



EU-Latin America and Caribbean Aviation Partnership Project (EU-LAC APP)*

Enhancing the aviation partnership between the EU and Latin America and the Caribbean

Coordinating Deployment Planning and Monitoring in Europe

Workshop on ATM/ANS innovation and master planning - Day 3 - 20 October 2021 Danny DEBALS, EUROCONTROL, Head of Unit Planning and Support, Network Management Directorate

*Project financed by the EU and implemented by EASA

Your safety is our mission.

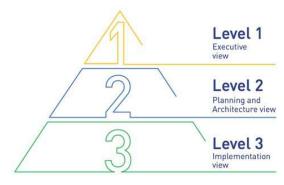


Outline as per Agenda

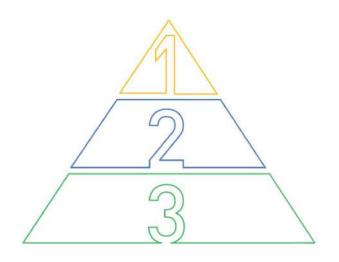
- Maintaining link to the ICAO GANP (and GASP)
- Regional Air Navigation Plan,
- Local Implementation Planning (LSSIP)
- Regulated Implementation (CPs),
- Monitoring and reporting,
- Interoperability (standards coordination)

Outline

- Module 1 Introduction
- ATM Implementation Planning, Reporting and Monitoring Process:
 - Module 2 Requirements
 - Module 3 Deliverables
 - Module 4 Process
 - Module 5 Tools
- Module 6 Summary



European ATM Master Plan Level 3 + the LSSIP reporting



Reminder D2





From Strategic View to Timed Deployment

Reminder D2 (2)

The ATM Master Plan: Three Levels

Executive









Implementation



Introduction Content

- Scope and purpose of this presentation
- 2 Simplified framework
- The broad picture
- 4 EUROCONTROL's role

Scope and purpose of this presentation

 Broad overview of the ATM Implementation planning and reporting mechanisms, at both (Pan-)European and local levels.

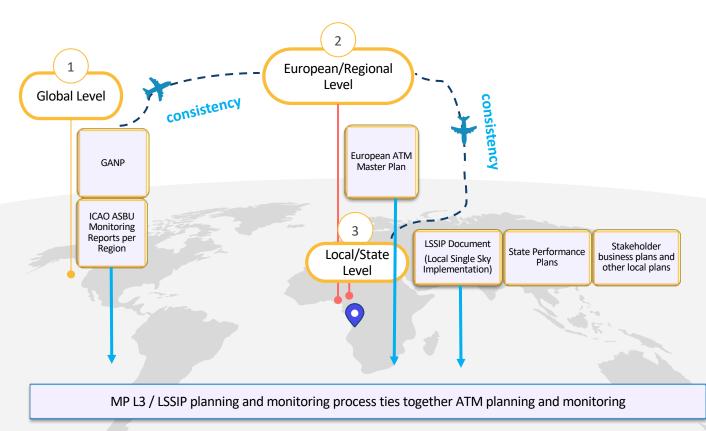
Topics covered:

- The ATM Master Plan Level 3 (MP L3) Implementation view
- The Implementation Objectives
- The Tools and Processes
- The criteria to determine implementation progress
- The Stakeholders and Users
- The Evolution





Simplified framework



The broad picture

- Both European ATM Master Plan and ICAO Global Air Navigation Plan (GANP) need concrete implementation plans and progress monitoring.
- Local and regional business plans (required by EU ATM legislation) are developed for all the ATM Stakeholders.

- Individual Stakeholders compile their own implementation progress reports.
- These are later consolidated at European level for overall deployment planning and progress reporting purposes.



EUROCONTROL's role

- Coordination of the contributions to the annual European ATM Master Plan Level
 3 Plan (also sometimes called ESSIP European Single Sky ImPlementation).
- Facilitation of the development of national Stakeholders' implementation progress reports (i.e. LSSIP - Local Single Sky ImPlementation - documents).
- Production of consolidated reports on a European level:
 - ATM Master Plan (MP) Level 3 Progress Report;
 - ICAO GANP/ASBU monitoring report;
 - U-space services Implementation Monitoring Report
- **Support to the decision-making** by various steering bodies on any remedial action needed to implement the plans.
- In addition, recently EUROCONTROL and SESAR Deployment Manager (SDM) have partnered up to ensure gathering of data, through the LSSIP, for the production, by SDM, of the SDP Monitoring View







Quiz on this module

What do both European ATM Master Plan and ICAO Global Air Navigation Plan (GANP) need?

- A Concrete implementation plans?
- B Progress monitoring? Or,
- Both answers are correct?



ATM Implementation Planning, Reporting and Monitoring Requirements

- 1 Why?
- Master Plan Level 3 / LSSIP Mechanism
- 3 Link with other processes

Why?

- Single European Sky (SES) and SESAR framework require Stakeholders to agree at European level on implementation actions prior to local deployment.
- Facilitate the achievement of endorsed implementation actions by all concerned ATM Stakeholders as a major contribution to reach the expected benefits of SES and SESAR in particular against agreed performance targets.



SESAR's performance ambitions

Master Plan Level 3 / LSSIP Mechanism

Cyclic process including three main components:

- 1) Implementation Planning MPL3 Plan
- Implementation Progress reporting and monitoring at local Level – LSSIP documents
- 3) Implementation Progress reporting and monitoring at European Level MPL3 Report



Link with other processes



SESAR Deployment Manager

No more double reporting for implementing stakeholders



SESAR Joint Undertaking

It is part of the ATM Master Plan

International Civil Aviation Organisation



European Defence Agency

Enabling monitoring of the military organisation's infrastructure where and when needed



ICAO

Enabling the monitoring of the Global Air Navigation Plan (GANP)





Links at planning level with European Plan for Aviation Safety (EPAS)



European Commission

Airspace Architecture Study (AAS), U-Space (Drones), RP3 questionnaires

Network Manager



Network Systems Coordination and Synchronisation (NETSYS) and On-Line Data Interchange (OLDI) monitoring





Quiz on this module

Why the ATM Master Plan and LSSIP processes were introduced?

- A To report the implementations to ICAO?
- To introduce synchronised actions, in order to achieve by all ATM stakeholders the expected benefits of SES and SESAR? Or



C At the request of EDA for military purposes?

ATM Implementation Planning, Reporting and Monitoring Deliverables

- 1 Introduction on the European ATM Master Plan
- The ATM Master Plan Level 3 Implementation Plan
- 3 LSSIP Documents
 - The ATM Master Plan Level 3 Progress Report
 - 5 ICAO ASBU Implementation Monitoring Report

Introduction on the Master Plan

Framework





- Main planning tool for defining ATM modernisation priorities and ensuring the implementation of the SESAR Target Concept by all operational stakeholders.
- Sets the framework for the development activities performed by the SJU.

• Consistency and alignment of the deployment of the regulated CP1 ensured by coordination with SESAR Deployment Manager (SDM) through the SESAR Deployment Programme (SDP).

Developed under the governance of SJU through a dedicated project led by EUROCONTROL.

Introduction on the Master Plan

The three levels of the Master Plan

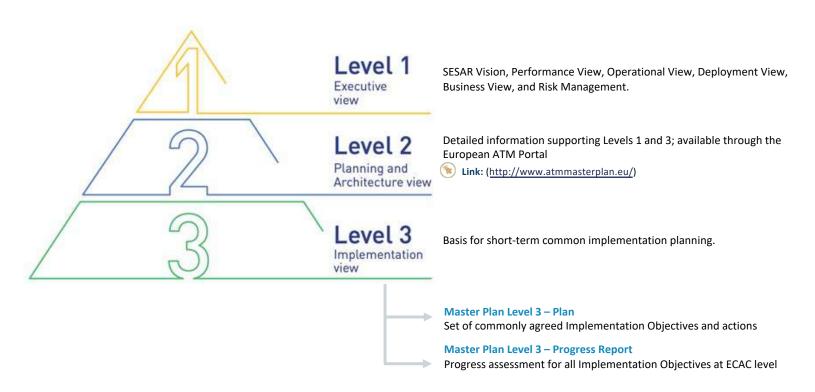
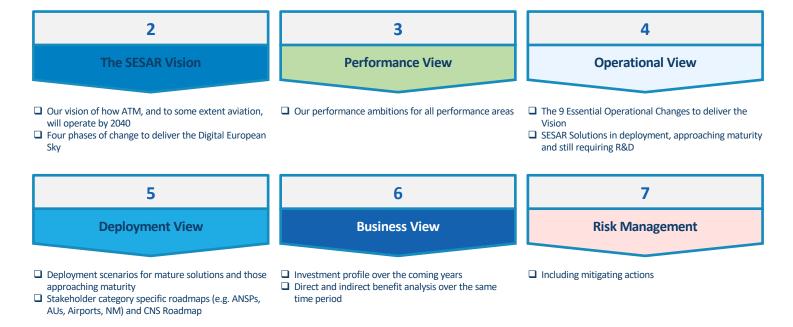


Table of contents of the Master Plan (Level 1) document



Introduction on the Master Plan

Essential Operational Changes

9 Essential Operational Changes (EOCs)







Multimodal Mobility airspace users













Focus on the Master Plan Level 3 and its monitoring

MPL3 Plan, MPL3 Report and LSSIP Documents



The MP L3 consists of two strictly related parts: Plan and Progress Report

Complemented by the national Local Single Sky ImPlementation (LSSIP) documents.

Master Plan L3 Implementation Plan

MPL3 Implementation Plan





 $\textbf{Link:} \ \underline{\text{https://www.eurocontrol.int/publication/european-atm-master-plan-implementation-plan-level-3}$

MPL3 Plan Main features

Updated every year, MPL3 Plan is a **roadmap of commonly agreed activities** to guide Stakeholders in the implementation of operationally and technically mature actions across the ECAC+ area.

Based on the ATM MP L1 and L2 (including SDM Deployment Programme (SDP) ATM Functionalities), the Network Strategy Plan, as well as SES Interoperability regulations.

