



SatCOM for aviation: the Stakeholders perspective

SDM view

25th of January 2022

SatCOM for aviation

Agenda

01

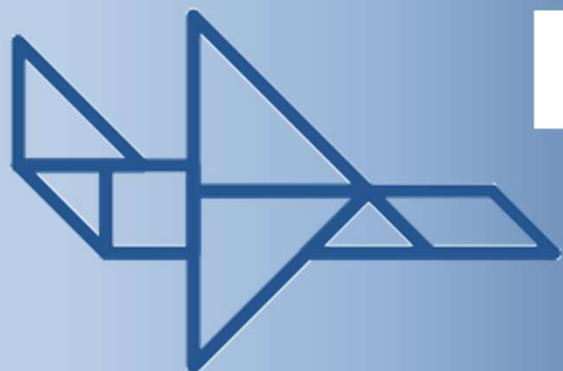
SDM role & recommendations for DLS future

02

SatCOM in a multilink environment

03

Final remarks



SatCOM for aviation

Agenda

01

SDM role & recommendations for DLS future

02

SatCOM in a multilink environment

03

Final remarks

SatCOM for aviation

SDM role: complementary technologies

In 2016, the SDM elaborated the DLS Recovery plan based on the EASA report as well as on the ELSA study. **The DLS recovery plan already included the reference to the need to take into account the complementary technologies, including Space-based technologies**



The adoption of **complementary technologies** appears as necessary to **offload the VDL M2 network**, extending its lifespan and supporting the introduction of new datalink services (e.g., ADS-C/EPP)

ELSA study recommends to favour **alternative communications** means for AOC with a priority to the airport domain



The adoption of complementary technologies will enhance the performances and the flexibility of future DL systems

A smooth transition from the current system based on VDL M2 towards DL systems based on multiple technologies has to be considered (introduction of multilink environment)

