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**Interim Deployment Steering Group
(IDSG)
Intermediate report
Interim Deployment Programme (IDP) outline**

version 1.0

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1. Objective of the document

The purpose of this document is to present the results of the work performed so far by the Interim Deployment Steering Group (IDSG), *“the transitional arrangement to steer the implementation of short term essential SESAR deployments identified as critical to performance and to achieve early benefits at European level”*¹.

In particular, this intermediate report proposes an outline of the Interim Deployment Programme (IDP), including a Work Breakdown Structure (WBS) and an initial project view (Gantt chart). This proposal constitutes the main outcome from the IDSG activities since its launch on 29 February 2012.

Indeed, as foreseen in the IDSG Rules of Procedure, *“the IDSG shall develop, maintain and execute an Interim Deployment Programme that will be derived from and kept consistent with the European ATM Master Plan [...], will address the implementation activities in support to short term essential ATM operational changes based on the prioritisation set by the European ATM Master Plan, taking into account operational performance network needs and industry capability”*².

In accordance with article 2.3 of IDSG's Rules of Procedure, the proposed IDP capitalizes on the outcome of the former IP1 Steering Group and the most recent contributions provided by all the stakeholders actively involved in the IDSG

In accordance with article 2.4 of IDSG's Rules of Procedure, this intermediate report is submitted to the Commission to seek its opinion. Should the Commission – having consulted the Single Sky Committee - return a positive opinion on this intermediate report and the IDP, the IDSG would then adopt the IDP. The IDP would then constitute the reference for IDSG's future work, mostly oriented towards deployment steering and monitoring as described in articles 2.5, 2.6 and 2.7 of its Rules of Procedure.

After adoption by the IDSG, the Commission would also forward the IDP to the SESAR JU (SJU) for consideration in the framework of its mandate "for drafting a proposal on the content of a pilot common project" to ensure consistency and continuity.

¹ “Interim Deployment Steering Group Rules of Procedure”, European Commission Ref. Ares(2012)156650 - 10/02/2012, article 1.2

² “Interim Deployment Steering Group Rules of Procedure”, European Commission Ref. Ares(2012)156650 - 10/02/2012, articles 2.1 and 2.2

2. Introduction

In December 2011, the European Commission adopted a Communication on "Governance and incentive mechanisms for the deployment of SESAR, the Single European Sky's technological pillar"³. This Communication acknowledged the need to reinforce the effort to steer early SESAR deployment activities and monitor their consistency with the European ATM master plan (the Master plan) pending the establishment of the future governance:

"The Commission will also implement the actions endorsed by the Single Sky Committee to consolidate the steering process for early deployment activities, as test bed for the governance mechanisms to be implemented, and ensure its continuation up to the establishment of the future deployment governance (January 2012). This will include the initialisation of an interim deployment programme (March 2012)".

The IDSG was established in February 2012 as a response to the above action. In its plenary configuration, it consists of designated experts from the civil and military representatives of the States within the SES area and also from the relevant ATM operational stakeholders (ANSPs, Airspace users, Airports, the Network Manager (NM)), the EASA, and the SJU⁴. The IDSG also meets in a technical configuration, called Expert Team, in order to perform detailed analysis and prepare the reports to the Single Sky Committee for positive opinion. In this configuration, membership is extended to experts from the manufacturing industry⁵.

Intensive work between the various players with three plenary sessions⁶ and 6 technical meetings⁷ and, in between, webex and bilateral/multilateral working sessions have resulted in the establishment of this document which constitutes an expert assessment for the "best possible" selection of critical early implementation activities, in view of synchronisation and coordination, pending the establishment of the future governance and its financial mechanisms.

It should be underlined that this joint effort, using the European ATM Master Plan as main input, has enabled progress on two major directions:

³ COM(2011) 923 final

⁴ "Interim Deployment Steering Group Rules of Procedure", European Commission Ref. Ares(2012)156650 - 10/02/2012, articles 3.1, 3.2 and 3.3.

⁵ "Interim Deployment Steering Group Rules of Procedure", European Commission Ref. Ares(2012)156650 - 10/02/2012, articles 3.4.

⁶ 29 February, 23 May and 12 September 2012

⁷ 12 March, 26 April, 22 May, 21 June, 24 July and 5 September 2012

- **A pragmatic prioritisation** of current ongoing deployment activities, for the purpose of steering and monitoring within the limited timeframe of the IDSG (2012-2014);
- **A project oriented platform** for connecting – in a harmonised and consolidated way - with already on-going, planned or at least decided local deployment activities contributing to the above priorities.

It is also worth observing that, due to having started from mature agreed implementation activities and having considered priorities derived from optimising the operation and performance of the European ATM Network, the resulting IDP is considered as having an overall positive effect on the Network as well as benefit to cost ratio. Additional consideration to potential early benefits, at local, regional or Network level will be given when detailing the applicability area and timing for the various IDP components.

3. The initial selection of priority actions for IDP

As the first major deliverable expected from the IDSG was the IDP, the IDSG started working on the selection of deployment priorities to be included in such a Programme.

As reported at SSC/46, and using the Master plan as main input, in particular the operational changes in the SESAR baseline identified as essential⁸, the initial selection was conducted according to the following criteria:

- Network Performance impact;
- Network Operations impact;
- Synchronisation needs;
- Relevance with regard to existing Regulations;
- Alignment with baseline's essential changes;
- Maturity for continuing/initiating deployment within the IDSG timeframe (2012-2014).

It was further agreed to start from mature validated deployment objectives described in the ESSIP (as the third layer of the Master plan), complemented by additional actions consistent with the Master plan and derived from the Network Strategy plan (NSP) identified by the NM as critical for network performance or proposed by the participating stakeholders.

The initial assessment resulted in the selection of seven core ESSIP priorities and four additional priorities, as per the tables below⁹:

⁸ Draft Edition 2 of the Master Plan, chapters 3.3 and 3.4

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ESSIP Reference	Description
NAV 03	Implementation of P-RNAV
FCM 03	Implement collaborative flight planning
AOP 05	Implement Airport Collaborative Decision Making (CDM)
NAV 10	Implement APV procedures
ITY-AGDL	Initial ATC air-ground data link services above FL-285
AOM 19	Implement Advance Airspace Management
ITY-COTR	Implementation of ground-ground automated co-ordination processes

Table 1 – initial core priorities table

ESSIP/ OI Reference	Description
ATC 15	Implement, in En-Route operations, information exchange mechanisms, tools and procedures in support of Basic AMAN operations
ENV 01	Implement Continuous Descent Approach (CDA) techniques for environmental improvements
AOM-0703	Continuous Climb Operations
AOM-13.1	Harmonize Operational Air Traffic (OAT) and General Air Traffic (GAT) handling

Table 2 – additional priorities table

⁹ The seven core priorities have been agreed at IDSG/2 on 23 May 2012. The 4 additional priorities derive from comments received after IDSG/2 as well as discussions during the 4th meeting of the Expert Team on 21 June 2012. IDSG has been informed of the 4 additional priorities through an email dated 25 June 2012.