* Updated in light of the Airspace Architecture Study (AAS) and its Transition Plan (AAS-TP).

Under the governance of SJU (through the Master Planning Committee and the SESAR PJ20, a dedicated Project for its maintenance), and EUROCONTROL Provisional Council

Shows the deployment of SESAR prerequisites progress, as well as the progress in CP1 delivery until the target completion date.

Two Deliverables

Main document (Printed book)



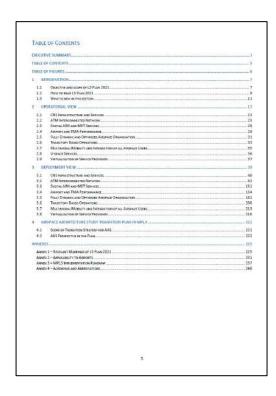
- Delivered by mail
- ☐ Also available online
- ☐ High-level document

Technical Annex – Engineering View (Soft Copy)



- Only online PDF
- Detailed information for LSSIP-related activities
- Recommended to fill-in the LSSIP+ Database

Contents





1. Introduction

- Context
- Scope
- · How to read
- · What is new



2. Operational View

- Organized by EOC
- Stakeholders involved
- Impacted KPAs
- · Performance stats



3. Deployment View

- Organized by EOC
- Objective descriptions



4. AAS Transition Plan

- · Scope of transition strategy
- Mapping AAS vs MPL3 Plan



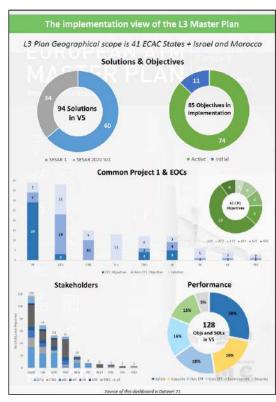
Annexes

- 1. Mappings of MPL3 Plan
- 2. Applicability to Airports

- 3. L3 Implementation Roadmap
- 4. Acronyms

Dashboard

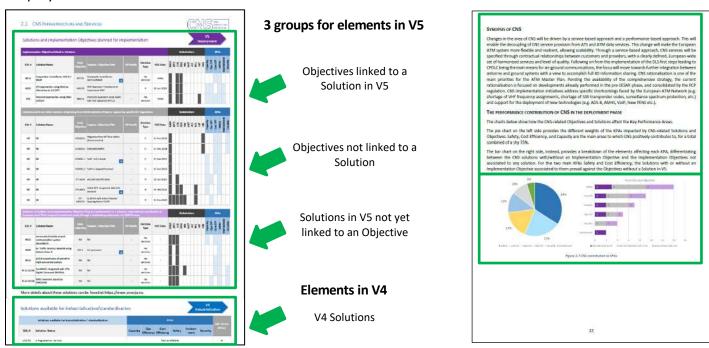
MPL3 Plan Dashboard 2021



- ➤ Intro page of the MPL3 Plan 2021
- Overall statistics
- Geographical scope
- > CP1 statistics
- Objectives & Solutions grouped by EOC
- > Stakeholders & Performance statistics

Operational View

The **Operational View** presents the main operational changes grouped by EOC and gives an overview of what is in the pipeline for deployment.

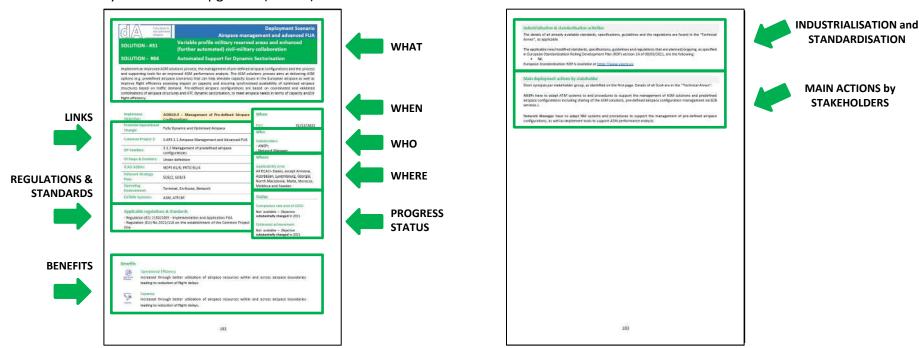


Synopsis of the EOC as per MPL1

Performance statistics

Deployment View

The **Deployment View** gives a more detailed description of each Objective, including the link with the MPL2, the SDP, and the ICAO Aviation Systems Block Upgrades (ASBUs).

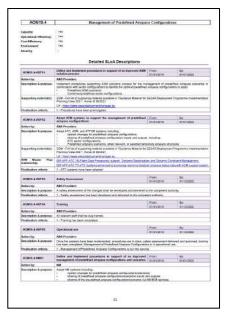


Engineering View

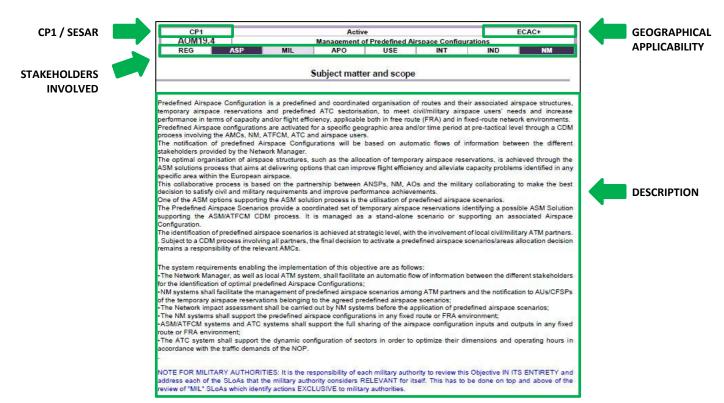
The **Engineering View** provides a complete description of each Implementation Objective with details of the Stakeholder Lines of Action (SLoAs) and reference to the necessary supporting material.







Engineering View Example: SLOAs and Benefits



Engineering View Example: SLOAs and Benefits

Stakeholder Lines of Action (SLoAs)

SloA ref.	Title	From	Ву
AOM19.4-ASP01	Define and Implement procedures in support of an improved ASM solution process	01/01/2018	01/01/2022
AOM19.4-ASP02	Adapt ATM systems to support the management of predefined airspace configurations	01/01/2018	01/01/2022
AOM19.4-ASP03	Safety Assessment	01/01/2018	31/12/2022
AOM19.4-ASP04	Training	01/01/2018	31/12/2022
AOM19.4-ASP05	Operational use	01/01/2018	31/12/2022
AOM19.4-NM01	Define and Implement procedures in support of an improved management of predefined airspace configurations and scenarios	01/01/2018	01/01/2022
AOM19.4-NM02	Adapt NM systems to support the management of predefined airspace configurations and scenarios	01/01/2018	01/01/2022
AOM19.4-NM03	Implement tools in support of ASM performance analysis	01/01/2018	01/01/2022
AOM19.4-NM04	Training	01/01/2018	31/12/2022
AOM19.4-NM05	Operational use	01/01/2018	31/12/2022

Description of finalised and deleted SLoAs is available on the eATM Portal @ https://www.eatmportal.eu/working/depl/essip_objectives.

Expected Performance Benefits

Yes
Yes
Yes
Yes
Yes
2

Engineering View Example: SLOA Details

Detailed SLoA Descriptions

AOM19.4-ASP01	Define and Implement procedures in support of an improved ASM solution process	From:	By:	
		01/01/2018	01/01/2022	
Action by:	ANS Providers			
Description & purpose:	Implement procedures supporting ASM solutions process for the mai combination with sector configurations to identify the optimal predefined Predefined ASM scenarios; Combined predefined sector configurations.			
Supporting material(s):	Planning View 2021*, Annex B 08/2021			
merchanism and a second	Url : https://www.sesardeploymentmanager.eu			

AOM19.4-ASP02	Adapt ATM systems to support the management of predefined airspace configurations	From:	By:	
		01/01/2018	01/01/2022	
Action by:	ANS Providers			
Description & purpose:	Adapt ATC, ASM, and ATFCM systems including: system changes for predefined airspace configurations; sharing of predefined airspace configuration inputs and outputs ATC sector configurations; Predefined airspace scenarios, when relevant, or selected temp		ictures	
Supporting material(s):	SDM - Full list of supporting material available in "Guidance Material for SESAR Deployment Programme Implementation Planning View 2021", Annex B 08/2021 Url : https://www.sesardeploymentmanager.eu			
ATM Master Plan relationship:				
Finalisation criteria:	1 - ATC systems have been adapted			

MPL3 Plan Access

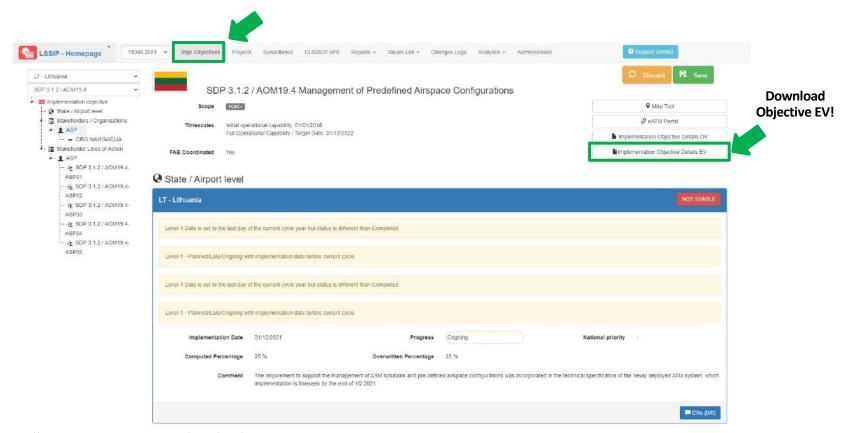
Engineering View access (I)