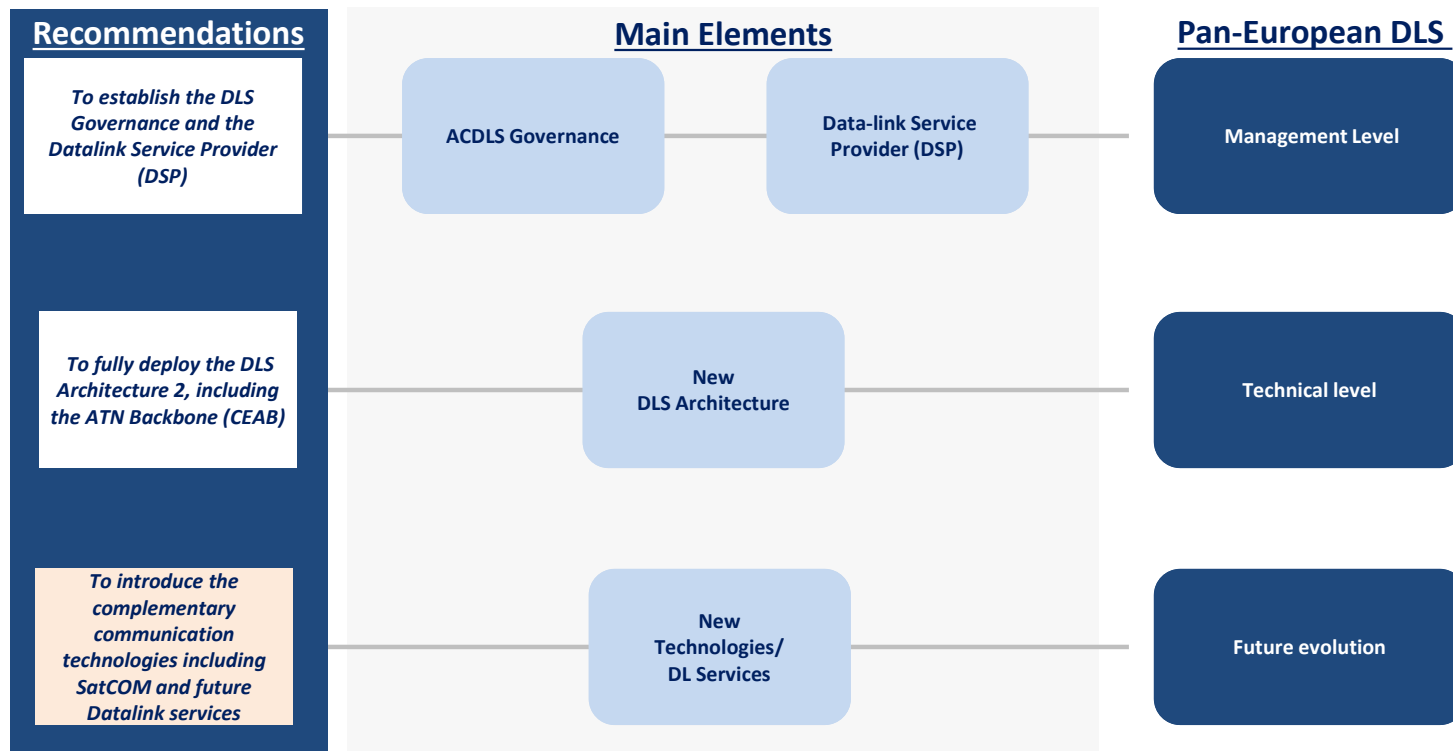


According to the **DLS Recovery plan** the use of **new Terrestrial and Space-based technologies** is currently envisaged as from **2025**

SatCOM for aviation

Recommendations for DLS future

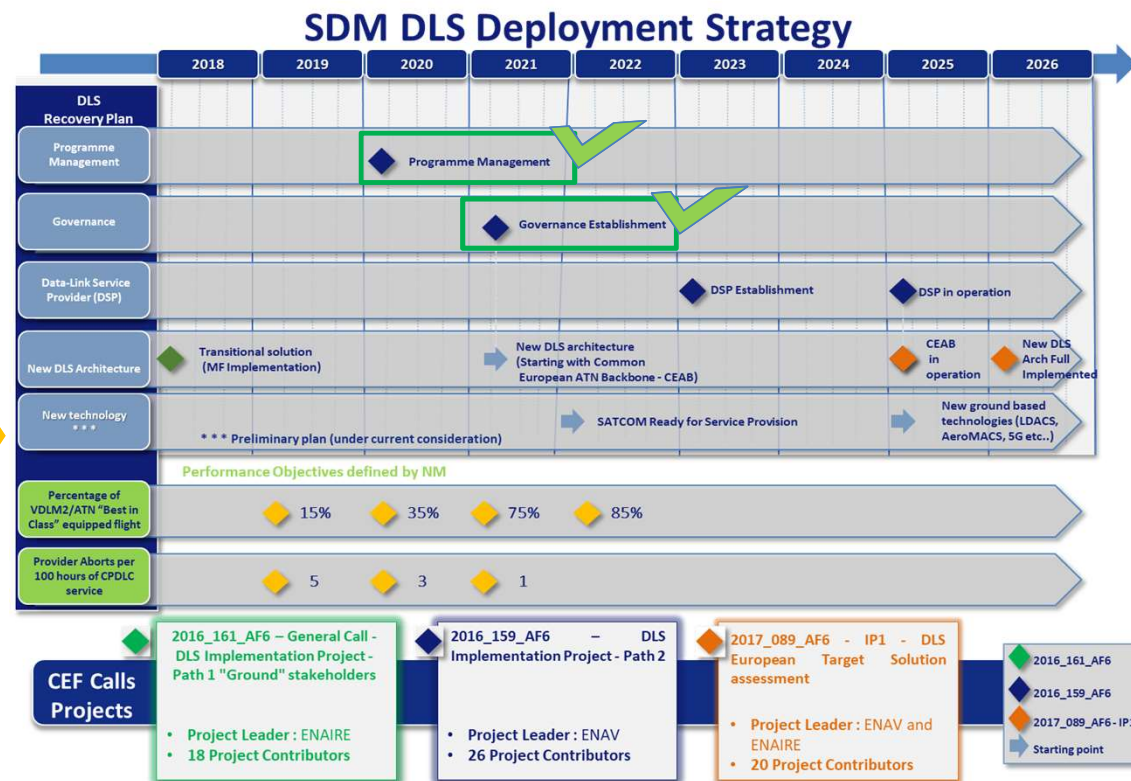
The main outcomes of SDM activities have been highlighted in the D11.1.1 report **where it is clear the need to introduce complementary technologies complementing the VDL M2, starting to work in a DL multilink environment**



SatCOM for aviation

Recommendations for DLS future: DLS Deployment strategy

In the DLS Deployment strategy, a dedicated streamline for the New Technology has been considered including SatCOM



It is recommended the **new COM technologies deployment** complementing VDL M2 and sustaining CP1/AF6 (IR (EU) No 116/2021)

Recommendations for DLS future: ACDLS Governance



ACDLS Members

- **17 ANSPs and EUROCONTROL** have currently joined the ACDLS Governance and other ANSPs can join it at any time
- ACDLS Governance is acting as **a single European Entity for ACDLS topics**, facilitating the current and future DLS deployment

