Deployment Programme

Version 1

(DP v1)

Annex A
Annex B
Annex C

FPA MOVE/E2/2014-717/SESAR FPA
SGA MOVE/E2/2014-717/SI2-699519

Work Package B2 – 4.1

Deliverable 4.1.3

30th June 2015

To be approved by EC

Table of Contents

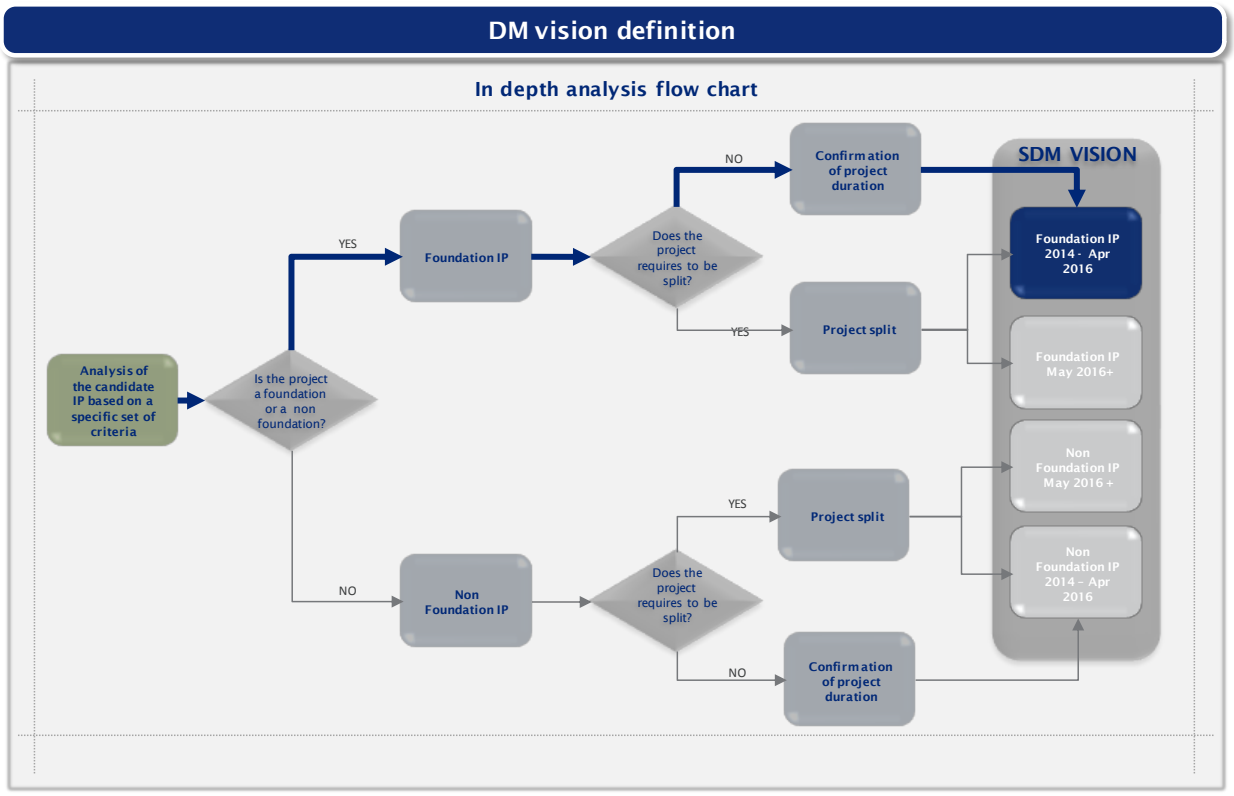
Annex A – Project view - Projects' details

1.1.1 AF 1 Extended Arrival Management & PBN in high density TMA

Content	Description
REFERENCE NUMBER	**007AF1**
TITLE	**Performance Based Navigation (PBN) implementation in Vienna (LOWW)**
MAIN AF / SUB AF / Family	**AF 1; Sub AF 1.2; Family 1.2.1**
PROJECT DESCRIPTION	**Objectives:** – 2014 RNP AR Procedures to Runway 16 LOWW for noise abatement purposes implemented – 2015 feasibility study for open PBN transitions to final approach conducted – 2015 night SIDs on PBN basis implemented – 2016 one LPV (SBAS) approach in LOWW implemented
PROJECT LEADER	AUSTRO CONTROL
MEMBER STATE	AUSTRIA
TIMING	01/03/2014 – 30/12/2016
AIRBORNE	
INTERDEPENDENCIES	006AF5 ATM Data Quality (ADQ)
SYNCHRONIZATION	With Airspace Users, Airports, ANSPs, Military
LINKS	AF1, Sub AF 1.2 Family 1.2.2, Family 1.2.3
NM links	**NSP:** SO 6/5 **NOP:** Capacity constraints due to environmental obligations with regard to RWY usage plan and SID routings. Enhanced DEP spacing**.**

Recommendation:

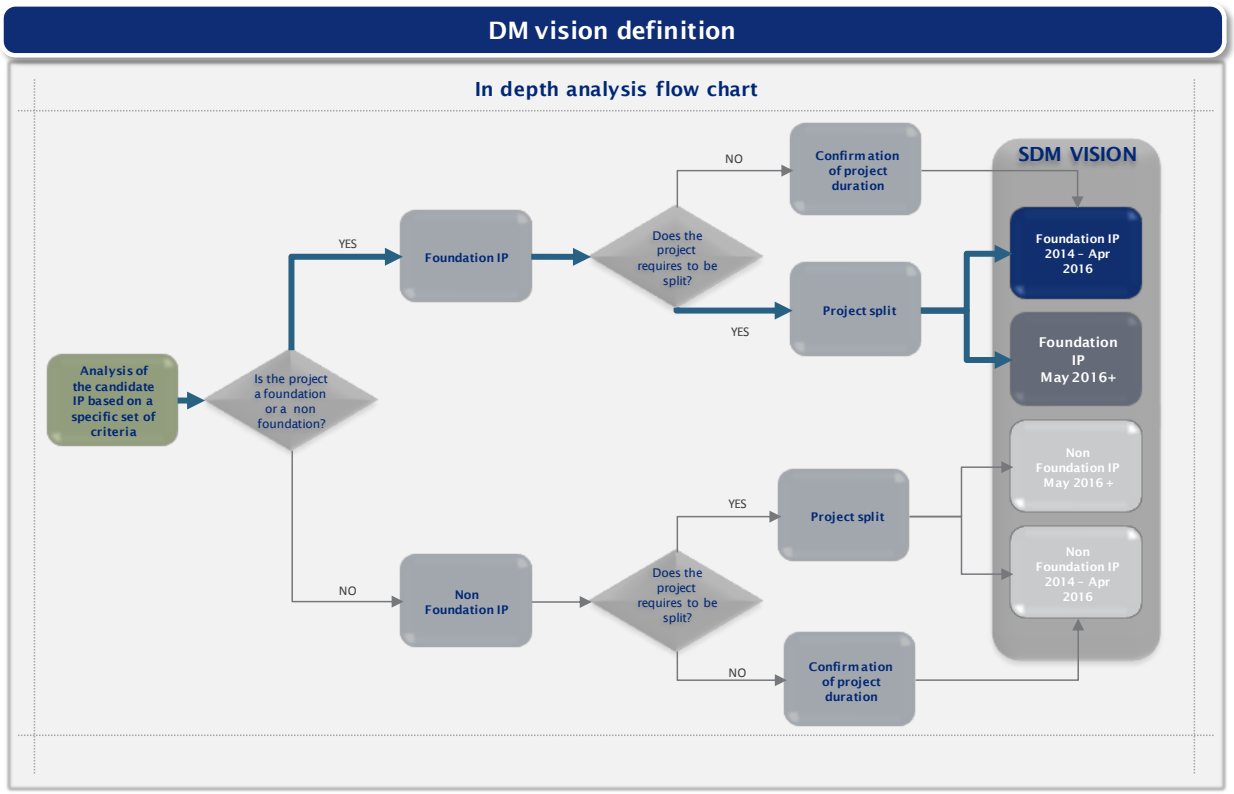
This project is considered as a Foundation IP.



Content	Description
REFERENCE NUMBER	**013AF1**
TITLE	**Implementation of Required Navigation Performance Approaches with Vertical Guidance at Brussels Airport and all other Belgian airports.**
MAIN AF / Sub AF / Family	**AF 1; Sub AF 1.2; Family 1.2.1**
PROJECT DESCRIPTION	**Objectives:** The main objective of this project is to: – Achieve compliancy with ICAO AR37.11, EC Part-AUR (currently being developed at EASA) and Commission Implementing Regulation (EU) No 716/2014 Annex 1. – Implement Required Navigation Performance (RNP) Approaches (Lateral Navigation/Vertical Navigation (LNAV/VNAV) and Localizer Performance with Vertical guidance (LPV) minima) on all instrument runway ends of Brussels Airport and Antwerp Airport
PROJECT LEADER	BELGOCONTROL
MEMBER STATE	BELGIUM
TIMING	01/01/2015 - 13/09/2018
AIRBORNE	
INTERDEPENDENCIES	
SYNCHRONIZATION	With Airspace Users, Airports, ANSPs, Military
LINKS	AF1, Sub AF 1.2, Family 1.2.2
NM links	**NSP:** SO 6/5, SO 9/4 **NOP:** None

Recommendation:

This project is considered as a Foundation IP.

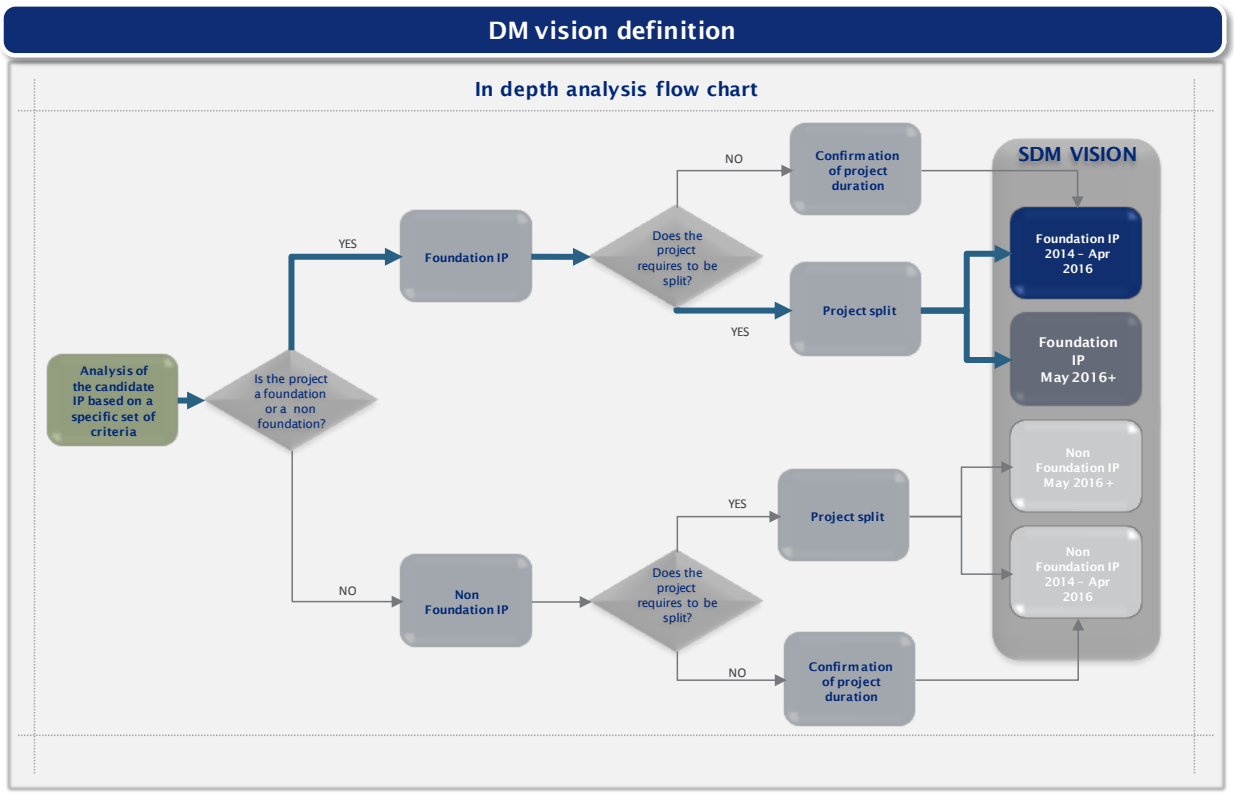


The project could be split in two phases. The first phase (January 2015 – April 2016) has to be considered for the INEA call 2014.The second phase (May 2016 – September 2018) needs to be part of the next INEA call in order to ensure continuity of the action within the Deployment Programme.

Content	Description
REFERENCE NUMBER	**044AF1**
TITLE	**Enhanced Terminal Airspace using Required Navigation Performance-Based Operations**
MAIN AF / SUB AF / Family	**AF 1; Sub AF 1.2; Family 1.2.1**
PROJECT DESCRIPTION	**Objectives:** In order to fulfil the requirements of the COMMISSION IMPLEMENTING REGULATIN (EU) No 716/2014, ANNEX 1 – EXTENDED ARRIVAL MANAGEMENT AND PERFORMANCE BASED NAVIGATION IN THE HIGH DENSITY TERMINAL MANOEUVRING AREAS DFS will implement RNP-based routes including the Radius to Fix-functionality especially for departure procedures (SID). Through this functionality it is intended to reduce the spread of flight tracks during turns, and thereby reducing the noise footprint. Additionally to the usage of this procedures for departures it will be examined to which extend this functionality can be useful for arriving aircraft as well. This project supports Family 1.2.1 RNP approaches with vertical guidance. • Implementation of RF-Legs for Departures from Frankfurt/Main (EDDF) Runways 07C/R & 18 • Implementation of RF-Legs for Departures from Frankfurt/Main (EDDF) Runways 25C/L • Implementation of RF-Legs for Departures from Düsseldorf (EDDL)
PROJECT LEADER	DFS
MEMBER STATE	GERMANY
TIMING	15/10/2015 – 28/03/2019
AIRBORNE	
INTERDEPENDENCIES	
SYNCHRONIZATION	With Airports, Airspace Users
LINKS	AF 1; Sub AF 1.2; Family 1.2.2 AF 1; Sub AF 1.2; Family 1.2.3 AF 1; Sub AF 1.2; Family 1.2.4
NM links	**NSP:** SO 6/5 **NOP:** None

Recommendation:

The project is considered as a Foundation IP.

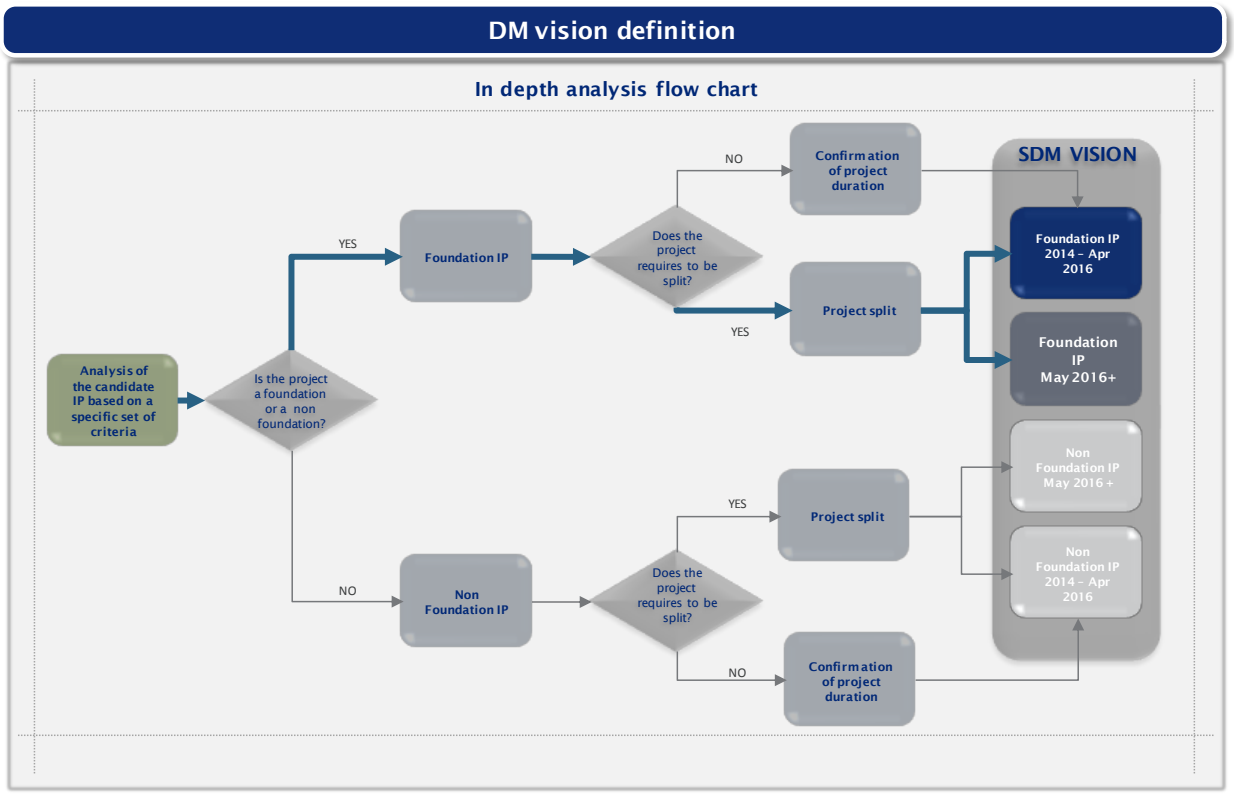


The project could be split in two phases. The first phase (October 2015 – April 2016) has to be considered for the INEA call 2014. The second phase (May 2016 – March2019) needs to be part of the next INEA call in order to ensure continuity of the action within the Deployment Programme.

Content	Description
REFERENCE NUMBER	**045AF1**
TITLE	**FABEC extended Arrival Manger XMAN/Arrival Manger AMAN (Call 2014)**
MAIN AF / SUB AF / Family	**AF 1; Sub AF 1.1; Family 1.1.2**
PROJECT DESCRIPTION	**Objectives:** This project aims to contribute to the Pilot Common Projects Implementing Rule 716/2014 and to the ATM Function AF-1 "Extended AMAN and PBN in high density TMAs". It specifically contributes directly to the implementation of Sub-A-F1.1 "AMAN extended to En-Route Airspace" and the related Families. The main objectives are: – The upgrade of automated Arrival Management Systems to include Extended Horizon Function at major airports in FABEC and FAB UK/IRL (Family 1.1.2 AMAN upgrade to include Extended Horizon function) for the airports Frankfurt, Munich, London, Amsterdam, Zurich and Brussels – The development and operational introduction of automated Arrival Management (AMAN) Systems at the major airports in FABEC and FAB UK/IRL Airspace (Family 1.1.1 "Basic AMAN"), for the airport Berlin – Provision of Arrival Management Information and constraints to Air Traffic Service Units within the Extended Horizon and the management of arrival constraints in these units. – Insurance of a harmonized and coordinated approach of the above within the FABEC and FAB UK/IRL airspace utilizing the management methods and structures of the established multi-ANSP FABEC XMAN/AMAN Project
PROJECT LEADER	DFS/FABEC/NATS
MEMBER STATE	GERMANY
TIMING	02/01/2012 – 29/12/2017
AIRBORNE	
INTERDEPENDENCIES	
SYNCHRONIZATION	With Airports, ANSPs, ECTL/NM
LINKS	AF1, Sub AF 1.1, Family 1.1.1, AF2, AF4, AF5 (SWIM ready web service)
NM links	**NSP:** SO 6/5, SO5 **NOP**: AMAN projects are mentioned in NOP for many FABEC ANSPs**.**

Recommendation:

This project is considered as a Foundation IP.

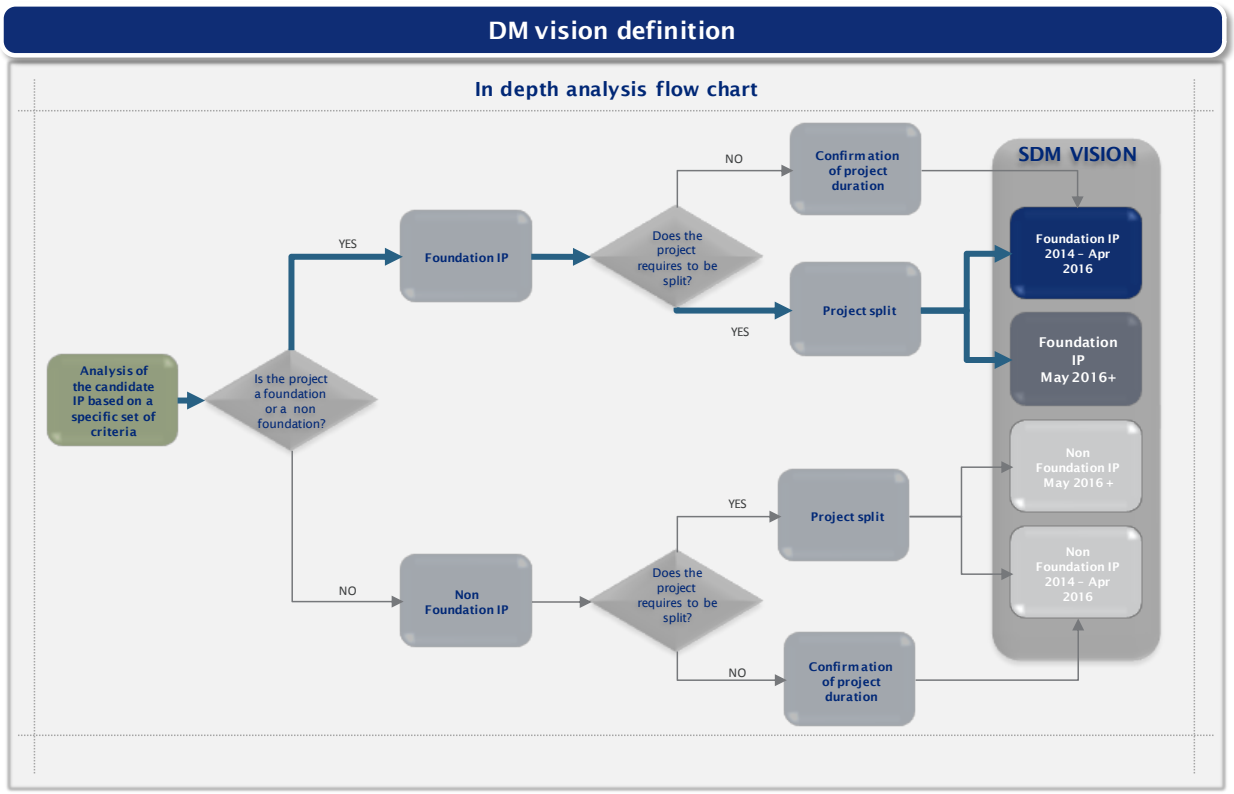


The project could be split in two phases. The first phase (January 2014 – April 2016) has to be considered for the INEA call 2014. The second phase (May 2016 – December 2017) needs to be part of the next INEA call in order to ensure continuity of the action within the Deployment Programme.

Content	Description
REFERENCE NUMBER	**051AF1**
TITLE	**Required Navigation Performance Approaches at CDG Airport with vertical guidance, Phase**
MAIN AF / SUB AF / Family	**AF 1; Sub AF 1.2; Family 1.2.1**
PROJECT DESCRIPTION	**Objectives:** – To implement RNP APCH with LPV minima and with LNAV/VNAV minima for Runway 08L/26R – To equip 51 B777 aircraft of Air France with LNAV/VNAV capability – To implement RNP APCH with LPV minima and with LNAV/VNAV minima for Runway 09L/27R – To maintain maximum CDG Airport Runway Throughput when one ILS equipment is not available by ensuring independent triple parallel approaches capability between CDG and Le Bourget airports The associated indicators are : For objective 1 : Publication of the procedures (source : French AIP) For objective 2 : Number of flights/h in case of ILS outage compared to the flight average
PROJECT LEADER	DSNA
MEMBER STATE	FRANCE
TIMING	01/07/2014 - 01/10/2017
AIRBORNE	Air France, 51 B777 aircraft
INTERDEPENDENCIES	Subsequent Projects for Required Navigation Performance Approaches at other French airports
SYNCHRONIZATION	With Airspace Users, Airports, ANSPs, Military
LINKS	AF1, Sub-AF 1.2, Family 1.2.2 AF1, Sub-AF 1.2, Family 1.2.3 AF1, Sub-AF 1.2, Family 1.2.4
NM links	**NSP:** SO 6/5, SO 9/4 **NOP:** None

Recommendation:

This project is considered as a Foundation IP.

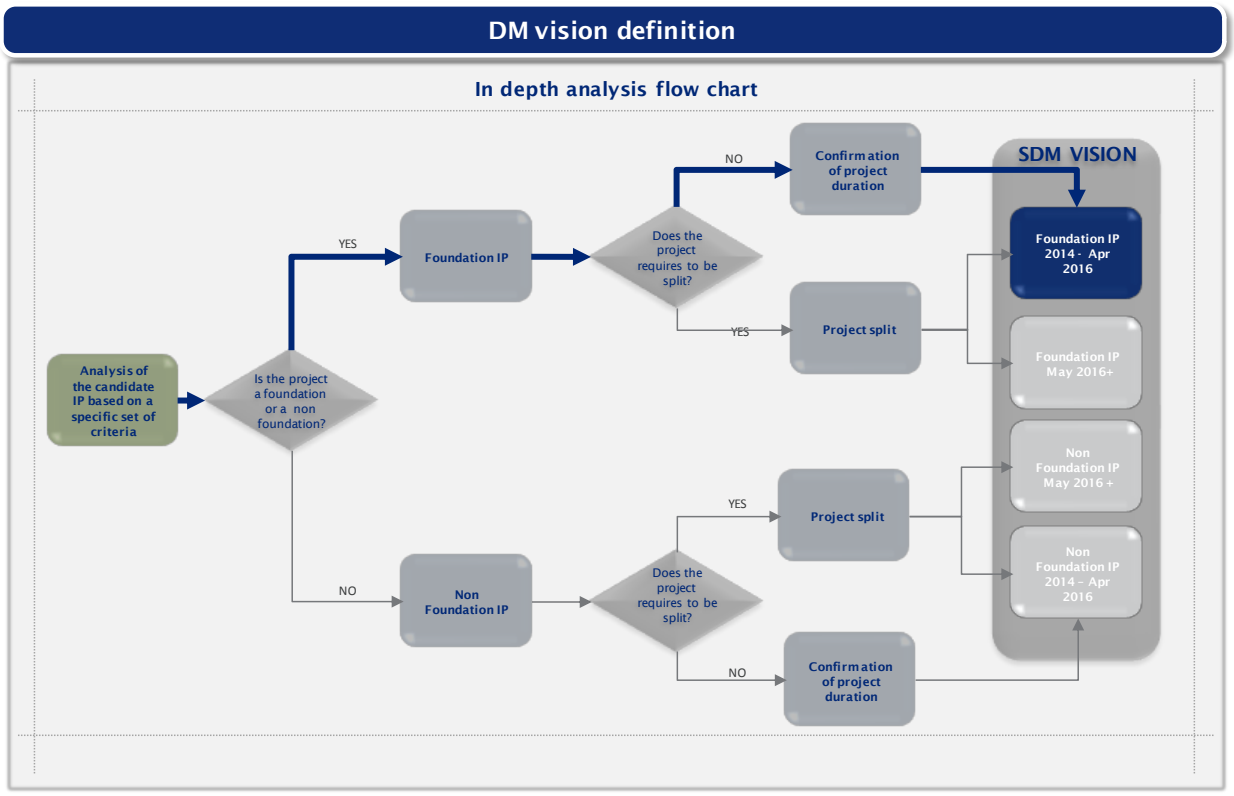


The project could be split in two phases. The first phase (July 2014 – April 2016) has to be considered for the INEA call 2014. The second phase (May 2016 – October 2017) needs to be part of the next INEA call in order to ensure continuity of the action within the Deployment Programme.

Content	Description
REFERENCE NUMBER	**060AF1**
TITLE	**ENAIRE reference geographic database (Family 1.2.2)**
MAIN AF / SUB AF / Family	**AF 1; Sub AF 1.2; Family 1.2.2**
PROJECT DESCRIPTION	**Objectives:** – The project will generate an ENAIRE reference dataset structure and set up the managing processes to maintain the information up to date with authoritative sources reference data. – Procedure design tools will be updated to make use of this database content; digital cartography (terrain and obstacles) and aeronautical data defining instrumental manoeuvres from authoritative sources with required quality and integrity. – To achieve the required high levels of integrity the Spanish AIS provider will participate in the data provision and management processes. – To populate the database with full datasets for LEMD, LEBL and LEPA TMA's.
PROJECT LEADER	ENAIRE
MEMBER STATE	SPAIN
TIMING	01/01/2014 – 31/12/2017
AIRBORNE	
INTERDEPENDENCIES	061AF1 - RNP APCH Implementation in Palma de Mallorca, Madrid, Barcelona
SYNCHRONIZATION	No
LINKS	AF5 ITY ADQ
NM links	**NSP:**SO 6/5 **NOP:** Not applicable

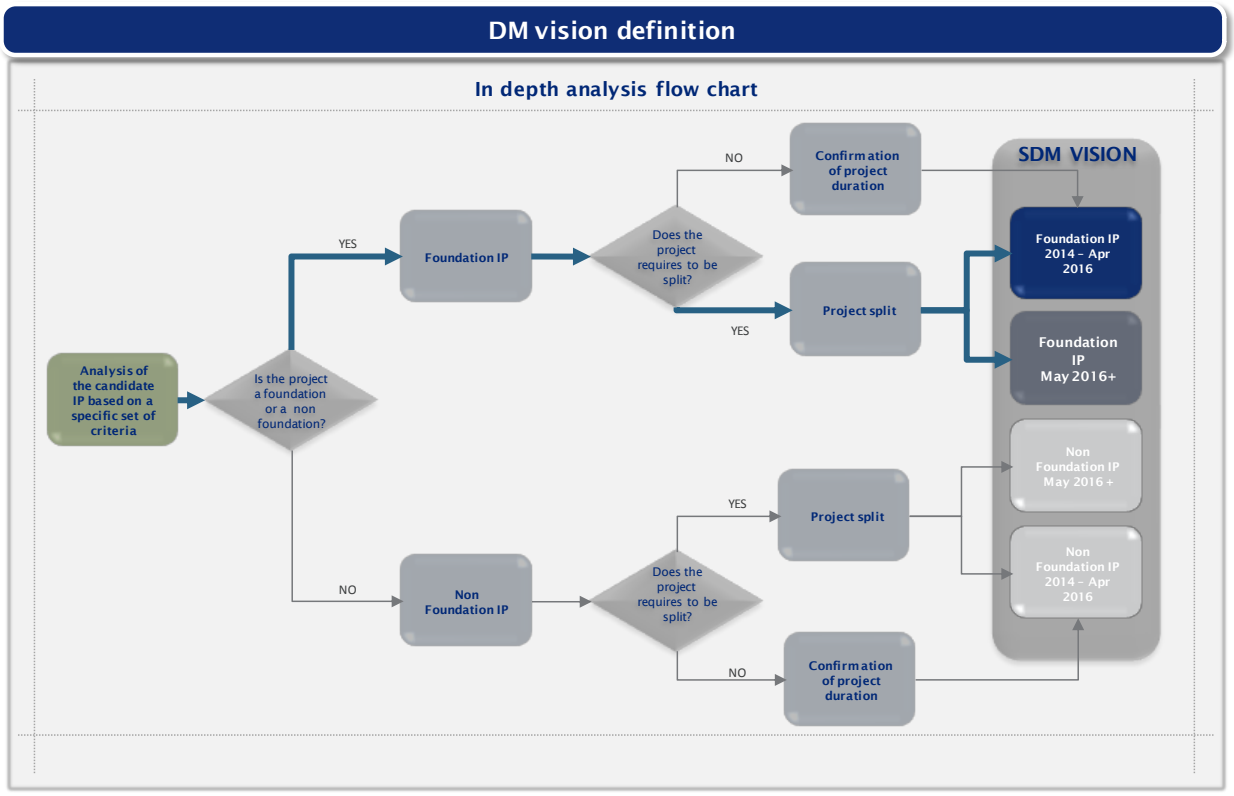
Recommendation:

This project is considered as a Foundation IP.



Content	Description
REFERENCE NUMBER	**061AF1 A** **061AF1 B**
TITLE	**Phase 1: Required Navigation Performance Approach Implementation in Palma de Mallorca;** **Phase 2: Required Navigation Performance Approach Implementation in Madrid, Barcelona**
MAIN AF / SUB AF / Family	**AF 1 / Sub AF 1.2; Family 1.2.1**
PROJECT DESCRIPTION	**Objectives:** The main objective of this project is to improve the precision of the approach trajectories and to develop and implement fuel efficient and environmental friendly procedures for approach in this high density TMA airport. The new RNP APCH procedures will help increase the accessibility by means of RNP APCH to LPV minima procedures (using SBAS), in combination with LNAV and LNAV/VNAV minima for those operators not equipped with SBAS technology. These procedures will make operations at these sites more efficient and profitable, thus enhancing the use of the airports and saving operational costs, both for aircraft and airport operators (AENA). Specifically, the objectives of this project are: – Reduce the missed-approach rate when using non-precision approach runway headers for landing. – Increase safety by enabling straight approach procedures when not possible by means of current navaids infrastructure. – Reduce costs for Aircraft Operators (AOs) whenever an airport change must be done due to operational restrictions at destination airport. – Enhance airports and AOs business types by means of allowing broader kinds of flying activities at the airports. Phase 1: – Implementation of RNP Approaches in Palma de Mallorca Phase 2: – Implementation of RNP Approaches in Barcelona – Implementation of RNP Approaches in Madrid
PROJECT LEADER	ENAIRE
MEMBER STATE	SPAIN
TIMING	Phase 1: 01/11/2015 - 03/07/2017 (implementation starts in 11/2016) Phase 2: 04/07/2017 – 31/12/2020 (implementation for Barcelona starts 06/18 and for Madrid 02/20)
AIRBORNE	
INTERDEPENDENCIES	060AF1 ENAIRE reference Geographic Database
SYNCHRONIZATION	With Airspace Users, Airports, ANSPs, Military
LINKS	
NM links	**NSP**: SO 6/5 **NOP**: None

Recommendation:

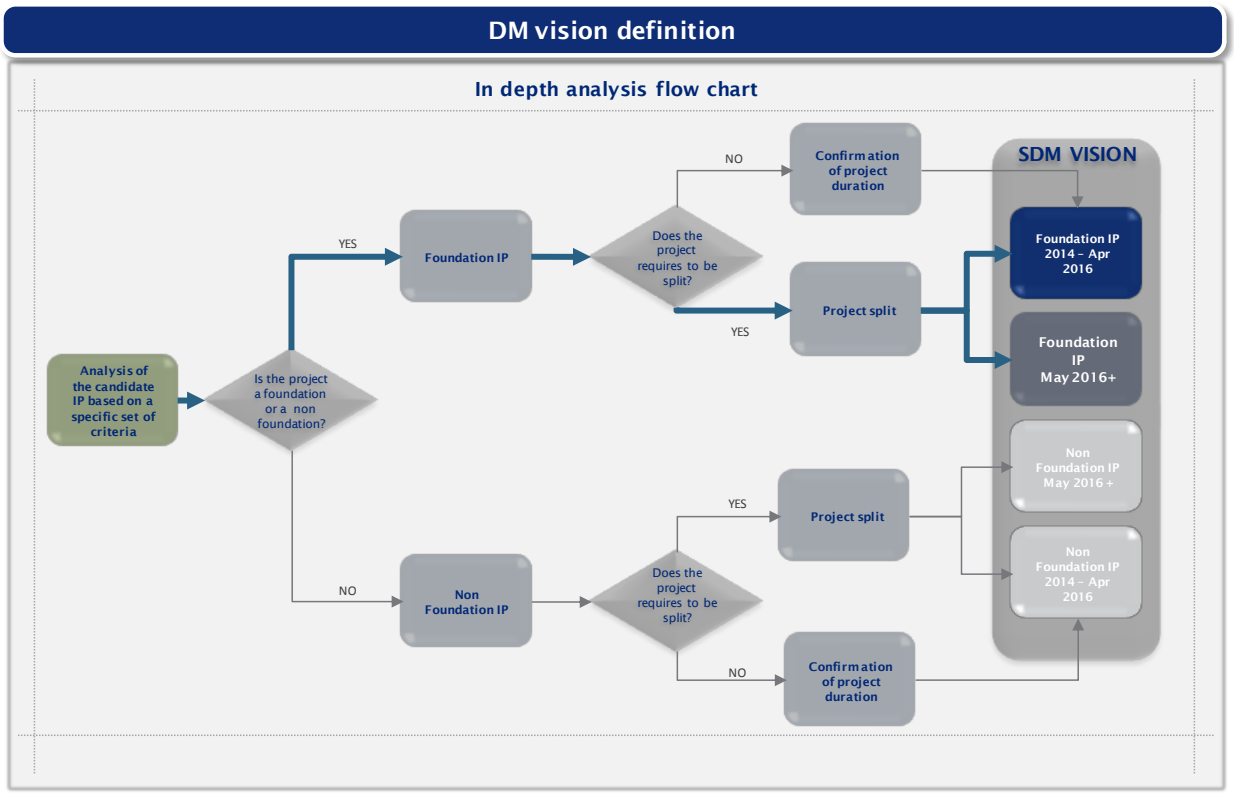


The project could be split in two phases. The first phase (November 2015 – April 2016) has to be considered for the INEA call 2014. The second phase (May 2016 – December 2020) needs to be part of the next INEA call in order to ensure continuity of the action within the Deployment Programme.

Content	Description
REFERENCE NUMBER	**065AF1**
TITLE	**ENAV Geographic DB for Procedure Design**
MAIN AF / SUB AF / Family	**AF 1; Sub AF 1.2; Family 1.2.2**
PROJECT DESCRIPTION	**Objectives:** – To upgrade the ENAV geographic database for procedure design suite based on two products developed by IDS (SIPRO and eTOD). – To implement improvements to the solution currently used and help to execute the Electromagnetic Compatibility analyses to determine the expected radio-electric performances of the new navaids equipment (SIPRO). – To validate a new technique for automatic feature extraction from Digital Orthophoto with the tool Electronic Terrain and Obstacle Database (eTOD). – To use the tools above to implement with priority RNP operations over the geographic applicability area identified within the PCP: LIRF and LIMC.
PROJECT LEADER	ENAV
MEMBER STATE	ITALY
TIMING	02/01/2014 – 31/12/2016
AIRBORNE	
INTERDEPENDENCIES	Subsequent Projects for RNP Approach Implementation at LIRF and LIMC
SYNCHRONIZATION	
LINKS	AF5 ITY ADQ
NM links	**NSP:** SO 6/5 **NOP:**No reported plan for RNP operations**.**

Recommendation:

This project is considered as a Foundation IP



The project could be split in two phases. The first phase (January 2014 – April 2016) has to be considered for the INEA call 2014.The second phase (May 2016-December 2016) needs to be part of the next INEA call in order to ensure continuity of the action within the Deployment Programme.

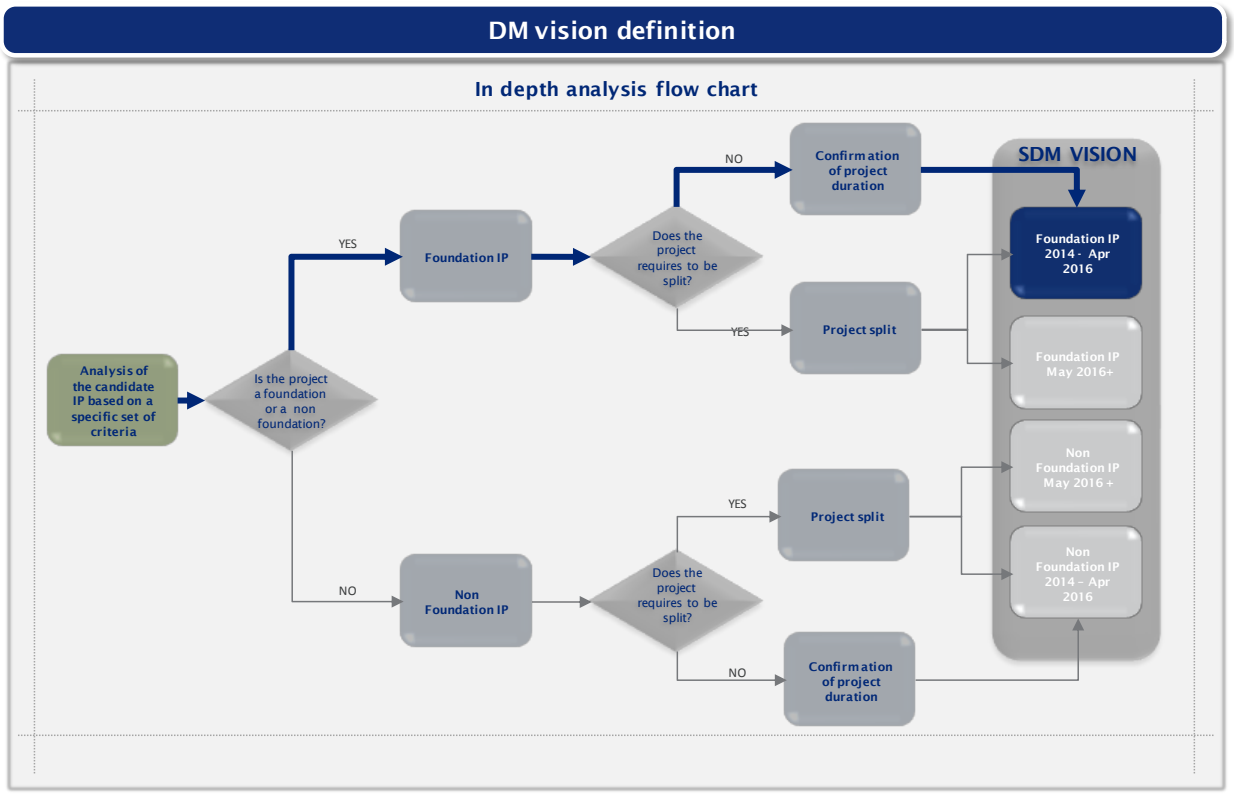
It is worth noting that this project includes specific tasks which encompass maintenance activities. While the project as a whole is still considered as "Foundation IP", these tasks cannot be considered as enabler for the implementation of PCP ATM Functionalities.

"To implement improvements to the solution currently used and help to execute the Electromagnetic Compatibility analyses to determine the expected radio-electric performances of the new navaids equipment (SIPRO)"

Content	Description
REFERENCE NUMBER	**083AF1**
TITLE	**AMAN extended to en-route**
MAIN AF / SUB AF / Family	**AF 1; Sub AF 1.1; Family 1.1.2**
PROJECT DESCRIPTION	**Objectives:** – Upgrade NM systems to cope with extended AMAN requirements. – Introduce in the network view and the collaborative NOP, the information managed and shared with NM system by local extended AMAN systems (from airports / ANSP's where available) – Support the network coordination of extended AMAN functions and provide, if necessary, the network view on extended AMAN measures. The project is a key contributor to the following Strategic Objectives mentioned in the Network Strategy Plan (NSP): – SO 4: Plan optimum capacity and flight efficiency – SO 5: Facilitate business trajectories and cooperative traffic management – SO 6: Fully integrate airport and network operations
PROJECT LEADER	EUROCONTROL/NETWORK MANAGER
MEMBER STATE	BELGIUM
TIMING	1/01/2014 – 30/06/2017
AIRBORNE	
INTERDEPENDENCIES	045AF1 - FABEC XMAN/AMAN
SYNCHRONIZATION	With Airspace Users, ANSPs, EUROCONTROL, ECTL/NM
LINKS	AF4 NOP
NM links	**NSP:** Not assessed **NOP:** Not assessed

Recommendation:

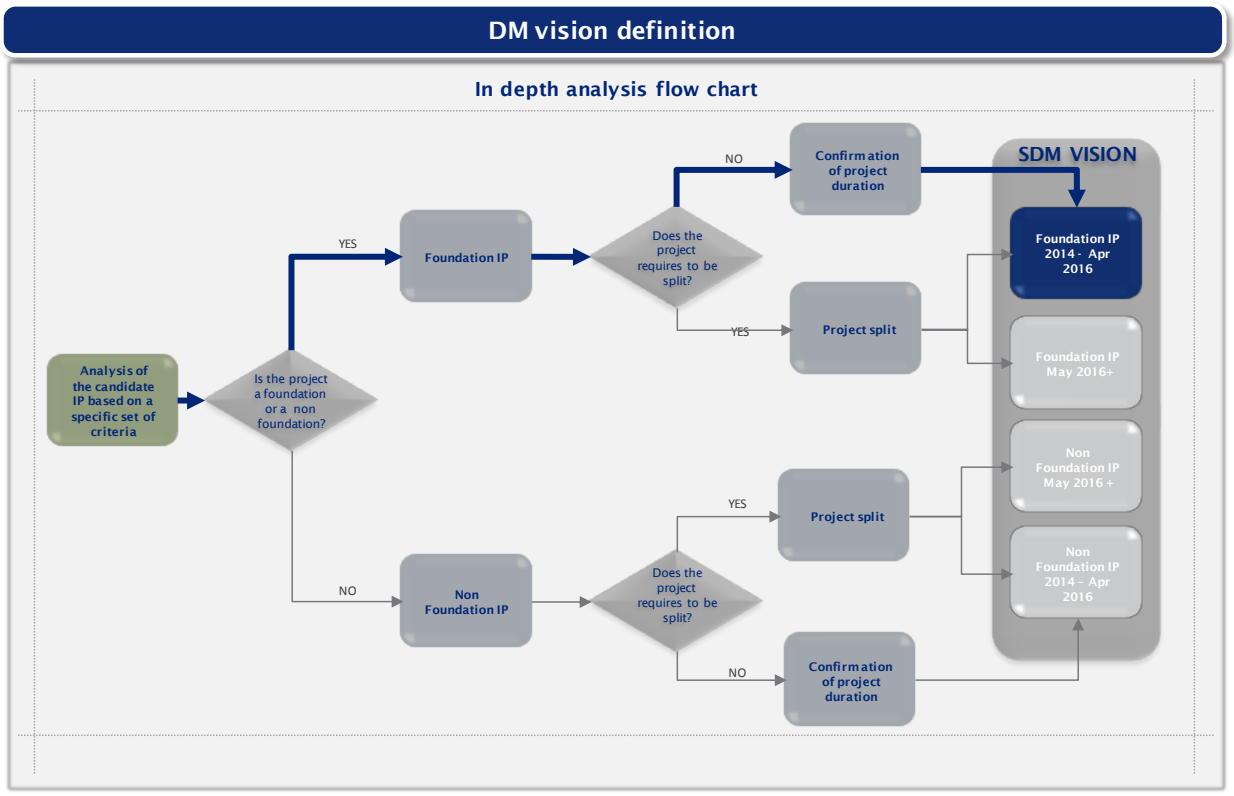
This project is considered as a Foundation IP.



Content	Description
REFERENCE NUMBER	**085AF1**
TITLE	**Study on Required Navigation Performance Approaches**
MAIN AF / SUB AF / Family	**AF1; Sub AF 1.2; Family 1.2.1**
PROJECT DESCRIPTION	**Objectives:** – development of possibilities for environmental friendly approach procedures with due consideration of RNP (PDP Family 1.2.1 RNP approaches with vertical guidance) – Analysis and identification of measures to mitigate impacts on approach capacity during RNP operations (PDP Family 1.2.1 RNP approaches with vertical guidance**.**
PROJECT LEADER	FRAPORT
MEMBER STATE	GERMANY
TIMING	01/03/2014 – 28/02/2015
AIRBORNE	
INTERDEPENDENCIES	044AF1 Enhanced Terminal Airspace using RNP-Based Operations
SYNCHRONIZATION	No
LINKS	AF1, Sub AF 1.2, Family 1.2.2
NM links	**NSP:** SO 6/5 **NOP:** None

Recommendation:

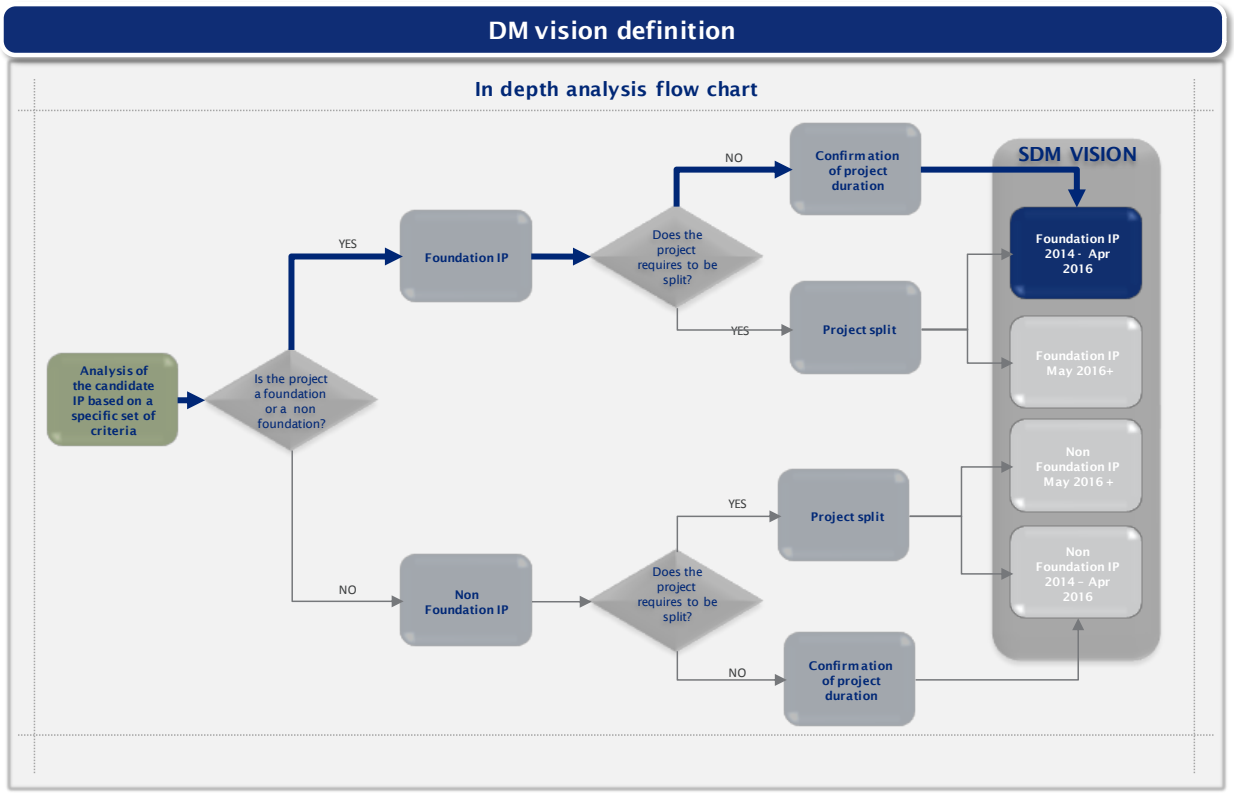
The project is considered as a Foundation IP.



Content	Description
REFERENCE NUMBER	**091AF1**
TITLE	**Enhanced Terminal Airspace (TMA) using P-RNAV based Operations**
MAIN AF / SUB AF / Family	**AF 1; Sub AF 1.2; Family 1.2.3**
PROJECT DESCRIPTION	**Objectives:** The objectives of the project for Gatwick Airport are as follows: – Introduce point merge – Efficient BOGNA Standard Instrument Departure (SID) Route – Dual Precision Area Navigation (P-RNAV) routes with easterly and westerly arrival and departure routes to runway (RWY) 26 and 08, providing rolling respite – Increase RWY capacity by introducing ADNID SID – Re-design SIDs and STARs to meet RNP specifications As a result of these changes, the project would deliver the following benefits: – Improvements in arrivals and departures stability – Significant improvement in operational resilience – Reduced fuel burn for airlines – Reduced CO2 emissions (reduced track mileage) – in line with Gatwick Airport and NATS carbon reduction targets – Reduced noise impact for people on the ground through provision of rotating respite – Delivery against requirements of S106 Legal Agreement – Support the delivery of NATS 10% carbon emissions reduction target The project is divided into two Phases: – Phase 1: Enhanced terminal airspace using P-RNAV for all Standard Instrument Routes. – Phase 2: Enhanced terminal airspace to meet RNP specifications (out of scope of this INEA Call).
PROJECT LEADER	Gatwick Airport Limited
MEMBER STATE	UK
TIMING	04/10/2013 – 31/03/2018
AIRBORNE	
INTERDEPENDENCIES	Phase 2 of this project 117AF5 Implementation of Initial SWIM Capability (AF5) across NATS, task 4 120 AF1 London Airspace Management Program (LAMP)
SYNCHRONIZATION	With Airspace Users, ANSPs
LINKS	AF1, s-AF 1.2, Family 1.2.2 AF1, s-AF 1.2, Family 1.2.4
NM links	**NSP:** SO 6/5, SO 9/4 **NOP:** ERNIP indirectly mentions this project.

Recommendation:

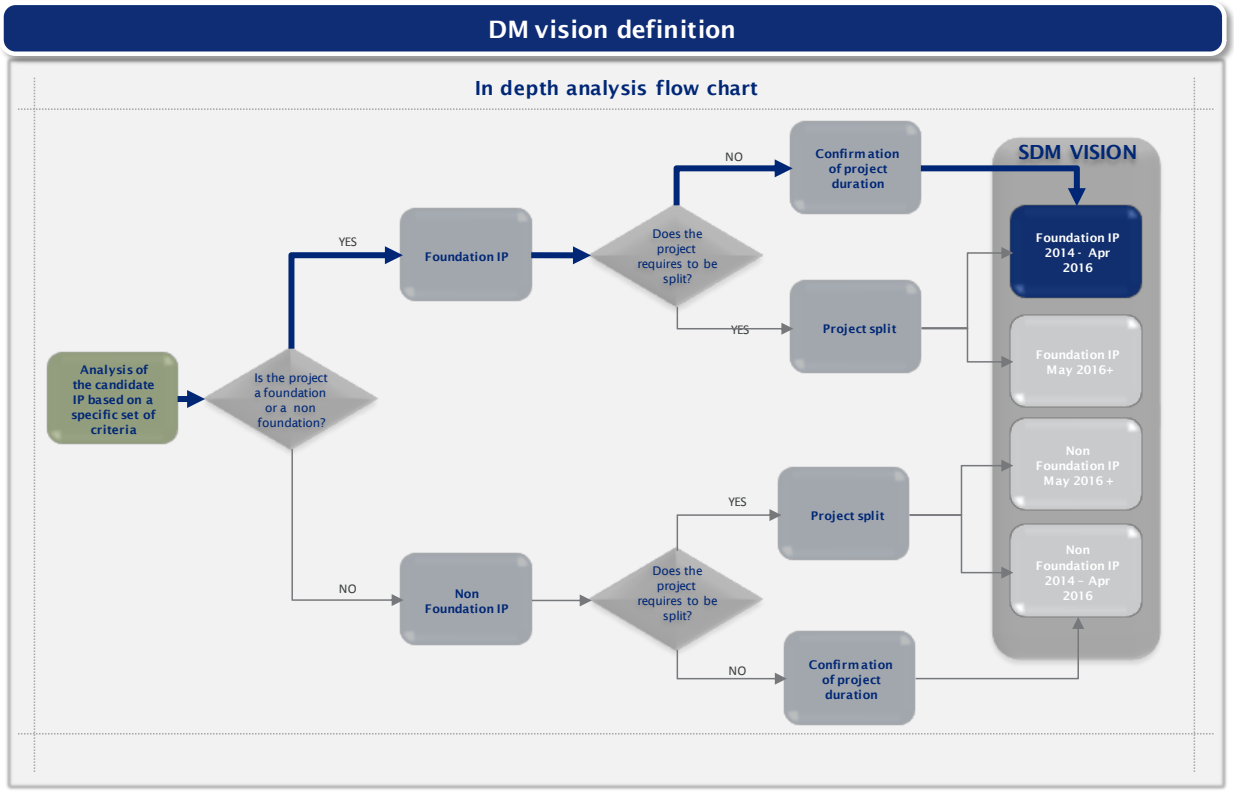
The project is considered as a Foundation IP.


DM vision definition
In depth analysis flow chart
Analysis of the candidate IP based on a specific set of criteria
Is the project a foundation or a non foundation?
YES
Foundation IP
Does the project requires to be split?
NO
Confirmation of project duration
YES
Project split
NO
Non Foundation IP
Does the project requires to be split?
YES
Project split
NO
Confirmation of project duration
SDM VISION
Foundation IP 2014 - Apr 2016
Foundation IP May 2016+
Non Foundation IP May 2016 +
Non Foundation IP 2014 – Apr 2016

Content	Description
REFERENCE NUMBER	**104AF1**
TITLE	**Lower Airspace optimization for the Stockholm TMA**
MAIN AF / SUB AF / Family	**AF 1; Sub AF 1.1; Family 1.1.2**
PROJECT DESCRIPTION	**Objectives:** – This project aims to contribute to the PCP AF-1 Extended AMAN and PBN in high density TMAs, through the development and implementation of short term improvements for Stockholm TMA and the development of a roadmap for long term implementation. – A complete set up of requirements for the design and use of the future terminal airspace for Stockholm – A baseline and a defined long term forecast – Well defined KPIs for the baseline and the future – Implementation of short term measures within Stockholm TMA – A long term implementation Plan (What, When) with the main purpose to: o Increase the general efficiency of operations in lower airspace (more efficient route structure, better use of the available space, better planning of movements) o Specifically increase efficiency by the removal of sub-optimal solutions currently required to ensure safety, e.g. during missed approaches o Reduce environmental impact
PROJECT LEADER	LFV
MEMBER STATE	SWEDEN
TIMING	01/02/2015 - 10/06/2016
AIRBORNE	
INTERDEPENDENCIES	Subsequent Project for the long term optimization of the Lower Airspace
SYNCHRONIZATION	With Airspace Users, Airports, ANSPs, Military
LINKS	AF1, Sub AF 1.2, Family 1.2.3 AF 3
NM links	**NSP:** SO 6/5 **NOP:** None

Recommendation:

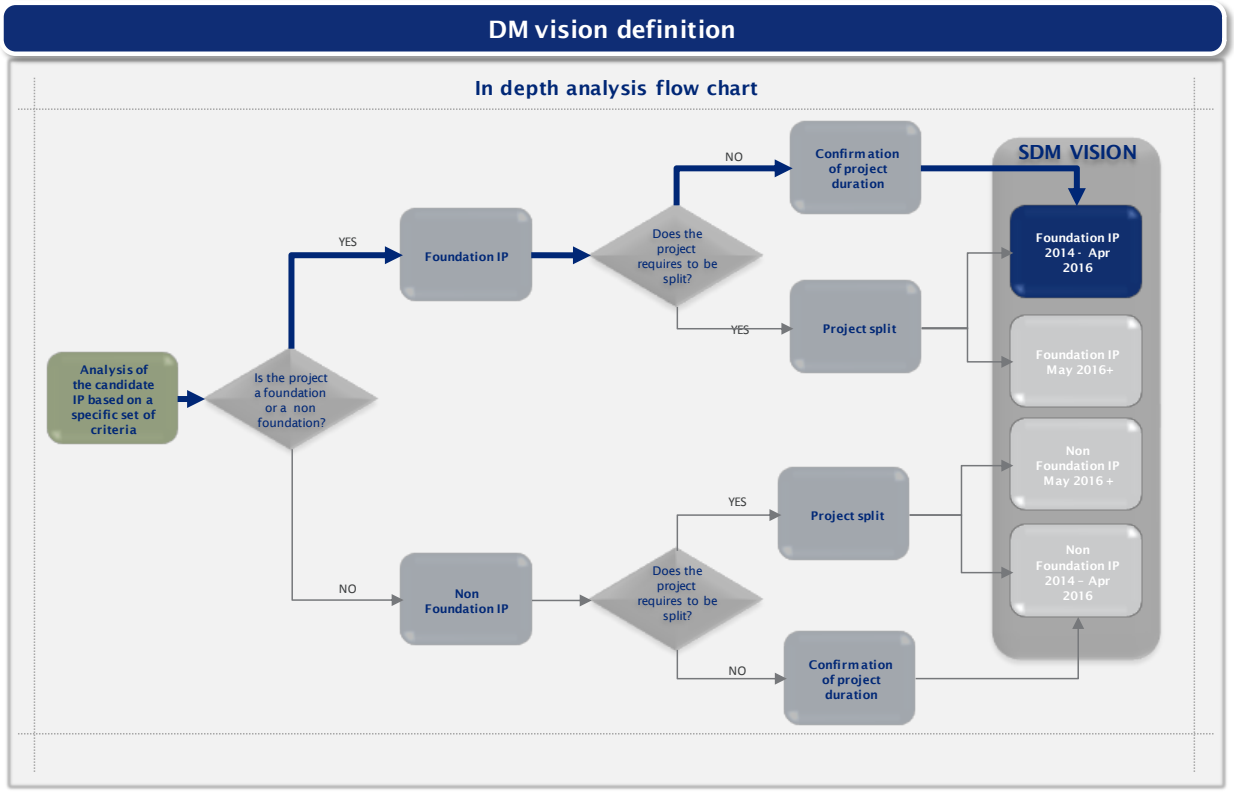
The project is considered as a Foundation IP.



Content	Description
REFERENCE NUMBER	**107AF1**
TITLE	**First phase of RNAV1 and RNP-APCH approaches Amsterdam Schiphol (EHAM)**
MAIN AF / SUB AF / Family	**AF 1; Sub AF 1.2; Family 1.2.3**
PROJECT DESCRIPTION	**Objectives:** – Publication and operational implementation of an RNAV1 fixed inbound route to RWY 36R from ARTIP. – Publication and operational implementation of an RNAV1 fixed inbound route to RWY 18C from ARTIP to be flown as CDO. – Publication and operational implementation of an RNP APCH procedure to RWY 22 with vertical guidance.
PROJECT LEADER	LVNL
MEMBER STATE	NETHERLANDS
TIMING	01/01/2014 – 01/03/2017
AIRBORNE	
INTERDEPENDENCIES	Second phase of RNAV1 and RNP-APCH approaches Amsterdam Schiphol (EHAM)
SYNCHRONIZATION	With Airspace Users, Airports, ANSPs
LINKS	AF 1; Sub AF 1.2; Family 1.2.3 045AF1 FABEC XMAN/AMAN
NM links	**NSP:** SO 6/5, SO 9/4 **NOP:** None

Recommendation:

The project is considered as a Foundation IP.

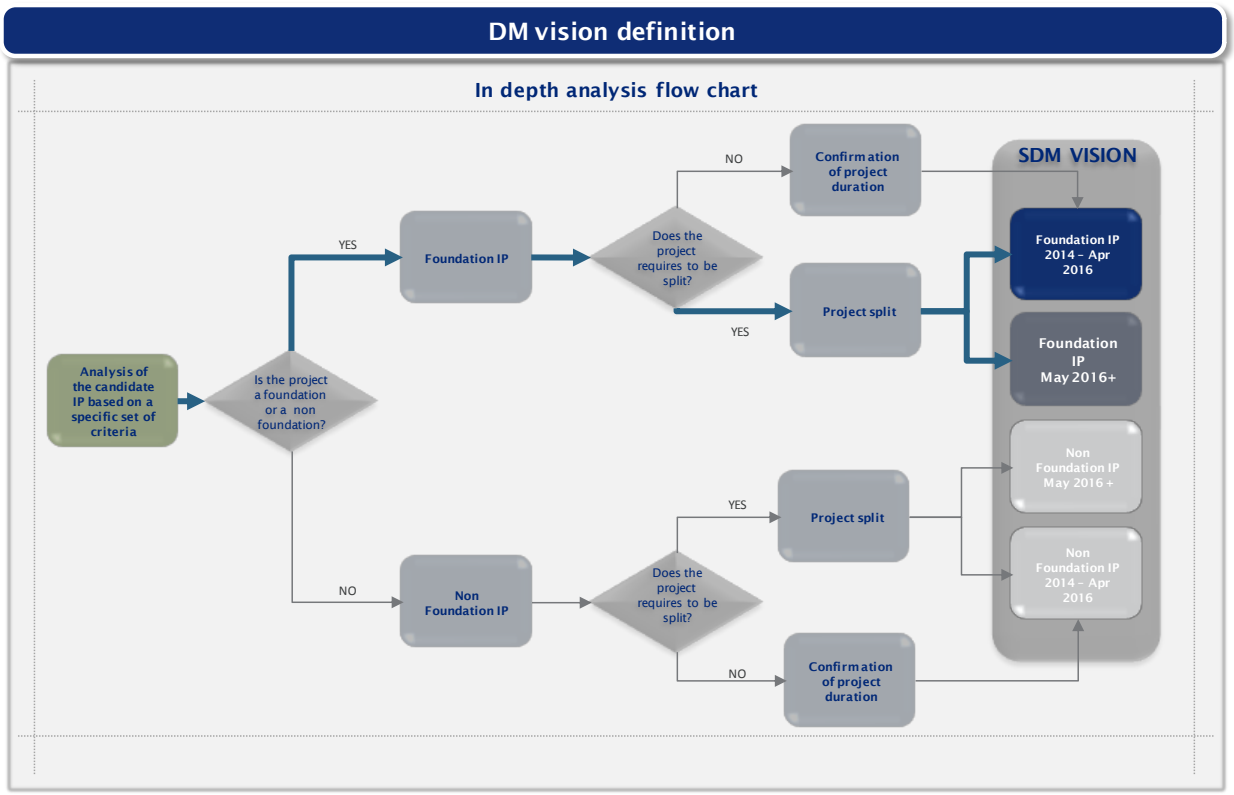


Content	Description
REFERENCE NUMBER	**119AF1**
TITLE	**Manchester TMA Redevelopment**
MAIN AF / SUB AF / Family	**AF1; Sub AF 1.2; Family 1.2.3**
PROJECT DESCRIPTION	**Objectives:** Introduction of RNAV1 SIDs (Standard Instrument Departure) and STARs (Standard Arrival Route) within the existing Manchester Terminal Manoeuvring Area (MTMA) in order to systemise the airspace infrastructure. The systemised airspace will : – Exploit existing and future aircraft capabilities to fly precise trajectories (through use of Performance Based Navigation – PBN), enabling greater flexibility in airspace design through closely spaced arrival and departure routes independent of ground-based navigation aids. – Offer greater resilience against human error (pilot or controller), with fewer interactions between routes and a reduction in tactical interaction by controllers. o Reduced tactical intervention will offer a corresponding increase in capacity – Locate routes where they best meet the needs of airports and flight profiles, making far better use of finite terminal airspace. – Save fuel and reducing noise by enabling continuous descent approaches (CDAs) and continuous climb departures (CCDs) to be flown from/to significantly higher altitudes than available today. The revised RNAV route infrastructure will align with LAMP (London Airspace Management Programme) requirements and maximise the benefits within the majority of the UK TMA. The Project is split into two phases: Phase 1: Project Definition (PD) from Jan 2012 – December 2016 Goal: Develop PBN designs for the Manchester TMA airspace, and surrounded impacted areas for Consultation in November 2015 and validation by December 2016 Phase 2: Implementation from December 2016 – Q4 2018. Goal: Implement the revised NTCA designs into Operations subject to approval of CAA Consultation
PROJECT LEADER	NATS
MEMBER STATE	UK
TIMING	01/01/2014 – 30/11/2018
AIRBORNE	
INTERDEPENDENCIES	
SYNCHRONIZATION	With Airspace Users, Airports, ANSPs

LINKS	117AF5 Implementation of Initial SWIM Capability (AF5) across NATS, task 4 120 AF1 London Airspace Management Program (LAMP)
NM links	**NSP:** SO 6/5; SO 9/4 **NOP:** Airport capacity constrained by TMA/Approach

Recommendation:

This project is considered as a Foundation IP.

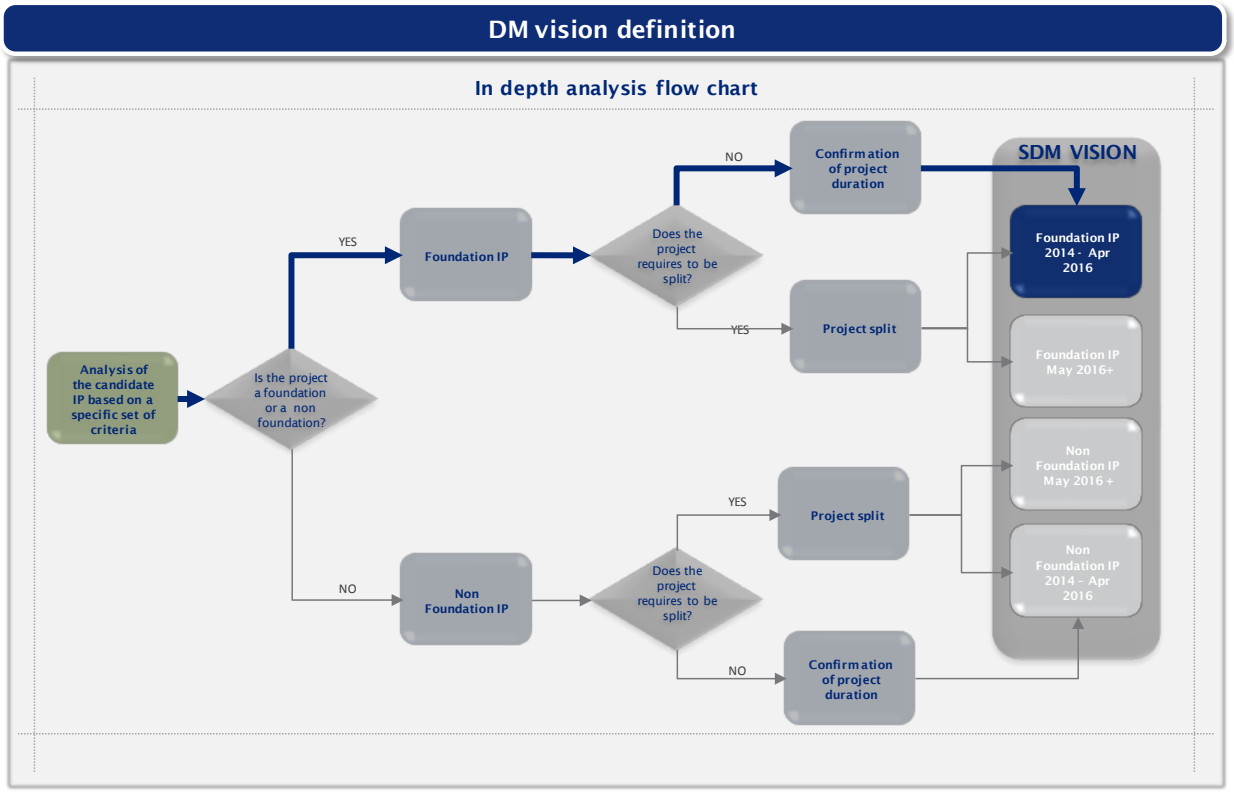


The project could be split in two phases. The first phase (January 2014 – April 2016) has to be considered for the INEA call 2014.The second phase (May 2016 – November 2018) needs to be part of the next INEA call in order to ensure continuity of the action within the Deployment Programme.

Content	Description
REFERENCE NUMBER	**120AF1**
TITLE	**London Airspace Management Programme, Phase 1a**
MAIN AF / SUB AF / Family	**AF 1; Sub AF 1.2; Family 1.2.3**
PROJECT DESCRIPTION	**Objectives:** – Produce systemised airspace design for the London TMA by using PBN-based procedures and STARs facilitating RNP-1 SIDs where required at London Airports – Introduce greater efficiencies in the design of airspace to accommodate forecast demand and also facilitate Continuous Climb and Descent Operations minimising delay and realising fuel savings This application concerns the first implementation of the LAMP programme (Phase 1a), implementing that part of the London TMA affecting London City Airport and higher level re-sectorization and airspace modification within the TMA. The LAMP project will be delivered in a phased approach; the first deployment (Phase 1a) being delivered prior to the implementation of the key enabling project of raising the Transition Altitude (TA) to 18,000 feet from the current 6,000 feet. Subsequent phases of LAMP will be deployed after the TA change in 2018.
PROJECT LEADER	NATS
MEMBER STATE	UK
TIMING	01/01/2014 – 31/12/2015
AIRBORNE	
INTERDEPENDENCIES	Subsequent Phases of this Project
SYNCHRONIZATION	With Airspace Users, Airports, ANSPs, Military
LINKS	045AF1 FABEC XMAN/AMAN 117AF5 Implementation of Initial SWIM Capability (AF5) across NATS, task 4 091AF1 Enhanced Terminal Airspace using RNP based Operations (Gatwick)
NM links	**NSP:** SO 6/5; SO 9/4 **NOP:** LAMP project is contained in NOP. The project introduces RNAV 1 in preparation of future RNP1 introduction.

Recommendation:

The project is considered as a Foundation IP.