Link: https://ost.eurocontrol.int/sites/lssip/SitePages/Home.aspx

MPL3 Plan Access

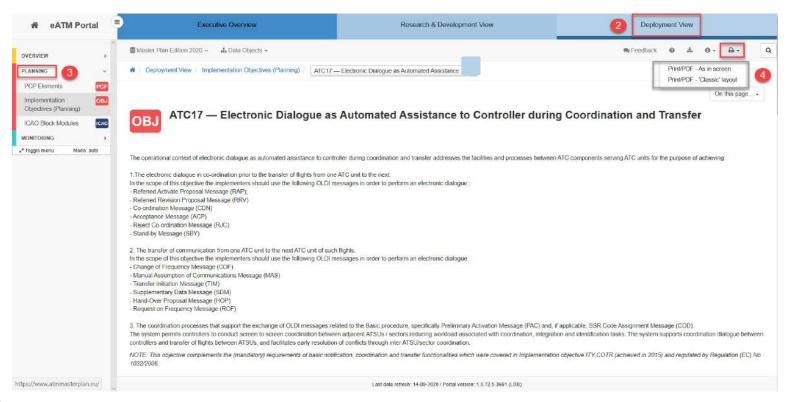
Engineering View access (II)





MPL3 Plan Access

Engineering View access (III)





Link: https://www.atmmasterplan.eu/depl/essip_objectives



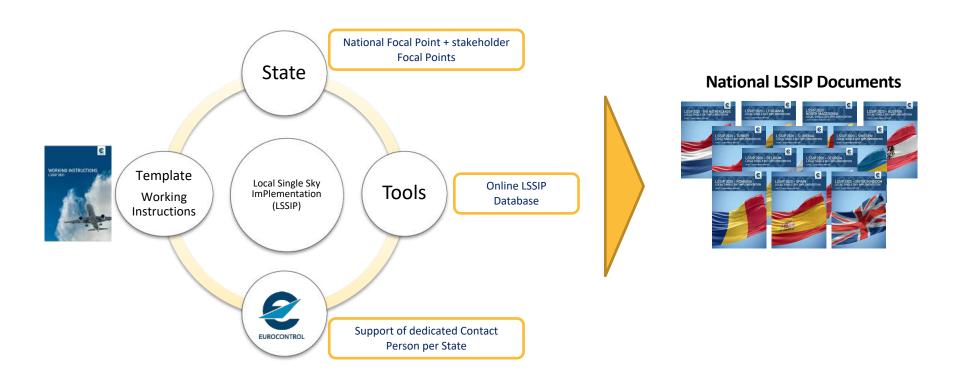
National Local Single Sky
ImPlementation (LSSIP)
documents



Context

- A "Reality check" on the MPL3 Plan, as reported by National Stakeholders, who <u>sign and commit</u> to the report documents.
- <u>For each ECAC State</u> (+ MUAC, Israel, and Morocco), <u>one printed document</u> containing the local implementation plan and progress report.
- A review of the <u>situation at the end of the calendar year, the evolution over the past year, and the plans for next years</u> until achievement of each individual Implementation Objective.
- LSSIP process is also extended to the whole <u>ICAO EUR region</u>:
 - directly used for ECAC States;
 - with questionnaire for other ICAO EUR States.

Elaboration process



Tables of contents

The LSSIP documents are structured into 5 Chapters:

Chapter 1 National ATM Environment

An overview of the ATM institutional arrangements within the State (including an overview of the airspace organization and classification, the ATC Units, the ATM systems operated by the main ANSP(s)).

Chapter 2 Traffic and Capacity

A comprehensive picture of the situation of Air Traffic, Capacity and ATFM Delay per each ACC in the State.

Chapter 3 Implementation Projects

A set of the main implementation projects (at national and multinational level) which contribute directly to the implementation of the ATM MP related elements.

Chapter 4 Cooperation Activities

This section deals with the other cooperation activities beyond the projects. It provides an overview of the all multinational initiatives.

Chapter 5 Implementation Objectives Progress

High-level information on progress and plans of each Implementation Objective.



Download the LSSIP Documents





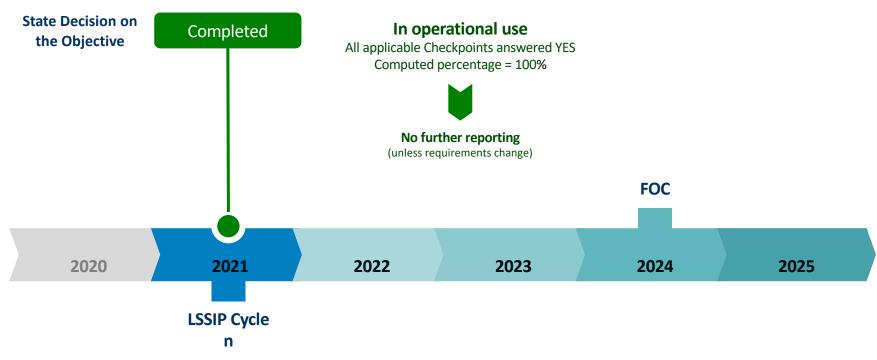
 $\textbf{Link:} \ \underline{\text{https://www.eurocontrol.int/service/local-single-sky-implementation-monitoring}}$

Implementation status: the concept of progress status

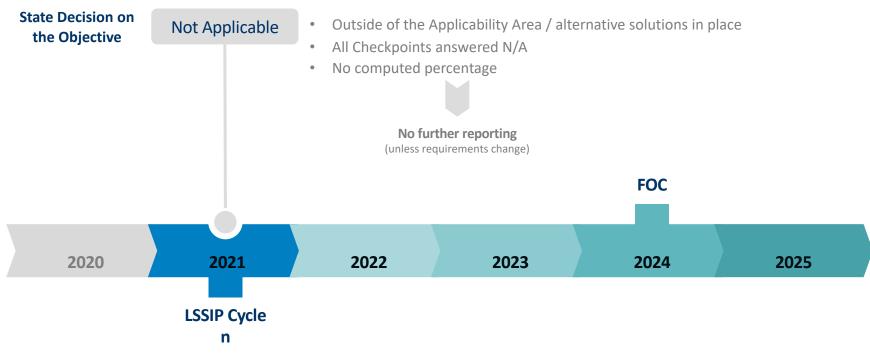
Completed	Function in operational use	100%
Ongoing	Implementation started but is not yet fully completed. The planned implementation date is within the SLoA / SDP DM end date or later (delays are properly detailed).	1% - 99%
Planned	A planned schedule and proper (approved and committed budgeted) actions are specified within the SLoA / SDP DM end date for completion.	0%
Not yet Planned	No plan yet: feasibility phase, no budget allocated, risk identification, etc.	0%
Not Applicable	Objective is not relevant for the State	-

