



An enabler for TBO

SESAR 2020 SHOWCASE

Why are we doing this?







Global concept = Global **Benefits**

- Collaborative decision making (CDM)
- More accurate view of Trajectory
- Common view of trajectory of Flight



Envisaged as a solution to many of todays limitations



CONOPS under development between NM/SDM/SJU

CP1 incl. SWIM & FF-ICE Release1 is an enabler for TBO and the baseline for the full **Deployment of TBO**





Transforming Air Traffic Management in Europe

The next step – moving to Trajectory Based Operations



"Trajectory Based Operations" is an ATM concept – supported by CP1 deployment– designed to enhance strategic air traffic planning, enabling a fully collaborative environment where the precise trajectory data (latitude, longitude, altitude and time) is shared, maintained and used by all concerned actors, during all phases of flights

TODAY – Radar Based Operations



INDIVIDUAL stakeholder view of the flight trajectory

the planned aircraft position

TOMORROW – Trajectory Based Operations

SYNCRONISED and Common view of the flight trajectory

KNOW and USE the planned aircraft position





Regulatory framework

Developed and consulted by all stakeholders



Deployment

Programme

SESAR DEPLOYMENT PROGRAMME

SESAR



SESAR >

2021



Vision for EU Digital Sky

Pilot Common Project Reg. (EU) n.716/2014



COMMUNICATION DESIGNATION CONTINUES DESIGNAT

2014-2021

Common Project One Reg. (EU) n.116/2021



COMMISSION IMPLEMENTING REGULATION (EU) .../...

of XXX

on the establishment of the Common Project One supporting the implementation of the European Air Traffic Management Master Plan provided for in Regulation (EC) No 550/2014 of the European Parlament and of the Council, amending Commission Implementing Regulation (EU) No 409/2013 and repealing Commission Implementing Regulation (EU) No 716/2014

(Text with EEA relevance)

THE EUROPEAN COMMISSION,

Having regard to the Treaty on the Functioning of the European Union,

Having regard to Regulation (EC) No 550/2004 of the European Parliament and of the Council of 10 March 2004 on the provision of air navigation services in the single European sky (the service provision Regulation)¹, and in particular Article 15a thereof, Whereax

- (1) The Single European Sty ("SES") aims at modernising the European air traffic management (ATM) by improving its safety and efficiency. It contributes to the reduction of greenhouse gas emissions. The Single European Sky Air Traffic Management Research and Development ("SESAR") project constitutes the technological pillar of the San.
- Modernisation should be steered to achieving the European ATM Master plan's vision of a digital European sky.
- (3) Effective ATM modernisation requires the timely implementation of innovative ATM functionalities. Those functionalities should be based on technologies that increase it levels of automation, cyber-scure data shaning, and connectivity in ATM. Thos technologies should also increase the levels of virtualisation of the European ATM infrastructure and air traffic service provision in all types of airpust.
- (4) Commission Implementing Regulation (EU) No 409/2013² establishes a framework for SESAR deployment setting out the requirements for the content of common projects, for their setup, adoption, implementation and monitoring.
- (5) Common projects should only include ATM functionalities that are ready for implementation, that require synchronised implementation and that contribute significantly to achieving Union-wide performance targets.
- (6) Common projects are implemented through projects coordinated by the deploymmanager in accordance with the deployment programme.

2021-2027

Workplan for CP1 Deployment

Framework for SESAR Deployment

Reg Update process 12/06-12 27/06-14 31/12-25 12/08-22 27/06-17 02/02-21 31/12-27 First time MP PCP Regulation **CP1** Regulation **SDP 2022** Start of PCP FF-ICE R1 CP1 Last CP1 Impl with EOC in Force Approval **Approval** Review Deadline dates