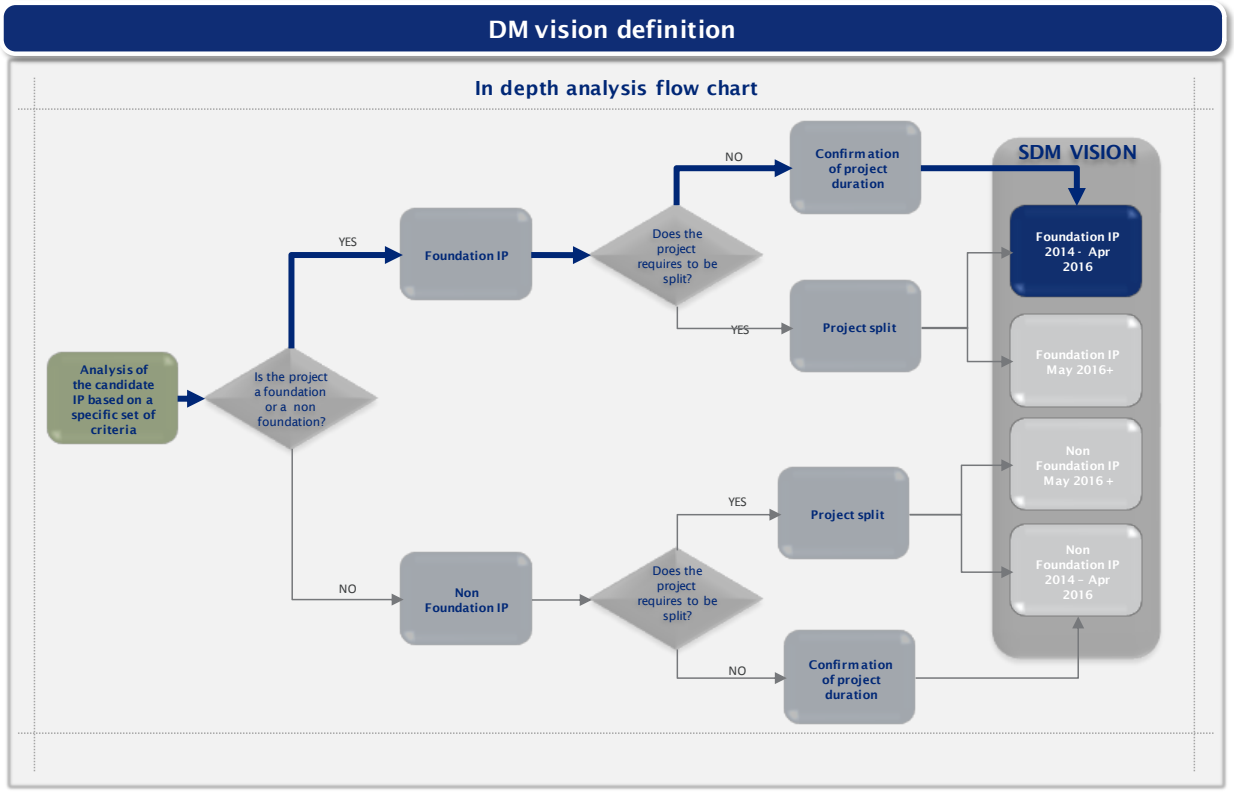


1.1.2 AF2 Airport integration and throughput

Content	Description
REFERENCE NUMBER	**001AF2**
TITLE	**ROPS on AFR Airbus Fleet**
MAIN AF / SUB AF / Family	**AF2; Sub AF 2.5; Family 2.5.2**
PROJECT DESCRIPTION	**Objectives:** To prevent against runway excursion that represents 30% of accident at Airport. Such a system would have alerted the crew of AF358 from runway overrun at Toronto on August 2nd2005 and certainly prevented the accident: 12 major injuries, no fatalities resulted from the accident; a post-crash fire destroyed the aircraft.
PROJECT LEADER	Air France
MEMBER STATE	FRANCE
TIMING	01/01/2014 - 31/12/2016
AIRBORNE	
INTERDEPENDENCIES	NO
SYNCHRONIZATION	With: Airspace Users
LINKS	NO
NM LINKS	**NSP :** SO 6/6 **NOP:** Yes

Recommendation:

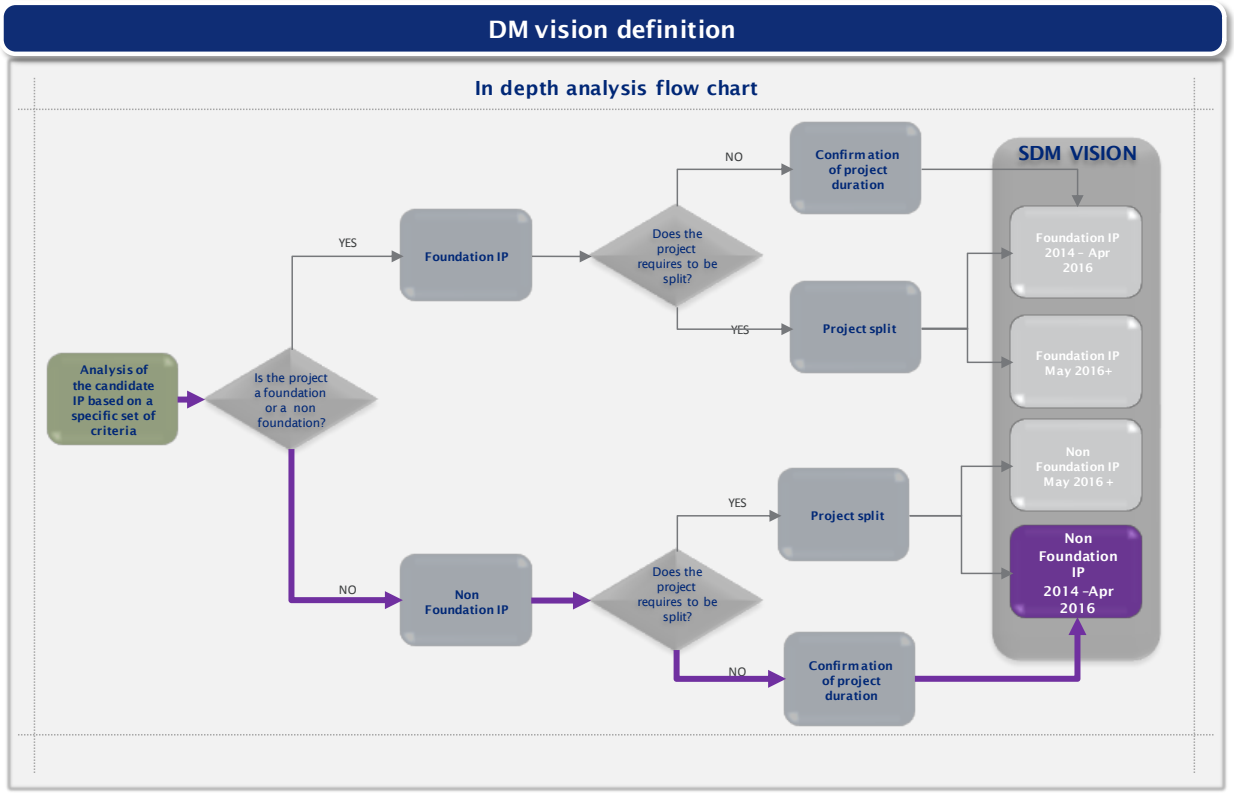
This project is considered as a Foundation IP.



Content	Description
REFERENCE NUMBER	**002AF2**
TITLE	**Automatic Friction Report**
MAIN AF / SUB AF / Family	**AF2; Sub AF 2.5; Family 2.5.2**
PROJECT DESCRIPTION	**Objectives:** Presently, runway conditions are characterized by pilot reports (PIREPs), which are subjective and often inaccurate, and ground based friction equipment, which produces results inconsistent with aircraft braking performance and requires runway usage interruptions. The inability of these present methods to clearly define runway surface friction results in unnecessary risk of runway excursions and marginalized operating efficiencies during challenging weather events. This implementation project will use aircraft landing data in real-time in order: - To assess the runway friction status through an non-intrusive method - To maintain runway throughput while improving Safety in preventing runway excursion
PROJECT LEADER	Air France
MEMBER STATE	FRANCE
TIMING	01/01/2014 - 31/03/2016
AIRBORNE	
INTERDEPENDENCIES	NO
SYNCHRONIZATION	With Airspace Users
LINKS	NO
NM LINKS	**NSP :** SO 6/6 **NOP:** Yes

Recommendation:

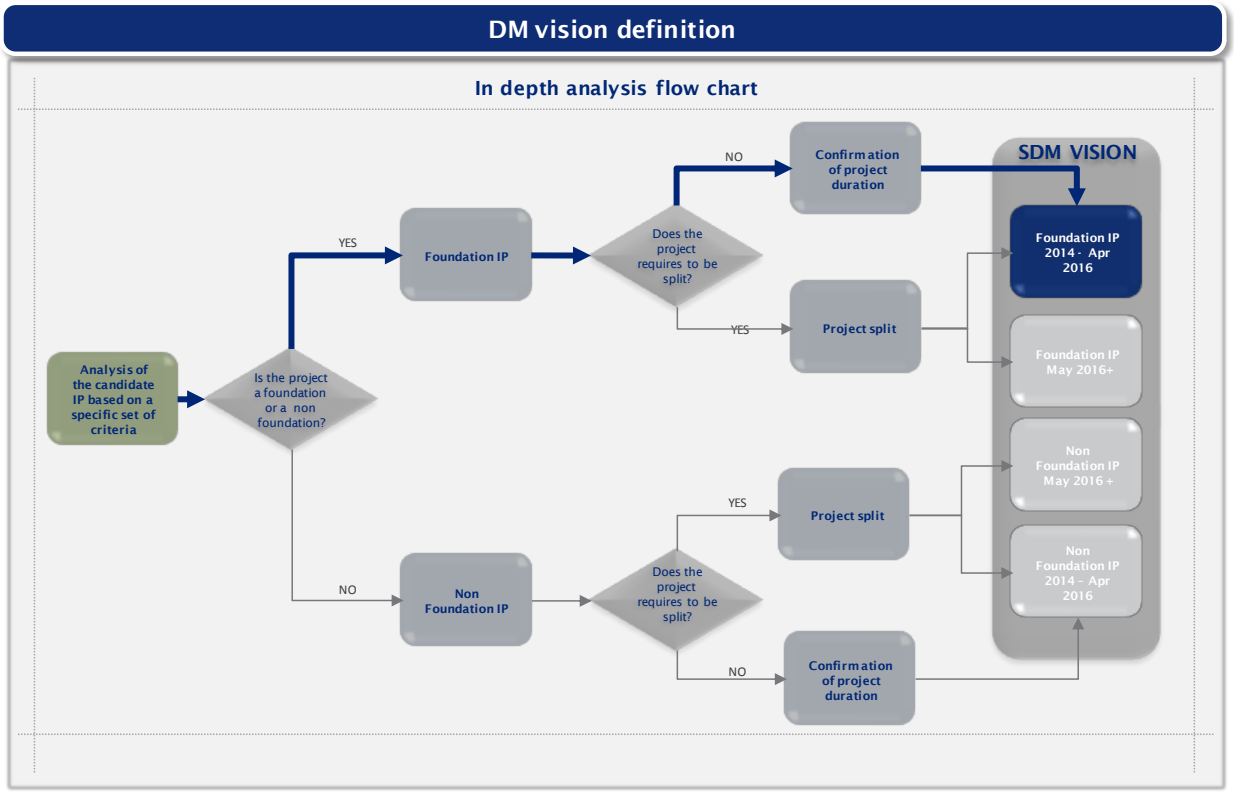
This project is considered as a Non Foundation IP.



Content	Description
REFERENCE NUMBER	**008AF2**
TITLE	**External Gateway System (EGS) implementation**
MAIN AF / SUB AF / Family	**AF 2; Sub AF 2.1; Family 2.1.2**
PROJECT DESCRIPTION	**Objectives:** EGS (External Gateway System) will connect the Tower and Approach ATS Units' subsystems DIFLIS (Digital Flight Strip System) and ASTOS (A-SMGCS – Airport Surface Movement and Guidance Control System) to the ATM Data Processing System. The EGS implementation contributes to AF2 of the PCP implementing rule as an enabler for future Electronic Flight Strip, DMAN, CDM and A-SMGCS enhancements. The former ATM Data processing system VAS will be removed for end of life (EOL) reasons.
PROJECT LEADER	Austro Control
MEMBER STATE	Austria
TIMING	25/02/2014 – 10/12/2015
AIRBORNE	
INTERDEPENDENCIES	
SYNCHRONIZATION	No
LINKS	AF 2; Sub AF 2.2; Family 2.2.1
NM-Links	**NSP:** SO6/4 & SO6/6 **NOP:** Yes (Annex 5)

Recommendation:

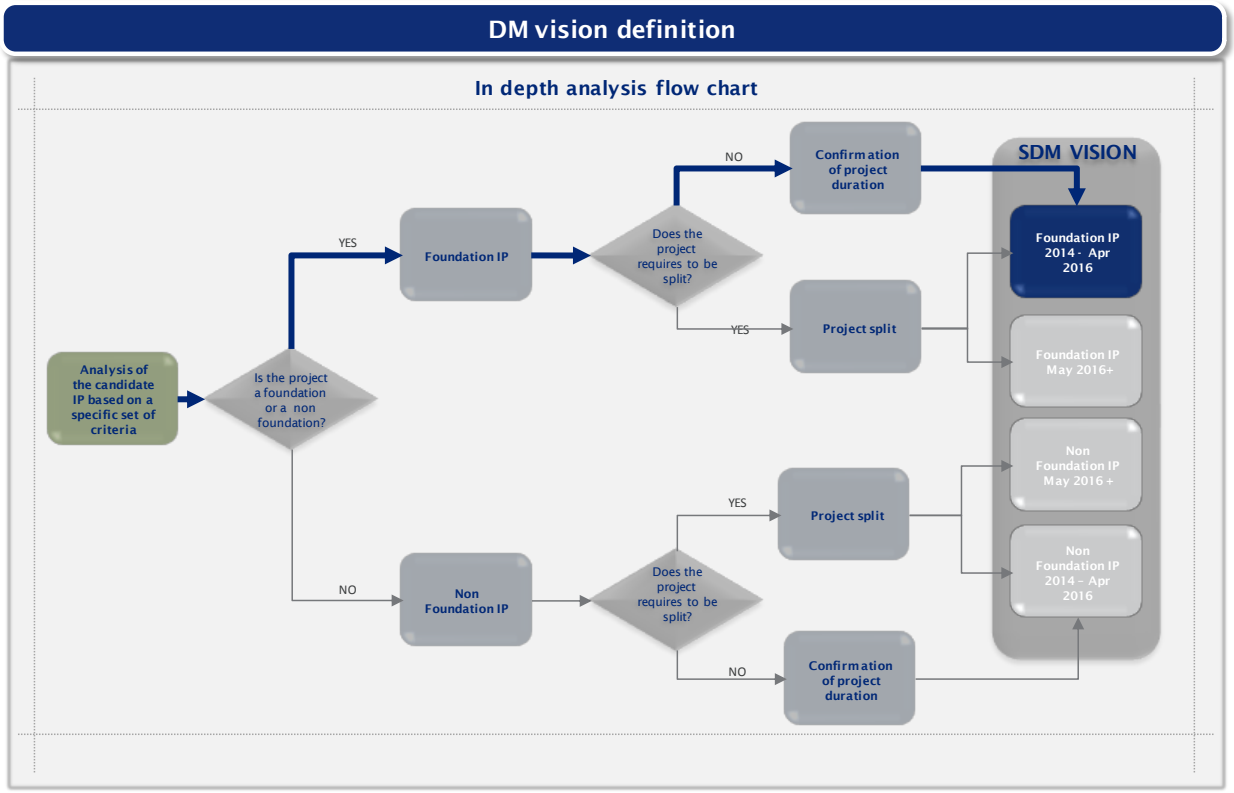
This project is considered as a Foundation IP.



Content	Description
REFERENCE NUMBER	**011AF2**
TITLE	**Collaborative Decision Management (CDM) fully implemented**
MAIN AF / SUB AF / Family	**AF 2; Sub AF 2.1; Family 2.1.3**
PROJECT DESCRIPTION	**Objectives:** - CDM fully implemented in LOWW and certified by Eurocontrol - Process organisation established, considering all stakeholders involved and guaranteeing a sustainable CDM operation - Meaningful KPIs are constantly measured and used for improvement - Additional tasks contain Enhanced De-icing and the guarantee of a Degraded Mode in case of partial system failure
PROJECT LEADER	Austro Control
MEMBER STATE	AUSTRIA
TIMING	17/07/2014 – 29/08/2016
AIRBORNE	
INTERDEPENDENCIES	077AF4 - Interactive Rolling NOP
SYNCHRONIZATION	With: ECTL/NM
LINKS	AF 2; AF 4; Sub AF 2.1; Sub AF 4.2; Family 2.1.1; Family 2.1.4; Family 4.2.2; Family 4.2.3
NM-Links	**NSP:** SO6/4 **NOP:** Yes (Annex 5)

Recommendation:

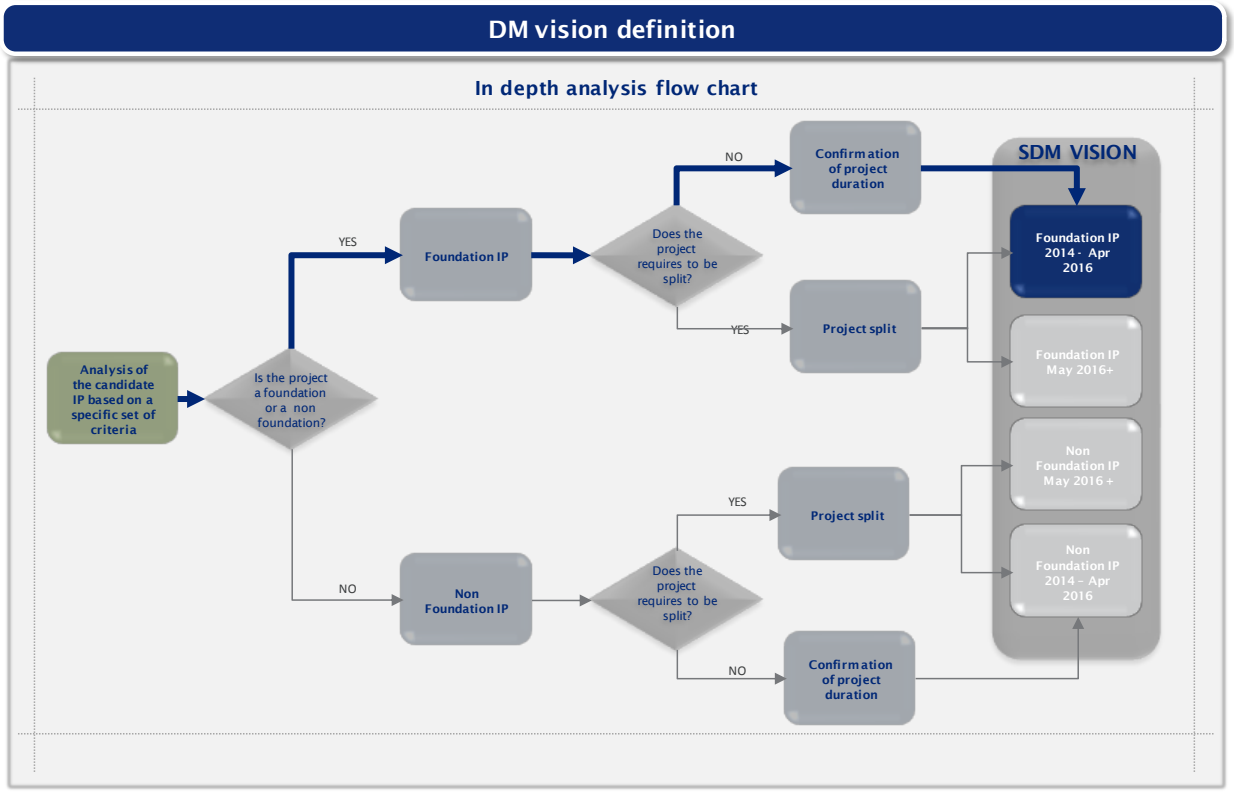
This project is considered as a Foundation IP.



Content	Description
REFERENCE NUMBER	**017AF2**
TITLE	**Upgrade of A-SMGCS system at Brussels Airport**
MAIN AF / SUB AF / Family	**AF 2; Sub AF 2.5; Family 2.5.1**
PROJECT DESCRIPTION	**Objectives:** The main objectives of this project are to: - Improve the performance of the surveillance function of the A-SMGCS system deployed at Brussels airport, in order to enable to provision of high-quality, reliable surveillance data for integration in the advanced Airport Safety Nets function. - Keep the implementation of the surveillance function up-to-date to enable future expansion of the ASMGCS system, to enable future functionality of the A-SMGCS system and to ensure interoperability with new components in the future.
PROJECT LEADER	BELGOCONTROL
MEMBER STATE	BELGIUM
TIMING	01/07/2013 - 07/05/2015
AIRBORNE	
INTERDEPENDENCIES	NO
SYNCHRONIZATION	With ANSPs
LINKS	AF 2; Sub AF 2.1; Sub AF 2.4; Family 2.1.1; Family 2.2.1
NM LINKS	NSP: SO6/6; NOP: None;

Recommendation:

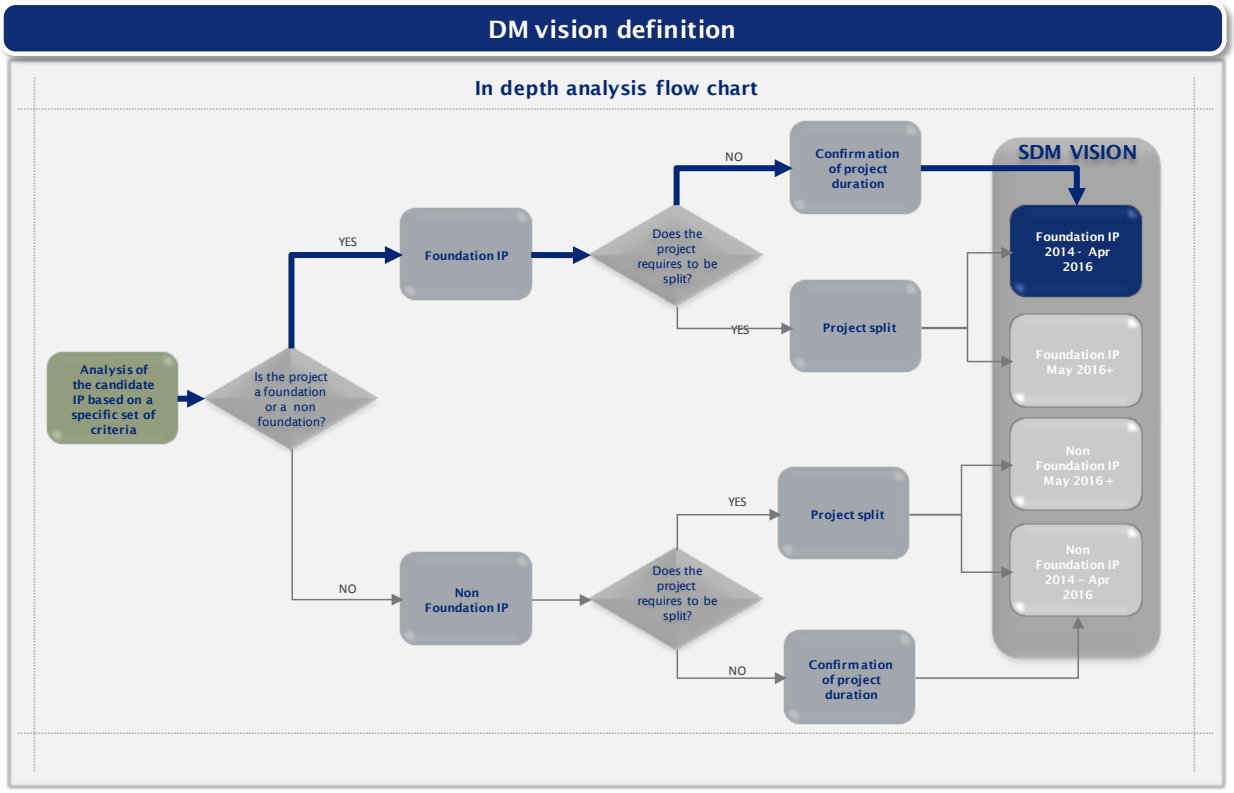
This project is considered as a Foundation IP.



Content	Description
REFERENCE NUMBER	**018AF2**
TITLE	**Enhancement of Airport Safety Nets for Brussels Airport (EBBR)**
MAIN AF / SUB AF / Family	**AF 2; Sub AF 2.5; Family 2.5.1**
PROJECT DESCRIPTION	**Objectives:** The main objective of this project is to upgrade the existing Airport Safety Nets function, associated with the A-SMGCS system at Brussels Airport (EBBR), to obtain (or even exceed) the level of performance as envisaged under ATM functionality AF 2 as defined in the PCP Regulation (see ANNEX, section 2.1.5). Two related sub-projects are defined: - Sub-project 1: Validation and Operational introduction of the Advanced Safety Nets function, developed by Belgocontrol, at Brussels Airport (Control Tower). - Sub-project 2: Further enhancement (by Belgocontrol) of the Advanced Safety Nets function by adding a "Taxi Route conformance monitoring" functionality. -
PROJECT LEADER	BELGOCONTROL
MEMBER STATE	BELGIUM
TIMING	02/06/2014 - 31/12/2015
AIRBORNE	
INTERDEPENDENCIES	NO
SYNCHRONIZATION	With ANSPs
LINKS	AF 2; Sub AF 2.2; Family 2.2.1
NM LINKS	**NSP:** SO6/6; **NOP:** None;

Recommendation:

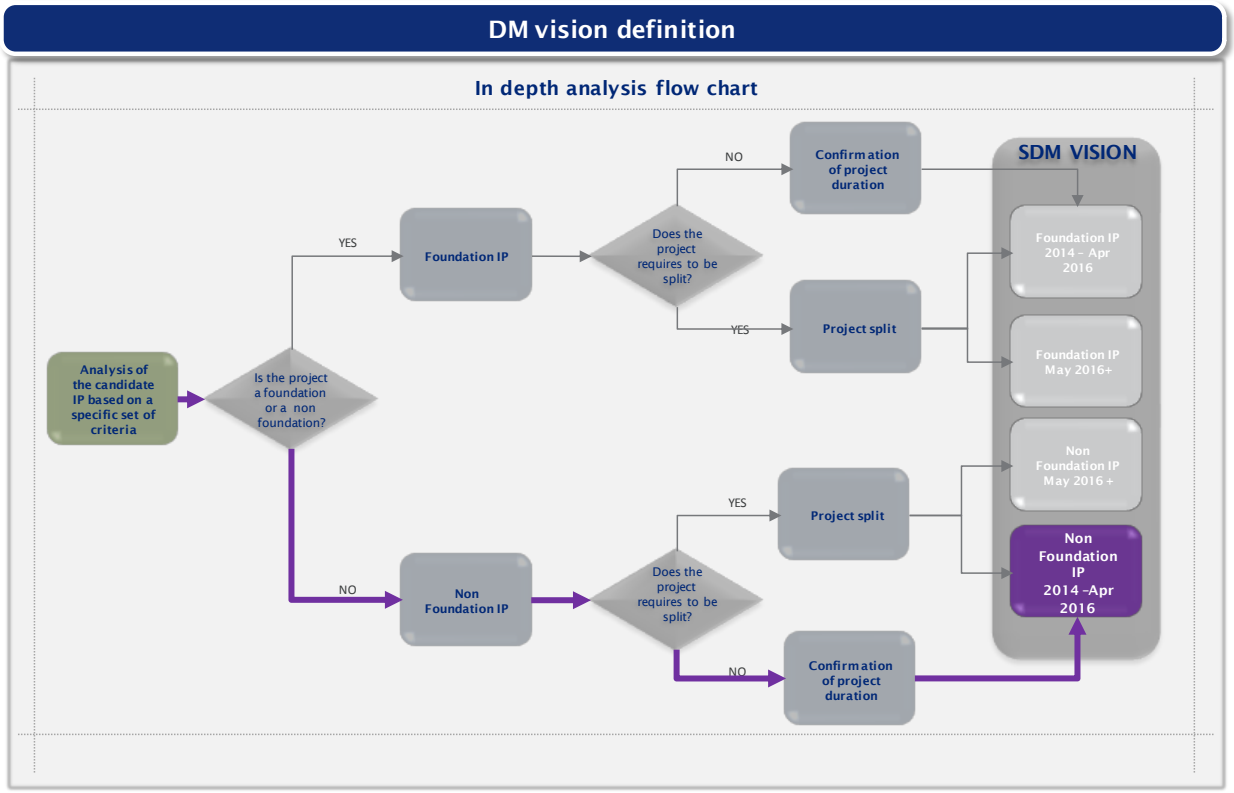
This project is considered as a Foundation IP.



Content	Description
REFERENCE NUMBER	**021AF2**
TITLE	**Elevated stop bar lights**
MAIN AF / SUB AF / Family	**AF 2; Sub AF 2.5; Family 2.5.1**
PROJECT DESCRIPTION	**Objectives:** Goal Redesign shape of sensitive area RWY25R (and during 2016 the same for RWY 25L), reposition holding position stop bars and implement elevated stop bars ref ICAO Annex 14 on all stop bars RWY 25R to enhance visibility for pilots and vehicle drivers. Motivation By redesigning sensitive areas for enhanced capacity and improved safety purpose, a number of stop bars have to be removed and re-installed. Additionally in accordance with ICAO annex 14 an elevated stop bar system will be introduced for the purpose of runway incursion prevention.
PROJECT LEADER	Brussels Airport
MEMBER STATE	BELGIUM
TIMING	15/05/2014 – 28/02/2015
AIRBORNE	
INTERDEPENDENCIES	NO
SYNCHRONIZATION	With: ANSPs
LINKS	AF 2; Sub AF 2.1; Sub AF 2.4; Family 2.2.1, Family 2.1.1
NM LINKS	**NSP:** SO6/6; **NOP:** None;

Recommendation:

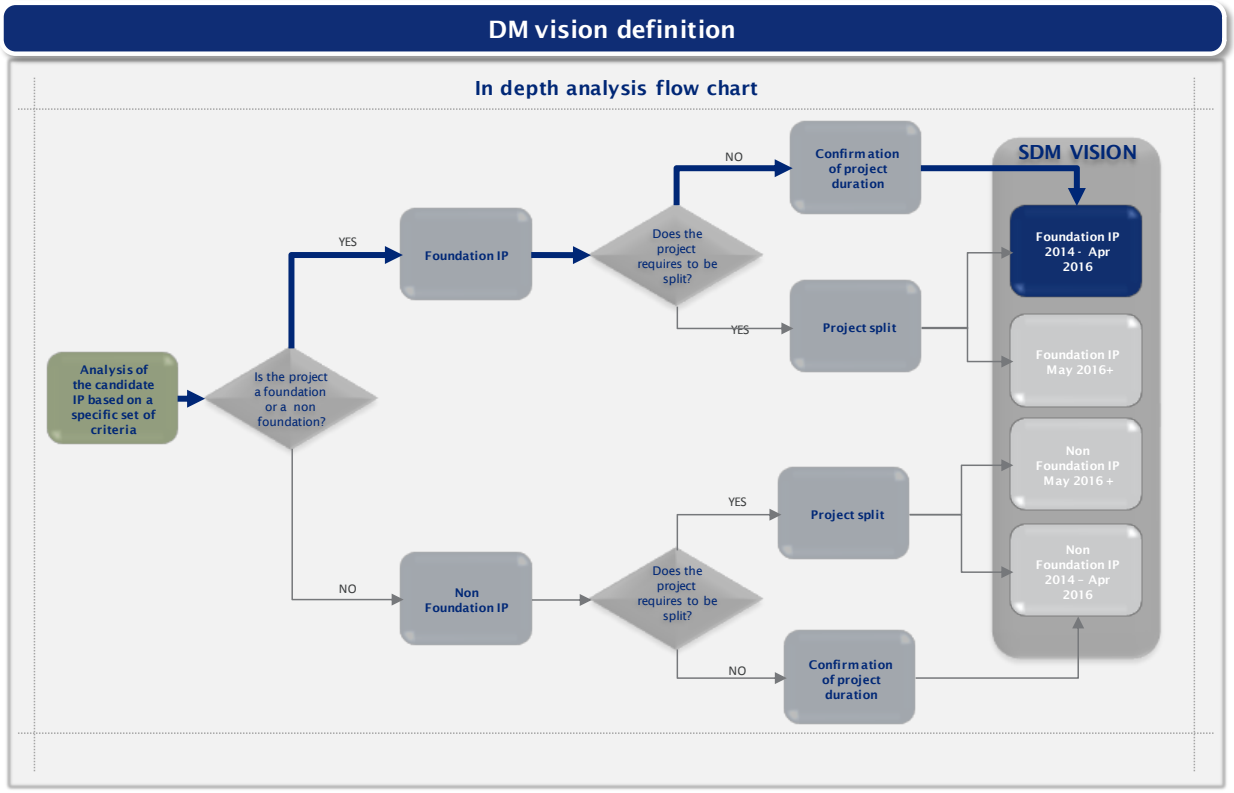
This project is considered as a Non Foundation IP.



Content	Description
REFERENCE NUMBER	**022AF2**
TITLE	**Vehicle Tracking System (VTS)**
MAIN AF / SUB AF / Family	**AF2; Sub AF 2.5; Family 2.5.2**
PROJECT DESCRIPTION	**Objectives:** Goal Display position and identification of all vehicles entering maneuvering area on a regular basis on the groundradar display to controller. Motivation - Improve safety airport ground movements (additional safety net) - Comply with Level-1 A-SMGCS requirement (SES Legislation – ESSIP initiative)
PROJECT LEADER	Brussels Airport
MEMBER STATE	BELGIUM
TIMING	01/01/2008 – 31/12/2016
AIRBORNE	
INTERDEPENDENCIES	NO
SYNCHRONIZATION	With: ANSPs
LINKS	AF 2; Sub AF 2.2; Sub AF 2.4; Family 2.2.1
NM LINKS	**NSP:** SO6/6; **NOP:** None;

Recommendation:

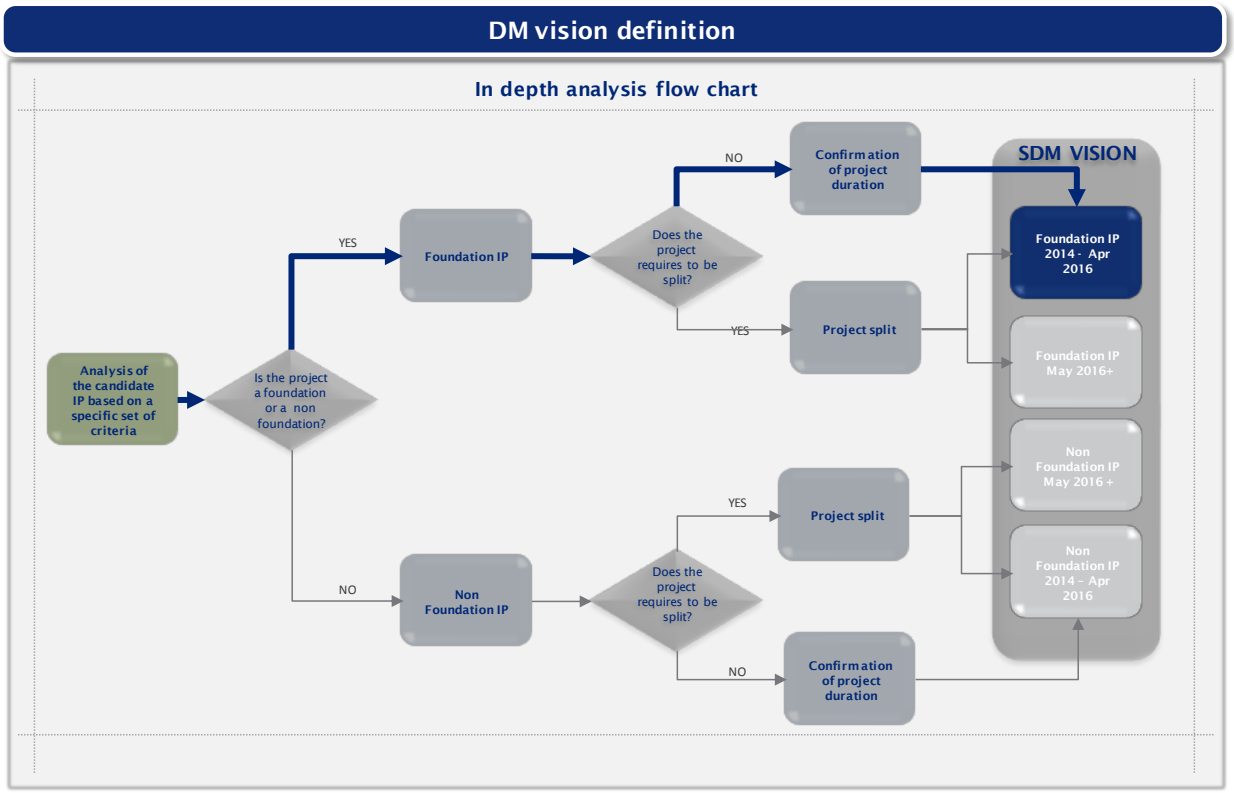
This project is considered as a Foundation IP.



Content	Description
REFERENCE NUMBER	**023AF2**
TITLE	**SMAN-Vehicle**
MAIN AF / SUB AF / Family	**AF 2; Sub AF 2.2; Family 2.2.1**
PROJECT DESCRIPTION	**Objectives:** Upgrade and Extend the A-SMGCS L2 for all relevant ground vehicles moving on the manoeuvring area by providing new functionalities for the drivers: alerts, geo-fencing.
PROJECT LEADER	Aéroports de Paris: CDG Airport & ORLY Airport
MEMBER STATE	FRANCE
TIMING	01/08/2014 – 30/06/2017
AIRBORNE	
INTERDEPENDENCIES	- 027AF2 - SMAN-Airport - 048AF2 - SYSAT@CDG - 050AF2 - SYSAT@ORLY
SYNCHRONIZATION	With: Airports, ANSPs
LINKS	AF 2; Sub AF 2.5; Family 2.5.1 AF 2; Sub AF 2.4; Family 2.2.1
NM LINKS	**NSP :** SO 6/6 **NOP:** None

Recommendation:

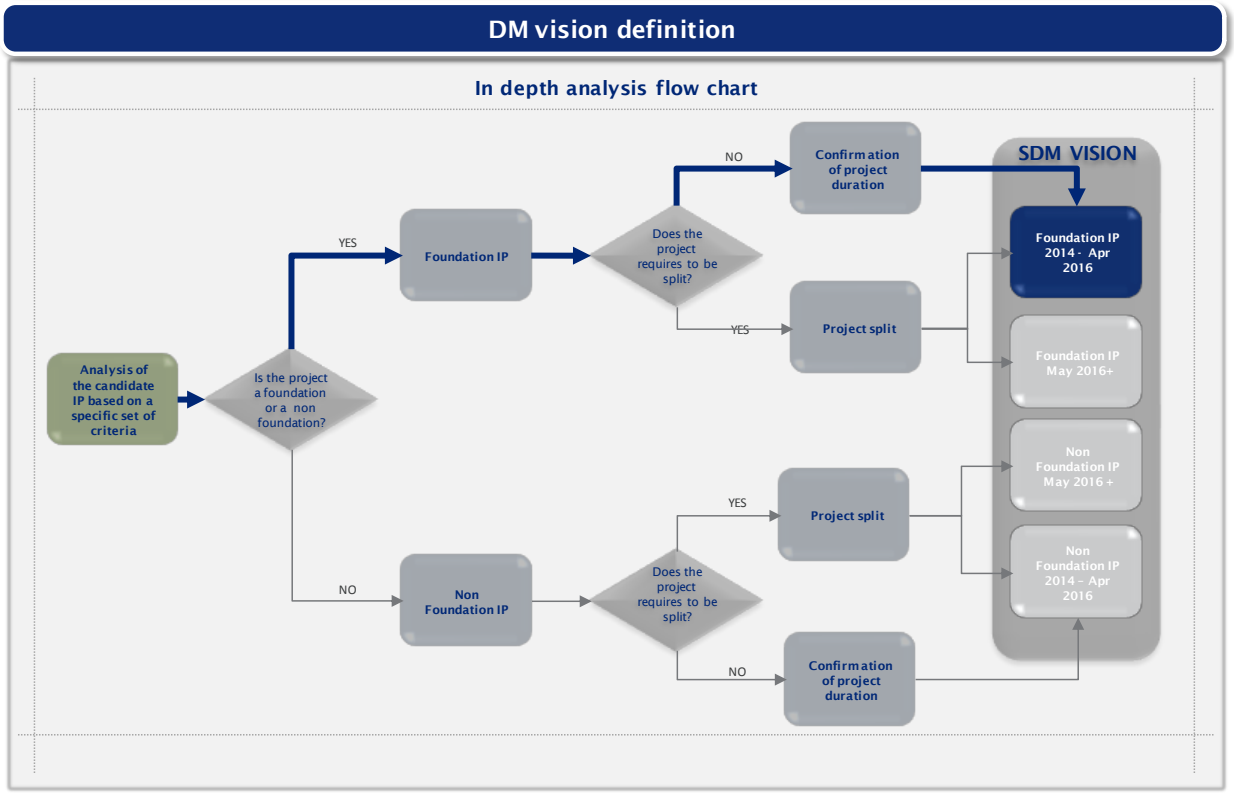
This project is considered as a Foundation IP.



Content	Description
REFERENCE NUMBER	**024AF2**
TITLE	**SAIGA**
MAIN AF / SUB AF / Family	**AF 2; Sub AF 2.1; Family 2.1.4**
PROJECT DESCRIPTION	**Objectives:** Extend the capabilities of the airport resources management system : Stands, Gates, bridges, and Baggage claims, to : - Consolidate the Airport Operational Plan - Consolidate the Pre-departure sequencing and DMAN capability - Optimize and increase the efficiency and performances of operations - Better support crisis situation and faster recovering
PROJECT LEADER	Aéroports de Paris: CDG Airport & ORLY Airport
MEMBER STATE	FRANCE
TIMING	01/01/2014 – 31/12/2015
AIRBORNE	
INTERDEPENDENCIES	- 025AF2 - TSAT to the Gate; - 026AF2 - Evolutions CDM-CDG; - 027AF2 - SMAN-Airport; - 129AF2 - CDM-Orly
SYNCHRONIZATION	With: Airspace Users, Airports, ANSPs, ECTL/NM
LINKS	AF 2; Sub AF 2.1; Family 2.1.1 AF 4; Sub AF 4.2; Family 4.2.1 & Family 4.2.2
NM LINKS	**NSP :** SO 6/2 &SO 6/4 **NOP:** None

Recommendation:

This project is considered as a Foundation IP.



<table>
<tr><th>Content</th><th>Description</th></tr>
<tr><td>REFERENCE NUMBER</td><td>025AF2</td></tr>
<tr><td>TITLE</td><td>TSAT to the Gate</td></tr>
<tr><td>MAIN AF / SUB AF / Family</td><td>AF 2; Sub AF 2.1; Family 2.1.3</td></tr>
<tr><td>PROJECT DESCRIPTION</td><td>Objectives:
The use of VDGS/Displays is driven by 2 types of needs:
- Consolidate the Pre-departure Sequence and enhance predictability by implementing highly recommended milestones: In-bloc (AIBT - milestone n°7 - Airport CDM Manual V4) and Off-bloc (AOBT- milestone n°15 - Airport CDM Manual V4).
- Display key A-CDM information, such as TSAT, to all stakeholders located at the Gate: Airlines crews, Ground handler and Airport operator.
Visual Display Guidance System (VDGS) units and Displays address sub AF 2.1 and associated Families:
- 2.1.1 Consolidate Initial DMAN capabilities
- 2.1.3 Enhance Basic A-CDM
- 2.1.4 Consolidate Initial Airport Operational Plan (AOP)
Number of stands concerned :
<table><tr><th>First Phase (2014 – 2016)</th><th>Second phase (2017 – 2019)</th></tr><tr><td>• CDG
○ 64 VDGS
○ 34 Displays
• ORLY
○ 36 VDGS
○ 16 Displays</td><td>• CDG
○ 256 VDGS
○ 136 Displays
• ORLY
○ 144 VDGS
○ 64 Displays</td></tr></table></td></tr>
<tr><td>PROJECT LEADER</td><td>Aéroports de Paris: CDG Airport & ORLY Airport</td></tr>
<tr><td>MEMBER STATE</td><td>FRANCE</td></tr>
<tr><td>TIMING</td><td>01/01/2014 - 31/12/2019</td></tr>
<tr><td>AIRBORNE</td><td></td></tr>
<tr><td>INTERDEPENDENCIES</td><td>- 024AF2 - SAIGA;
- 026AF2 - Evolutions CDM-CDG;
- 027AF2 - SMAN-Airport;
- 129AF2 - CDM-Orly</td></tr>
<tr><td>SYNCHRONIZATION</td><td>With: Airspace Users, Airports, ANSPs, ECTL/NM</td></tr>
<tr><td>LINKS</td><td>AF 2; Sub AF 2.1; Family 2.1.1; Family 2.1.4
AF 2; Sub AF 2.5; Family 2.5.1</td></tr>
<tr><td>NM LINKS</td><td>NSP : SO 6/2 &SO 6/4

NOP: None</td></tr>
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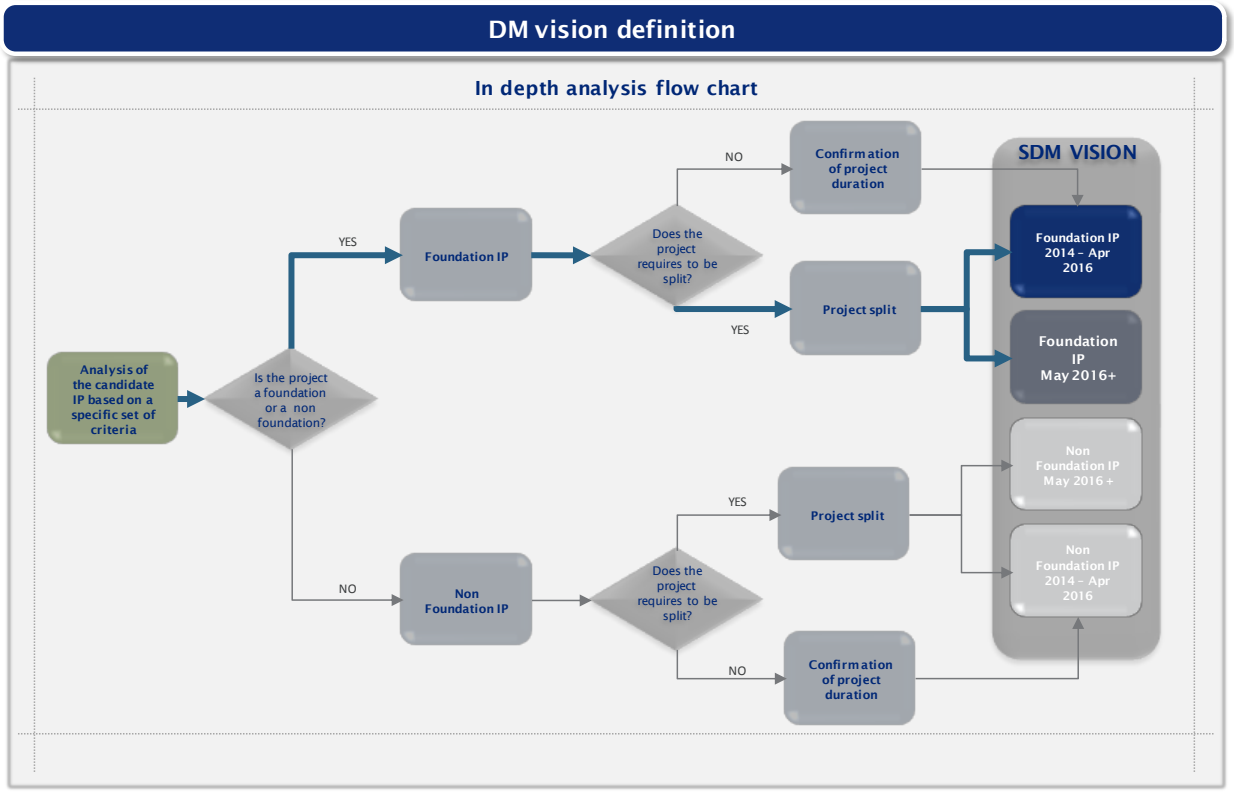
Recommendation:

This project is considered as a Foundation IP.

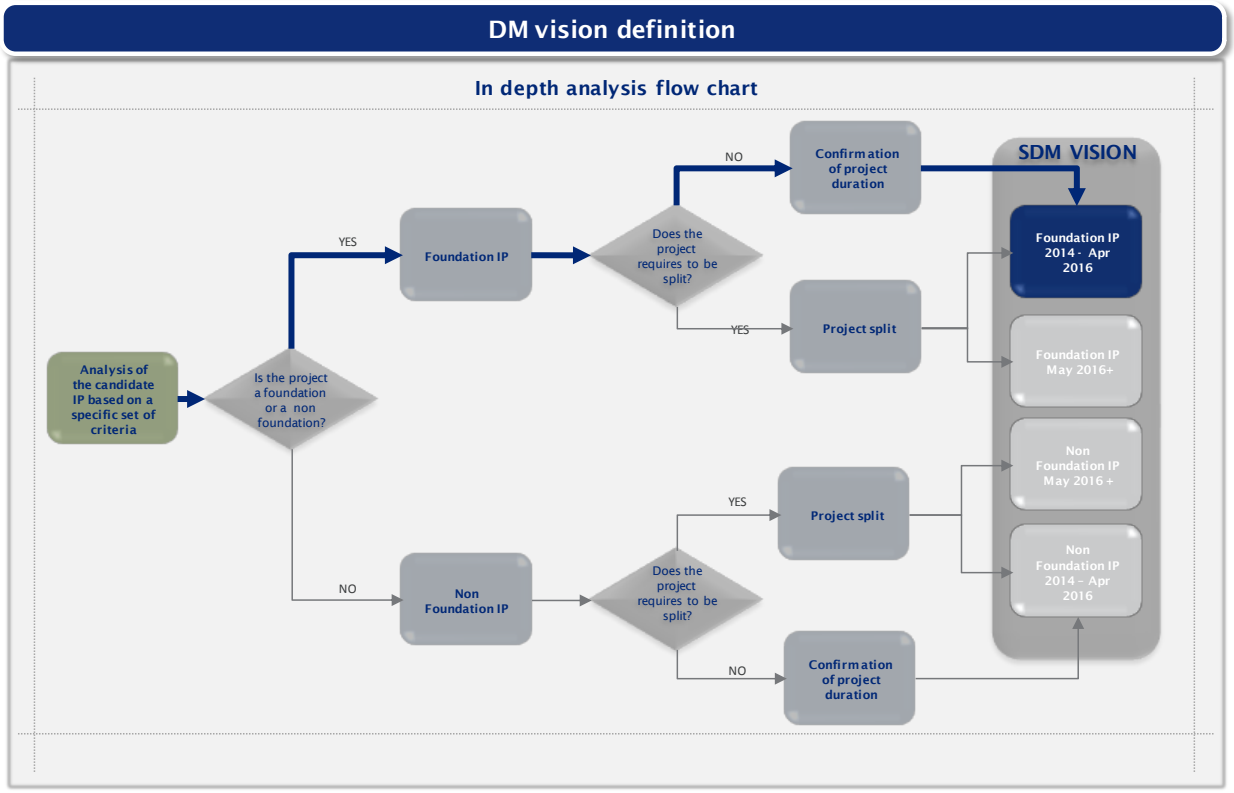


The project could be split in two phases. The first phase (January 2014 – April 2016) has to be considered for the INEA call 2014.The second phase (May 2016 – December 2019) needs to be part of the next INEA call in order to ensure continuity of the action within the Deployment Programme.

Content	Description
REFERENCE NUMBER	**026AF2**
TITLE	**Evolutions CDM-CDG**
MAIN AF / SUB AF / Family	**AF 2; Sub AF 2.1; Family 2.1.3**
PROJECT DESCRIPTION	**Objectives:** Upgrade CDM@CDG airport tools (PDS and De-icing tool) to be more efficient and to enhance actual functionalities to respond to the requirements of operational staff. It directly responds to the pre requisite S-AF 2.1 though Family 2.1.1 ("initial DMAN capability") and Family 2.1.3 (Basic A-CDM) - DPI improvements - TSAT stabilization - PLN / Airport slot reconciliation - PDS/DMAN interface - Training infrastructure - Variable Taxi Time calculation - De-icing tool improvements
PROJECT LEADER	Aéroports de Paris: Paris CDG Airport
MEMBER STATE	FRANCE
TIMING	01/01/2014 - 31/12/2016
AIRBORNE	
INTERDEPENDENCIES	- 024AF2 - SAIGA; - 025AF2 - TSAT to the Gate; - 027AF2 - SMAN-Airport; - 048AF2 - SYSAT@CDG; - 077AF4 - Interactive Rolling NOP
SYNCHRONIZATION	With: Airspace Users, Airports, ANSPs, ECTL/NM
LINKS	AF 2; Sub AF 2.1; Family 2.1.1; Family 2.1.2 AF 2; Sub AF 2.2; Family 2.2.1 AF 4; Sub AF 4.2; Family 4.2.2; Family 4.2.3
NM LINKS	**NSP :** SO 6/4 **NOP:** None

Recommendation:

This project is considered as a Foundation IP.



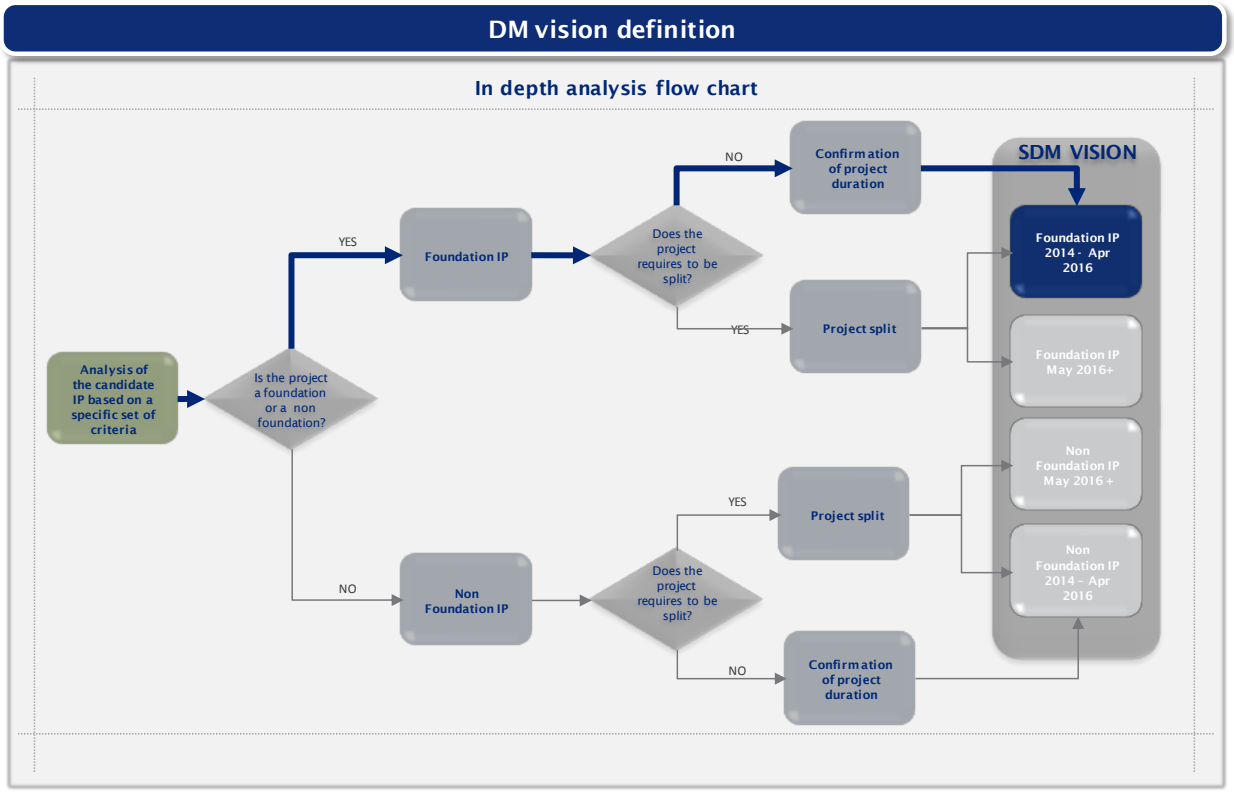
Content	Description
REFERENCE NUMBER	**027AF2**
TITLE	**SMAN-Airport**
MAIN AF / SUB AF / Family	**AF 2; Sub AF 2.2; Family 2.4.1**

PROJECT DESCRIPTION	**Objectives:**
	- Develop and integrate Airport Surface Management Tool which allows managing and monitoring information of the airfield area under the responsibility of the airport operator.
	  ○ Enhance Initial AOP to airfield area
	  ○ Improve Airport Safety Nets functionalities
	  ○ Facilitate A-SMGCS planning functions by improving predictability of Take-Off times
	- The system will share information with all stakeholders/Systems and in particular with the ATC ASMGCS
	The system is currently used by the ATC tower supervisor and apron managers.

PROJECT LEADER	Aéroports de Paris: CDG Airport & ORLY Airport
MEMBER STATE	FRANCE
TIMING	02/01/2015 - 31/12/2016
AIRBORNE	
INTERDEPENDENCIES	- 024AF2 - SAIGA; - 025AF2 - TSAT to the Gate; - 026AF2 - Evolutions CDM-CDG; - 129AF2 – CDM-Orly - 048AF2 - SYSAT@CDG - 050AF2 – SYSAT@ORLY
SYNCHRONIZATION	With: Airspace users, Airports, ANSPs
LINKS	AF 2; Sub AF 2.4; Family 2.2.1; Family 2.1.2; Family 2.4.1
NM LINKS	**NSP :** SO 6/2 &SO 6/4 **NOP:** None

Recommendation:

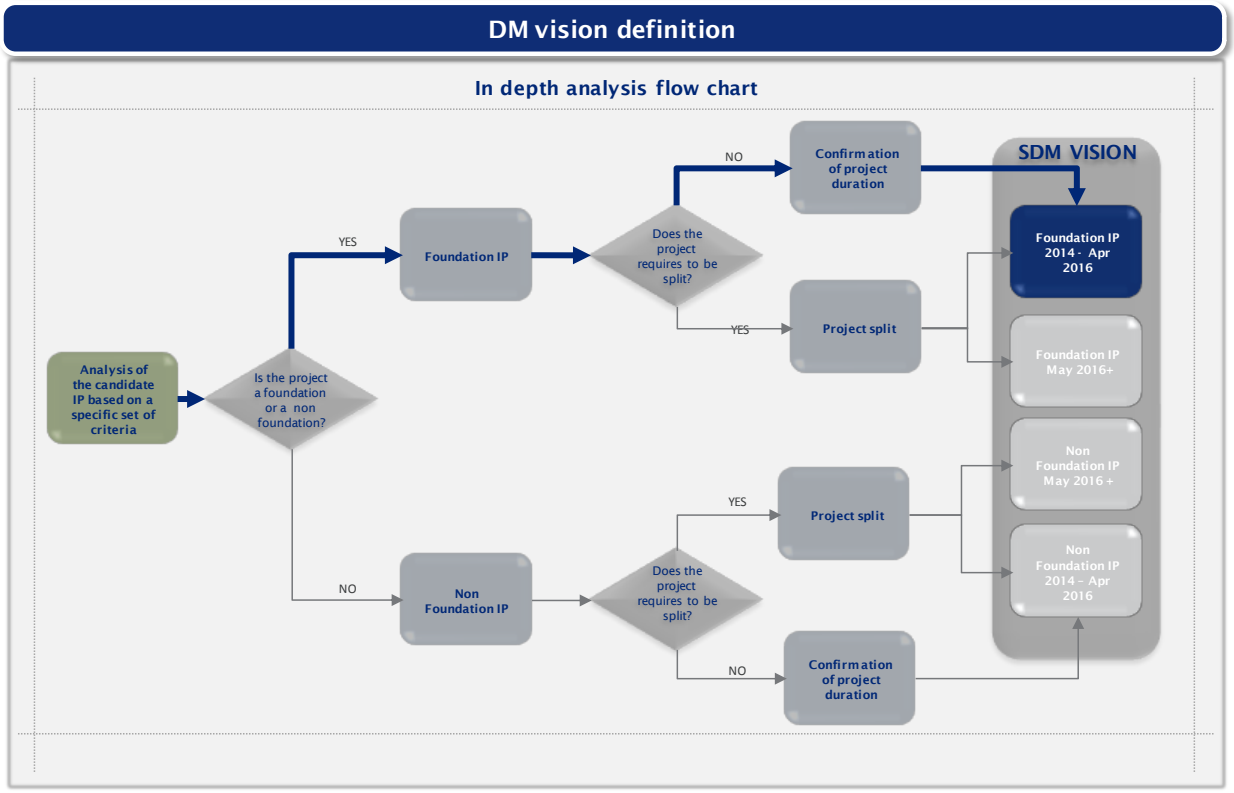
This project is considered as a Foundation IP.



Content	Description
REFERENCE NUMBER	**028AF2**
TITLE	**Automatic block time detection – option 1: use of radar data**
MAIN AF / SUB AF / Family	**AF 2; Sub AF 2.1; Family 2.1.4**
PROJECT DESCRIPTION	**Objectives:** - Obtain an accurate off-block/in-block time in order to provide it to the Network Manager Operation Center (NMOC) through the DPI messages - Allow an accurate management of the air traffic in Europe through the link with the NMOC - Improve the management of the use of our resources through the improvement of the accuracy - Share the collected data between all airports stakeholders through the different local implementation projects for the creation of information sharing channels
PROJECT LEADER	Aéroports de la Cote d'Azur
MEMBER STATE	FRANCE
TIMING	01/12/2014 - 01/12/2015
AIRBORNE	
INTERDEPENDENCIES	- 029AF2 - Automatic block time detection – option 2: video cameras implementation; - 035AF2 - Pre-departure sequence; - 036AF2 - Aeronautical information system upgrade (airport operation database)
SYNCHRONIZATION	With: Airspace users, Airports, ANSPs
LINKS	AF 2; Sub AF 2.1; Family 2.1.1
NM LINKS	**NSP :** SO 6/2 &SO 6/4 **NOP:** Advanced ATC Tower Implementation planned for 2015; DMAN not available; AMAN available. No reported CDM basic.

Recommendation:

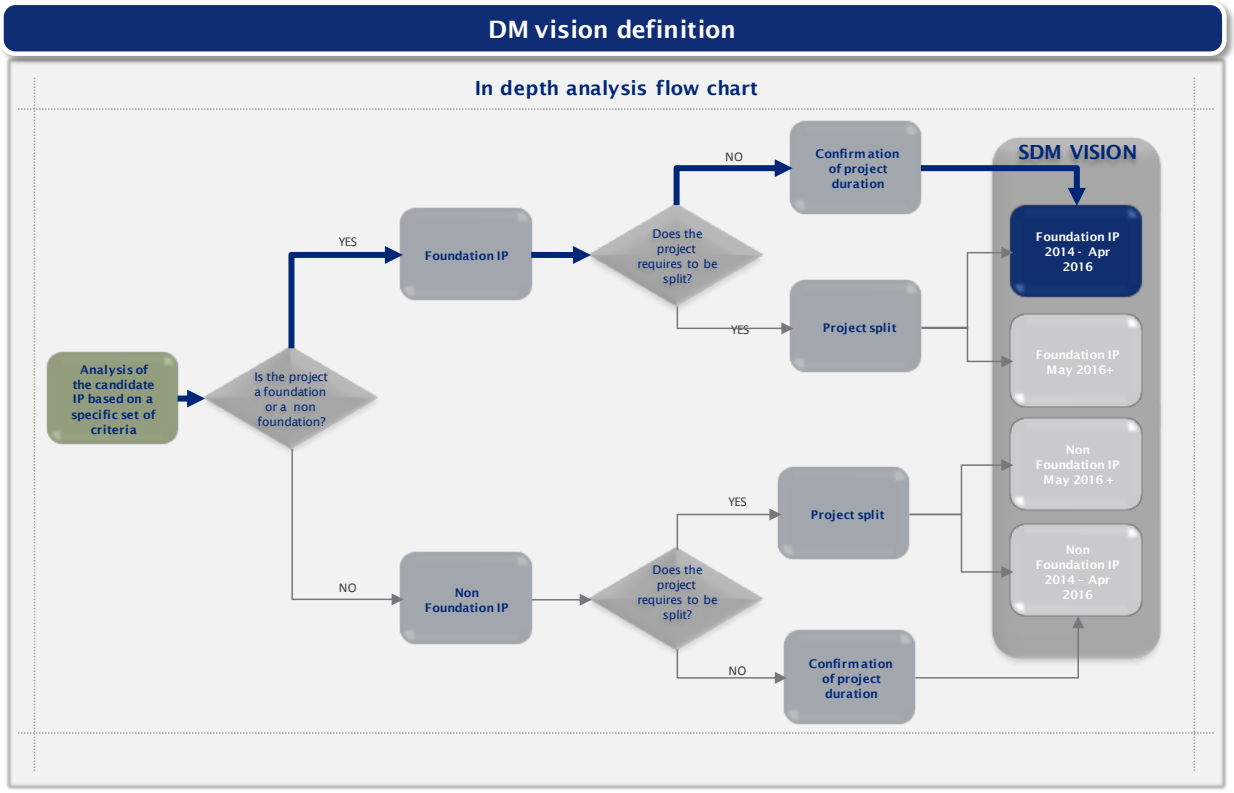
This project is considered as a Foundation IP.



Content	Description
REFERENCE NUMBER	**029AF2**
TITLE	**Automatic block time detection – option 2: video cameras implementation**
MAIN AF / SUB AF / Family	**AF 2; Sub AF 2.1; Family 2.1.4**
PROJECT DESCRIPTION	**Objectives:** - Obtain an accurate off-block/in-block time in order to provide it to the Network Manager Operation Center (NMOC) through the DPI messages - Allow an accurate management of the air traffic in Europe through the link with the NMOC - Improve the management of the use of our resources through the improvement of the accuracy - Share the collected data between all airports stakeholders through the different local implementation project for the creation of information sharing channels
PROJECT LEADER	Aéroports de la Cote d'Azur
MEMBER STATE	FRANCE
TIMING	01/03/2015 - 28/02/2017
AIRBORNE	
INTERDEPENDENCIES	- 028AF2 - Automatic block time detection – option 1: use of radar data; - 035AF2 - Pre-departure sequence; - 036AF2 - Aeronautical information system upgrade (airport operation database)
SYNCHRONIZATION	With: Airports Airspace users
LINKS	AF 2; Sub AF 2.1; Family 2.1.1
NM LINKS	**NSP :** SO 6/2 & SO 6/4 **NOP:** Advanced ATC Tower Implementation planned for 2015; DMAN not available; AMAN available. No reported CDM basic.

Recommendation:

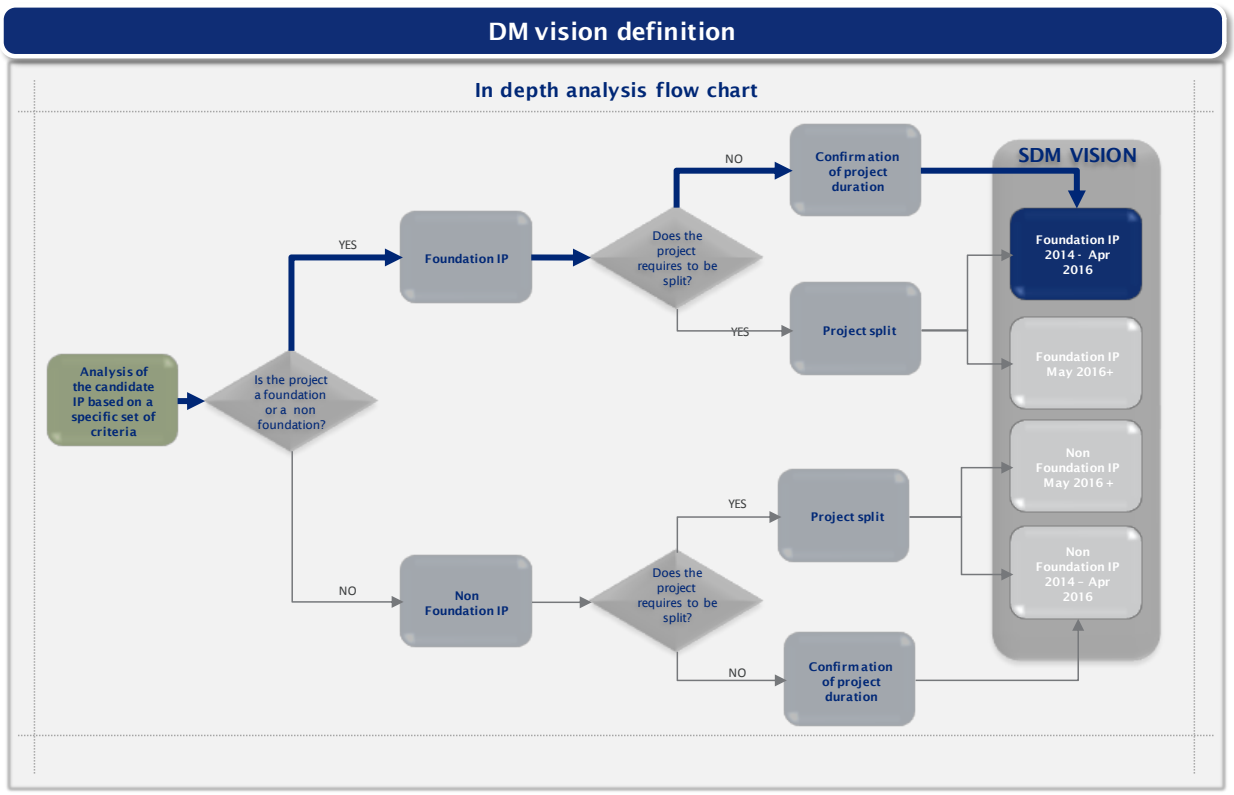
This project is considered as a Foundation IP.



Content	Description
REFERENCE NUMBER	**030AF2**
TITLE	**Equipment of ground vehicles to supply the A-SMGCS**
MAIN AF / SUB AF / Family	**AF 2; Sub AF 2.2; Family 2.5.2**
PROJECT DESCRIPTION	**Objectives:** - Supply the A-SMGCS with accurate information - Allow the efficient deployment of the A-SMGCS Level 1 & 2 by providing the location of the vehicle and the identification - Improve the safety on the platform with knowing the location of the vehicles and the possibility to identify runway incursion - Be compliant with the regulation
PROJECT LEADER	Aéroports de la Cote d'Azur
MEMBER STATE	FRANCE
TIMING	01/02/2014 - 30/11/2015
AIRBORNE	
INTERDEPENDENCIES	- 049AF2 - SYSAT@NCE
SYNCHRONIZATION	With: Airports, ANSPs
LINKS	AF 2; Sub AF 2.5; Family 2.5.1 AF 2; Sub AF 2.4; Family 2.2.1
NM LINKS	**NSP :** SO 6/6 **NOP:** Advanced ATC Tower Implementation planned for 2015; DMAN not available; AMAN available. No reported CDM basic.

Recommendation:

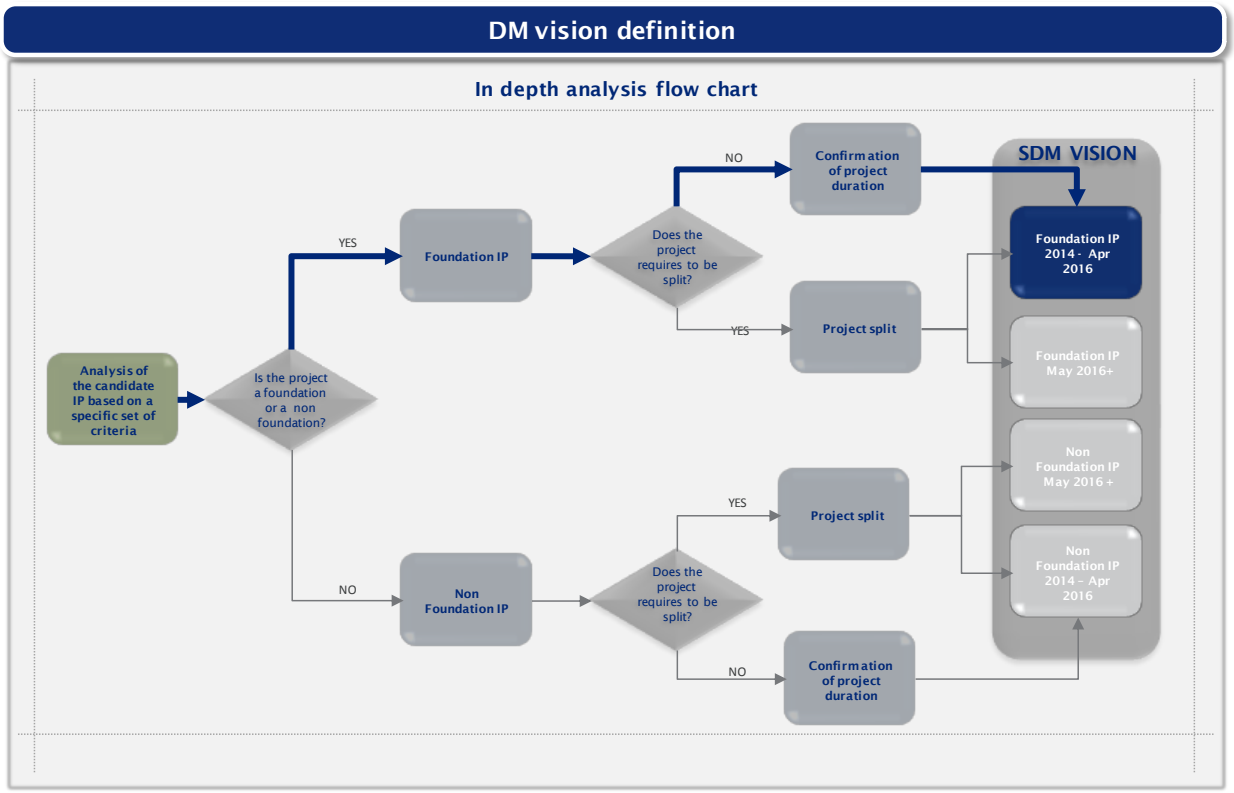
This project is considered as a Foundation IP.



Content	Description
REFERENCE NUMBER	**031AF2**
TITLE	**Data exchanges with the ANSP**
MAIN AF / SUB AF / Family	**AF 2; Sub AF 2.1; Family 2.1.3**
PROJECT DESCRIPTION	**Objectives:** - Implement a new channel for data exchanges between us and the ANSP - Improve the data exchanges (quality and quantity) - Create a common awareness of all operational situations - Through the improvement of the awareness, improve the management of adverse conditions and make the operations more efficient
PROJECT LEADER	Aéroports de la Cote d'Azur
MEMBER STATE	FRANCE
TIMING	01/01/2015 - 31/07/2017
AIRBORNE	
INTERDEPENDENCIES	- 035AF2 - Pre-departure sequence; - 036AF2 - Aeronautical information system upgrade (airport operation database)
SYNCHRONIZATION	With: Airports, ANSPs
LINKS	AF 2; Sub AF 2.1; Family 2.1.1; Family 2.1.4
NM LINKS	**NSP :** SO 6/4 **NOP:** Advanced ATC Tower Implementation planned for 2015; DMAN not available; AMAN available. No reported CDM basic.