4. Methodology for developing the project view

In order to move consistently from the *planning view* in the Master plan for the agreed priorities to a *project view*, the IDSG agreed at its second meeting on 23 May 2012 a 5 step methodology. The methodology is based on the analysis of the Stakeholders' line of actions (SLoAs) underpinning each priority identified at stakeholder level, in order to configure a set of deployment projects to be eventually synchronised among all the stakeholders involved:

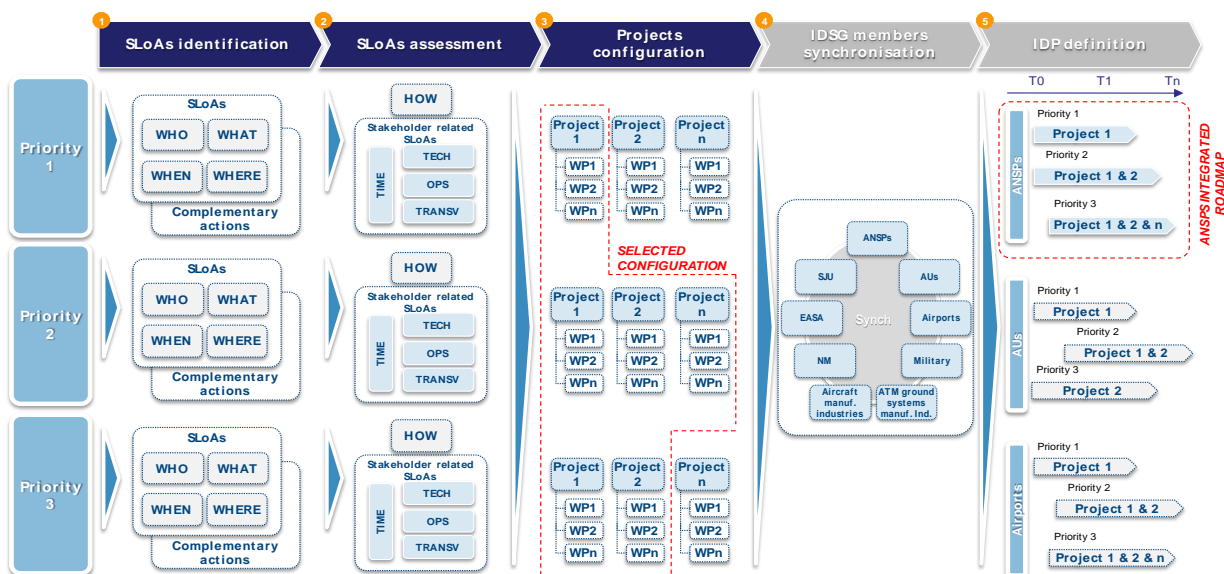


Figure 1 – Methodology overview

5. IDP Work Breakdown Structure (WBS)

Consistent with the agreed methodology, a detailed analysis of the relevant SLoAs and needed complementary actions was performed for each of the core and additional initial priorities, in order to clearly identify:

- The stakeholders involved (WHO?);
- The objectives pursued (WHAT?);
- The timeframe reported in the ESSIP (WHEN?);
- The geographical scope (WHERE?).

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The work performed led to the identification, within each ESSIP priorities, of the critical Stakeholder Lines of Action (SLoA) to focus on, and to the integration of the complementary actions agreed at IDSG ET level.

Following on, a detailed analysis of the potential content was performed, looking at the **technological, operational and transversal** aspects.

As a result of this analysis, and of the associated content reconfiguration into coherent projects, the (7+4) priorities have been consolidated into seven Activity Areas as the potential backbone of the IDP:

Activity Number	Description	Priority Reference
1	Collaborative Flight Planning and Demand/Capacity Balancing Tools	FCM03 + DCB-0205
2	Airspace Management Improvements and Data sharing	AOM19+AOM20+AOM13.1
3	Airport CDM	AOP05
4	Air-Ground Data Link	ITY-AGDL
5	Automated assistance to controllers for seamless coordination, transfer and dialogue	ITY-FMTP +ATC15+ATC17
6	RNP approaches	NAV10
7	CDO/CCO application	ENV01+AOM0703

Table 3 – Proposed IDP Activity Areas table

In this analysis –leading to the definition of the seven activity areas-, the content of the priority ESSIP objectives/ OI steps listed in paragraph 3 has been thoroughly reviewed, such that only the elements critical for deployment/synchronisation in conjunction with the IDP timeframe (2012-2014) have been kept, resulting into the dropping of two of the original core priority ESSIP objectives as such and the addition of (part of) other ESSIP objectives/OI steps to build consistent projects.

The additional ESSIP objectives/OI steps are:

- ATC17 Electronic Dialogue as Automated Assistance to Controller during Coordination and Transfer
- AOM20 Implement ATS Route Network (ARN) - Version 7
- ITY-FMTP Apply a common flight message transfer protocol (FMTP)
- DCB-0205 Short Term ATFCM Measures

The ESSIP objectives that have been dropped are:

- NAV03 Implementation of Precision Area Navigation RNAV (P-RNAV)
- ITY COTR Implementation of ground-ground automated co-ordination processes

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In the same time, through intensive collaboration between the NM, the ANSPs, the Military, the Airspace Users and the Airports representatives, the content was reconfigured to form a Work Breakdown Structure (WBS) including the contributions from all parties. This WBS represents the most effective and feasible work structure as identified by the experts within each organisation, consisting of seven Activity Areas in a three layers configuration:

- Activity Areas
- Work Packages (WPs)
- Sub-Work Packages (sWPs)