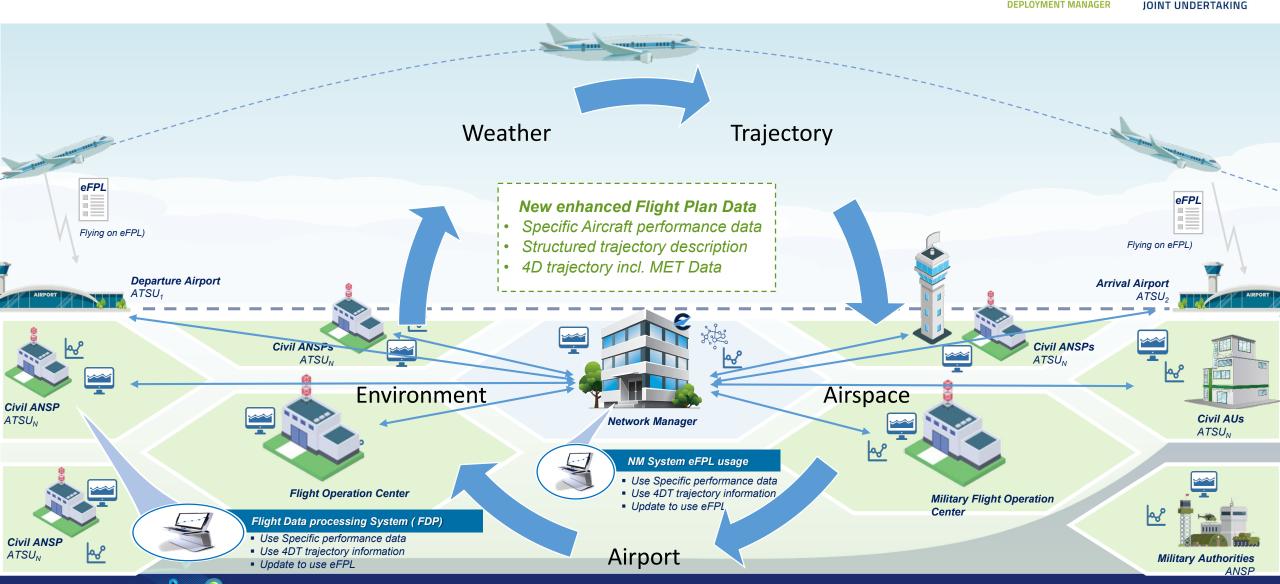
Changes

Common Project 1 Overview ATM functionality



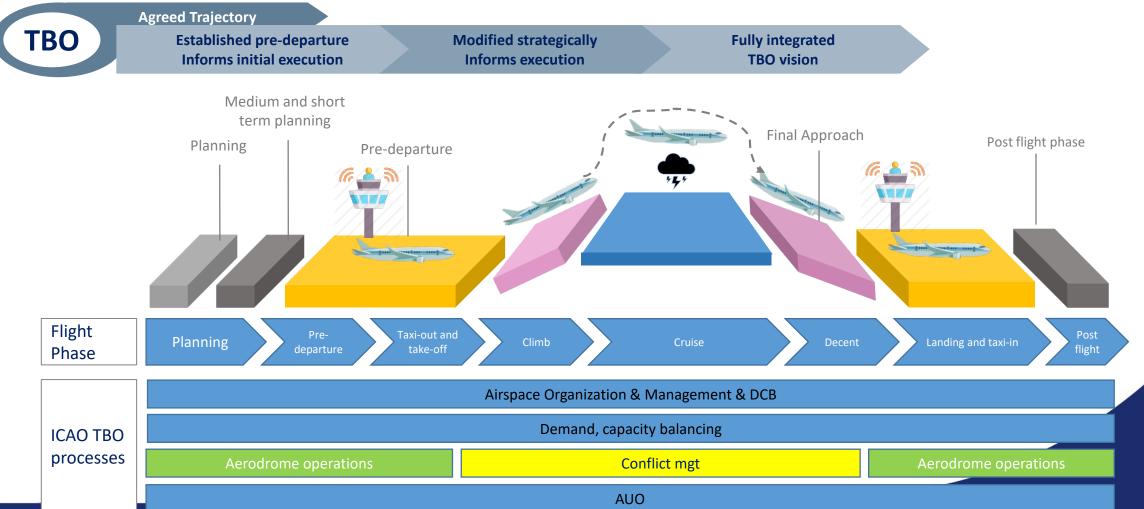


Flight & Flow information for a collaborative environment (FF-ICE) FF-ICE Release 1 deployment in Europe Sesar se