Recommendation:

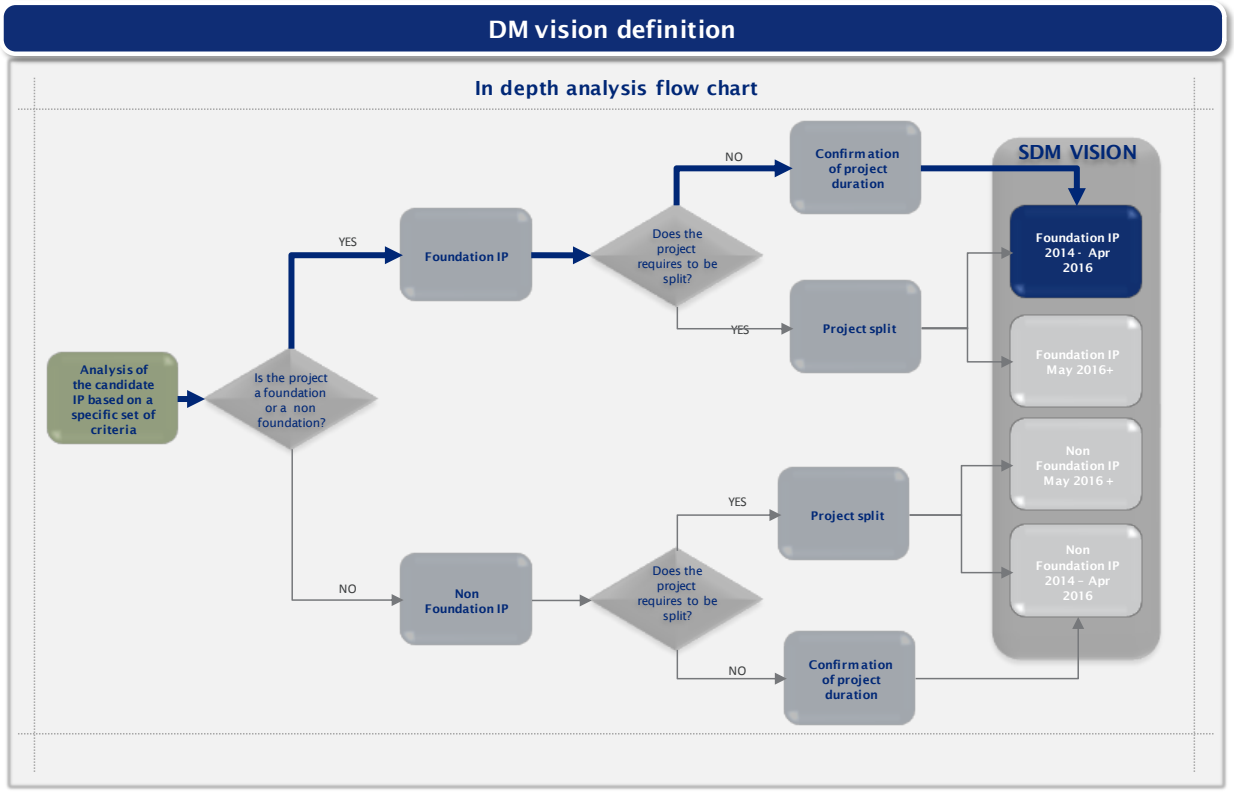
This project is considered as a Foundation IP.


DM vision definition
In depth analysis flow chart
Analysis of the candidate IP based on a specific set of criteria
Is the project a foundation or a non foundation?
YES
Foundation IP
Does the project requires to be split?
NO
Confirmation of project duration
YES
Project split
NO
Non Foundation IP
Does the project requires to be split?
YES
Project split
NO
Confirmation of project duration
SDM VISION
Foundation IP 2014 - Apr 2016
Foundation IP May 2016+
Non Foundation IP May 2016 +
Non Foundation IP 2014 – Apr 2016

Content	Description
REFERENCE NUMBER	**032AF2**
TITLE	**Data exchanges with the NMOC**
MAIN AF / SUB AF / Family	**AF 2; Sub AF 2.1; Family 2.1.3**
PROJECT DESCRIPTION	**Objectives:** - Be part of the European Network - Improve the real time data exchanges - Improve the operations efficiency at a local level and at a European one - Facilitate the flow and capacity management - Improve the situational awareness - Better anticipation of the different situations - Improve the management of normal and adverse conditions
PROJECT LEADER	Aéroports de la cote d'Azur
MEMBER STATE	FRANCE
TIMING	01/01/2015 - 31/12/2015
AIRBORNE	
INTERDEPENDENCIES	- 035AF2 - Pre-departure sequence; - 036AF2 - Aeronautical information system upgrade (airport operation database); - 077AF4 - Interactive Rolling NOP
SYNCHRONIZATION	With: Airports, ANSPs, ECTL/NM
LINKS	AF 2; Sub AF 2.1; Family 2.1.1; Family 2.1.4 AF 4; Sub AF 4.2; Family 4.2.2; Family 4.2.3
NM LINKS	**NSP :** SO 6/4, SO 6/2 **NOP:** Advanced ATC Tower Implementation planned for 2015; DMAN not available; AMAN available. No reported CDM basic.

Recommendation:

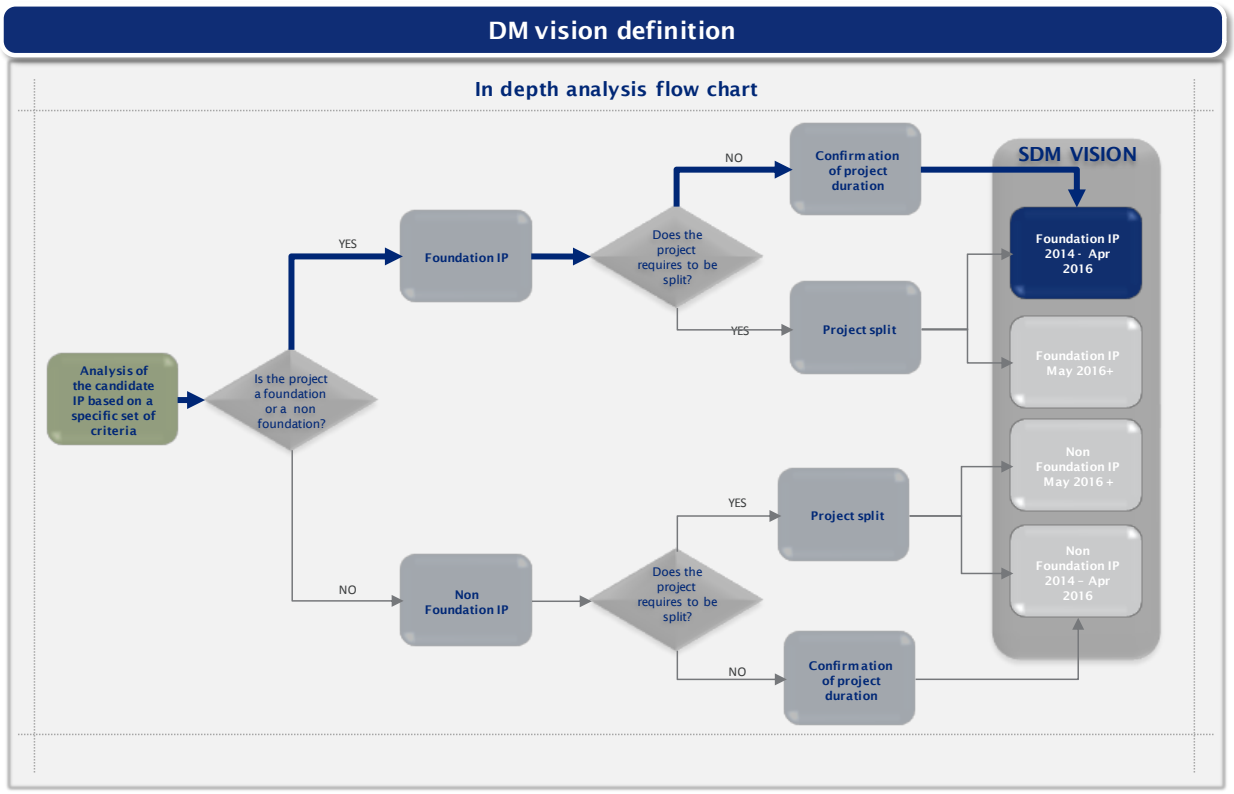
This project is considered as a Foundation IP.



Content	Description
REFERENCE NUMBER	**033AF2**
TITLE	**Data exchanges with COHOR**
MAIN AF / SUB AF / Family	**AF 2; Sub AF 2.1; Family 2.1.3**
PROJECT DESCRIPTION	**Objectives:** - Obtain correct and on-time information for general aviation flights - Make the operations easier in order to better anticipate the management of the resources - Make the whole operations more efficient through an easier way to obtain automatically the information - As general aviation traffic is a big part of our whole traffic, the improvement of the management of this part allow a gain in the management efficiency for the whole traffic
PROJECT LEADER	Aéroports de la Cote d'Azur
MEMBER STATE	FRANCE
TIMING	01/12/2014 - 31/12/2015
AIRBORNE	
INTERDEPENDENCIES	- 035AF2 - Pre-departure sequence; - 036AF2 - Aeronautical information system upgrade (airport operation database)
SYNCHRONIZATION	With: Airports
LINKS	AF 2; Sub AF 2.1; Family 2.1.1; Family 2.1.3
NM LINKS	**NSP :** SO 6/4 **NOP:** Advanced ATC Tower Implementation planned for 2015; DMAN not available; AMAN available. No reported CDM basic.

Recommendation:

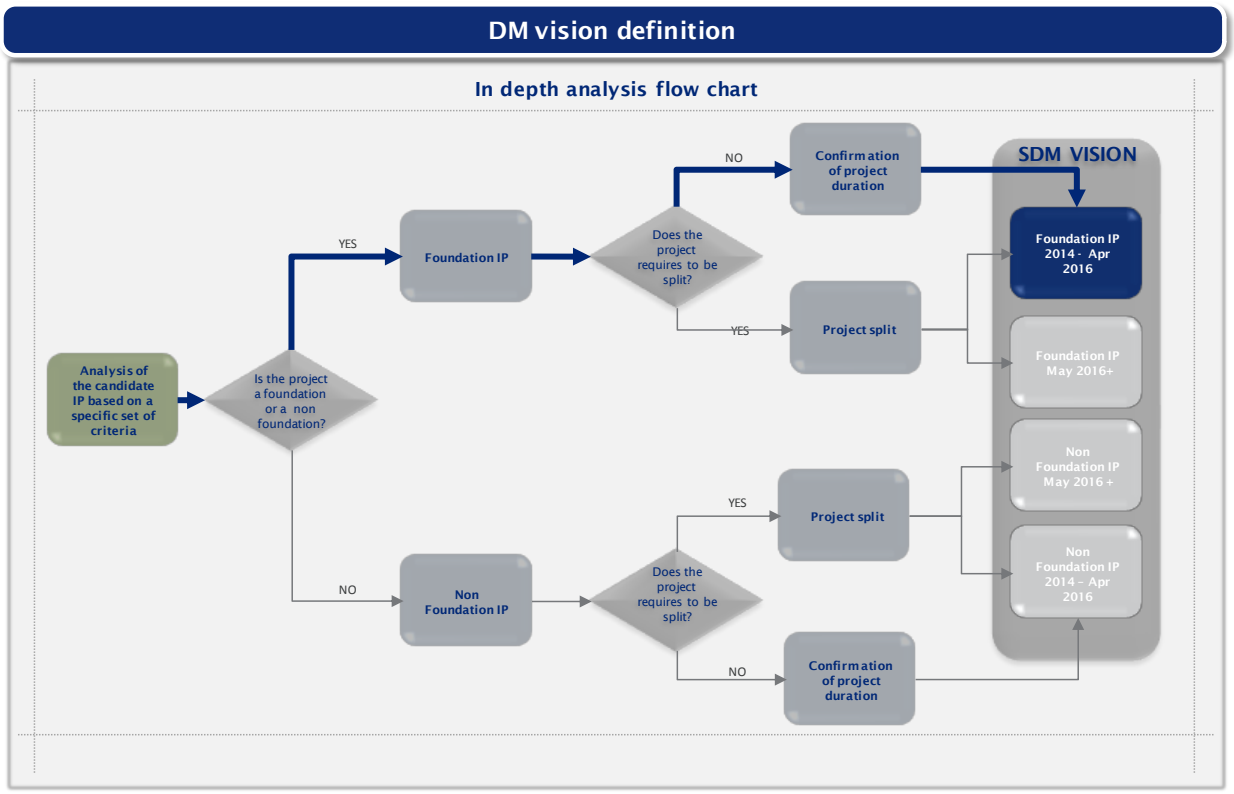
This project is considered as a Foundation IP.



Content	Description
REFERENCE NUMBER	**034AF2**
TITLE	**Data exchanges with airport stakeholders**
MAIN AF / SUB AF / Family	**AF 2; Sub AF 2.1; Family 2.1.3**
PROJECT DESCRIPTION	**Objectives:** - Collect and share information/data between all stakeholders - Improve the efficiency of the operations through accurate data and awareness of all situations - Improvement in the management of the resources - Improvement in the management of normal and adverse situation
PROJECT LEADER	Aéroports de la Cote d'Azur
MEMBER STATE	FRANCE
TIMING	01/01/2016 - 30/11/2016
AIRBORNE	
INTERDEPENDENCIES	- 035AF2 - Pre-departure sequence; - 036AF2 - Aeronautical information system upgrade (airport operation database);
SYNCHRONIZATION	With: Airspace Users, Airports
LINKS	AF 2; Sub AF 2.1; Family 2.1.4; Family 2.1.1
NM LINKS	**NSP :** SO 6/1 & SO6/2 & SO6/4 **NOP:** Advanced ATC Tower Implementation planned for 2015; DMAN not available; AMAN available. No reported CDM basic.

Recommendation:

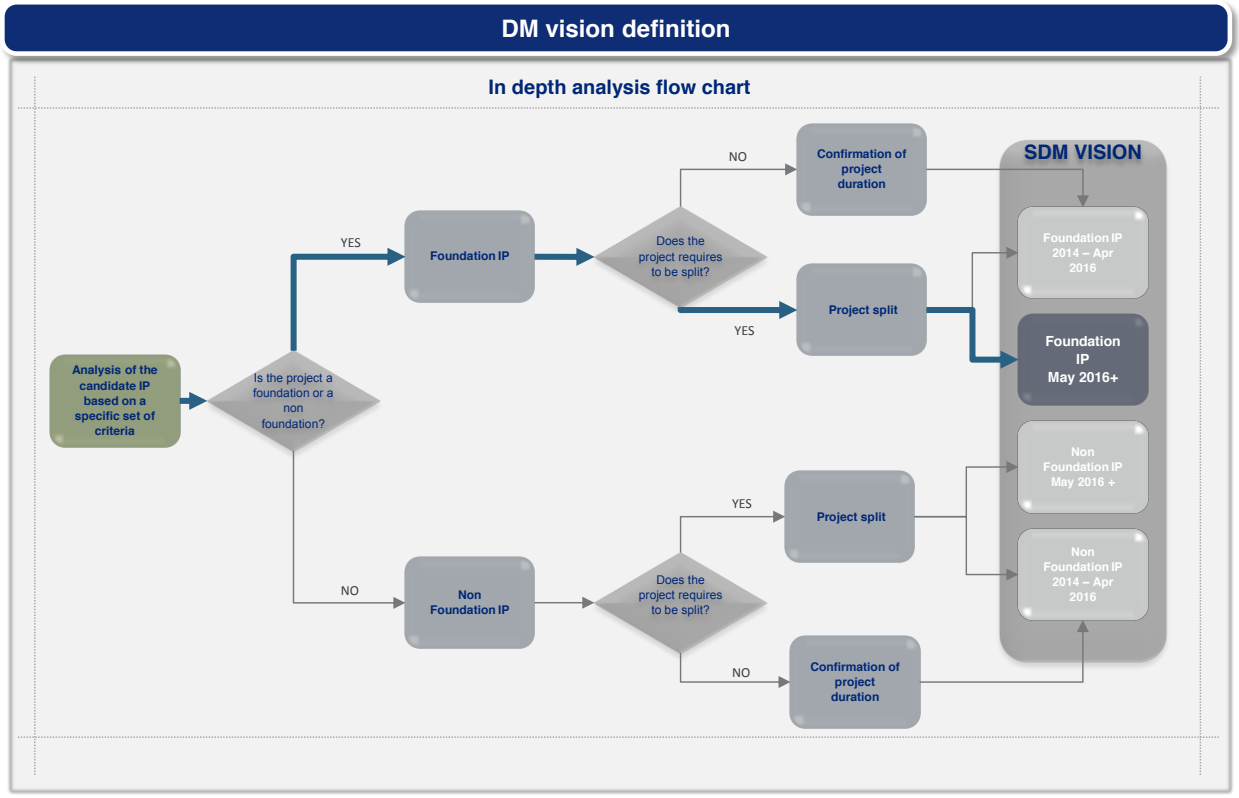
This project is considered as a Foundation IP.



Content	Description
REFERENCE NUMBER	**035AF2**
TITLE	**Pre-departure sequence**
MAIN AF / SUB AF / Family	**AF 2; Sub AF 2.1; Family 2.1.1**
PROJECT DESCRIPTION	**Objectives:** - Obtain a sequence that can allow the efficiency of the operation on the whole platform and when the DMAN will be implemented by the ANSP, the 2 tools will work in close cooperation in order to better manage the traffic - Reach a high level of accuracy - Reach a high level of safety on the platform - Share aeronautical data between all stakeholders in order to have the same level of information - Regulate the traffic on the platform - Propose a common display tool in order to provide the collected information through the different created information channels (see the others local implementation projects)
PROJECT LEADER	Aéroports de la Cote d'Azur
MEMBER STATE	FRANCE
TIMING	01/07/2017 - 31/01/2018
AIRBORNE	
INTERDEPENDENCIES	- 028AF2 - Automatic block time detection – option 1: use of radar data; - 029AF2 - Automatic block time detection – option 2: video cameras implementation; - 031AF2 - Data exchanges with the ANSP; - 032AF2 - Data exchanges with the NMOC; - 033AF2 - Data exchanges with COHOR; - 034AF2- Data exchanges with airport stakeholders; - 036AF2 - Aeronautical information system upgrade (airport operation database); - 077AF4 - Interactive Rolling NOP
SYNCHRONIZATION	With: Airspace Users; Airports; ANSPs; ECTL/NM
LINKS	AF 2; Sub AF 2.1; Family 2.1.3; Family 2.1.4 AF 4; Sub AF 4.2; Family 4.2.2; Family 4.2.3
NM LINKS	**NSP :** SO6/4 **NOP:** Advanced ATC Tower Implementation planned for 2015; DMAN not available; AMAN available. No reported CDM basic.

Recommendation:

This project is considered as a Foundation IP.

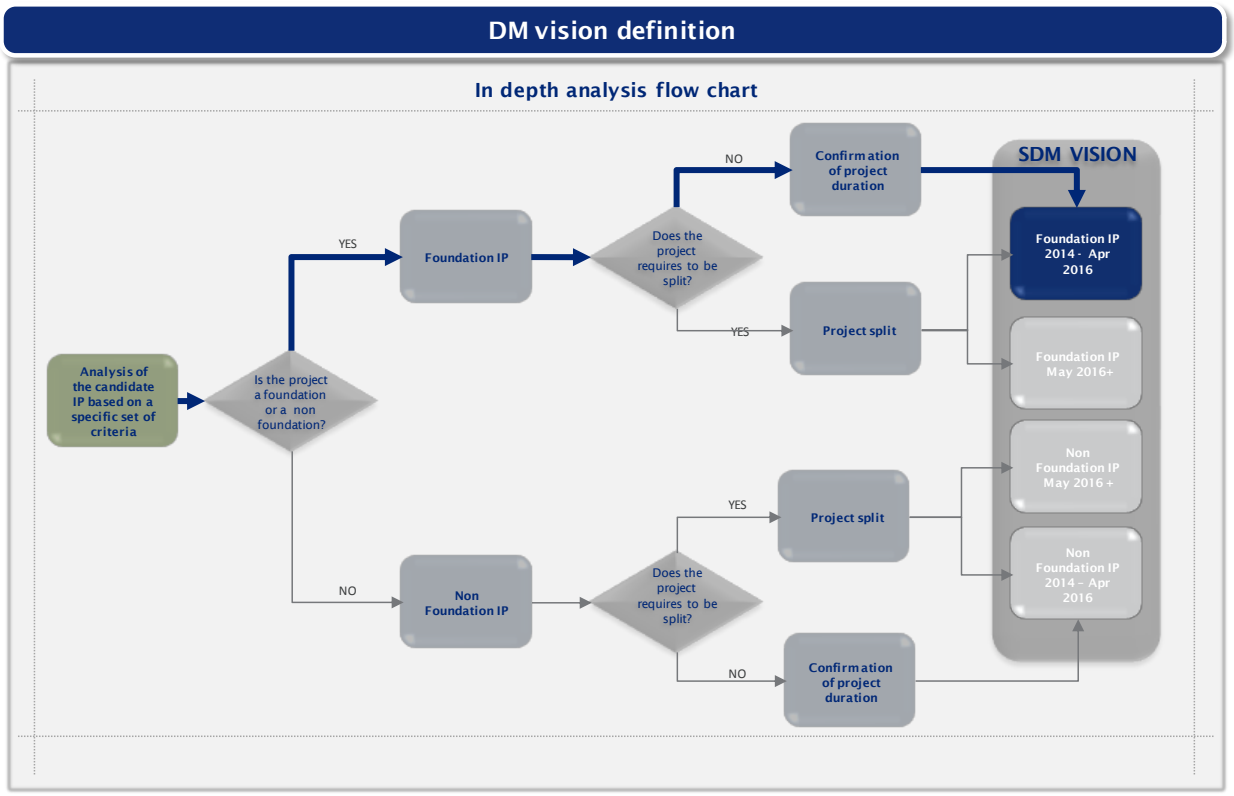


The project could be part of the next INEA call in order to ensure continuity of the action within the Deployment Programme.

Content	Description
REFERENCE NUMBER	**036AF2**
TITLE	**Aeronautical information system upgrade (airport operation database)**
MAIN AF / SUB AF / Family	**AF 2; Sub AF 2.1; Family 2.1.4**
PROJECT DESCRIPTION	**Objectives:** - Keep the level of efficiency for the information management - Link with all local project implementation, this project allow to keep all the functionalities and allow to add the new ones keeping the fluidity of the data processing - Manage the different impacts of the CDM implementation (amongst others) on the different peripheral systems - Sustain the system potential - Make the others local implementation projects parts of the overall functioning of the platform This local project implementation is essential in order to reach the new objectives of efficiency.
PROJECT LEADER	Aéroports de la Cote d'Azur
MEMBER STATE	FRANCE
TIMING	01/01/2016 - 31/05/2018
AIRBORNE	
INTERDEPENDENCIES	- 028AF2 - Automatic block time detection – option 1: use of radar data; - 029AF2 - Automatic block time detection – option 2: video cameras implementation; - 031AF2 - Data exchanges with the ANSP; - 032AF2 - Data exchanges with the NMOC; - 033AF2 - Data exchanges with COHOR; - 034AF2 - Data exchanges with airport stakeholders; - 035AF2 - Pre-departure sequence; - 077AF4 - Interactive Rolling NOP
SYNCHRONIZATION	With: Airspace Users; Airports: ANSPs; ECTL/NM
LINKS	AF 2; Sub AF 2.1; Family 2.1.1; Family 2.1.3 AF 4; Sub AF 4.2; Family 4.2.2; Family 4.2.3
NM LINKS	**NSP :** None **NOP:** None

Recommendation:

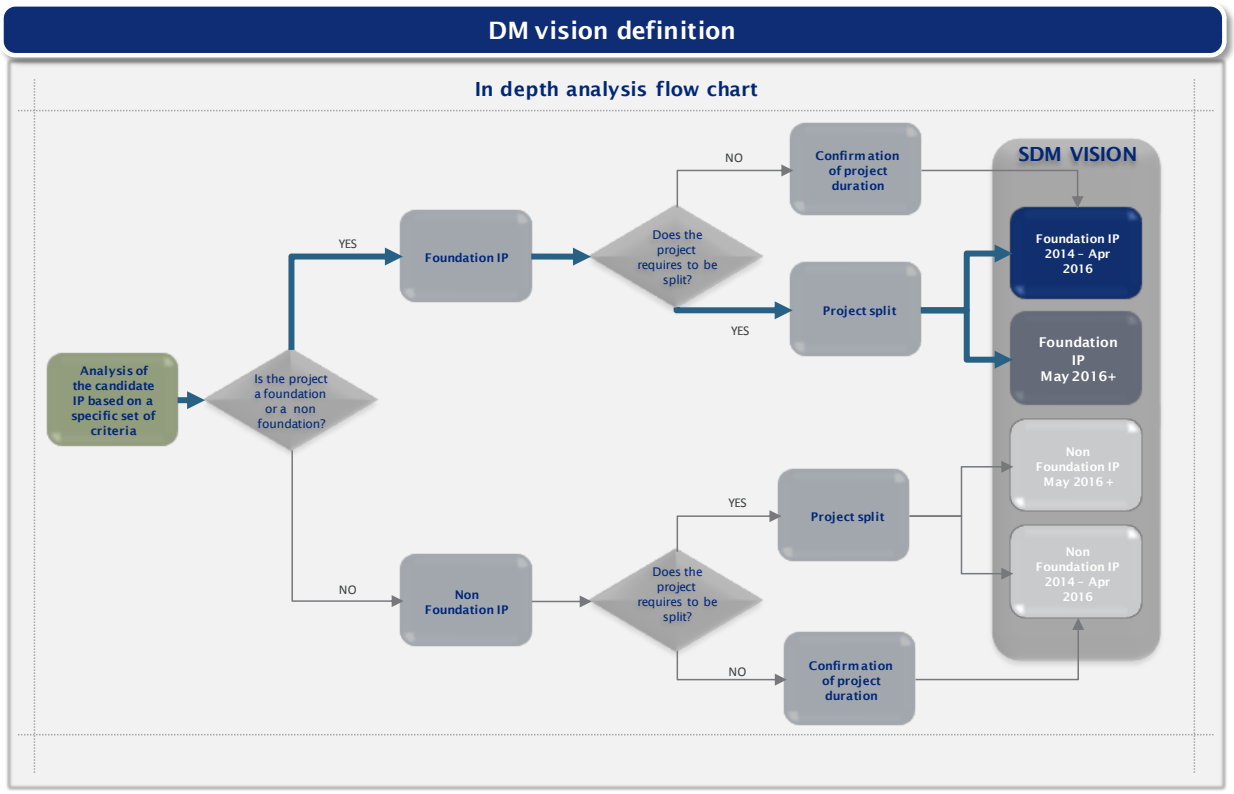
This project is considered as a Foundation IP.



Content	Description
REFERENCE NUMBER	**042AF2-A**
TITLE	**A-SMGCS Düsseldorf**
MAIN AF / SUB AF / Family	**AF 2; Sub AF 2.2; Family 2.2.1**
PROJECT DESCRIPTION	**Objectives:** The A-SMGCS-Düsseldorf project comprises the implementation of an A-SMGCS Level 2, including RIM function, at Düsseldorf Airport to improve runway safety and throughput and to support the provision of air traffic services and apron services. The project covers the following activities: - Replacing/exchanging the current primary sensor - Setting up the new cooperative sensor (MLAT) - Provision of the required infrastructure - Implementation of a tracker and a ground situation display - Safety assessments The realisation of this project will be the preparatory work for the further A-SMGCS Level 3 and 4. Implementation of the routing function is not part of the described project.
PROJECT LEADER	DFS
MEMBER STATE	GERMANY
TIMING	30/04/2013 – 04/04/2018
AIRBORNE	
INTERDEPENDENCIES	
SYNCHRONIZATION	With: Airports
LINKS	AF 2; Sub AF 2.4; Family 2.4.1
NM-Links	**NSP:** SO6/6 **NOP:** None

Recommendation:

This project is considered as a Foundation IP.

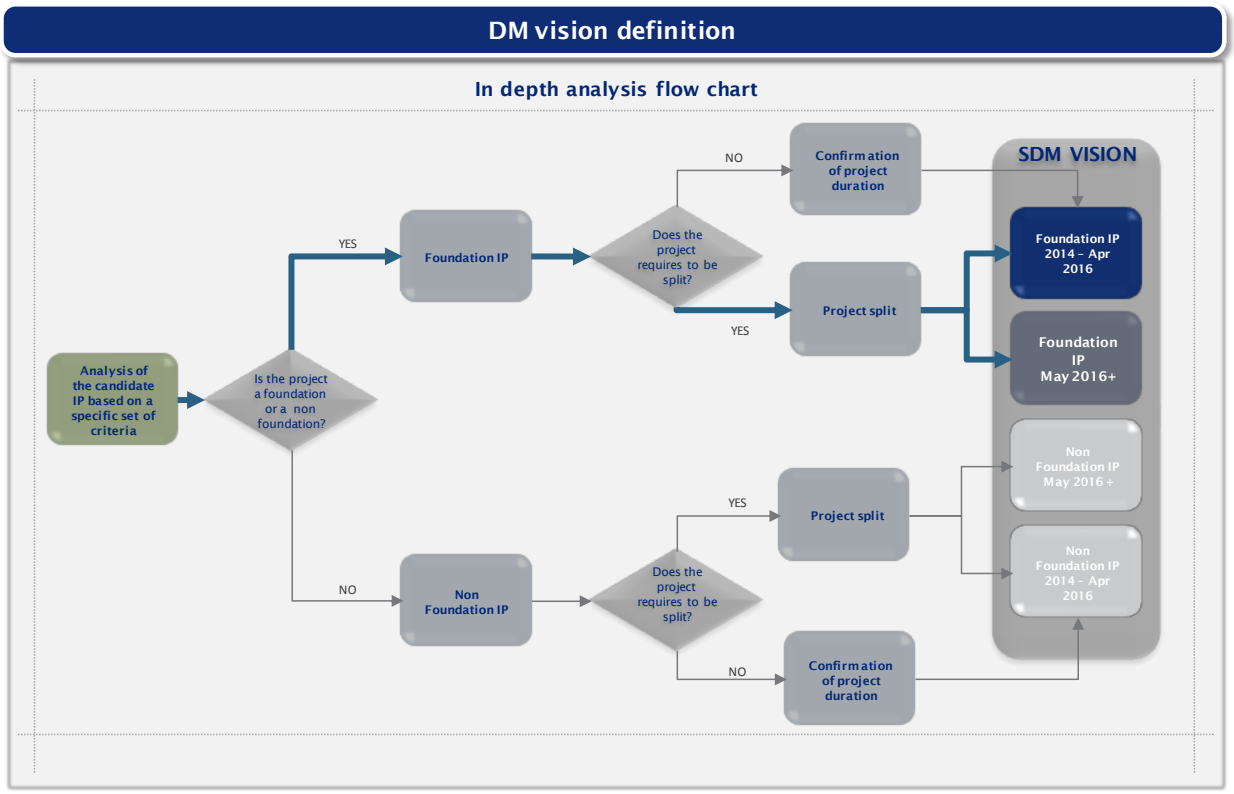


The project could be split in 2 phases. The first phase (January 2014–April 2016) hast to be considered for this INEA Call 2014. The second phase (May 2016–April 2018) needs to be part of the next INEA call in order to ensure continuity of the action within the Deployment Programme.

Content	Description
REFERENCE NUMBER	**048AF2**
TITLE	**SYSAT@CDG**
MAIN AF / SUB AF / Family	**AF 2; SUB AF 2.1; Family 2.1.2**
PROJECT DESCRIPTION	**Objectives:** In all CDG tower facilities (3 ATC + 2 apron cab) and Approach control room - introduce Electronic Flight Strip - provide new ASMGCS level 2 tracker with enhanced ground situation display including some level 3/4 functionalities - provide new Air Situation Display - provide new weather information, synoptic display and electronic documentation - increase information sharing among ATC actors and Airport handler especially regarding DMAN and CDM processes - be ready for SESAR evolution Phase 1 (2014-2016) : product acquisition and installation preparation Phase 2 (2017-2018): installation in operational rooms
PROJECT LEADER	DSNA
MEMBER STATE	FRANCE
TIMING	01/01/2014 - 31/12/2018
AIRBORNE	
INTERDEPENDENCIES	- 023AF2 - SMAN-Vehicle; - 026AF2 - Evolutions CDM-CDG; - 027AF2 - SMAN-Airport; - 054AF2 - CDG2020 Step1
SYNCHRONIZATION	With: Airspace Users; Airports: ANSPs
LINKS	AF 2; Sub AF 2.1; Family 2.1.1 AF 2; Sub AF 2.2; Family 2.2.1 AF 2; Sub AF 2.3; Family 2.1.2; Family 2.3.1 AF 2; Sub AF 2.4; Family 2.1.2; Family 2.2.1; Family 2.4.1 AF 2; Sub AF 2.5; Family 2.5.1; Family 2.1.2; Family 2.2.1
NM LINKS	**NSP :** SO6/6 **NOP:** A-SMGCS (level 2): Available in TWR and APCH

Recommendation:

This project is considered as a Foundation IP.

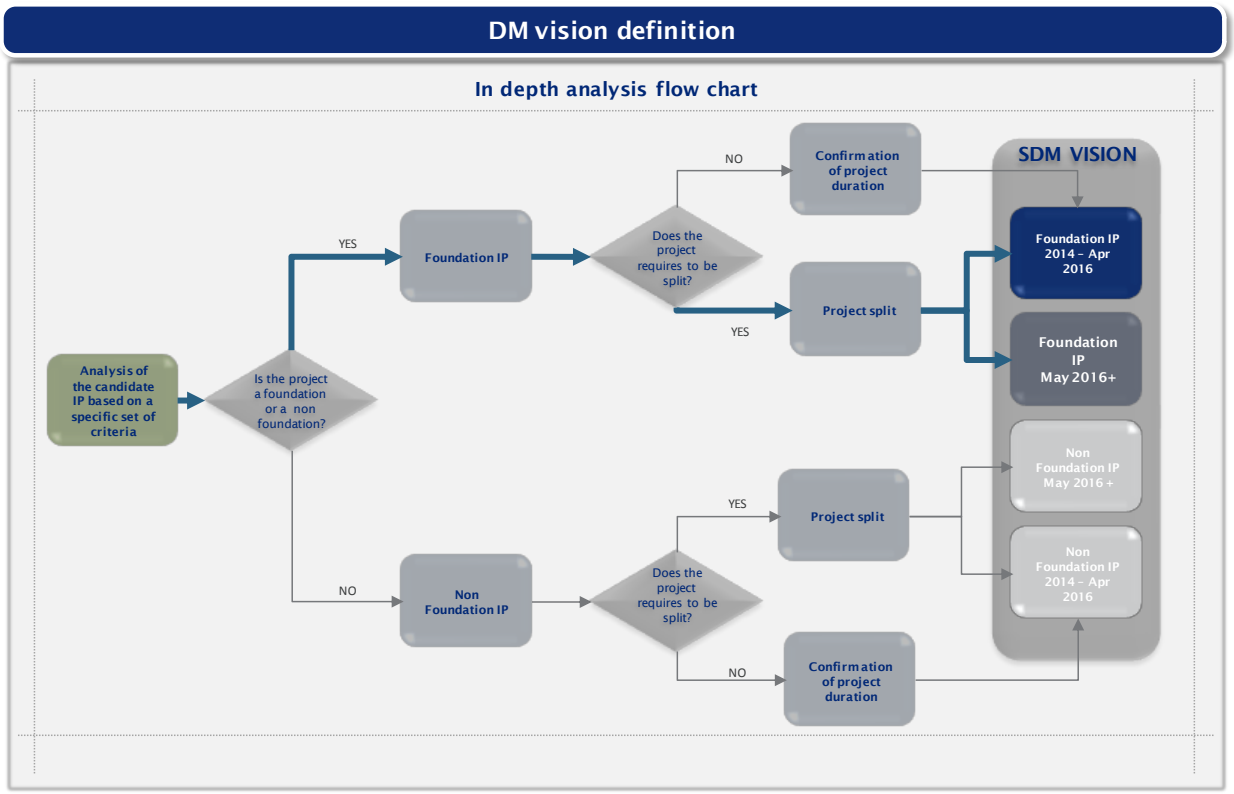


The project could be split in two phases. The first phase (January 2014-April 2016) has to be considered for the INEA call 2014. The second phase (May 2016 – December 2018) needs to be part of the next INEA call in order to ensure continuity of the action within the Deployment Programme.

Content	Description
REFERENCE NUMBER	**049AF2**
TITLE	**SYSAT@NCE**
MAIN AF / SUB AF / Family	**AF 2; Sub AF 2.1; Family 2.1.2**
PROJECT DESCRIPTION	**Objectives:** In the Tower cab and Approach control room - provide ASMGCS level 1 capability before full SYSAT deployment - introduce Electronic Flight Strip - evolve ASMGCS to level 2 with enhanced ground situation display including some level 3/4 functionalities, - provide new Air Situation Display, - provide new weather information, synoptic display and electronic documentation, - be ready for SESAR evolution. Phase 1 (2014-2016) : Acquisition, Deployment preparation Phase 2 (2017-2019): Deployment, Training and transition
PROJECT LEADER	DSNA
MEMBER STATE	FRANCE
TIMING	01/01/2014 - 01/07/2019
AIRBORNE	
INTERDEPENDENCIES	- 030AF2 - Equipment of ground vehicles to supply the A-SMGCS
SYNCHRONIZATION	With: ANSPs, Airport
LINKS	AF 2; Sub AF 2.1; Family 2.1.1 AF 2; Sub AF 2.2; Family 2.2.1 AF 2; Sub AF 2.3; Family 2.1.2; Family2.3.1 AF 2; Sub AF 2.4; Family 2.1.2; Family 2.2.1; Family 2.4.1 AF 2; Sub AF 2.5; Family 2.5.1; Family 2.1.2; Family 2.2.1
NM LINKS	**NSP :** SO6/6 **NOP:** A-SMGCS (level 1): Ongoing Implementation.

Recommendation:

This project is considered as a Foundation IP.

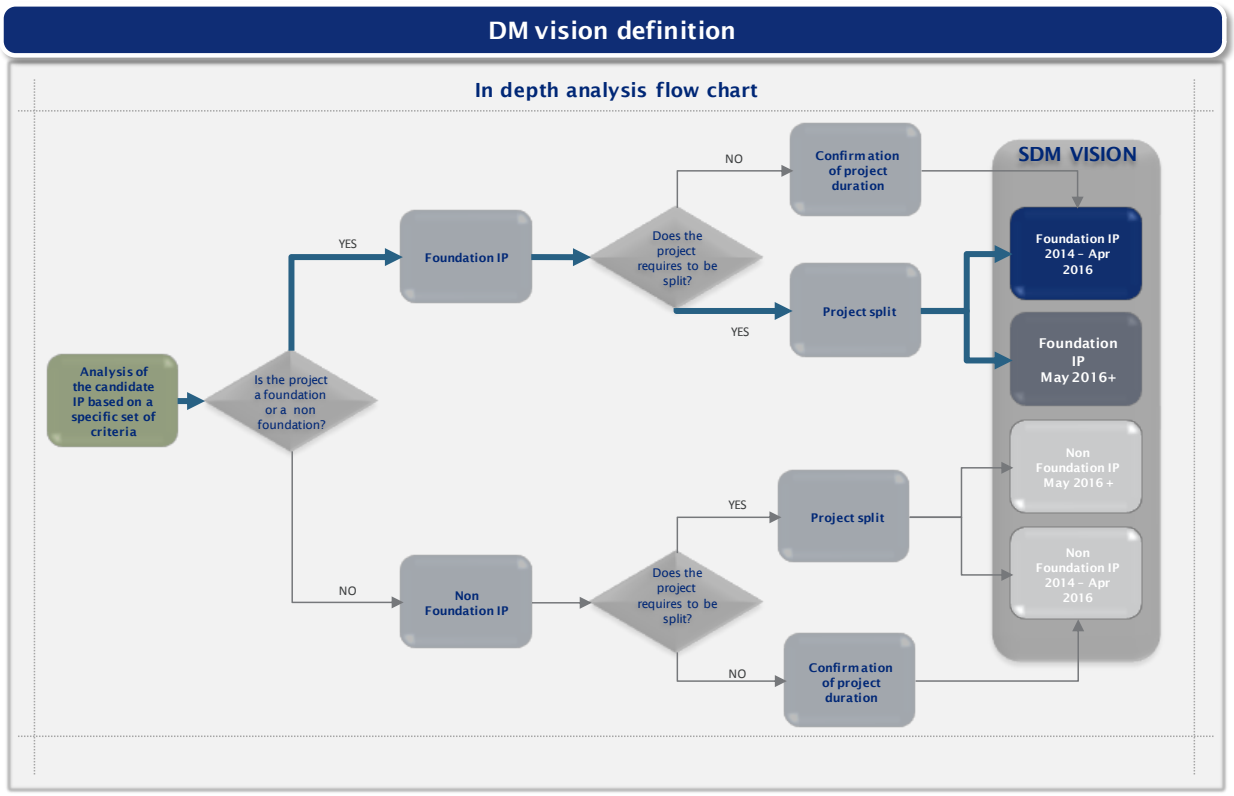


The project could be split in two phases. The first phase (January 2014-April 2016) has to be considered for the INEA call 2014. The second phase (May 2016 – July 2019) needs to be part of the next INEA call in order to ensure continuity of the action within the Deployment Programme.

Content	Description
REFERENCE NUMBER	**050AF2**
TITLE	**SYSAT@ORY**
MAIN AF / SUB AF / Family	**AF 2; Sub AF 2.1; Family 2.1.2**
PROJECT DESCRIPTION	In Tower cab and Approach control room - introduce Electronic Flight Strip, - provide new ASMGCS level 2 tracker with enhanced ground situation display including some level 3/4 functionalities, - provide new Air Situation Display, - provide new weather information, synoptic display and electronic documentation, - increase information sharing among ATC actors and Airport handler especially regarding DMAN and CDM processes, - be ready for SESAR evolution. Phase 1 (2014-2016) - ACQUISITION - SYSTEM ADAPTATION Phase 2 (2017-2019): IMPLEMENTATION
PROJECT LEADER	DSNA
MEMBER STATE	FRANCE
TIMING	01/01/2014 - 01/07/2019
AIRBORNE	
INTERDEPENDENCIES	- 023AF2 - SMAN-Vehicle; - 129AF2 - CDM-Orly; - 130AF2 - BOREAL-Orly
SYNCHRONIZATION	With Airspace Users, Airports, ANSPs
LINKS	AF 2; Sub AF 2.1; Family 2.1.1 AF 2; Sub AF 2.2; Family 2.2.1 AF 2; Sub AF 2.3; Family 2.1.2; Family 2.3.1 AF 2; Sub AF 2.4; Family 2.1.2; Family 2.2.1; Family 2.4.1 AF 2; Sub AF 2.5; Family 2.5.1; Family 2.1.2; Family 2.2.1
NM LINKS	**NSP :** SO 6/6 **NOP:** A-SMGCS not reported.

Recommendation:

This project is considered as a Foundation IP.

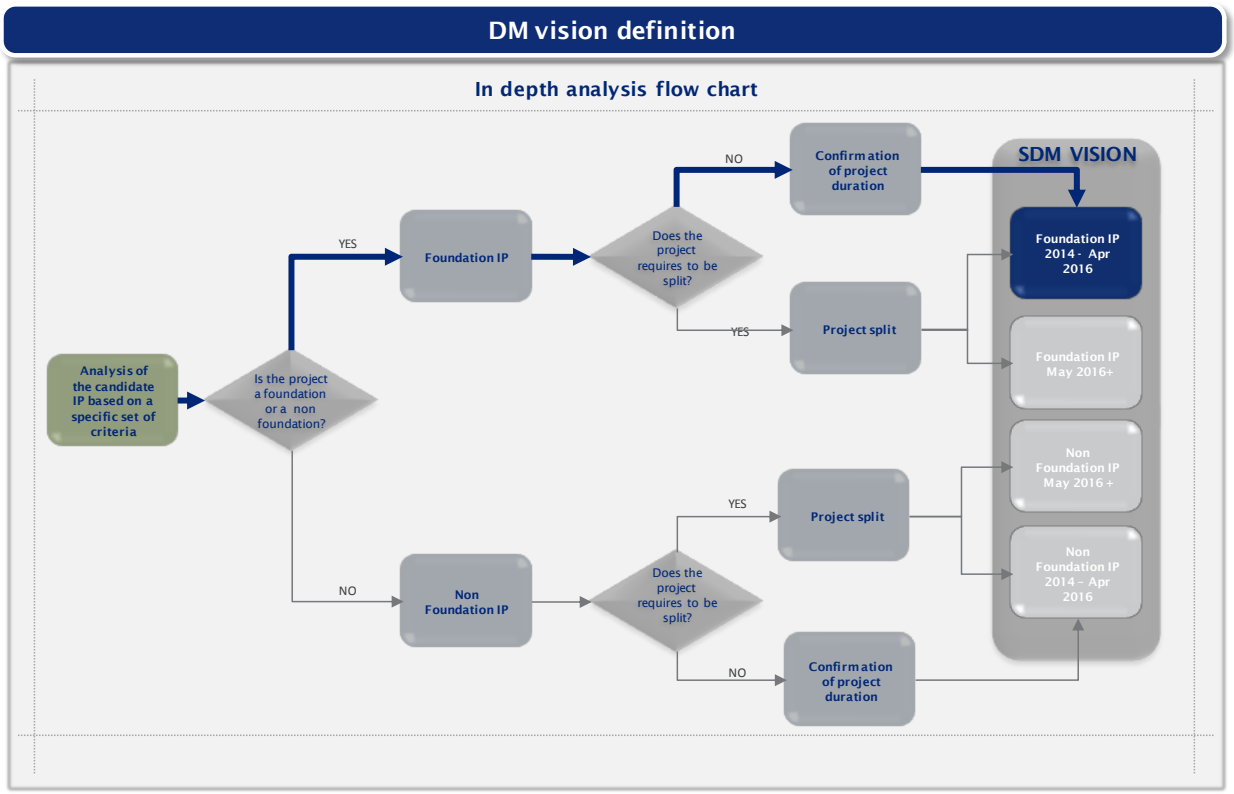


The project could be split in two phases. The first phase (January 2014-April 2016) has to be considered for the INEA call 2014. The second phase (May 2016 – July 2019) needs to be part of the next INEA call in order to ensure continuity of the action within the Deployment Programme.

Content	Description
REFERENCE NUMBER	**054AF2**
TITLE	**CDG2020 Step1**
MAIN AF / SUB AF / Family	**AF 2; Sub AF 2.5; Family 2.5.1**
PROJECT DESCRIPTION	**Objectives:** - Improve runway safety against runway intrusion - Improve runway throughput at peak arrival period A 2020 action plan has been set up to improve performance at CDG, following a balanced approach in the areas of safety and capacity. Step1 of the action plan is targeting improvement of the performance level at the horizon of 2017 by implementing new systems and procedures identified as quick wins. The deployment of those actions is coordinated with Aéroport de Paris (ADP) and the airport users.
PROJECT LEADER	DSNA
MEMBER STATE	FRANCE
TIMING	01/01/2014 - 01/03/2017
AIRBORNE	
INTERDEPENDENCIES	- 048AF2 - SYSAT@CDG; - 070AF2 - RECAT EU DEPLOYMENT WAKE TOOLS SUPPORT
SYNCHRONIZATION	With Airspace Users, Airports, ANSPs, EUROCONTROL
LINKS	AF 1; Sub AF 1.1; Family 1.1.1 AF 2; Sub AF 2.3; Family 2.3.1
NM LINKS	**NSP :** SO6/6 **NOP:** A-SMGCS (level 2): Available in TWR and APCH

Recommendation:

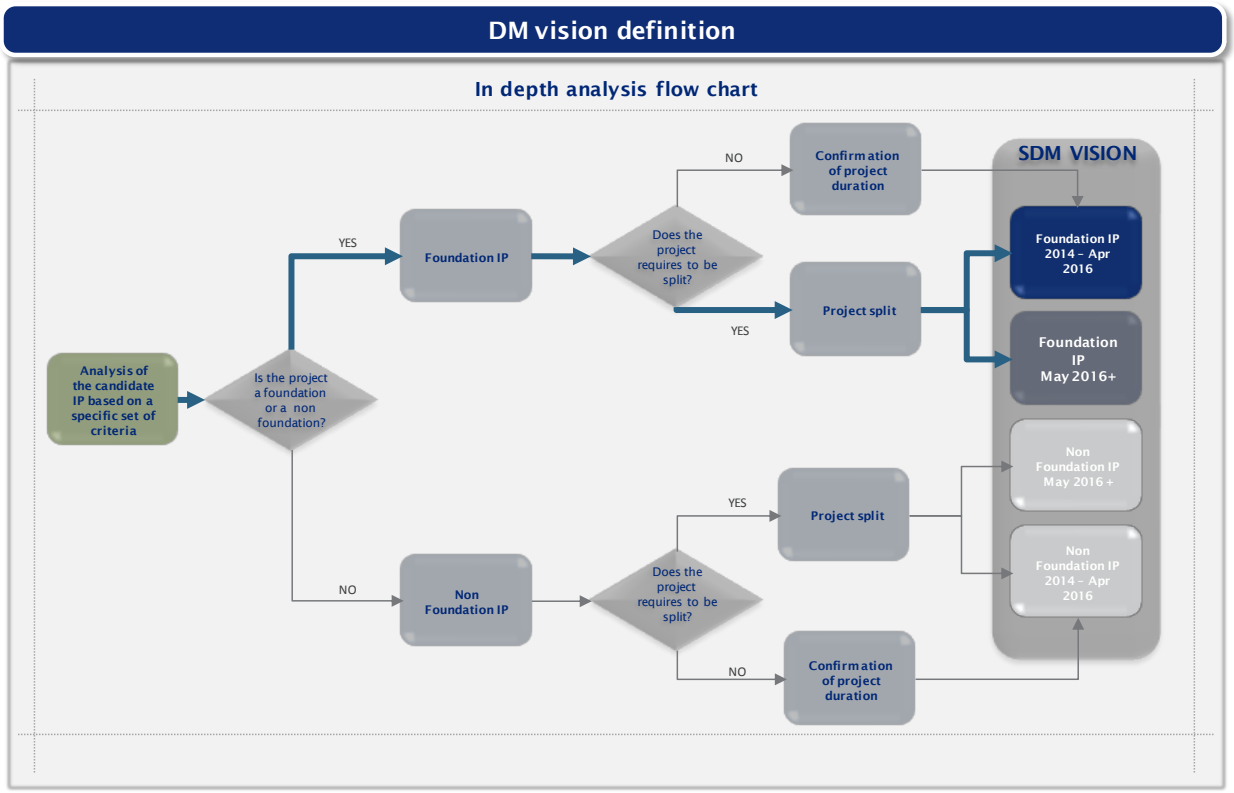
This project is considered as a Foundation IP.



Content	Description
REFERENCE NUMBER	**057AF2 Phase 1**
TITLE	**Fulfillment of the prerequisite EFS for the PCP AF2 Sub-Functionality: Airport Integration and Throughput [2014-2016]**
MAIN AF / SUB AF / Family	**AF 2; Sub AF 2.1; Family 2.1.2**
PROJECT DESCRIPTION	**Objectives:** Partial fulfillment of the IR 716/2014 "Pilot common project", and in special the AF2 functionality which identifies the use of EFS ("Electronic Flight Strip" in the Tower domain) as a prerequisite for the following functions: - Departure management synchronized with pre-departure sequencing - Departure management integrating surface management constraints - Time based separation - Automated assistance to controller for surface movement planning and routing - Airport safety nets Family 2.1.2 Electronic Flight Strip (EFS). Electronic Strip where all the information regarding instructions controller/pilot about flight plan, surveillance, etc., are integrated. The tool will ease the data input and display for the use of advanced tools like DMAN, A-SMGCS and CDM." There will be two EFS operation modes, according to the operational complexity of the airport: 1. Based on lists. The information contained in the flight strip will be available in different lists and windows of the system 2. Based on labels. In airports with surface surveillance systems, the relevant flight strip information will be displayed (apart from the lists and windows) in the corresponding flight label It will require the development of a dynamic simulation system for training purposes. The following Spanish airports will implement Electronic Flight Strip: 1. Adolfo Suárez Madrid-Barajas 2. Barcelona El Prat 3. Palma de Mallorca This proposal includes all the development activities, to be carried out from 2014 to 2016, prior to the operational validation of the new function. The operational validation and deployment of the functionality in the above mentioned airports will be performed 2017 onwards.
PROJECT LEADER	ENAIRE
MEMBER STATE	SPAIN
TIMING	01/01/2014 – 31/12/2016
AIRBORNE	
INTERDEPENDENCIES	057AF2 Phase 2 _ Fulfillment of the prerequisite EFS for the PCP AF2 Sub-Functionality: Airport Integration and Throughput [2017-2019]
SYNCHRONIZATION	With Airspace Users, Airports, ANSPs
LINKS	AF 2; Sub AF 2.2; Sub AF 2.3; Sub AF 2.4; Sub AF 2.5; Family 2.4.1
NM LINKS	**NSP:** SO 6/5 & SO 6/6; **NOP:** None;

Recommendation:

This project is considered as a Foundation IP.

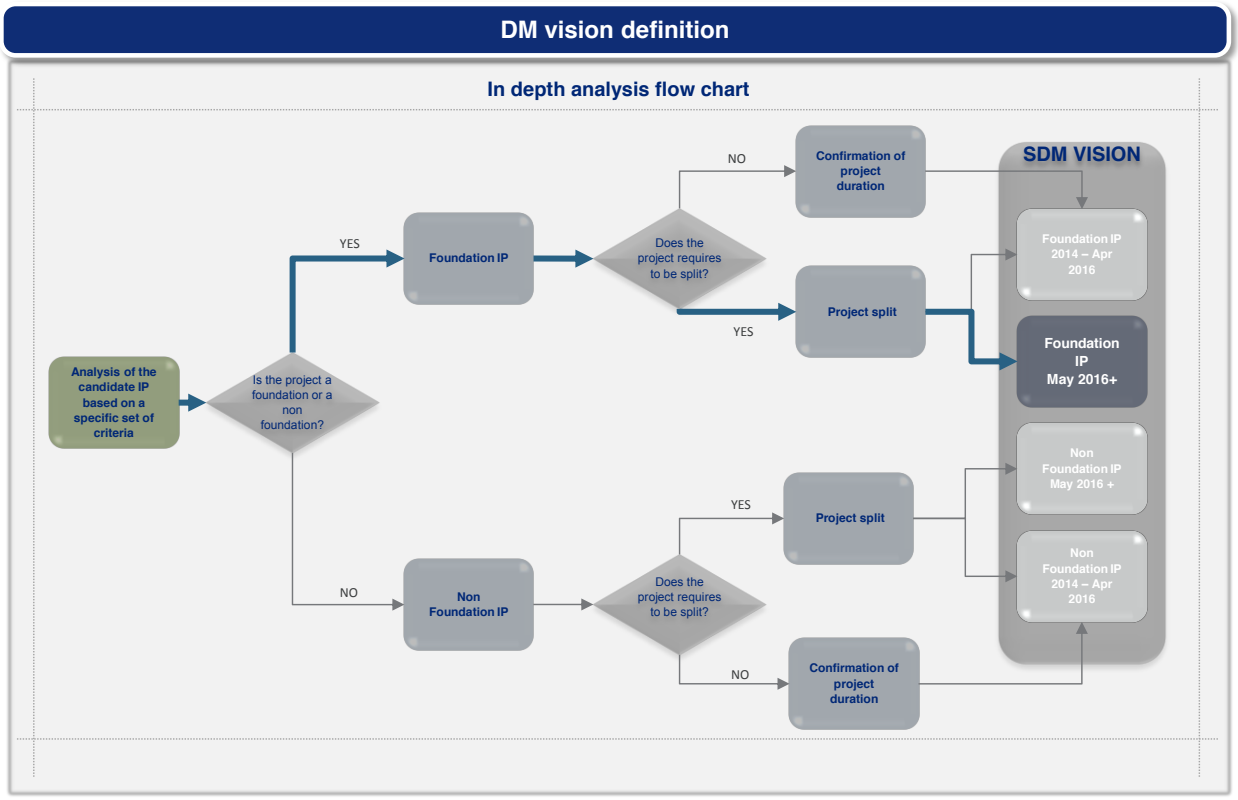


The project could be split in two phases. The first phase (January 2014-April 2016) has to be considered for the INEA call 2014.The second phase (May 2016 – December 2016) needs to be part of the next INEA call linked to IP n. 057AF2 b in order to ensure continuity of the action within the Deployment Programme.

Content	Description
REFERENCE NUMBER	**057AF2 Phase 2**
TITLE	**Fulfillment of the prerequisite EFS for the PCP AF2 Sub-Functionality: Airport Integration and Throughput [2017-2019]**
MAIN AF / SUB AF / Family	**AF 2; Sub AF 2.1; Family 2.1.2**
PROJECT DESCRIPTION	**Objectives:** Partial fulfillment of the IR 716/2014 "Pilot common project", and in special the AF2 functionality which identifies the use of EFS ("Electronic Flight Strip" in the Tower domain) as a prerequisite for the following functions: - Departure management synchronized with pre-departure sequencing - Departure management integrating surface management constraints - Time based separation - Automated assistance to controller for surface movement planning and routing - Airport safety nets Family 2.1.2 Electronic Flight Strip (EFS). Electronic Strip where all the information regarding instructions controller/pilot about flight plan, surveillance, etc., are integrated. The tool will ease the data input and display for the use of advanced tools like DMAN, A-SMGCS and CDM." There will be two EFS operation modes, according to the operational complexity of the airport: 3. Based on lists. The information contained in the flight strip will be available in different lists and windows of the system 4. Based on labels. In airports with surface surveillance systems, the relevant flight strip information will be displayed (apart from the lists and windows) in the corresponding flight label It will require the development of a dynamic simulation system for training purposes. The following Spanish airports will implement Electronic Flight Strip: 1. Adolfo Suárez Madrid-Barajas 2. Barcelona El Prat 3. Palma de Mallorca This proposal includes all the development activities, to be carried out from 2014 to 2016, prior to the operational validation of the new function. The operational validation and deployment of the functionality in the above mentioned airports will be performed 2017 onwards.
PROJECT LEADER	ENAIRE
MEMBER STATE	SPAIN
TIMING	01/01/2017 – 31/12/2019
AIRBORNE	
INTERDEPENDENCIES	057AF2 Phase 1 _ Fulfillment of the prerequisite EFS for the PCP AF2 Sub-Functionality: Airport Integration and Throughput [2014-2016]
SYNCHRONIZATION	With Airspace Users, Airports, ANSPs
LINKS	AF 2; Sub AF 2.2; Sub AF 2.3; Sub AF 2.4; Sub AF 2.5; Family 2.4.1
NM LINKS	NSP: SO 6/5 & SO 6/6; NOP: None;

Recommendation:

This project is considered as a Foundation IP.

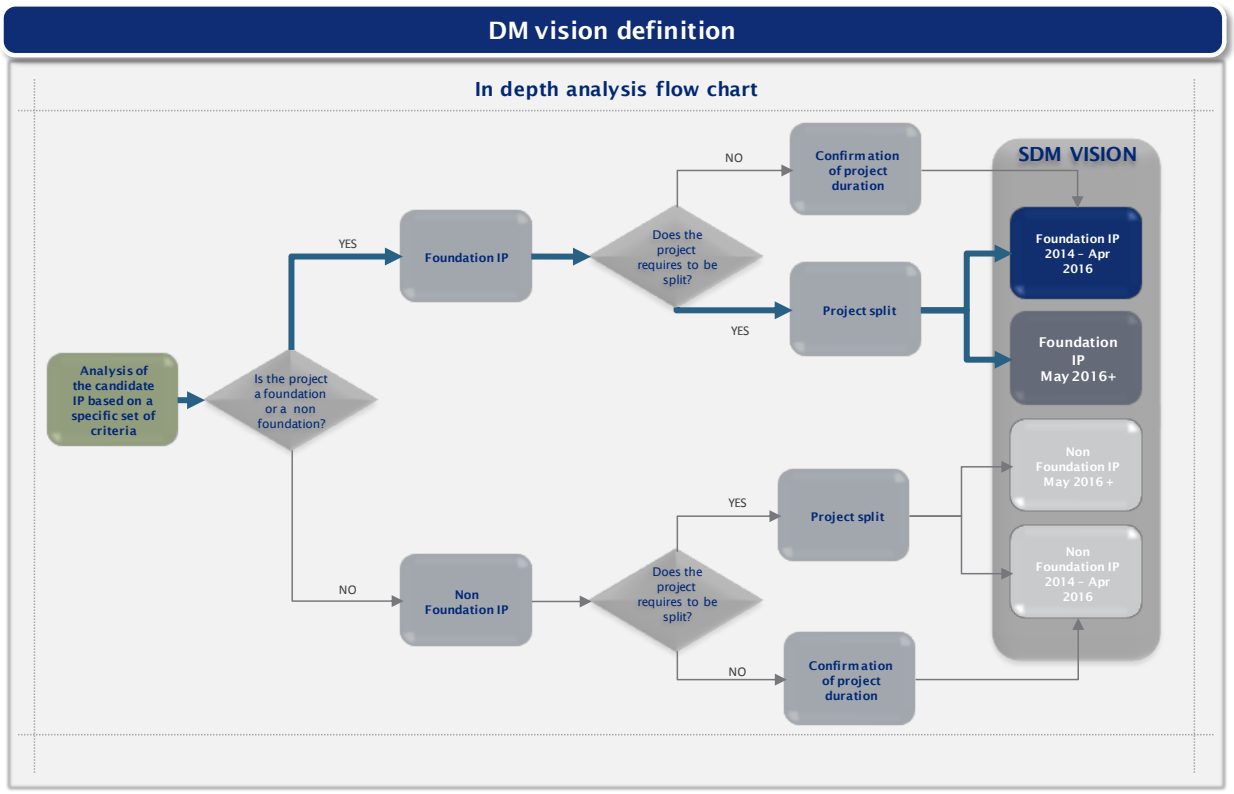


The project could be part of the next INEA call in order to ensure continuity of the action within the Deployment Programme.

Content	Description
REFERENCE NUMBER	**058AF2 Phase 1**
TITLE	**Fulfillment of the prerequisite A-SMGCS 2for the PCP AF2 Sub-Functionality: Airport Integration and Throughput [2014-2016]**
MAIN AF / SUB AF / Family	**AF 2 ; Sub AF 2.2 ; Family 2.2.1**
PROJECT DESCRIPTION	**Objectives:** Partial fulfillment of the IR 716/2014 "Pilot common project", and in special the AF2 functionality which identifies the implementation and deployment of A-SMGCS 2 as a prerequisite for the Airport Safety Nets function. ENAIRE´s Family 2.2.1 A-SMGCS 2 will focus on Runway Incursion Alerts. The function shall integrate the surveillance information (regarding all relevant aircraft and vehicles on the area) and controller runway related clearances, to generate and distribute the appropriate alerts. The following Spanish airports will implement Runway Incursion Alerts based on A-SMGCS 2 : 1. Adolfo Suárez Madrid-Barajas 2. Barcelona El Prat 3. Palma de Mallorca This proposal includes all the development activities, to be carried out from 2014 to 2016, prior to the operational validation of the new function. The operational validation and deployment of the functionality in the above mentioned airports will be performed 2017 onwards.
PROJECT LEADER	ENAIRE
MEMBER STATE	SPAIN
TIMING	01/01/2014 – 31/12/2016
AIRBORNE	
INTERDEPENDENCIES	058AF2 Phase 2 _ Fulfillment of the prerequisite A-SMGCS 2 for the PCP AF2 Sub-Functionality: Airport Integration and Throughput [2017-2019]
SYNCHRONIZATION	With : Airspace Users, Airports, ANSPs
LINKS	AF2 ; Sub AF 2.3 ; Sub AF 2.4 ; Sub AF 2.5
NM LINKS	**NSP:** SO 6/6; **NOP:** ASMGCS Level 1 available in LEMD; On-going implementation Level 1 in LEBL; ASMGCS Level 1 available in LEPA;

Recommendation:

This project is considered as a Foundation IP.

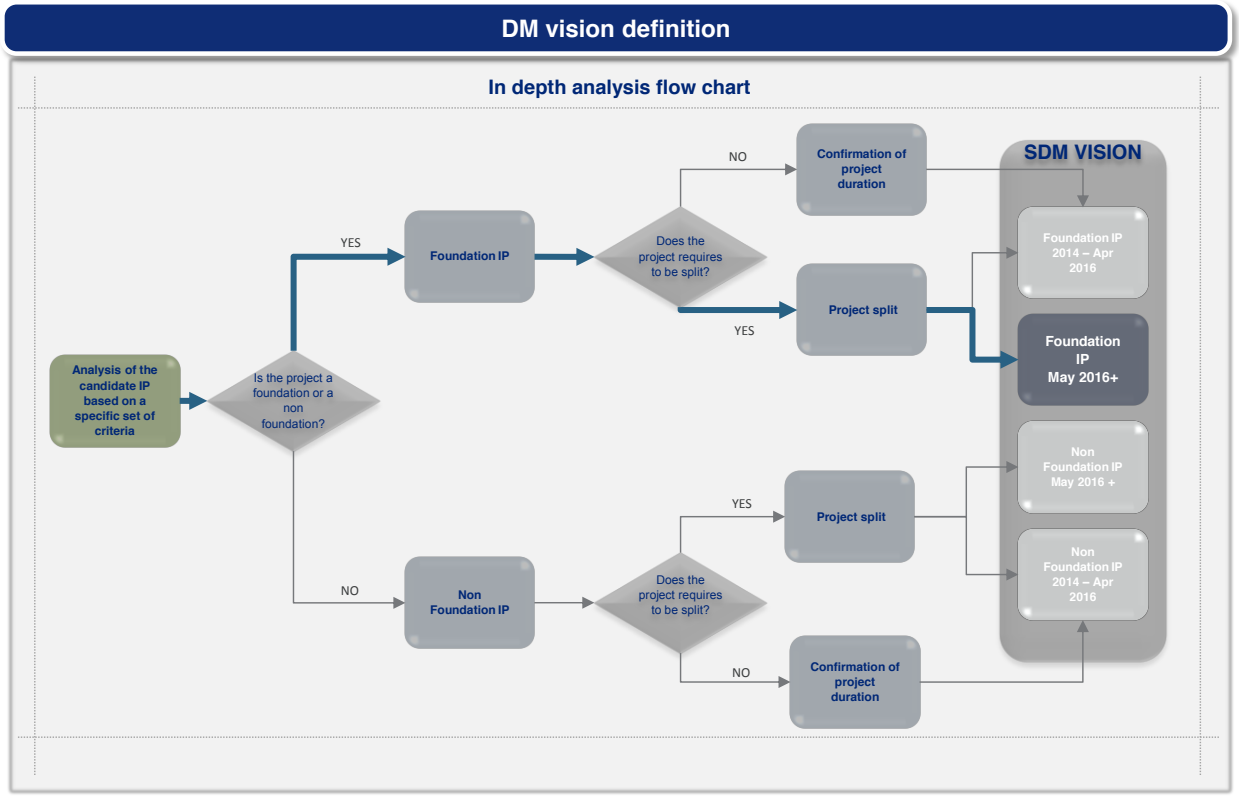


The project could be split in two phases. The first phase (January 2014 – April 2016) has to be considered for the INEA call 2014.The second phase (May 2016 – December 2016) needs to be part of the next INEA call linked to IP n. 058AF2 b in order to ensure continuity of the action within the Deployment Programme.

Content	Description
REFERENCE NUMBER	**058AF2 Phase 2**
TITLE	**Fulfillment of the prerequisite A-SMGCS 2for the PCP AF2 Sub-Functionality: Airport Integration and Throughput [2017-2019]**
MAIN AF / SUB AF / Family	**AF 2 ; Sub AF 2.2 ; Family 2.2.1**
PROJECT DESCRIPTION	**Objectives:** Partial fulfillment of the IR 716/2014 "Pilot common project", and in special the AF2 functionality which identifies the implementation and deployment of A-SMGCS 2 as a prerequisite for the Airport Safety Nets function. ENAIRE´s Family 2.2.1 A-SMGCS 2 will focus on Runway Incursion Alerts. The function shall integrate the surveillance information (regarding all relevant aircraft and vehicles on the area) and controller runway related clearances, to generate and distribute the appropriate alerts. The following Spanish airports will implement Runway Incursion Alerts based on A-SMGCS 2 : 4. Adolfo Suárez Madrid-Barajas 5. Barcelona El Prat 6. Palma de Mallorca This proposal includes all the development activities, to be carried out from 2014 to 2016, prior to the operational validation of the new function. The operational validation and deployment of the functionality in the above mentioned airports will be performed 2017 onwards. -
PROJECT LEADER	ENAIRE
MEMBER STATE	SPAIN
TIMING	01/01/2017 – 31/12/2019
AIRBORNE	
INTERDEPENDENCIES	058AF2 Phase 1 _ Fulfillment of the prerequisite A-SMGCS 2 for the PCP AF2 Sub-Functionality: Airport Integration and Throughput [2014-2016]
SYNCHRONIZATION	With : Airspace Users, Airports, ANSPs
LINKS	AF2 ; Sub AF 2.3 ; Sub AF 2.4 ; Sub AF 2.5
NM LINKS	NSP: SO 6/6; NOP: ASMGCS Level 1 available in LEMD; On-going implementation Level 1 in LEBL; ASMGCS Level 1 available in LEPA;

Recommendation:

This project is considered as a Foundation IP.

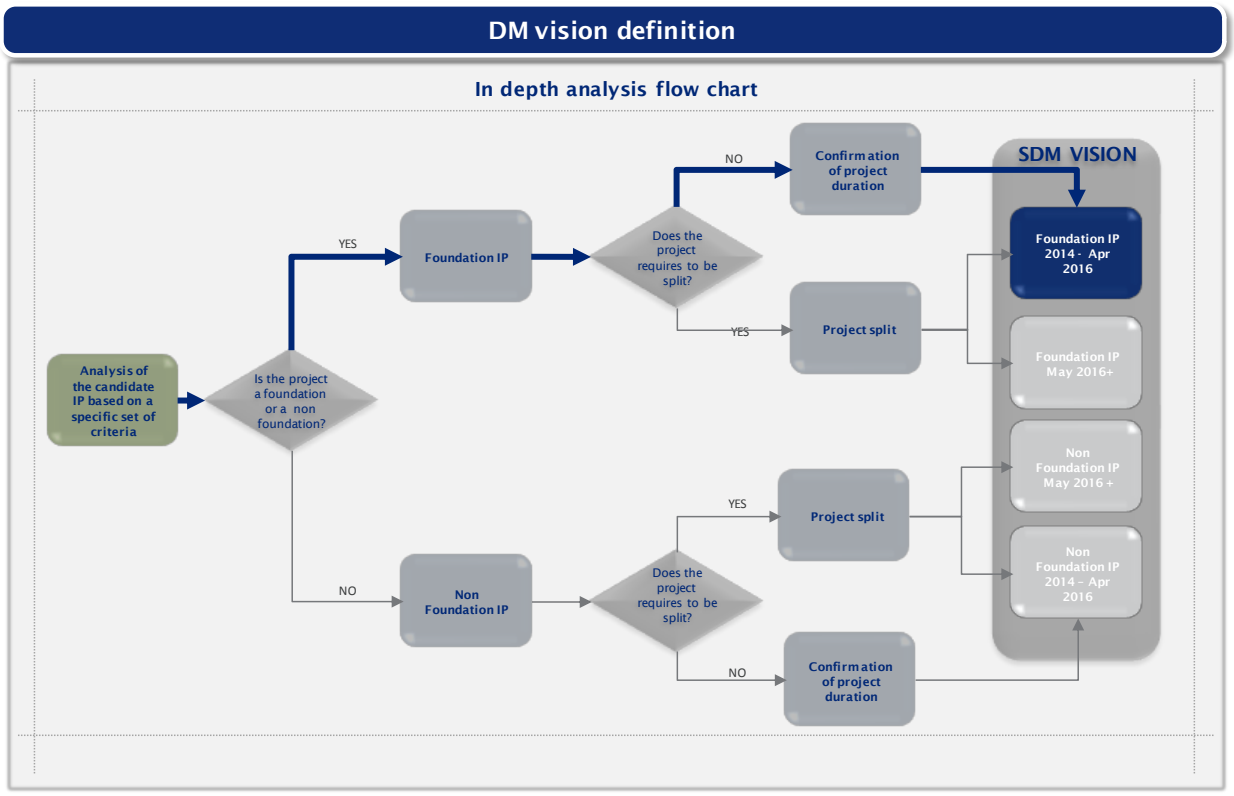


The project could be part of the next INEA call in order to ensure continuity of the action within the Deployment Programme.

Content	Description
REFERENCE NUMBER	**064AF2**
TITLE	**ENAV Airport System upgrade**
MAIN AF / SUB AF / Family	**AF 2; Sub AF 2.5; Family 2.5.1**
PROJECT DESCRIPTION	**Objectives:** The main objective is to increase the efficiency and safety of operations at Malpensa and Fiumicino, the two main Italian airports, by improving the surveillance coverage, quality and accuracy in order to extend its capabilities over the all movement area (including most of the suitable apron areas), with a view to implement functionalities that shall facilitate and enable the deployment of Airport Safety Nets as requested within Reg. 716/2014 The enhancement of surveillance is needed in order to fully satisfy the requirements for ASMGCS level 1 and for laying down the bases for ASMGCS Level 2. In particular, the aim of this project is to achieve the Implementation of A-SMGCS level 2 at Malpensa airport and full A-SMGCS level 1 at Fiumicino airport. The project modularity will reflect the different requirements at airport level, allowing each working package to be further decomposed in different modules. In particular the surveillance functionality will be improved through: - The implementation of a new multi-sensor data fusion that will be able to integrate all the contributions coming from different surveillance sensors (ADS-B, Multilateration, SMR,) - The enhancement of the current Surface Movement Radar (SMR) - the upgrade of the Multilateration system (MLAT), enhancing the actual coverage by adding and integrating other MLAT ground stations. The new tower system will provide the : - Electronic Flight Progress Strips (EFPS). - New Airport Surveillance Data presentation - Basic safety (Conflicting clearances through the use of EFPS).
PROJECT LEADER	ENAV
MEMBER STATE	ITALY
TIMING	01/01/2014 – 31/12/2016
AIRBORNE	
INTERDEPENDENCIES	NO
SYNCHRONIZATION	With Airport, ANSPs
LINKS	AF 2; Sub AF 2.1; Family 2.1.2
NM LINKS	**NSP :** SO 6/5 & SO 6/6 ; **NOP:** In LIMC, A-SMGCS (level 1): Ongoing Implementation. WIP in progress with Italian CAA to define A-SMGCS level 1. In LIRF, ASMGCS not reported ;

Recommendation:

This project is considered as a Foundation IP.