 $\ensuremath{\mathsf{NB}}$ – this colour scheme applies to the LSSIP+ 2021 cycle

Implementation status: completed



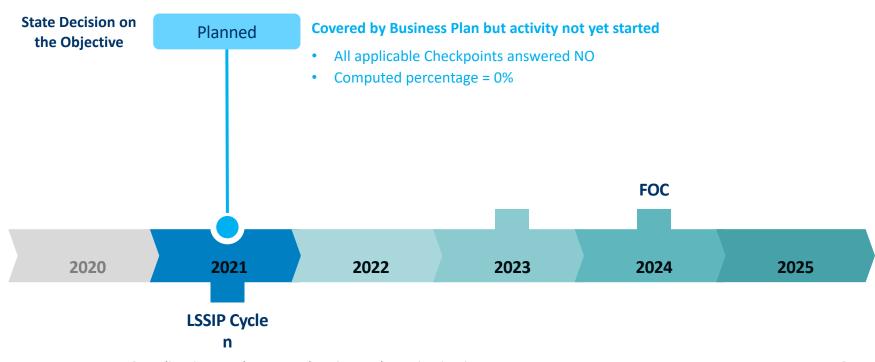
Implementation status: not applicable



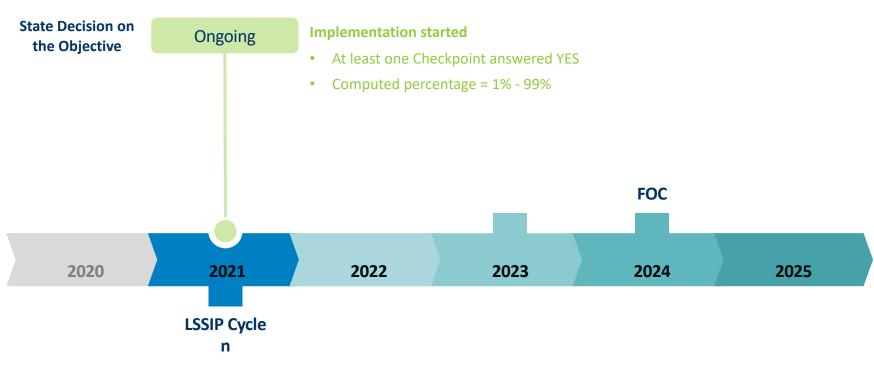
Implementation status: not yet planned

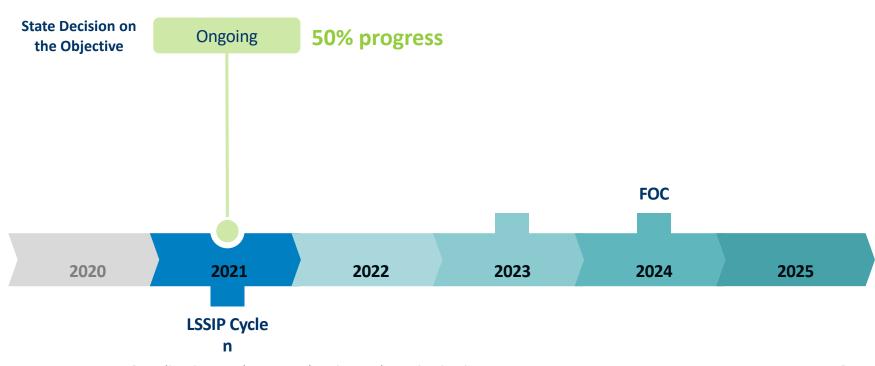


Implementation status: planned

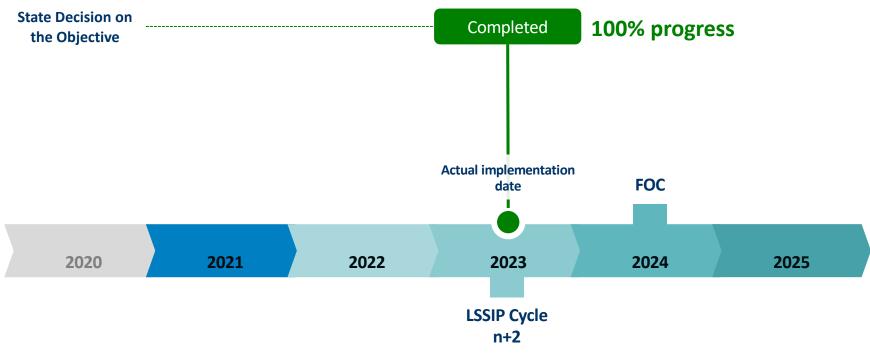


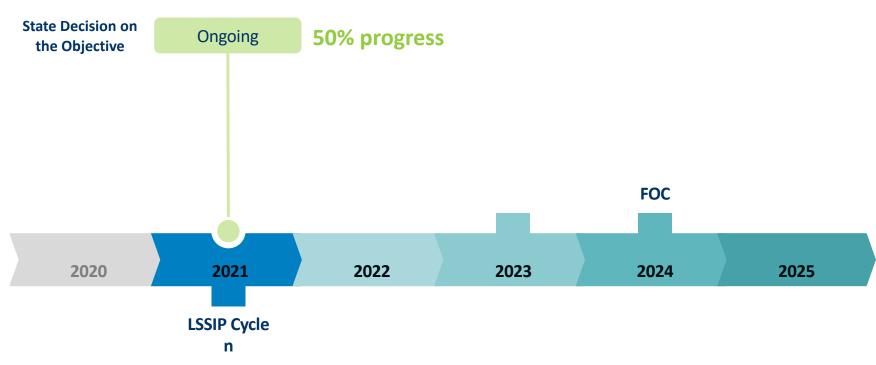
Implementation status: ongoing



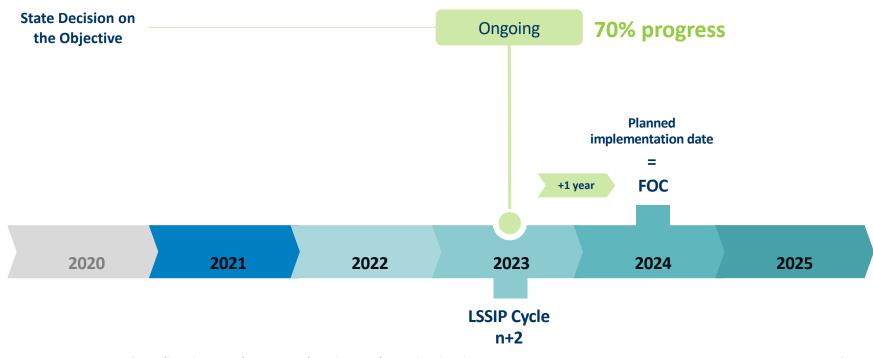


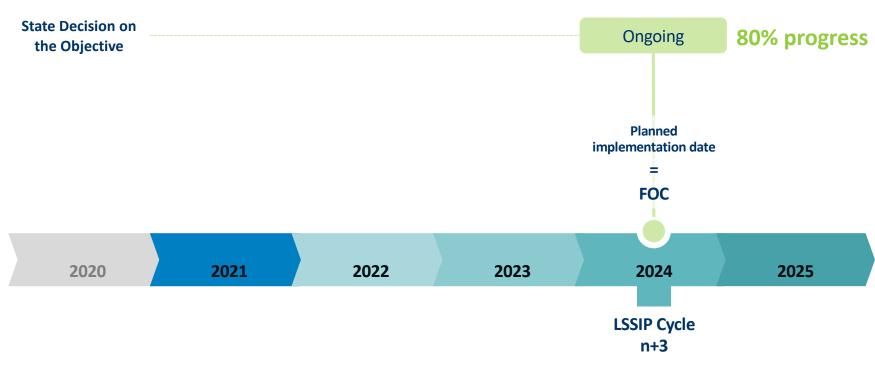


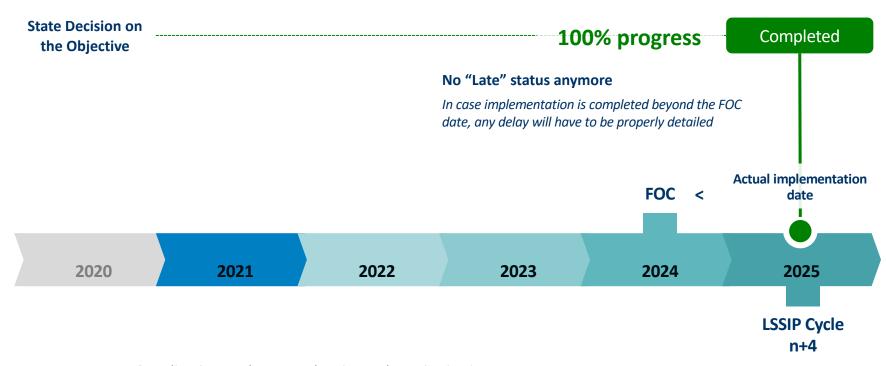












Calculation example (only meant for illustrative purposes)

AOP4.2 A-SMGCS Runway Monitoring and RMCA (former Level 2)	35%*	Ongoing (by:30/06/2022)				
* This method to calculate the progress percentage is applicable only to non-CP1 Objectives						
Overall Implementation APO	100%	Completed	AOP status is completed 100%			
AOP04.2-APO01 Install required A-SMGCS RMCA function equipment	100%	Completed	SloA status is completed 100%			
Activity started (e.g. Project kicked-off)	10%	-				
2 Required A-SMGCS Level 2 control function system procured	30%	Y 30/06/2019	Airport completed all checkpoints.			
Required A-SMGCS Level 2 control function system installed	60%	Y 31/12/2020				
Overall Implementation ASP	13%	Ongoing (by:31/12/2021)	ASP status is ongoing 13% (40%÷3)			
AOP04.2-ASP01 Install required A-SMGCS RMCA function equipment	40%	Ongoing (by:31/12/2021)	SloA status is ongoing 40%			
1 Activity started (e.g. Project kicked-off)	10%	-	ANCD partially completed CL a A #1			
2 Required A-SMGCS Level 2 control function system procured	30%		ANSP partially completed SLoA#1 Status is ongoing			
3 Required A-SMGCS Level 2 control function system installed	60%	N 31/12/2021				
AOP04.2-ASP02 Train aerodrome control staff in the use of A-SMGCS RMCA	0%	Planned (by: 31/03/2022)	SloA status is planned			
1 Activity started (e.g. Project kicked-off)	10%	N 30/11/2021	ANSP did not complete any checkpoint, but a			
2 Training ongoing	40%	N -	date is foreseen. Status is planned			
3 Training completed	50%	N 31/03/2022				
AOP04.2-ASP03 Implement approved A-SMGCS RMCA operational procedures	0%	Planned (by: 30/06/2022)				
1 Activity started (e.g. Project kicked-off)	10%	N -	Same as for SLoA #2			
2 Local A-SMGCS Level 2 operational procedures drafted	30%	N -	Status is planned			
3 Local A-SMGCS Level 2 operational procedures agreed, tested & validated	35%	N -				
4 Local A-SMGCS Level 2 operational procedures implemented, i.e. in operational use	25%	N 30/06/2022				

EUROCONTROL Engagement



In 2021, **44 LSSIP documents** were issued, i.e. 41 ECAC States, MUAC, Israel and Morocco.

EUROCONTROL has the **commitment of the ECAC States** since almost 30 years.



MPL3 Progress Report



 $\textbf{Link:} \ \underline{\text{https://www.eurocontrol.int/publication/european-atm-master-plan-implementation-report-level-3}$

MPL3 Progress Report Context

- Provides a **Synoptic View**, as well as a **Deployment View** at Implementation Objective level.
- ECAC-wide implementation Progress Assessment.
- Under the aegis of SESAR more than 30 contributors from ATM industry.
- MP L3 Progress Report is based mainly on LSSIP data but also on other sources (PRISME, NM, Stakeholders).
- Fully driven by EOCs and aligned to MP Levels 1 & 2.

Contents

EXECUTIVE SUMMARY

What is the role of the European Master Plan Level 3 Implementation Report?

The European ATM Master Plan (MP) Level 3 implementation Report provides a holistic view of the implementation of commonly agreed actions to be stosen by ECAE's State, in the context of the implementation of SESAR. These actions are consolidated in the form of "implementation Objectives" that set out this operations, Icelandical and institutional improvements that have to be applied to the furgroups ATM network. In order to maintain the alignment with the other two Levels of the Master Plan, the "implementation Objectives" are prouped per Setential Operational Changes as defined in the Executive view of the Master Plan.

What is the overall progress of SESAR implementation?