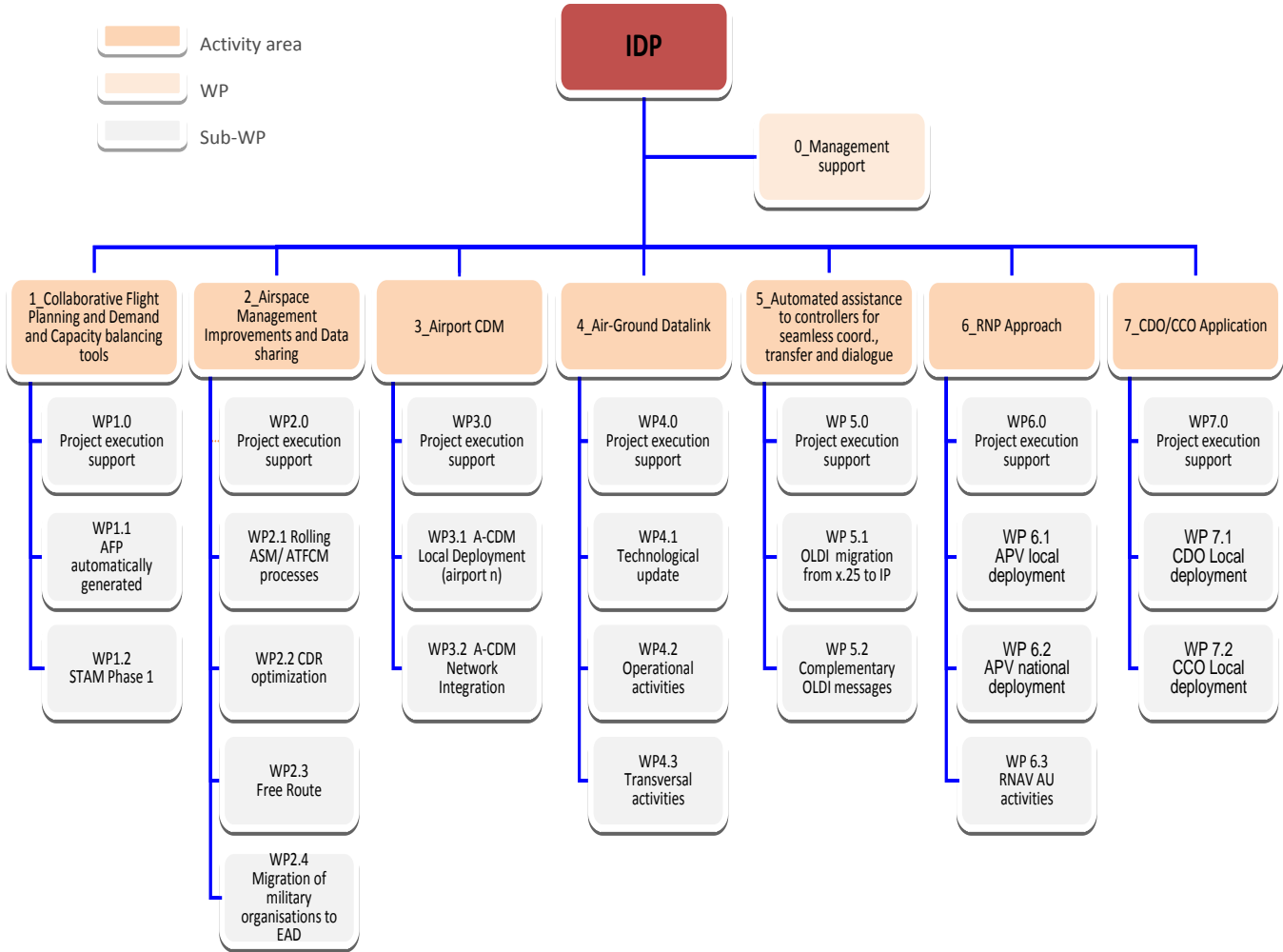


Figure 2– Proposed IDP WBS

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An initial mapping between the proposed IDP Activity Areas and the SESAR Key features is presented in Figure 3 below. This has to be considered as based on the most relevant interdependences and in relation with the expected timeframe of the IDP.

	Moving from Airspace to 4D trajectory	Traffic Synchronisation	Network Collaborative Mgmt and Planning	SWIM	Airport Integration and Throughput	Conflict Mgmt and Automation
1. Collaborative FP						
2. Airspace Mgmt						
3. Airport CDM						
4. AGDL						
5. Automated assistance to Controller						
6. RNP Approaches						
7. CDO/CCO						

Figure 3– draft IDP WBS mapping to SESAR Key Features

6. IDP details and Gantt chart

The level of detail of the WBS and Gantt charts proposed has been identified on the basis of the following considerations:

- A programme management perspective should be taken, which implies the avoidance of “micro-management” activities
- The level of granularity should be appropriate to the monitoring needs in the execution phase
- A “consistent view” should be ensured for all the projects developed

It is to be noted that the WBS and Gantt charts shall be detailed further during the execution phase in the light of specific needs, and in particular completed with the elements related to geographical applicability and consequent recommended timing, such as to enable the IDSG to monitor the evolution and recommend eventual corrections.

Furthermore, as it can be noted in the proposed IDP WBS, a Management Support work package has been included at Programme level. Such WP refers to “programme management” support activities to be performed at IDSG ET level, such as the following:

- IDP related projects identification and monitoring;
- Support in the identification of delays, risks and issues;
- Support in the definition, adoption, submission to the relevant actors and monitoring of recommendations from the IDSG with the objective to mitigate those delays, risks and issues ;
- Support in the management of internal and external communication processes.

It is important to stress that such management support WP differs from the Project Execution WPs included within each project, which are mostly characterized by the Statement of work of each single project together with a high level analysis on the expected implementation benefits and by the technical support activities.

6.1 Collaborative Flight Planning and Demand and capacity balancing tools

In order to implement Collaborative flight planning and Demand and capacity balancing tools, two main threads have been envisaged as relevant:

- **WP1.1 – AFP automatically generated**
As the actions related to the implementation of AFP messages are deemed as a priority, a specific WP has been foreseen. The related actions consist in the implementation of the automatic generation of AFP messages in ADEXP format.
- **WP 1.2 - STAM Phase 1**
It was also recognized the importance of a dedicated WP for Short-term ATFCM measures (STAMs). The implementation of such measures in terms of minor ground delays, flight level capping and minor re-routings applied to a limited number of flights can reduce the complexity of anticipated traffic peaks enabling network benefits.

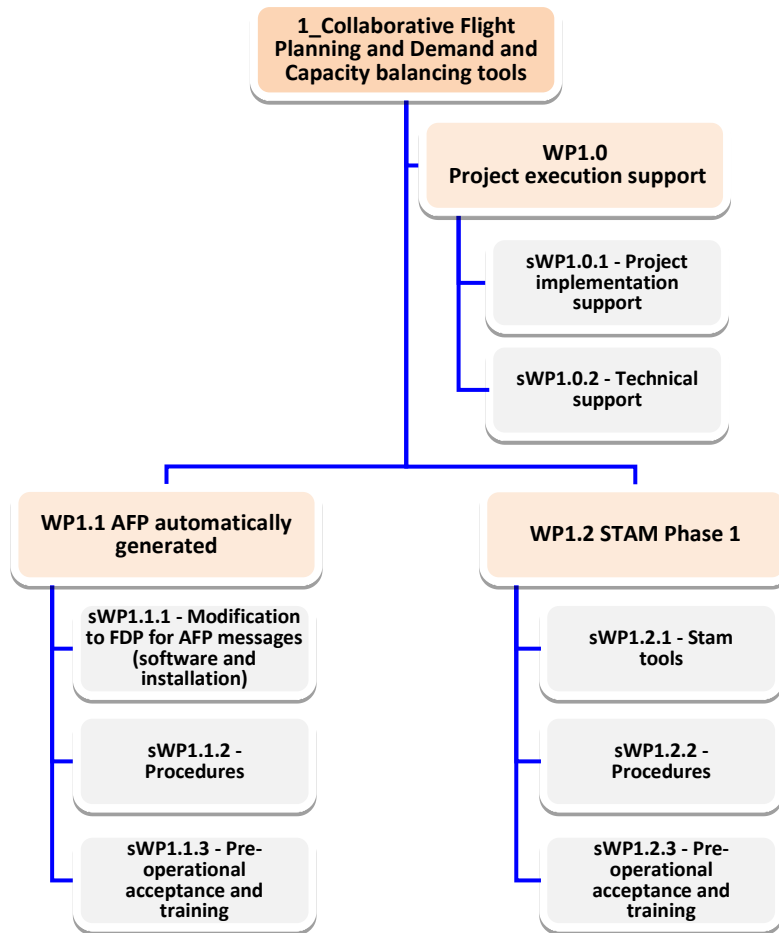


Figure 4– Collaborative Flight Planning and Demand Capacity balancing Tools WBS

The following Gantt chart reports the details of the activities foreseen within each SWP identified:

Task ID	Task Name	Resource Names
3	1_Collaborative Flight Planning and Demand and Capacity balancing tools	
4	WP1.1 AFP automatically generated	
5	sWP1.1.1 - Modification to FDP for AFP messages (software and installation)	
6	Provide AFP message for missing flight plans	ANSP
7	Provide AFP message for change of route	ANSP
8	Provide AFP message for diversion	ANSP
9	Provide AFP message for change of Aircraft Type	ANSP
10	Provide AFP message for change of Aircraft Equipment	ANSP
11	Check of the correctness of received AFP	NM

