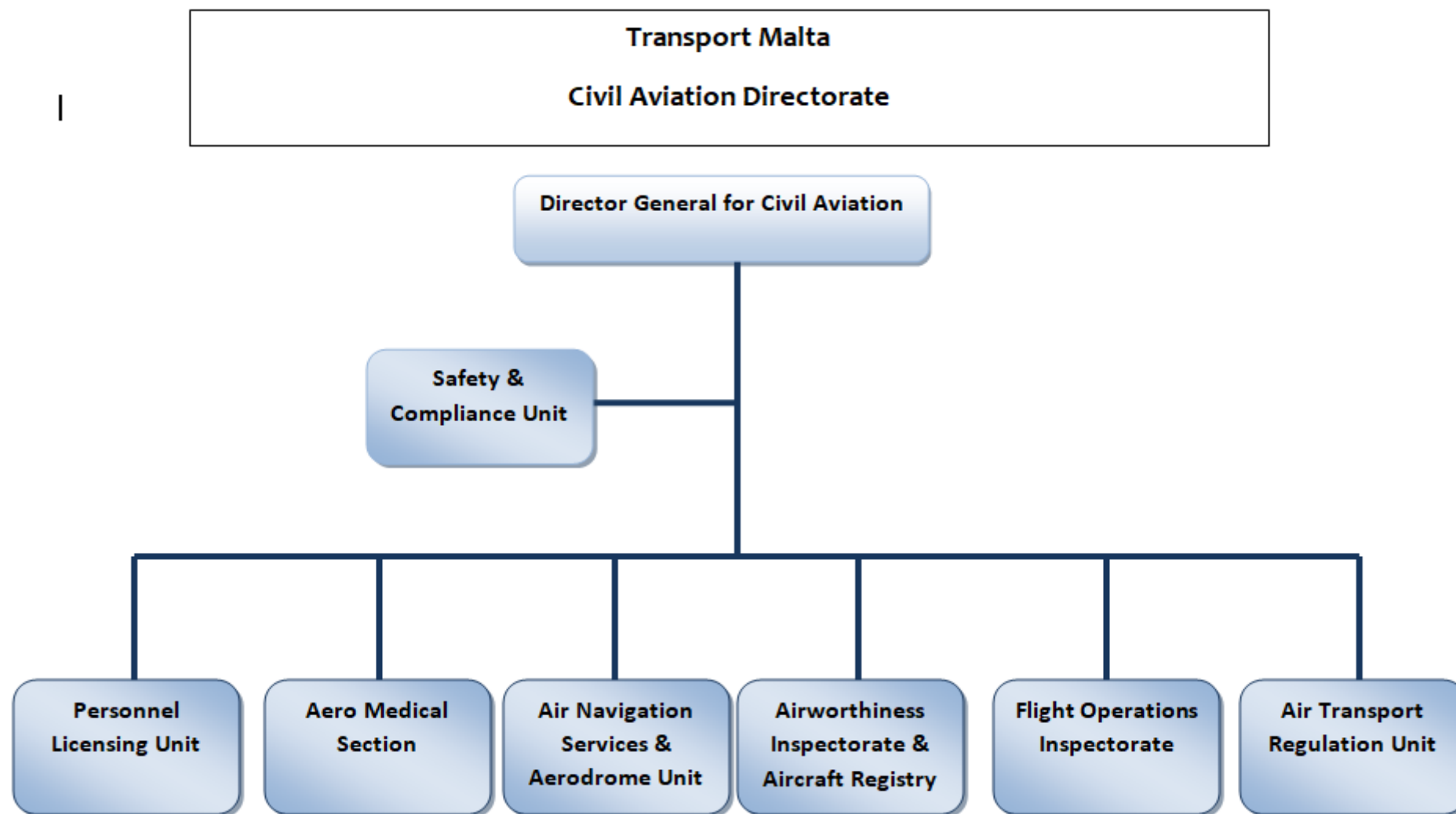
#### LSSIP Co-ordination

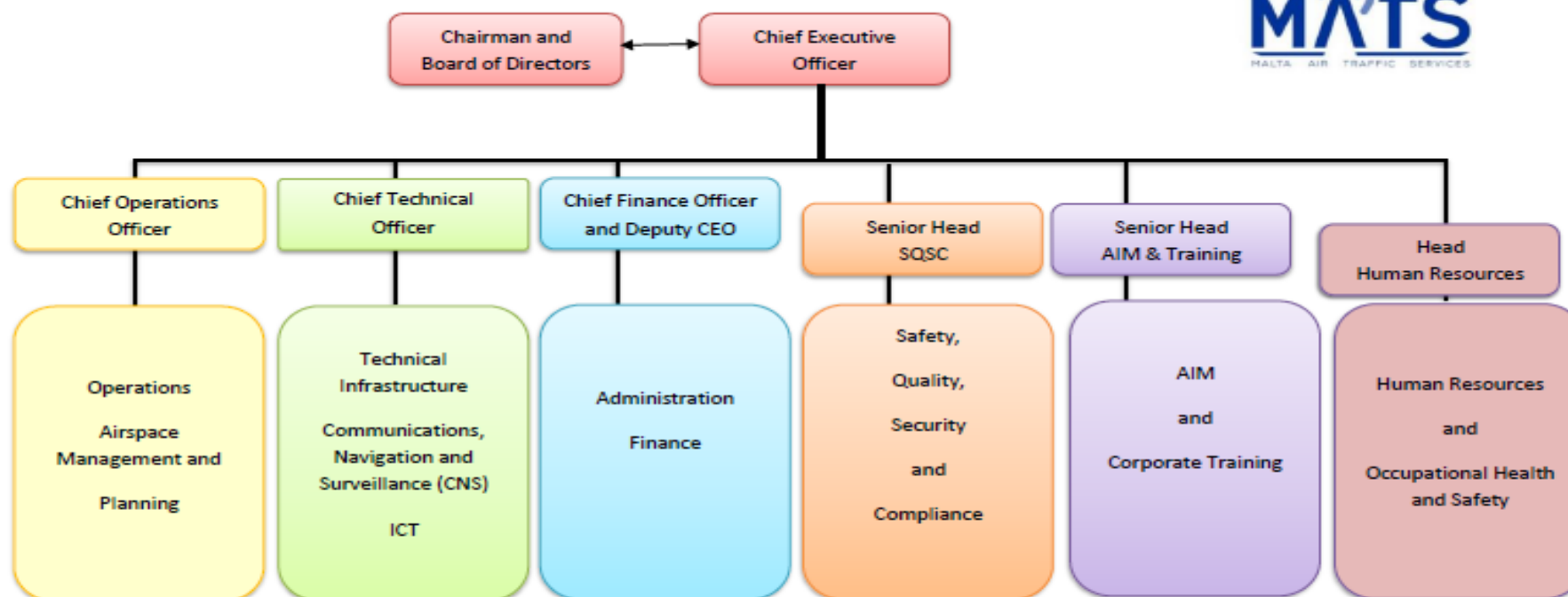
LSSIP Focal Points	Organisation	Name
LSSIP National Focal Point	Civil Aviation Directorate	Roland CAMILLERI
LSSIP Focal Point for NSA/CAA	Civil Aviation Directorate	Roland CAMILLERI
LSSIP Focal Point for ANSP	Malta Air Traffic Services Ltd.	Naomi GALEA
LSSIP Focal Point for Airport	Malta International Airport plc	Martin DALMAS
LSSIP Focal Point for Military	Civil Aviation Directorate	Roland CAMILLERI

Other Focal Points	Organisation	Name
Focal Point for U-space	Civil Aviation Directorate	Stephen SPITERI STAINES
Focal Point for NETSYS ANSP	Malta Air Traffic Services Ltd	Chris ABELA
Focal Point for NETSYS ANSP	Malta Air Traffic Services Ltd	Frankie DIMECH