This 2021 Level 3 Report (perference year 2020) is based on the Master Files Level 3. Implementation Files edition 2000, that Incubics 53 active (is monitored an ensound/funitional/local level) implementation objectives as well as on the LSSP 2020 reports submitted by the EUROCONTROL States (and Masstricht UAC). As in the previous editions of the Pilos, in order to reflect to the largest extent the results of \$55.84 and to mature and performing 2538 Solutions, the 2020 editions of the Pilos contained several "Local" implementation objectives. These objectives are addressing solutions considered beneficial for specific operating environments, and for which a suche previous considered beneficial for specific operating environments, and for which a scale in the supplementation objectives included in the 2020 (implementation Pilos, ten (10) belong to this "Local" category. They are the following:

- AOP14 Remote Tower Services
- . AOP15 Enhanced traffic situational awareness and airport safety nets for the vehicle drivers
- . AOP16 Guidance assistance through airfield ground lighting
- AOP17 Provision/integration of departure planning information to NM Operations Centre
- AOP18 Runway Status Lights (RWSL)
- ATC18 Multi-Sector Planning En-route 1P2T
- ATC19 Enhanced AMAN-DMAN integration
- . ATC20 Enhanced STCA with down-linked parameters via Mode S Enhanced Surveillance
- . ENV02 Airport Collaborative Environmental Management
- ENV03 Continuous Climb Operations

Depte the catastrophic effects of the COVID-19 pandemic on aviation, the implementation progress of the Master Plan Level 13 is steely, with advances in implementation recorded all aross the ECAC sense. For advances (secluting local ones) as least one State/Airport has reported completion in 2010. The table below shows the tope preference of the Covidence of th

hypromientation Chipsolina	Safetier Safetier reference	Charge in the restrict of Mana (http://www.do.	States completed the objective in \$10.00	(copus modelar is 1000 (comparior sets)	Resident of their company the eligibles Todal contact is reprised (by some
COM12 (NawPites)	92	+21	AZ, BE, CH, CY, CZ, DE, DK, EE, ES, PR, HR, IE, IL, EV, MURC, NL, NO, PL, PT, SE, TR	+48% (65%)	28 (43)
rry-sei (Sorveillance Performance and Interoperability)	2	+10	BE, BG, DK, GE, HR, HU, IT, LU, LV, SK	+20% (60%)	26 (43)
COM10 (Migration to AMHS)	.8	+6	BA, CH, EE, GR, LT, PL	+13% (77%)	34 (44)
ATCOZ 9 (STCA in TMAs)	#60	+5	Δ2, FI, IE, LU, RO	+16% (25%)	34 (40)

Content and graphical elements of the individual Synoptic Views

The course of the information in this document, including for all the graphical elements, is the data reported outring the LSSIP 2020 cycle, reflecting the implementation status at 31st December 2020. The Views are structured per Exemetial Operational Charge (EOC) as identified in the Executive view of the European RM Master Pan, edition 2020. Each View summarizes the evolution of the implementation Objectives and SESAI Solutions explained in each insured tipe FOC.

NS

The graphical designator indicates the EOC and is fully consistent with the corresponding designator from the Executive view of the Master Plan.

The implementation status table shows the consolidated evolution of the objectives within the EOC in 2020.

replaceant estim Objective	SCHOOL SECT.	Author or head. Airports completed the elspecial 2020 vs. 2010)	mercial por la templeted the object of in 2020	Progress exchattonisi attiti (Comulcilien new)	iniporti surpleted the spectra (Total number in Applicablish small		Vrijk mestaken Status	estima ed schine rent
1.65800	891	a	None	HIN [35N]	12 [27]	06/2022	Ontime	01/2002
ACMID E	P31	*1	LW	45% (5%)	5 (57)	OS/SURE	marked being	12/2027

t includes:

- The name of the objective;
- The SESAR Solution, if any, functionally linked to the objective;
- The season addition, it entry, to necessary anneat to the objective,
- The number of States/Airports which have completed the objective in 2020 (compared with 2019);
 The States/Airports that have completed the objective in 2020. Minus (-) means that a particular
- State/Airport reviewed its status from "Completed" to any other status.

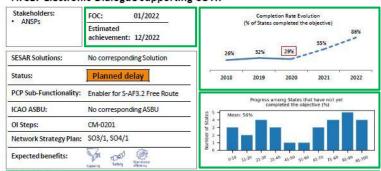
 Note: When such reversion happens, it is further addressed/explained in the Deployment View at included all objective level.
- The evolution of the completion rate in 2020 as percentage of completed States/Airports out of all States/Airports in this applicability area of the objective. The value between brackets shows the cumulative completion rate reached at the end of 2020.
- The absolute number of States/Airports that have completed the objective. The value between brackets shows the total number of States/Airports in the applicability area of the objective;
- The agreed Full Operational Capability as defined in the MP L3 2020 Implementation Plan:
- The implementation status is determined based on the estimated completion date reletive to the full Operational Capability of the objective. In some cases this information is not available, i.e. when estimated achievement date is not provided by the States (e.g. plans for implementation are yet to be daTased).
- The estimated completion date based on the plans reported by stakeholders. However, for some objectives, in particular the recent ones, which are in early planning phase, or for the "Local" objectives, the estimated schievement date cannot always be defined.

The colour of the Implementation Status reflects the taxonomy of the progress assessment as defined in the Deployment Views section of this document.

EOC: Fully Dynamic and Optimised Airspace Organisation AOM19.1 ASM tools to support A-FUA 01/2022 Completion Rate Evolution ANSPs (N of States completed the objective) Network Manager Estimated achievement: 01/2022 SESAR Solutions: Solution #31 On time PCP Sub-Functionality: S-AF3 1 ASM and Advanced FUA Progress arrang States that have not yet compared the appetive (%) FRTO-B0/2 ICAO ASBU: AOM-0202, AOM-0202-A Network Strategy Plan: 503/2,503/3 Expected benefits: The FOC date for this objective was changed to 1/1/2022 therefore a large number of States (15 States) switched the implementation status from "Late" (as during the previous reporting cycle) to "Ongoing" with the implementation expected before the new FDC date, while MA went from "Ongoing" to "Late". TR will evaluate the objective for the next reporting cycle, while GE joined the applicability area this year reporting implementation plans by the FDC date. 24 States including Maastricht UAC (2 more than last year) have implemented local ASM tools (ADM19.1-ASP01); some are local solutions but a majority of them (17) rely on LARA (Local and sub-Regional ASM Support System). The widespread implementation of the objective is expected to be reached during 2022, date which is consistent with the provisions of the CP1 Regulation (EU 116/2021 - Sub-AF 3.1 on ASM and Advanced FUA) requiring the availability of this functionality by 12/2022 ACREE 1 - ASIN Support Trots to Septent Assumed HIA IARUAI Applicability Area: All ECAC+ States except AM, AZ, LU, MT, MD, MK and SE Change since previous ed.:

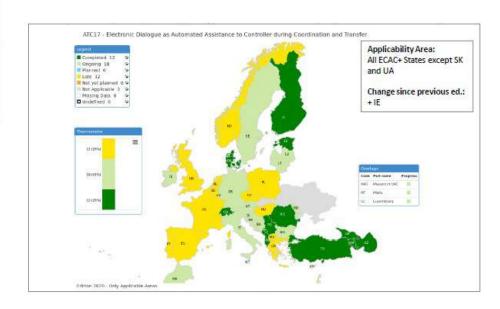
Example of ATC17

EOC: Fully Dynamic and Optimised Airspace Organisation ATC17 Electronic Dialogue supporting COTR

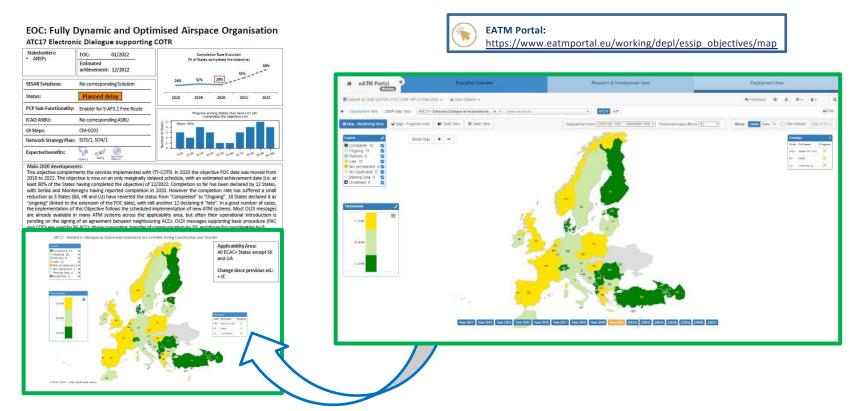


Main 2020 developments:

This objective complements the services implemented with ITY-COTR. In 2020 the objective FOC date was moved from 2018 to 2022. The objective is now on an only marginally delayed schedule, with an estimated achievement date (i.e. at least 80% of the States having completed the objective) of 12/2022. Completion so far has been declared by 12 States, with Serbia and Montenegro having reported completion in 2020. However the completion rate has suffered a small reduction as 3 States (BA, HR and LU) have reverted the status from "Completed" to "Ongoing". 18 States declared it as "ongoing" (linked to the extension of the FOC date), with still another 12 declaring it "late". In a good number of cases, the implementation of this Objective follows the scheduled implementation of new ATM systems. Most OLDI messages are already available in many ATM systems across the applicability area, but often their operational introduction is pending on the signing of an agreement between neighbouring ACCs. OLDI messages supporting basic procedure (PAC and COD) are used by 36 ACCs: those supporting transfer of communication by 20.20 and those for coordination by 8.



The Map Tool



Global dimension – connected to ICAO GANP



MP is a high interest cooperation area in all **bilateral arrangements** with FAA, Japan, Singapore, Qatar ...







The MP is the voice and "ambassador" of European ATM on the global scene

ICAO ASBU Implementation Monitoring Report





 ${\bf Link:} \ \underline{https://www.eurocontrol.int/publication/aviation-system-block-upgrade-asbu-implementation-monitoring-report-2019}$

ICAO ASBU Implementation Monitoring Report Context

- ✓ The ASBU (Aviation System Block Upgrades) Implementation Monitoring Report is a key document for the EASPG (European Aviation System Planning Group) to monitor and analyse the ASBU implementation within the EUR Region.
- ✓ Developed by **EUROCONTROL** in cooperation with **ICAO EUR/NAT** Office.
- ✓ First report prepared in 2015 for the reporting/reference period 2014.