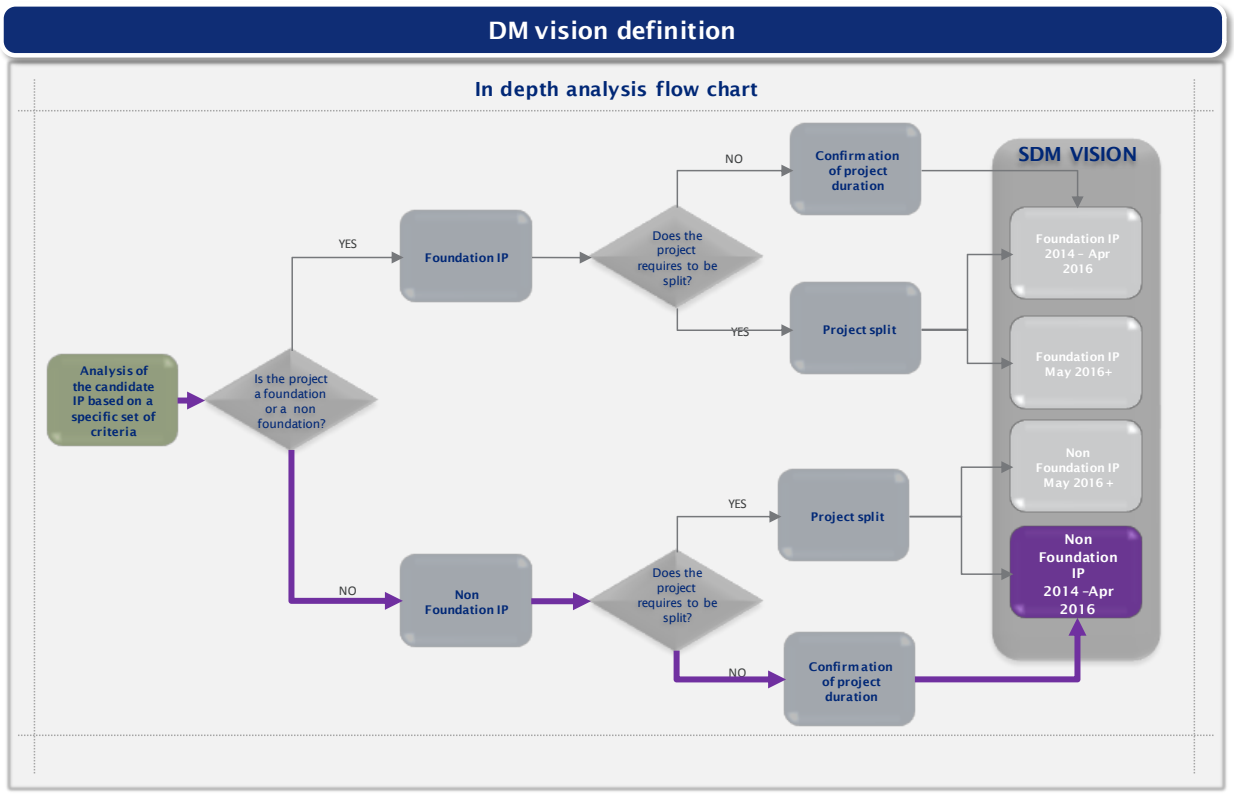
Content	Description
REFERENCE NUMBER	**070AF2**
TITLE	**RECAT EU DEPLOYMENT PARIS CDG _ WAKE KNOWLEDGE HUB DEVELOPMENT**
MAIN AF / SUB AF / Family	**AF 2; Sub AF 2.3; Family 2.3.1**

PROJECT DESCRIPTION	**Objectives:**
	- Deploy RECAT-EU to increase runway throughput by between 5 and 8% whilst safely deploying operational resilience and managing user demand for peak period runway access.
	- Mitigate, in recognition of RP2 KPI of the European Performance Scheme:
	  ○ Additional Taxi Out time;
	  ○ Terminal Airspace (ASMA) and
	  ○ Arrival ATFM delay per flight attributable to terminal and airport air navigation services and caused by landing restrictions at the destination airport,
	- Support wider deployment of RECAT-EU and F2_SAF2.3_ Family 2.3.1 Time Based Separation by development of the wake and RECAT method and metrics, and A-SMGCS Knowledge Hub supporting safety nets, RECAT EU and TBS Deployment including the transfer of associated knowledge to European Industry and the development of the associated standards.
	
	AF2_S-AF2.3_ Family 2.3.1_Time Based Separation Wake and A-SMGCS Knowledge Hub RECAT-EU Deployment
	This response is specifically targeting capacity constrained airports or those with significant peak time activity and associated delay (airport and network). The target area is Europe and its capacity constrained airports or airports with significant peak with a minimum of 10% heavy aircraft and associated surface and terminal airspace delay.
	The response also targets safety improvements through the deployment of A-SMGCS, specifically Controller Safety Nets and Runway Status Lights.
	The activity covers both AF2 Time Based Separation and A-SMGCS Safety Nets in the PCP and activities supporting the European Performance Scheme.
	The task is linked to the CDG 2020 action plan, Tasks X.1 Advanced runway Safety Net targeting a significant reduction of runway incursions and X.2 Reduced Wake Vortex separation, targeting improvement of performance above 5% from first deployment.
	The activity also concerns the participation of EUROCONTROL (as part of a joint proposal –with other airports TBC) in the deployment of A-SMGCS, Time Based Spacing and RECAT EU to improve surface and runway safety and increase runway throughput and reduce surface and terminal airspace delays as a contribution to the European Performance Scheme.
	RECAT EU was developed by EUROCONTROL and following an extensive 12 month stakeholder consultation and a 9 month EASA assessment was agreed by EASA *"that RECAT-EU wake turbulence separation scheme can be used by Member States as a basis to update current schemes"*.
	The product is mature; however, the knowledge remains in EUROCONTROL with almost no other external RECAT EU expertise. The proposed activity will be in support of a partner's deployment and will ensure knowledge transfer to individual airports and a wider supporting industry partnership through a knowledge hub.
	Paris CDG is in deployment of both RWSL and RECAT EU so the

	deployment phase has started. RECAT EU is not constrained to other deployment activities and has no prerequisites. Furthermore, there are minimal requirements for system changes to support HMI information display to controllers and FAA experience indicates limited controller down time for controller training. The knowledge hub is an input to a wider A-SMGCS and Time Based Separation deployment.
PROJECT LEADER	EUROCONTROL
MEMBER STATE	BELGIUM
TIMING	01/09/2014 – 30/4/2016
AIRBORNE	
INTERDEPENDENCIES	054AF2 - CDG2020 Step1
SYNCHRONIZATION	With Airspace Users, ANSPs, EUROCONTROL;
LINKS	AF 1; Sub AF 1.1; Family 1.1.1
NM LINKS	**NSP:** NOT ASSESSED. NM inputs provided through the normal channels as any other implementing stakeholder; **NOP:** NOT ASSESSED. NM inputs provided through the normal channels as any other implementing stakeholder;

Recommendation:

This project is considered as a Non Foundation IP.



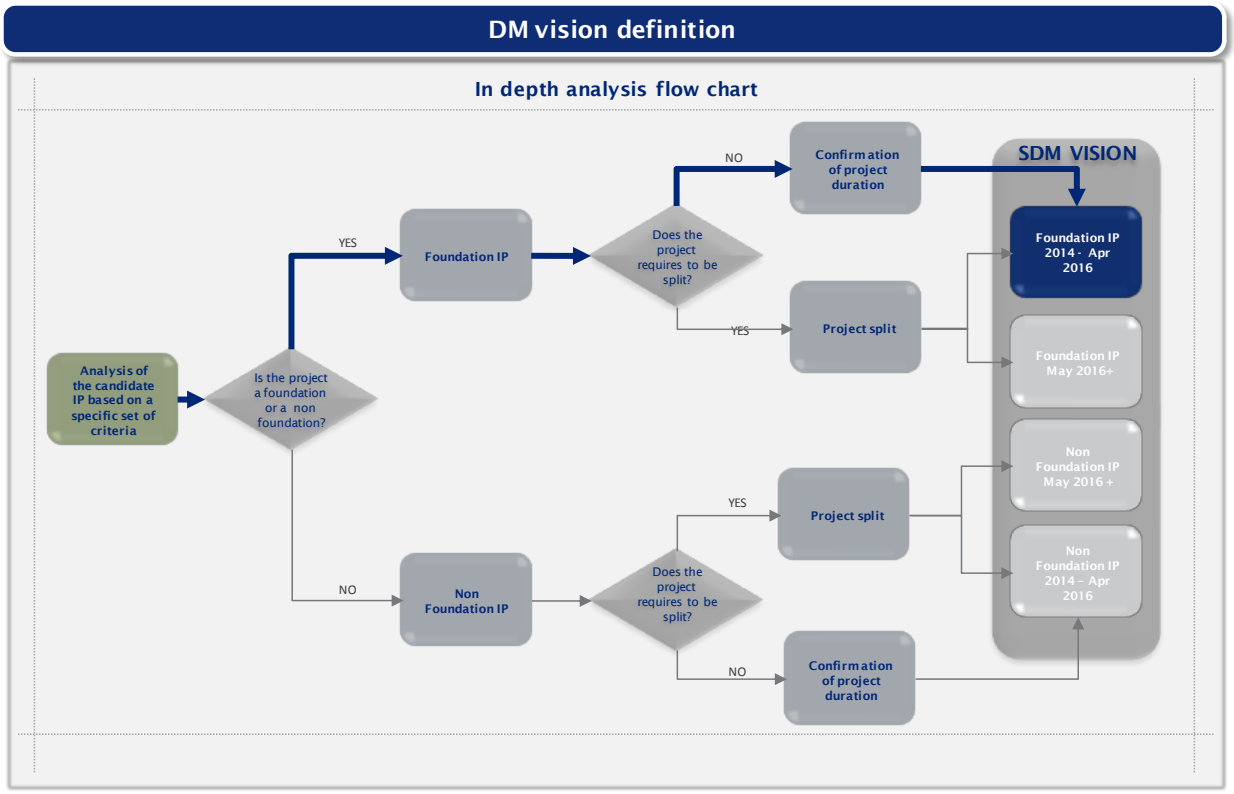
Content	Description
REFERENCE NUMBER	086AF2
TITLE	A-CDM Extension
MAIN AF / SUB AF / Family	AF2; Sub AF 2.1; Family 2.1.3

PROJECT DESCRIPTION	**Objectives:**
	- Enhancement of the pre-departure sequencing (PDP Family 2.1.3 Basic A -CDM) by:
	  ○ Considering minimum departure intervals (MDI) on standard instrument departures (SID)
	  ○ facilitating a demand & capacity balance capability
	- Implementation of a "de-icing" element enabling Airport CDM for adverse conditions (PDP Family 2.1.3 Basic A-CDM)

PROJECT LEADER	FRAPORT
MEMBER STATE	Germany
TIMING	01/03/2014 – 12/02/2016
AIRBORNE	
INTERDEPENDENCIES	077AF4 - Interactive Rolling NOP
SYNCHRONIZATION	With ANSP, ECTL / NM
LINKS	AF 4; Sub AF 4.2; Family 4.2.2; Family 4.2.3
NM-Links	**NSP:** SO6/4 **NOP:** A-CDM available

Recommendation:

This project is considered as a Foundation IP.



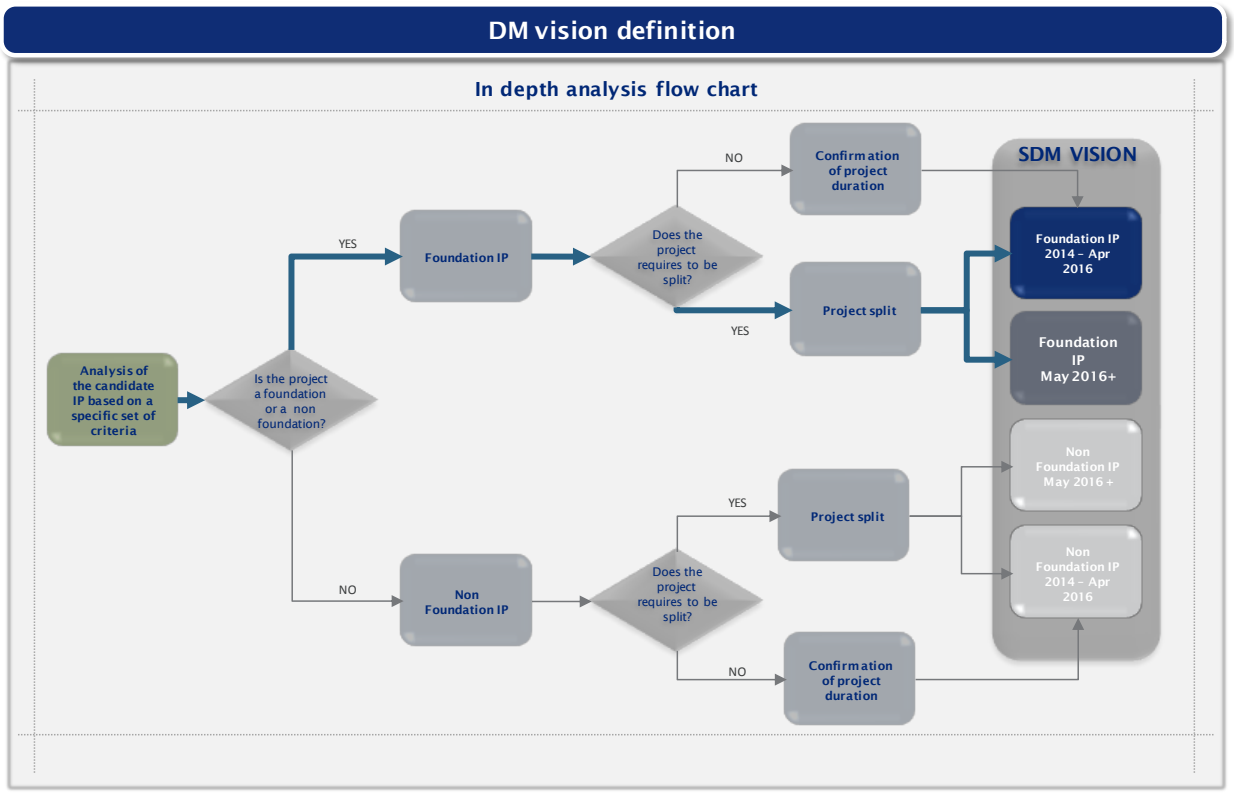
Content	Description
REFERENCE NUMBER	087AF2 – A
TITLE	Apron Controller Working Position (Part 1)

MAIN AF / SUB AF / Family	AF 2; Sub AF 2.4; Family 2.4.1
PROJECT DESCRIPTION	**Objectives:** Fraport AG is responsible for apron management services at Frankfurt Airport and as such subject to a number of provisions in Commission Implementing Regulation (EU) No 716/2014 ("Pilot Common Project"). These are: - 2.1.1 Departure Management Synchronised with Pre-Departure Sequencing (in particular with regard to 'variable taxi-times'), - 2.1.2 Departure Management integrating Surface Management Constraints ('routing'), - 2.1.4 Automated Assistance to Controller for Surface Movement Planning and Routing, - 2.1.5 Airport Safety Nets and - 2.5 Essential prerequisites. The latter concern particularly A-SMGCS Level 1 and 2, EFS and DMAN. Consequently, the implementation project is linked to the following sections of the Preliminary Deployment Programme (PDP): - SMGCS Level 1 (Surveillance) (Family 2.2.1 (A-SMGCS Level 1/2)), - SMGCS Level 2 (Alerting) (Family 2.2.1 (A-SMGCS Level 1/2) and Family 2.5.1 (Airport Safety Nets Associated with A-SMGCS Level 2)), - A-SMGCS Level 2+ (Routing) (S-AF 2.4 (Automated Assistance to Controller for Surface Movement Planning and Routing)) and - —as a prerequisite—EFS (Family 2.1.2 Electronic Flight Strips (EFS)). Underlying objectives of the project are: - The implementation of an Advanced Surface Movement Guidance and Control System (A-SMGCS) providing routing, guidance and surveillance for the control of aircraft and vehicles in order to maintain the declared surface movement rate under all weather conditions while maintaining the required level of safety. - The routing and planning function shall calculate the most operationally relevant route as free as possible of conflicts which permits the aircraft to go from stand to runway, from runway to stand or any other surface movement. - The apron controller working position shall allow the controller to manage surface route trajectories. - The flight data processing system shall be able to receive planned and cleared routes assigned to aircraft and vehicles and manage the status of the route for all concerned aircraft and vehicles. - The system shall also be complemented by a function providing controllers with appropriate alerts when potential conflicts primarily on taxiways and intrusions to restricted areas are detected. Conflicts on runways are of secondary interest in this implementation project as the runway system is controlled by the local Air Navigation Service Provider. - The controller working position shall host warnings and alerts with an appropriate human-machine interface (HMI) including support for cancelling the alert. - Digital systems, such as electronic flight strips (EFSs), shall

	integrate the instructions given by the controller with other data such as flight plan, surveillance, routing, published rules and procedures
PROJECT LEADER	FRAPORT
MEMBER STATE	GERMANY
TIMING	01/01/2014 – 31/12/2016 (Part 1)
AIRBORNE	
INTERDEPENDENCIES	
SYNCHRONIZATION	With: ANSP
LINKS	AF 2; Sub AF 2.1; Sub AF 2.2; Sub AF 2.5; Family 2.1.1; Family 2.1.2; Family 2.5.1; Family 2.4.1
NM-Links	**NSP:** SO6/6 **NOP:** A-SMGCS (level 1): Available in TWR. Electronic Strips: Available in TWR and APP

Recommendation:

This project is considered as a Foundation IP.

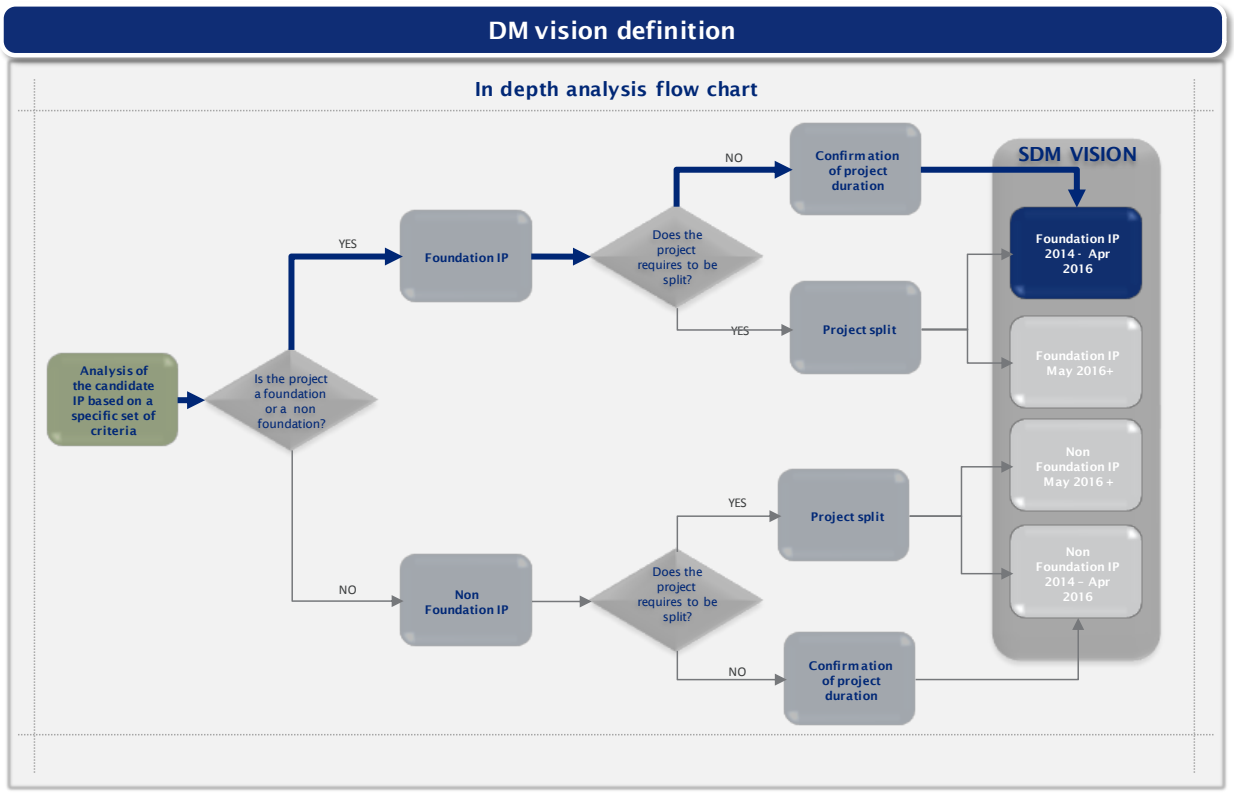


The project could be split in 2 phases. The first phase (January 2014-April2016) has to be considered for this INEA Call 2014. The second phase (May 2016 - December 2019) including Part 2 needs to be part of the next INEA call in order to ensure continuity of the action within the Deployment Programme.

Content	Description
REFERENCE NUMBER	**088AF2**
TITLE	**Airport Safety Net: Mobile Detection of Air Crash Tenders**
MAIN AF / SUB AF / Family	**AF 2; Sub AF 2.5; Family 2.5.1**
PROJECT DESCRIPTION	**Objectives:** - Equipage of Air Crash Tenders with a Moving Map based on A-SMGCS surveillance data - Identification of deviations from routes and procedures of Air Crash Tenders (PDP Family 2.5.1 Airport Safety Nets associated with A-SMGCS Level 2) - Improvement of situational awareness of Air Crash Tenders (PDP Family 2.5.1 Airport Safety Nets associated with A-SMGCS Level 2) - Early prediction of situations that would end up in hazardous situations (PDP Family 2.5.1 Airport Safety Nets associated with A-SMGCS Level 2)
PROJECT LEADER	FRAPORT
MEMBER STATE	Germany
TIMING	01/07/2014 – 31/12/2016
AIRBORNE	
INTERDEPENDENCIES	
SYNCHRONIZATION	
LINKS	
NM-Links	**NSP:** SO6/6 **NOP:** A-SMGCS (level 1): Available in TWR. Electronic Strips: Available in TWR and APP

Recommendation:

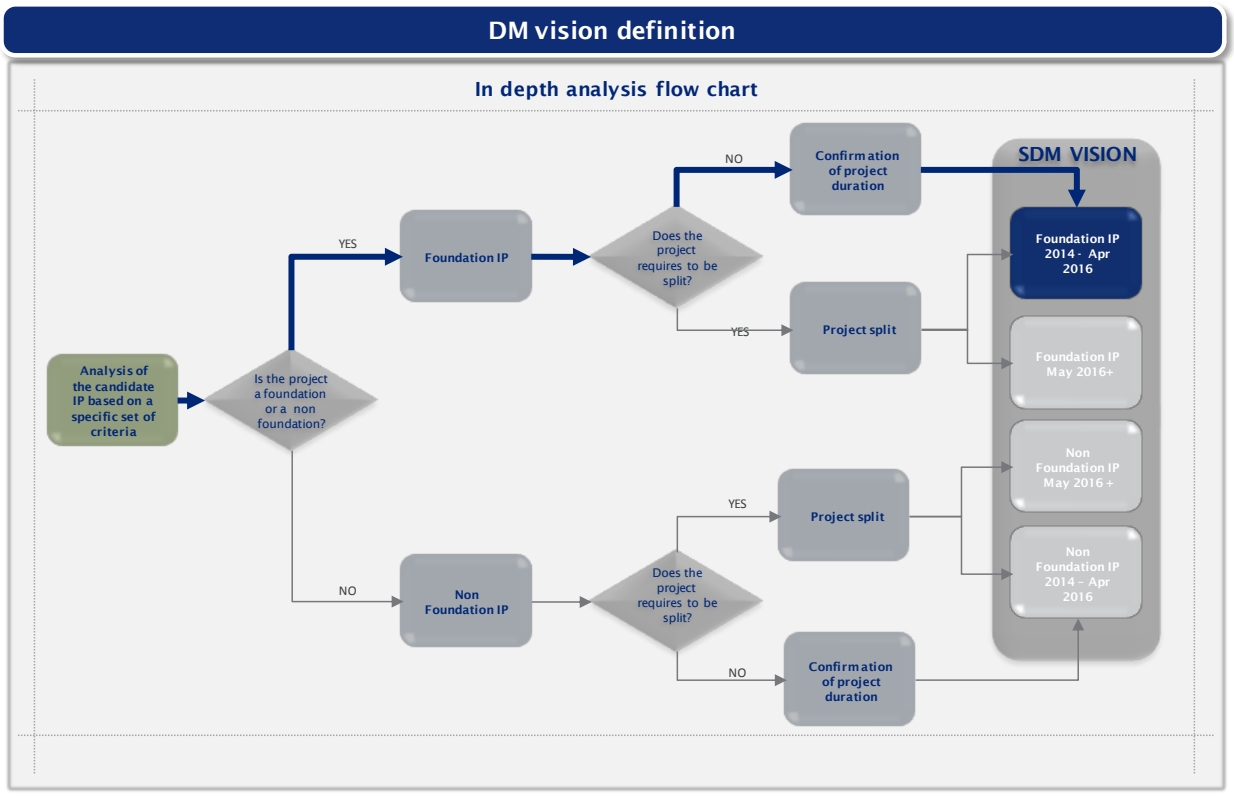
This project is considered as a Foundation IP.



Content	Description
REFERENCE NUMBER	**090AF2**
TITLE	**Departure Management Synchronized with Pre-Departure Sequencing (PDS)**
MAIN AF / SUB AF / Family	**AF 2; Sub AF 2.1; Family 2.1.1**
PROJECT DESCRIPTION	**Objectives:** The high-level objectives of the project are as follows: - Deliver runway capacity for declared 55 movements/hour - Achieve 85% overall on-time performance (i.e. 85% of flights departing with delay <= 15 min) - Improved environmental footprint - reduced cost/noise/carbon in ground operations and noise respite capability - Connection to European network (Network Manager) for improved slots during busy periods - Reduce taxi times, improve Air Traffic Flow Management (ATFM) slot adherence, and improve accuracy of departure times (Target Take-Off Times) - Introduce Departure Manager, including improved Human-Machine Interface (HMI) for Tower supervisor position (ATC Watch Manager)
PROJECT LEADER	Gatwick Airport Limited
MEMBER STATE	UK
TIMING	01/10/2012 - 05/02/2015
AIRBORNE	
INTERDEPENDENCIES	077AF4 - Interactive Rolling NOP
SYNCHRONIZATION	With: Airspace Users, Airports, EUROCONTROL/NM
LINKS	AF 2; AF 4; AF 5; Sub AF 2.1; Sub AF 4.2; Sub AF 5.5; Family 2.1.3; Family 2.1.4; Family 4.2.1; Family 4.2.2; Family 4.2.3
NM LINKS	**NSP:** SO 6/5 & SO 6/6; **NOP:** A-CDM, DMAN, and AMAN available;

Recommendation:

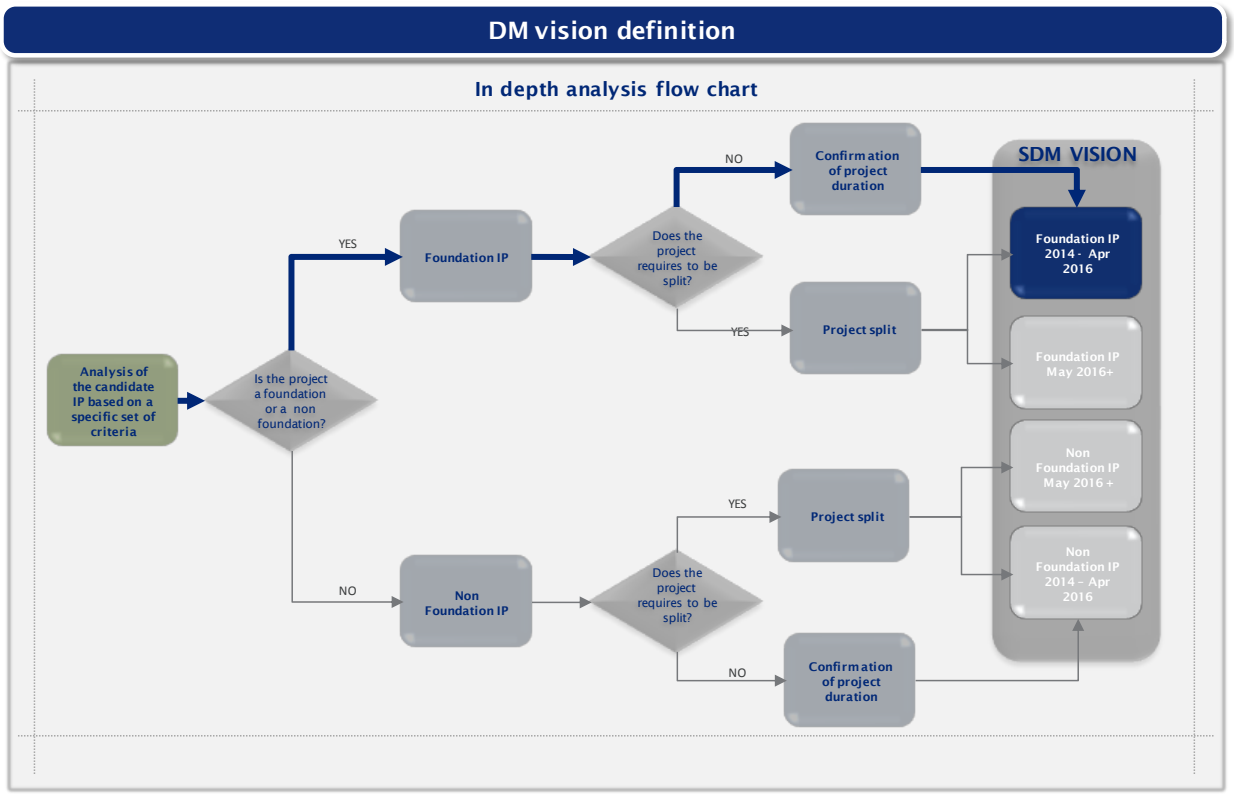
This project is considered as a Foundation IP.



Content	Description
REFERENCE NUMBER	**092AF2**
TITLE	**Enhanced Departure Management integrating airfield surface assets**
MAIN AF / SUB AF / Family	**AF 2; Sub AF 2.5; Family 2.5.1**
PROJECT DESCRIPTION	**Objectives:** The high-level objectives of the project are as follows: - Achieve 100% equipage of ground service vehicles with tracking technology - Increase airside safety by providing visibility of appropriate vehicles and equipment to Air Traffic Control Tower - Enable further implementation of Airport Safety Nets (ATM Sub-Functionality 2.5) - Improve taxi conflict prediction to reduce number of stop-and-go taxiing - Improve efficiency of airside operations by providing real-time information about location of ground service equipment and vehicles to Ground Handling Agents (GHAs) and Airport Flow Centre
PROJECT LEADER	Gatwick Airport Limited
MEMBER STATE	UK
TIMING	01/03/2015 - 31/12/2016
AIRBORNE	
INTERDEPENDENCIES	090AF2 - Departure Management Synchronized with Pre-Departure Sequencing (PDS)
SYNCHRONIZATION	With: Airports
LINKS	AF 2; Sub AF 2.2; Family 2.2.1
NM LINKS	**NSP:** SO 6/6 ; **NOP:** A-CDM fully implemented;

Recommendation:

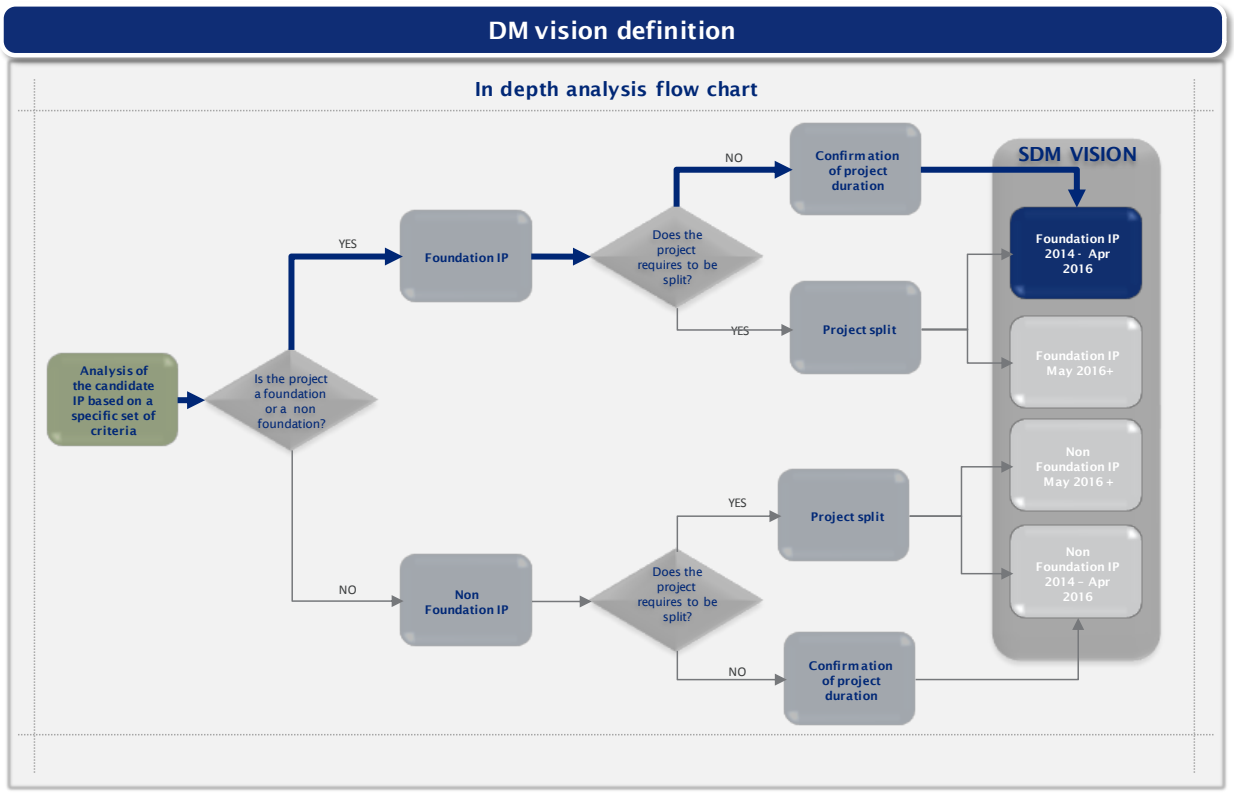
This project is considered as a Foundation IP.



Content	Description
REFERENCE NUMBER	**093AF2**
TITLE	**Electronic Flight Strip System (EFS) deployment**
MAIN AF / SUB AF / Family	**AF 2; Sub AF 2.1; Family 2.1.2**
PROJECT DESCRIPTION	**Objectives:** The high-level objectives of the project are as follows: - Finalize implementation of EFS at Gatwick, including all the ground movements (tows) - Achieve regulatory target of 95% for Pier-Service Level in both terminals, even with increased traffic, by maximizing tow movements where possible - Improve situational awareness of tower controllers - Improve surface management, tow management, reduce GMC delays and improve On-Time Departure Performance - Increased safety and efficiency – no towing to occupied stands
PROJECT LEADER	Gatwick Airport Limited
MEMBER STATE	UK
TIMING	01/06/2014 - 31/05/2016
AIRBORNE	
INTERDEPENDENCIES	- 092AF2 Enhanced Departure Management integrating airfield surface assets; - 090AF2 Departure Management Synchronized with Pre-Departure Sequencing (PDS); - 094AF2 Time-Based Separation for Final Approach
SYNCHRONIZATION	With Airspace Users, Airports, ANSPs
LINKS	AF 2; Sub AF 2.1; Sub AF 2.2; Sub AF 2.3; Sub AF 2.5; Family 2.1.1; Family 2.1.3; Family 2.2.1; Family 2.5.1;
NM LINKS	**NSP:** SO 6/5 & SO 6/6; **NOP:** EFS not reported;

Recommendation:

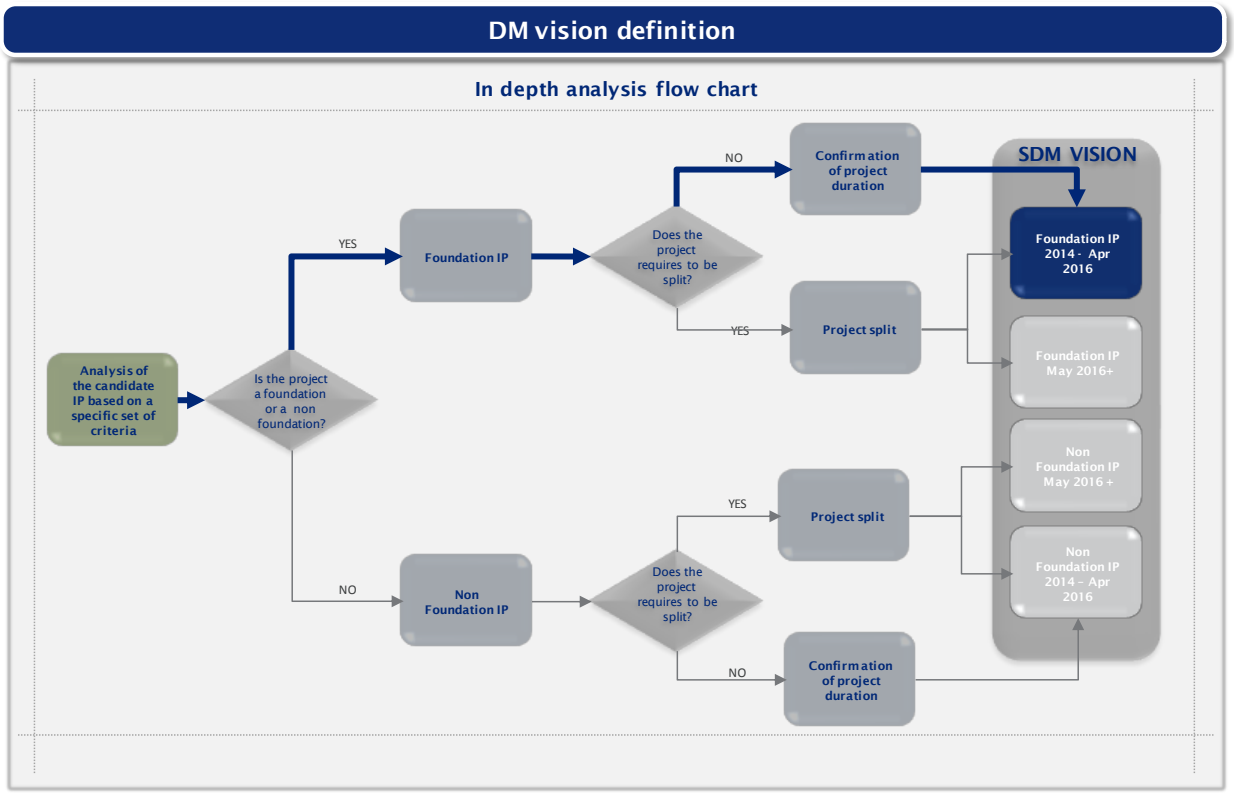
This project is considered as a Foundation IP.



Content	Description
REFERENCE NUMBER	094AF2
TITLE	Time-Based Separation for Final Approach
MAIN AF / SUB AF / Family	AF 2; Sub AF 2.3; Family 2.3.1
PROJECT DESCRIPTION	**Objectives:** The high-level objectives of the project are as follows: - Implement initial spacing monitor to support air traffic controller to deliver optimum separation between arriving aircraft - Improve utilization of existing RWY capacity - Increase landing rates, especially during strong headwind conditions and reduce arrival and knock-on delays -
PROJECT LEADER	Gatwick Airport Limited
MEMBER STATE	UK
TIMING	30/01/2014 - 31/12/2016
AIRBORNE	
INTERDEPENDENCIES	120AF1 - London Airspace Management Programme
SYNCHRONIZATION	With: Airspace Users, Airports, ANSPs
LINKS	AF 1; Sub AF 1.1; Family 1.1.1
NM LINKS	**NSP:** SO 6/5 ; **NOP:** Not available;

Recommendation:

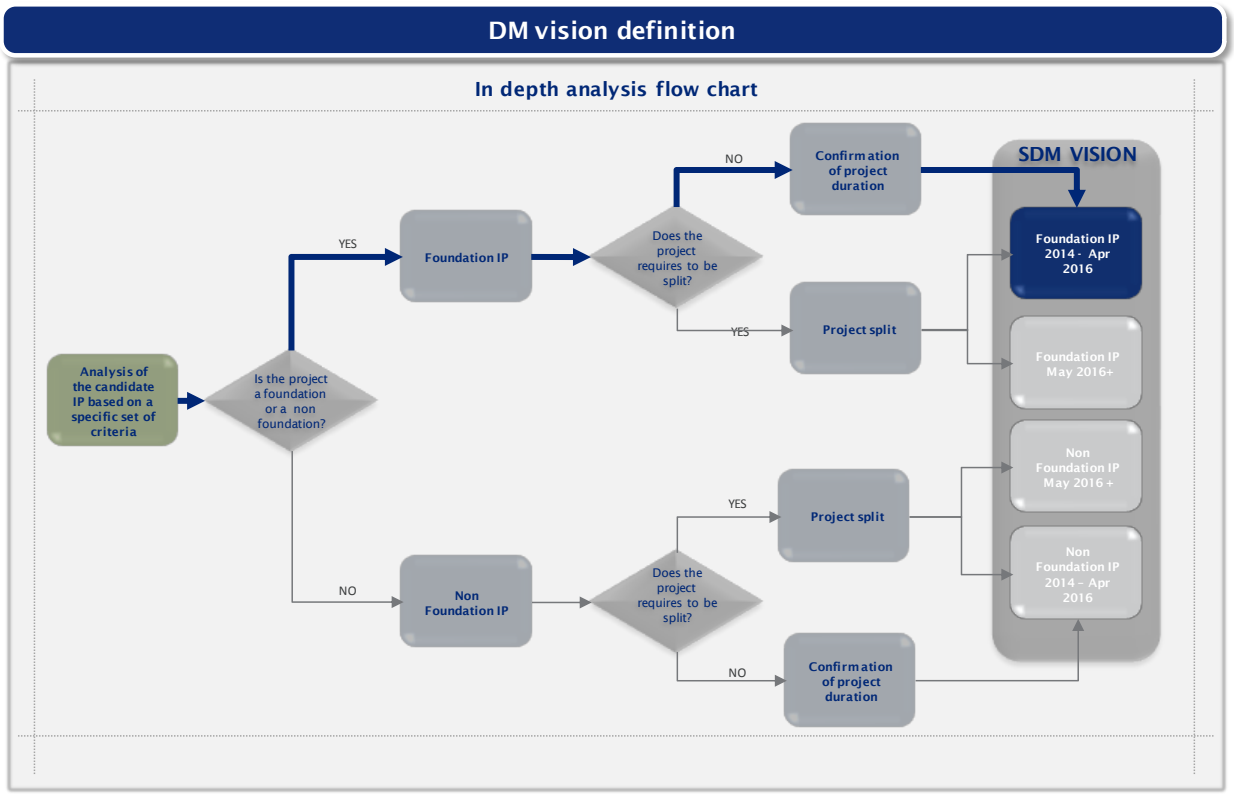
This project is considered as a Foundation IP.



Content	Description
REFERENCE NUMBER	**097AF2**
TITLE	**Time Based Separation**
MAIN AF / SUB AF / Family	**AF 2; Sub AF 2.3; Family 2.3.1**
PROJECT DESCRIPTION	**Objectives:** - Deployment of Time-based separation (TBS) at Heathrow Airport in order to address the biggest single cause of delay to Heathrow arrivals - strong headwinds on final approach. - Time Based Separation is expected to reduce this delay by as much as 50% of all strong wind regulations applied at Heathrow (equating to c.20% reduction in overall Heathrow ATFM delay) with a projected benefit to the airlines in the range £6m to £7.5m per annum. Any reduction in spacing during strong wind conditions will not result in aircraft being closer than minimum radar separation of 2.5nm. As noted by Eurocontrol the European Network Manager, London Heathrow airport remained a delay hot spot in 2013 due to our significant impact to aircraft operations under adverse weather conditions. Strong winds is the most impacting condition to Heathrow flights operations thus knocking on to wider global operations. The TBS concept aims to improve resilience to the impact of high head wind conditions by: - Reducing the cost of wind-related arrival delay - Improving the consistency of spacing (for wake pairs) (TBS) is a pioneering new system plus operational methodology aimed at organizing the separation of arriving aircraft at Heathrow by time instead of distance. This will radically cut flight delays and reduce cancellations due to high headwinds. Supported in the Airports Commission's interim report in December 2013, the delivery of TBS comes after three years of exhaustive analysis from co-members of the Single European Sky Research ATM Research and development programme (SESAR). The introduction of a time-based separation method at Heathrow will help maintain the landing rate under strong headwind conditions and thus deliver an average improvement of 4 flights per hour beyond today's rate. Every year halving the current delay figure under strong wind conditions while significantly reducing the need for airlines to cancel flights due to the effects of strong headwinds.
PROJECT LEADER	Heathrow Airport Limited
MEMBER STATE	UK
TIMING	01/01/2014 – 31/12/2015
AIRBORNE	
INTERDEPENDENCIES	120AF1 - London Airspace Management Programme
SYNCHRONIZATION	With: Airspace Users, Airports, ANSPs
LINKS	AF 1; Sub AF 1.1; Family 1.1.1
NM LINKS	**NSP:** SO 6/5; **NOP:** Not available;

Recommendation:

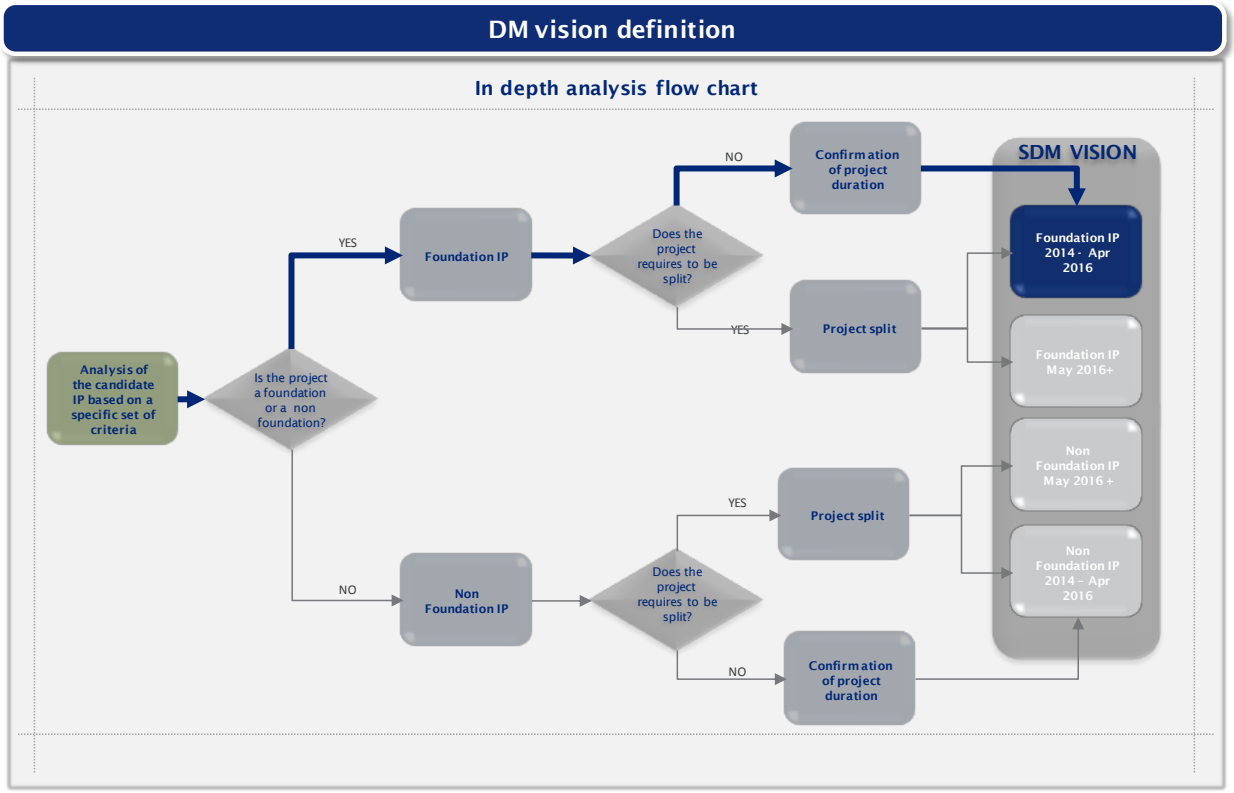
This project is considered as a Foundation IP.



Content	Description
REFERENCE NUMBER	**098AF2**
TITLE	**T2 SEGS**
MAIN AF / SUB AF / Family	**AF 2; Sub AF 2.1; Family 2.1.3**
PROJECT DESCRIPTION	**Objectives:** - Delivering A-CDM information on each SEGS unit on the airfield will help to improve the efficiency of the turnaround process - it is a key part for the airlines and ground handlers - The back end infrastructure & bulk of the stands were completed during Q5/Q5+1 at a cost of £2.559m - Bring Terminal 2 stands in line with Heathrow standards for A-CDM operations and ensure equitability for all Airlines operating at Heathrow. - Address stands that could not be connected with a wired LAN connection - Support the provision of situational awareness for operational staff, including those working in an external environment - Heathrow also need to ensure a robust support model for the delivery of the information & complete the on stand configuration - The benefits of completing the rollout of SEGS unit to all stands at Heathrow: o One process o Provide equivalence o Maximize operational benefits - increased departures punctuality
PROJECT LEADER	Heathrow Airport Limited
MEMBER STATE	UK
TIMING	01/11/2014 – 30/06/2015
AIRBORNE	
INTERDEPENDENCIES	NO
SYNCHRONIZATION	With Airspace Users, Airports, ANSPs
LINKS	AF 2; Sub AF 2.1; Family 2.1.1; Family 2.1.4
NM LINKS	**NSP:** SO 6/4; **NOP:** Airport CDM available. Electronic Strips are available in TWR. Future plans: to install EFS in APP in 2016;

Recommendation:

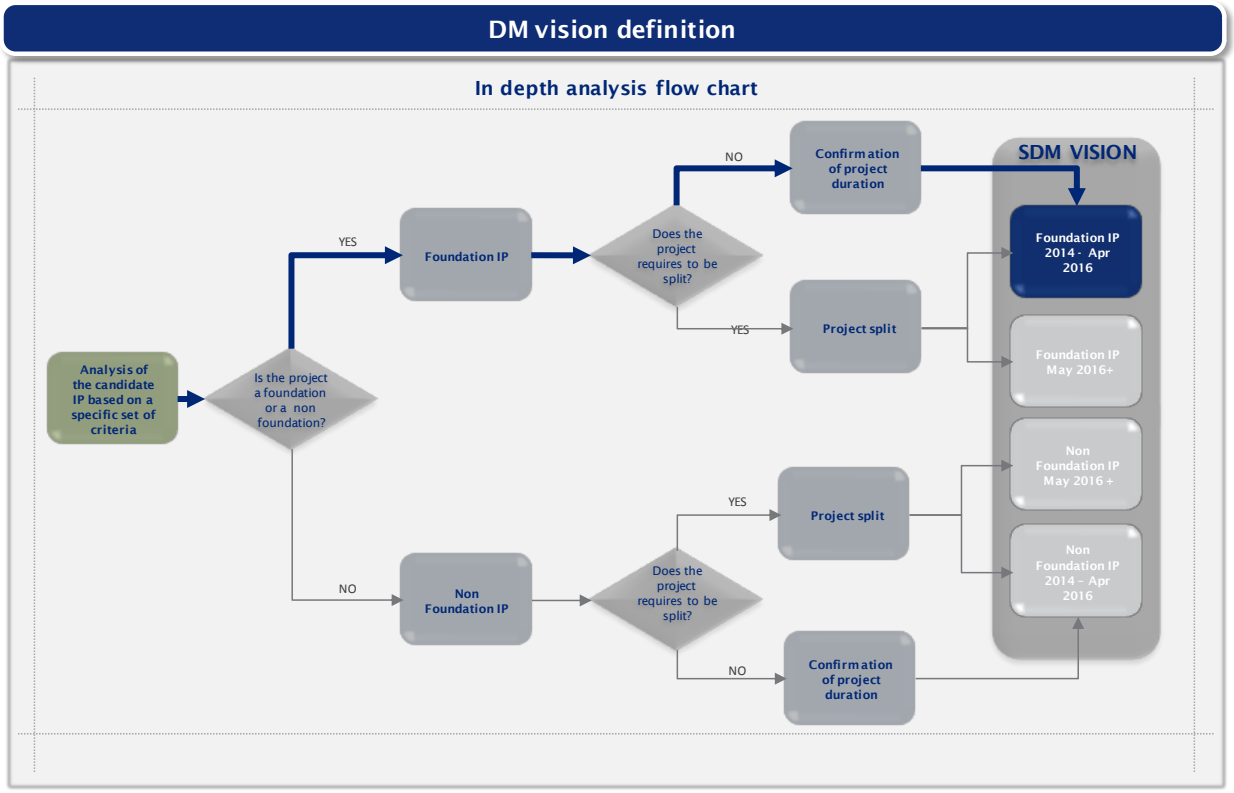
This project is considered as a Foundation IP.



Content	Description
REFERENCE NUMBER	**099AF2**
TITLE	**Initial Airport Operational Plan (AOP)**
MAIN AF / SUB AF / Family	**AF 2; Sub AF 2.1; Family 2.1.4**
PROJECT DESCRIPTION	**Objectives:** Airfield Flow Management The key improvement area is the production of a rolling airfield plan with added layers or resilience and architectural consolidations. The AOP is an up-to-date plan or "on the day schedule" with pre-tactical provisions from the pre-tactical DCB (covered under another call submission within AF4). It is the airfield part of the Airport Operations Plan (AOP), known here as the 'airfield plan'. The solution builds on the pre-requisite ACDM Concept and tooling and expands inline with the future SESAR APOC/AOP concept. By sharing this rolling plan with the Airport Operations Centre (APOC) and other stakeholders, the use of resources can be optimized. The production of a common and optimized rolling airfield plan will cover three main steps: - The ability to create a plan (based initially on the schedule, updated with the latest information) that can be shared among all stakeholders. - The ability to evaluate and then update the airfield plan using different scenarios (known as Demand Capacity Balancing, DCB) to optimise it. - The ability to take into account user preferences – in all operational circumstances and not only during disruptions, as is the case today. This is known as User Driven Prioritisation Process (UDPP). The vision for the airport and stakeholders to operate in line with a rolling airfield plan which is up to-date and reflects external factors and user preferences will be a major cultural change. In Summary an AOP is: - An integrated operating environment to improve efficiency, effectiveness and resilience against disruptions - A common shared truth to facilitate timely and focused collaborative decision making - Empowering the workforce to make a real difference with the right information at the right time Why AOP? - To aide decision making in complex landscape of airport operations - To optimise allocation of limited Airport resources - To support enhanced passenger experience
PROJECT LEADER	Heathrow Airport Limited
MEMBER STATE	UK
TIMING	01/09/2014 – 31/12/2015
AIRBORNE	
INTERDEPENDENCIES	- 073AF5 - SWIM Common Components - 082AF5 - SWIM compliance of NM systems
SYNCHRONIZATION	With Airspace Users, Airports, ANSPs, EUROCONTROL/NM
LINKS	AF 4; AF 5; Sub AF 4.2; Sub AF 5.5; Family 4.2.1; Family 4.2.2; Family 4.2.3; Family 4.2.4
NM LINKS	**NSP:** SO 6/2; **NOP:** There are currently no agreed plans for capacity expansion at Heathrow. Opportunities to increase the resilience (as opposed to the capacity) of the Heathrow operation continue to be explored;

Recommendation:

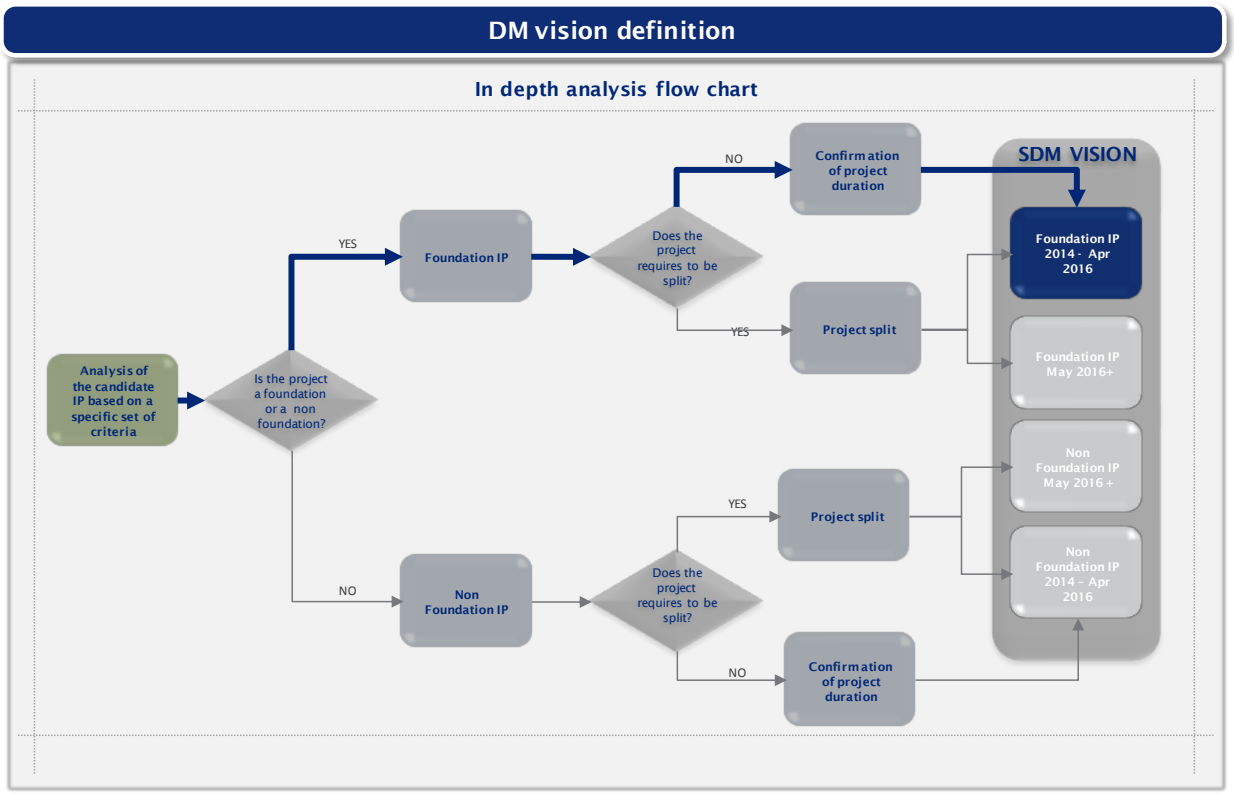
This project is considered as a Foundation IP.



Content	Description
REFERENCE NUMBER	**100AF2**
TITLE	**Airport Safety Nets associated with A-SMGCS Level 2 - Preparation for SMAN**
MAIN AF / SUB AF / Family	**AF 2; Sub AF 2.5; Family 2.5.1**
PROJECT DESCRIPTION	**Objectives:** - Concept of Operation has been developed to clarify the AGL and field infrastructure component design and architecture requirements for an integrated ASMGCS level 4/5 Surface manager (SMAN). - A holistic Options analysis and selection process is being undertaken to assess the functional and safety integrity requirement of the Ground Movement Control System as a system design that is fully congruent and potentially pre-integrated with the ASMGSC4/5 Surface Manager. - Primary Cable specification, distribution and operational architecture is being surveyed to scope design and installation of an airfield-wide GMCS primary cabling matrix to allow floating separation and necessary system integrity for automatic/.semi-automatic operation. - Existing AGL system architecture is undergoing resilience and communication architecture modification to allow for validation testing of floating separation and seamless operational transition to the new GMCS/SMAN function.
PROJECT LEADER	Heathrow Airport Limited
MEMBER STATE	UK
TIMING	01/01/2014 – 31/12/2015
AIRBORNE	
INTERDEPENDENCIES	NO
SYNCHRONIZATION	With: Airports, ANSPs
LINKS	AF 2; AF 2.2; Sub AF 2.2.1
NM LINKS	**NSP:** SO 6/6; **NOP:** A-SMGCS (level 2) is available in TWR;

Recommendation:

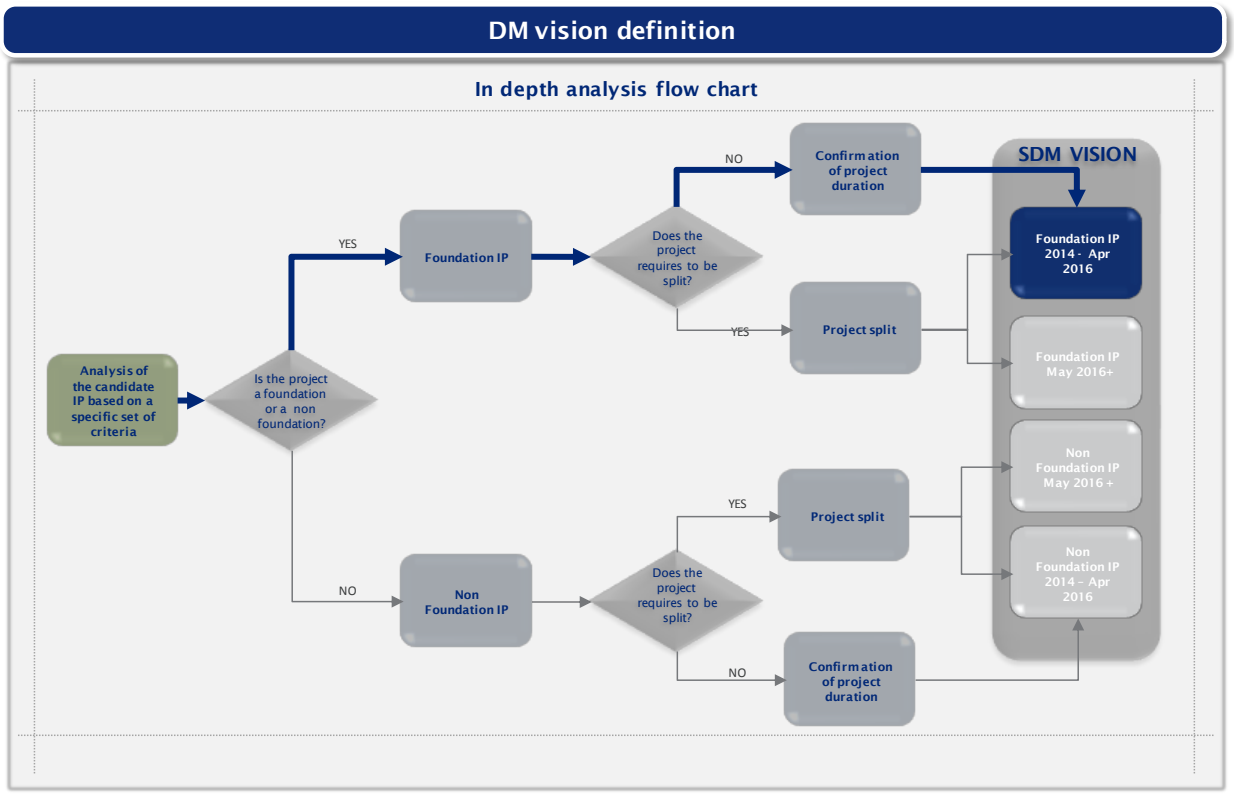
This project is considered as a Foundation IP.



Content	Description
REFERENCE NUMBER	**103AF2**
TITLE	**Standardization of A-SMCCS**
MAIN AF / SUB AF / Family	**AF 2; Sub AF 2.2; Family 2.2.1**
PROJECT DESCRIPTION	**Objectives:** With this project Copenhagen Airport will upgrade the existing A-SMGCS to a newer and standardized version. The standardization of the existing A-SMGCS will facilitate the future procurement of ad-on modules necessary for the implementation of the A-SMGCS advanced functions, cf. point 2 of the Annex to the PCP regulation 716/2014. Furthermore, it will enable Copenhagen Airport to enter into a partnership with other EU airports, which are also looking to upgrade to the standardized expansion module to A-SMGCS. The project is also part of Copenhagen Airport's strategy "Expanding CPH", which objective is to facilitate the expected future growth in operations at Copenhagen Airport.
PROJECT LEADER	Køpenhavns Lufthavne A/S
MEMBER STATE	DENMARK
TIMING	01/12/2014 – 16/11/2016
AIRBORNE	
INTERDEPENDENCIES	
SYNCHRONIZATION	With ANSPs
LINKS	
NM-Links	**NSP:** SO6/6 **NOP:** A-SMGCS (level 2): Available in TWR and APP. Electronic Strips: Available in TWR and APP

Recommendation:

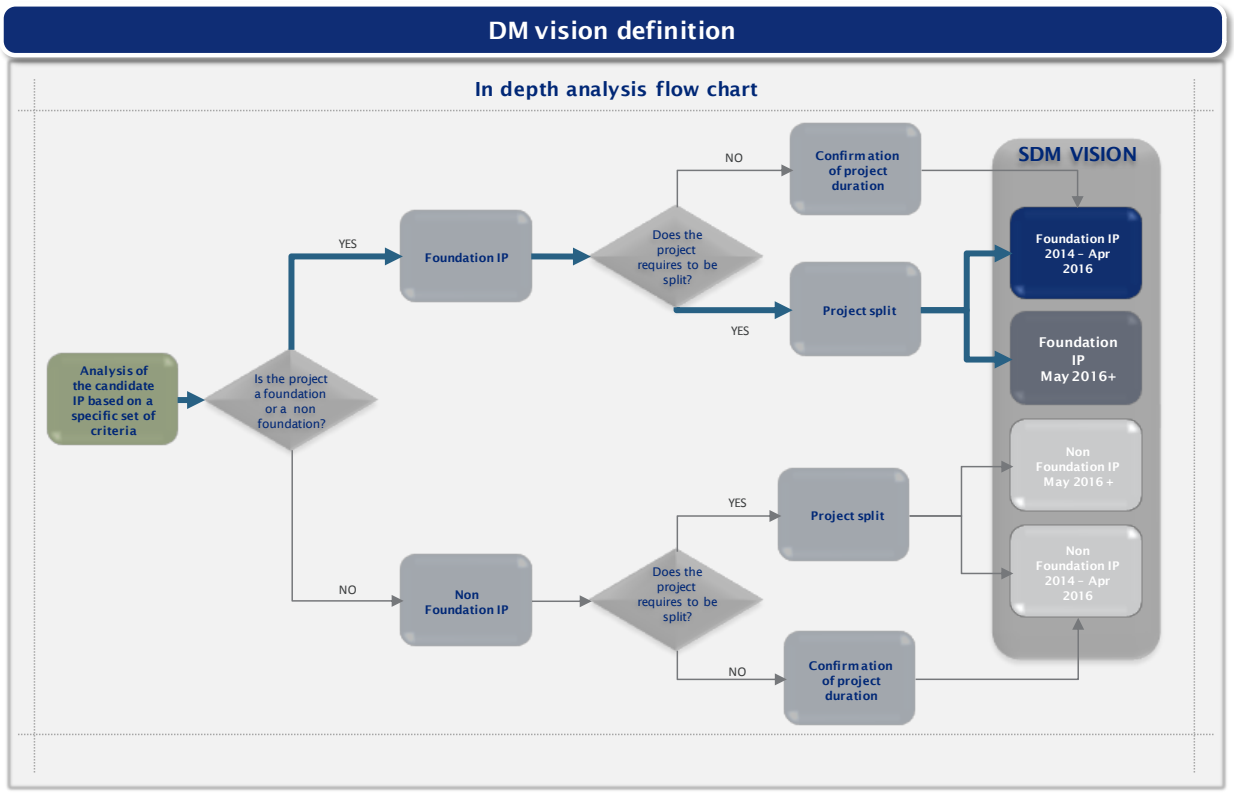
This project is considered as a Foundation IP.



Content	Description
REFERENCE NUMBER	**108AF2-A**
TITLE	**Electronic Flight Strips at Schiphol TWR**
MAIN AF / SUB AF / Family	**AF 2; Sub AF 2.1; Family 2.1.2**
PROJECT DESCRIPTION	**Objectives:** - Digital flight data processing at Schiphol Towers and the Tower simulator - Safer and more efficient handling of ground traffic - Efficient and flexible data distribution and data sharing - Enabler for safety support systems - Enabler for CDM extension of functionalities **Description:** - Work Package 1: Project Management - Work Package 2: Tender Organisation - Work Package 3: Electronic Flight Strip Application - Work Package 4: Console Adjustments - Work Package 5: Transition The overall expected results after EFS is operational with particular reference to the ATM Performance contribution: - A 'digital' tower environment with a digital data flow (so without paper flight strips); - Identical tower working positions with cleaned up and simplified consoles; - A flexibility gain in allocating functions to working positions and extending the amount of working positions; - A quieter working environment (speechless co-ordination, less standing up and walking in the tower, printing noises, etc.). These results will lead to less working errors (thus an increase in safety) and a more efficient use of both data and ATC personnel in the ATM process at the tower. It is an enabler for a lot of planned future activities like safety net functions, conflict detection, data sharing, enhanced CDM, automation of specific functions, enhanced A-SMGCS, etc.
PROJECT LEADER	LVNL
MEMBER STATE	Netherlands
TIMING	01/09/2014 – 01/02/2018
AIRBORNE	
INTERDEPENDENCIES	109AF2 - Airport CDM implementation Schiphol
SYNCHRONIZATION	With Airports
LINKS	AF 2;Sub AF 2.1; Sub AF 2.3; Sub AF 2.2; Sub AF 2.5; Family 2.1.1; Family 2.1.3; Family 2.2.1; Family 2.5.1
NM-Links	**NSP:** SO6/5 & SO6/6 **NOP:** Electronic Strips: Ongoing Implementation in TWR

Recommendation:

This project is considered as a Foundation IP.

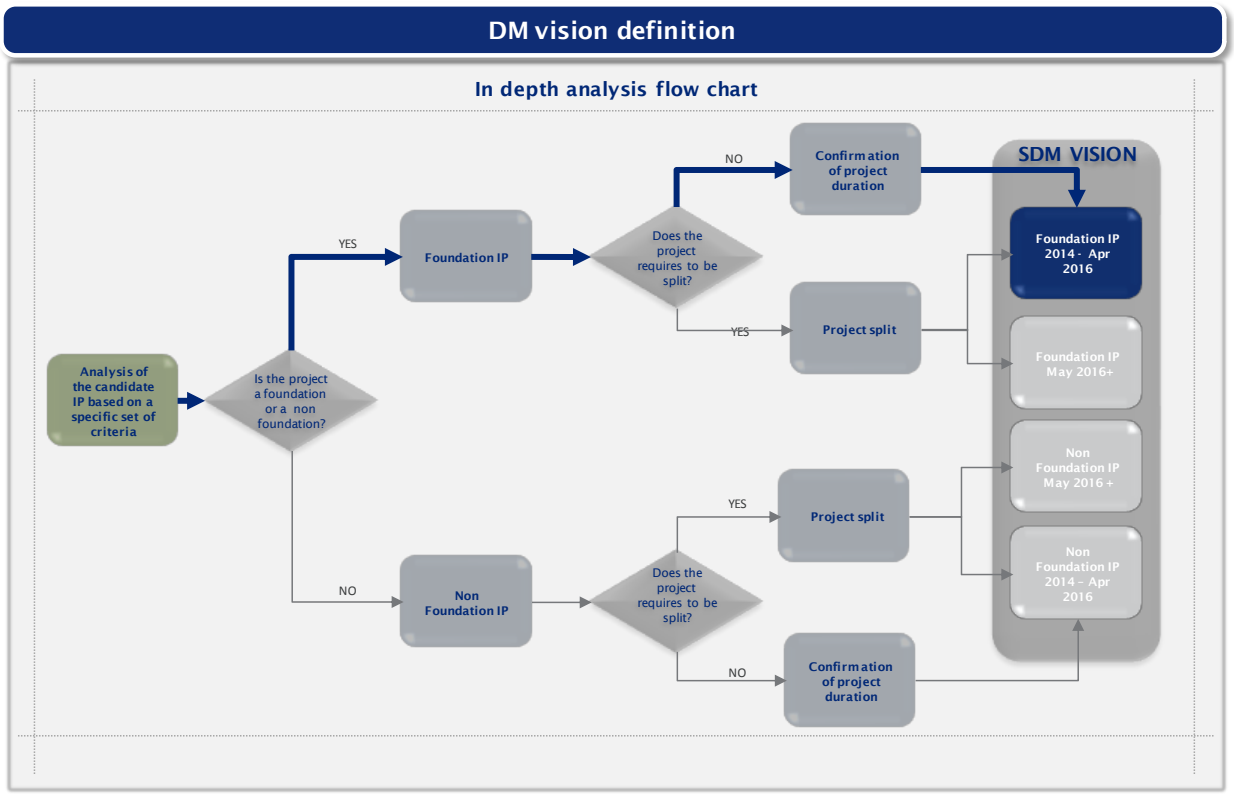


The project could be split in 2 phases. The first phase (September 2014 – April 2016) hast to be considered for this INEA Call 2014. The second phase (May 2016 – February 2018) needs to be part of the next INEA call in order to ensure continuity of the action within the Deployment Programme.