SatCOM for aviation

Agenda

01

SDM role & recommendations for DLS future

02

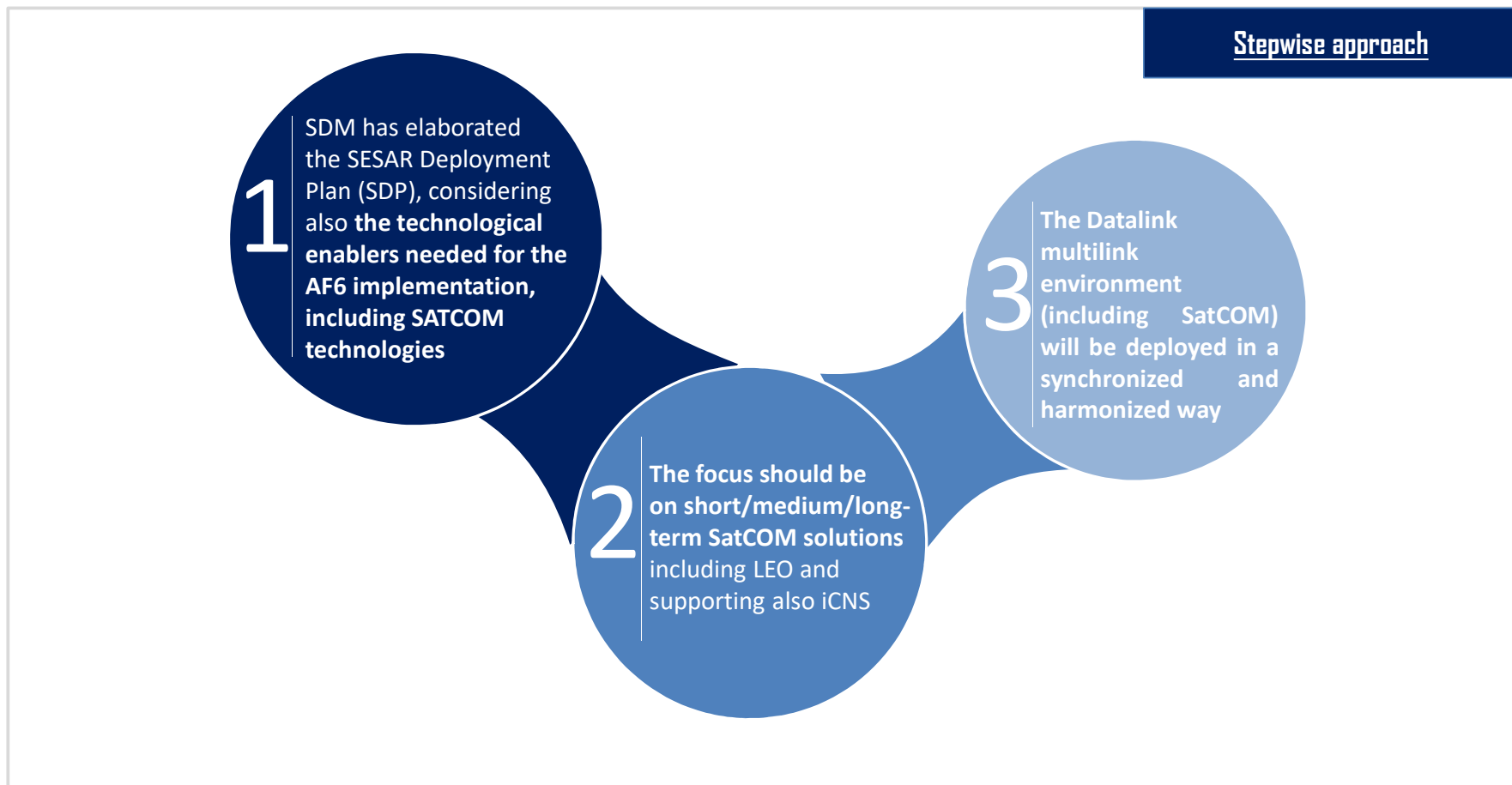
SatCOM in a multilink environment