✓ Reference year 2019 - Last report based on GANP 5th edition (2016)



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GANP 5th Edition (reports with ASBU Modules) GANP 6th Edition First report due by December 2021 (with ASBU Elements)

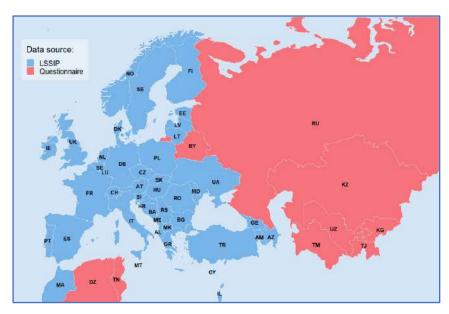


ICAO ASBU Implementation Monitoring Report

Data sources and geographical scope

Two main data sources:

- ✓ LSSIP mechanism (43 States) ECAC States and the 2
 States with a comprehensive Agreement with
 EUROCONTROL (IL + MA); no double reporting to comply with ICAO monitoring requirements;
- ✓ **Dedicated questionnaire (9 States)** remaining non-ECAC States within ICAO EUR Region; reporting burden limited to a minimum with specific guidance provided by EUROCONTROL.



Geographical scope of the report

ICAO ASBU Implementation Monitoring Report Global Air Navigation Plan

- ✓ Endorsed at 40th ICAO Assembly in October 2019
- ✓ New GANP web portal: https://www4.icao.int/ganpportal/
- ✓ **ASBU Elements** to be monitored from now on in EUR Region:

	Block 0	Block 1	TOTAL
To be monitored	40	47	87
Not to be monitored	12	15	27
Covered by 2020 LSSIP + PBN MapTool + SUR questionnaire etc. (Report 2021)	32 (+4 MET)	31 (+4 MET)	63 (+8 MET)
+ CP1 updates for 2021 (Report of 2022)	?	? (e.g. FCM11.1 – NOPS B1/3)	?



Quiz on this module

How many LSSIP Documents are published on the EUROCONTROL website each year?







92?



Quiz on this module

How often is the Master Plan Progress Report produced?

A Every year?



- B Every 2 years? Or
- © Every month?



Quiz on this module

Where can I access the Technical Annex – Engineering View?

- A In the LSSIP DB and SP?
- B In the eATM Portal? Or
- C All platforms mentioned above?

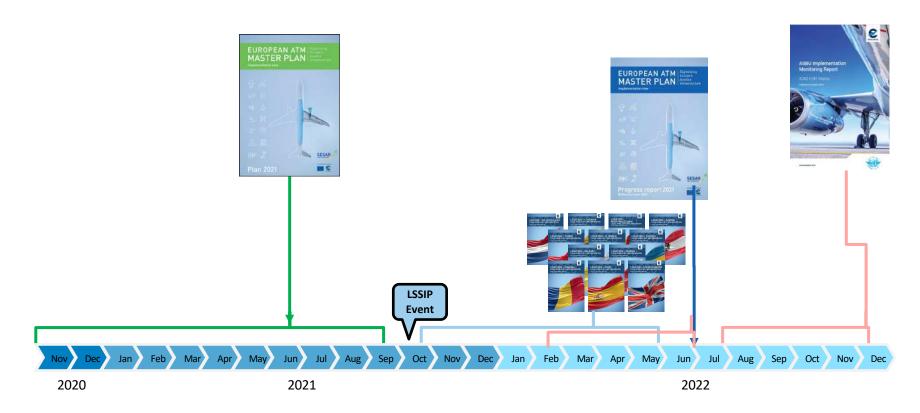


ATM Implementation Planning, Reporting and Monitoring Process

- 1 Overall timeline
- 2 Supporting documents for LSSIP
- 3 LSSIP timeline
- 4 LSSIP Expert Group

Overall Timeline

Annual cycle of MPL3 / LSSIP



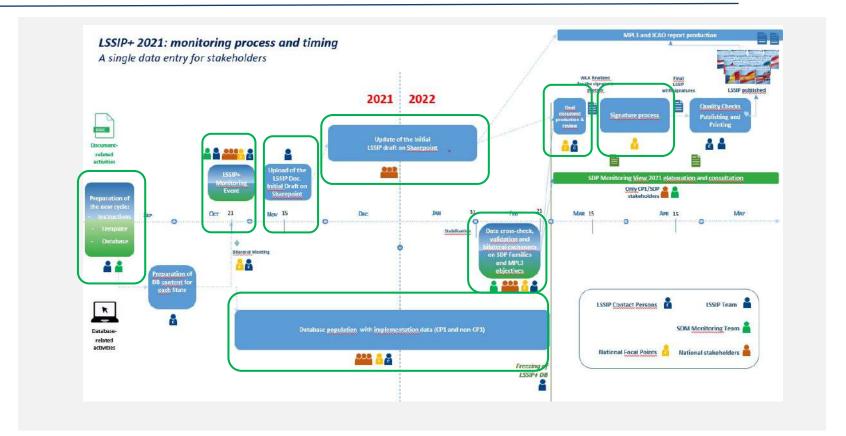
Supporting documents for LSSIP

LSSIP roles and responsibilities 2021 LSSIP+ Working Instructions Production of LSSIP document **Progress determination** LSSIP Database User Guide LSSIP SharePoint User Guide LSSIP Template / LSSIP Initial Draft

Regular update after each cycle

Focus on the timeline for LSSIP

Detailed timeline for LSSIP + 2021



Focus on the timeline for LSSIP

Roles & Responsibilities



National Focal Point

- Coordinator of national Stakeholders for LSSIP cycle
- Coordinator of data gathering for LSSIP document elaboration process
- Nominated by the State among the staff of the NSA / Regulatory Authority or ANSP



Agency LSSIP Contact Person

- Mediator between EUROCONTROL and the State during LSSIP cycle
- Works in coordination with the National Focal Point or other relevant State Stakeholders
- Provides support, instructions and guidance to the State



SDM Monitoring Team

- Reference team for CP1 related contents and EU States
- Works in collaboration with LSSIP Contact Persons during the LSSIP Cycle
- Provides support, instructions and guidance to the CP1 Stakeholders directly and through the SDM Liaison Officers

LSSIP Expert Group

Participants

LSSIP EG is the <u>sounding board</u> for all LSSIP related items.

The Terms of Reference of the Group are published on LSSIP SharePoint





























Quiz on this module

When is the LSSIP Database frozen every year?

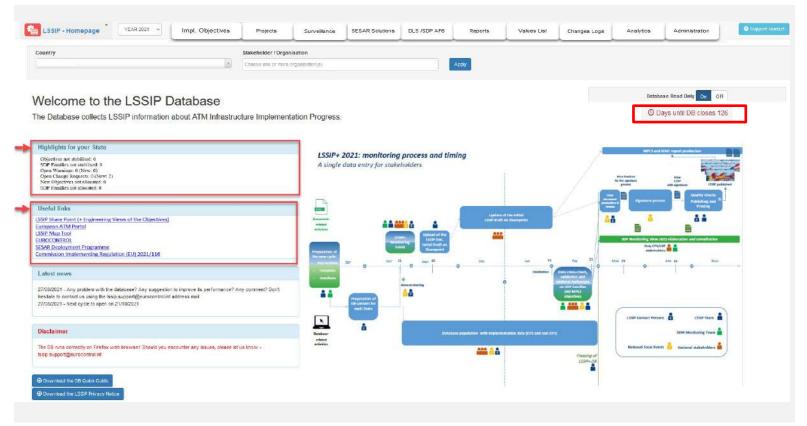
- A In December?
- B In January? Or
- C In February?

ATM Implementation Planning, Reporting and Monitoring Process Tools

- 1 LSSIP+ Database
- 2 LSSIP SharePoint
- European ATM Portal (Working)
- EUROCONTROL Website