Content	Description
REFERENCE NUMBER	**109AF2**
TITLE	**Airport CDM implementation Schiphol**
MAIN AF / SUB AF / Family	**AF 2; Sub AF 2.1; Family 2.1.3**
PROJECT DESCRIPTION	**Objectives:** Airport CDM implementation according to Eurocontrol guidelines consisting of 2 major parts: Local Airport CDM - Real time CDM data presentation to pilots and handlers - CDM for adverse conditions - Development of an HMI presentation for SUC - CDM Trials - Process and procedure development and implementation - (Local) CDM information sharing Connection to Eurocontrol NMOC - Connecting the local CDM process to the NMOC - allow exchange of DPI messages in accordance with Eurocontrol specifications
PROJECT LEADER	Schiphol Nederland B.V. (AAS)
MEMBER STATE	NETHERLANDS
TIMING	01/01/2014 – 31/12/2016
AIRBORNE	
INTERDEPENDENCIES	**077AF4 - Interactive Rolling NOP**
SYNCHRONIZATION	With ANSP, ECTL/NM
LINKS	AF 2; AF 4; AF 5;Sub AF 2.1; Sub AF 2.5; Sub AF 4.2; Sub AF 5.5; Family 2.1.1; Family 2.1.4; Family 2.5.1; Family 4.2.2; Family 4.2.3; Family 5.5.1
NM-Links	**NSP:** SO 6/5 & SO 6/6 **NOP:** CDM Local Project Manager (PM) established Gap Analysis: completed Memorandum of Understanding: Done Implementation: not finalised

Recommendation:

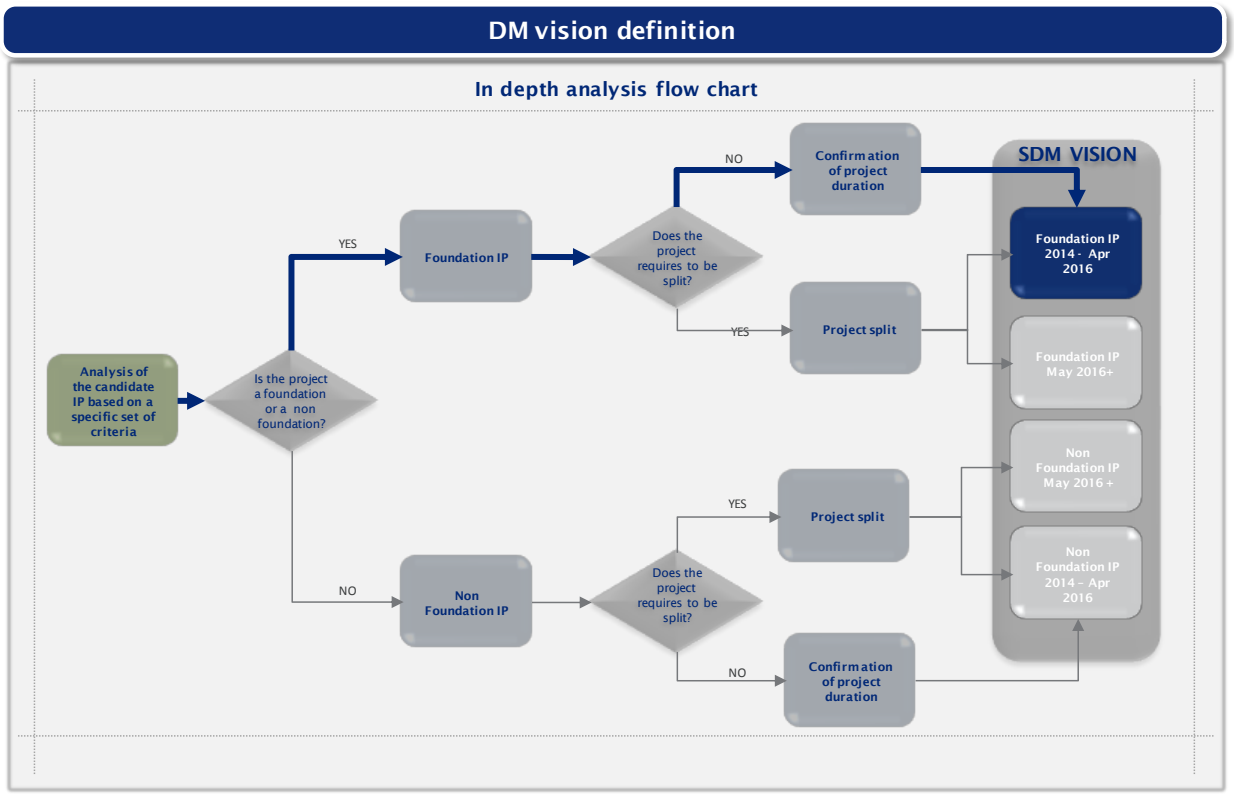
This project is considered as a Foundation IP.



Content	Description
REFERENCE NUMBER	**115AF2**
TITLE	**Renewal of the Surface Movement Radar (BORA)**
MAIN AF / SUB AF / Family	**AF 2; Sub AF 2.2; Family 2.2.1**
PROJECT DESCRIPTION	**Objectives:** The Surface Movement Radar enables exact positioning including identification of all aircraft and other vehicles on all relevant operation areas. The original system was purchased and installed in 2003 and has thus concluded an uninterrupted operating time of 10 years. Main parts of this much differentiated technology are no longer available to order, which means a continued and operationally necessary maintenance can no longer be guaranteed. Only the specified modernization will enable a continuous availability of the operationally essential SMR, and thus avoid security relevant gaps in the service. In the short term and long term, the Surface Movement Radar shall enable the following objectives: - The departure sequence at the runway shall be optimized according to the real traffic situation reflecting any change off-gate or during taxi to the runway. - Thus enabled, A-SMGCS shall provide optimized taxi by monitoring of real surface traffic and by considering updated taxi times in departure management regardless of meteorological or other impacting conditions. In a further step, planned routing and planning function free as possible of conflicts which permits the aircraft to go from stand to runway, from runway to stand or any other surface movement. This protect supports Family 2.2.1 A-SMGCS Level 1/2.
PROJECT LEADER	Munich Airport
MEMBER STATE	GERMANY
TIMING	24/01/2014 - 31/12/2015
AIRBORNE	
INTERDEPENDENCIES	
SYNCHRONIZATION	With ANSPs
LINKS	
NM-Links	**NSP:** SO 6/3 & SO 6/4 **NOP:** Basic SMR is available in TWR and APP. A-SMGCS (level 1) available in TWR and APP

Recommendation:

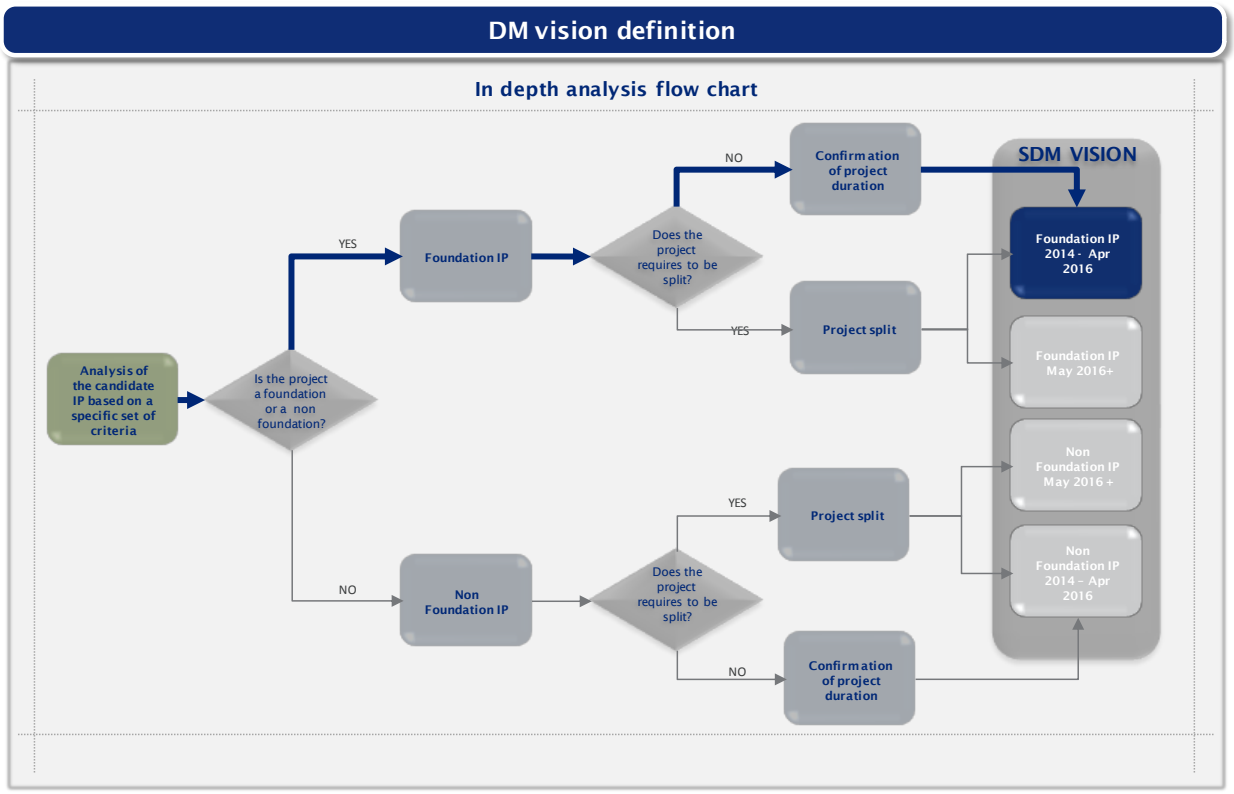
This project is considered as a Foundation IP.



Content	Description
REFERENCE NUMBER	**129AF2**
TITLE	**CDM-Orly**
MAIN AF / SUB AF / Family	**AF 2; Sub AF 2.1; Family 2.1.3**
PROJECT DESCRIPTION	**Objectives:** - Upgrade PDS for sharing information with DMAN, - Implement De-icing tool for improving operational efficiency - Share essential information, such TSAT, on the CDM Website for all stakeholders These functionalities contribute directly to the pre-requisite S-AF 2.1 "Departure Management synchronized with Pre Departure sequencing", through Family 2.1.1 "Initial DMAN capability" and Family 2.1.3 "Basic A-CDM" : - PDS upgrades / DMAN/PDS interface integration - De-icing manager tool upgrades - CDM Website upgrades
PROJECT LEADER	**Airports de Paris: Orly Airport**
MEMBER STATE	FRANCE
TIMING	02/06/2014 - 31/12/2016
AIRBORNE	
INTERDEPENDENCIES	- 050AF2 - SYSAT@ORY; - 077AF4 - Interactive Rolling NOP
SYNCHRONIZATION	With Airspace Users, Airports, ANSPs, ECTL/NM
LINKS	AF 2; Sub AF 2.1; Family 2.1.1; Family 2.1.2 AF 2; Sub AF 2.2; Family 2.2.1 AF 4; Sub AF 4.2; Family 4.2.2; Family 4.2.3
NM LINKS	**NSP :** SO 6/4; SO 6/6 **NOP:** Advanced ATC Tower implemented. NM will continue to provide support towards A-CDM implementation - planned for Q2 2016.

Recommendation:

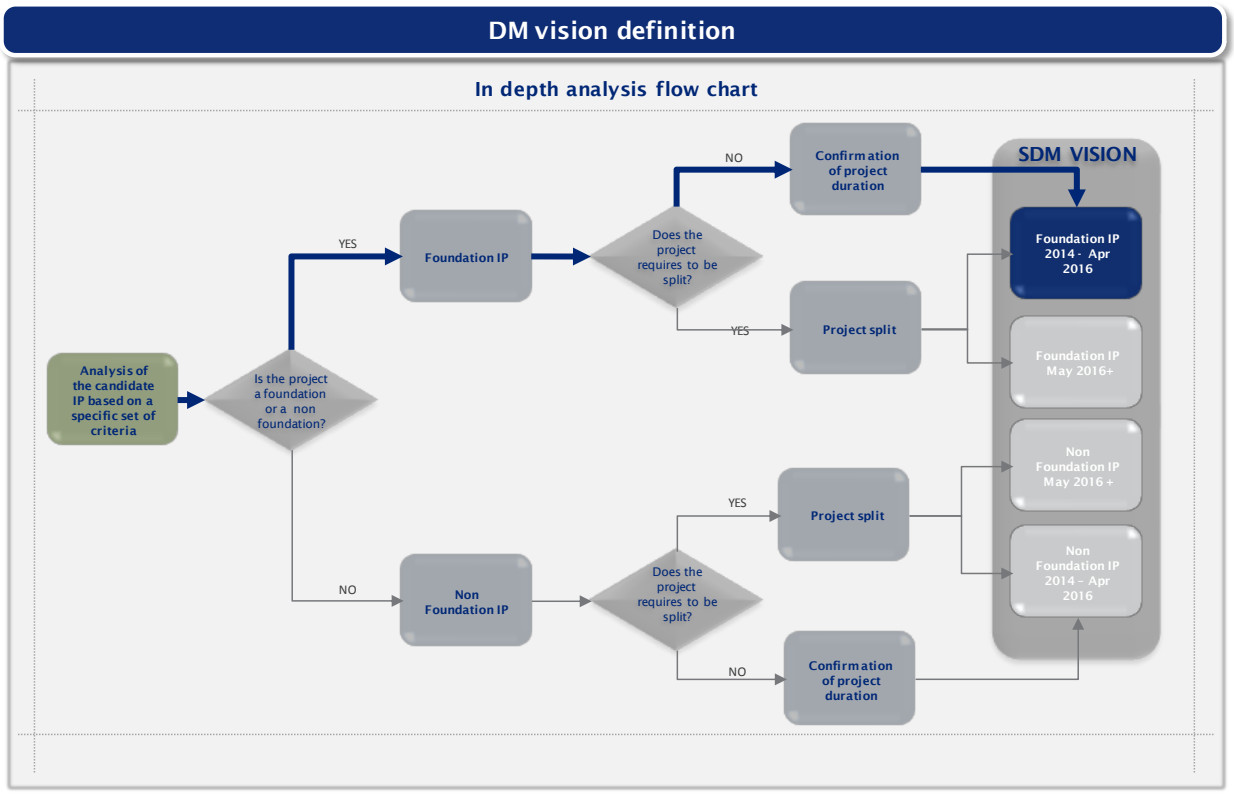
This project is considered as a Foundation IP.



Content	Description
REFERENCE NUMBER	**130AF2**
TITLE	**BOREAL- Orly**
MAIN AF / SUB AF / Family	**AF 2; Sub AF 2.2; Family 2.2.1**
PROJECT DESCRIPTION	**Objectives:** - Improve safety by upgrading knowledge of surface state and reaction time. - Enabler to sub-functionalities defined into the IR 716/2014: A-SMGCS Level 1/2 (2.2.1) SAF 2.5/2.4 Boreal is the control and visualization station of the state of the runways and taxiways lights in Paris-Orly. Replacement of existing equipment is designed to enhance the robustness and the level of knowledge of information on state of the lights, in order to improve the reaction time of operational maintenance team and to upgrade or extend the tools which allow managing and monitoring information of the airfield area.
PROJECT LEADER	Aéroports de Paris: Orly Airport
MEMBER STATE	FRANCE
TIMING	01/02/2015 - 31/12/2016
AIRBORNE	
INTERDEPENDENCIES	- **050AF2 - SYSAT@ORY;** - **077AF4 - Interactive Rolling NOP**
SYNCHRONIZATION	With Airports, ANSPs
LINKS	AF 2; Sub AF 2.5; Family 2.5.1
NM LINKS	**NSP :** SO 6/6 **NOP:** A-SMGCS not reported.

Recommendation:

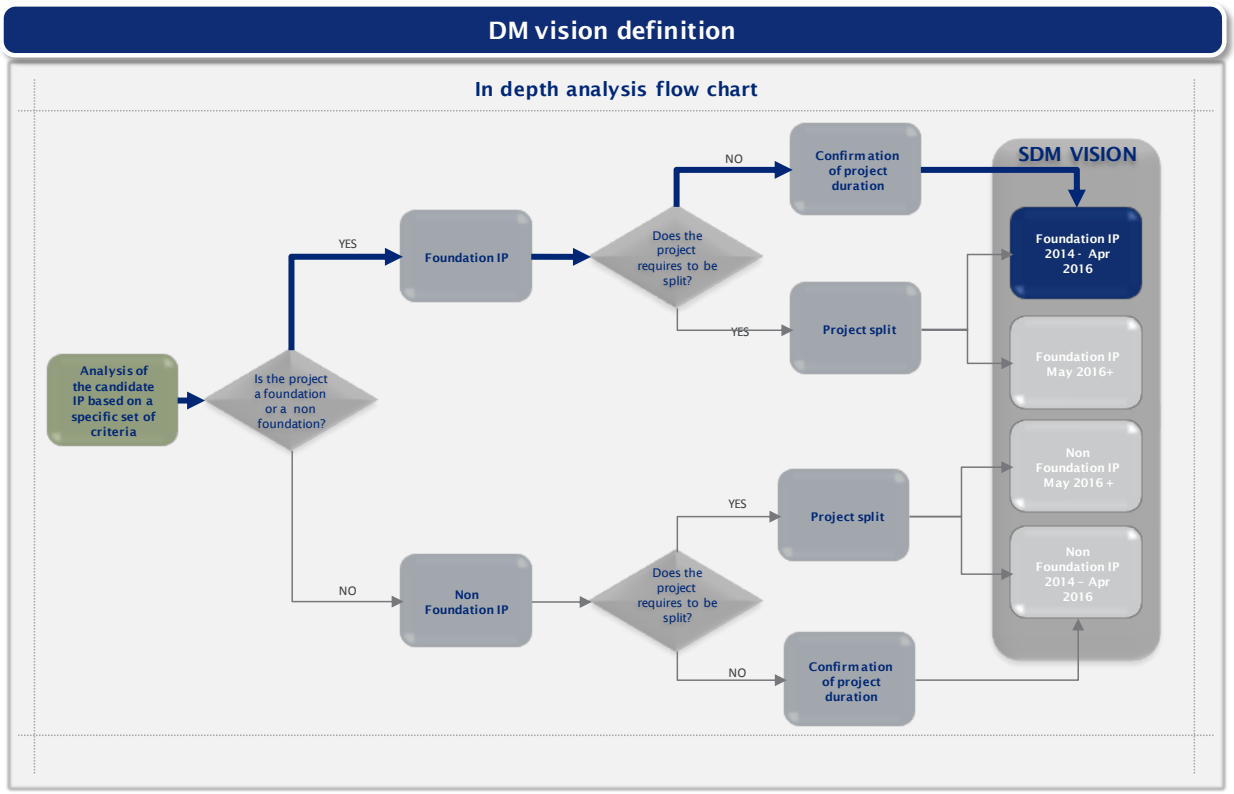
This project is considered as a Foundation IP.



Content	Description
REFERENCE NUMBER	**135AF2**
TITLE	**Ryanair RAAS Programme**
MAIN AF / SUB AF / Family	**AF 2; Sub AF 2.5; Family 2.5.2**
PROJECT DESCRIPTION	**Objectives:** Implement aircraft systems contributing to airport safety nets. (ref: Family 2.5.2) The objective is to equip all Ryanair aircrafts with Honeywell Runway Awareness and Advisory Systems (RAAS) to improve situational awareness, reduce the risks of runway incursion, runway confusion and runway excursions and thus contribute to the overall airport safety net for high-density airports. Airport safety nets consist of the detection and alerting of conflicting ATC clearances to aircraft and deviation of vehicles and aircraft from their instructions, procedures or routing which may potentially put the vehicles and aircraft at risk of a collision. The main benefit is related to the increase of runway usage awareness, and consequently an increase of runway safety. On-board systems and technology uses airport data coupled with on-board sensors to monitor the movement of an aircraft around the airport and provide relevant information to the flight crew. Further applications of on-board systems are related to continuous monitoring of aircraft landing performance, providing pilots with a real-time, constantly updated picture. The on-board systems detect potential and actual risk of collision with other traffic during runway operations and provide the Flight Crew with the appropriate alert. An on-board airport safety net will improve safety in runway operations, mostly at airports where no safety net is provided to controllers.
PROJECT LEADER	Ryanair
MEMBER STATE	IRELAND
TIMING	01/01/2015 – 31/12/2016
AIRBORNE	
INTERDEPENDENCIES	NO
SYNCHRONIZATION	With Airspace Users
LINKS	NO
NM LINKS	**NSP:** SO 6/6; **NOP:** None;

Recommendation:

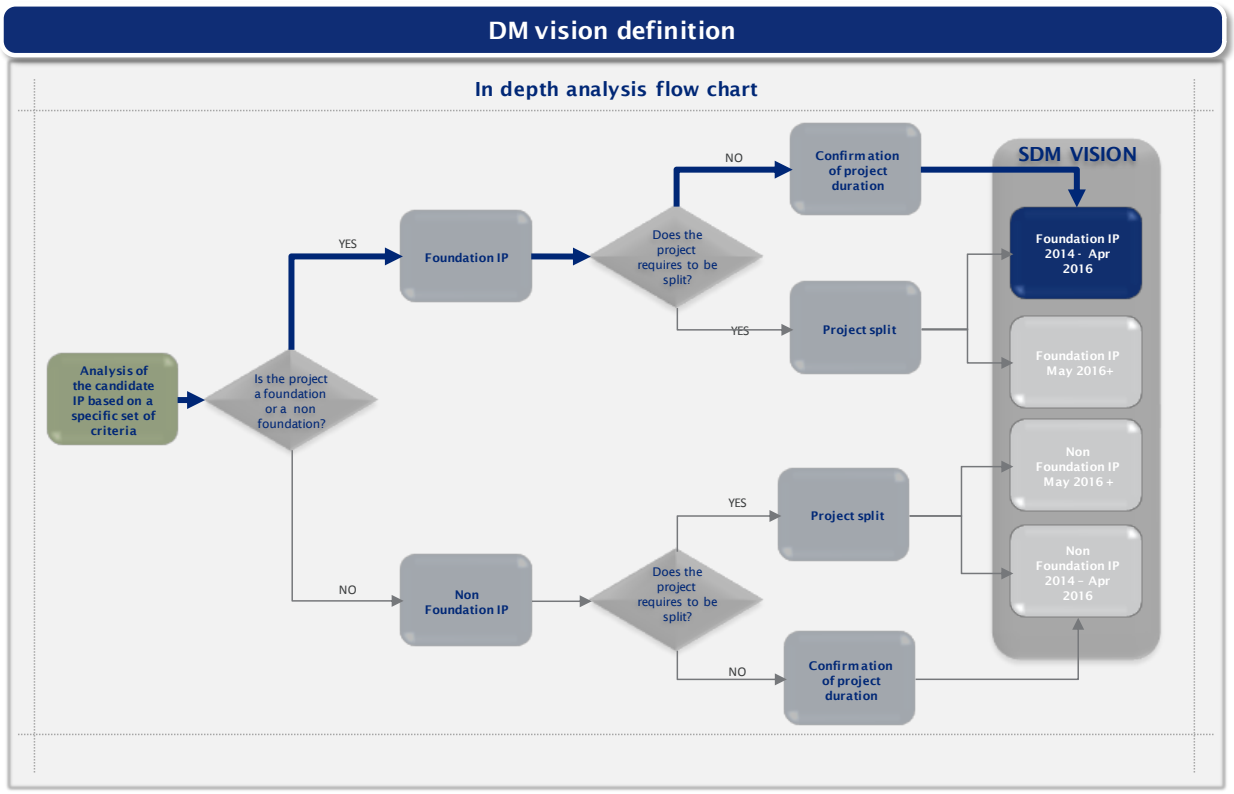
This project is considered as a Foundation IP.



Content	Description
REFERENCE NUMBER	**136AF2**
TITLE	**A-CDM (Stockholm Arlanda)**
MAIN AF / SUB AF / Family	**AF 2; Sub AF 2.1; Family 2.1.3**
PROJECT DESCRIPTION	**Objectives:** Although Airport Collaborative Decision Making Optimization Project covers several areas that can be attributed to basic A-CDM the focus is primarily on optimization of "Information Sharing" which is one of the cornerstones in the milestone approach process described in the A-CDM Manual. The detailed purpose of the project is - to facilitate cooperation between different organizations while raising the quality of information dissemination at Stockholm Arlanda Airport and at Network Manager Operations Centre (NMOC). - The distribution of information will only be recorded once - Online information will replace the estimated values. - The quality of operational flight data will increase by making data available online - Improve the quality of "Departure Progress Information" to NMOC The main steps are: - Development and introduction a WEB-interface. - Development and introduction of an Flight Operational APP - Develop and introduce a CDM portal - System integration - Introducing Flight information at GATE and STAND
PROJECT LEADER	Swedavia
MEMBER STATE	SWEDEN
TIMING	01/07/2014 – 31/12/2016
AIRBORNE	
INTERDEPENDENCIES	077AF4 - Interactive Rolling NOP
SYNCHRONIZATION	With, ECTL/NM
LINKS	AF 2; AF 4; AF 5; Sub AF 2.1; Sub AF 2.5; Sub AF 4.2; Sub AF 5.5; Family 2.1.1; Family 2.1.4; Family 2.5.1; Family 4.2.2; Family 4.2.3; Family 5.5.1
NM-Links	**NSP:** SO 6/3 & SO 6/4 **NOP:** Local Airport CDM Implementation: Yes. Integration of Airports into the network (DPI, FUM): FUMs are used. DPI Operational Evaluation (testing): Current Status for DPI: Short Delay. Planned for Q1 2015.

Recommendation:

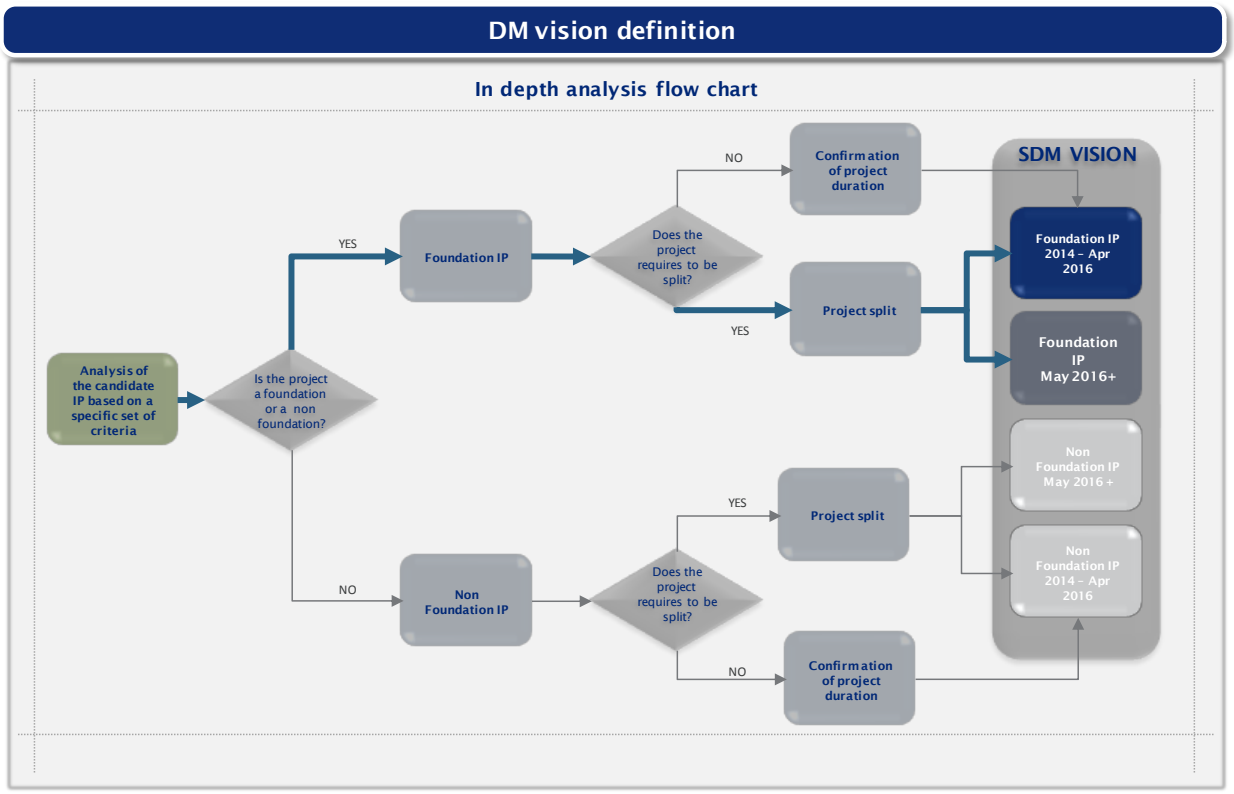
This project is considered as a Foundation IP.



Content	Description
REFERENCE NUMBER	**137AF2-A**
TITLE	**Enhance of ASN (Stockholm Arlanda)**
MAIN AF / SUB AF / Family	**AF 2; Sub AF 2.2; Family 2.2.1**
PROJECT DESCRIPTION	**Objectives:** - Improve the performance of the surveillance function of the A-SMGCS system at Stockholm Arlanda airport, in order to enable to provision of high-quality, reliable surveillance data for integration in the advanced Airport Safety Nets function. - Keep the implementation of the surveillance function up-to-date to enable future expansion of the ASMGCS system, to enable future functionality of the A-SMGCS system and to ensure interoperability with new components in the future. The main steps to reach this objective are: - Upgrade of SMR stations - Enhancement of Airport Safety Nets - Operational validation and introduction of Airport Safety Nets
PROJECT LEADER	Swedavia
MEMBER STATE	SWEDEN
TIMING	01/12/2014 – 31/08/2017
AIRBORNE	
INTERDEPENDENCIES	136AF2 - A-CDM (Stockholm Arlanda)
SYNCHRONIZATION	With ANSPs
LINKS	AF2; Sub AF 2.1; Sub AF 2.5; Family 2.1.1; Family 2.1.3; Family 2.5.1
NM-Links	**NSP:** SO 6/6 **NOP:** A-SMGCS (level 1) is available in TWR A-SMGCS (level 2) implementation is on-going. Electronic Strips: Available in TWR and APP.

Recommendation:

This project is considered as a Foundation IP.



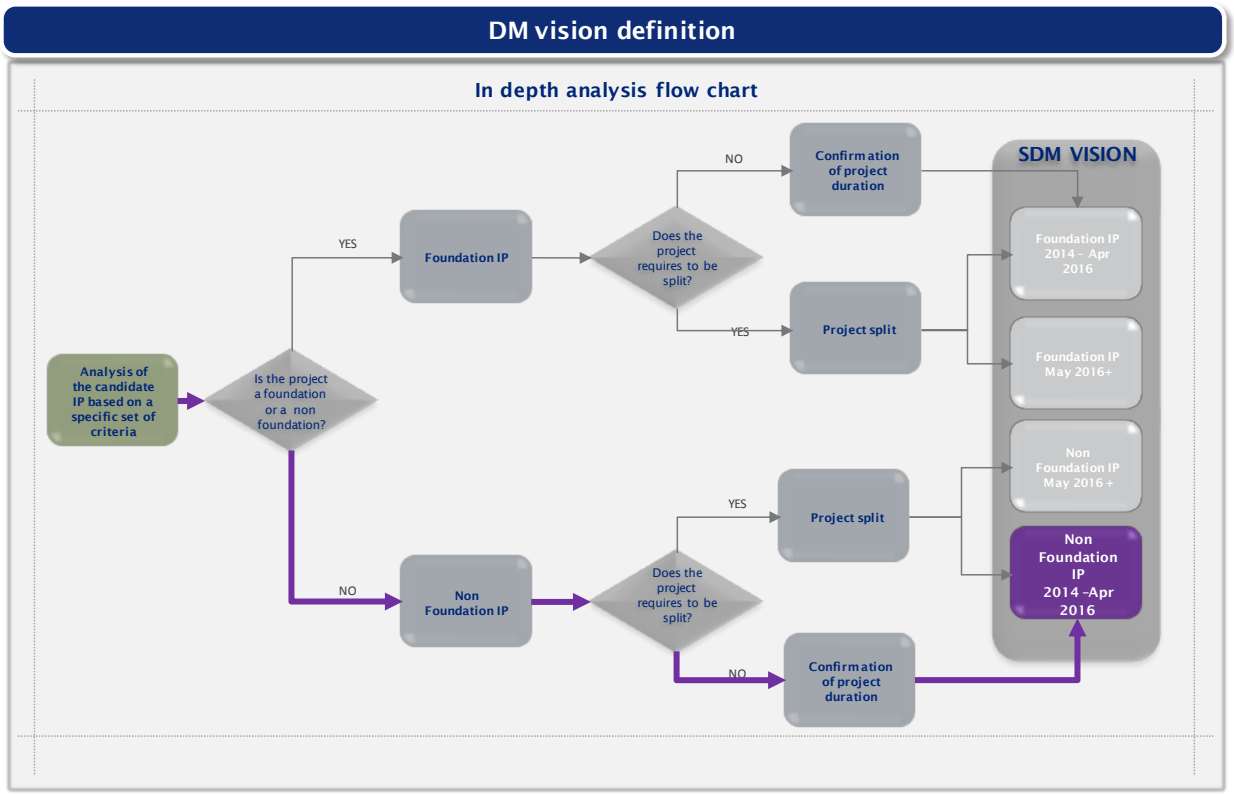
The project could be split in 2 phases. The first phase (December 2014 – April 2016) hast to be considered for this INEA Call 2014. The second phase (May 2016 – August 2017) needs to be part of the next INEA call in order to ensure continuity of the action within the Deployment Programme.

1.1.3 AF3Flexible ASM and Free Route

Content	Description
REFERENCE NUMBER	**004AF3**
TITLE	**AZA Traffic Flow Restriction (TFR) – LIDO planning system (integration of Updated Used Plan for AFUA purpose)**
MAIN AF / SUB AF / Family	**AF 3; Sub AF 3.2; Family 3.2.1**
PROJECT DESCRIPTION	**Objectives:** TFR (Traffic Flow Restriction) is a LIDO FLIGHT LUFTHANSA SYSTEMS module that allows integrating traffic flow restriction document (RAD) and the EUP/UUP into the flight planning process within Lido/Flight. The RAD is the document published by Central Flow management Unit (CFMU) of EUROCONTROL and describes routes on which restrictions are imposed for a specific period. By this Lido tool Alitalia will be able to plan usually closed segments (CDR) obtaining in this way important optimization to company routes and also be able to catch the opportunity to plan over new segments whose availability will be unveiled day by day. The main objectives are: – Improve the route efficiency pursuing the minimum cost (Total cost = fuel costs + ATC costs + time cost). – Automation on the research of the best routing – Research of the best routing looking at the daily availability of DCT and RAD restriction removal – Reduction of CO2 and other emissions due to optimized flight plans.
PROJECT LEADER	Alitalia
MEMBER STATE	ITALY
TIMING	05/05/2014 – 21/04/2016
AIRBORNE	
INTERDEPENDENCIES	
SYNCHRONIZATION	
LINKS	
NM links	**NSP:** direct link with: SO 5/1 Enable 4D trajectories at planning level, in cooperation with airspace users and ANSPs an indirect link with SO 3/1 (Deploy full free route airspace throughout the European ATM network, to the maximum extent possible). **NOP:** The Network Operation Plan (NOP) does not directly address the requirements and plans for Airspace Users.

Recommendation:

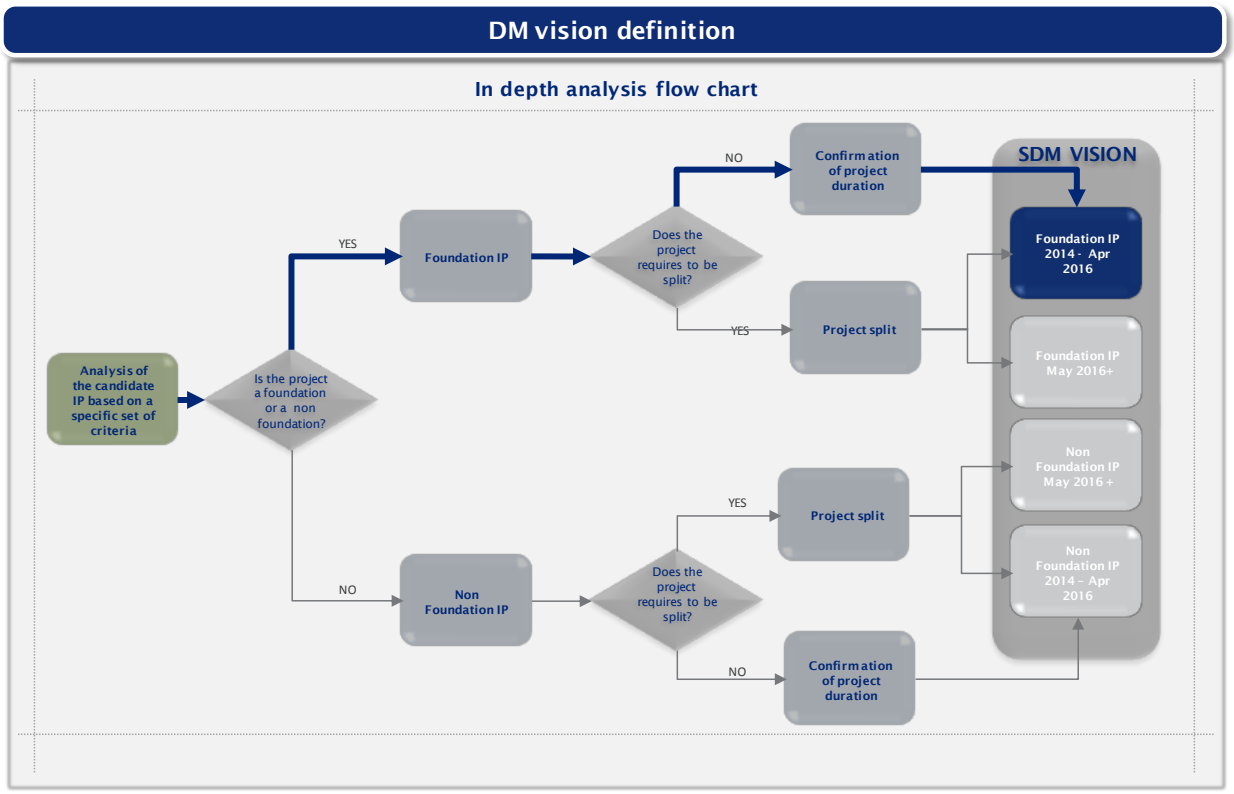
This project is considered as a Non Foundation IP.



Content	Description
REFERENCE NUMBER	**005AF3**
TITLE	**AZA FREE FLIGHT- DIRECT OPTIMIZATION**
MAIN AF / SUB AF / Family	**AF 3; Sub AF 3.2; Family 3.2.1**
PROJECT DESCRIPTION	**Objectives:** The feature "Free Flight – Direct Optimization" lets users define arbitrary waypoints by their coordinates and dynamically trigger a calculation of the missing segment between the newly defined Free Flight waypoint and any other Free Flight or system-known waypoint, or between two systems known waypoints. The feature can be used as part of the regular flight planning process. It is also suitable for the modification of reclearance procedures or as in flight assistance. With the aid of graphical maps, flight dispatchers can visualize and evaluate a given calculated route, select a waypoint, replace it with a Free Flight waypoint, eliminate waypoints deemed superfluous and reconnect the Free Flight waypoint with existing route objects. The application plots the missing segment between a designated Free Flight waypoint and the designated next waypoint. Main objective is: – Improve the route efficiency pursuing the minimum cost (Total cost = fuel costs + ATC costs + time costs). – Reduction of CO2 and other emissions due to optimized flight plans.
PROJECT LEADER	Alitalia
MEMBER STATE	ITALY
TIMING	25/05/2015 – 18/05/2017
AIRBORNE	
INTERDEPENDENCIES	
SYNCHRONIZATION	
LINKS	
NM links	**NSP:** direct link with: SO 5/1 Enable 4D trajectories at planning level, in cooperation with airspace users and ANSP; an indirect link with SO 3/1 (Deploy full free route airspace throughout the European ATM network, to the maximum extent possible). **NOP :** The Network Operation Plan (NOP) does not directly address the requirements and plans for Airspace Users

Recommendation:

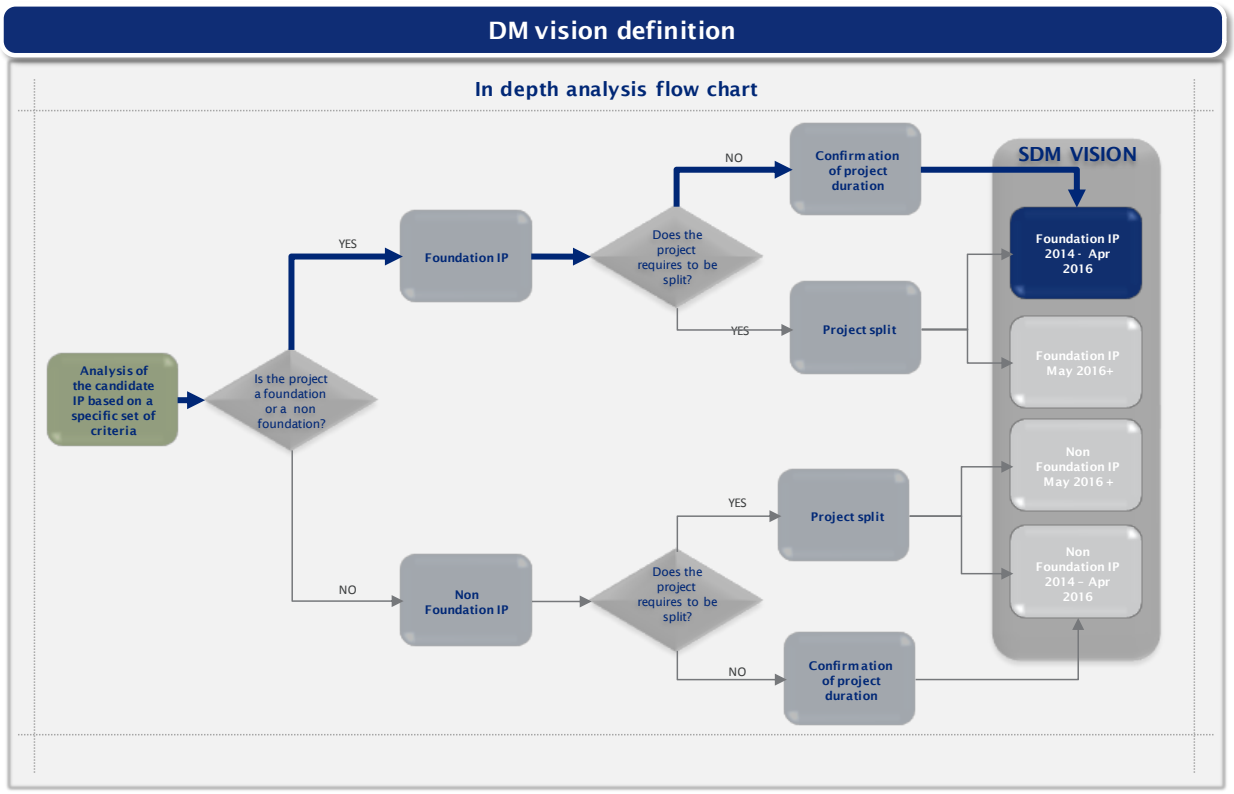
The project is considered as a Foundation IP



Content	Description
REFERENCE NUMBER	**015AF3**
TITLE	**LARA integration in CANAC 2: PHASE 1**
MAIN AF / SUB AF / Family	**AF 3; Sub AF 3.1; Family 3.1.2**
PROJECT DESCRIPTION	**Objectives:** – Providing ATCO's (Air Traffic Controller) with military information about areas reservation in order to optimise the use of airspace – Automate the display of airspace reservation in the EUROCAT (in the ODS (Operational input and Display System) of the FDP (Flight Data Processing) system) – Provide information about status of airspace reservation in the ADIDS-c (Aeronautical Data Information Display System)
PROJECT LEADER	BELGOCONTROL
MEMBER STATE	BELGIUM
TIMING	01/01/2014 - 01/01/2016
AIRBORNE	
INTERDEPENDENCIES	
SYNCHRONIZATION	
LINKS	
NM links	**NSP:** direct links with SO 3/2 (Implement Advanced Flexible Use of Airspace), SO 3/3 (Implement appropriate cross-border airspace structures, enabling a flexible use of airspace - to achieve the flight efficiency targets and ensure appropriate cross-border sectorization) **NOP:** It is addressed by NOP Annex 5 (ACC TRAFFIC FORECAST & CAPACITY PLANS) as the airspace management (advanced FUA) measure and Technical Measures (minor upgrades of CANAC 2 system) for capacity enhancement in 2015/2016

Recommendation:

The project is considered as a Foundation IP.

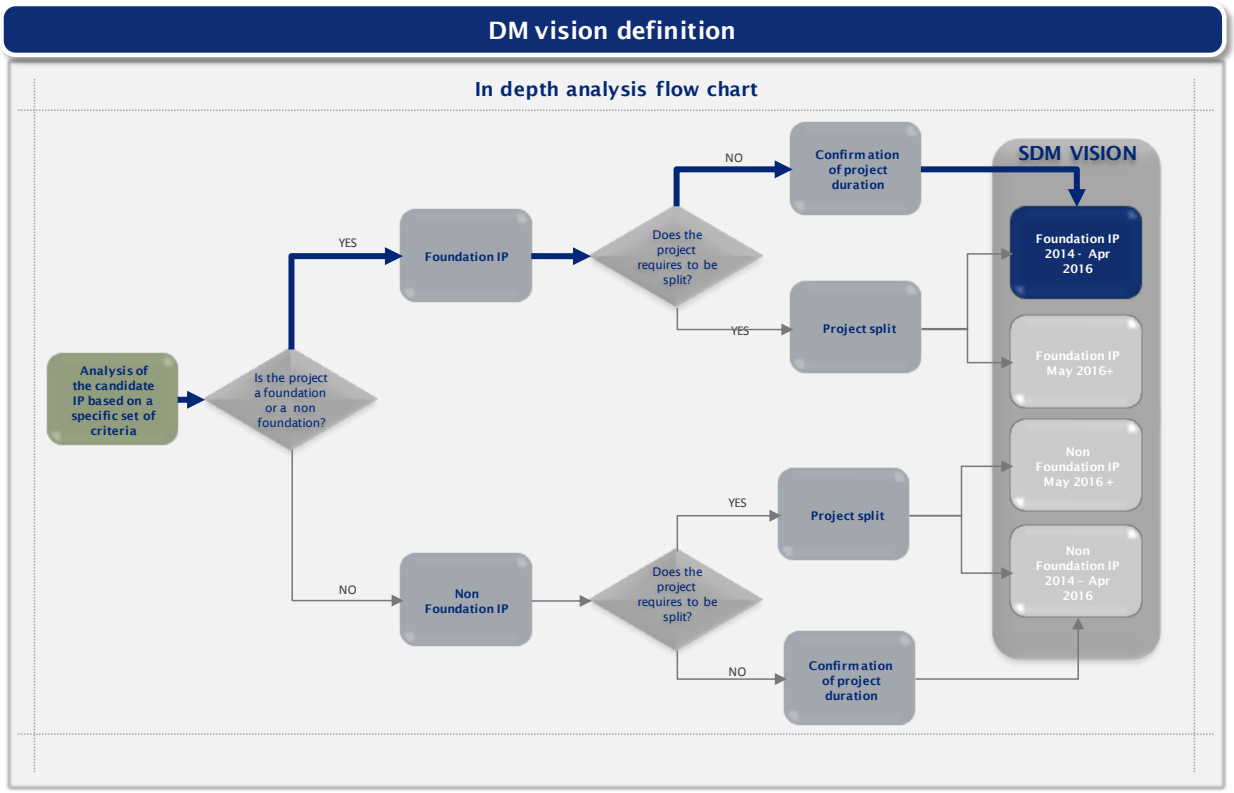


Content	Description
REFERENCE NUMBER	**020AF3**
TITLE	**Borealis Free Route Airspace (Part 1)**
MAIN AF / SUB AF / Family	**AF 3; Sub AF 3.2; Family 3.2.4**
PROJECT DESCRIPTION	**Objectives:** Free Route Airspace (FRA) is a key element of AF3 – Flexible Airspace Management and Free Route of the Commission Implementing Regulation (EU) No 716/2014 on the establishment of the Pilot Common Project (PCP) supporting the implementation of the European Air Traffic Management Master Plan. Within the Preliminary Deployment Programme FRA is sub-ATM functionality S-AF3.2: Free Route. Therefore, the implementation will ensure that all Family elements defined in the PDP to support Free Route (S-AF3.2) are fully implemented including: Family 1 Projects: – 3.2.1 Upgrade of ATM systems, where appropriate – 3.2.2 Upgrade of NM systems, where appropriate Family 2 projects – 3.2.3 Implementation of Direct Routes, where these are not currently implemented – S-AF3.2 Implementation of Free Route across the NEFRA region. The target date for implementing FRA is 1 January 2022 above flight level 310 in the ICAO EUR region.
PROJECT LEADER	BOREALIS Alliance
MEMBER STATE	Not applicable
TIMING	01/01/2014 – 31/12/2016
AIRBORNE	
INTERDEPENDENCIES	
SYNCHRONIZATION	With Airspace Users, ANSPs, ECTL/NM
LINKS	AF3; Sub AF3.2, Family 3.2.1 AF3; Sub AF3.2, Family 3.2.2 AF4; Sub AF 4.1, Family 4.1.1 AF4; Sub AF 4.2, Family 4.2.2 AF4; Sub AF 4.2, Family 4.2.3 AF4; Sub AF 4.4; Family 4.4.1
NM links	**NSP:** SO 3/1 (Deploy full free route airspace throughout the European ATM network, to the maximum extent possible) ; SO 3/3 (Implement appropriate cross-border airspace structures, enabling a flexible use of airspace - to achieve the flight efficiency targets and ensure appropriate cross-border sectorization as required for FRA deployment) ; SO 3/4 (Coordinate the development and implementation of airspace design and airspace management improvements to achieve the flight efficiency targets and ensure appropriate network connectivity and coordination) ; SO 4/1 (Modernise the local/FAB system capabilities including ATC planning functions and Controller tools procedures) for AVINOR and LGS. **NOP:** This project is addressed by NOP Annex 5 (ACC TRAFFIC FORECAST & CAPACITY PLANS) as the airspace/ free route airspace measure for capacity enhancement in 2015-2019 time slot by NAVIAIR,

	EANS, Finavia, IAA, AVINOR, LFV and NATS ; the technical measures for capacity enhancements in 2015-2019 time slot by NAVIAIR, EANS, LGS, IAA, AVINOR, LFV and NATS

Recommendation:

The project is considered as a Foundation IP.

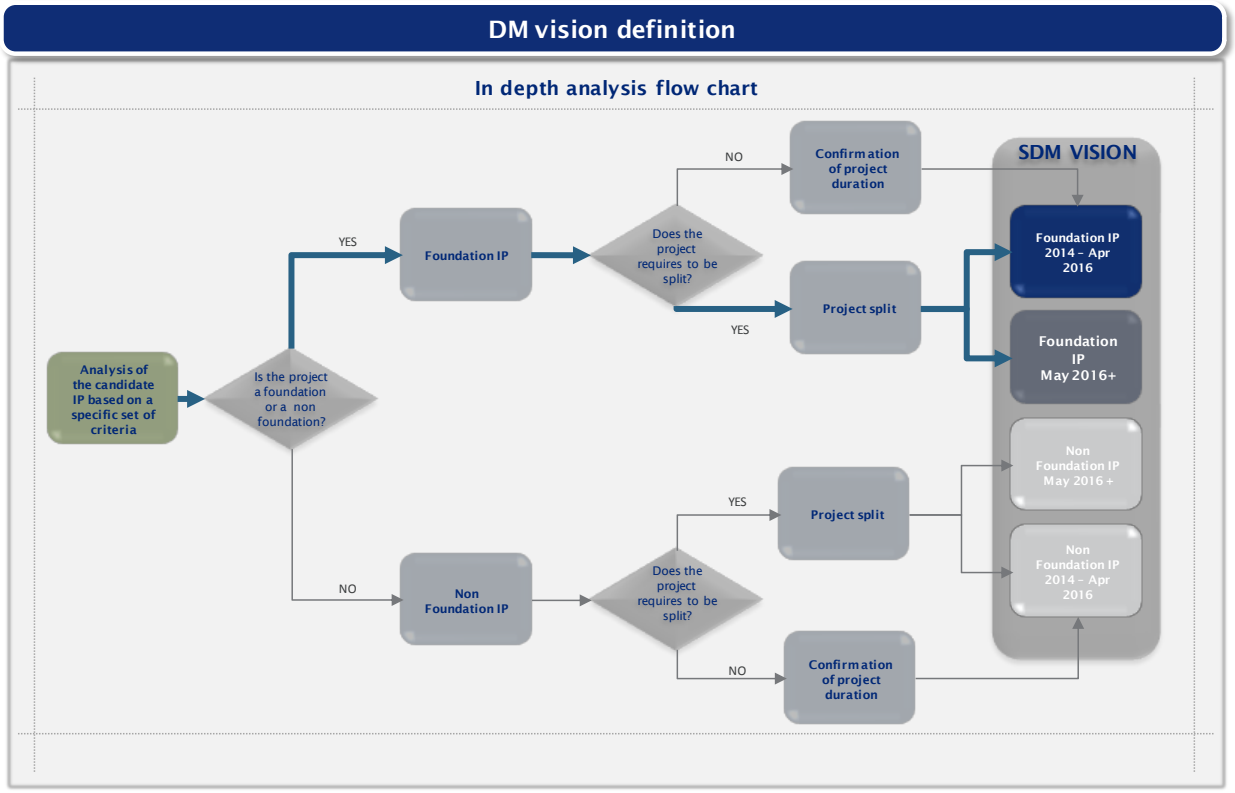


Content	Description
REFERENCE NUMBER	**046AF3**
TITLE	**iTEC Centre Automation System (iCAS)**
MAIN AF / SUB AF / Family	**AF 3; Sub AF 3.2; Family 3.2.1**
PROJECT DESCRIPTION	**Objectives:** iCAS has the following main objectives: – Provide a State-of-the-Art ATS system platform which supports harmonized and interoperable air traffic control services within the FABEC – Provide advanced tools for Air Traffic Controllers (e.g. MTCD, MONA, Datalink, …) to enable the introduction of advanced operational concepts such as Direct Routing and Free Route – Achieve a cost efficient development of iCAS together with LVNL and also via the iTEC cooperation with ENAIRE and NATS – Achieve a cost efficient maintenance of iCAS through harmonization of system management and operational procedures across all DFS control centres – Provide the iCAS ATS system timely enough in order to replace the current ATS systems P1/ATCAS and P1/VAFORIT without a need for life extending measures – To enable Extended Arrival Management (AMAN) systems to provide arrival sequence time information and manage AMAN constraints. – To provide an ATS system that makes use of the flight information exchange services like sharing Flight Object information and 4D trajectories. (as part of future iCAS version) – To provide an ATS system that complies with the following PCP ATM functions: 1. AF1: Extended AMAN and PBN 2. AF3: Flexible Airspace Management and Free Route 3. AF5: iSWIM (as part of future iCAS version) 4. AF6: Initial Trajectory Information Sharing (i4D) (as part of future iCAS version) iCAS Phase I is currently in the development and deployment phases, the relevant tasks are as follows.
PROJECT LEADER	DFS/LVNL
MEMBER STATE	GERMANY
TIMING	01.01.2014 - 30.06.2016
AIRBORNE	
INTERDEPENDENCIES	
SYNCHRONIZATION	With Airspace Users, Airports, ANSPs, ECTL/NM, MET
LINKS	AF 1, AF 3, AF 5, AF 6; Sub AF 3.2; Family 1.1.1, Family 1.1.2, Family 3.2.1, Family 3.2.3, Family 5.6.1, Family 6.1.1
NM LINKS	**NSP**: "direct links with SO: • SO 3/1 (Deploy full free route airspace throughout the European ATM network, to the maximum extent possible) • SO 4/1 (Modernise the local/FAB system capabilities including ATC planning functions and Controller tools procedures); **NOP**: "This project is addressed by NOP Annex 5 (ACC TRAFFIC FORECAST & CAPACITY PLANS) as

	• Technical measure for capacity enhancement by the deployment of iCAS functionalities (Karlsruhe UAC 2016-2017 and Bremen ACC (2019) • Technical measure for capacity enhancement by the deployment of P1/ATCAS and P2/ATCAS by Langen ACC (2105-2017) and Munich ACC (2015) • The Capacity plans for Amsterdam ACC did not make any reference to ICAS or P1/ATCAS or P2/ATCAS;

Recommendation:

This project is considered as a Foundation IP.

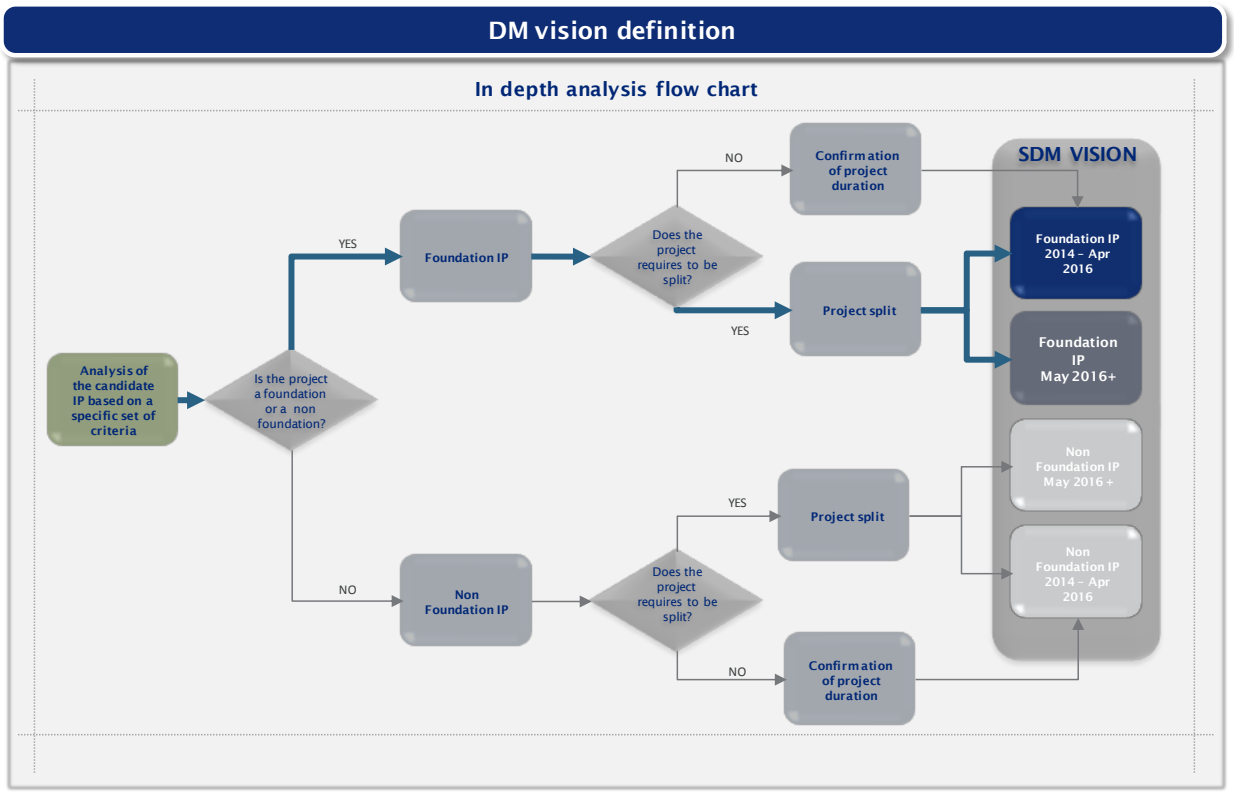


The project could be split in two phases. The first phase (January 2014 – December 2015) has to be considered for the INEA call 2014.The second phase (January 2016 – June 2016) needs to be part of the next INEA call in order to ensure continuity of the action within the Deployment Programme.

Content	Description
REFERENCE NUMBER	**053AF3**
TITLE	**4-Flight deployment in DSNA pilot ACCs**
MAIN AF / SUB AF / Family	**AF 3; Sub AF 3.2; Family 3.2.1**
PROJECT DESCRIPTION	**Objectives:** – Replace the current operational CAUTRA System for ACC and Major APP, by a modern SESAR compliant interoperable line of product, to increase DSNA Performance – Support the implementation of the European ATM Master Plan for France and of the SESAR concept – Respect the Single European Sky (SES) and FABEC rules – Switch to "stripless" environment and up-to-date technologies – Reduce total cost of ownership, by sharing development and evolution costs and risks for the new system, with ANSP partners
PROJECT LEADER	DSNA
MEMBER STATE	FRANCE
TIMING	01/07/2014 – 31/12/2018
AIRBORNE	
INTERDEPENDENCIES	
SYNCHRONIZATION	
LINKS	
NM links	**NSP:** direct links with SO 4/1 (Modernise the local/FAB system capabilities including ATC planning functions and Controller tools procedures). **NOP:** This project is addressed by NOP Annex 5 (ACC TRAFFIC FORECAST & CAPACITY PLANS) as Technical measure for capacity enhancement by the deployment of new ATM system (4-flight) by Reims and Marseille ACCs in 2019.

Recommendation:

The project is considered as a Foundation IP.



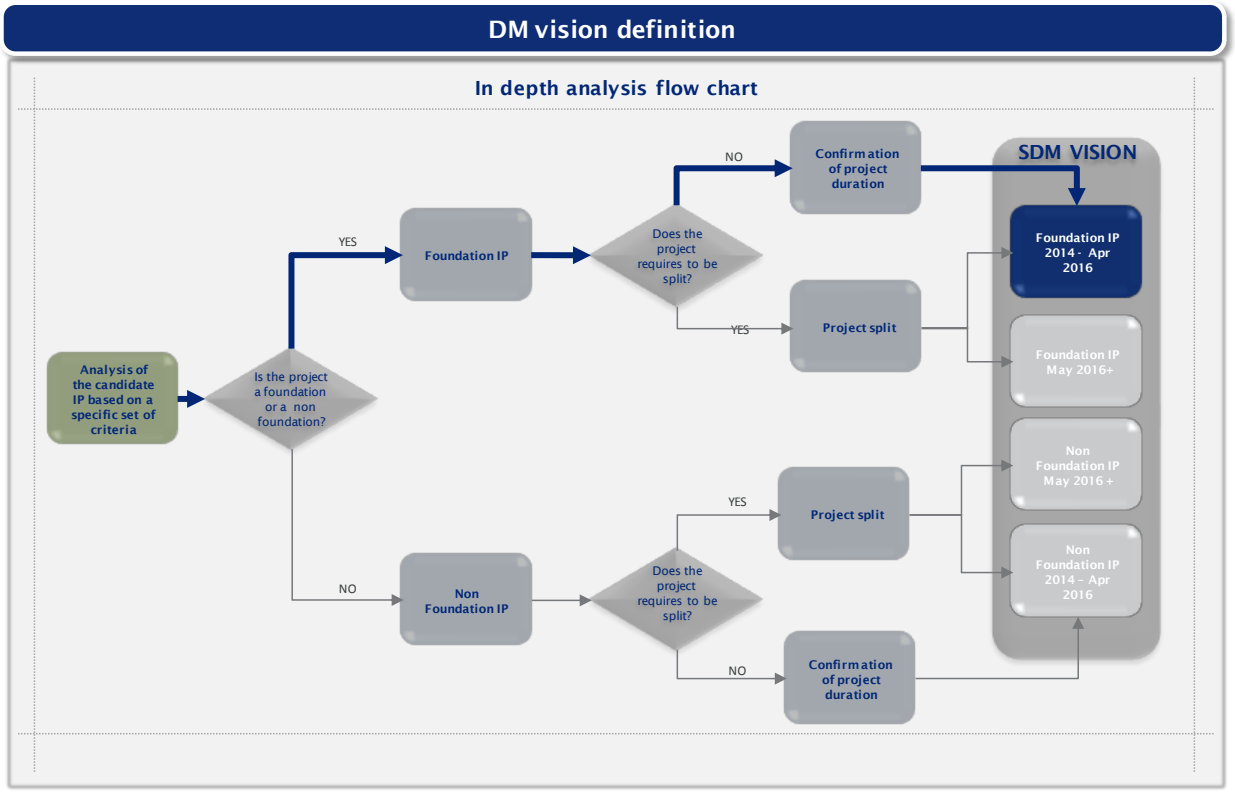
On the basis of selected tasks which might be postponed to a latter phase (namely beyond May 2016), the project could be split in two phases. The first phase (July 2014 – April 2016) has to be considered for the INEA call 2014. The second phase (May 2016 – December 2018) needs to be part of the next INEA call in order to ensure continuity of the action within the Deployment Programme.

	Description
REFERENCE NUMBER	**055AF3**
TITLE	**FABEC Free Route Airspace project (FABEC FRA)**
MAIN AF / SUB AF / Family	**AF 3; Sub AF 3.2; Family 3.2.3**
PROJECT DESCRIPTION	**Objectives:** The overall objectives of the FABEC Free Route project are to fulfill PCP AF3 requirements for the entire FABEC Airspace and contribute to FABEC performance targets in terms of Horizontal Flight Efficiency. The project aims at delivering benefits to both airspace users and ANSPs, by improving: a) Horizontal flight efficiency thus reducing fuel burn and environmental emissions by implementing Free Route within the FABEC Airspace through: Direct Routing, and Free Routing (according to the SESAR Free Route concept) b) Flexibility for airspace users and ANSPs by increasing the number of routing options c) Availability of economical routings through making use of special used airspace d) Predictability through better compliance to the flight plan The project also aims at offering more direct routes in lower airspace and enhance the in-and-outbound flows with the regional and adjacent airports. In view of a coherent progress along European development roadmaps, the FABEC FRA project addresses the following: IR 716/2014 SESAR Deployment PCP Flexible Airspace Management and Free Route shall be provided and operated in the airspace for which the Member States are responsible at and above flight level 310 in the ICAO EUR region DCT as from 1 January 2018 FRA as from 1 January 2022 The project contributes to both requirements as it proposes: – all national, cross border, FABEC-wide implementation of DCT until 31 of December 2017 – initial implementation of Free Route as a first step towards the 2nd requirement about FRA implementation
PROJECT LEADER	DSNA/FABEC
MEMBER STATE	FRANCE
TIMING	01/06/2014 - 31/12/2018
AIRBORNE	
INTERDEPENDENCIES	– iCAS, – 053AF3 - 4-Fight deployment in DSNA pilot ACCs
SYNCHRONIZATION	With Airspace Users, ANSPs, ECTL/NM
LINKS	AF 4
NM links	**NSP:** The project has direct links with SO 3/1 (Deploy full free route airspace throughout the European ATM network, to the maximum extent possible) ; SO 3/3 (Implement appropriate cross-border airspace structures, enabling a flexible use of airspace - to achieve the flight efficiency targets and ensure appropriate cross-border sectorization as required for FRA deployment) ; SO 3/4 (Coordinate the development and implementation of airspace design and airspace management improvements to achieve the flight efficiency targets and ensure

	appropriate network connectivity and coordination). **NOP:** This project is addressed by NOP Annex 5 (ACC TRAFFIC FORECAST & CAPACITY PLANS) as Free route airspace measure for capacity enhancement in 2015-2019 time slots by Skyguide, DFS, DSNA and MUAC.

Recommendation:

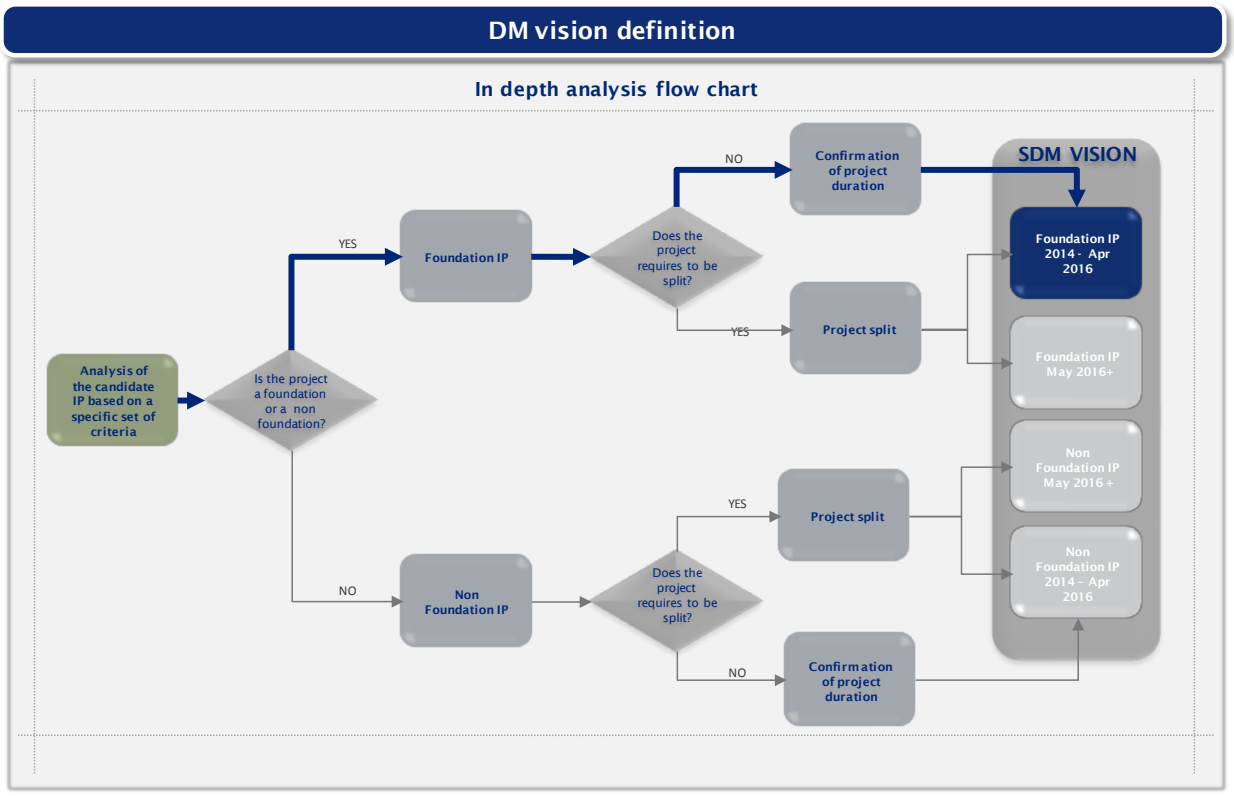
This project is considered as a Foundation IP.



Content	Description
REFERENCE NUMBER	**056AF3**
TITLE	**ASM tool Implementation**
MAIN AF / SUB AF / Family	**AF 3; Sub AF 3.1; Family 3.1.1**
PROJECT DESCRIPTION	**Objectives:** Air Space Management (ASM) tool implementation is a prerequisite for Free Route Airspace Implementation of AF3 – Flexible Airspace Management and Free Route of the Commission Implementing Regulation (EU) No 716/2014 on the establishment of the Pilot Common Project (PCP) supporting the implementation of the European Air Traffic Management Master Plan. The EUROCONTROL LARA ASM tool will: – enhance Civil-Military ATM performance; – provide real-time exchange of airspace management data; – enhance situational awareness – facilitates collaborative decision-making – improve safety
PROJECT LEADER	EANS
MEMBER STATE	ESTONIA
TIMING	01/01/2014 – 30/06/2016
AIRBORNE	
INTERDEPENDENCIES	
SYNCHRONIZATION	With Airspace Users, ECTL/NM
LINKS	AF 4; Sub AF 4.2
NM links	**NSP :** SO 3/2 (Implement Advanced Flexible Use of Airspace) SO 3/3 (Implement appropriate cross-border airspace structures, enabling a flexible use of airspace - to achieve the flight efficiency targets and ensure appropriate cross-border sectorization). **NOP:** This project is addressed by NOP Annex 5 (ACC TRAFFIC FORECAST & CAPACITY PLANS) as the procedural measures for capacity enhancement in 2016.

Recommendation:

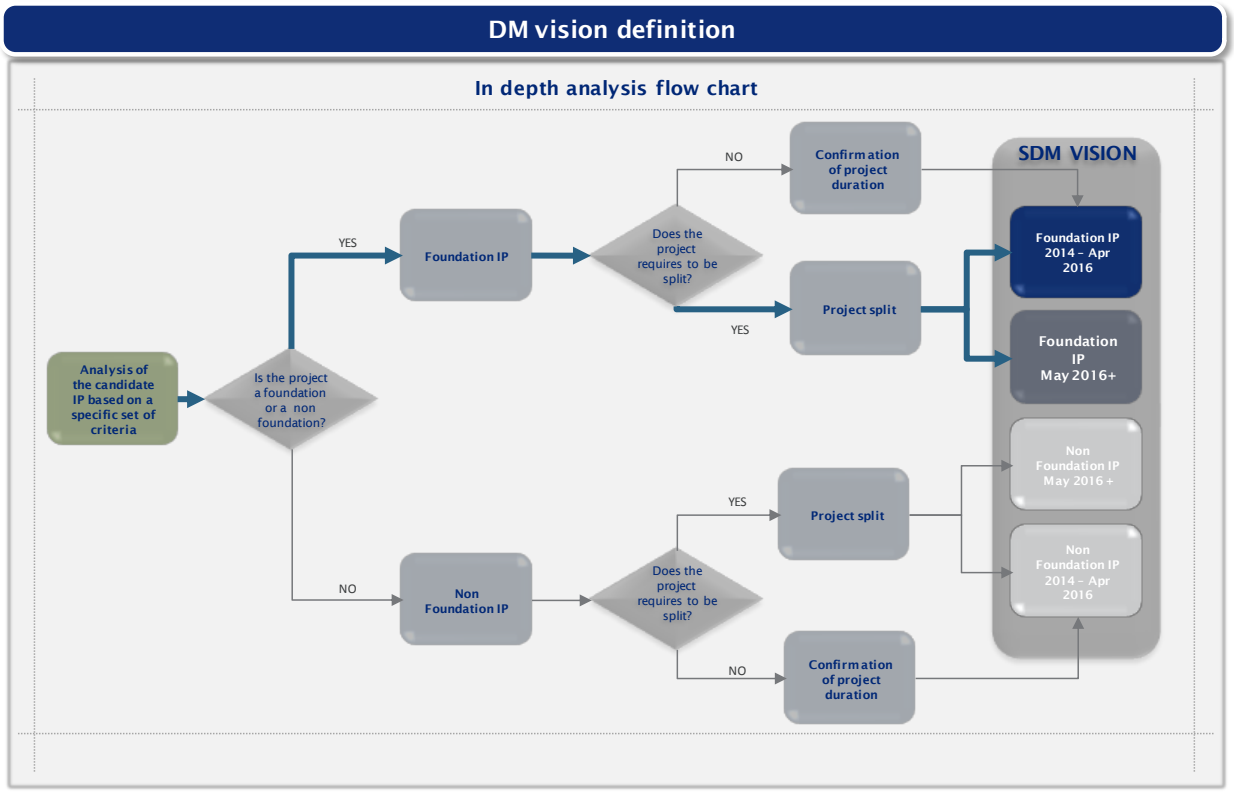
The project is considered as a Foundation IP.