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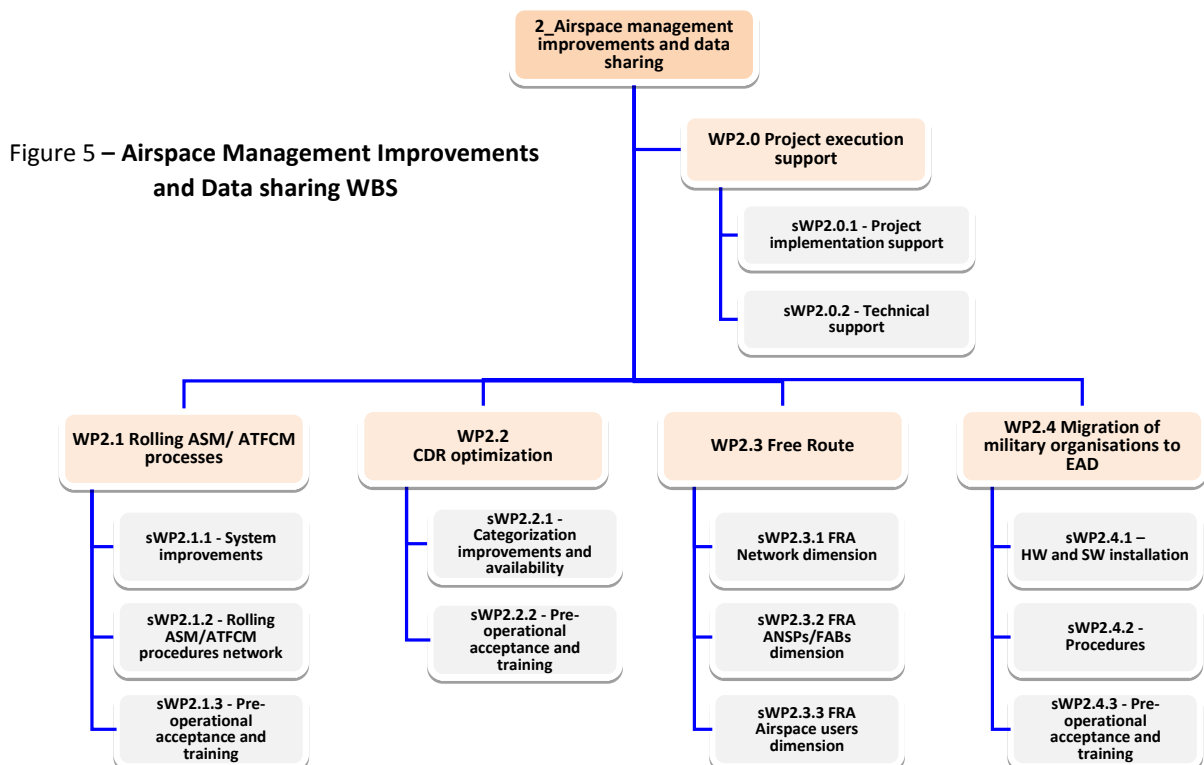
Task ID	Task Name	Resource Names
12	sWP1.1.2 – Procedures	
13	Procedures	ANSP
14	sWP1.1.3 – Pre-operational acceptance and training	
15	Safety assessment	ANSP
16	Pre-operational acceptance	ANSP
17	Training	ANSP
18	WP1.2 STAM Phase 1	
19	sWP1.2.1 – Stam tools	
20	Availability of CHMI	ANSP, AU
21	Availability of IP network for connections with NM	ANSP, AU
22	Capacity balancing tool via CHMI	NM
23	STAM network view for the Aus	NM, ANSP, AU
24	Dynamic Demand and Capacity balancing tools via NOP	NM
25	Integration of ANSPs sector and traffic occupancy parameters data into NM systems	NM, ANSP
26	sWP1.2.2 – Procedures	
27	Procedures (e.g. occupancy counts, local manual STAM measures, sector configuration adaptation)	ANSP, AU, NM
28	sWP1.2.3 – Pre-operational acceptance and training	
29	Safety assessment	ANSP
30	Pre-operational Acceptance	ANSP
31	Training	NM, ANSP
32	WP1.0 Project execution support	
33	sWP1.0.1 – Project implementation support	
34	sWP1.0.2 – Technical support	
35	Collaborative Flight Planning and Capacity Demand balancing tools implemented	

Table 4– Collaborative Flight Planning and Demand Capacity Tools Gantt

6.2 Airspace Management Improvements and Data sharing

In order to implement the advanced airspace management improvements and data sharing, 4 main threads have been taken into account:

- **WP2.1 Rolling ASM/ATFCM processes** affecting the ASM/ATFCM processes and its relevance on the network. That includes support through the rolling NOP and the B2B services.
- **WP2.2 CDR optimization** proposes a possible simplification of CDR categories to improve airspace availability
- **WP2.3 Free Route** proposes the activities that have to be taken on board in order to bring tangible benefits to the overall European network. Several options will be prepared for implementation between NM, ANSP and FABs that could include, depending on the maturity level of developments: **Night** implementation of Free Route; **Week-end** or **24 hrs** (within ATCUs, cross border when possible between ATCUs within ANSPs in the same FAB or with adjacent FABs). All combinations of above cases can be envisaged depending on local capabilities. Cooperative deployment of those various phases spans from 2012 to 2019.
- **WP2.4 Migration of military organisations to the EAD** both as static and dynamic data provider and data user aims at harmonising military aeronautical information in Europe and optimising the exchange of aeronautical information in a future SWIM environment. This includes as pre-requisites the harmonisation of military AIP documents, a military extension of the AIXM 5 data model and EAD Static Data Operations to accommodate missing military data elements.



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The following Gantt chart reports the details of the activities foreseen within each SWP identified:

Task ID	Task Name	Resource Names
36	2_Airspace management improvements and data sharing	
37	WP2.1 Rolling ASM/ ATFCM processes	
38	sWP2.1.1 – System improvements	
39	ASM systems	
40	ASM systems installation and deployment	Civil & Mil. ANSP, Eurocontrol
41	Develop Airspace Status integration in AIXM B2B to be interoperable with ADR in AIXM 5.1	Civil & Mil. ANSP, Eurocontrol
42	Performing the integration of ASM support systems with the Network	Civil & Mil. ANSP, Eurocontrol
43	Airspace Data Repository (ADR)	
44	Operational ASM data download in AIXM 5.1 with live updates	Eurocontrol
45	Interoperability with ASM tools in AIXM 5.1	Eurocontrol
46	Publication of restrictions in AIXM 5.1 format via B2B	Eurocontrol
47	Interoperability between DNM database, official EAD data and DNM operational database (CACD)	Eurocontrol
48	Rolling NOP	
49	Flight Plan filing capability directly via the NOP portal	Civil & Mil. ANSP, Eurocontrol
50		
51	Management of AUP/UUP via B2B services	Civil & Mil. ANSP, Eurocontrol
52	sWP2.1.2 – Rolling ASM/ATFCM procedures	
53	Procedures – Draft AUP and UUPs including the submission to the NM	Civil & Mil. ANSP, Eurocontrol
54	Pre-defined Airspace Solutions	Civil & Mil. ANSP, Eurocontrol
55	Implement Procedure 1 Coordination Process	Civil & Mil. ANSP, Eurocontrol
56	Implement Procedure 2 Release of Mil airspace	Civil & Mil. ANSP, Eurocontrol
57	Implement Procedure 3 Requests for unplanned Mil Activity (digital NOTAM implementation?)	Civil & Mil. ANSP, Eurocontrol
58	Rolling ASM/ATFCM Procedures Development	Civil & Mil. ANSP, Eurocontrol
59	Rolling ASM/ATFCM Procedures Deployed (ASM tools, ADR and rolling NOP)	Civil & Mil. ANSP, Eurocontrol
60	Submit UUP to CNFM	Civil & Mil. ANSP, Eurocontrol

