

PJ.38 ADSCENSIO

Paving the way towards the use of ADS-C
Extended Projected Profile in CP1

SESAR 2020 SHOWCASE

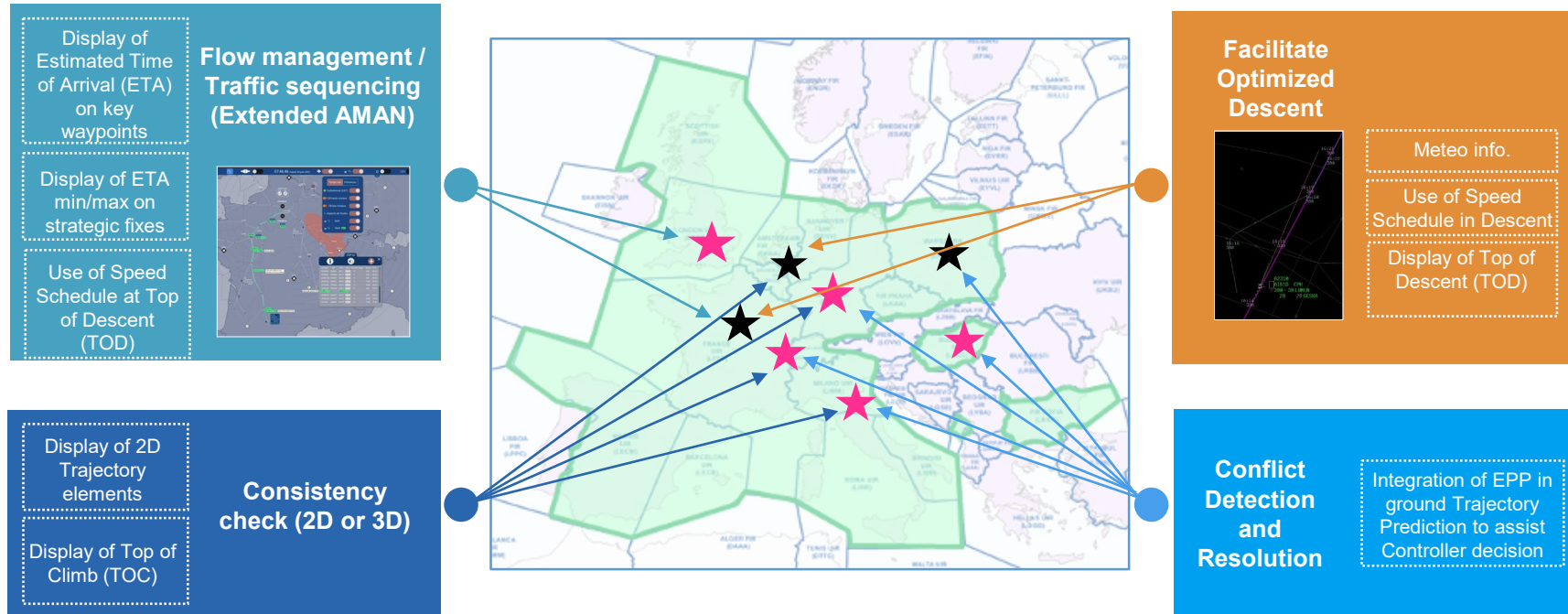
ADSCENSIO

Demonstrated improvements
of ATM operations
enabled by the use of ADS-C data received
from revenue flights, with the support of the
suitable datalink communication
infrastructure



Operational evaluations performed (2022)

On the way for CP1-AF6 - TRL7 Achieved



ACS Data Collection and Analysis

A key enabler for the future large-scale deployment of initial trajectory sharing in the European airspace

SCOPE

- ▶ Collect and Store ADS-C Data
- ▶ Monitor the correct behaviour of the air and ground systems Data
- ▶ Technical and operational analysis of ADS-C Data

MAIN RESULTS

- ▶ Library of ADS-C Data for future studies (45000 flights data, 2.5 Millions ADS-C reports were collected from Dec 2020 till Jan 2023)
- ▶ The automatic ADS-C contract establishment without logon required functionality increased the average connection rate
- ▶ Enhanced Knowledge on ADS-C Data usability by ANSPs (reliability of TOD, TP improvement...) to optimize operations:
 - ▶ Enhanced descent profile
 - ▶ Adherence to flight plan
 - ▶ Optimized flow management prediction

March 2023

SATCOM / VDL2 complementarity

SCOPE

- ▶ Demonstrate both the complementarity between Iris SATCOM and VDL in providing ATN B2 connectivity
 - ▶ Extension of the use of datalink beyond current VDL coverage thanks to SATCOM.
 - ▶ Mean to anticipate VDL2 capacity crunch
- ▶ In concert with ESA funded Iris IOC, Iris SATCOM should support CPDLC & ADS-C to alleviate VDL2 frequency capacity and support AF6-CP1 deployment.

Airbus Flight Test Campaigns

- ▶ 10 flights have been performed including the first operational ATN B1 CPDLC exchanges with ATC over Iris SATCOM on 5th April 2022.

Honeywell Flight Test

- ▶ Good Iris SATCOM stability in northern latitudes of Europe (17 hours of flights in northern Europe)



ACS "ADS-C Common Service" SESAR Solution

A key enabler for the future large-scale deployment of initial trajectory sharing in the European airspace

SCOPE

A service that :

- ▶ collects relevant ADS-C data from the aircraft via ATN “once”(avoiding redundancy on the air-ground link)
- ▶ Provides Data to interested clients via a SWIM service prototype



MAIN RESULTS

- ▶ Reduced ATN network load
- ▶ Improved ADS-C data access and faster deployment
- ▶ Supports high number of clients / ground users
- ▶ Will reduce investment costs related to the use of ADS-C data and increase access to ADS-C data.
- ▶ Inputs delivered for standardisation



March 2023



MERCI



SESAR 2020 SHOWCASE

#SESARShowcase

#EuropeForAviation