AF6 — Initial Trajectory Information Sharing

Initial Trajectory Information Sharing (i4D) consists of the improved use of target times and trajectory information, including where available the use of on-board 4D trajectory data by the ground ATC system and Network Manager Systems, implying fewer tactical interventions and improved de-confliction situation.
Target times and 4D trajectory data shall be used to enhance ATM system performance.
Trajectory information and target times shall be enhanced by the use of air-ground trajectory exchange.

Geographical Scope

Initial Trajectory Information Sharing shall be deployed in all ATS units providing air traffic services within the airspace for which the Member States are responsible in the ICAO EUR region.

Deployment Target Date

ATS providers and the Network Manager shall ensure that they enable Initial Trajectory Information Sharing as from 1 January 2025.
The Deployment Manager shall develop a strategy, which shall include incentives, to ensure that at least 20 % of the aircraft operating within the airspace of European Civil Aviation Conference (ECAC) countries (1) in the ICAO EUR region corresponding to at least 45 % of flights operating in those countries, are equipped with the capability to downlink aircraft trajectory using ADS-C EPP as from 1 January 2026.

Need for Synchronisation

The deployment of Initial Trajectory Information Sharing functionality shall be coordinated due to the potential network performance impact of delayed implementation in a wide geographical scope involving a number of stakeholders. From a technical perspective the deployment of targeted system and service delivery changes shall be synchronised to ensure that the performance objectives are met. This synchronisation shall enable changes targeted within ATM functionalities 1, 3 and 4 as well as future common projects.
Synchronisation shall involve all air navigation service providers, the Network Manager and airspace users (air- ground synchronisation need).
Synchronisation and consistency of avionics roadmaps, in order to ensure best economic efficiency and interoperability for airspace users, is achieved through the cooperative arrangements in the Memorandum of Cooperation in civil aviation research and development concluded between the United States of America and the Union. Furthermore, synchronisation during the related industrialisation phase shall take place, in particular among supply industry and standardisation and certification bodies.

Interdependencies with other ATM functionalities

- The down-linked aircraft trajectory may be used to enhance the AMAN functionality described in AF 1
- Downlink trajectory information may be integrated into the Enhanced Short Term ATFCM Measures calculation and the Automated Support for Traffic Complexity Assessment as specified in AF 3
- Where available downlink trajectory information shall be integrated into the NOP as specified in AF 4 to support TTO/TTA
- iSWIM referred to in AF 5 shall enable FDP to FDP exchange of down-linked trajectory information between ATS units

Essential Prerequisites

The data link capability as described in Commission Regulation (EC) No 29/2009 on data link services is an essential prerequisite for this ATM functionality.

ATM Sub-Functionalities

Code	Title	Related Elements
S-AF6.1	Initial trajectory information sharing (i4D)	SOL OI EN ICAO