Content	Description
REFERENCE NUMBER	**063AF3**
TITLE	**ENAV implementation of flexible ASM and Free Route**
MAIN AF / SUB AF / Family	**AF3; Sub AF 3.2; Family 3.2.4**
PROJECT DESCRIPTION	**Objectives:** The project aims to implement free route operations in Italy through a seamless integration of the four Italy ACCs enabling airspace users to flight-plan their preferred trajectories within the whole Italian airspace. The deployment will address both technical systems and operational airspace design and procedures. ENAV and BLUE MED FAB partners have been implementing Free Route Airspace concept according to the agreed BLUE MED FAB Implementation Programme, within which the Free Route Airspace concept will be applied in all its stages: from the implementation of night DCTs, up to more ambitious Free Route scenarios on regional scale. The project aims to implement free route operations in Italy through a seamless integration of the four Italy ACCs enabling airspace users to flight-plan their preferred trajectories within the whole Italian airspace. The deployment will cover technical systems, operational airspace design and procedures addressing the following objectives: – Enable users preferred trajectories within whole Italian airspace – Upgrade of ATM Systems – Seamless integration of four Italy ACCs – ATS-route network optimization, including arrival and departure procedures – Sectors adaptation to accommodate the changes in traffic flows where needed
PROJECT LEADER	ENAV
MEMBER STATE	ITALY
TIMING	01/01/2014 - 31/12/2017
AIRBORNE	
INTERDEPENDENCIES	– 095AF3 – Implementation of FRA in Greece
SYNCHRONIZATION	With Airspace Users, ANSPs, ECTL/NM
LINKS	AF3; Sub AF 3.1, Family 3.1.1 AF3; Sub AF3.2; Family 3.2.1, AF 4; Sub AF4.1; Family 4.1.1
NM links	**NSP:** direct links with SO 3/1 (Deploy full free route airspace throughout the European ATM network, to the maximum extent possible); SO 3/4 (Coordinate the development and implementation of airspace design and airspace management improvements to achieve the flight efficiency targets and ensure appropriate network connectivity and coordination); SO 4/1 (Modernise the local/FAB system capabilities including ATC planning functions and Controller tools procedures). **NOP:** This project is addressed by NOP Annex 5 (ACC TRAFFIC FORECAST & CAPACITY PLANS) as free route airspace measure for capacity enhancement in 2015-2017 time slot by 4 Italian ACCs Technical measure by the deployment of MTCD by 4 Italian ACCs in 2016.

Recommendation:

The project is considered as a Foundation IP.

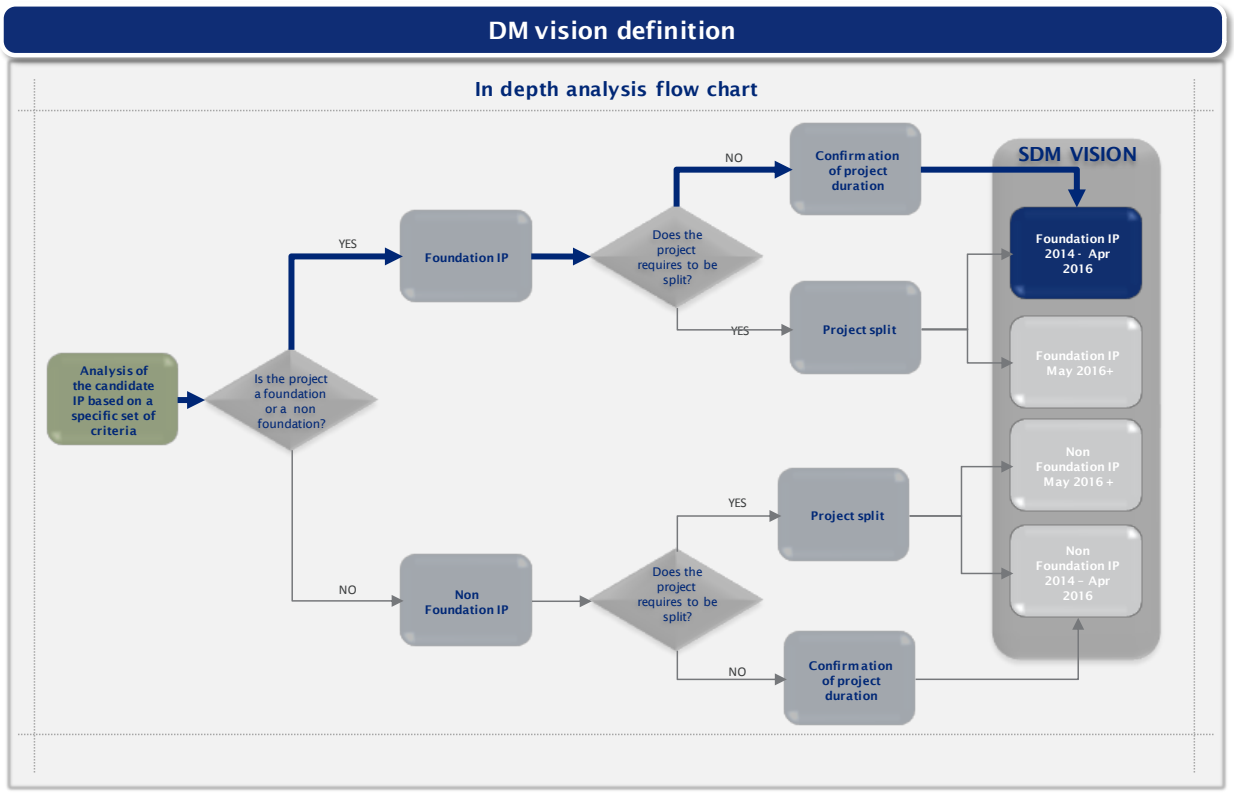


The project could be split in two phases. The first phase (January 2014 – April 2016) has to be considered for the INEA call 2014. The second phase (May 2016 – December 2017) needs to be part of the next INEA call in order to ensure continuity of the action within the Deployment Programme.

Content	Description
REFERENCE NUMBER	**081AF3**
TITLE	**NM DCT/FRA Implementation and support**
MAIN AF / SUB AF / Family	**AF 3; Sub AF 3.2; Family 3.2.1**
PROJECT DESCRIPTION	**Objectives:** This project contributes directly to the implementation of AF3 / S-AF3.2 Free Route: – Family 3.2.2 Upgrade NM Systems to support Direct Routing Operation (DCT) – Family 3.2.3 Implement Direct Routes The project allows to : – Ensure and co-ordinate the gradual implementation, in a harmonized way, of Free Route Airspace, including DCT based, throughout the European airspace. – Adapt NM systems to cope with Free route developments The project is a key contributor to the following Strategic Objectives mentioned in the Network Strategy Plan (NSP): – SO 3 : Implement a seamless and flexible airspace – SO 4: Plan optimum capacity and flight efficiency – SO 5: Facilitate business trajectories and cooperative traffic management
PROJECT LEADER	EUROCONTROL/NETWORK MANAGER
MEMBER STATE	BELGIUM
TIMING	01/01/2014 – 30/06/2017
AIRBORNE	
INTERDEPENDENCIES	
SYNCHRONIZATION	With Airspace Users, ANSPs
LINKS	AF 4; Sub AF 4.2
NM links	NM inputs provided through the normal channels as any other implementing stakeholder.

Recommendation:

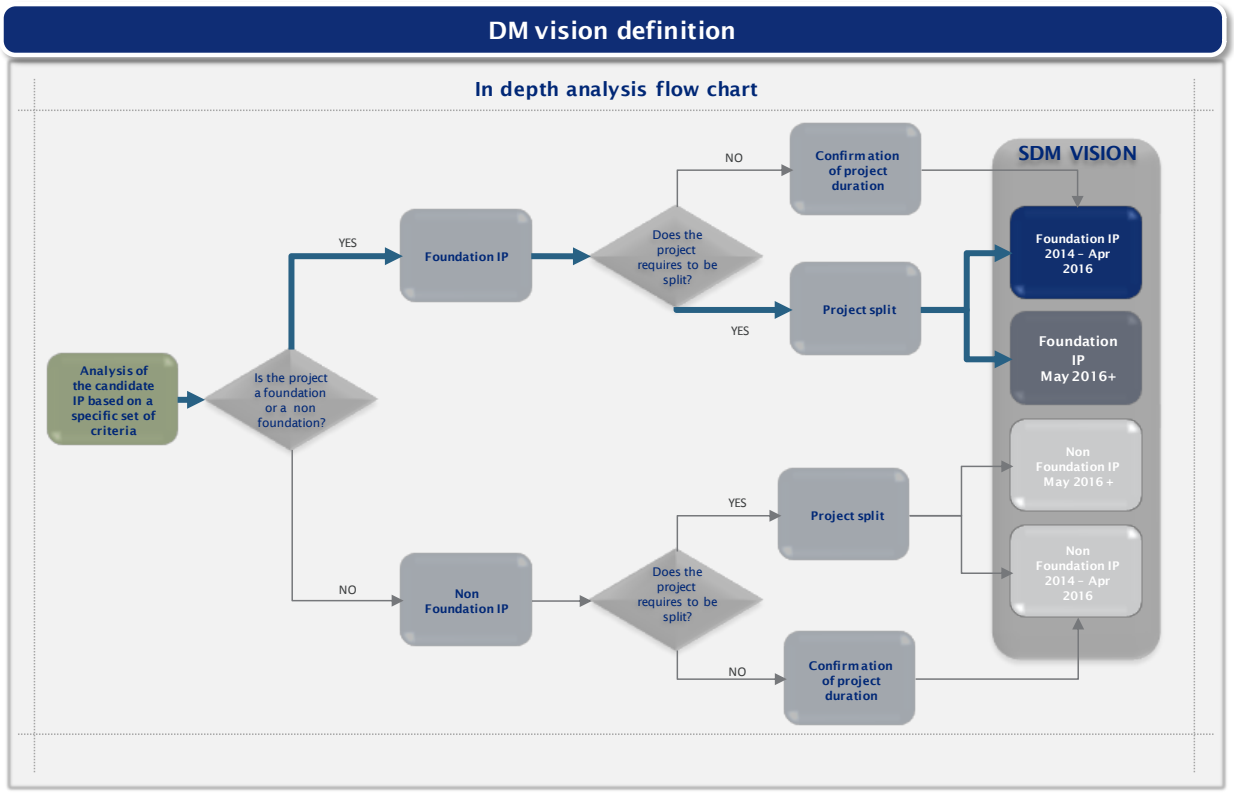
This project is considered as a Foundation IP.



Content	Description
REFERENCE NUMBER	**095AF3**
TITLE	**Implementation of FRA in Greece**
MAIN AF / SUB AF / Family	**AF 3; Sub AF 3.2; Family 3.2.4**
PROJECT DESCRIPTION	**Objectives:** HANSP and BLUE MED FAB partners have been implementing Free Route Airspace concept according to the agreed BLUE MED FAB Implementation Program, within which the Free Route Airspace concept will be applied in all its stages: from the implementation of night DCTs, up to more ambitious Free Route scenarios on regional scale. The project aims to implement free route operations in Greece through a seamless integration of the two Greek ACCs enabling airspace users to flight-plan their preferred trajectories within the airspace of HELLAS UIR. The deployment will cover technical systems, operational airspace design and procedures addressing the following objectives: – Enable users preferred trajectories within the airspace of HELLAS UIR – Upgrade of ATM Systems – Seamless integration of two Greek ACCs – ATS-route network optimization, including arrival and departure procedures – Sectors adaptation to accommodate the changes in traffic flows where needed
PROJECT LEADER	HCAA
MEMBER STATE	GREECE
TIMING	01/11/2015 - 31/12/2020
AIRBORNE	
INTERDEPENDENCIES	– 063AF3 - ENAV (FAB-partner) FRA
SYNCHRONIZATION	With Airspace Users, ANSPs, ECTL/NM
LINKS	AF3, Sub AF3.2, Family 3.2.1 AF 4; Sub AF 4.2
NM links	**NSP:** direct links with SO 3/1 (Deploy full free route airspace throughout the European ATM network, to the maximum extent possible); SO 3/4 (Coordinate the development and implementation of airspace design and airspace management improvements to achieve the flight efficiency targets and ensure appropriate network connectivity and coordination); SO 4/1 (Modernise the local/FAB system capabilities including ATC planning functions and Controller tools procedures). **NOP:** This project is addressed by NOP Annex 5 (ACC TRAFFIC FORECAST & CAPACITY PLANS) as free route airspace measure for capacity enhancement in 2016-2019 time slot by Athens and Makedonia ACCs; Technical measure by the deployment of a new ATM system by Athens and Makedonia ACCs(2015-2017).

Recommendation:

This project is considered as a Foundation IP.

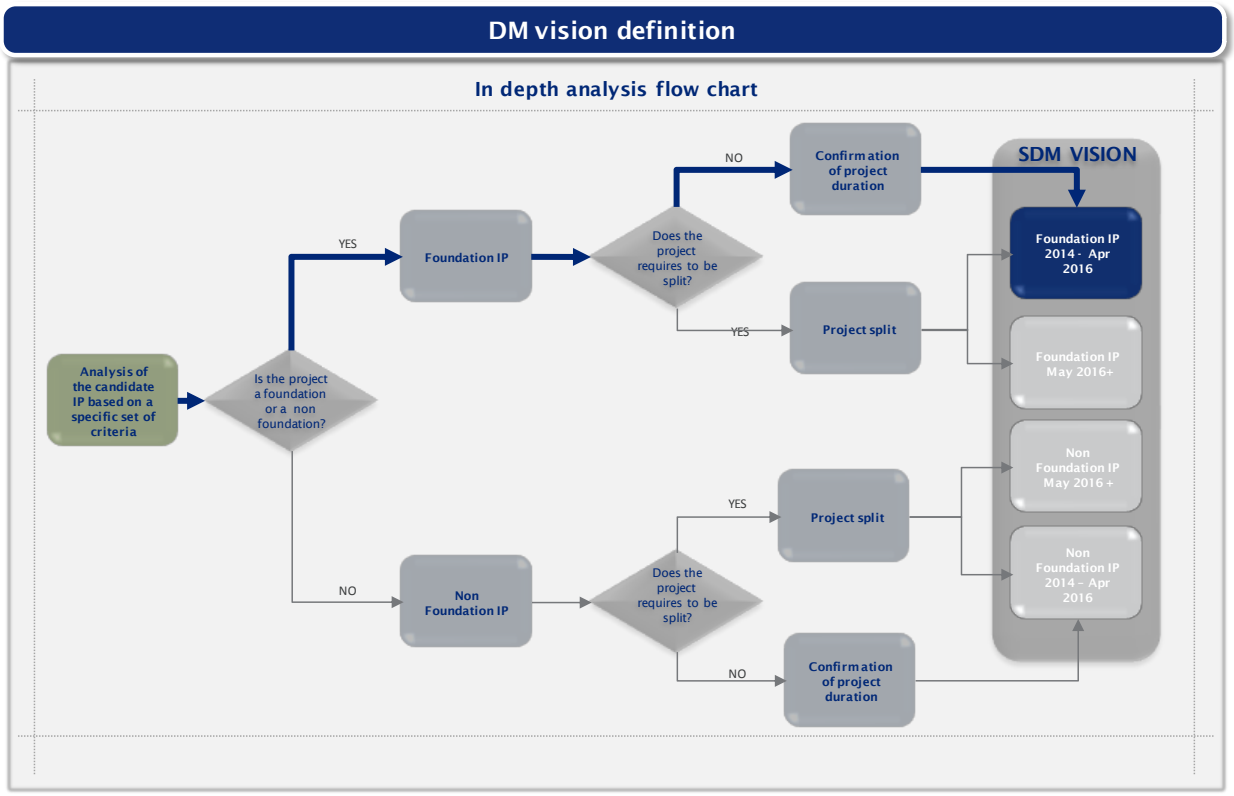


The project could be split in two phases. The first phase (November 2015 – April 2016) has to be considered for the INEA call 2014.The second phase (May 2016 –December 2020) needs to be part of the next INEA call in order to ensure continuity of the action within the Deployment Programme.

Content	Description
REFERENCE NUMBER	**102AF3**
TITLE	**Free route airspace from the Black Forest to the Black Sea**
MAIN AF / Sub AF / Family	**AF 3; Sub AF 3.2; Family 3.2.4**
PROJECT DESCRIPTION	**Objectives:** – development of the cross-border FRA concept within FAB CE – validation of the cross-border FRA concept within FAB CE – development of the FRA concept intra-FAB CE (throughout the FAB) – validation of the FRA concept intra-FAB CE (throughout the FAB) – increase airspace capacity – reduce the environmental footprint – via flexible/shorter routes improve the sustainability of aviation
PROJECT LEADER	HUNGAROCONTROL
MEMBER STATE	HUNGARY
TIMING	01/09/2015 - 31/12/2017
AIRBORNE	
INTERDEPENDENCIES	– 063AF5 - ENAV FRA (BlueMed - neighboring FAB)
SYNCHRONIZATION	With Airspace Users, ANSPs, ECTL/NM
LINKS	AF3; Sub AF3.2, Family 3.2.1 AF 4; Sub AF 4.2
NM links	**NSP:** This project has indirect links with NSP SO, as it does not address the deployment but the preparatory activities for deployment: SO 3/1 (Deploy full free route airspace throughout the European ATM network, to the maximum extent possible);SO 3/3 (Implement appropriate cross-border airspace structures, enabling a flexible use of airspace - to achieve the flight efficiency targets and ensure appropriate cross-border sectorization as required for FRA deployment) ; SO 3/4 (Coordinate the development and implementation of airspace design and airspace management improvements to achieve the flight efficiency targets and ensure appropriate network connectivity and coordination) ; SO 4/1 (Modernise the local/FAB system capabilities including ATC planning functions and Controller tools procedures). **NOP:** This project is addressed by NOP Annex 5 (ACC TRAFFIC FORECAST & CAPACITY PLANS) as Free route airspace measure for capacity enhancement in 2015-2019 time slots by Austro Control, Croatia Control, ANS CR, LPS SE and Slovenia Control. HungaroControl already deployed fully FRA within The Budapest FIR airspace but did not refer in their capacity plans for FABCE FRA deployment. BHANSA capacity plans are not addressed by NOP as ATS provision above FL 325 is delated to Serbia and Croatia and their respective ANSPs; the technical measures for capacity enhancements in 2015-2019 time slot by Austro Control, Croatia Control, ANS CR, LPS SE and Slovenia Control.

Recommendation:

The project is considered as a Foundation IP.

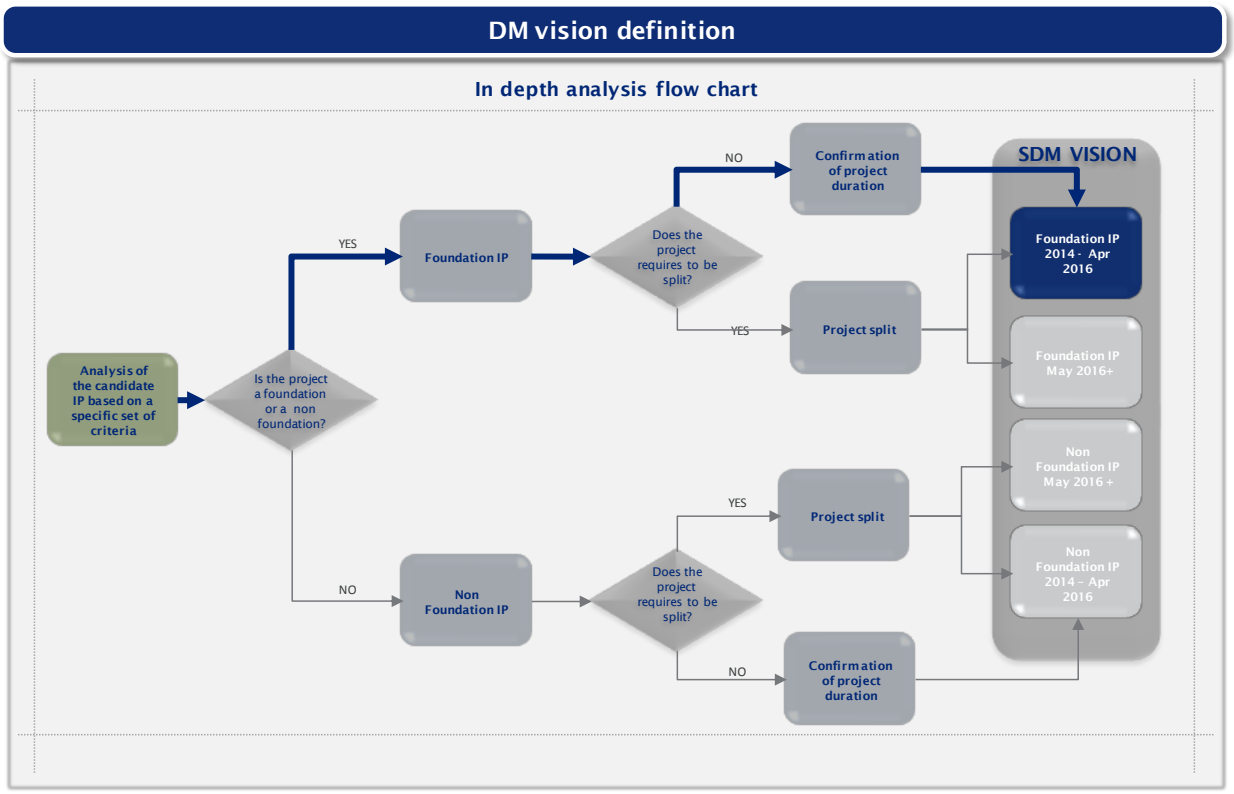

DM vision definition
In depth analysis flow chart
Analysis of the candidate IP based on a specific set of criteria
Is the project a foundation or a non foundation?
YES
Foundation IP
Does the project requires to be split?
NO
Confirmation of project duration
YES
Project split
NO
Non Foundation IP
Does the project requires to be split?
YES
Project split
NO
Confirmation of project duration
SDM VISION
Foundation IP 2014 - Apr 2016
Foundation IP May 2016+
Non Foundation IP May 2016 +
Non Foundation IP 2014 – Apr 2016

Content	Description
REFERENCE NUMBER	**122AF3**
TITLE	**Family 3.1.1 NAV Portugal - Initial ASM tool to support AFUA**
MAIN AF / SUB AF / Family	**AF 3; AF 3.1 ; Family 3.1.1**
PROJECT DESCRIPTION	**Objectives:** Airspace Management (ASM) and Advanced Flexible Use of Airspace (A-FUA) aims to provide the possibility to manage airspace reservations more flexibly in response to airspace user requirements. Changes in airspace status shall be shared with all concerned users, in particular Network Manager, air navigation service providers and airspace users (Flight Operations Centre/Wing Operations Centre (FOC/WOC)). ASM procedures and processes shall cope with an environment where airspace is managed dynamically with no fixed-route network. Data-sharing shall be enhanced by the availability of airspace structures in support of a more dynamic ASM and Free Routing Airspace (FRA) implementation. FRA is the airspace defined laterally and vertically, allowing free routing with a set of entry/exit features. Within this airspace, flights remain subject to air traffic control. ASM solutions shall support all airspace users, including enabling the alignment of FRA, Conditional Route (CDR) and published Direct Routing (DCT). These ASM solutions shall be based on forecast demand received from the local Air Traffic Flow and Capacity Management (ATFCM) function and/or the Network Manager. Establish a collaborative civil-military airspace planning at Lisbon FIR integrated on the European Network level through an integrated Airspace Management/Air Traffic Flow Capacity Management (ASM/ATFCM) process and an extended planning phase into the day of operations. Ensure full exploitation of capacity becoming available through the identification of efficient combinations of areas allocation, routes availability, including CDRs, and Lisbon ACC sector configurations able to cope with traffic demand. The process will be applied also for improving the planning activities related to the updates to airspace status. Foster a consistent application of the Flexible Use of Airspace (FUA) Concept across the European network, and support a safe, efficient and accurate flow of ASM data. The improved planning process refers to the use of specific procedures allowing Airline Operators (AOs) to optimise their flight planning in order to achieve a more efficient utilization of available airspace through more dynamic responses to specific short notice or real-time airspace status changes, requirements and route optimization at the pre-tactical and/or tactical levels. Develop, validate and implement ASM/ATFCM processes, procedures and supporting tools at national, subregional and the European Network level to ensure that airspace is used more flexibly, capacity is better balanced and predictability is enhanced through greater adherence to planned activities as a result of better planning and notification. Ultimately, the ASM operations continue until the real-time activation of airspaces in the Lisbon ACC or routes (below FL 240, since above that level the FIR airspace is full free route). The alignment between both ASM/ATFCM processes shall continue to ensure the assessment of the network impact, the identification of flights affected by real-time modifications, as well as the timely dissemination of the decisions. Airspace uses (allocations, activations, deactivations) are issued from the ASM tools (LARA,) via B2B.

PROJECT LEADER	Nav Portugal
MEMBER STATE	PORTUGAL
TIMING	01/01/2014 – 31/12/2016
AIRBORNE	
INTERDEPENDENCIES	
SYNCHRONIZATION	With Airspace Users, ECTL/NM
LINKS	AF3; Sub AF 3.2; Family 3.2.1 AF4; AF5, sub AF5.3; Family 5.3.3
NM links	**NSP:** direct links with SO 3/2 (Implement Advanced Flexible Use of Airspace); SO 3/3 (Implement appropriate cross-border airspace structures, enabling a flexible use of airspace - to achieve the flight efficiency targets and ensure appropriate cross-border sectorization). **NOP:** This project that aims to deploy LARA tool by the end of 2016 is not addressed by NOP Annex 5 (ACC TRAFFIC FORECAST & CAPACITY PLANS).

Recommendation

This project is considered as a Foundation IP.

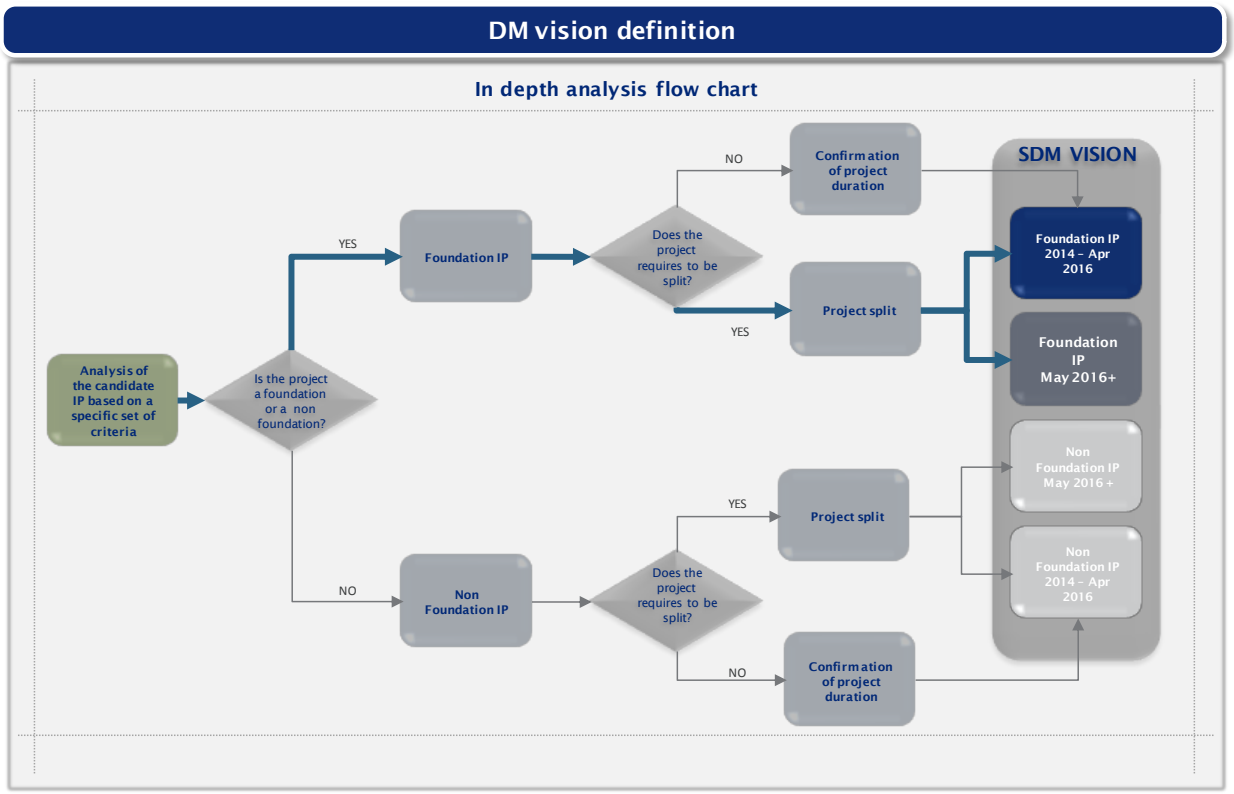


Content	Description
REFERENCE NUMBER	**131AF3**
TITLE	**Upgrade of the P_21 PEGASUS system to support SESAR functionalities and to the iTEC products line**
MAIN AF / SUB AF / Family	**AF 3; Sub AF 3.2; Family3.2.1**
PROJECT DESCRIPTION	**Objectives:** The P_21 system transition to iTEC has the following objectives: – Deployment of Preliminary Deployment Plan functionalities of the ATM System, mostly the ATM. Functionality 3 - Flexible Airspace Management and Free Route (Family 3.2.1), with references to: ○ Pilot Common Project – Technical Annex for the AF 03: • 3.1.1. Airspace Management and Advanced Flexible Use of Airspace: ▪ The ATC system shall support flexible configuration of sectors so that their dimensions and operating hours can be optimized according to the demands of the NOP ▪ The system shall allow a continuous assessment of the impact of changing airspace configurations on the network ▪ ATC systems shall correctly depict the activation and de-activation of configurable airspace reservations and the change of a volume of airspace from a fixed route network to FRA ▪ The ASM, ATFCM and ATC systems shall securely interface in a way that allows the provision of air navigation services based on a common understanding of the airspace and traffic environment. The ATC systems shall be modified to enable this functionality to the extent necessary to comply with Regulation (EC) No 552/2004, point 4 of Part A of Annex II. • 3.2.1. Free Route - ATC systems shall implement the following: ▪ Flight data processing system, including HMI, to manage trajectory/flight planning without reference to the fixed ATS network ▪ Flight planning systems to support FRA and cross-border operations ▪ ASM/ATFCM to manage FRA — for FRA, Medium Term Conflict Detection (MTCD) including Conflict Detection Tools (CDT), Conflict Resolution Assistant (CORA), Conformance Monitoring, and APW for dynamic airspace volumes/sectors; Trajectory prediction and de-confliction shall support an automated MTCD tool adapted to operate in FRA airspace and, when required, on DCT ▪ Flight Data Processing System (FDPS) shall support FRA, DCT and A-FUA ▪ The controller working position shall support the operating environments, as appropriate ▪ ○ Baltic FAB CONOPS ▪ 3.3.6 FRA (Free Route Airspace) ▪ The deployment of FRA will initially require the

	introduction of a number of key enablers - System support – enhancement for the purposes of flight planning, flight data processing, flight data display and exchange, coordination, conflict detection and resolution; – Deployment at the same time of elements of other ATM Functionalities: ○ Enable the ATM System to support RNP operations (Family 1.2.3) ○ Electronic Flight Strips (Family 2.1.2) ○ Interface to NMS (Family 4.2.3) ○ FDP system adaptation to interface with NOP (Family 4.4.1) ○ ATM system adaptation to support AIXM 5.1 (Family 5.3.2) ○ FDPS upgrade preparing for IOP Flight Object exchanges (Family 5.6.1) – Alignment of the PEGASUS ATM system to further joint development within the iTEC cooperation and with the FAB partner
PROJECT LEADER	PANSA
MEMBER STATE	POLAND
TIMING	01/01/2015 – 30/04/2018
AIRBORNE	
INTERDEPENDENCIES	
SYNCHRONIZATION	With ANSPs, ECTL/NM
LINKS	AF3; Sub AF3.1, Family 3.1.1 AF 1, AF 4, AF 5; Family 1.2.3, Family 2.1.2, Family 4.2.3, Family 4.4.1, Family 5.3.2, Family 5.6.1
NM links	**NSP:** The project has direct links with SO 3/1 (Deploy full free route airspace throughout the European ATM network, to the maximum extent possible); SO 3/2 (Implement Advanced Flexible Use of Airspace); SO 4/1 (Modernise the local/FAB system capabilities including ATC planning functions and Controller tools procedures); **NOP:** This project is not addressed by NOP Annex 5 (ACC TRAFFIC FORECAST & CAPACITY PLANS) as the PANSA listed only the data link system improvement as the technical measures for capacity enhancement.

Recommendation:

The project is considered as a Foundation IP.



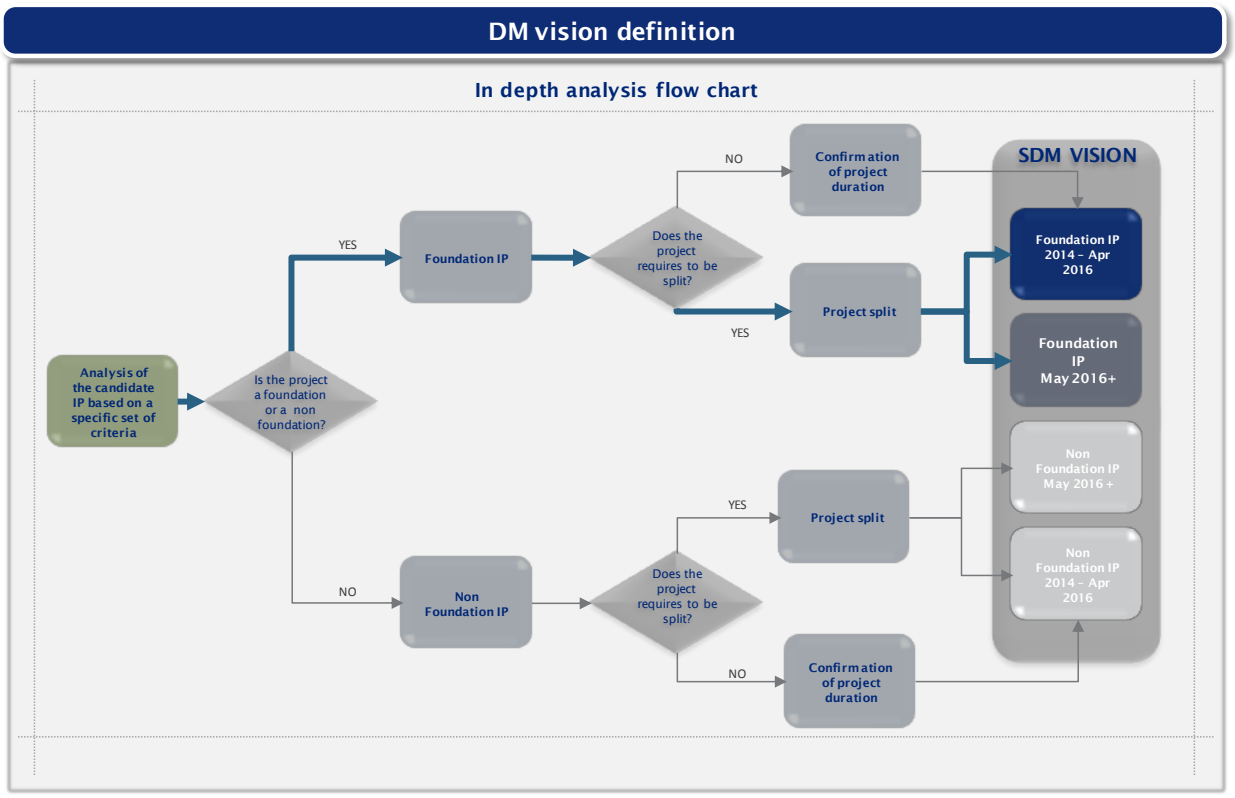
The project could be split in two phases. The first phase (January 2015 – April 2016) has to be considered for the INEA call 2014.The second phase (May 2016 –April 2018) needs to be part of the next INEA call in order to ensure continuity of the action within the Deployment Programme.

1.1.4 AF4 Network Collaborative Management

Content	Description
REFERENCE NUMBER	**062AF4**
TITLE	**ENAV initiative for the identification of Network Collaborative Management requirements.**
MAIN AF/ SUB AF/ Family	**AF 4, Sub AF 4.2, Family 4.2.3**
PROJECT DESCRIPTION	**Objectives:** ENAV will develop a study in order to identify all requirements and provisions to meet the demands set for AF4 under Reg. 716/2014. The study will identify measures in order to implement: – Optimized management of traffic demand, including high-level/peak hours traffic requests. Some enhancement through reduction in controller workload. – Enhanced by improved sharing of the network situation – Better use of the available network capacity – Increased through suppression of flight ATFM regulations thanks to local ATFCM measures with the same ATC sector manning – Small benefits through improved use of the airport and airspace capacity resulting from a better knowledge of the airspace availability and of the traffic demand. – Reduction of costs induced by delays – Reduction of flight delays Enhanced through use of cost effective tools to access network information instead of expensive local tools or procedures and through the improved capacity
PROJECT LEADER	ENAV
MEMBER STATE	ITALY
TIMING	01/01/2014 - 31/12/2017
AIRBORNE	
INTERDEPENDENCIES	– 063AF3 - ENAV implementation of flexible ASM and Free Route – 066AF5 - ENAV AIS system Upgrade to support AIXM5.1 – 078AF4 - ATFCM measures (STAM) – 079AF4 - Trajectory accuracy and traffic complexity (NM)
SYNCHRONIZATION	With ANSPs, NM
LINKS	AF4,SubAF4.1, Family 4.1.1 AF4,SubAF4.2, Family 4.2.2 AF4,SubAF4.4, Family 4.4.1 AF4,SubAF4.4, Family 4.4.2 AF3,SubAF3.1, Family 3.1.1 AF3,SubAF3.2, Family 3.2.1 AF3,SubAF3.2, Family 3.2.3 AF5,SubAF5.3, Family 5.3.1
NM links	**NSP :** SO4/1, SO4/2, SO4/3, SO5/1, SO5/4 **NOP:**Marginal with NOP annex 5 (ACC traffic forecast and capacity plan) with a reference to the improved ATFCM process (including STAM) by 4 Italian ACCs

Recommendation:

This project is considered as a Foundation IP.

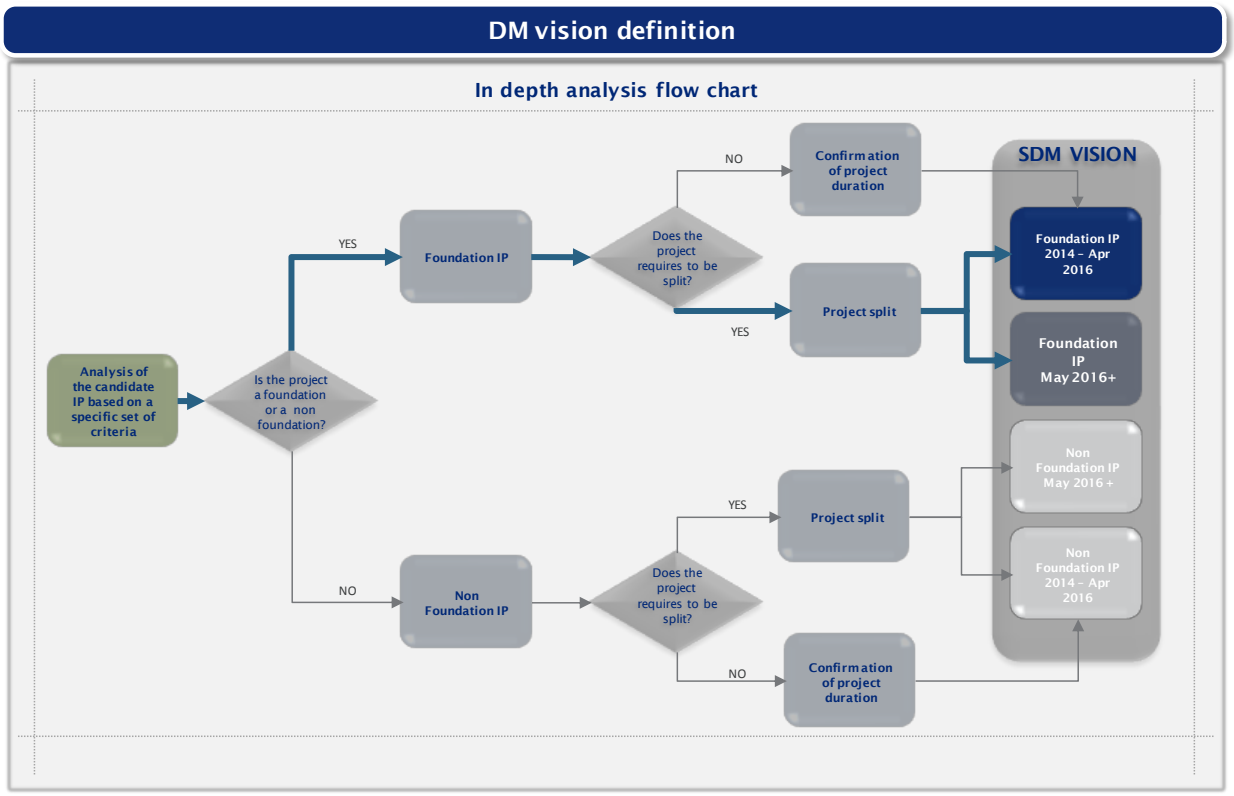


The project could be split in two phases. The first phase (January 2014-April 2016) has to be considered for the INEA call 2014. The second phase (May 2016-December 2017) needs to be part of the next INEA call in order to ensure continuity of the action within the Deployment Programme.

Content	Description
REFERENCE NUMBER	**077AF4**
TITLE	**Interactive Rolling NOP (Network Operating Plan)**
MAIN AF/ SUB AF/ Family	**AF 4; Sub AF 4.2; Family 4.2.2**
PROJECT DESCRIPTION	**Objectives:** – Extension and improvement of the process referred to as the interactive rolling NOP. – Replacing the existing interfaces (NOP Portal, CHMI and EHMI) into a single interface – Provision of the common interface to all Stakeholders to enable the collaborative decision making processes used to build and execute the Network Operations Plan. The project is a key contributor to the following Strategic Objectives mentioned in the Network Strategy Plan (NSP): – SO 4: Plan optimum capacity and flight efficiency – SO 5: Facilitate business trajectories and cooperative traffic management
PROJECT LEADER	EUROCONTROL/NETWORK MANAGER
MEMBER STATE	BELGIUM
TIMING	06/01/2014 – 30/06/2017
AIRBORNE	
INTERDEPENDENCIES	– 078AF4 – NM ATFCM measures (STAM) – 081AF3 - NM DCT/FRA Implementation and support – 082AF5 - SWIM compliance of NM systems
SYNCHRONIZATION	With Airspace Users; Airports; ANSPs; EUROCONTROL; MET
LINKS	AF4;SubAF4.2; Family 4.2.3 AF4;SubAF4.1; Family 4.1.1 AF3;Sub AF 3.2; Family 3.2.3 AF3Sub AF 3.2; Family 3.2.4 AF5;Sub AF 5.3; Family 5.3.1
NM LINKS	**NSP**: SO4, SO5 **NOP**: Yes

Recommendation:

This project is considered as a Foundation IP.

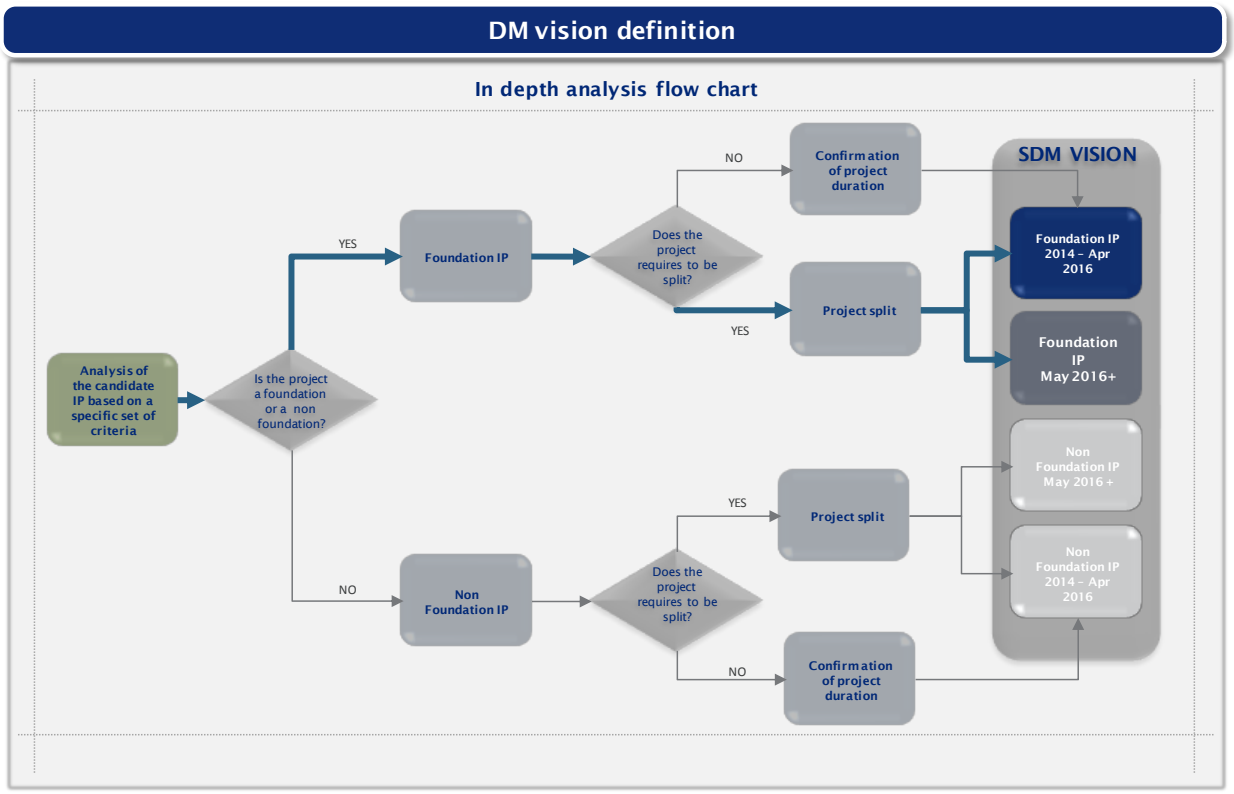


The project could be split in two phases. The first phase (January 2014-April 2016) has to be considered for the INEA call 2014.The second phase (May 2016 – June 2017) needs to be part of the next INEA call in order to ensure continuity of the action within the Deployment Programme.

Content	Description
REFERENCE NUMBER	**078AF4**
TITLE	**ATFCM measures (Short Term ATFCM Measure)**
MAIN AF/ SUB AF/ Family	**AF 4; Sub AF 4.1; Family 4.1.2**
PROJECT DESCRIPTION	**Objectives:** – Minimizing ATFCM delay by reducing the need for ATFCM regulations and its impact on operations. – Improve the balance between demand and available capacity through cooperation between ATFCM and ATS processes, through targeted measures on (an) individual flight(s). – Delivery of a complete package of system support and operational procedures, to enable the harmonised and effective deployment of Short Term ATFCM Measures throughout the European airspace. – Support the network coordination between stakeholders and provide the network view for the elaboration, decision and execution of STAM measures. – Provide the collaborative environment to stakeholders during the elaboration, decision and execution of STAM measures. The project is a key contributor to the following Strategic Objectives mentioned in the Network Strategy Plan (NSP): – SO 4: Plan optimum capacity and flight efficiency – SO 5: Facilitate business trajectories and cooperative traffic management
PROJECT LEADER	EUROCONTROL/NETWORK MANAGER
MEMBER STATE	BELGIUM
TIMING	01/01/2014 – 30/06/2017
AIRBORNE	
INTERDEPENDENCIES	– 077AF4 - Interactive Rolling NOP – 062AF4 - ENAV initiative for the identification of Network Collaborative Management requirements – 045AF1 - FABEC XMAN/AMAN (Call 2014) – 083AF1 - AMAN extended to en-route
SYNCHRONIZATION	With Airspace Users, Airports, ANSPs
LINKS	AF4;SubAF4.2; Family 4.2.2 AF1; Sub AF 1.1; Family 1.1.3
NM LINKS	**NSP:** SO4/ SO5 **NOP:** Yes

Recommendation:

This project is considered as a Foundation IP.

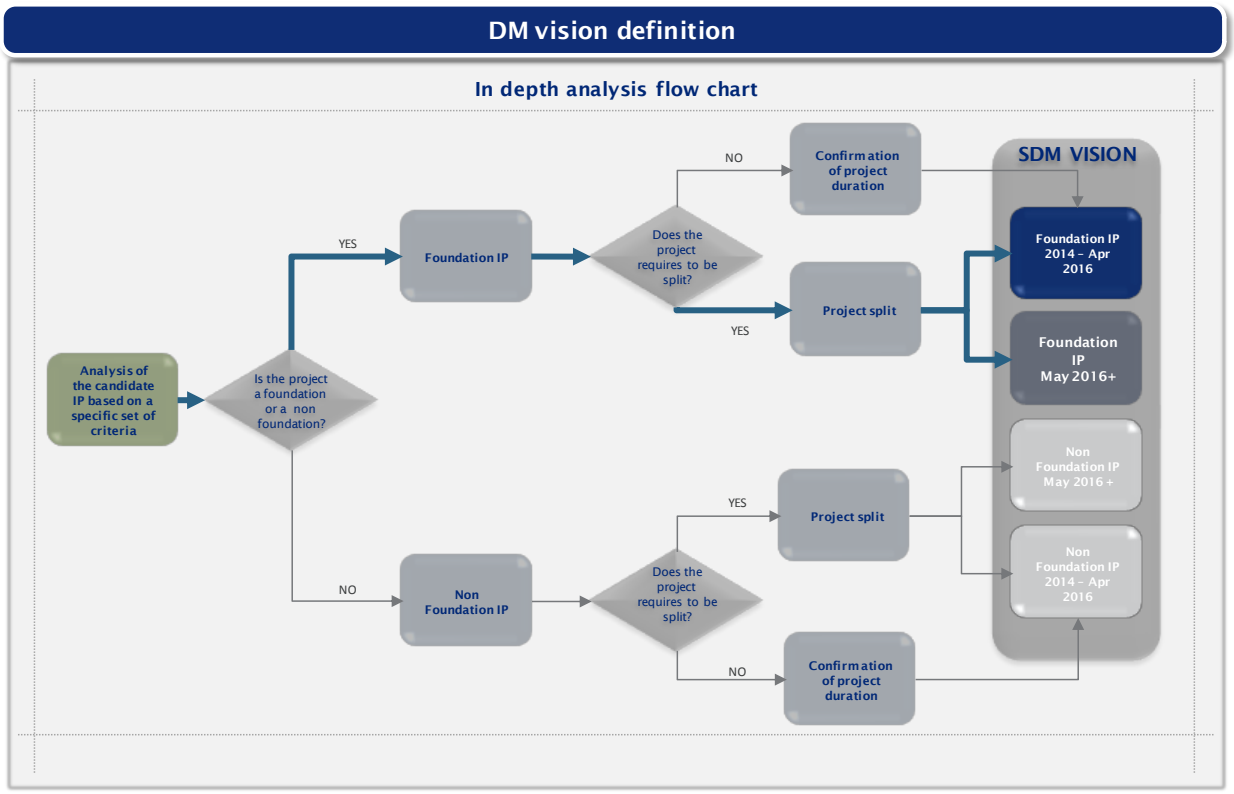


The project could be split in two phases. The first phase (January 2014-April 2016) has to be considered for the INEA call 2014.The second phase (May 2016 – June2017) needs to be part of the next INEA call in order to ensure continuity of the action within the Deployment Programme.

Content	Description
REFERENCE NUMBER	**079AF4**
TITLE	**Trajectory accuracy and traffic complexity**
MAIN AF/ SUB AF/ Family	**AF 4; Sub AF 4.4; Family 4.4.2**
PROJECT DESCRIPTION	**Objectives:** This IP addresses the Family 4.4.1 'FDP System adaptation and EFD (EFTMS flight data message)' and contributes to the S-AF4.4 'Automated Support for Traffic Complexity Assessment'. – The accuracy of demand assessment will be significantly improved by the use of the Extended Flight Plan (EFPL) in the planning phase, meaning a Flight Plan enriched with detailed trajectory and flight performance information. This will also positively impact the ETFMS flight data (EFD) messages process. – The better accuracy of the initial trajectory information provided by NM will improve traffic predictability in general, and more specifically facilitate the traffic complexity assessment both at local and central level. – The implementation of Network Traffic Scenario management tools at NM level will also directly contribute to manage traffic complexity. – Improved trajectory/constraint accuracy/awareness will also result in potential improvements to flight efficiency.
PROJECT LEADER	EUROCONTROL/NETWORK MANAGER
MEMBER STATE	BELGIUM
TIMING	01/01/2014 – 30/06/2017
AIRBORNE	
INTERDEPENDENCIES	062AF4 - ENAV initiative for the identification of Network Collaborative Management requirements. (WP 3)
SYNCHRONIZATION	With Airspace Users, Airports, ANSPs, EUROCONTROL
LINKS	AF4,SubAF4.1, Family 4.1.1
NM LINKS	**NSP:** SO5 **NOP:** Yes

Recommendation:

This project is considered as a Foundation IP.

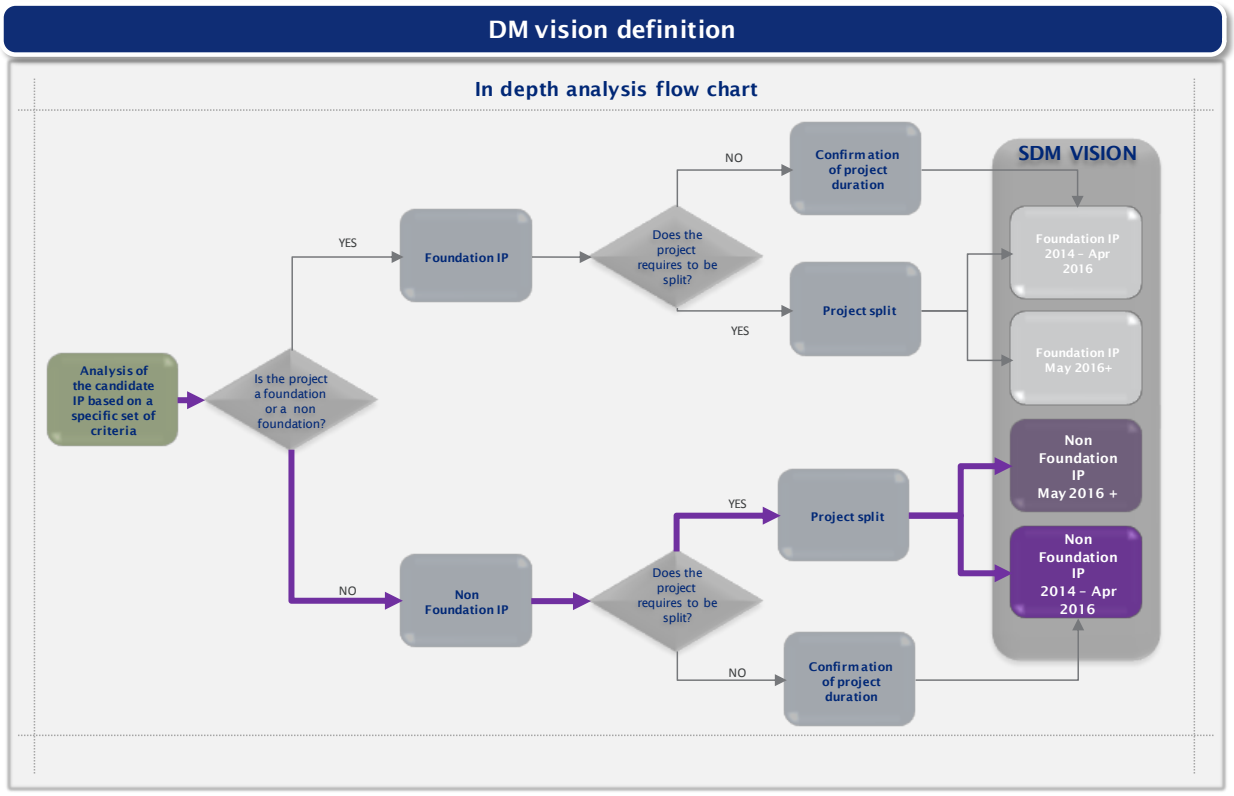


The project could be split in two phases. The first phase (January 2014-April 2016) has to be considered for the INEA call 2014. The second phase (May 2016- June 2017) needs to be part of the next INEA call in order to ensure continuity of the action within the deployment programme.

Content	Description
REFERENCE NUMBER	**106AF4**
TITLE	**Irregularity Management Tool (DaRT)**
MAIN AF/ SUB AF/ Family	**AF4Family 4.2.2**
PROJECT DESCRIPTION	**Objectives:** IT-Support of decision making processes in the Lufthansa (LH) Operations Control Centers FRA & MUC (Network Management) in case of major disruptions (unpredictable events such as adverse weather, strike, …) – Automated identification of measures – Automated generation of solution scenarios that take into account all relevant data and information such as airspace restrictions, flow restrictions, airport capacities, … – Deployment of solutions (reduced flight plans) that are beneficial to LH's operational stability – Shortening of reaction times in case of irregularities, quick information of passengers and system partners – Quick recovery from irregularities The Ops Control system used at Lufthansa is very good at supporting everyday business requirements, but lacks functionality to sufficiently cope with large scale disruptions. Such events are currently handled manually by experienced Ops Controllers and are supported by the system in a limited way. As complex decision rules and parameters as well as large amounts of data cannot be handled by humans, optimization potential of today's manual solutions has been assessed to be quite high. The proposed action is expected to significantly lower the amount of cancellations and delays in case of large disruptive events which impact Lufthansa flight operations and air traffic in general. This shall be accomplished by taking into consideration factors such as airspace and airport capacities, flow rates and so on. Considering these factors shall have a positive impact on air traffic management on one hand and service quality on the other.
PROJECT LEADER	Lufthansa
MEMBER STATE	GERMANY
TIMING	01/01/2013 – 10/04/2017
AIRBORNE	
INTERDEPENDENCIES	
SYNCHRONIZATION	
LINKS	AF2; Sub AF 2.1; Family 2.1.3
NM LINKS	**NSP:** SO5/3 **NOP:** None

Recommendation:

This project is considered as a Non Foundation IP.

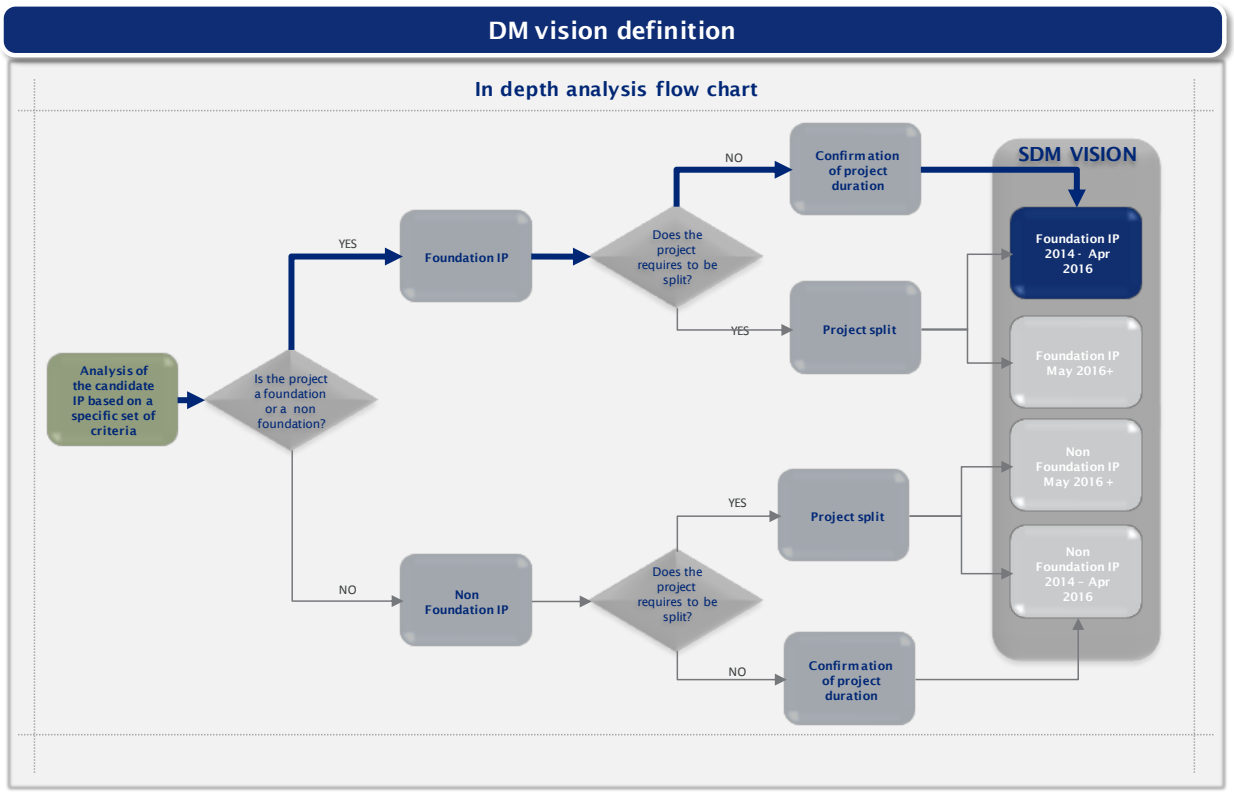


The project could be split in two phases. The first phase (January 2014 – April 2016) has to be considered for the INEA call 2014. The second phase (May 2016 – April 2017) needs to be part of the next INEA call in order to ensure continuity of the action within the Deployment Programme.

Content	Description
REFERENCE NUMBER	**111AF4**
TITLE	**Interactive Rolling NOP**
MAIN AF/ SUB AF/ Family	**AF 4; Sub AF 4.2; Family 4.2.3**
PROJECT DESCRIPTION	**Objectives:** In order to provide CPR (correlative position radar) to NM – Establish the UAB – Configure Firewall – Finalise Cabling – Successful Technical Validation – Successful Operational Validation
PROJECT LEADER	Malta Air Traffic Services
MEMBER STATE	MALTA
TIMING	31/03/2014 – 31/05/2015
AIRBORNE	
INTERDEPENDENCIES	
SYNCHRONIZATION	NM
LINKS	
NM LINKS	**NSP:** indirect link with SO4/2 **NOP:** Annex 5

Recommendation:

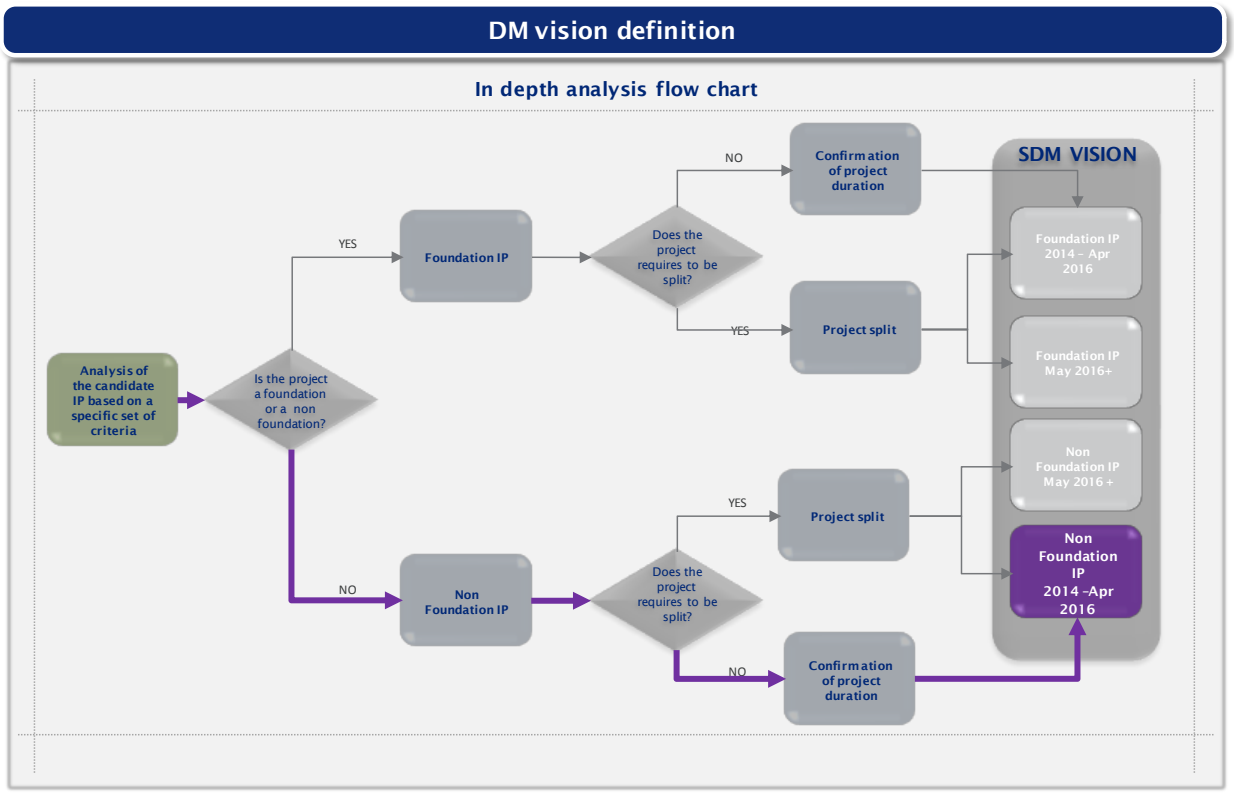
This project is considered as a Foundation IP.



Content	Description
REFERENCE NUMBER	**112AF4**
TITLE	**Interface to NMS AFP**
MAIN AF/ SUB AF/ Family	**AF 4; Sub AF 4.2; Family 4.2.3**
PROJECT DESCRIPTION	**Objectives:** – To Deploy AFP on the Upgraded ATM System – To Commission the System – To Validate AFP – To Train the ATCO on AFP – To Conduct Shadow Mode Operations until full Deployment
PROJECT LEADER	Malta Air Traffic Services
MEMBER STATE	MALTA
TIMING	06/01/2014 - 15/05/2015
AIRBORNE	
INTERDEPENDENCIES	
SYNCHRONIZATION	NM
LINKS	
NM LINKS	**NSP:** SO4/1, SO4/2 **NOP:** NOP annexe 5

Recommendation:

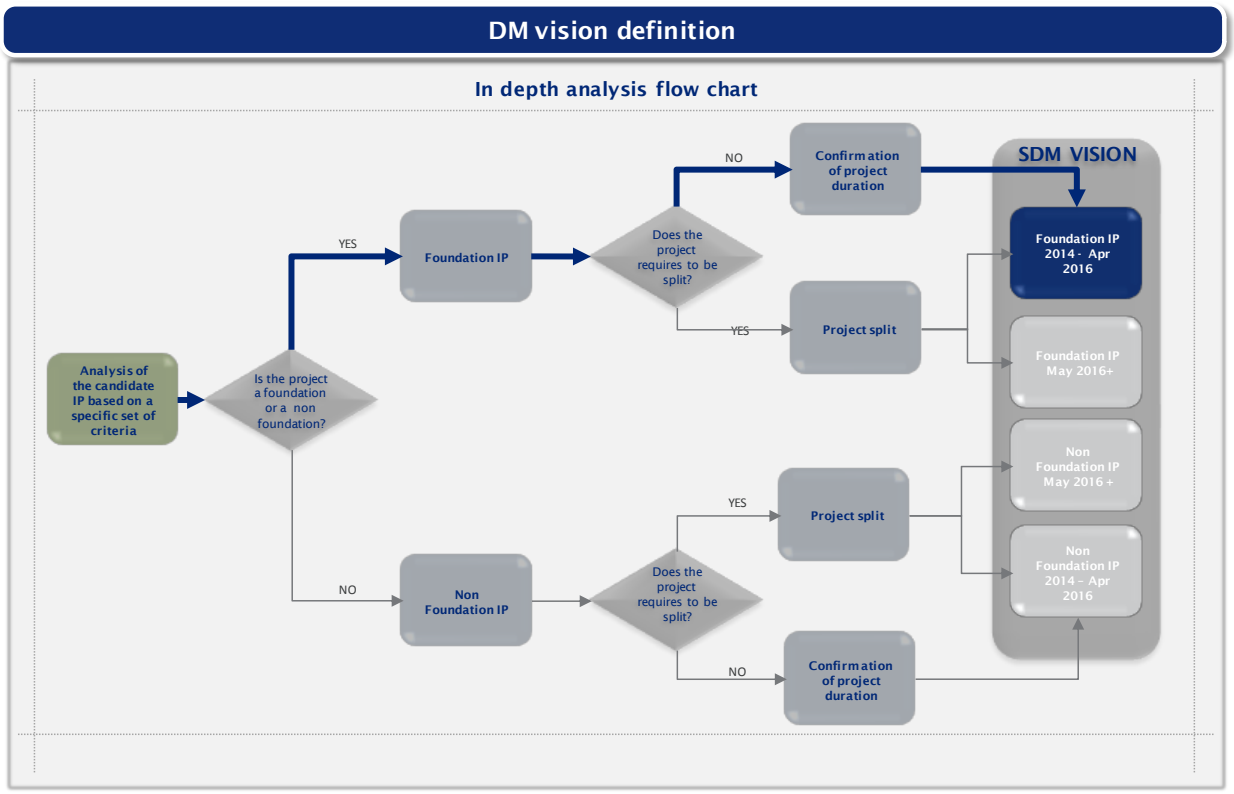
This project is considered as a Non Foundation IP.



Content	Description
REFERENCE NUMBER	**123AF4**
TITLE	**Family 4.2.3 NAV Portugal Interface to NMS AFP**
MAIN AF/ SUB AF/ Family	**AF 4; Sub AF 4.2; Family 4.2.3**
PROJECT DESCRIPTION	**Objectives:** – The purpose of this national project (action), on the Lisbon FIR, is to contribute for the European wide objectives of the IR 716/2014 AF#4, namely on the Improvement of the collaboration between the NM and ANS providers, airports and airspace users in flight plan filing. – The Lisbon FIR ATM system should automatically provide AFP message for: o Missing flight plan o Change of route o Diversion o Change of flight rules or flight type o Change of requested cruising level o Change of aircraft type o Change of aircraft equipment. – The APL and ACH messages sent by IFPS and AFP messages are automatically processed
PROJECT LEADER	Nav Portugal
MEMBER STATE	PORTUGAL
TIMING	01/05/2015 – 31/03/2017
AIRBORNE	
INTERDEPENDENCIES	
SYNCHRONIZATION	NM
LINKS	
NM LINKS	**NSP:** SO4/1, SO4/2 **NOP:** Annex 5

Recommendation:

This project is considered as a Foundation IP.

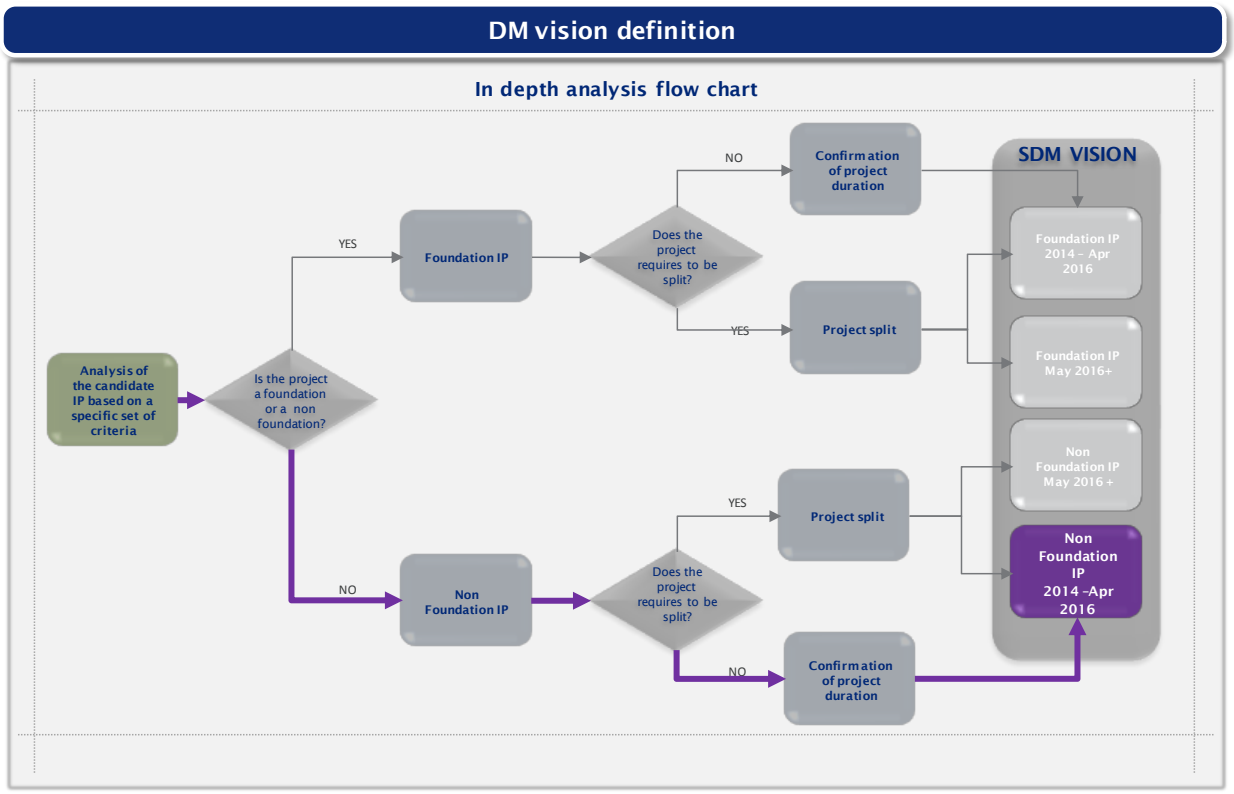


1.1.5 AF 5 Initial SWIM

Content	Description
REFERENCE NUMBER	**006AF5**
TITLE	**ATM Data Quality (ADQ)**
MAIN AF / SUB AF / Family	**AF 5; Sub AF 5.3; Family 5.3.1**
PROJECT DESCRIPTION	**Objectives:** The project aims to migrate Austro Control's aeronautical data base to support AIXM 5.1, ensuring the data quality to be high enough to be compatible with System Wide Information Management (SWIM). This migration will support the enhancement of security, data integrity and capacity, as well as promotion of ATM automation. The proposed action is therefore instrumental to the fulfilment of the requirements according to ICAO Annex15 and ESSIP INF05, as well as for creating the basis for a smooth implementation of SES/ADQ, more specifically aiming at: – Compliance to ICAO Annex 15 and Commission Regulation (EU) No 73/2010 ensured – Validation and integrity checks introduced – Workflow management system introduced to the service delivery management domain (SDM) – Stream for internal and external data delivery digitalized – National legislation aligned
PROJECT LEADER	AUSTROCONTROL
MEMBER STATE	AUSTRIA
TIMING	01/01/2014 – 15/12/2015
AIRBORNE	
INTERDEPENDENCIES	
SYNCHRONIZATION	With Airports
LINKS	AF 1/Sub AF 1.2/ Family 1.2.1 AF 1/Sub AF 1.2/ Family 1.2.2 AF 1/Sub AF 1.2/ Family 1.2.3 AF 3/ Sub AF 3.2/ Family 3.2.1 AF 3/ Sub AF 3.2/ Family 3.2.3 AF 4/Sub AF 4.2/ Family 4.2.2 AF5/Sub AF 5.3/ Family 5.3.1
NM links	**NSP:** SO 2/5 **NOP:**No link

Recommendation:

This project is considered as a Non Foundation IP.