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Task ID	Task Name	Resource Names
61	sWP2.1.3 – Pre-operational acceptance and training	
62	Safety assessment	Civil & Mil. ANSP
63	Pre-operational Acceptance	Civil & Mil. ANSP
64	Training	Civil & Mil. ANSP
65	WP2.2 CDR optimization (AOM19-ASP06)	
66	sWP2.2.1 – Categorization improvements and availability	
67	2) CDR rationalization (reduction of CDR 3 and deletion of CDR	Civil & Mil. ANSP, Eurocontrol
68	Procedures Development	Civil & Mil. ANSP, Eurocontrol
69	CDR consistency achieved at national, bilateral & Sub-regional level	Civil & Mil. ANSP, Eurocontrol
70	sWP2.2.2 – Pre-operational acceptance and training	
71	Safety assessment	Civil & Mil. ANSP
72	Pre-operational Acceptance	Civil & Mil. ANSP
73	Training	Civil & Mil. ANSP
74	WP2.3 Free Route	
75	sWP2.3.1 FRA Network dimension	
76	System improvements	
77	Adaptations (tuning) of NM systems	NM
78	ADR and Airspace Management tools (modelling, simulation) adapted to free routing	NM
79	Procedures and processes	
80	Identify the FRA airspace volume (Lateral and Vertical)	NM, FAB, ANSP
81	Identify FRA applicable time (not necessary H24 7/7)	NM, FAB, ANSP
82	Identify FRA exit entry points	NM, FAB, ANSP
83	Adapt Airspace design and ensure FRA horizontal and vertical connectivity	NM, FAB, ANSP
84	Network overview – connectivity consistency of FRA cross-border application	NM, FAB, ANSP
85	Adapt RAD applicability	NM, FAB, ANSP
86	ATFCM FRA procedures	NM, FAB, ANSP
87	sWP2.3.2 FRA ANSPs/FABs dimension	
88	System improvements	
89	Upgrade local ASM tools for free route operation (NOP services of AUP/UUP)	FAB, ANSP
90	Upgrade FDP, if strictly required, to differentiate between different traffic type airspaces	FAB, ANSP
91	FDP capability, if strictly required, to support cross-border FRA operations (direct route beyond AoR, DCT clearances, random entry/exit points)	FAB, ANSP
92	required Upgrade local flight plan reception and handling, if	FAB, ANSP

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Task ID	Task Name	Resource Names
93	Procedures and processes	
94	Adapt the LoA with adjacent ATS units	FAB, ANSP, NM
95	Publish relevant data for FRA in AIP	ANSP
96	Charts for FRA operations	ANSP
97	Airspace management procedure for the implementation of free routes operation	FAB, ANSP, Military, NM
98	ASM Procedures for identifying and promulgating 'Free Route' areas	FAB, ANSP, Military, NM
99	ATC procedures to cover free route co-ordination and transfer of control, trajectory change in a free route environment, conflict detection	FAB, ANSP
100	Transversal activities	
101	Validate FRA concept (airspace organisation, ATC/ATFCM and ASM procedures, airspace restrictions)	FAB, ANSP
102	Train ATCOs on the application of FRA	FAB, ANSP
103	Develop FRA Safety Case	FAB, ANSP
104	sWP2.3.3 FRA Airspace users dimension	
105	System improvements	
106	Flight Planning system to support free routing	NM,AU (AOC), ANSP
107	Procedures and processes	
108	Airline Operational Procedures for free route	AU
109	Airline Operational Procedures to take into account airspace and traffic constraints when selecting a route	AU
110	Transversal activities	
111	AOC training	AU
112	WP2.4 Migration of military organisations to EAD	
113	sWP2.4.1 - HW and SW installation	
114	Hardware Installation (depending on chosen solution)	Military ANSP, Eurocontrol
115	Connection to PENS	Military ANSP, Eurocontrol
116	Software installation (EADPro or MyEAD)	Military ANSP, Eurocontrol
117	sWP2.4.2 - Procedures	
118	Procedures (e.g. signature of letter of intent, drafting migration and transition plan)	Military ANSP, Eurocontrol
119	sWP2.4.3 - Pre-operational acceptance and training	
120	Safety assessment	Military ANSP, Eurocontrol
121	Pre-operational Acceptance	Military ANSP, Eurocontrol
122	Training	Military ANSP, Eurocontrol

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Task ID	Task Name	Resource Names
123	WP2.0 Project execution support	
124	sWP2.0.1 - Project implementation support	
125	sWP2.0.2 - Technical support	
126	Airspace management improvements and data sharing implemented	

Table 5 – Airspace Management Improvements and Data sharing Gantt

6.3 Airport CDM

In order to facilitate the monitoring of Airport CDM implementation, it has been envisaged a standard set of activities that should be reiterated per each interested airport.

In particular, the approach is to monitor the A-CDM implementation at airport level; therefore the described actions have to be applied for each relevant airport.

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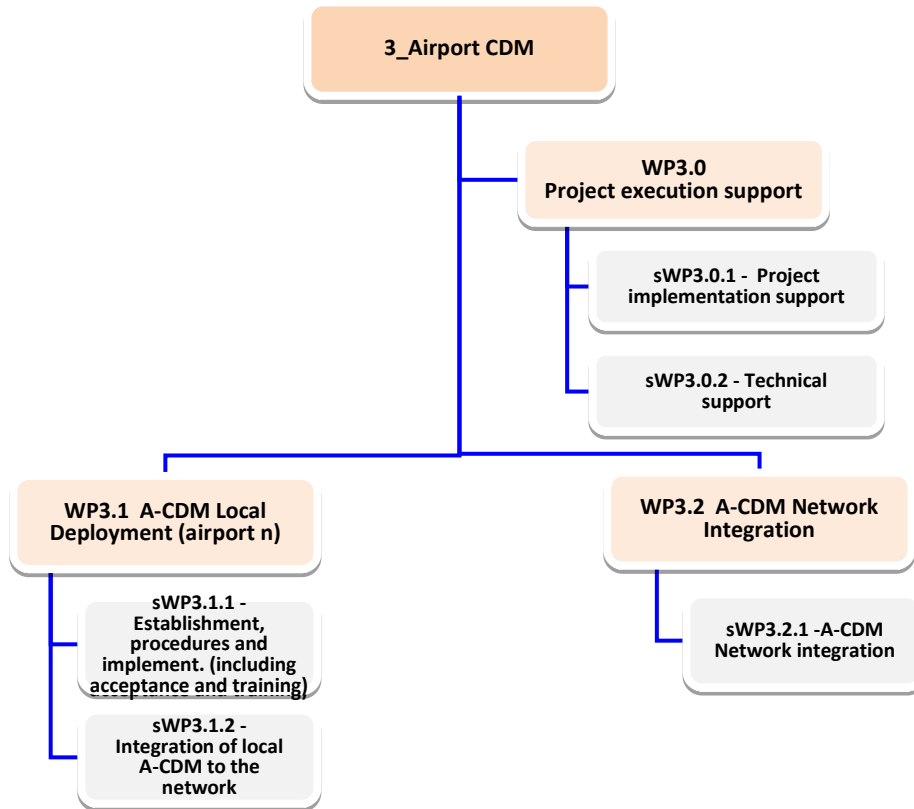


Figure 6 – Airport CDM WBS

The following Gantt chart reports the details of the activities foreseen within each SWP identified:

Task ID	Task Name	Resource Names
127	3_Airport CDM	
128	WP3.1 A-CDM Local Deployment (airport: XYZ)	
129	sWP3.1.1 - Establishment, procedures and implementation (including acceptance and training)	
130	A-CDM performance assessment and reporting	ANSP, Airports, AU
131	Local A-CDM performance committee establishment	ANSP, Airports, AU
132	Implement local procedures for turn around process	ANSP, Airports, AU
133	Implement variable taxi-times and pre-departure sequencing procedures	ANSP, Airports, AU
134	Implementation of local procedures for Information Sharing	ANSP, Airports, AU
135	Implement local procedures for CDM in adverse conditions	ANSP, Airports, AU
136	sWP3.1.2 - Integration of local A-CDM to the network	
137	DPI implementation	ANSP, Airports