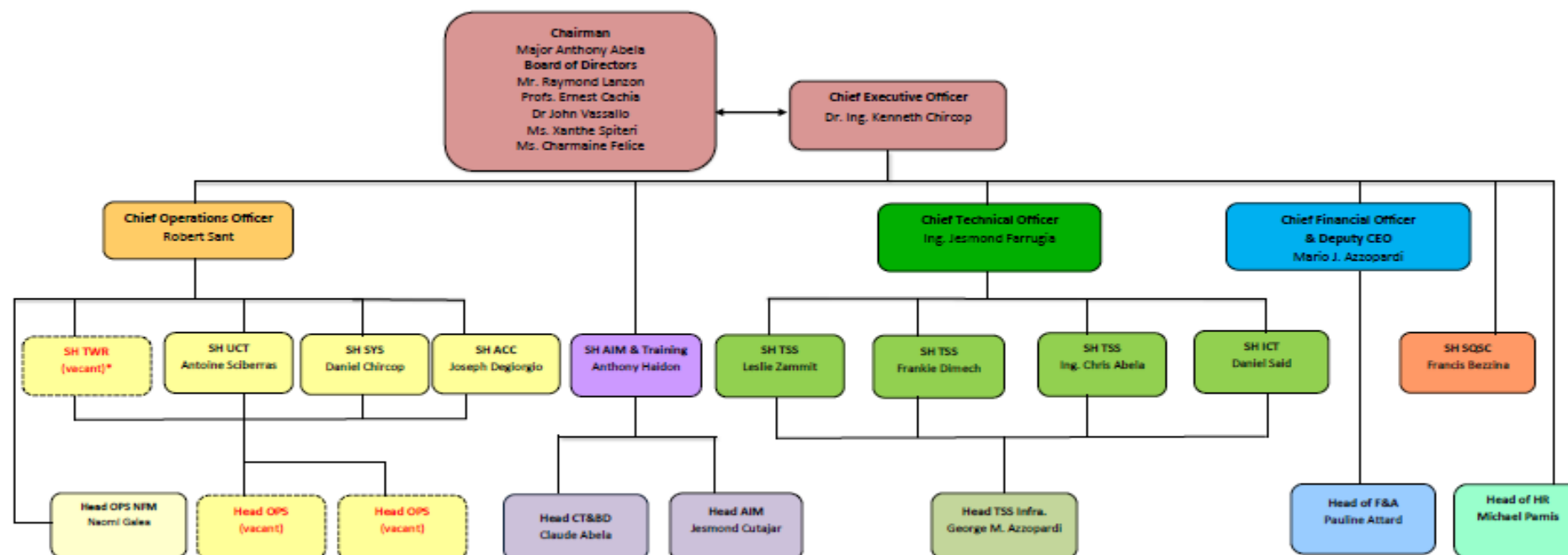
## B. National stakeholders organisation charts