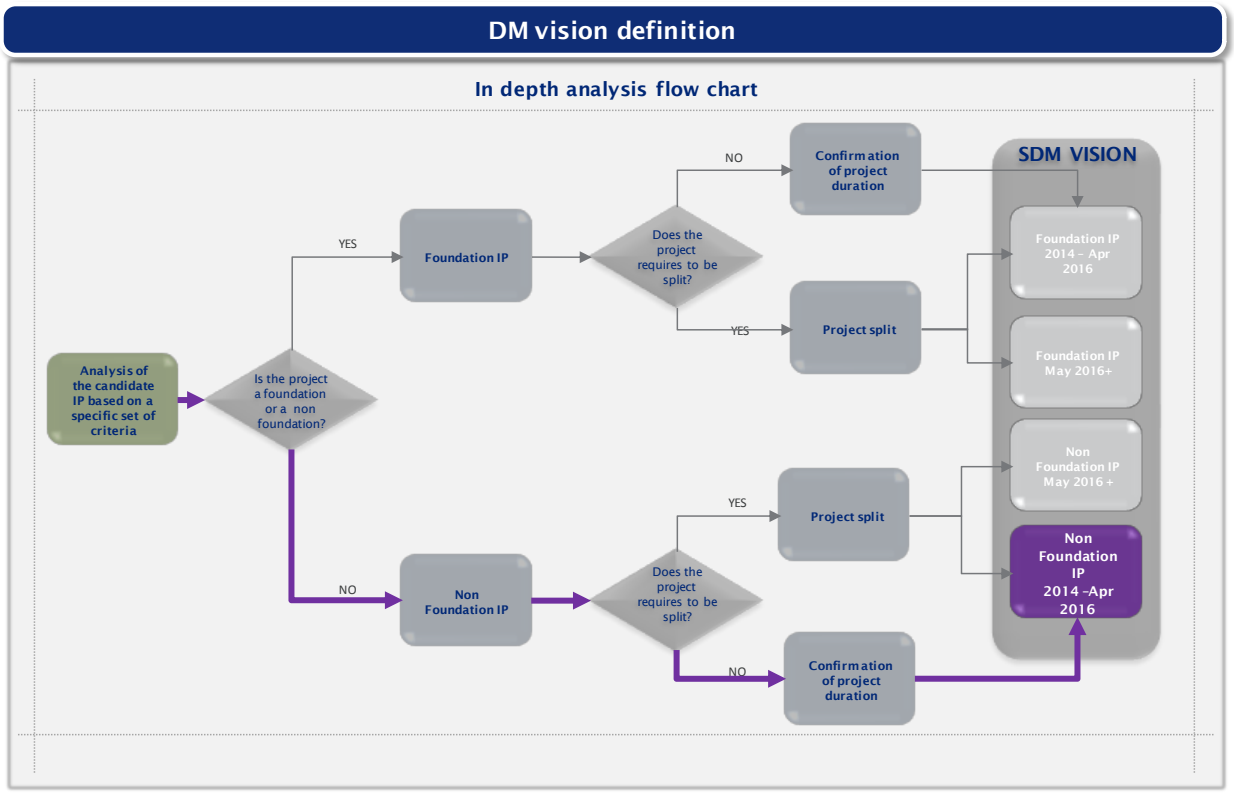


Content	Description
REFERENCE NUMBER	**009AF5**
TITLE	**Integrated Briefing System New (IBSN)**
MAIN AF / SUB AF / Family	**Family 5.3.1**
PROJECT DESCRIPTION	**Objectives:** – AIDA (Aeronautical Information Data-handling-system Austria)/Integrated Briefing System (IBS) Legacy System (technology end of life as well as software architecture) replaced – "EAD customized" (EAD - European Aeronautical Database) implemented – Connection to existing Austro Control infrastructure (network, working positions, ECITs – EAD Connection Interface Terminal, BF (Briefing Facility)-Box, IBS Web services etc.) ensured – Data from legacy system transferred – AIDA/IBS legacy system cut out and sub-provider contracts cancelled – OPS (operations) training (AIM/VFSS) and briefing of technical personnel (ACG Service Control Center and experts) conducted – Nagios and Trouble Ticket System inserted – "EAD customized" set in operation after successful FAT and SAT **Description:** Austro Control's Integrated Briefing Legacy System has reached end of life (of the technological product cycle)and needs to be replaced. The new briefing service will be prepared to be compliant with the System-Wide Information Management (SWIM) architecture. The upgrade of AIS services shall be seen as a SWIM prerequisite by using EAD core services (reference is made to ESSIP INF 05) New briefing functions introduced by the new system include: – Graphical display (FPL – Flight Plan & NOTAM – Notification to airman) – Mobile devices – Meteorological (MET) web interface – Webshop
DELIVERABLES AND MILESTONES	**Deliverables:** – 1.1.3 Execution Phase - Meeting minutes, project reports – 1.1.4 Finalization Phase - Project closedown report – 1.2.2 Process In voices - Paid invoices – 1.2.3 Verify contracts - Verified contracts – 1.2.4 Revise Service Level - Agreements Revised SLAs – 1.4.1 Start BF-box - BF-box connected and ready for operation – 1.4.2 Provide VFSS WP (Citrix) - Working positions installed and ready for operation – 1.4.3 Configure network/monitoring - Network ready for operation and monitoring available – 1.4.4 Provide MET - Services Interface control document - web service definition language (WSDL) implemented – 1.5.1 Revise Contingency Procedures - Updated Contingency Procedures – 1.5.2 Revise Manuals - Updated Manuals – 1.5.3 Revise SCC Procedures - Updated SCC Procedures – 1.6.1 Test MET connection - Test protocols – 1.6.2 Test performance - Test protocols – 1.6.3 Assure continuous testing - According to test plan conducted

	and protocols – 1.6.4 Organize FAT - Test plan – 1.6.5 Conduct FAT - FAT Protocol – 1.6.7 Organize SAT- Test plan – 1.6.8 Conduct SAT - SAT Protocol – 1.7.1 Create training plan - Training Plan – 1.7.2 Implement training - Training documentation – Participant certificates – 1.8.1 Create and implement concepts for data migration - Migration concepts, Migration plan, Migration documentation and verification – 1.8.2 Plan release - Release plan documents – 1.8.3 Implement release - Release certification – 1.8.4 Requirement Spec. Tax for Webshop - Requirement specification document – 1.9.1 Compile marketing concept - Marketing concept – 1.9.2 Inform customers - Mailings, meetings, events, etc. – 1.9.3 Create folders and posters - Marketing material – 1.10.1 Decommission facilities - Decommissioning report – 1.10.2 Conduct asset retirement - Updated asset management register **Milestones:** – 1.2.5 Procurement and contracts completed – 1.6.6 FAT successfully conducted – 1.6.9 SAT successfully conducted – 1.7.3 Certificate received – 1.8.5 New system is operational – 1.9.4 Customers are informed – 1.10.3 AIDA/IBS legacy system decommissioned
PROJECT LEADER	Austro Control
MEMBER STATE	AUSTRIA
TIMING	01/01/2014 – 30/11/2015
AIRBORNE	
INTERDEPENDENCIES	
SYNCHRONIZATION	With Airspace Users, ANSPs, ECTL / NM, MET
LINKS	AF 4; Sub AF 4.2; Family 4.2.3
NM links	**NSP:** SO 2/5 **NOP:**No link

Recommendation:

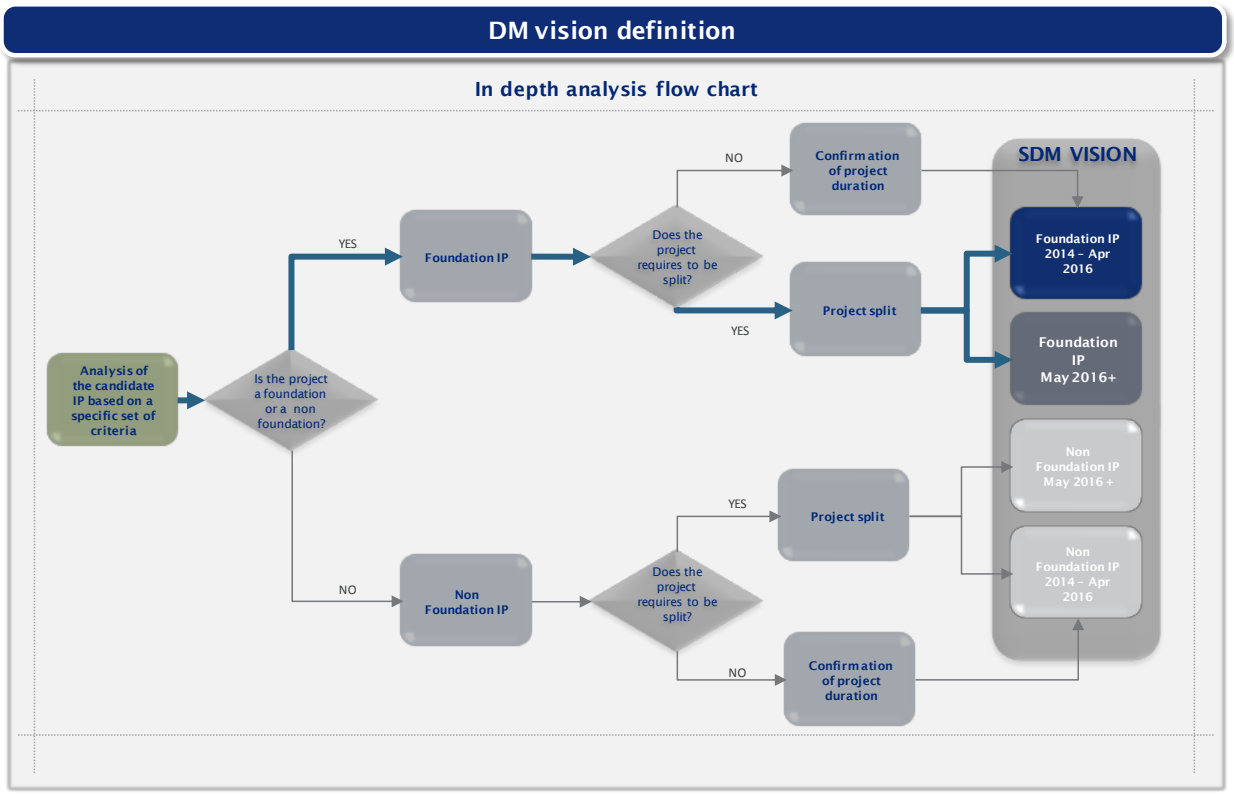
This project is considered as a Non Foundation IP.


DM vision definition
In depth analysis flow chart
Analysis of the candidate IP based on a specific set of criteria
Is the project a foundation or a non foundation?
YES
Foundation IP
Does the project requires to be split?
NO
Confirmation of project duration
YES
Project split
NO
Non Foundation IP
Does the project requires to be split?
YES
Project split
NO
Confirmation of project duration
SDM VISION
Foundation IP 2014 – Apr 2016
Foundation IP May 2016+
Non Foundation IP May 2016 +
Non Foundation IP 2014 -Apr 2016

Content	Description
REFERENCE NUMBER	**014AF5**
TITLE	**MPLS WAN PROJECT**
MAIN AF / SUB AF / Family	**AF 5; Sub AF 5.1; Family 5.2.1**
PROJECT DESCRIPTION	**Objectives :** In the context of the Common Backbone Network Group (Germany, Belgium, Luxembourg and the Netherlands), the RAPNET (Regional Aeronautical Packet switched NETwork) is currently used by these ANSP's to connect to the PENS (Pan-European Network System). The evolution of this inter-ANSP network is based on MPLS (MultiProtocol Label Switching) and Belgocontrol needs to implement a compatible networking infrastructure. The specific goals of MPLS WAN project are: – to create a secure and performing IP-based Ground-Ground communication network for the transfer of both operational data (Radar, Voice, Meteo, Aeronautical and Flight Information) and administrative data (LAN and Telephony)… – to share the different Belgocontrol applications on the network with the required data integrity; – to replace current SDH (Synchronous Digital Hierarchy) based by an MPLS based Wide Area Network (WAN). The project will allow compliance with EU 409/2013 and 716/2014
PROJECT LEADER	BELGOCONTROL
MEMBER STATE	BELGIUM
TIMING	17/11/2014 - 07/06/2018
AIRBORNE	
INTERDEPENDENCIES	
SYNCHRONIZATION	With Airports, ANSPs, MET
LINKS	
NM links	**NSP:** SO 6/5, SO 9/4 **NOP:** AMAN projects are mentioned in NOP for many FABEC ANSPs.

Recommendation:

This project is considered as a Foundation IP.

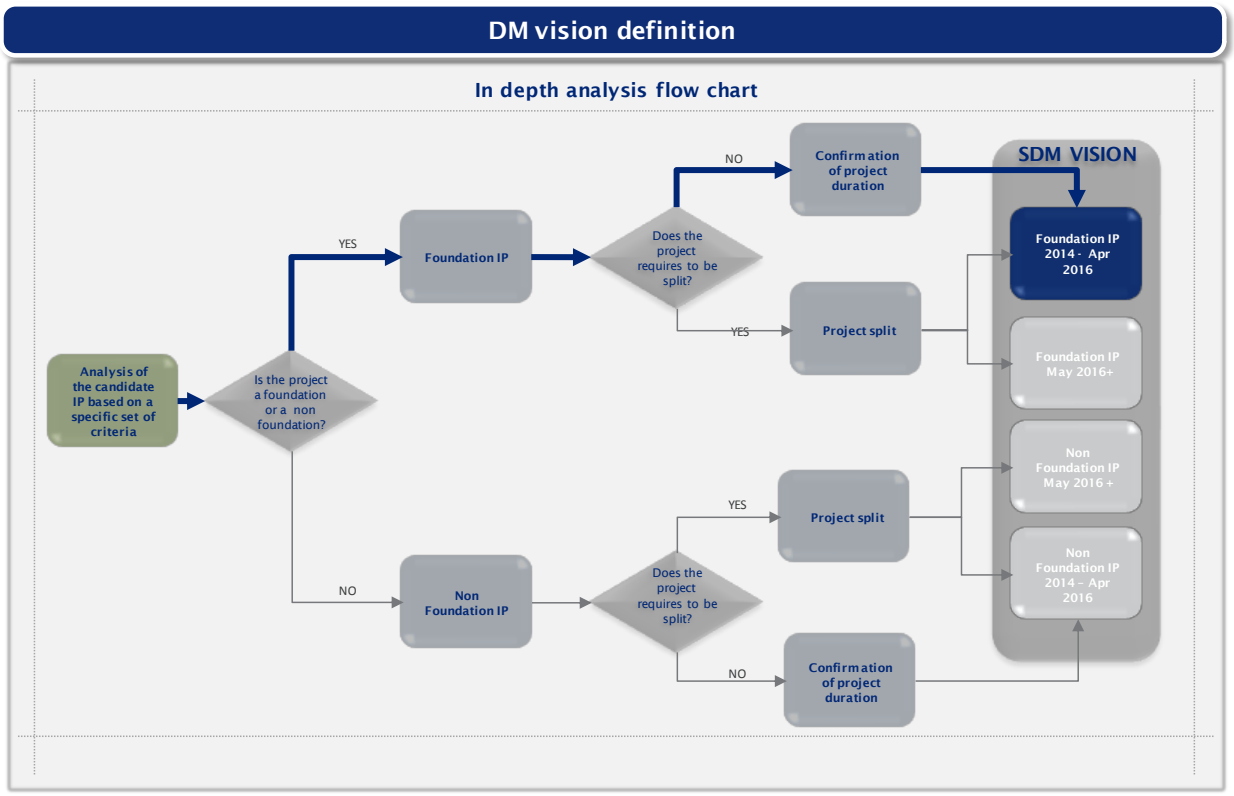


The project could be split in two phases. The first phase (November 2014 – April 2016) has to be considered for the INEA call 2014.The second phase (May 2016 – June 2018) needs to be part of the next INEA call in order to ensure continuity of the action within the Deployment Programme.

Content	Description
REFERENCE NUMBER	**016AF5**
TITLE	**Initial WXXM Implementation on Belgocontrol systems**
MAIN AF / SUB AF / Family	**AF 5; Sub AF 5.4; Family 5.4.1**
PROJECT DESCRIPTION	**Objectives:** The main objectives of this project are: – Enabling the Brussels Regional OPMET DataBank (RODB) to: o Receive and store ICAO OPMET data in IWXXM (ICAO Meteorological Information Exchange) format; o handle requests from users and to exchange ICAO OPMET data in IWXXM format; – Enabling the issuance of Belgian OPMET data in IWXXM format to ensure conformity with the envisaged Amendment 77 to ICAO Annex 3; – Enabling the Belgocontrol ATS Messages Handling system (AMHS) to support exchange of messages in XML (Extensible Markup Language) data formats (IWXXM, …)
PROJECT LEADER	BELGOCONTROL
MEMBER STATE	BELGIUM
TIMING	01/01/2014 - 10/11/2016
AIRBORNE	
INTERDEPENDENCIES	
SYNCHRONIZATION	With Airspace Users, ANSPs, MET
LINKS	
NM links	**NSP:** SO 2/5 **NOP:**No

Recommendation:

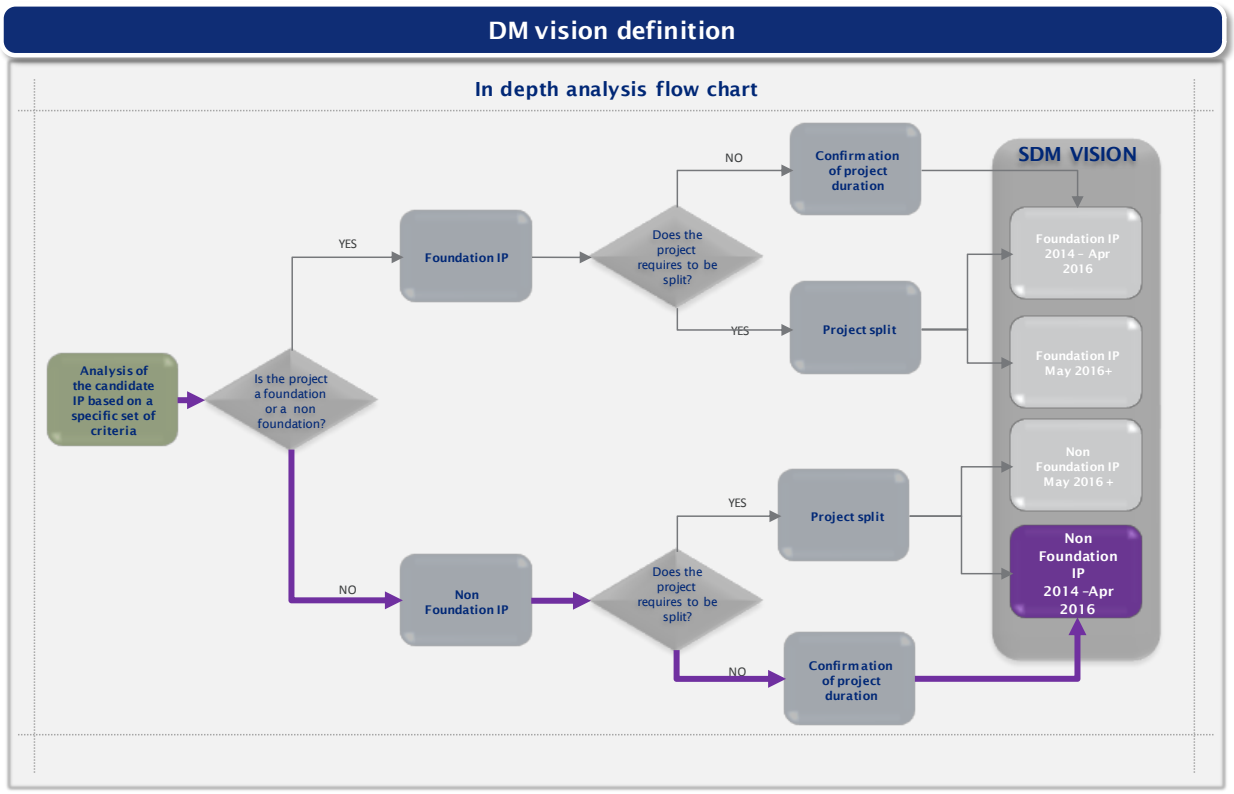
This project is considered as a Foundation IP.



Content	Description
REFERENCE NUMBER	**040AF5**
TITLE	**ADQ – Aeronautical Data Quality**
MAIN AF / SUB AF / Family	**AF 5; Sub AF 5.3; Family 5.3.1**
PROJECT DESCRIPTION	**Objectives:** The project consists of DFS migration of their relevant IT systems to AIXM5.1. The Project ADQ is the focal point for all technical issues Reg.73/2010 and establishing AIXM5.1-ability, which will allow: – receiving in conformity with Reg. 73/2010 aeronautical data in AIXM5.1 format, – exchange data between internally databases in AIXM5.1 format and also – providing external entities with aeronautical data in the AIXM5.1 format. In consultation with the German authority BAF, the implementation will be proved by ECTL Specification as Means of Compliance (MoC). One of these ECTL specifications for compliance of AIXM5.1 is the documentation of - Aeronautical information Exchange (Aix)
PROJECT LEADER	DFS
MEMBER STATE	GERMANY
TIMING	01/10/2013 – 08/01/2016
AIRBORNE	
INTERDEPENDENCIES	– 041AF5 - EASI - EAD AIM System Integration – 084AF5 - Implementation of Prerequisites for the Provision of Aerodrome Mapping Data and Airport Maps as Data Originator (Aeronautical Information Exchange)
SYNCHRONIZATION	With Airports
LINKS	AF 1; Sub AF 1.2; Family 1.2.2, Family 5.3.1
NM links	**NSP:** SO 2/5 **NOP:** No

Recommendation:

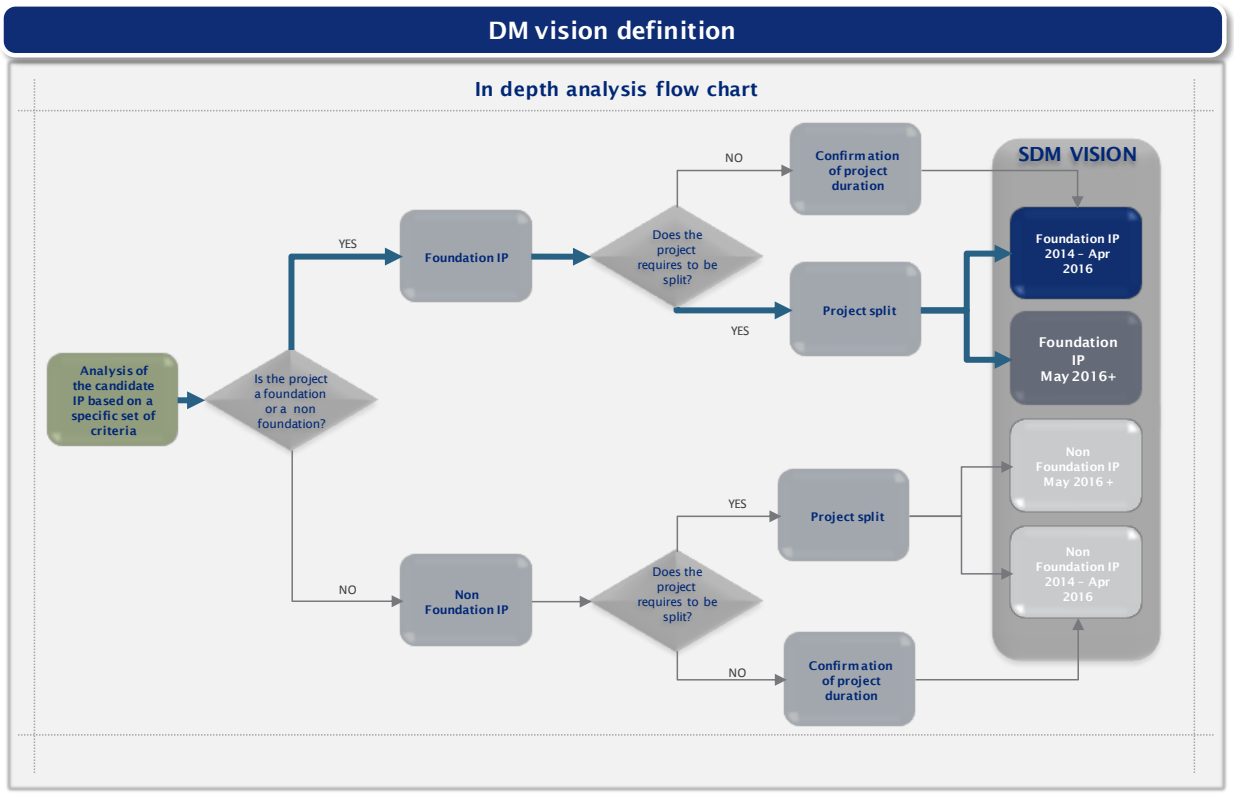
This project is considered as a Non Foundation IP.



Content	Description
REFERENCE NUMBER	**041AF5**
TITLE	**EASI - EAD AIM System Integration**
MAIN AF / SUB AF / Family	**AF 5; Sub AF 5.3; Family 5.3.1**
PROJECT DESCRIPTION	**Objectives:** The DFS project EASI will replace the current DFS system DIAS by the centrally provided EAD system in the context of AIS/ARO functions. This step to a centralised system enables the direct provision of DFS NOTAM and flight plan information via this centralised service. As soon as implemented on the EAD, this DFS information will be available in AIXM-5.1-format and DFS will directly input this data in AIXM-5.1. The abdication of a DFS-specific AIS-system reduces the complexity for the launch of AIXM-5.1 as the number of interfaces and especially parallel AIXM-5.1-implementations is limited. The effort to implement AIXM-5.1 on an internal system can then be spent to support the AIXM-5.1-implementation by EUROCONTROL on the central system. The migration to the central EAD-system is performed by the usage of standard-EAD-terminal-clients and EAD-standard-interfaces.
PROJECT LEADER	DFS
MEMBER STATE	GERMANY
TIMING	05/08/2013 – 31/05/2017
AIRBORNE	
INTERDEPENDENCIES	– 040AF5 - ADQ – Aeronautical Data Quality
SYNCHRONIZATION	With Airspace Users, ANSPs, EURO CONTROL ,ECTL / NM
LINKS	AF 4/ Sub AF 4.2/ Family 4.2.2, AF 5/ Sub AF 5.3/ Family 5.3.2
NM links	**NSP:** SO 2/5 **NOP:** No link

Recommendation:

This project is considered as a Foundation IP.

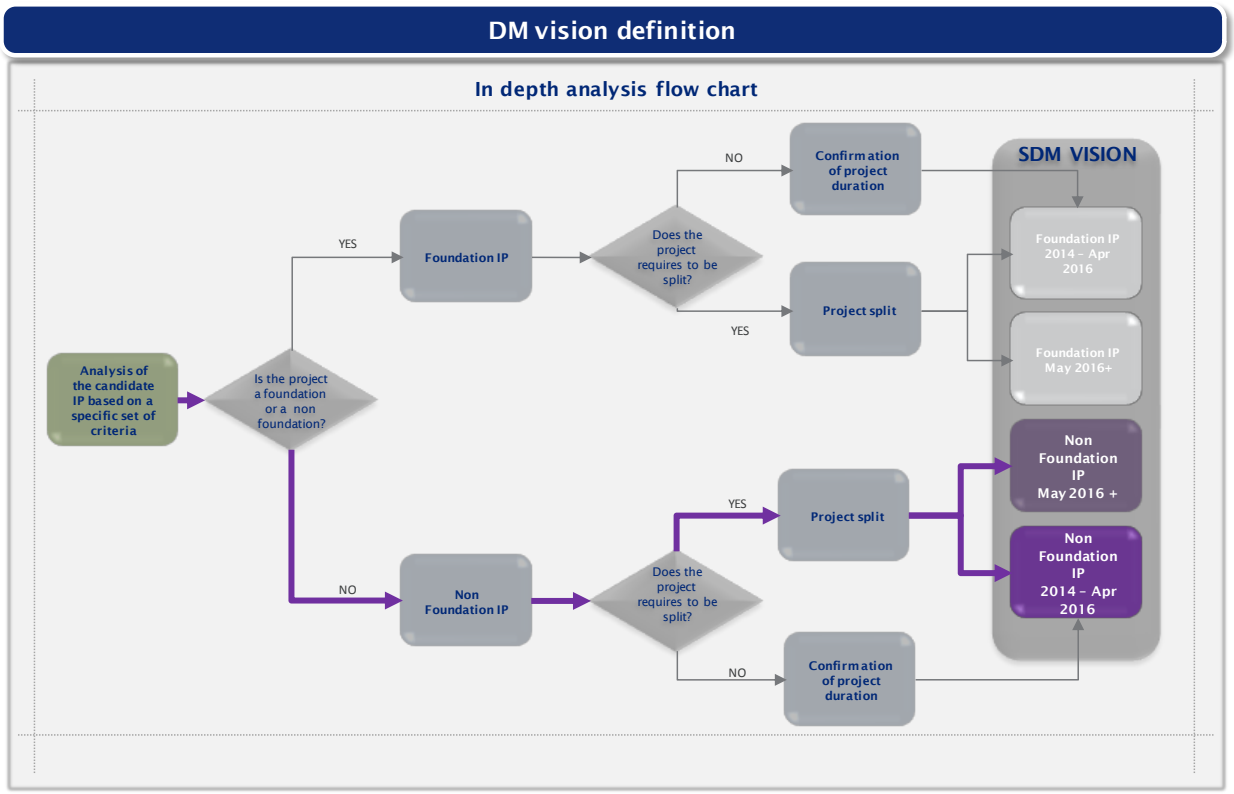


The project could be split in two phases. The first phase (January 2014 – April 2016) has to be considered for the INEA call 2014. The second phase (May 2016 – May 2017) needs to be part of the next INEA call in order to ensure continuity of the action within the Deployment Programme.

Content	Description
REFERENCE NUMBER	**052AF5**
TITLE	**Coflight as a service**
MAIN AF / SUB AF / Family	**AF 5; Sub AF 5.6; Family 5.6.1**
PROJECT DESCRIPTION	**Objectives:** The objectives of the initiative "Coflight as a service" are to perform legal, economic, architectural and operational studies, accompanied by the initial requirements definitions and corresponding **trials in order to improve the C**oflight system flight data processing. The scope of the studies is : – Fulfil AF5.1.6 "flight information exchange" by accelerating the access to full capabilities of new generation Flight Data Processing system Coflight through swim services. – Enable consolidation of flight data processing system among the stakeholders of the project. – Enable harmonisation of flight data processing capability throughout the EATMN. The objective of the Action "preliminary study" is to remove the bottlenecks link to service provision.
PROJECT LEADER	DSNA
MEMBER STATE	FRANCE
TIMING	01/02/2014 – 31/12/2016
AIRBORNE	
INTERDEPENDENCIES	– 067AF5 - Coflight-eFDP System Development
SYNCHRONIZATION	With ANSPs, ECTL / NM
LINKS	
NM links	**NSP:** SO 5/1 **NOP:** No link

Recommendation:

This project is considered as a Not Foundation IP.

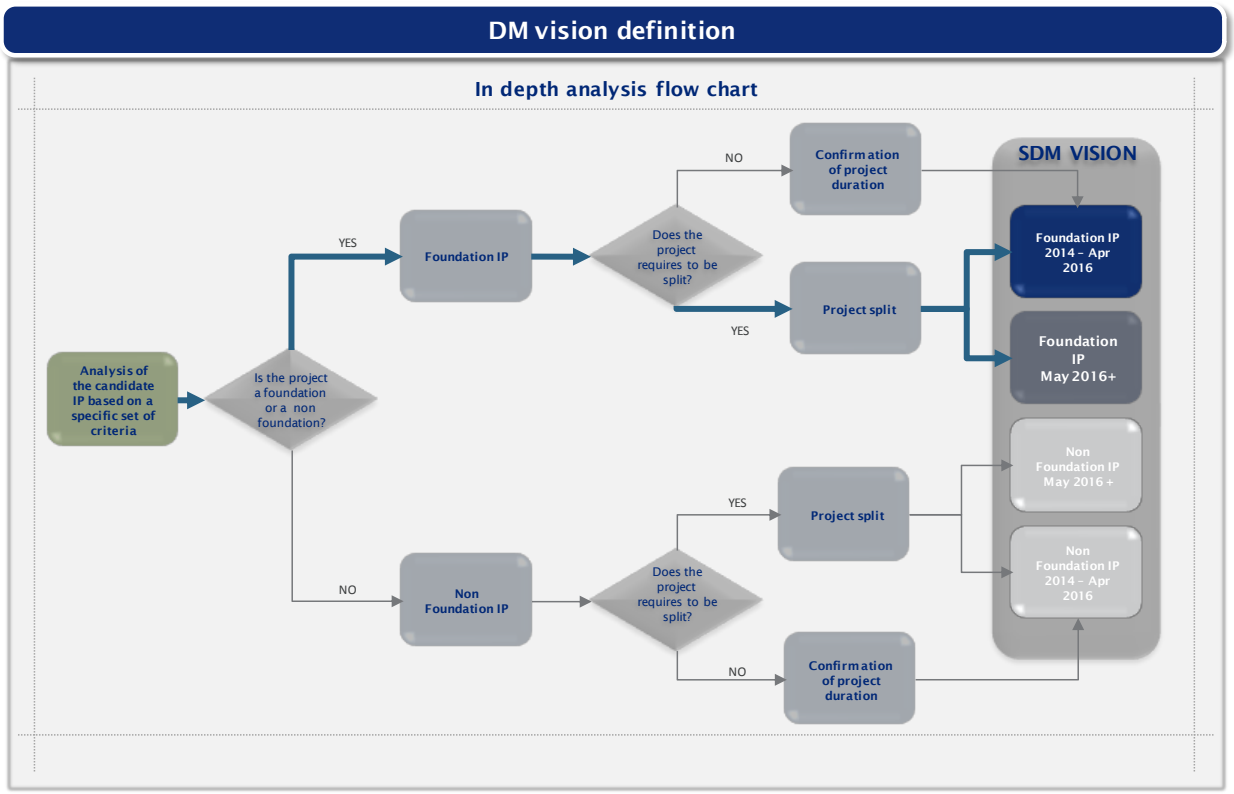


The project could be split in two phases. The first phase (February 2014 – April 2016) has to be considered for the INEA call 2014. The second phase (May 2016 – December 2016) needs to be part of the next INEA call in order to ensure continuity of the action within the Deployment Programme.

Content	Description
REFERENCE NUMBER	**059AF5**
TITLE	**Implementation and operation of an IP-based G/G data communication network in ENAIRE**
MAIN AF / SUB AF / Family	**AF 5; Sub AF 5.2; Family 5.2.1**
PROJECT DESCRIPTION	**Objectives:** Evolution of the existing ENAIRE's aeronautical data network (REDAN) in order to ensure an agreed level of Ground-Ground interconnectivity between ENAIRE ATSUs and stakeholders as required to facilitate information exchange with the communication requirements of new applications (SWIM based). This evolution will include voice and data integration and Alignment of REDAN technology with the current and future state-of-the-art. Benefits are expected through Reduction of maintenance and operation costs. The scope of the project includes deployment of the new network infrastructure in ACCs and remote sites (TWRs, radar and radio stations, etc.), user integration into new infrastructure, training and Safety studies and continuous supervision of the deployed network infrastructure.
PROJECT LEADER	ENAIRE
MEMBER STATE	SPAIN
TIMING	01/01/2014 - 31/12/2017
AIRBORNE	
INTERDEPENDENCIES	
SYNCHRONIZATION	With Airspace Users, Airports, ANSPs, MET
LINKS	
NM links	**NSP:** SO 8/3 **NOP:**No link

Recommendation:

The project is considered as a Foundation IP.

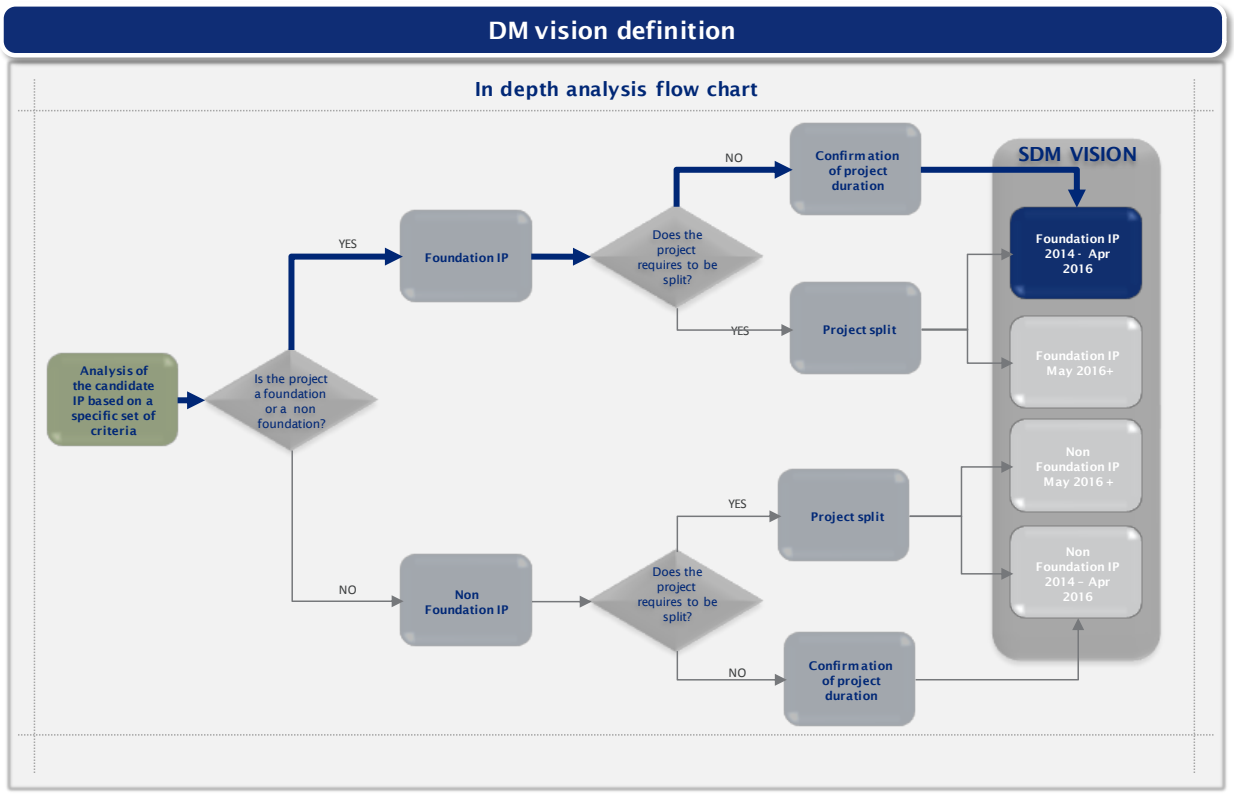


The project could be split in two phases. The first phase (January 2014-April 2016) has to be considered for the INEA call 2014. The second phase (May 2016 – December 2017) needs to be part of the next INEA call in order to ensure continuity of the action within the Deployment Programme.

Content	Description
REFERENCE NUMBER	**066AF5**
TITLE	**ENAV AIS system Upgrade to support AIXM5.1**
MAIN AF / SUB AF / Family	**AF 5; Sub AF 5.3; Family 5.3.1**
PROJECT DESCRIPTION	**Objectives:** The Aeronautical Information Exchange Model (AIXM) is designed to enable the management and distribution of Aeronautical Information Services (AIS) data in digital format. ENAV uses an IDS suite called AERODB for AIS static data storage, exchange, manipulation and AIP and Charts production, the actual DB use AIXM 4.5 protocol. The PIB producing system (AOIS Web) is actually based on a non-standard format environmental DB. The project will complete theAERODB migration to the new information exchange model and will change from AOIS web to a new application called EWADs, in order to ensure fully capability AIS system to support AIXM 5.1 data format,
PROJECT LEADER	ENAV
MEMBER STATE	ITALY
TIMING	03/03/2015 - 22/08/2016
AIRBORNE	
INTERDEPENDENCIES	
SYNCHRONIZATION	With Airports, ANSPs
LINKS	
NM links	**NSP:** SO 8/3 **NOP:**No link

Recommendation:

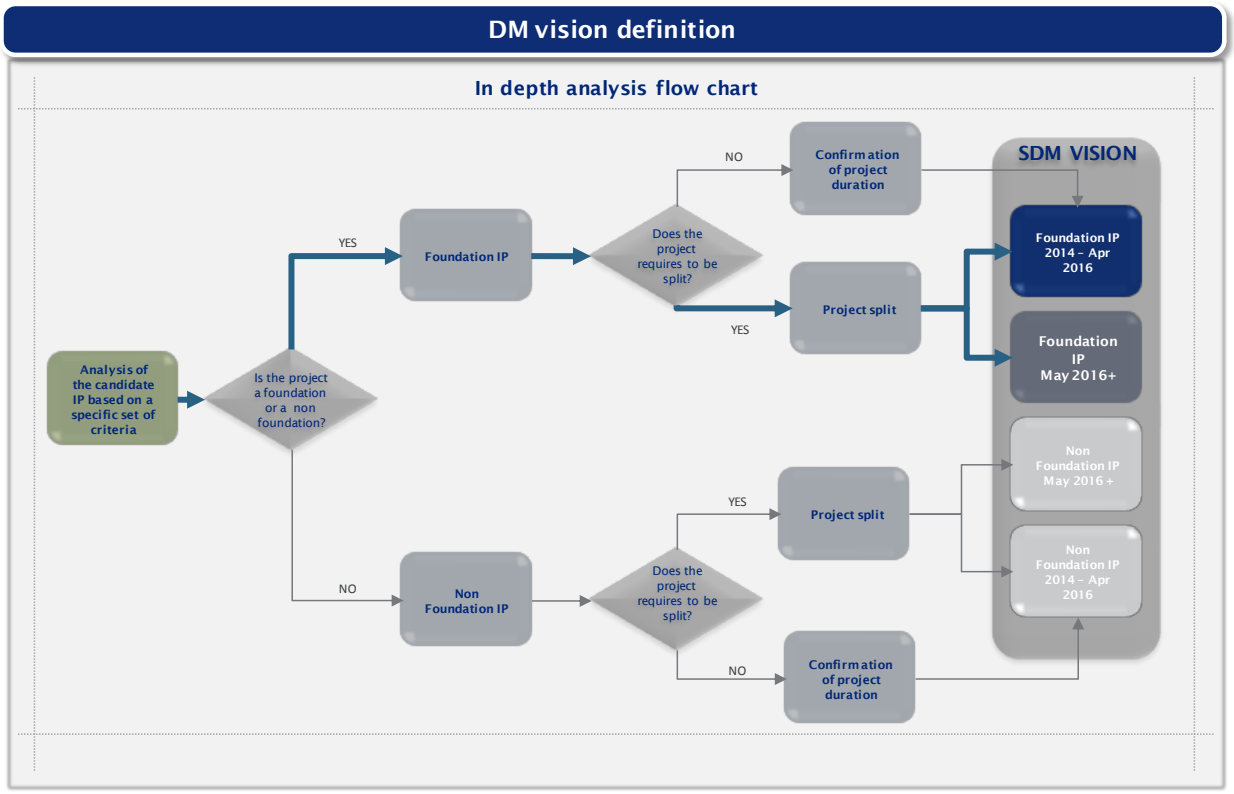
This project is considered as a Foundation IP.



Content	Description
REFERENCE NUMBER	**067AF5**
TITLE	**Coflight-eFDP System Development**
MAIN AF / SUB AF / Family	**AF 5; Sub AF 5.6; Family 5.6.1**
PROJECT DESCRIPTION	**Objectives:** The Coflight-eFDP System is the Flight Data Processing (FDP) System of new generation designed to meet the needs of European Air Navigation Service Providers (ANSPs) for the next decade, satisfying the need for the harmonisation and interoperability of air traffic management systems in Europe. The Coflight Programme is part of a wider programme that involves the renewal of the whole National ATM System, called 4-Flight, for ENAV and DSNA, through which they will develop their completely brand new ATM system to meet all the requirements from the SES performance scheme as well as from all the relevant regulations for the coming years. 4-Flight will guarantee the optimal performances in terms of safety, capacity, environmental impact and cost efficiency, contributing to a significant improvement of the network performances in Europe. The 4-Flight's system core and infrastructure will be made available by the Coflight Programme, which will provide an overall ATM System Oriented architecture and sockets for the other internal components that will be developed according to SESAR compliant user requirements. Coflight will provide also the connections with most of the external systems through SESAR standardised Flight Object based Gate-To-Gate IOP. This project will focus on the development of the successive upgrading software versions (V2R1, V3+ and V4) from requirements to functional tests and reports
PROJECT LEADER	ENAV/DSNA
MEMBER STATE	ITALY
TIMING	01/01/2014 - 31/12/2016
AIRBORNE	
INTERDEPENDENCIES	– 052AF5 - Coflight as a service – 053AF3 - 4-Flight deployment in DSNA pilot ACCs
SYNCHRONIZATION	With Airports, ANSPs, EUROCONTROL, NM
LINKS	AF 3; Sub AF 3.2
NM LINKS	**NSP:** SO5/1 **NOP:** No

Recommendation

This project is considered as a Foundation IP.

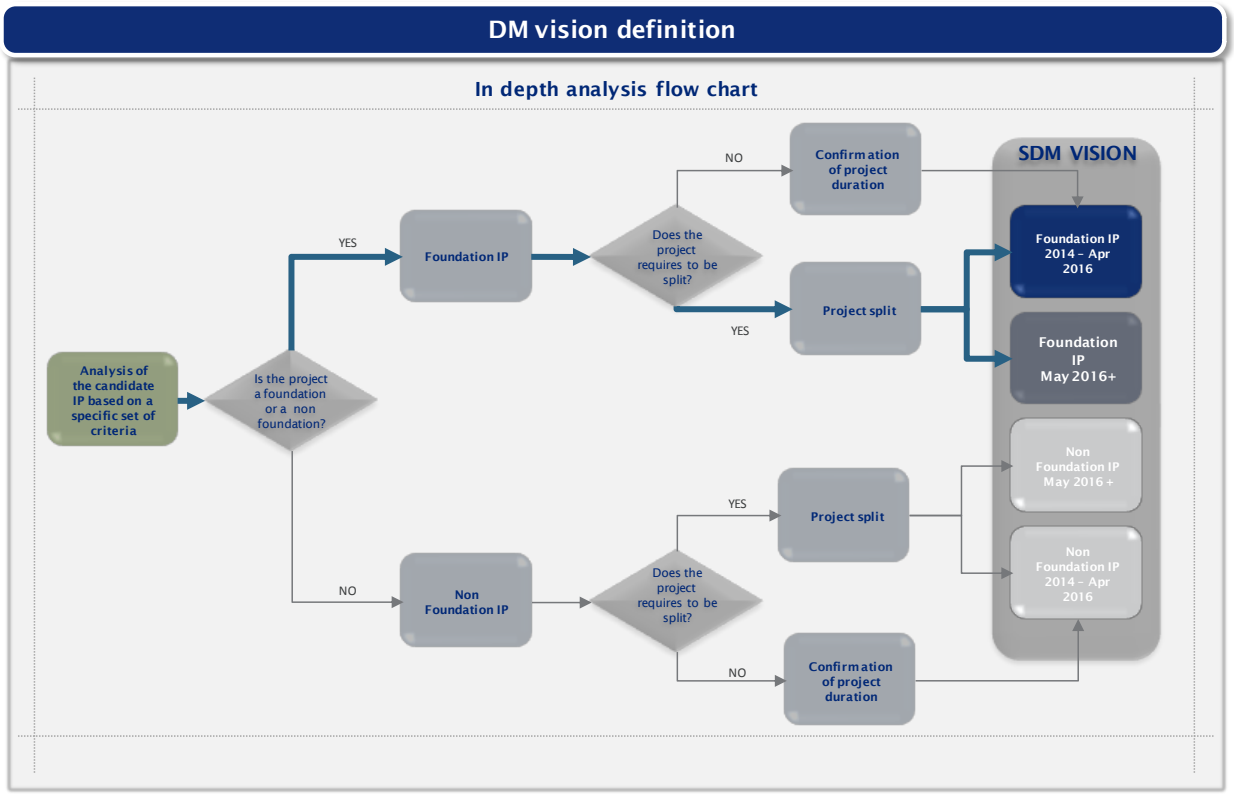


The project could be split in two phases. The first phase (January 2014-April 2016) has to be considered for the INEA call 2014.The second phase (May 2016-December 2016) needs to be part of the next INEA call in order to ensure continuity of the action within the deployment programme.

Content	Description
REFERENCE NUMBER	**073AF5**
TITLE	**SWIM Common Components**
MAIN AF / SUB AF / Family	**AF 5; Sub AF 5.3Family 5.2.2**
PROJECT DESCRIPTION	**Objectives:** The objective of this project is twofold: *1. SWIM Data Models - deployment toolkit:* The goal is to have common rules for the data capturing/mapping/interpretation. It will include: • Development of an AIXM Coding Guidelines Service. This service will update the AIXM 5.1 coding guidelines better reflecting the needs of a wider range of stakeholders, such as NM sub-systems, ATC, procedure designers, etc. • Provide AIXM Data Validation Services, ensuring that data sets are syntactically valid (against the XML Schema) and semantically correct and can be used in confidence for a particular application. The initial set of AIXM 5.1 Business Rules needs to be maintained and enhanced, considering the feedback from the implementations and the needs of the various stakeholder groups. • Provide a Web Based Training (WBT) Service for the latest AIXM version. The existing AIXM 4.5 WBT is outdated and there is a strong need for a new AIXM 5.1 WBT Service. The deployment toolkits will be updated based on further versions of the following specifications: ○ Aeronautical Information Exchange Model (AIXM) version 5.2 ○ Weather Exchange Model (WXXM) and ICAO Weather Exchange Model (IWXXM) version 3 ○ Flight Information Exchange Model (FIXM) version 4 *2. Registry:* The SWIM Registry will provide a platform for the service providers to find information about SWIM (SWIM Reference Management) and will provide a limited support for the end-users, including minor changes to the look and feel of the SWIM registry and allow updates of the SWIM references when needed.
PROJECT LEADER	EUROCONTROL
MEMBER STATE	BELGIUM
TIMING	01/06/2015 - 01/06/2020
AIRBORNE	
INTERDEPENDENCIES	
SYNCHRONIZATION	With Airports, ANSPs, Airspace Users, NM, MET
LINKS	AF 2/Sub AF 2.1/ Family 2.1.3; AF 2/Sub AF 2.1/ Family 2.1.4 AF 4/ Sub AF 4.2/,; Family 4.2.1 ; AF 4/ Sub AF 4.2/ Family 4.2.3; AF 4/ Sub AF 4.2/ Family 4.2.4 AF 5/Sub AF 5.1/ Family 5.1.1; AF 5/Sub AF 5.4; AF 5/Sub AF 5.5 AF 5/Sub AF 5.6
NM LINKS	NM inputs provided through the normal channels as any other implementing stakeholder**.**

Recommendation

This project is considered as a Foundation IP.



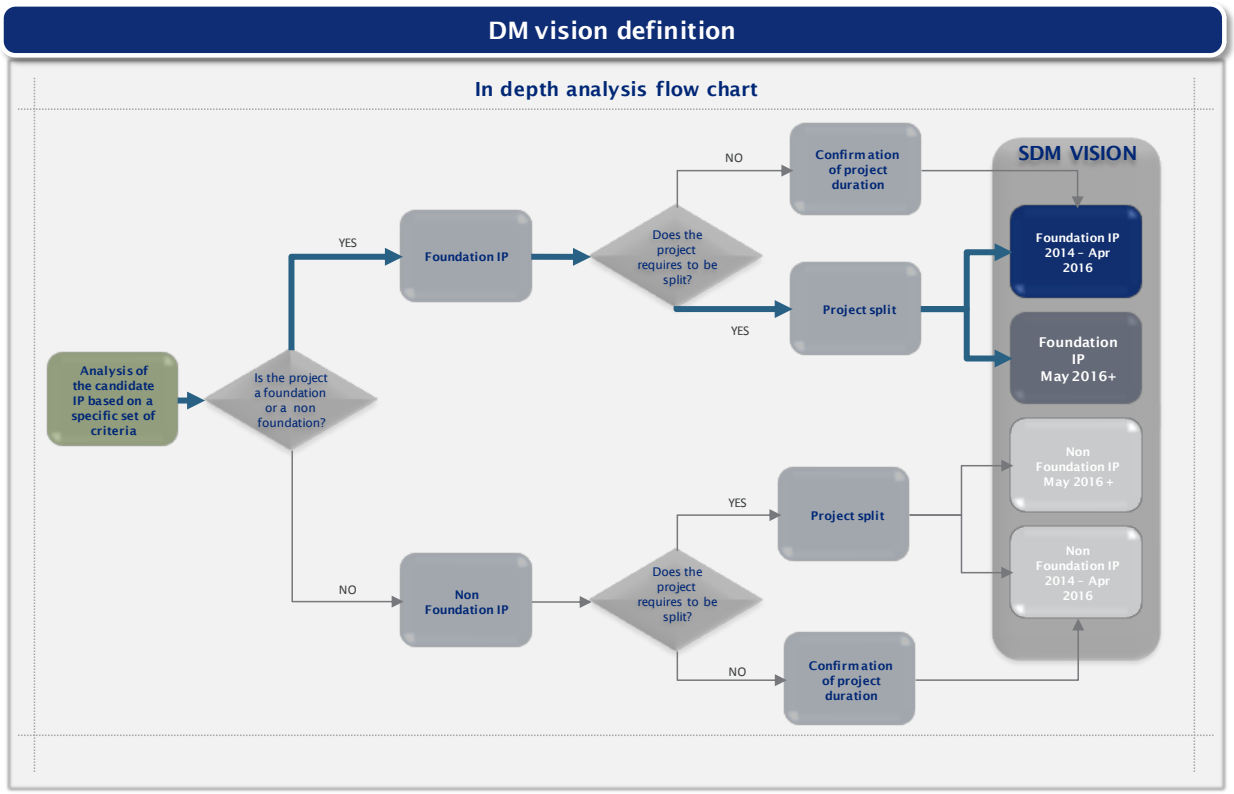
The project could be split in two phases. The first phase (June 2015 – April 2016) has to be considered for the INEA call 2014. The second phase (May 2016 – June 2020) needs to be part of the next INEA call in order to ensure continuity of the action within the deployment programme.

It is worth noting that this project includes specific tasks which encompass maintenance activities. While the project as a whole is still considered as Foundation IP, these tasks cannot be considered as enabler for the implementation of PCP ATM Functionalities.

Content	Description
REFERENCE NUMBER	**082AF5**
TITLE	**SWIM compliance of NM systems**
MAIN AF / SUB AF / Family	**AF 5; Sub, 5.5, Family 5.5.1**
PROJECT DESCRIPTION	**Objectives:** The project aims at extending NM systems technical capabilities to initiate SWIM compliance and at developing/deploying new NM B2B services to exchange network / flight plan information with the operational stakeholders. It aims compliance with the requirements of SWIM Yellow Profile and it includes: – the exchange of network / flight plan information using the Yellow SWIM TI Profile; – the new NM B2B services. This IP addresses the following Family (ies): – Family 5.5.1 Interface and Data requirements – Family 5.6.1 FDPS Upgrade preparing for IOP Flight Object Exchanges
PROJECT LEADER	EUROCONTROL/NETWORK MANAGER
MEMBER STATE	BELGIUM
TIMING	01/01/2014 – 30/06/2017
AIRBORNE	
INTERDEPENDENCIES	
SYNCHRONIZATION	With Airspace Users, Airports, ANSPs, ECTL/NM
LINKS	AF 2/Sub AF 2.1/ Family 2.1.3 AF 2/Sub AF 2.1/ Family 2.1.4 AF 3/Sub AF 3.2/ Family 3.2.4 AF 4/Sub AF 4.2/ Family 4.2.3 AF 4/Sub AF 4.2/ Family 4.2.4 AF5/ Sub AF 5.2 AF5/ Sub AF 5.3 AF5/ Sub AF 5.6/ Family 5.6.1
NM LINKS	NM inputs provided through the normal channels as any other implementing stakeholder.

Recommendation:

This project is considered as a Foundation IP.

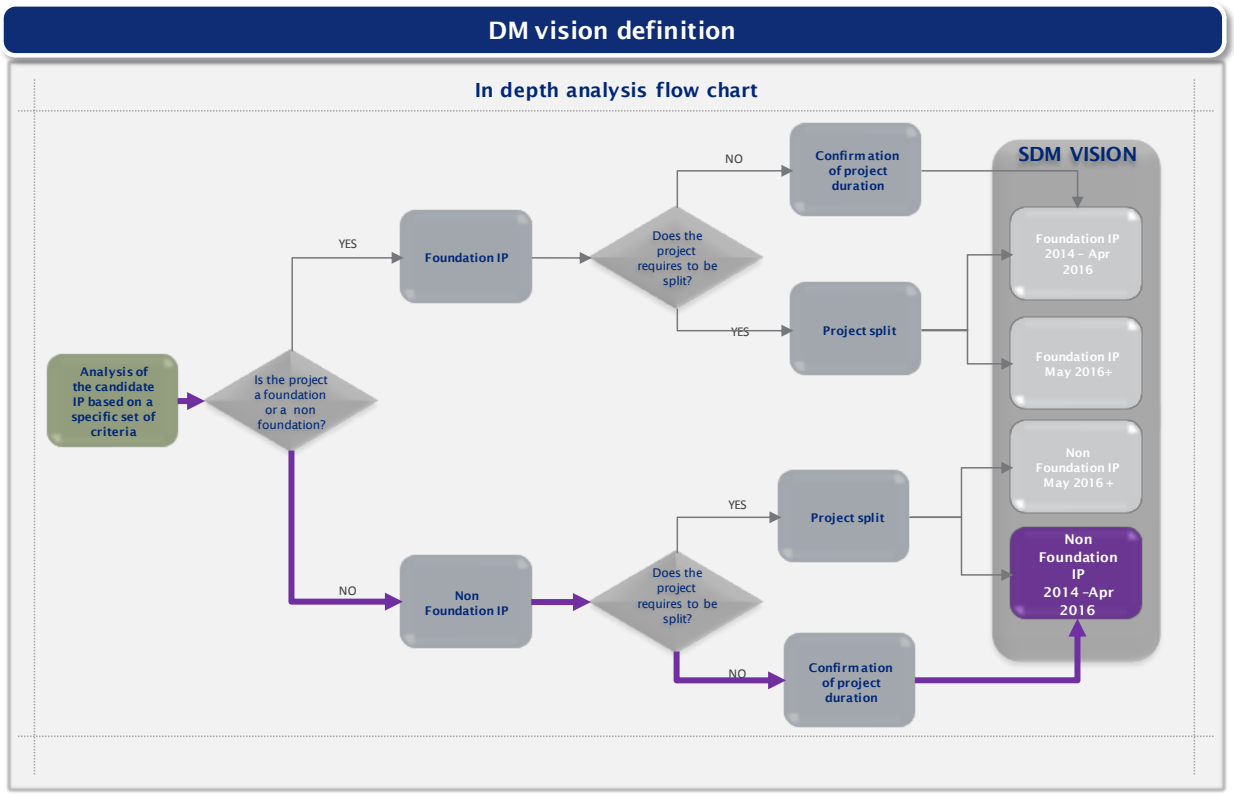


The project could be split in two phases. The first phase (January 2014 – April 2016) has to be considered for the INEA call 2014. The second phase (May 2016 – June 2017) needs to be part of the next INEA call in order to ensure continuity of the action within the Deployment Programme.

Content	Description
REFERENCE NUMBER	**084AF5**
TITLE	**Implementation of Prerequisites for the Provision of Aerodrome Mapping Data and Airport Maps as Data Originator (Aeronautical Information Exchange)**
MAIN AF / SUB AF / Family	**AF 5; Sub AF 5.3;Family 5.3.1**
PROJECT DESCRIPTION	**Objectives:** This implementation project will ensure that Frankfurt Airport can fulfil its role as data originator for aerodrome mapping data and airport maps as required by 5.1.3 Aeronautical Information Exchange, bullet point "provide aerodrome mapping data and airport maps" of Commission Regulation (EU) No 716/2014. The implementation of this project will allow the provision of aerodrome mapping data and airport maps by standard XML schema as per AIXM 5.1. In order to implement Regulation (EU) No 73/2010 and to be able to fulfil their role as data originator for aerodrome mapping data and airport maps German airports, their associations ADV and IDRF and DFS agreed upon a common process for the aeronautical data chain and the definition of the interface between airports and the air navigation services provider, DFS. The interface dealing with data and information provided by the originators (airports) to the receiver (DFS) will use the AIXM 5.x format (Aeronautical Information Exchange Model). Therefore, a tool is required which transforms the data formats used at airports in such a way that they are accepted by the interface provided by DFS and that they comply with the requirements of Commission Regulation (EU) No 73/2010 and Commission Implementing Regulation (EU) No 716/2014 ("Pilot Common Project"). The implementation project is a prerequisite for the exchange of information among operational stakeholders as required by Commission Regulation (EU) 716/2014.
PROJECT LEADER	FRAPORT
MEMBER STATE	GERMANY
TIMING	01/01/2014 – 31/03/2016
AIRBORNE	
INTERDEPENDENCIES	– 041AF5 - EASI - EAD AIM System Integration
SYNCHRONIZATION	With Airports
LINKS	
NM LINKS	**NSP** : SO2/5 **NOP** : None

Recommendation

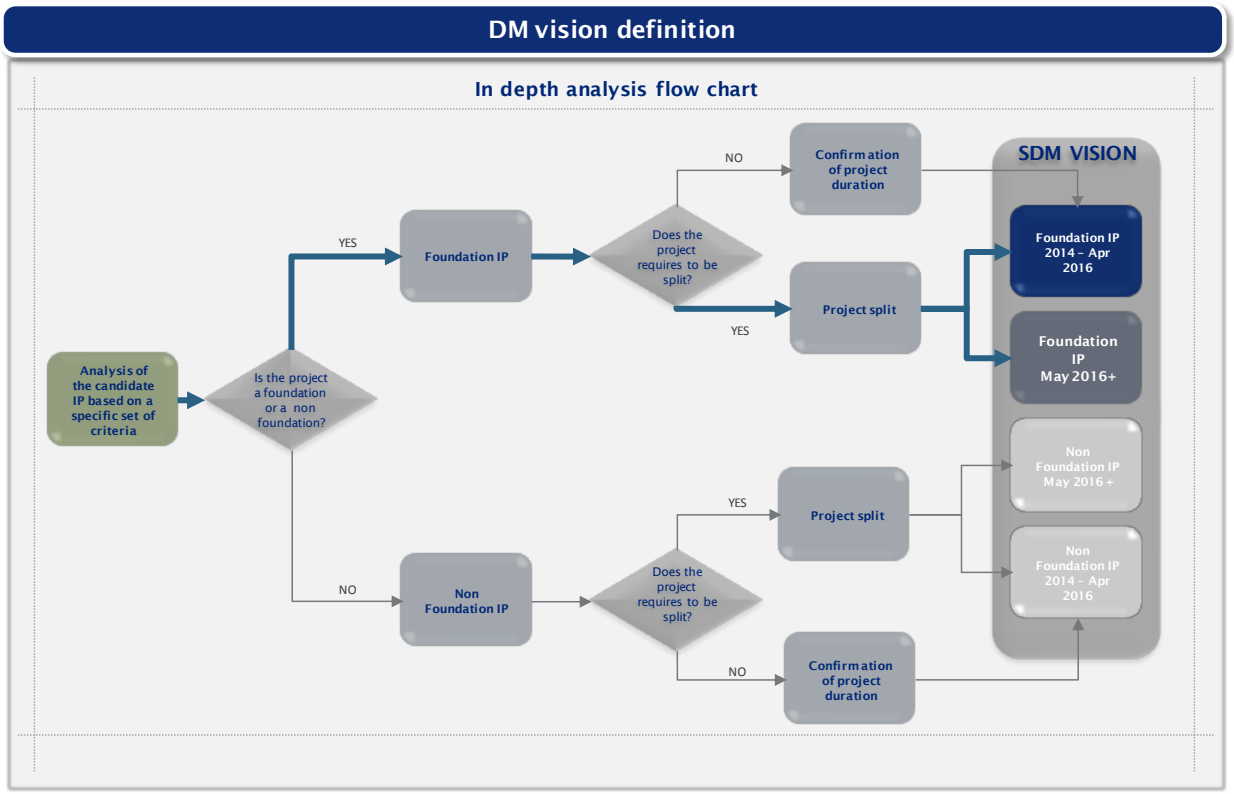
This project is considered as a Non Foundation IP.



Content	Description
REFERENCE NUMBER	**110AF5**
TITLE	**Meteorological Information Exchange by MET ANSP KNMI**
MAIN AF / SUB AF / Family	**AF 5; Sub AF 5.4; Family 5.4.1**
PROJECT DESCRIPTION	**Objectives:** The project aims at: – Implementation of a flexible and cost-effective interoperable exchange of MET information for Amsterdam TMA and ACC, Amsterdam Airport Schiphol, Airspace Users, Military and Network Manager compliant with the iSWIM data formats and interfaces. – Demonstration and verification of the operational deployment of iSWIM for MET information, and to provide feedback on the principles, standards and specifications currently defined for **iSWIM** in AF5 and the information and exchange models and schemes of ICAO (WXXM), WMO (METCE) and the EUROCONTROL/FAA (WXCM-WXXM-WXXS). – The implementation and verification covers the standard MET products: TAFs for civil airports in Amsterdam TMA and ACC (WP1); AIRMETs and SIGMETs for the Amsterdam FIR (WP2); METARs and AUTO METARs for civil airports in Amsterdam TMA and ACC (WP4); (AUTO) MET reports and warnings for civil airports in Amsterdam TMA and ACC (WP5). It covers the provision of continuous sensor information for all available runways in Amsterdam TMA and ACC. – The development and implementation of a central database and web services to make the iSWIM compliant MET information easily available to users (WP3). – The realization of a cost-effective, secure and standard interface (PENS) for dissemination of safety critical MET information to ATM (WP6). – The development and implementation of (geo)graphical user interfaces to facilitate the generationand monitoring of the MET products and the efficient maintenance of these data formats. – The embedding of the systems/applications (new and/or extended) for the above mentioned provision of MET information in the operational production and monitoring chains of KNMI.
PROJECT LEADER	KNMI
MEMBER STATE	NETHERLANDS
TIMING	01/06/2015 - 31/12/2018
AIRBORNE	
INTERDEPENDENCIES	
SYNCHRONIZATION	With Airspace Users, Airports, ANSPs, EURO CONTROL, ECTL/NM, MET
LINKS	
NM LINKS	**NSP :** SO2/5 **NOP :** None

Recommendation:

This project is considered as a Foundation IP.

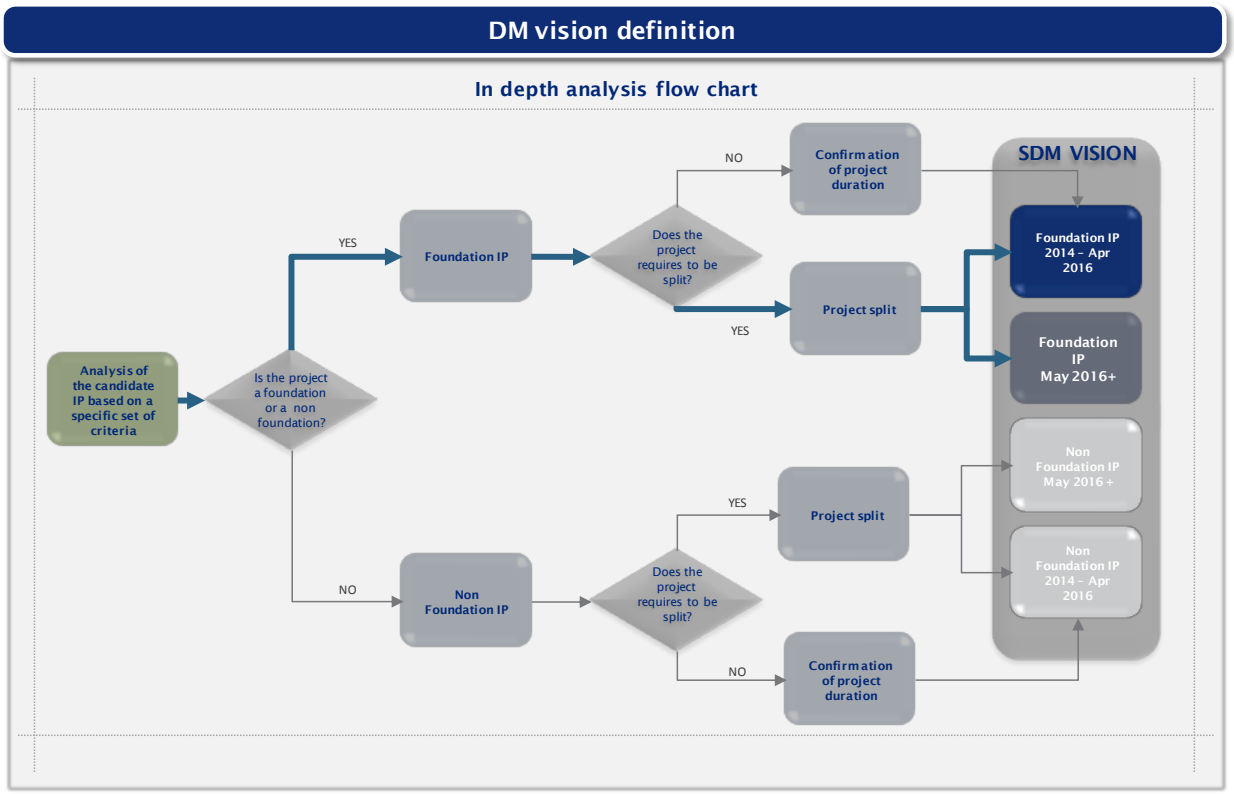


The project could be split in two phases. The first phase (June2015 – April 2016) has to be considered for the INEA call 2014. The second phase (May 2016 – December 2018) needs to be part of the next INEA call in order to ensure continuity of the action within the Deployment Programme.

Content	Description
REFERENCE NUMBER	**117AF5**
TITLE	**Implementation of Initial SWIM Capability (AF5) across NATS**
MAIN AF / SUB AF / Family	**AF 5; Sub AF 5.1; Family 5.2.2**
PROJECT DESCRIPTION	**Objectives** The objective is to enable iSWIM as an enabler for other PCP elements that deliver benefits in safety, capacity, cost-effectiveness and environment. Initial System Wide Information Management (iSWIM) supports information exchanges that are built on standards and delivered through an internet protocol (IP)-based network by SWIM enabled systems and will be delivered in the following blocks: Common Infrastructure Components (Sub AF 5.1);SWIM Technical Infrastructure and Profiles (Sub AF 5.2); Aeronautical information exchange (Sub AF 5.3) ; Meteorological information exchange (Sub AF 5.4); Cooperative network information exchange (Sub AF 5.5) and Flight information exchange (Sub AF 5.6)NATS proposal is to deliver a core Enterprise Information Service (EIS) capability to interconnect ATM services within centres, with Airports and other users and to underpin and enable later stages of information exchange by Flight Object. Delivery of the core EIS is the prime action in this 2014 funding call to enable information exchanges of this nature, a number of NATS core systems (primarily Networks, FDP, AIS and Meteo) also require update and enhancement. By their nature, these enhancements need to be carried out first and form the other sub-action elements of this 2014 funding call. Provision of full Flight Object exchange and IOP are expected to be part of future funding requests.
PROJECT LEADER	NATS
MEMBER STATE	UK
TIMING	01/01/2014 – 31/07/18
AIRBORNE	
INTERDEPENDENCIES	
SYNCHRONIZATION	With Airspace Users, Airports, ANSPs, ECTL/NM, MET
LINKS	AF 1, AF 3, AF 4, AF 6; AF 5/Sub AF 5.1/ Family 5.1.1 AF5/Sub AF 5.2, AF5/ Sub AF 5.3/ Family 5.3.1 AF5/ Sub AF 5.3/ Family 5.3.2 AF 5/Sub AF 5.5, AF 5/ Sub AF 5.6
NM LINKS	**NSP**: "SO2/1; SO2/5; SO2/4; **NOP**: NO;

Recommendation

This project is considered as a Foundation IP.