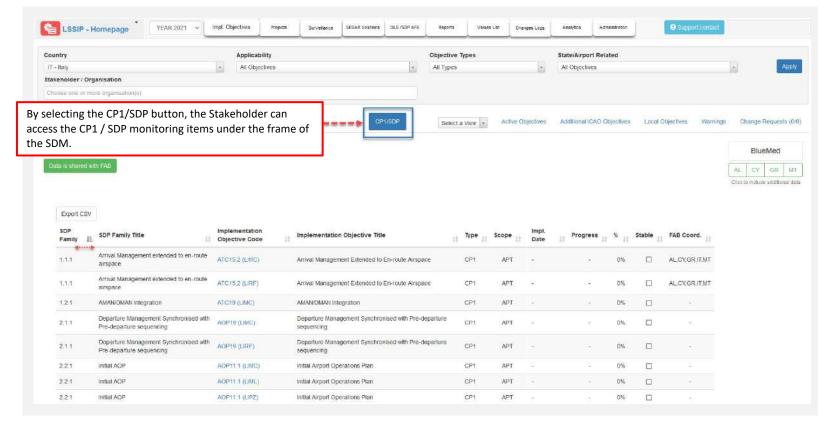


Personalised Landing Page



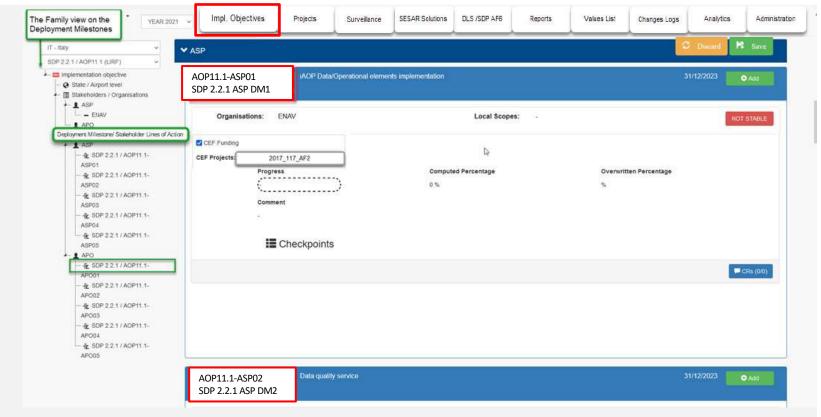


Implementation Objectives/ SDP Families - CP1/ SDP Monitoring



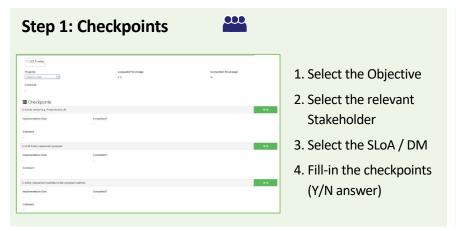


View at Deployment Milestone Level











1. Select a status for each SLoA (Completed, Ongoing, Planned, Not yet planned, Not applicable)

Step 3: Consolidated progress per Stakeholder



1. The progress of each Stakeholder is calculated based on weights assigned to each SLoA / DM level

Step 4: Consolidated progress per Objective

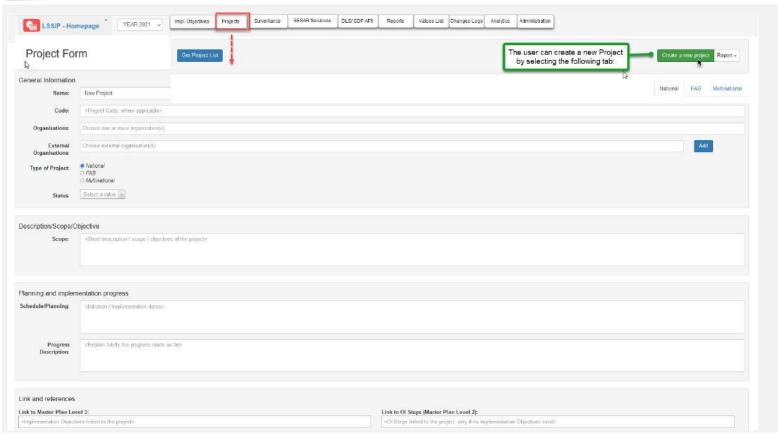


1. The progress of each Objective is calculated by applying a weight on each Stakeholder contributing to the implementation of the relevant CP1 Objective

This methodology applies to **CP1 Objectives** regardless the CP1 Applicability Area. For all other Objectives, the **simple average** applies.