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138	FUM implementation	ANSP, Airports
139	WP3.2 A-CDM Network Integration	
140	sWP3.2.1 -A-CDM Network integration	
141	Delivery of FUM message	NM
142	Integration of DPI	ANSP, Airports, NM
143	Integration of DPI (Airport XYZ)	
144	WP3.0 Project execution support	
145	sWP3.0.1 - Project implementation support	
146	sWP3.0.2 - Technical support (e.g. A-CDM harmonisation, ad-hoc support, maintenance of (common) training)	
147	Airport A-CDM implemented	

Table 6– Airport CDM Gantt

6.4 Air-Ground Datalink

In order to rationalize the Air-Ground Datalink implementation approach, the project has been divided in three main threads:

- **WP4.1 - Technological update** affects the technological area, encompassing A/G communication and ATC systems
- **WP4.2 – Operational activities** is based on the operational needs
- **WP4.3 – Transversal activities** concerns the acceptance and training activities

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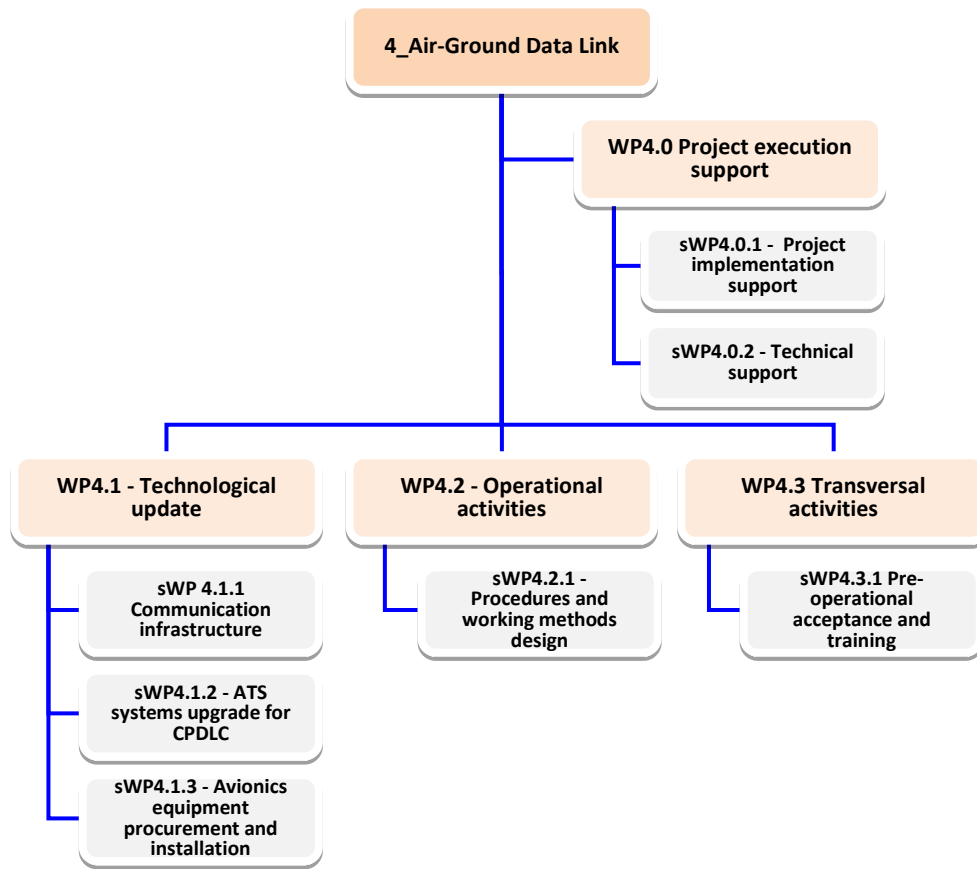


Figure 7– Air-Ground Datalink WBS

The following Gantt chart reports the details of the activities foreseen within each SWP identified:

Task ID	Task Name	Resource Names
148	4_Air-Ground Data Link	
149	WP4.1 - Technological update	
150	sWP4.1.1 - Communication infrastructure	ANSP
151	A/G backbone installation (LINK TO ITY-AGDL-REG04)	ANSP
152	G/G backbone installation (ITY-AGDL-ASP03)	ANSP
153	sWP4.1.2 - ATS systems upgrade for CPDLC	ANSP
154	A/G Data Link front-end	ANSP
155	FDPS update (local and national)	ANSP
156	OLDI module update (ITY-COTR ASP08 / ASP09)	ANSP
157	HMI update to enable CPDLC dialog with Pilot	ANSP
158	Test bed and simulators update	ANSP
159	sWP4.1.3 - Avionics equipment procurement and installation	
160	Avionics procurement	AU, Military
161	Retrofit: Avionics installation	AU, Military

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Task ID	Task Name	Resource Names
162	WP4.2 - Operational activities	
163	sWP4.2.1 - Procedures and working methods design	ANSP
164	Operational agreements (ACC LoAs, contingency)	ANSP
165	AIS (ITY-AGDL-REG03)	ANSP
166	Operational Deployment of Data Link Services (including cockpit operational procedures)	ANSP, AU, Military
167	WP4.3 Transversal activities	
168	sWP4.3.1 Pre-operational acceptance and training	
169	Safety assessment	ANSP, AU
170	Pre-operational acceptance	ANSP, AU
171	Training	ANSP, AU
172	WP4.0 Project execution support	
173	sWP4.0.1 - Project implementation support	
174	sWP4.0.2 - Technical support	
175	Air Ground Data Link implemented	

Table 7– Air-Ground Datalink Gantt

6.5 Automated assistance to controllers for seamless coordination, transfer and dialogue

In order to implement the Automated assistance to controllers for seamless coordination, transfer and dialogue block, two main threads have been identified:

- **WP5.1 – OLDI migration from x.25 to IP** entails the installation of OLDI module in the ACCs, and the upgrade of Communication Systems from IPV4 to IPV6
- **WP5.2 – Complementary OLDI migration messages** aims at putting in place systems updates as well as procedures to implement complementary OLDI messages

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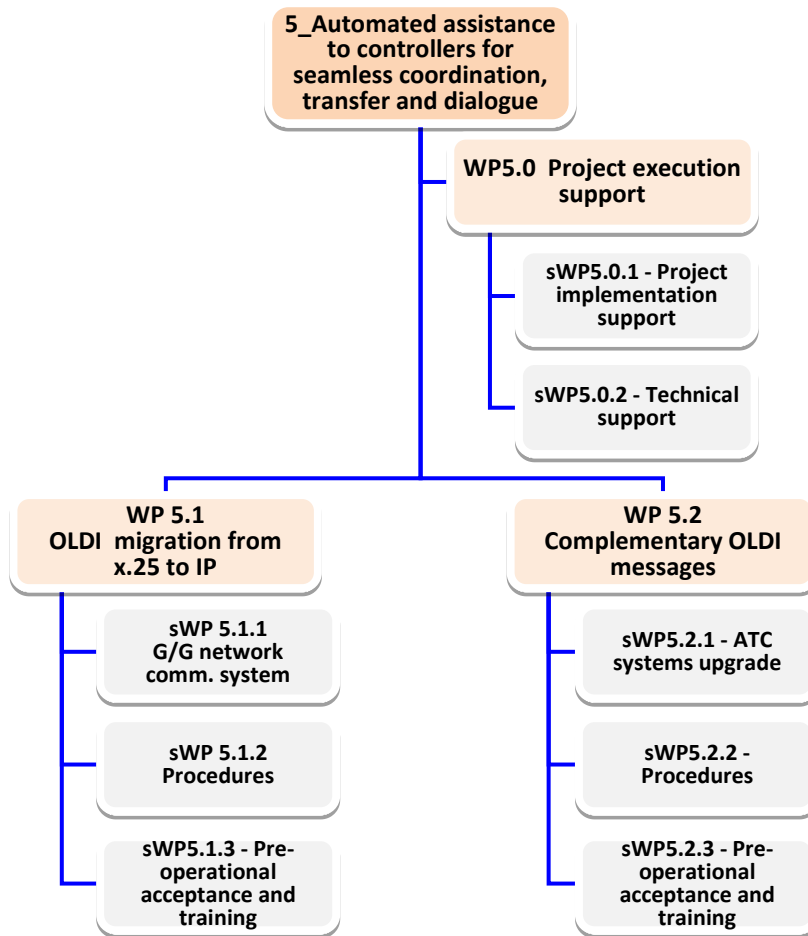