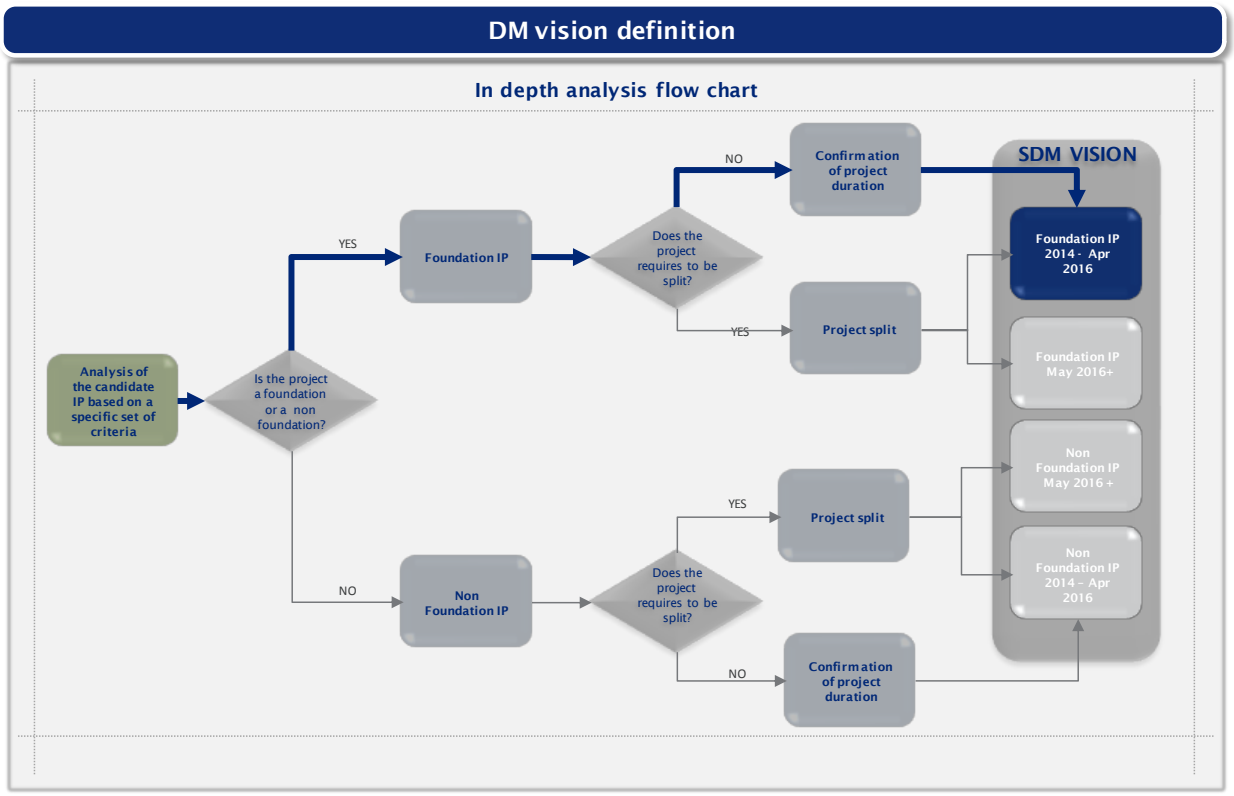


The project could be split in two phases. The first phase (January 2014 – April 2016) has to be considered for the INEA call 2014.The second phase (May 2016 – July 2018) needs to be part of the next INEA call in order to ensure continuity of the action within the Deployment Programme.

Content	Description
REFERENCE NUMBER	**127AF5**
TITLE	**Implementation project X.X: National WAN Infrastructure (CANDI-IP)**
MAIN AF / SUB AF / Family	**AF 5; Sub AF 5.1; Family 5.2.1**
PROJECT DESCRIPTION	**Objectives:** The project aims at providing requirements for an adequate WAN infrastructure that will be compliant with the requirements of an IP g/g communications network is available. This WAN infrastructure will: – Ensure continuous availability of WAN data transport in EKDK FIR – Ensure logical and physical segregation of operationally critical data – Ensure that requirements on VoIP data transport are fulfilled – Ensure that rules and requirements on IPv6 data transport are fulfilled – Interface to PENS
PROJECT LEADER	NAVIAIR
MEMBER STATE	DENMARK
TIMING	03/02/2014 - 27/04/2015
AIRBORNE	
INTERDEPENDENCIES	
SYNCHRONIZATION	No
LINKS	
NM LINKS	**NSP**: SO8/3; **NOP**: None;

Recommendation:

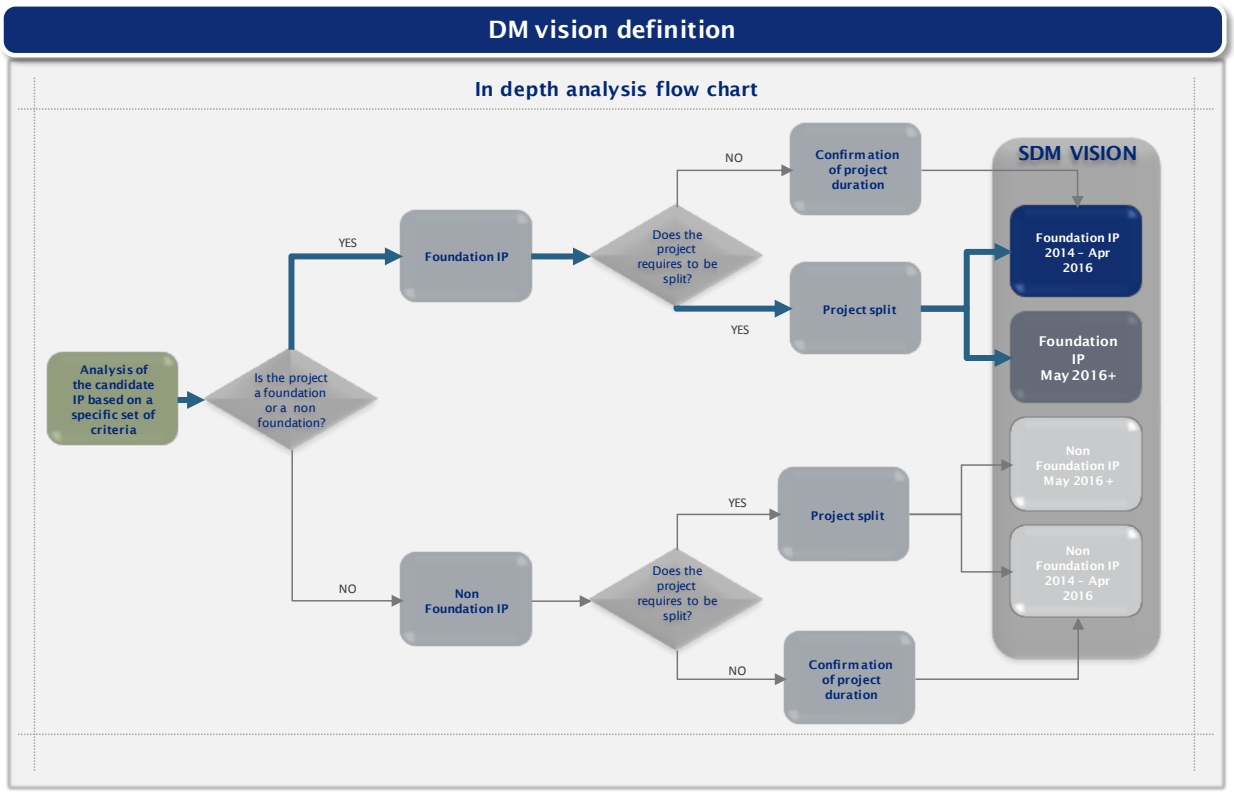
This project is considered as a Foundation IP.



Content	Description
REFERENCE NUMBER	**134AF5**
TITLE	**PILOT PLATFORM for access services to OPMET (worldwide/ECAC) data (METAR, TAF, SIGMET) in WXXM format**
MAIN AF / SUB AF / Family	**AF 5; Sub AF 5.4; Family 5.4.1**
PROJECT DESCRIPTION	**Objectives:** Upgrade Meteo service to provide reliable actual and forecast Meteo data, wherever required across the ATM network, in WXXM format. The project consists in the achievement of a pilot platform as WEB Service for access to OPMET (worldwide/ECAC) data (METAR, TAF, SIGMET) in WXXM format
PROJECT LEADER	ROMATSA
MEMBER STATE	ROMANIA
TIMING	02/03/2015 - 01/09/2017
AIRBORNE	
INTERDEPENDENCIES	
SYNCHRONIZATION	With Airspace Users, ANSPs, ECTL/NM, MET
LINKS	AF 5/Sub AF 5.1/ Family 5.1.1
NM LINKS	**NSP:** SO2/5; **NOP**: None;

Recommendation:

This project is considered as a Foundation IP.



The project could be split in two phases. The first phase (March 2015 – April 2016) has to be considered for the INEA call 2014. The second phase (May 2016 – September2017) needs to be part of the next INEA call in order to ensure continuity of the action within the Deployment Programme.

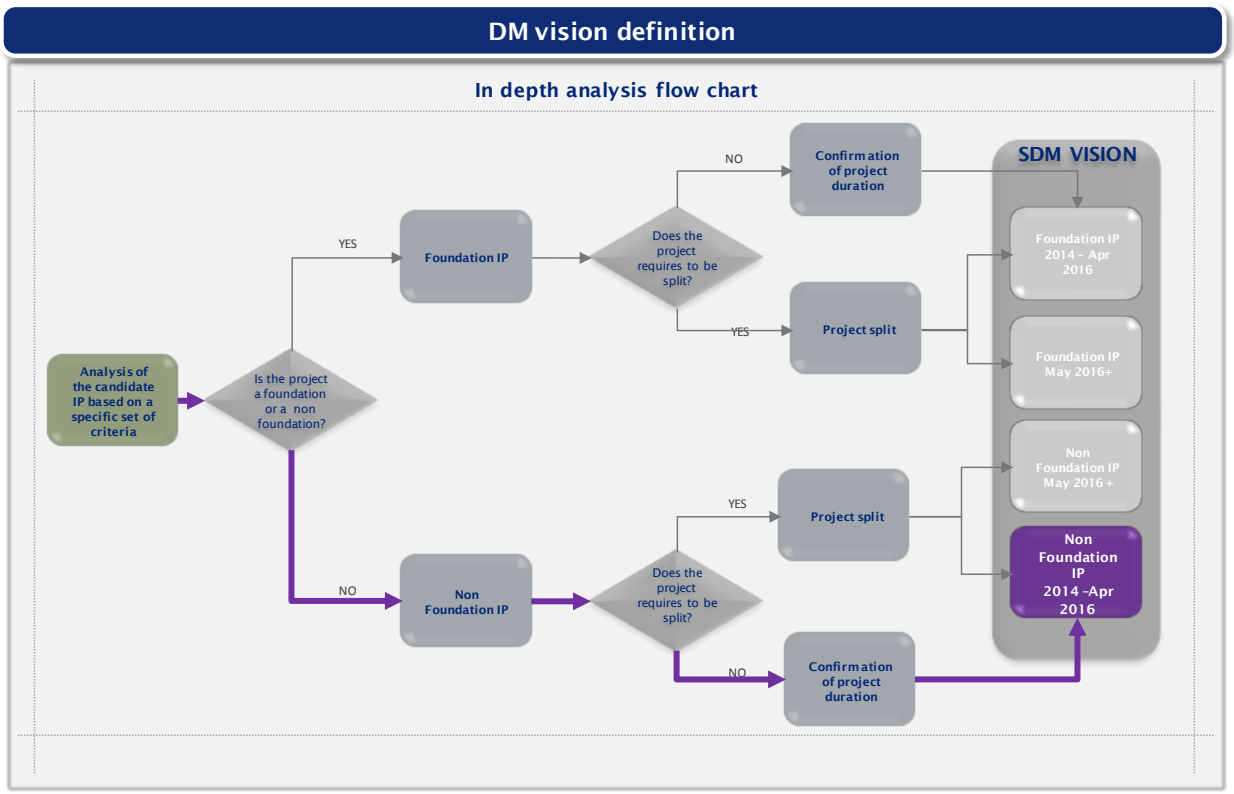
1.1.6 AF 6 Initial trajectory information sharing

Content	Description
REFERENCE NUMBER	**003AF6**
TITLE	**Deploy Datalink Service EC 29/2009 on aircraft**
MAIN AF / SUB AF / Family	**AF6; Sub AF 6.1; Family 6.1.2**
PROJECT DESCRIPTION	**Objectives:** This implementation project aims at aircraft retrofit performed from 2014 both within Air France A320 family fleet and in HOP EJets & CRJ fleets in order to comply with EC 29/2009. This Regulationlays down requirements for the coordinated introduction of data link services based on air-ground point-to-point data communications (the so called Controller-Pilot Data-Link Communications (CPDLC)). This application enables the exchange of text messages between controllers and pilots complementing traditional voice communications, providing pilots and controllers with an additional communications medium and improving the safety and efficiency of air traffic management in Europe. For Air France this applied to 97 aircraft (A320 family fleet) and the aircraft retrofit started in 2012 and will end in 2017. For HOP-Regional this applied to 26 aircraft (EJets) and the aircraft retrofit started in 2012 and will end in 2020. For HOP-Brit Air this applied to 28 aircraft (15 CRJ700 / 13 CRJ1000) and the aircraft retrofit started in 2014 and will end in 2020.
PROJECT LEADER	Air France
MEMBER STATE	France
TIMING	01/01/2014 – 30/11/2015
AIRBORNE	
INTERDEPENDENCIES	
SYNCHRONIZATION	With: Airspace Users, Airports, ANSPs
LINKS	
NM LINKS	**NSP:** None; **NOP:** None;

Recommendation:

This project is considered as a Non Foundation IP.

There exists a risk that the technology used to support this project is not in line with the future results of the SJU study about DLS technology validation.

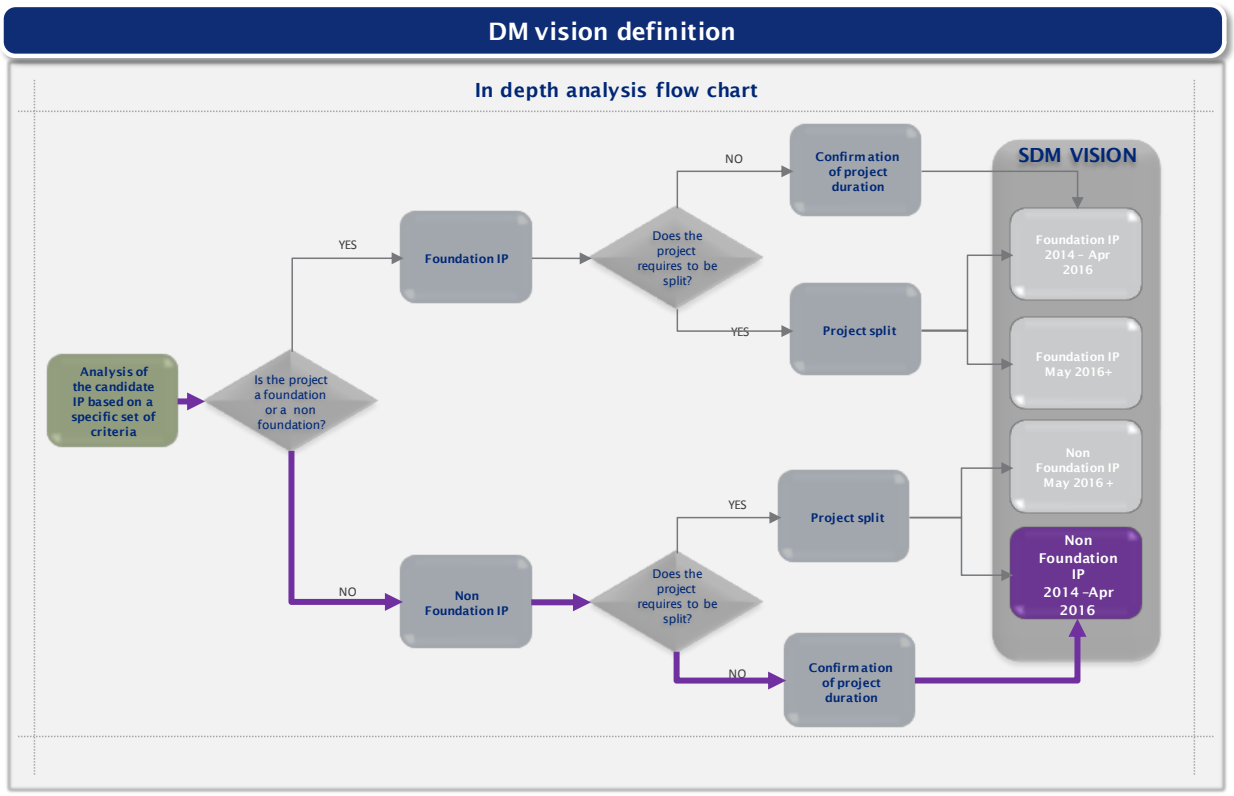


Content	Description
REFERENCE NUMBER	**010AF6**
TITLE	**Ground System Data Link Services**
MAIN AF / SUB AF / Family	**AF 6; Sub AF 6.1; Family 6.1.2**
PROJECT DESCRIPTION	**Objectives:** The main objective of the project is to implement the datalink service defined by the Commission Regulation (EC) No 29/2009, which lays down requirements on data link services for the Single European Sky. More specific objectives are: – Data radio service infrastructure deployed. The establishment of a harmonized and fully tested communication infrastructure including the ATM system as well as the VHF Ground Stations (VGS) is critical to the project. Therefore, Austro Control (ACG) creates the necessary infrastructure by procuring and implementing the CPDLC Air-Ground system. – End to end acceptance test accomplished. To fulfill this objective, an end-to-end safety case is established. – Integration into the Next Generation Austrian Air Traffic Management System (NG-AATMS) completed. – CPDLC service set in operation. – Communication Service Provider SITA and ARINC connected in order to be able to provide the services to all airspace users. Most airlines have existing contracts for radio data services for the purpose of Airline Operations Communication (AOC), with one of the global Communication Service Providers (CSP) ARINC or SITA. – Therefore, ACG has to guarantee the connection to both service providers, ARINC and SITA. – Services of the Air Communication Service Provider (ACSP) ARINC/SITA procured.
PROJECT LEADER	Austro Control
MEMBER STATE	AUSTRIA
TIMING	01.01.2014 -30.11.2015
AIRBORNE	
INTERDEPENDENCIES	
SYNCHRONIZATION	With: Airspace Users, Airports, ANSPs
LINKS	AF 1/Sub-AF 1.1 AF 1/Sub-AF 1.2 AF 3/Sub-AF 3.1 AF 3/Sub-AF 3.2
NM LINKS	**NSP:** "direct links with • SO 8/3 (Modernise the CNS infrastructures, and adapt the associated procedures) • SO 4/1 (Modernise the local/FAB system capabilities including ATC planning functions and Controller tools procedures) " **NOP:** This project is addressed by NOP Annex 5 (ACC TRAFFIC FORECAST & CAPACITY PLANS) as the procedural measure for capacity enhancement in 2015.

Recommendation:

This project is considered as a Non Foundation IP.

There exists a risk that the technology used to support this project is not in line with the future results of the SJU study about DLS technology validation.

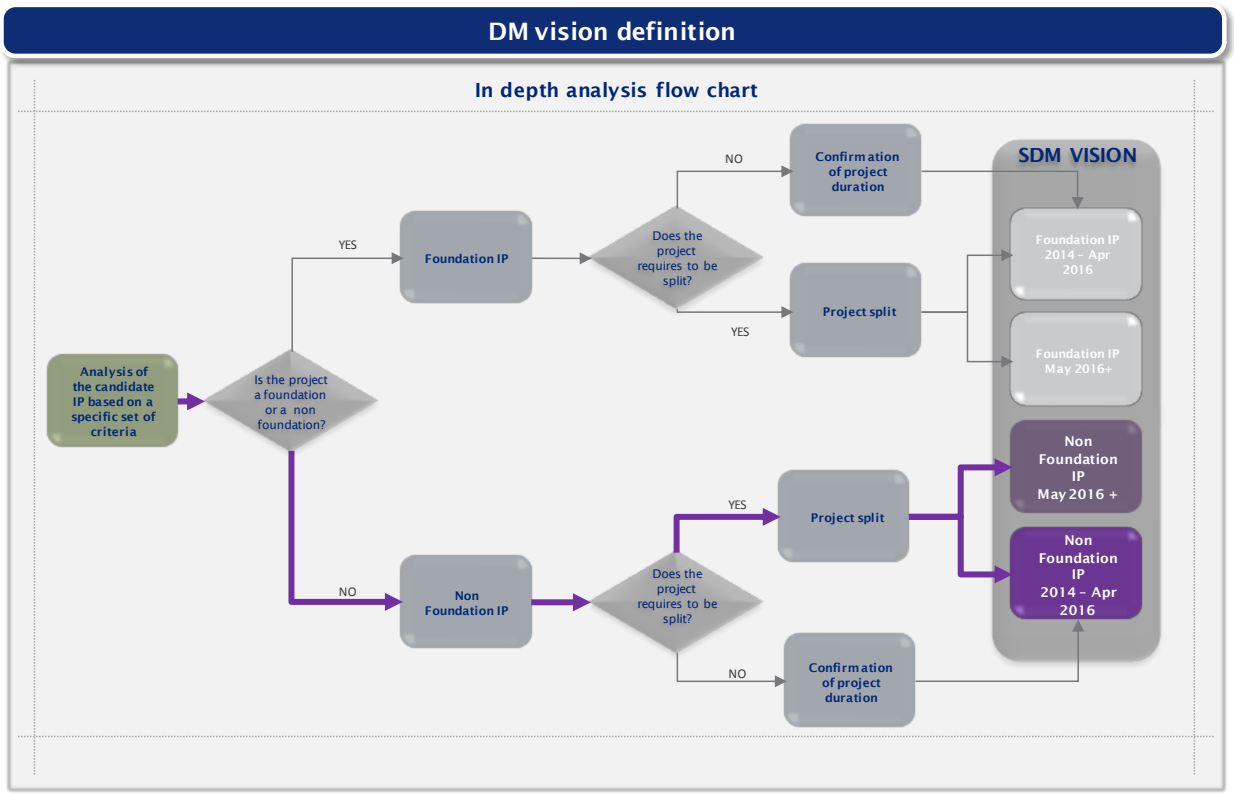


Content	Description
REFERENCE NUMBER	**038AF6**
TITLE	**CPDLC - Supply, installation and integration of AGDL system for CPDLC service in CCL**
MAIN AF / SUB AF / Family	**AF 6; Sub AF 6.1; Family 6.1.2**
PROJECT DESCRIPTION	**Objectives:** – Ensure that air-ground communications systems, flight data processing systems and human-machine interface systems providing service to general air traffic within the applicable airspace areas comply with the Regulation (EC) No 29/2009 – Organise personnel awareness and training – Ensure ground communication systems comply with air-ground communication requirements – Deploy communication infrastructure to handle air-ground data link services This project is expected to achieve the following ATM performance benefits: – SAFETY: Through the delivery of standard and unambiguous messages (entailing significant errorand fatigue reduction), the provision of a communications back up and the possibility of immediate message retrieval, data link communications are a major safety enhancement – CAPACITY: Increased capacity through both reduction of voice congestion and increase in controller efficiency. Capacity gain is expected from 3.4 % (if 25% of flights is equipped) up to 11% (if 75% of flights is equipped). – COST-EFFECTIVENESS: Data link is a cost-effective capacity increase enabler through sector productivity increase and delay cost savings. ANSPs savings are derived from staff cost avoidance. Aircraft operators will benefit of en-route cost savings and reduction of delays. – ENVIRONMENT: Not applicable
PROJECT LEADER	Croatia Control
MEMBER STATE	CROATIA
TIMING	01/05/2014 - 30/04/2017
AIRBORNE	
INTERDEPENDENCIES	
SYNCHRONIZATION	With Airspace Users, Airports, ANSPs
LINKS	AF 1/Sub-AF 1.1 AF 1/Sub-AF 1.2 AF 3/Sub-AF 3.1 AF 3/Sub-AF 3.2
NM LINKS	**NSP:** "direct links with • SO 8/3 (Modernise the CNS infrastructures, and adapt the associated procedures and) • SO 4/1 (Modernise the local/FAB system capabilities including ATC planning functions and Controller tools procedures) **NOP:** This project is addressed by NOP Annex 5 (ACC TRAFFIC FORECAST & CAPACITY PLANS) as the procedural measure for capacity enhancement in 2016;

Recommendation:

This project is considered as a Non Foundation IP.

There exists a risk that the technology used to support this project is not in line with the future results of the SJU study about DLS technology validation.



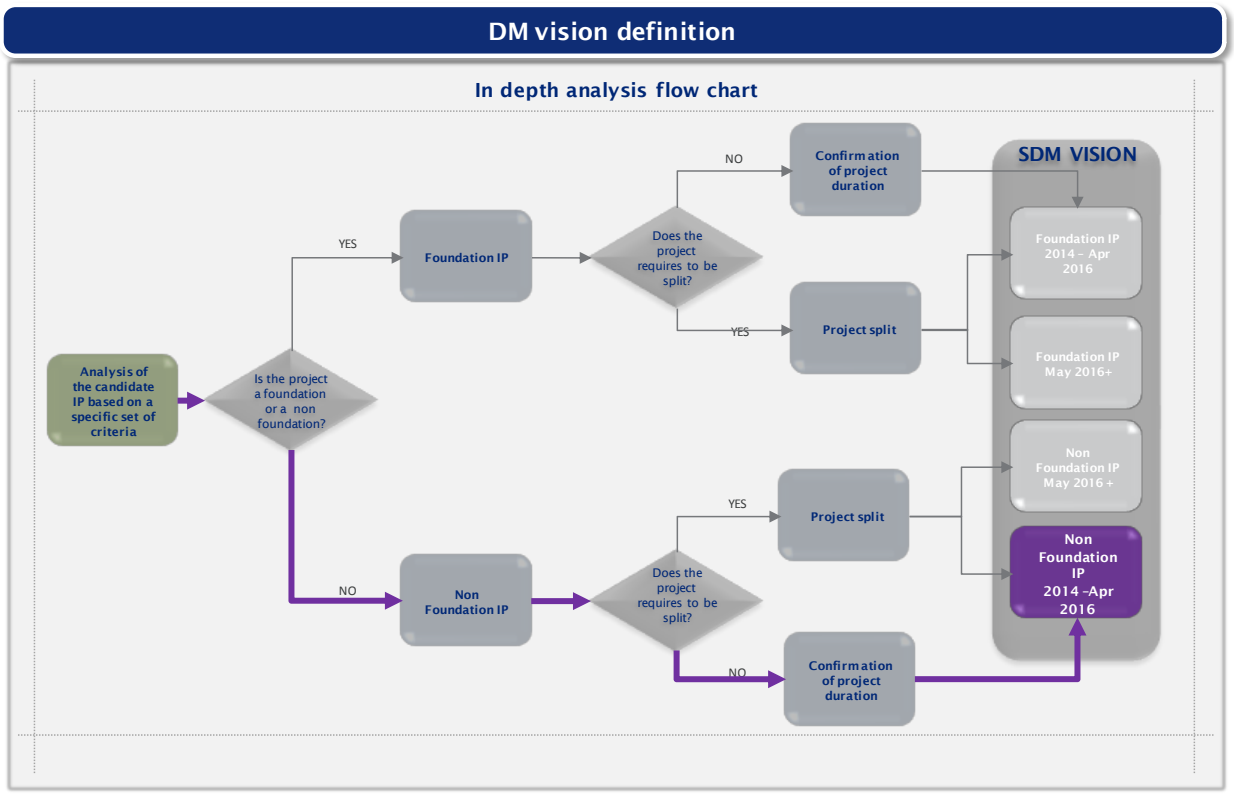
The project could be split in two phases. The first phase (May 2014-April 2016) has to be considered for the INEA call 2014. The second phase (May 2016-April 2017) needs to be part of the next INEA call in order to ensure continuity of the action within the Deployment Programme.

Content	Description
REFERENCE NUMBER	**105AF6**
TITLE	**Retrofit of Lufthansa Group Airbus A319 and A320 fleet for Controller Pilot Data Link Communications**
MAIN AF / SUB AF / Family	**AF 6; Sub AF 6.1; Family 6.1.2**
PROJECT DESCRIPTION	**Objectives:** Modification of Lufthansa Group Fleet with Controller Pilot Datalink Communications. The modification was planned to reach the due date 05.Feb.2015 with finalizing testing and finishing works until summer 2015. Due to high amount of work scope this modification has been done during scheduled base maintenance layovers as well as additional special-layovers where necessary.
PROJECT LEADER	Lufthansa
MEMBER STATE	GERMANY
TIMING	01/01/2014 – 31/08/ 2015
AIRBORNE	
INTERDEPENDENCIES	
SYNCHRONIZATION	With Airspace Users, Airports, ANSPs
LINKS	
NM LINKS	**NSP:** None; **NOP:** None;

Recommendation:

This project is considered as a Non Foundation IP.

There exists a risk that the technology used to support this project is not in line with the future results of the SJU study about DLS technology validation.



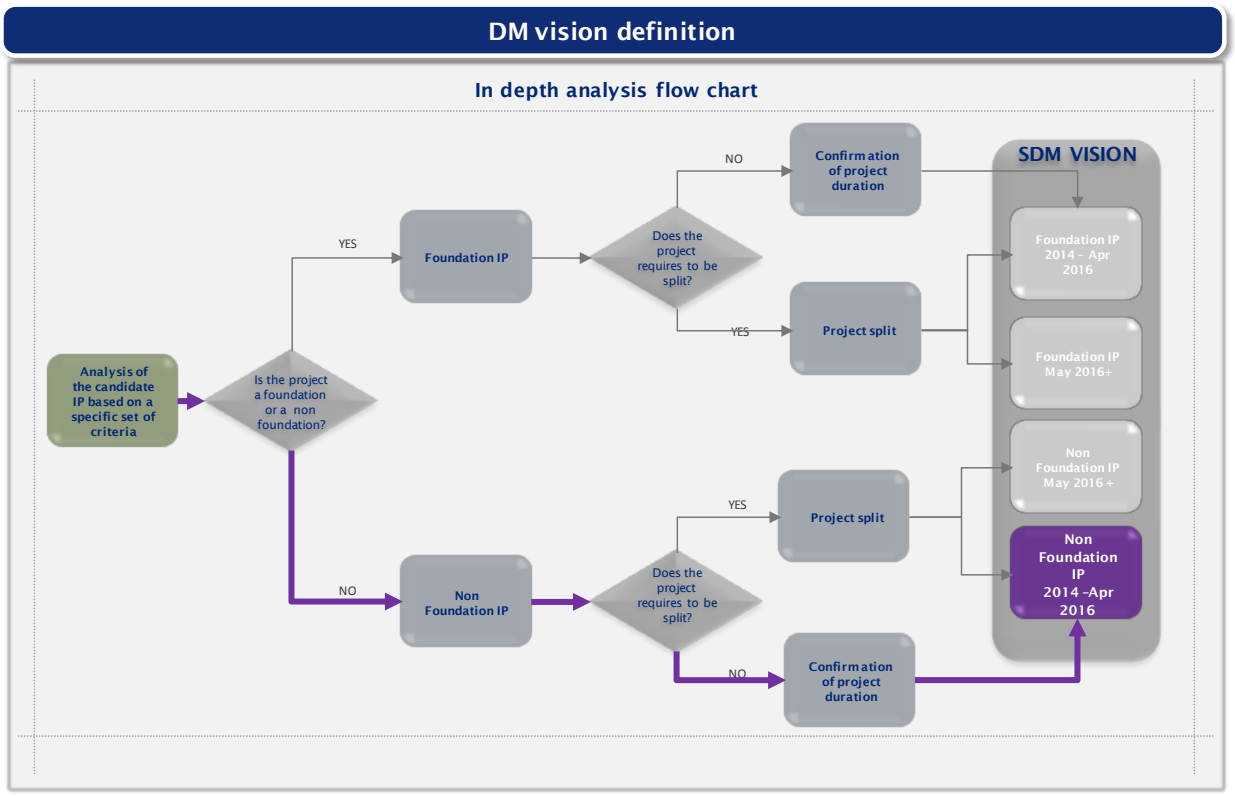
Content	Description
REFERENCE NUMBER	**128AF6**
TITLE	**NAVIAIR Implementation of Air-ground System Data Link Services**
MAIN AF / SUB AF / Family	**AF 6; Sub AF 6.1; Family 6.1.2**
PROJECT DESCRIPTION	**Objectives:** The Proposed Implementation Project implements the required infrastructure and ATM system functionality for controller-pilot data link communications via VDL-M2 in Danish FIR at FL285+, and lower in terminal areas. The solution ensures data link communications capability. Naviair will be directly connected to the SITA network, while the ARINC network is accessed through SITA. – Establish communications infrastructure for data link communications. – Implement CPDLC processing and messaging functions in the ATM system. – Prepare for other future data link applications including trajectory exchange. The Proposed Implementation Project is also concerned with the modification of the ATM system FDP processing to allow for initial trajectory exchanges as well as the use of the trajectory information to allow for enhanced profile calculations. The communications infrastructure is based on standard services from aeronautical communications service providers SITA and ARINC. The communications infrastructure will provide redundant connections to the SITA network, while dual ATN routers will be installed locally at Naviair. The communications infrastructure will be able to carry future ADS-C data and initial trajectory information exchange. CPDLC messaging functionality and processing is implemented in the COOPANS ATM system. The basic Link2000+ message set and requirements are implemented. Preparations for trajectory exchange and processing are made.
PROJECT LEADER	Naviair
MEMBER STATE	DENMARK
TIMING	01/01/2013 - 05/02/2015
AIRBORNE	
INTERDEPENDENCIES	
SYNCHRONIZATION	With Airspace Users, Airports, ANSPs
LINKS	AF 1/Sub-AF 1.1 AF 1/Sub-AF 1.2 AF 3/Sub-AF 3.1 AF 3/Sub-AF 3.2
NM LINKS	**NSP:** "direct links with • SO 8/3 (Modernise the CNS infrastructures, and adapt the associated procedures and) • SO 4/1 (Modernise the local/FAB system capabilities including ATC planning functions and Controller tools procedures) **NOP:** This project is addressed by NOP Annex 5 (ACC TRAFFIC

	FORECAST & CAPACITY PLANS) as the procedural measure for capacity enhancement in 2015. This project aims to deploy AGDL by February 2015,in line with NOP schedule;

Recommendation:

This project is considered as a Non Foundation IP.

There exists a risk that the technology used to support this project is not in line with the future results of the SJU study about DLS technology validation.



Annex B – Standardization and Regulation Matrices

The matrixes from the following pages show for each Sub – ATM Functionality the status of development (V3), the related OI steps, as well as the status of the industrialisation phase (V4) and the related standardisation and regulation activities. Furthermore, for each AF Family, the deployment dates as included in DP v1 are reported.

The sources of information used are the following:

- Regulation EC No 716/2014 "Establishment of the Pilot Common Project supporting the implementation of the European ATM Master Plan" and its annexed roadmap, available at http:// ec.europa.eu/transport/modes/air/sesar/doc/ec-716-2014_article4b_standardisatregulatroadmap.pdf
- SJU IRMP (Integrated Roadmap) Dataset #14
- the standardisation and regulatory roadmap by the European ATM Standardisation Coordination Group (EASCG) that is led by EUROCAE. The latest available update is from 23 April 2015.

AF1: Extended AMAN and PBN in high density TMA

		V3: Development Phase		V4: Industrialisation Phase									V5: Deployment Phase	
DP v1 Sub-ATM Functionality	DP v1 Family	V3 (R&D) End	OIs	Standardisation			Means of compliance and Certification or Community Specifications			Regulation			Deployment	
				Activities	Organisation	Delivery	Activities	Organisation	Delivery	Activities	Organisation	Delivery	IOC	FOC
1.1 Arrival Management extended to en-route Airspace		31/12/2015	TS-0305-A	There is no prerequisite. Industry may decide to develop a standard later to optimise benefits.									Before 2014	1/2024
	1.1.1 Basic AMAN		TS-0102 (Baseline)										Before 2014	1/2020
	1.1.2 AMAN Upgrade to include Extended Horizon Function	31/12/2015	TS-0305 TS-0305-A										1/2015	1/2024
1.2 Enhanced TMA using RNP-Based Operations		31/12/2016	AOM-0603 AOM-0605	ICAO PBN Manual (Doc 9613)	ICAO	Available	(1) Revision of operational approval criteria for Performance-Based Navigation (PBN) RMT.0256/0257 (2) Technical requirement and operation procedures for Airspace design including procedure design (RMT.0445) (3) EASA AMC 20-27 (Airworthiness Approval and Operational Criteria for RNP	(1) EASA (2) EASA (3) EASA (4) EASA	(1) 2015 (2) 2016 (3) Effective (4) 2016	(1) Opinion 03/2015 (EASA regulatory material on PBN incorporating Doc 9613: Commission Regulation Nº XX amending Commission Regulation (EU) Nos 1178/2011 and 965/2012 as regards operational approval of PBN) (2) Technical requirement and operation procedures for Airspace design including procedure design (RMT.0445)	(1) EASA (2) EASA	(1) 2015 (2) 2016	Before 2014	1/2024

		V3: Development Phase		V4: Industrialisation Phase									V5: Deployment Phase	
DP v1 Sub-ATM Functionality	DP v1 Family	V3 (R&D) End	OIs	Standardisation			Means of compliance and Certification or Community Specifications			Regulation			Deployment	
				Activities	Organisation	Delivery	Activities	Organisation	Delivery	Activities	Organisation	Delivery	IOC	FOC
							APPROACH (RNP APCH) Operations Including APV BAROVNAV Operations). EASA AMC 20-28 (Airworthiness Approval and Operational Criteria related to Area Navigation for Global Navigation Satellite System approach operation to Localiser Performance with Vertical guidance minima using Satellite Based Augmentation System). (4) Provision of requirements in support of global PBN operations RMT.0519							
	1.2.1 RNP approaches with vertical guidance	31/12/2016	AOM-0605 AOM-0602 (Baseline) AOM-0604 (Baseline)				(1) Technical requirement and operation procedures for Airspace design including procedure design (RMT.0445) PBN Implementing rule (NPA 2015-01)	(1) (2) EASA	(1) (2) 2016	(1)Technical requirement and operation procedures for Airspace design including procedure design (RMT.0445) (2) PBN Implementing rule	EASA	2016	Before 2014	1/2019

		V3: Development Phase		V4: Industrialisation Phase									V5: Deployment Phase	
DP v1 Sub-ATM Functionality	DP v1 Family	V3 (R&D) End	OIs	Standardisation			Means of compliance and Certification or Community Specifications			Regulation			Deployment	
				Activities	Organisation	Delivery	Activities	Organisation	Delivery	Activities	Organisation	Delivery	IOC	FOC
							(2) Provision of requirements in support of global PBN operations RMT.0519			(NPA 2015-01)				
	1.2.2 Geographical Database for procedure design			EUROCAE ED-76/RTCA DO-200A - Standards for Processing Aeronautical Data (October 1998)	EUROCAE	available	Technical requirements and operational procedures for the provision of data for airspace users for the purpose of air navigation RMT.0593	EASA	2015	Opinion 02/2015, Technical requirements and operating procedures for the provision of data to airspace users for the purpose of air navigation	EASA	2015	1/2014	1/2019
	1.2.3 RNP1 operations in high density TMAs (ground capabilities)	31.12.2016	AOM-0605 AOM-0603 AOM-0602 (baseline) AOM-0601 (baseline)				PBN Implementing rule (NPA 2015-01)	EASA	2016	PBN Implementing rule (NPA 2015-01)	EASA	2016	1/2015	1/2024
	1.2.4 RNP1 operations in high density TMAs (aircraft capabilities)	31.12.2016	AOM-0603 AOM-0605				(1)PBN Implementing rule (NPA 2015-01). (2) Provision of requirements in support of global PBN operations RMT.0519	(1)EASA (2)EASA	(1) 2016 (2) 2016	PBN Implementing rule (NPA 2015-01)	EASA	2016	1/2015	1/2024

		V3: Development Phase		V4: Industrialisation Phase									V5: Deployment Phase	
DP v1 Sub-ATM Functionality	DP v1 Family	V3 (R&D) End	OIs	Standardisation			Means of compliance and Certification or Community Specifications			Regulation			Deployment	
				Activities	Organisation	Delivery	Activities	Organisation	Delivery	Activities	Organisation	Delivery	IOC	FOC
	1.2.5 Implement Advanced RNP Routes below FL 310		AOM-0604 (baseline) AOM-0603				(1) PBN Implementing rule (NPA 2015-01)	(1) EASA	(1) 2016	(1) PBN Implementing rule (NPA 2015-01)	(1) EASA	(1) 2016	1/2019	1/2024

AF2: Airport Integration and Throughput

		V3: Development Phase		V4: Industrialisation Phase									V5: Deployment Phase	
DP v1 Sub-ATM Functionality	DP v1 Family	V3 (R&D) End	OIs	Standardisation			Means of compliance and Certification or Community Specifications			Regulation			Deployment	
				Activities	Organisation	Delivery	Activities	Organisation	Delivery	Activities	Organisation	Delivery	IOC	FOC
2.1 DMAN synchronized with Pre-departure sequencing		Available	TS-0202 AO-0501, AO-0601 and AO-0602 (Baseline)	1) ED-141 Minimum Technical Specification for the Airport Collaborative Decision Making (Airport-CDM) ED-145 Airport-CDM Interface Specification 2) Airport CDM Implementation Manual Version 4 3) ICAO Doc 9971AN/485: Manual con Collaborative Decision-Making (CDM)	1) Eurocae 2) Eurocontrol 3) ICAO	1)2008 2) 2012 3) 2014	EN 303 212 V1.1.1	ETSI	2010				Before 2014	1/2021
	2.1.1 Initial DMAN	Available	TS-0202 AO-0602 (baseline)										Before 2014	1/2021
	2.1.2 Electronic Flight Strips (EFS)	Available											Before 2014	1/2021
	2.1.3 Basic A-CDM	Available	AO-0501, AO-0601 and AO-0602	Airport CDM Implementation Manual Version 4	Eurocontrol	2012	A-CDM CS	Eurocontrol	2019				Before 2014	1/2021

		V3: Development Phase		V4: Industrialisation Phase									V5: Deployment Phase	
DP v1 Sub-ATM Functionality	DP v1 Family	V3 (R&D) End	OIs	Standardisation			Means of compliance and Certification or Community Specifications			Regulation			Deployment	
				Activities	Organisation	Delivery	Activities	Organisation	Delivery	Activities	Organisation	Delivery	IOC	FOC
			(Baseline)											
	2.1.4 Initial Airport Operational Plan (AOP)	30/06/2016	AO-0801-A										Before 2014	1/2021
2.2 DMAN integrating Surface Management Constraints		30/06/2016	TS-0202 TS-0203 AO-0205	1) update of EUROCAE A-SMGCS MASPS (ED-87C)	(1)Eurocae	1) recently published	update of the A-SMGCS CS on the basis of the EUROCAE A-SMGCS MASPS	EUROCAE	2016				Before 2014	1/2021
				2)Update of ED-87C towards ver sion D.	2)Eurocae	2) 2017								
				3) Updated A-SMGCS EUROCONTROL Specification 4) ICAO Doc. 9830 AN/452, Advanced Movement Guidance and Control Systems (ASMGCS) Manual, First Edition	3) Eurocontrol 4) ICAO	3)2018 4)2004	Update EN 303213	ETSI	2019					
	2.2.1 A-SMGCS Level 1 and 2	30/06/2016	TS-0202 AO-0205	1) Updated Eurocae specifications on A-SMGCS levels 1 & 2 and extended	1) Eurocae	1) 2016	1) A-SMGCS CS 2) Update EN 303213	1) EUROCAE 2) ETSI	1) 2020 2) 2019				Before 2014	1/2021
2.3 Time-Based Separation for		Available	AO-0303	TBS tools Performance Specifications	Eurocontrol	Estimate 2016							1/2015	1/2024

		V3: Development Phase		V4: Industrialisation Phase									V5: Deployment Phase	
DP v1 Sub-ATM Functionality	DP v1 Family	V3 (R&D) End	OIs	Standardisation			Means of compliance and Certification or Community Specifications			Regulation			Deployment	
				Activities	Organisation	Delivery	Activities	Organisation	Delivery	Activities	Organisation	Delivery	IOC	FOC
Final Approach														
	2.3.1 Time Based Separation (TBS)	Available	AO-0303										1/2015	1/2024
2.4 Automated Assistance to Controller for Surface Movement Planning and Routing		30/06/2016	AO-0205	1) Update of EUROCAE A-SMGCS MASPS (ED-87C) 2)Update of ED-87C towards version D. 3) Updated A-SMGCS EUROCONTROL Specification	(1)Eurocae 2)Eurocae 3) Eurocontrol	1) recently published 2) 2017 3) 2018	Update of the A-SMGCS CS on the basis of the EUROCAE A-SMGCS MASPS	EUROCAE	2016				1/2016	1/2024
	2.4.1 A-SMGCS Routing and Planning Functions	30/06/2016	AO-0205	2)Update of ED-87C towards ver sion D.	2)Eurocae	2) 2017							1/2016	1/2024

		V3: Development Phase		V4: Industrialisation Phase									V5: Deployment Phase	
DP v1 Sub-ATM Functionality	DP v1 Family	V3 (R&D) End	OIs	Standardisation			Means of compliance and Certification or Community Specifications			Regulation			Deployment	
				Activities	Organisation	Delivery	Activities	Organisation	Delivery	Activities	Organisation	Delivery	IOC	FOC
2.5 Airport Safety Nets		30/06/2016	AO-0104-A	1)Update of EUROCAE A-SMGCS MASPS (ED-87C) 2) Updated A-SMGCS EUROCONTROL Specification	1)Eurocae 2) Eurocontrol	1) recently published 2)2018	Update of the A-SMGCS CS on the basis of the EUROCAE A-SMGCS MASP	Eurocae	2016				Before 2014	1/2021
	2.5.1 Airport Safety Net associated with A-SMGCS (level 2)	30/06/2016 Step1	AO-0104-A AO-0204 AO-0105	Update of ED-87C towards version D.	Eurocae	2017							Before 2014	1/2021
	2.5.2 Implement aircraft and vehicle systems contributing to Airport safety nets	Step 1	AO-0204 AO-0105										Before 2014	1/2021

AF3: Flexible Airspace Management and Free Route

		V3: Development Phase		V4: Industrialisation Phase									V5: Deployment Phase	
DP v1 Sub-ATM Functionality	DP v1 Family	V3 (R&D) End	OIs	Standardisation			Means of compliance and Certification or Community Specifications			Regulation			Deployment	
				Activities	Organisation	Delivery	Activities	Organisation	Delivery	Activities	Organisation	Delivery	IOC	FOC
3.1 ASM and Advanced FUA		30/06/2016	AOM-0202-A AOM-0206-A CM-0102-A										Before 2014	1/2022
	3.1.1 (Initial) ASM tool to support AFUA	30/06/2016	AOM-0202 (Baseline)	Definition of standard minimum local ASM support system requirements	Eurocontrol	Estimate 2015	Eurocontrol Specifications for the application of the Flexible Use of Airspace (FUA)	Eurocontrol	2009	1) EU IR 2150/2005, 2) EU IR 677/2011 as last amended by 970/2014	1) EC 2) EC	1) 2005 2) 2011	Before 2014	1/2019
	3.1.2 ASM management of real time data	30/06/2016	AOM-0202-A	(1)Standard minimum local ASM support system requirements (2)SWIM compliance	(1)Eurocontrol	(1)2016 (2)Expected 2016	1) Eurocontrol Specifications for the application of the Flexible Use of Airspace (FUA) (2)Profiles ISRM doc	1) Eurocontrol (2)SESAR	1) 2009 2) 2016	1) EU IR 2150/2005, 2) EU IR 677/2011 as last amended by 970/2014	1) EC 2) EC	1) 2005 2) 2011	1/2017	1/2022
	3.1.3 Full rolling ASM/ATFCM process and ASM Information sharing	30/06/2016	AOM-0206-A AOM-0202-A				Eurocontrol Specifications for the application of the Flexible Use of Airspace (FUA)	Eurocontrol	2009	1) EU IR 2150/2005, 2) EU IR 677/2011 as last amended by 970/2014	1) EC 2) EC	1) 2005 2) 2011	Before 2014	1/2022

		V3: Development Phase		V4: Industrialisation Phase									V5: Deployment Phase	
DP v1 Sub-ATM Functionality	DP v1 Family	V3 (R&D) End	OIs	Standardisation			Means of compliance and Certification or Community Specifications			Regulation			Deployment	
				Activities	Organisation	Delivery	Activities	Organisation	Delivery	Activities	Organisation	Delivery	IOC	FOC
	3.1.4 Management of Dynamic Airspace Configuration	31/12/2013	CM-0102-A										1/2017	1/2022
3.2 Free Route		30/06/2016	AOM-0500 AOM-0501 AOM-0502 (No date, in V2. Probably 2017) CM-0202 (baseline) CM-0203 (baseline) CM-0102-A	No specific need identified.			Update of EUROCONTROL specifications "MTCD"	Eurocontrol	2017				Before 2014	1/2022
	3.2.1 Upgrade ATM systems (NM, ANSPs, AUs) to support Direct Routings (DCTs) and Free Routing Airspace		CM-0202 (baseline) CM-0203 (baseline)	Harmonised & improved OAT FPL	Eurocontrol		(1)Update of EUROCONTROL specifications "MTCD" (2)Spec-0106 Eurocontrol Specification for On-Line Data Interchange (OLDI) edition 4.2	(1)Eurocontrol (2)Eurocontrol	(1)2017 (2) 2010				Before 2014	1/2022
	3.2.3 Implement Direct Routings (DCTs)	30/06/2016	AOM-0500							1) EU IR 2150/2005, 2) EU IR 677/2011 as last amended by 970/2014	1) EC 2) EC	1) 2005 2) 2011	Before 2014	1/2018

		V3: Development Phase		V4: Industrialisation Phase									V5: Deployment Phase	
DP v1 Sub-ATM Functionality	DP v1 Family	V3 (R&D) End	OIs	Standardisation			Means of compliance and Certification or Community Specifications			Regulation			Deployment	
				Activities	Organisation	Delivery	Activities	Organisation	Delivery	Activities	Organisation	Delivery	IOC	FOC
	3.2.4 Implement Free Route Airspace	30/06/2016	AOM-0502 (V2 at the end of SESAR 1, probably 2017) AOM-0501										Before 2014	1/2022

AF4: Network Collaborative Management

		V3: Development Phase		V4: Industrialisation Phase									V5: Deployment Phase	
DP v1 Sub-ATM Functionality	DP v1 Family	V3 (R&D) End	OIs	Standardisation			Means of compliance and Certification or Community Specifications			Regulation			Deployment	
				Activities	Organisation	Delivery	Activities	Organisation	Delivery	Activities	Organisation	Delivery	IOC	FOC
4.1 Enhanced STAM		30/6/2016	DCB-0308 DCB-0205 (baseline)	No specific need identified.									Before 2014	1/2022
	4.1.1 STAM phase 1	Already available	DCB-0205 (baseline)										Before 2014	1/2017
	4.1.2 STAM phase 2	30/06/2016	DCB-0308										1/2017	1/2022
4.2 Collaborative NOP		30/06/2016	DCB-0208 DCB-0103-A AUO-0203-A	No specific need identified.			No specific need identified.			No specific need identified.			Before 2014	1/2022
	4.2.2 Interactive Rolling NOP	30/06/2016	DCB-0103-A										Before 2014	1/2022
	4.2.3 Interface ATM systems to NM Systems	30/06/2016	IS-0102 (Baseline, already mature) AUO-0203-A				Spec-0101 Edition 1.1 EUROCONTROL Specification for the Initial Flight Plan	Eurocontrol					Before 2014	1/2022
	4.2.4 AOP/NOP Information Sharing	30/06/2016	DCB-0103-A AO-0801 –B										Before 2014	1/2022

		V3: Development Phase		V4: Industrialisation Phase									V5: Deployment Phase	
DP v1 Sub-ATM Functionality	DP v1 Family	V3 (R&D) End	OIs	Standardisation			Means of compliance and Certification or Community Specifications			Regulation			Deployment	
				Activities	Organisation	Delivery	Activities	Organisation	Delivery	Activities	Organisation	Delivery	IOC	FOC
			(Partially, scope of the initial AOP needs to be clarified)											
4.3 Calculated Take-off Time to Target Times for ATFCM Purposes		30/06/2016	DCB-0208	No specific need identified.									1/2017	1/2022
	4.3.1 Target times for ATFCM purposes	30/06/2016	DCB-0208										1/2017	1/2022
	4.3.2 Reconciled target times for ATFCM and arrival sequencing	30/06/2016	DCB-0208										1/2019	1/2022
4.4 Automated Support for Traffic Complexity Assessment		30/06/2016	CM-0103-A AUO-0203-A CM-0201-A	No specific need identified.									Before 2014	1/2022
	4.4.2 Traffic Complexity tools	30/06/2016	CM-0103-A				No specific need identified.			No specific need identified.			Before 2014	1/2022

AF5: iSWIM

		V3: Development Phase		V4: Industrialisation Phase									V5: Deployment Phase	
DP v1 Sub-ATM Functionality	DP v1 Family	V3 (R&D) End	OIs	Standardisation			Means of compliance and Certification or Community Specifications			Regulation			Deployment	
				Activities	Organisation	Delivery	Activities	Organisation	Delivery	Activities	Organisation	Delivery	IOC	FOC
5.1 Common infrastructure components		30/06/2016	IS-0901-A	1) SWIM Foundation material a) Stand/Spec on AIRM b) Stand/Spec on AIRM Rulebook c) Stand/Spec on Service Rulebook d) Stand/Spec on SWIM Registry 2) SWIM security: no prerequisite PCP results might be used to elaborate SWIM Security standards at later stage. Nevertheless, it is strongly advisable to elaborate: - Technical Report on Security requirements for Flight Object services - Technical report on Security requirements for Meteo services	1) Eurocontrol 2) ESO (CEN)	1) 2016 2) Not planned (Estimated 2015/2016)							Before 2014	1/2025
	5.1.1 PENS1	Already available		No standardisation need									Before 2014	6/2018
	5.1.2 Future PENS	30/06/2016	IS-0901-A	No standardisation need									1/2017	1/2025
	5.1.3 Common SWIM Infrastructure Components	30/06/2016	IS-0901-A	Standardisation needs on SWIM Registry content (AIRM, ISRM, compliance, Security, …) Relationship with ICAO									6/2016	1/2025

		V3: Development Phase		V4: Industrialisation Phase									V5: Deployment Phase	
DP v1 Sub-ATM Functionality	DP v1 Family	V3 (R&D) End	OIs	Standardisation			Means of compliance and Certification or Community Specifications			Regulation			Deployment	
				Activities	Organisation	Delivery	Activities	Organisation	Delivery	Activities	Organisation	Delivery	IOC	FOC
5.2 SWIM Infrastructure and profiles		30/06/2016	IS-0901-A	Stand/Spec on SWIM profile definition	Eurocontrol	2015							Before 2014	1/2025
	5.2.1 Stakeholder Internet Protocol Compliance	30/06/2016	IS-0901-A CM-0201-A										Before 2014	1/2016
	5.2.2 Stakeholder SWIM infrastructure components	30/06/2016	IS-0901-A										Before 2014	1/2025
5.3 Aeronautical Information Exchange		30/06/2016	IS-0901-A	No specific need identified						1)Opinion 02/2015 (“Technical requirements and operating procedures for the provision of data to AUs for the purpose of air navigation”)	1)EASA	2015	1/2017	1/2025
	5.3.1 Upgrade / Implement Aeronautical Information Exchange system/service	30/06/2016	IS-0901-A										1/2017	1/2022
5.4 Meteorological Information Exchange		30/06/2016	MET-0101	Standard for ground sharing of Weather Data (WXXM)	Eurocontrol	2014							1/2017	1/2025
	5.4.1 Upgrade/ Implement Meteorological Information Exchange system / service	30/06/2016	MET-0101										1/2017	1/2025

		V3: Development Phase		V4: Industrialisation Phase									V5: Deployment Phase	
DP v1 Sub-ATM Functionality	DP v1 Family	V3 (R&D) End	OIs	Standardisation			Means of compliance and Certification or Community Specifications			Regulation			Deployment	
				Activities	Organisation	Delivery	Activities	Organisation	Delivery	Activities	Organisation	Delivery	IOC	FOC
5.5 Cooperative Network Information Exchange		30/06/2016	IS-0901-A	Spec/Stand containing ICAO FIXM including flow management	Eurocontrol	2016							Before 2014	1/2025
	5,5,1 Upgrade/ Implement Cooperative Network Information Exchange system/service	30/06/2016	IS-0901-A										Before 2014	1/2025
5.6 Flight Information Exchange		30/06/2016	IS-0901-A CM-0201-A	1) Spec/Stand containing ICAO FIXM including Flight Object related services payload 2) ED133RevA:: 2.a) Rev A-Draft1 Baseline 2.b) Rev A-Draft2 Baseline	1) Eurocontrol 2) EUROCAE	1) 2015 2) 2017 2.a) 2015 2.b) 2016	1) Flight Object CS based upon ED-133A 2) CEN EN on security matters	1) Eurocae 2) CEN	1) 2019 2)2017				Before 2014	1/2025
	5.6.1 Upgrade / Implement Flights Information Exchange system /service	30/06/2016	IS-0901-A CM-0201-A										Before 2014	1/2025

AF6: Initial Trajectory Information Sharing

		V3: Development Phase		V4: Industrialisation Phase									V5: Deployment Phase	
DP v1 Sub-ATM Functionality	DP v1 Family	V3 (R&D) End	OIs	Standardisation			Means of compliance and Certification or Community Specifications			Regulation			Deployment	
				Activities	Organisation	Delivery	Activities	Organisation	Delivery	Activities	Organisation	Delivery	IOC	FOC
6.1 Initial trajectory information sharing		30/06/2016	IS-0303-A AUO-0301 (baseline) AUO-0203-A										Before 2014	1/2026
	6.1.1 FDP upgrade in preparation of integration of aircraft flight data prediction	30/06/2016	IS-0303-A	1)Update standards on CPDLC to support implementation of full trajectory exchange service including CPDLC elements in support of ADS-C EPP. 2) PCP results might be used to update ICAO Doc 9880, Doc 9776, ICAO GOLD and PANS/ATM 3) In order to optimise the expected benefits and ensure harmonisation, it could be considered a certain level of standardisation of procedures for ground system interrelation	1)EUROCAE 2 ICAO 3) EUROCAE		‘						1/2020	1/2025
	6.1.2 AG Datalink deployment for Air and Ground communication		AUO-0301 (baseline)	Standard on DL ATN B2	ICAO / ESO / EUROCAE	2014	Update CS on DL (ETSI-EN-303-214)	ESOs	Not planned	DLS IR Regulatory package is likely to be updated because of identified problems in present implementation.	EC / EASA ,	2018	Before 2014	1/2020
	6.1.3 Air Ground Communication Service Upgrade												1/2020	1/2025

		V3: Development Phase		V4: Industrialisation Phase									V5: Deployment Phase	
DP v1 Sub-ATM Functionality	DP v1 Family	V3 (R&D) End	OIs	Standardisation			Means of compliance and Certification or Community Specifications			Regulation			Deployment	
				Activities	Organisation	Delivery	Activities	Organisation	Delivery	Activities	Organisation	Delivery	IOC	FOC
	6.1.4 Aircraft Equipage in preparation of exchange of aircraft flight data prediction	30/06/2016	IS-0303-A ADS-C EPP information derived from on-board FMS and CPDLC information will be transferred over A/G datalink to ATC systems on ground	Today definition of ADS-C aircraft equipage is not convenient for Continental Europe 1) Update of ED75 to support initial 4D navigation capabilities as part of the package with EPP 2) Update standards on CPDLC to support implementation of full trajectory exchange service including CPDLC elements in support of ADS-C EPP. 3) PCP results might be used to update ICAO Doc 9880, Doc 9776, ICAO GOLD and PANS/ATM	ICAO 1) EUROCAE 2) EUROCAE 3) ICAO									1/2020	1/2026

Annex C – PDP v1 Chapter 2.1 – Ensuring PCP's foundations

Identification of PCP's foundations results from a dedicated methodology through which SDM has further analysed the 110 implementation projects submitted to INEA with the objective to highlight projects (or part of projects) that SDM, in the light of its ATM expertise and industrial know-how, considers as the foundations of timely PCP implementation.
The following sections explain step by step the methodology applied. For the sake of completeness, fairness and end to end transparency, the methodology explained below re-incorporate the earliest steps achieved by SDM prior to 2014 CEF Transport calls for proposals deadline.

2.1.1 Methodology overview

SDM methodology has been based on two parallel macro-phases, as the picture below represents:

1. The macro-phase on the top of the picture built on the two rounds of analysis ("High level" and "In depth") performed on the candidate Implementation Projects (IPs) submitted to 2014 CEF Transport calls for proposals by the operational stakeholders

2. The macro-phase at the bottom of the picture built on the inputs resulting from Interim Deployment Steering Group (IDSG) monitoring activities, with the aim to identify the gaps in PDP v0 and accordingly improve PDP v1 FT technical content descriptions

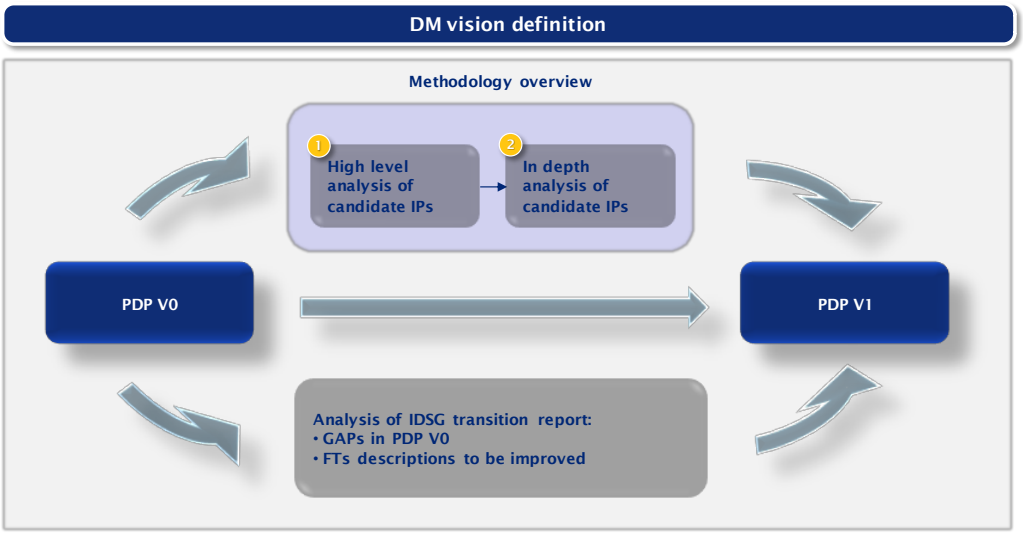
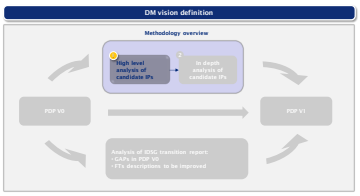


Figure 1 Methodology overview

2.1.2 High level analysis of candidate IPs



By the end of January (specifically, on January 26th), through a bid management transversal support, **SDM had received 143 candidate implementation projects (IPs)** and undertook a **three step assessment process**:

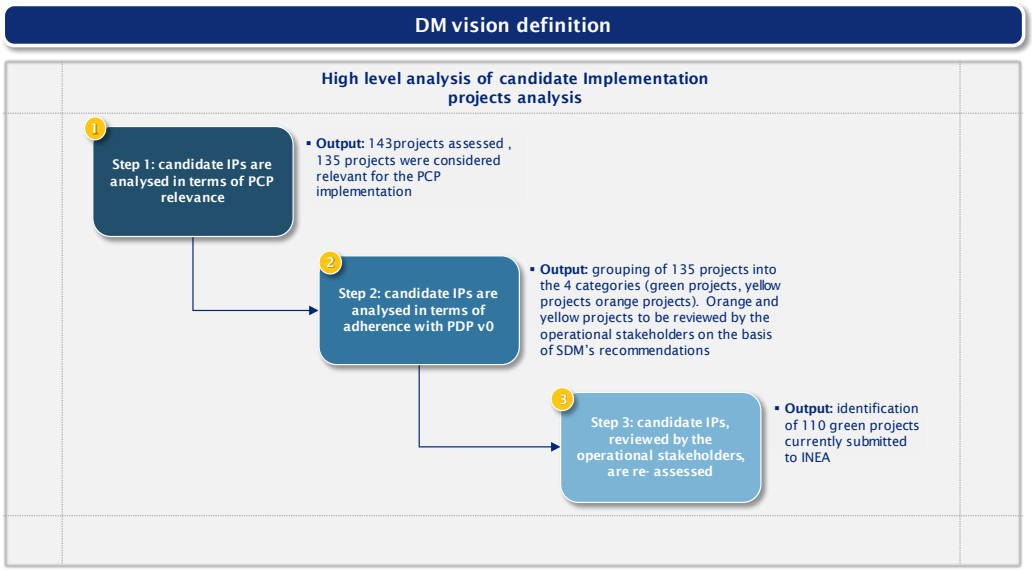


Figure 2 - High level analysis of IPs

The first step of the high level analysis was aimed at filtering out those projects not related to the Pilot Common Project. Of the assessed 143 projects, 135 projects were considered relevant for the PCP implementation, thus proceeding to the next step of the analysis. It is worth noting that those projects deemed outside PCP were however suggested to be submitted under category B [1] of the 2014 CEF Transport calls for proposals, although outside of the SDM's coordination.

The second step of the high level analysis was aimed at verifying whether all PCP implementation-related projects would feature a relevant adherence with the PDP v0 and its families of fast-tracks. The assessment resulted in the identification of the following three categories:

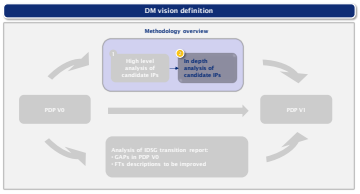
- green: projects "good to go" as currently described;
- yellow: projects "good to go" as currently described contents wise. However, time wise, SDM recommended clearer phasing of the activities and associated budget for easier later INEA's evaluation in the case budget limitations does not allow for full award;

[1] Category B: other projects contributing to the implementation of the Single European Sky (SES) by addressing, in particular through the deployment of new technologies and best practices, the inefficiencies in the provision of air navigation services and the fragmentation of the European ATM system.
http://inea.ec.europa.eu/download/calls2014/cef_transport/calltexts/_map_funding-objective-3_annex-1_sesar.pdf

- orange: projects with high potential to be turned green, at least partially, but that still required some adaptation or clarification.

The operational stakeholders were therefore invited to review both yellow and orange projects, taking into account SDM recommendations.

The third and final step of analysis implied SDM experts' re-assessment of yellow and orange projects after operational stakeholders' review, which resulted in the identification of 110 "green" implementation projects currently submitted to INEA[2].



2.1.3 In depth analysis of candidate IPs

Nevertheless, when starting developing PDPv1, a more detailed assessment based on a set of criteria jointly defined by SDM experts was deemed necessary to study the implementation initiatives proposed, in order to elaborate a strategic vision aimed at further securing smooth and timely DP execution.
Accordingly, SDM experts conducted an **in depth analysis of the candidate IPs**, structured according to the here below reported flow chart:

[2] It is to be noted that the number of IPs templates in Annex A takes into account ENAIRE's splitting of IPs 057AF2 and 058AF2, as submitted to INEA.

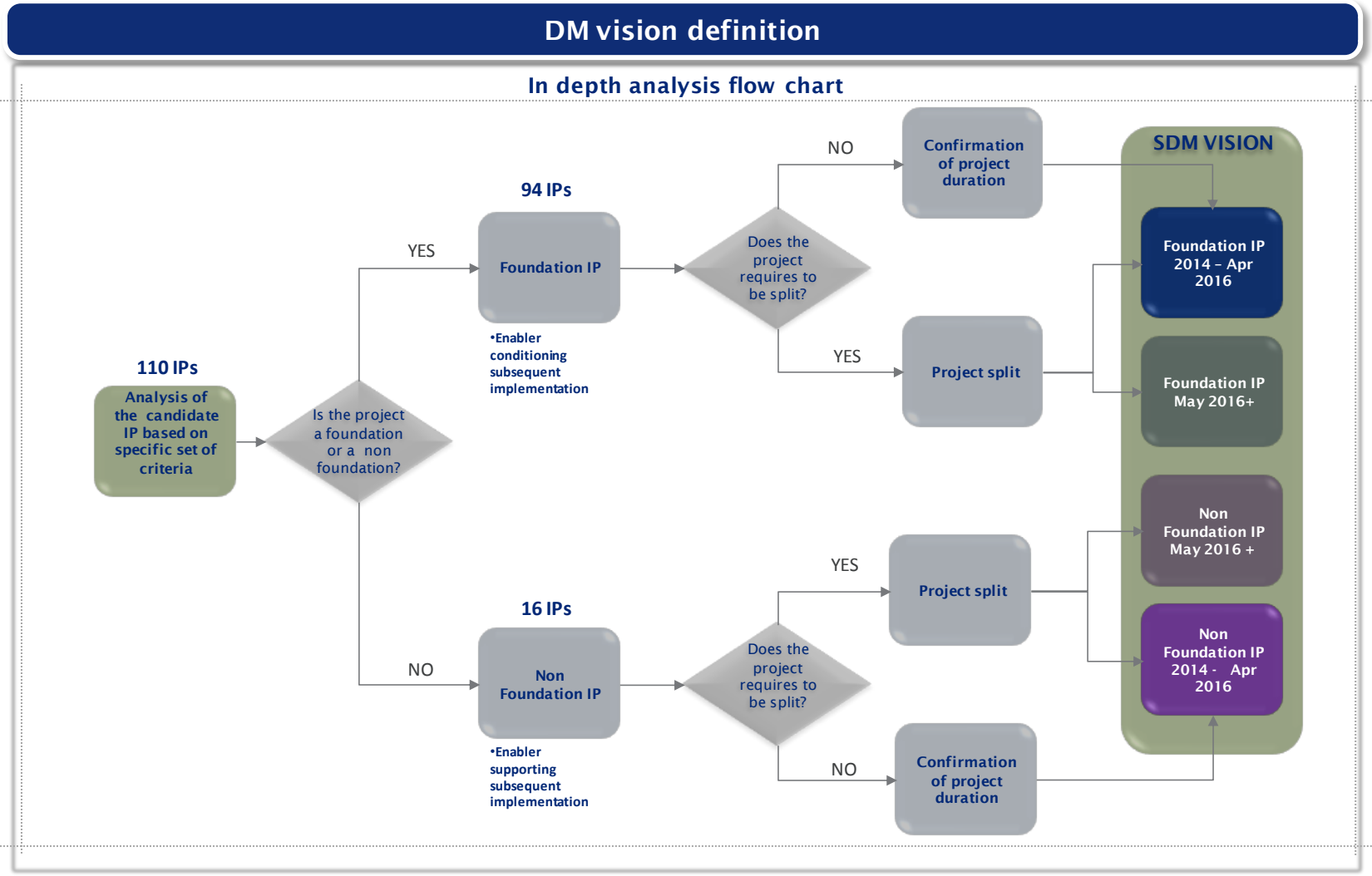


Figure 3: Flow chart

Each activity outlined in the previous flow chart is described hereafter.

Analysis of 110 candidate IPs

Starting from the 110 green projects resulting from the previous analysis, SDM experts further explored each implementation initiative, focusing on the following set of criteria:

- Synchronization needs, expressed in the implementation projects description;
- Interdependencies with other ATM Functionalities (AF), Sub-AFs and Fast Tracks (FT);
- Links with other implementation projects submitted to 2014 CEF Transport call;
- Potential impact on Network Strategy Plan (NSP) and Network Operation Plan (NOP).

The results of the evaluation are reported in the IP templates annexed to the present document (Annex A – Projects' Description).

Projects grouping

Furthermore, the above described evaluation allowed the experts to group the implementation initiatives within the following two categories:

- **Foundation IPs:** IPs, or parts thereof which are a necessary technical and operational condition for the subsequent implementation of a PCP ATM Functionality;
- **Non Foundation IPs:** IPs that include an enabler (technical or operational) from which the subsequent implementation of a PCP ATM Functionality would benefit.

The exercise resulted in 94 projects assessed as Foundation IPs and 16 projects assessed as Non Foundation IPs. As the flow chart shows, both projects categories went therefore through the same steps of assessment: however, the two categories enabled the experts to better shape SDM strategic vision, where all 110 implementation projects converge.

Potential modification of projects duration

Both Foundation and Non Foundation IPs were assessed to understand if their duration might be modified to make the best use of INEA co-funding opportunities.

The last part of the flow chart shows how SDM vision is structured:

- **Foundation IPs 2014 – end April 2016**[3]**:** IPs, or part of IPs, which are a necessary technical and operational condition necessary for the subsequent

[3] 1st May 2016 as the pivotal date to split the implementation projects when relevant stems from a) the expected timelines for the CEF Transport calls for proposals that will be launched

implementation of (elements of) a PCP ATM Functionality, these IPs or part of IPs need to start in the timeframe 2014 – end April 2016; it is to be noted that such timeframe could not be applied to some IPs, due to their specific features and attributes;

- **Foundation IPs May 2016+:** IPs, or part of IPs, which are a necessary technical and operational condition necessary for the subsequent implementation of (elements of) a PCP ATM Functionality, these IPs or part of IPs need to start from May 2016 onwards;

- **Non Foundation IPs 2014 – end April 2016:** IPs, or part IPs, that include an enabler (technical or operational) not yet implemented from which the subsequent implementation of (elements of) a PCP ATM Functionality would benefit, these IPs or part of IPs need to start in the timeframe 2014 – end April 2016;

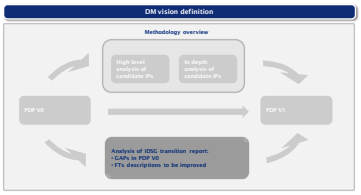
- **Non Foundation IPs May 2016+:** IPs, or part of IPs, that include an enabler (technical or operational) not yet implemented from which the subsequent implementation of (elements of) a PCP ATM Functionality would benefit, these IPs or part of IPs need to start from May 2016 onwards.

It is worth noting that the exercise performed does not aim at challenging a posteriori the green flag awarded by SDM, as all 110 "green flagged" projects are and remain eligible thus to be evaluated by the Agency. The exercise aims instead at providing a SDM vision supporting INEA selection process, in order to:

- Make the best use of the current available co-funding;

- Highlight the projects which implementation is to be secured within the next CEF Transport calls for proposals;

- Highlight the need of financial support for a timely and synchronized SESAR deployment (possibly increasing future budget amounts availability).



Analysis of IDSG Transition Report

In addition to the extensive work performed to introduce the new project view in PDP v1, a careful revision of PDP v0 content was carried out. A PDP v1 taskforce was established to support an adequate takeover of IDSG's previous work, as detailed within the IDSG Transition Report, ensuring that:

- Prerequisites and facilitators to PCP which implementation was up to now synchronised by the IDSG are all considered in PDP v1;

- Activities unfinished in the IDSG Interim Deployment Programme (IDP) that constitute key elements for subsequent deployment are identified;

- Gaps in content identified by the IDSG in PDP v0 are considered with the aim to improve the Programme by modifying the FT description.

by end 2015; and b) the general CEF rules according to which the cost will be eligible by the date of submission.

- Particular attention was given to data-link related implementation activities as prerequisites to AF6 implementation.

The revision was done under the principles of limiting the number of new fast tracks, paying attention to the relevance of activities with respect to PCP and keeping the PDP v0 structure as far as possible.
Accordingly, the analysis results in the following outcomes:

- Up to 15 FTs technical descriptions have been refined to include content that strengthens the continuity from the previous IDSG program;
- A **new FT "6.1.2 AGDL – ITY"** has been created to include data-link related implementation activities as prerequisites to AF6 implementation.