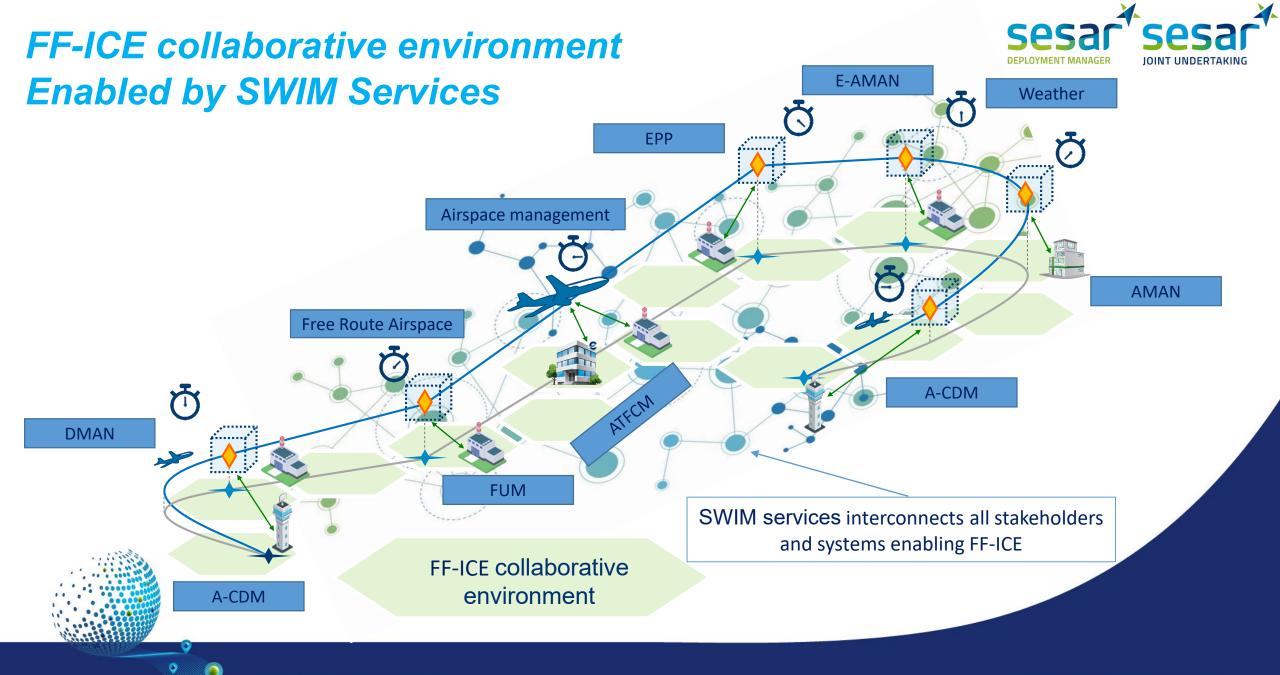


TBO is supported by CP1 in all flight phases









TBO Deployment



FF-ICE Operational in Europe

Is not one deployment but consist of multiple elements and solutions



Trajectory
Based
Operations

Is not limited to individual information exchanges such as Air-ground



Europe leading the work globally towards the achievement of TBO



First flight supported by pre-flight 4D-trajectory data exchange performed by Lufthansa in the European Network

15 December 2022

THIS COVERS

OPTIMISE OPPRITORAL PRESIDENCE .

SIGNALISATION AND INCOMMITTEN MAR.



First flight supported by pre-flight 4D-trajectory data exchange performed by Lufthansa in the European Network | EUROCONTROL