Figure 8 – Automated assistance to controllers for seamless coordination, transfer and dialogue WBS

The following Gantt chart reports the details of the activities foreseen within each SWP identified:

Task ID	Task Name	Resource Names
176	5_Automated assistance to controllers for seamless coordination, transfer and dialogue	
177	WP5.1 OLDI migration from X.25 to IP	
178	sWP5.1.1 - G/G network communication systems	
179	Upgrade of G/G network communication systems	ANSP
180	Upgrade of OLDI module (where applicable)	ANSP
181	Manage transition from IP v.4 to IP v.6	ANSP
182	sWP5.1.2 - Procedures	
183	Procedures	ANSP
184	sWP5.1.3 - Pre-operational acceptance and training	
185	Safety assessment	ANSP
186	Pre-operational acceptance	ANSP
187	Training	ANSP

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Task ID	Task Name	Resource Names
188	WP5.2 Complementary OLDI messages	
189	sWP5.2.1 - ATC systems upgrade	
190	Support to basic procedures (plus COD where applicable)	ANSP
191	Support to transfer of communication process	applicable ANSP
192	Support to Coordination dialogue	applicable ANSP
193	AMAN data exchange (AMA)	applicable ANSP
194	sWP5.2.2 - Procedures	
195	Operational procedures and bilateral coordination	ANSP
196	Working methods	ANSP
197	sWP5.2.3 - Pre-operational acceptance and training	
198	Safety assessment	ANSP
199	Pre-operational acceptance	ANSP
200	Training	ANSP
201	WP5.0 Project execution support	
202	sWP5.0.1 - Project implementation support	
203	sWP5.0.2 - Technical support	
204	Automated assistance to controllers for seamless coordination, Transfer and Dialogue implemented	

Table 8– **Automated assistance to controllers for seamless coordination, transfer and dialogue Gantt**

6.6 RNP Approach

In order to implement RNP approach, three main threads have been envisaged as relevant:

WP6.1 – APV local deployment relates to the deployment of two APV solutions at local level, both concerning APV/Baro and APV/SBAS

WP6.2 – APV national deployment relates to the operational activities linked to the identification and deployment of Radio-navigation Plan

WP6.3– RNAV AU activities concerns the procurement and installation of the avionics equipment, and the related operational and transversal activities

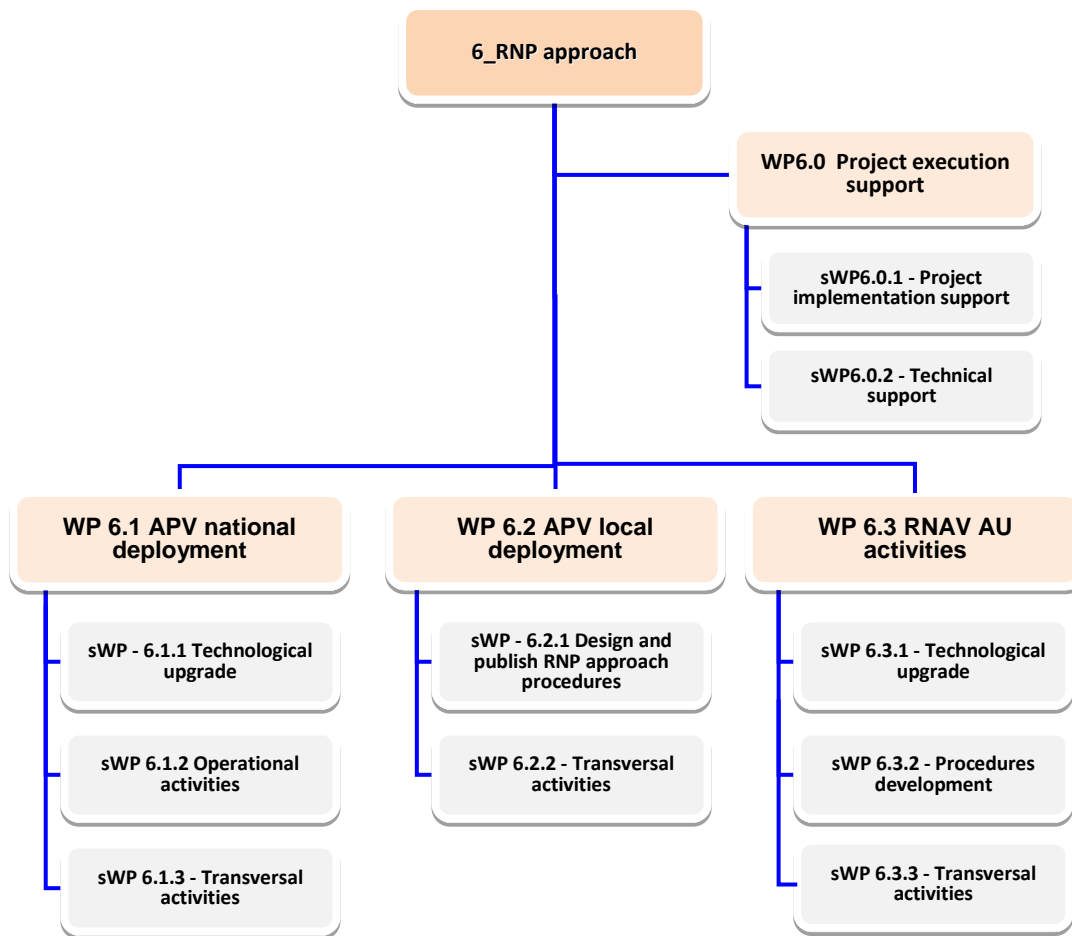


Figure 9 – RNP Approach WBS

The following Gantt chart reports the details of the activities foreseen within each SWP identified:

Task ID	Task Name	Resource Names
205	6_RNP approach	
206	WP 6.1 APV national deployment	
207	sWP - 6.1.1 Technological upgrade	
208	Define a minimal conventional navigation equipments network (to be notified with sufficient notice)	ANSP
209	Create or adapt a procedure design tool compliant for RNP and validate it	ANSP
210	sWP 6.1.2 Operational activities	
211	Identify a national RNP approach deployment plan according to priority criteria	ANSP
212	Cross check optimisation with NAVAIDS decommissioning plan	ANSP
213	sWP 6.1.3 - Transversal activities	
214	Develop generic national safety case for RNP approaches	ANSP

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Task ID	Task Name	Resource Names
215	WP 6.2 APV local deployment	
216	sWP - 6.2.1 Design and publish RNP approach procedures	
217	Design APV/BARO and/or APV/SBAS operations	ANSP
218	Publish procedure	ANSP
219	sWP 6.2.2 - Transversal activities	
220	Local consultations	ANSP, AU, airports
221	Safety assessment	ANSP
222	Training	ANSP, AU
223	WP 6.3 RNAV AU activities	
224	sWP 6.3.1 - Technological upgrade	
225	Check availability of technical solutions for used aircraft types	AU
226	Procure equipment according individual AU business CBA (link with sWP 6.3.3)	AU
227	Installation and airworthiness approval of equipment	AU
228	sWP 6.3.2 - Procedures development	
229	Develop procedures for RNAV approaches	AU
230	Integrate procedures into operational manuals	AU
231	sWP 6.3.3 - Transversal activities	
232	Individual AU business CBA	AU
233	Safety assesment	AU
234	Training	AU
235	Communication/ rising of awareness of crews and operational people	AU
236	WP6.0 Project execution support	
237	sWP6.0.1 - Project implementation support	
238	sWP6.0.2 - Technical support	
239	RNP approach implemented	

Table 9 – RNP Approach Gantt

6.7 Continuous Descent / Continuous Climb Operations (CDO/CCO) Application

In order to implement Continuous Descent Operation (CDO) and Continuous Climb Operation (CCO) Applications, two main threads have been envisaged as relevant: CDO Local Deployment and CCO Local Deployment.