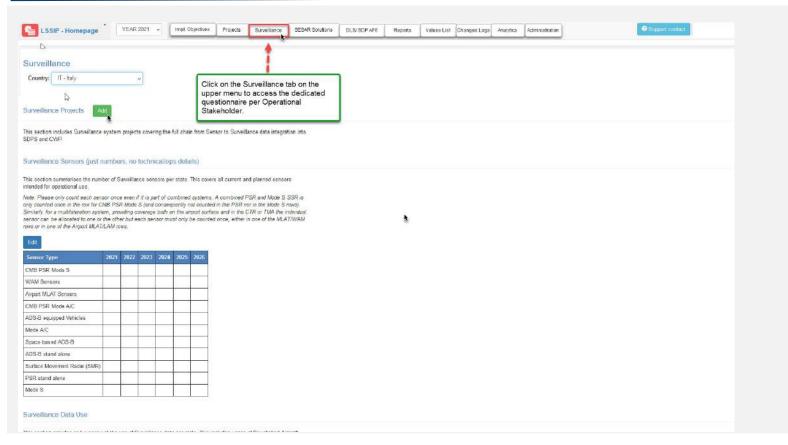


Implementation Projects



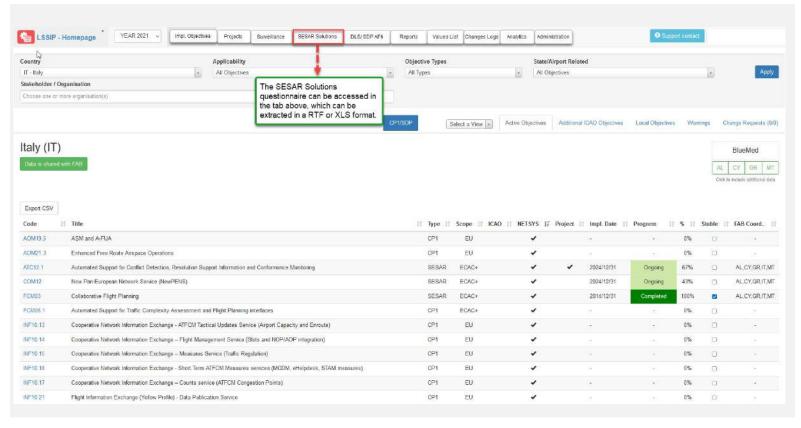


Surveillance Questionnaire



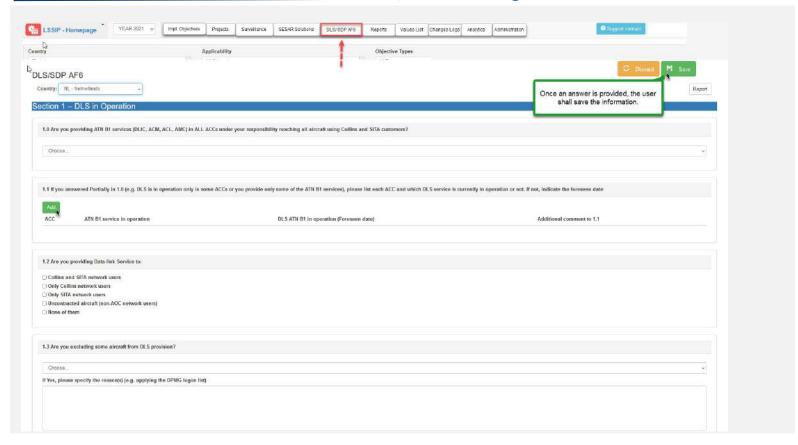
SESAR Solutions





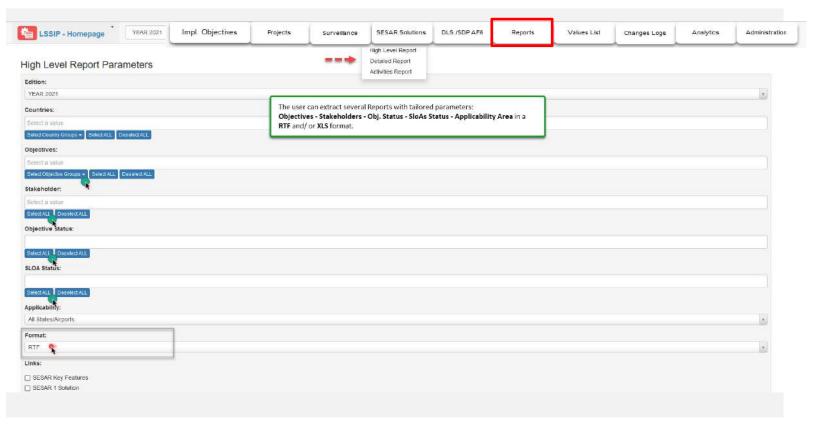


DLS Questionnaire - CP1/SDP Monitoring



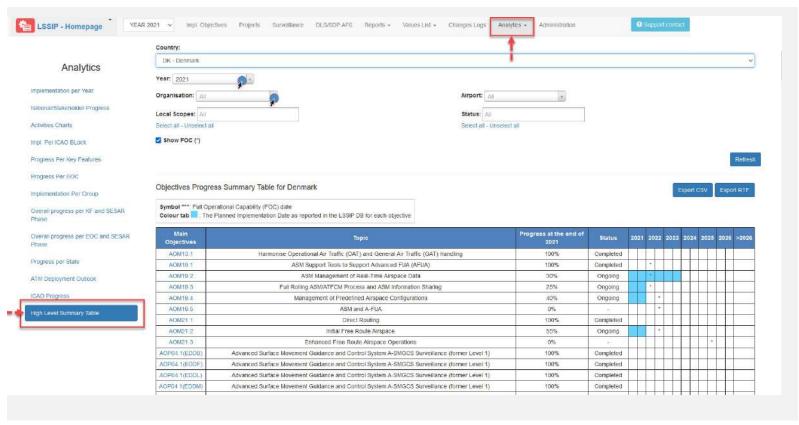
Reports





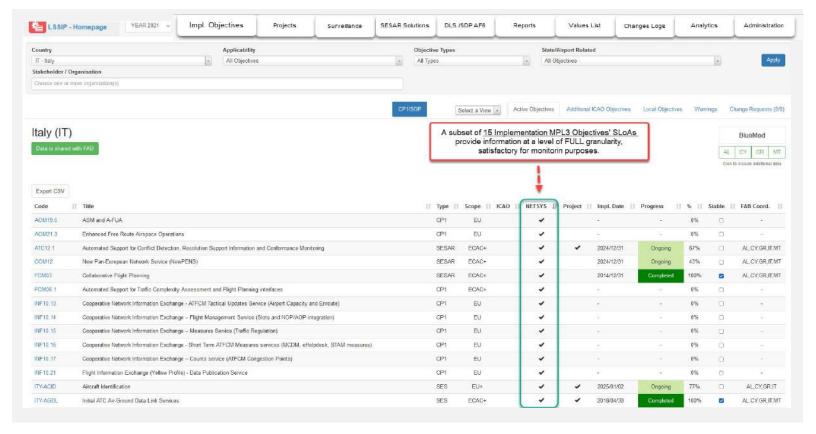
Analytics





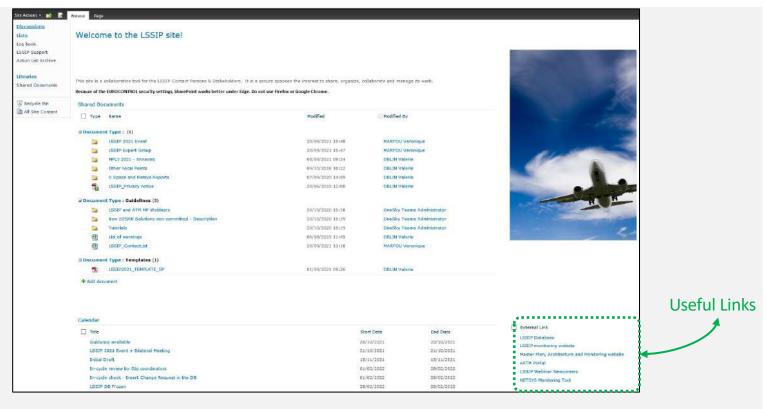
EUROCONTROL

Mapping MPL3 Objectives – NETSYS ATM System Functionalities



LSSIP Sharepoint

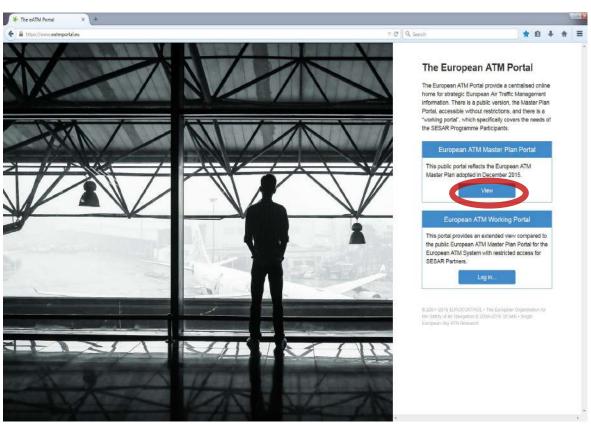






Link: https://ost.eurocontrol.int/sites/lssip/SitePages/Home.aspx

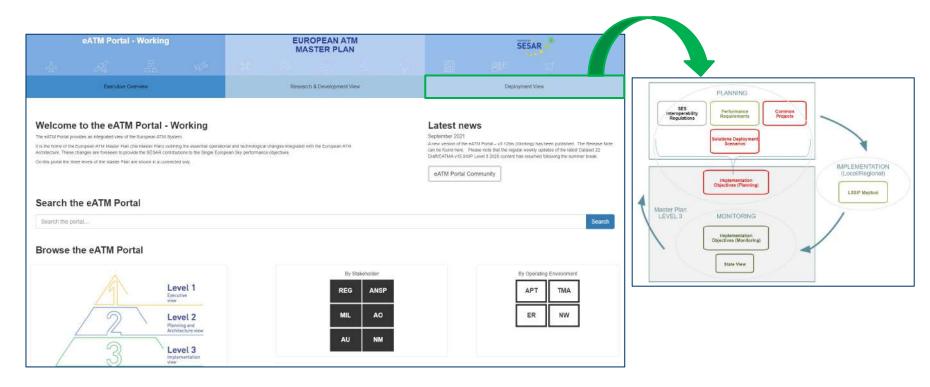
Access the Master Plan via the ATM Portal



https://www.eatmportal.eu

European ATM Portal

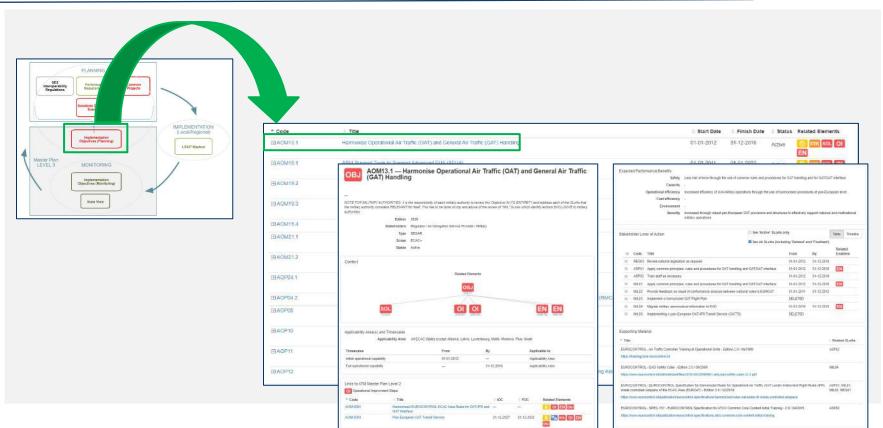
Deployment View





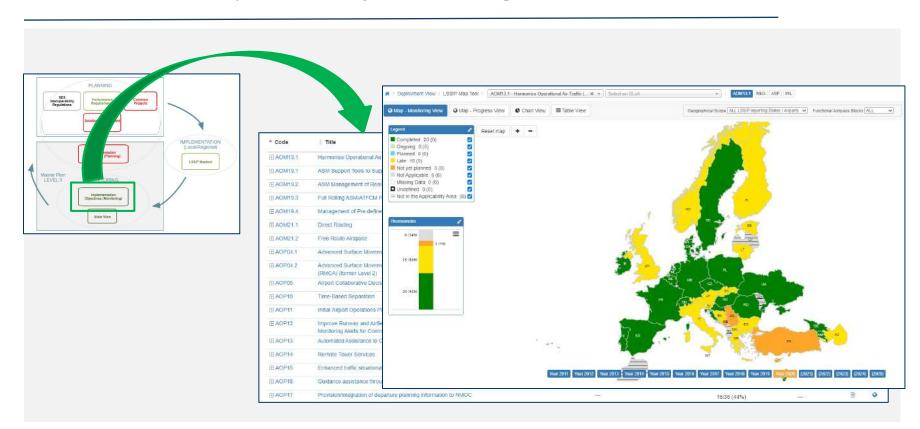
European ATM Portal

Implementation Objectives Planning site

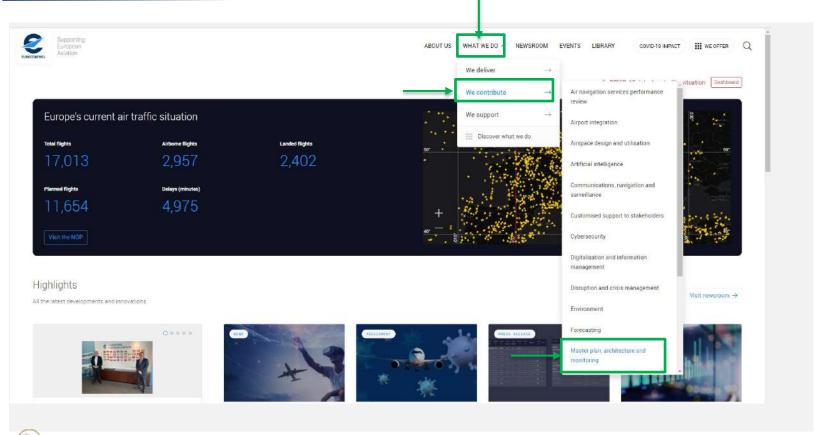


European ATM Portal

Implementation Objectives Monitoring Site



EUROCONTROL Internet Website





EUROCONTROL Internet Website

Master Plan Architecture and Monitoring



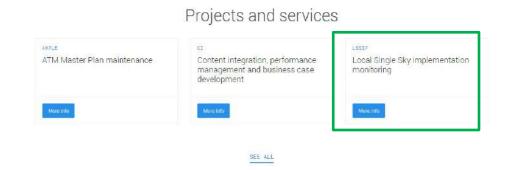
The Local Single Sky Implementation (LSSIP) documents are the yearly expression of commitment of civil and military national organisations (regulators and national supervisory authorities), service providers and airport operators, towards the implementation of the European ATM Master Plan.

They provide a comprehensive view, 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.

Contact points

- Mr.Ratf.Reiser (DFS)
- Our contact points for this country are Mr Goran Paviovic (EUROCONTROL)

Use our contact form to reach them



Our tools









Quiz on this module

What are the main 2 Tools to be used for the production of the LSSIP Document?

A The LSSIP+ Database and the LSSIP SharePoint site?



- B The LSSIP Database and the EUROCONTROL website? Or
- The LSSIP SharePoint and the EUROCONTROL website?

Summary

Content

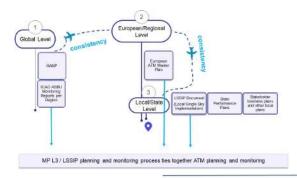
- MPL3 and LSSIP+ in a nutshell
- Need more info?
- 3 Useful Links

In a nutshell

ATM Implementation Planning, Reporting and Monitoring:

- Requirements
- Deliverables
- Process
- Tools











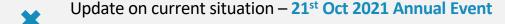




Need more info?

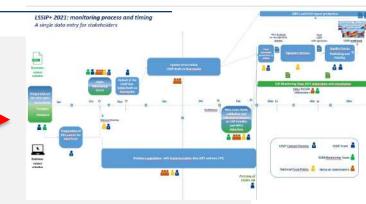
But what if you need more information?







- And consult the eATM Portal
- And through your FP ask access to the LSSIP Database
- And more info on SDP/CP1 through SDM Liaison Officers
 And also at the 16 Nov dedicated SDM Monitoring Webinar



Useful links

Supporting European Aviation



European ATM Master Plan

https://www.eatmportal.eu/working/

All MP L3

https://www.eurocontrol.int/master-plan-architecture-and-monitoring

LSSIP Information

https://www.eurocontrol.int/service/local-single-sky-implementation-monitoring

SESAR Deployment Programme

https://www.sesardeploymentmanager.eu/publications/deployment-programme/

Contact

lssip.support@eurocontrol.int

Thank you for your attention!





Did you get answer on all of this?:

- Maintaining link to the ICAO GANP (and GASP)
- Regional Air Navigation Plan,
- Local Implementation Planning (LSSIP)
- Regulated Implementation (CPs),
- Monitoring and reporting,
- Interoperability (standards coordination)



EU-Latin America and Caribbean Aviation Partnership Project (EU-LAC APP)



Enhancing the aviation partnership between the EU and Latin America and the Caribbean

Thank you!

Coordinating Deployment Planning and Monitoring in Europe

Workshop on ATM/ANS innovation and master planning - Day 3 - 20 October 2021 Danny DEBALS, EUROCONTROL, Head of Unit Planning and Support, Network Management Directorate

easa.europa.eu/connect