03

Final remarks

SatCOM for aviation

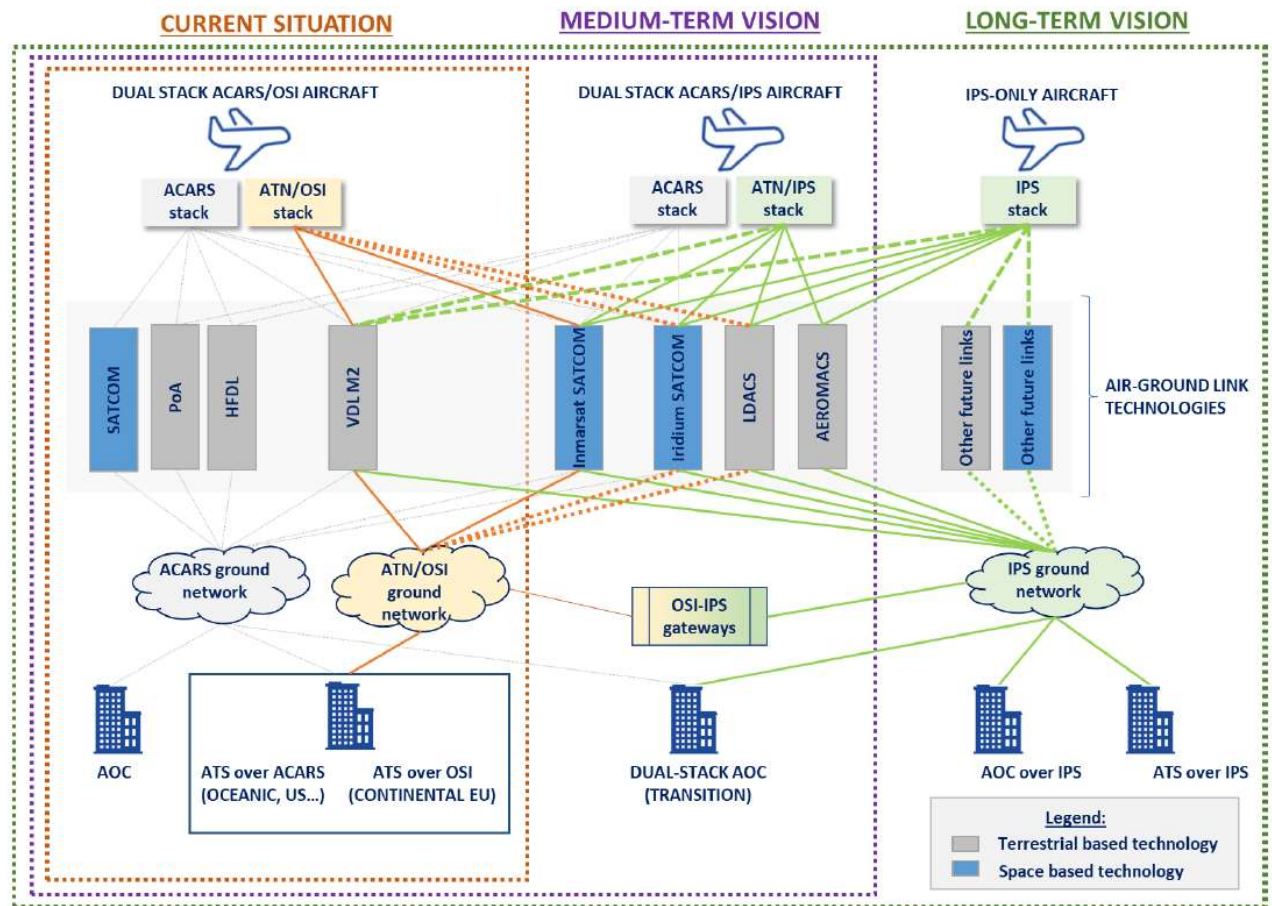
SatCOM in a multilink environment: stepwise approach