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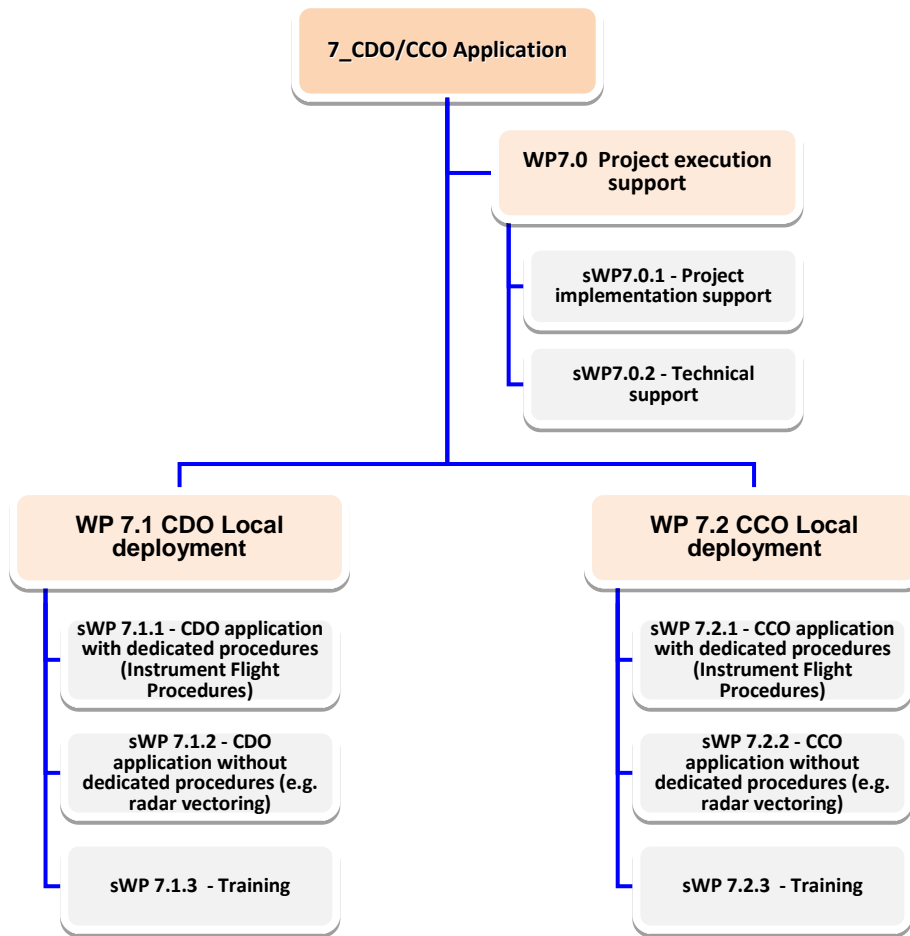


Figure 10 – CDO/CCO Application WBS

The following Gantt chart reports the details of the activities foreseen within each SWP identified:

Task ID	Task Name	Resource Names
240	7_CDO/CCO Application	
241	WP 7.1 CDO Local deployment (Airport XYZ)	
242	sWP 7.1.1 - CDO application with dedicated procedures (Instrument Flight Procedures)	
243	Design CDOps procedures	ANSP
244	Coordinate trials with one or more airlines via Customer Care meetings	ANSP, AU
245	Coordinate trials and procedures with adjacent ATS Units, when necessary	ANSP
246	Completion of trials and benefits evaluation	ANSP, AU
247	Inform the airlines about the possibility of performing CDOps and publish procedures in AIP	ANSP, AU
248	sWP 7.1.2 - CDO application without dedicated procedures (e.g. radar vectoring)	ANSP
249	sWP 7.1.3 - Training	ANSP, AU

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Task ID	Task Name	Resource Names
250	WP 7.2 CCO Local deployment (Airport XYZ)	
251	sWP 7.2.1 - CCO application with dedicated procedures (Instrument Flight Procedures)	
252	Design CCOps procedures	ANSP
253	Coordinate trials with one or more airlines via Customer Care meetings	ANSP, AU
254	Coordinate trials and procedures with adjacent ATS Units, when necessary	ANSP
255	Completion of trials and benefits evaluation	ANSP, AU
256	Inform the airlines about the possibility of performing CCOps and publish procedures in AIP	ANSP, AU
257	sWP 7.2.2 - CCO application without dedicated procedures (e.g. radar vectoring)	ANSP
258	sWP 7.2.3 - Training	ANSP, AU
259	WP7.0 Project execution support	
260	sWP7.0.1 - Project implementation support	
261	sWP7.0.2 - Technical support	
262	CDO/CCO Application implemented	

Table 11 – CDO/CCO Application Gantt

7. Next steps

Pending the opinion of the Commission and the consultation of the Single Sky Committee, the IDSG will continue to refine the draft IDP as described in the chapters 5 and 6 above. In particular, it is foreseen that by early October 2012, the Gantt charts developed per each IDP project, will be further fine-tuned and completed, including details related to the geographical applicability for the various Activity Areas as well as with the respective implementation dates reported by all the stakeholders involved.

In this way, the execution and monitoring of the programme will be facilitated and it will also be possible to clearly define when specific deployment items could be implemented and put in operation at inter-stakeholder level, enabling deployment improvements.

Beyond these final refinements of the IDP and its adoption by the IDSG, subject to Commission's positive opinion, the most crucial next step will consist into the launch of the execution of the programme itself by the IDSG consisting into the steering – mainly through recommendations – and the monitoring of the activities by the relevant stakeholders as identified in the IDP. This will imply connecting between the "theoretical" activities identified in the IDP as the ultimate result of the top-down approach derived from the Master plan (as explained in chapters 3 to 6 above) and "actual" activities and projects (already on-going or planned or decided). Through these connections, the IDP will "come to life" and the IDSG will be fed information on which it would base its monitoring reports and recommendations.

8. Conclusions

Within approximately six months after being set-up, the IDSG has established itself as a platform for collaborative support to the transitional mechanism for SESAR Deployment steering.

Sustained efforts of the various actors involved have resulted in the drafting of an Interim Deployment Programme (IDP) outline based on a commonly agreed prioritisation of the short-term deployment activities then translated in a comprehensive WBS and Gantt chart).

Through this intermediate report, the IDP outline is submitted to the Commission to seek its opinion in accordance with IDSG Rules of Procedure¹⁰. Upon positive opinion by the Commission, the IDP will constitute the main reference for IDSG's future work, aiming at steering and monitoring early SESAR deployment activities in direct support to the agreed priorities within the timeframe 2012-2014.

¹⁰ "Interim Deployment Steering Group Rules of Procedure", European Commission Ref. Ares(2012)156650 - 10/02/2012, article 2.4