## MATS Organisation Functional Diagram

As per 14 November 2019



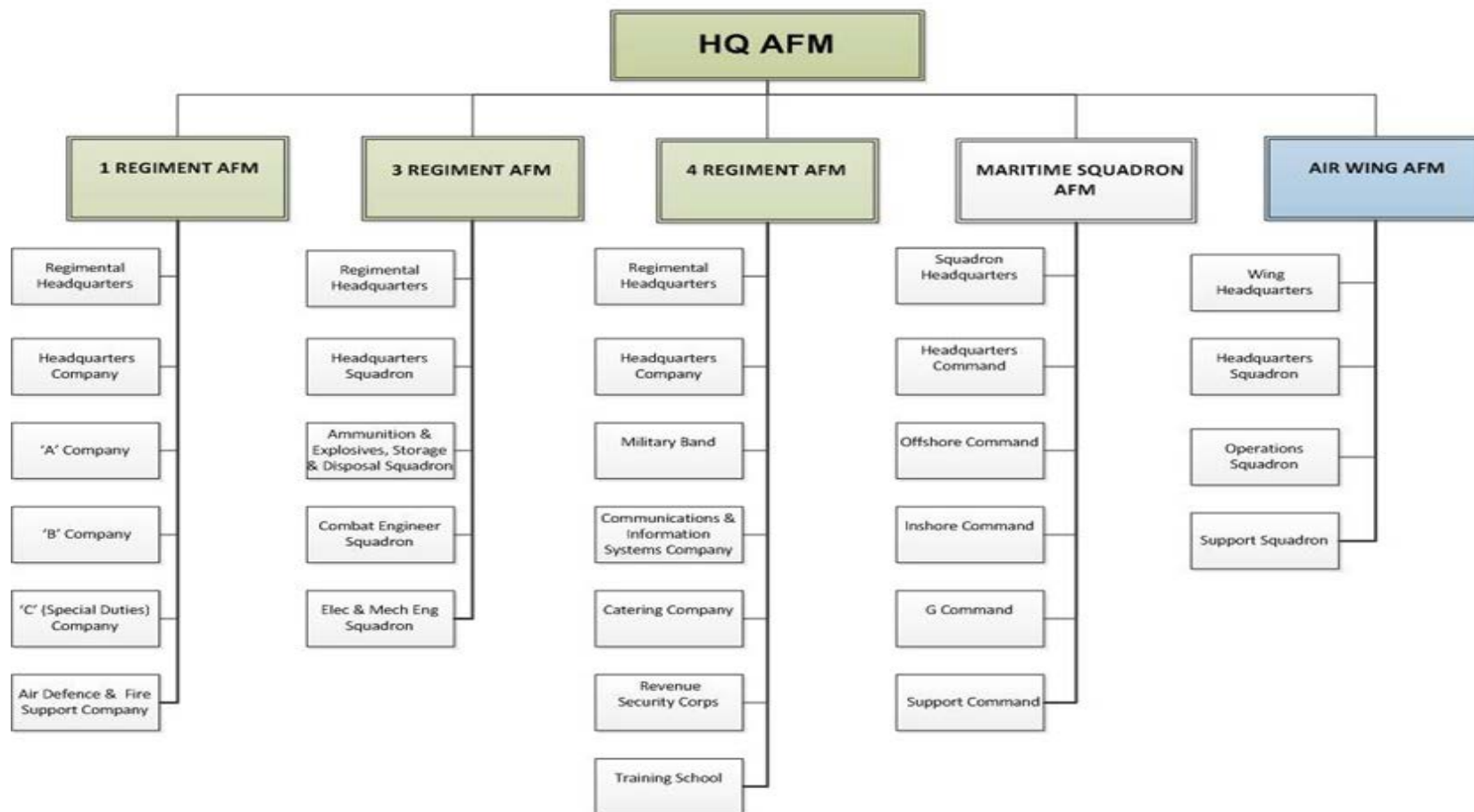
**MATS Management Organisation Chart**

\* Currently handled by COO

As per 7<sup>th</sup> October 2019



## Organisation chart of Armed Forces of Malta

### Armed Forces of Malta Organisational Chart

















### 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.0 30	-
ATC07.1 - Arrival management tools		Enhanced Arrival Seq	-	1.1.1	B0-RSEQ	-	-
ATC12.1 - MONA, TCT and MTCD		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	-	-

Level 3 Implementation Objectives	SESAR Key Feature	Major ATM change	SESAR Solution	DP family	ICAO ASBU B0, B1, B2	EPAS	AAS TP
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
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.0 639 RMT.0 445	-
NAV03.2 – RNP1 in TMA Operations		PBN	#09, #51	1.2.3 1.2.4	B1-RSEQ	RMT.0 639 RMT.0 445	-
NAV10 - RNP Approach Procedures to instrument RWY		PBN	#103	1.2.1 1.2.2	B0-APTA	RMT.0 639 RMT.0 445R MT.06 43	-
NAV12 – ATS IFR Routes for Rotorcraft Operations		PBN	#113	-	B1-APTA	MST.0 31	-
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.0 624	-

Level 3 Implementation Objectives	SESAR Key Feature	Major ATM change	SESAR Solution	DP family	ICAO ASBU B0, B1, B2	EPAS	AAS TP
AOP15 - Enhanced traffic situational awareness and airport SNET for the vehicle drivers		Surface mgt	#04	-	B2-SURF	-	-
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.0 07 RMT.0 570 RMT.0 703	-
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.0 703 RMT.0 704 RMT.0 722	-
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.0722 RMT.0477	-
ITY-AGDL - Initial ATC air-ground data link services		Data link	-	6.1.1 6.1.3 6.1.4	B0-TBO	RMT.0524	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.0679 RMT.0519	-

\* 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>3</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
		High Performing Airport Operations		
#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 DCU for the flight crew.	N	N/A
#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/A

<sup>3</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 DMT 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>	N	N/A
#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 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</p>		

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>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>  <div>Advanced Air Traffic Services</div> </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 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.	N	N/A

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
#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
#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	N	N/A
#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/A
#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	
#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).	N	
#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/A

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
#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>		
 <div>Optimised ATM Network Services</div>				
#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/A
 <div>Enabling Aviation Infrastructure</div>				
#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/A

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
#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/A
#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/A
#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 globally harmonised and available capabilities according to ICAO Global Air Navigation Plan (GANP).	N	N/A
#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/A
#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	N	Y – ADS-B is planned to be implemented as per IR

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
		functionalities developed for the ADS-B ground station, ASTERIX interface specifications as well as to the SDPD specifications.		
#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	N/A

## 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 Malta.

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

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

Term	Description
ACC	Area Control Center
ADS	Automatic Dependent Surveillance
AIS	Aeronautical Information Service
AMAN	Arrival Management
AF	ATM Functionality
AFM	Armed Forces of Malta
ANS	Air navigation services
AOP	Airport operations
APP	Approach Control Service
ASM	Airspace Management Service
ATFM	Air Traffic Flow Management
ATS	Air Traffic Services
BAAI	Bureau of Air Accident Investigation
TM-CAD	Authority for Transport in Malta - Civil Aviation Directorate
CNS/ATM	Communication Navigation Surveillance/Air Traffic Management
COM	Communication
ECAC	European Civil Aviation Conference
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
MIA	Malta International Airport plc
MATS	Malta Air Traffic Services Limited
MOT	Ministry for Tourism
METOFFICE	Malta Airport METOFFICE
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