SatCOM for aviation

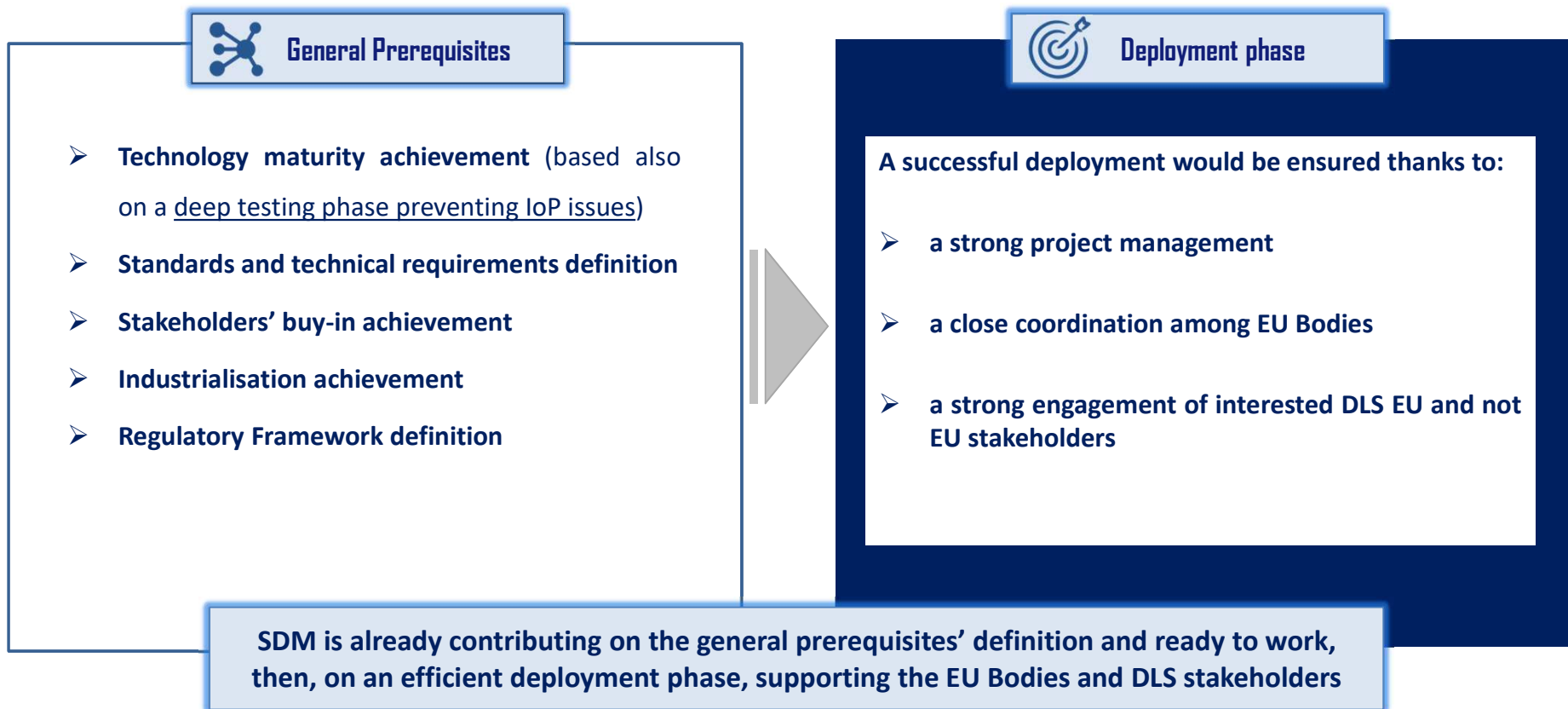
SatCOM in a multilink environment: transitional scenarios

- **SDM has dealt with the Multilink environment since the beginning of its mandate** and above all during the elaboration of the Multilink CONOPS and use/non-use of IDRPs report by 2021
- In this framework, **medium and long transition scenarios considering terrestrial and space-based technologies have been analysed** (including migration from ATN / OSI to ATN / IPS protocols) in order to prevent fragmentation



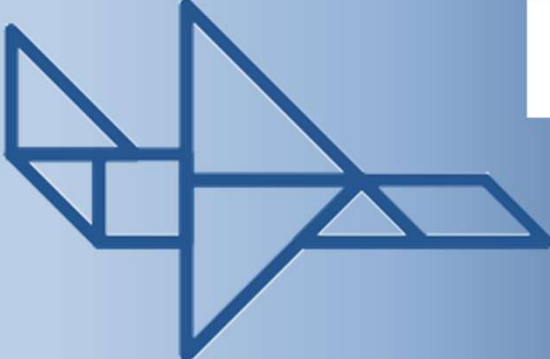
SatCOM for aviation

SatCOM in a multilink environment: prerequisites for deployment phase



SatCOM for aviation

Agenda



01

SDM role & recommendations for DLS future

02

SatCOM in a multilink environment

03

Final remarks

SatCOM for aviation

Final remarks



- **The VDL M2 implementation lesson learnt must be taken into account to prevent future IoP issues and fragmentation** in implementing SatCOM or any other new technologies



- Considering the “worldwide nature” of the space-based technologies, **a global approach has to be considered** (*SDM-FAA cooperation is already in place targeting the implementation of the same DL services, protocols and technologies in the medium-long term*)



- **SDM is already contributing to the general prerequisites’ definition**, before a large and effective deployment of new COM technologies, including SatCOM, in order to minimize the associated risks



Thank you very much!

follow us on Twitter [@SESAR_DM](#)

follow us on [LinkedIn](#)