INTERIM DEPLOYMENT STEERING GROUP

INTERIM DEPLOYMENT PROGRAMME V3.1

Interim Deployment Steering Group (IDSG)

Interim Deployment Programme (IDP)

Version 3.1

INTERIM DEPLOYMENT PROGRAMME V3.1

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1. Introduction

The Interim Deployment Programme (IDP) constitutes the working reference of the Interim Deployment Steering Group (IDSG). IDP aims at steering and monitoring early SESAR deployment activities in direct support to the agreed priorities within the timeframe 2012-2014.

In accordance with article 2.4 of IDSG's Rules of Procedure, this version 3.1 of the IDP has been adopted by the IDSG at its 5th meeting on 7 February 2013. This version 3.1 addresses comments received from the European Commission and the Single Sky Committee to which its previous versions have been submitted.

In accordance with articles 2.2 and 2.3 of IDSG's Rules of Procedure, the IDP:

- addresses the implementation activities in support to short term essential ATM operational changes based on the prioritisation set by the European ATM Master Plan,
- takes into account operational performance network needs and industry capability.
- encompasses detailed activities required from each relevant stakeholder for its timely execution.

These activities are described in a project-oriented approach, fully aligned and consistent with the main planning tools at European level, such as the European ATM Master Plan, in particular its level 3, which includes the ESSIP objectives, and the Network Strategy Plan.

2. Background

2.1The initial selection of priority actions for IDP

Since its establishment on 29 February 2012, the IDSG has started working on the selection of deployment priorities to be included in the IDP.

As reported to SSC/46, and using the Master plan as main input, in particular the operational changes in the SESAR baseline identified as essential¹, 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 Network Manager (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 below²:

¹ Draft Edition 2 of the Master Plan, chapters 3.3 and 3.4

² 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.

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 initial priorities table

2.2 <u>Methodology for developing the project view</u>

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:

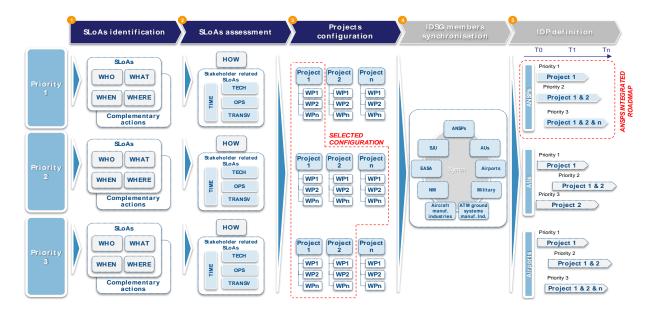


Figure 1 – **Methodology overview**

2.3 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?).

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 the level of the Expert Team of the IDSG (IDSG/ET).

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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 2.1 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) (Reason: within the IDP timeframe the focus is on APV);

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 ITY COTR Implementation of ground-ground automated co-ordination processes (Reason: within the IDP timeframe the focus is on Automated assistance to controllers)

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)

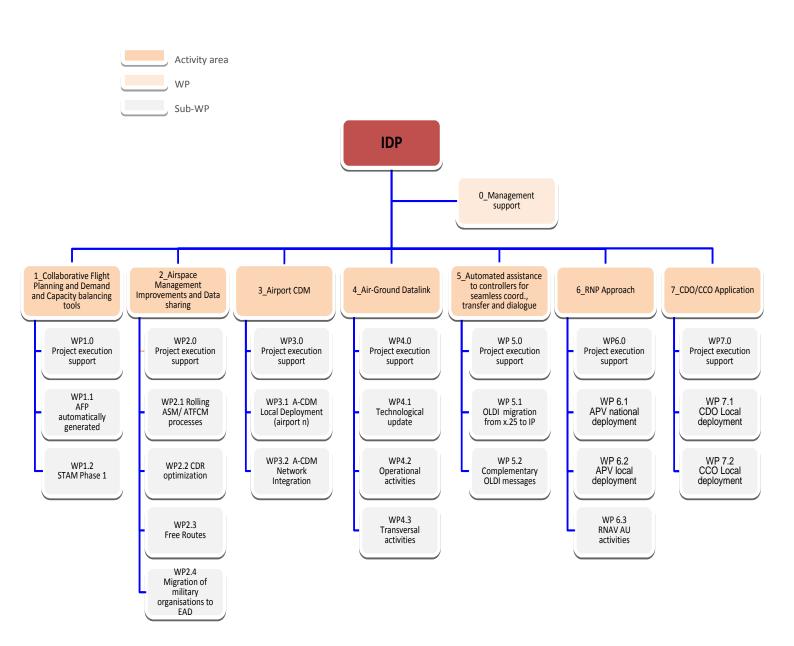


Figure 2- IDP WBS

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An initial mapping between the proposed IDP Activity Areas and the SESAR Key features is presented in Figure 3 below (the red boxes in the table showing the links of each activity area and the key features). Seeing as these links are in fact a "many-to-many" matrix, this has to be considered as showing only the **most relevant interdependences** 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 Management						
3. Airport CDM						
4. AGDL						
5. Automated assistance to Controller						
6. RNP Approaches						
7. CDO/CCO						

Figure 3-IDP WBS mapping to SESAR Key Features

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3. 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, including with specific tasks for military organisations related to civil-military coordination.

IDP version 3.0 introduces 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 (WP) has been included at Programme level. Such WP refers to "programme management" support activities to be performed by IDSG/ET, 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.

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3.1 <u>Collaborative Flight Planning and Demand and capacity balancing</u> <u>tools</u>

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

The automatic provision and processing of updated flight plan information is a key enabler to the enhancement of collaborative flight planning. The implementation of a number of ATC Flight Plan Proposal (AFP) messages are deemed as a priority, thus 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. STAM phase 1 initial deployment will address the use of Occupancy counts for the monitoring of sector configuration instead of Entry counts, as well as of procedures for manual implementation of STAM measures and relevant training.

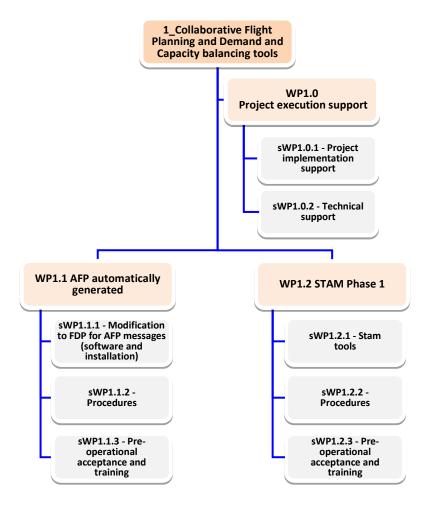


Figure 4- Collaborative Flight Planning and Demand Capacity balancing Tools WBS

Task		
ID	Task Name	Resource Names
3	1_Collaborative Flight Planning and Demand and Capacity balancing tools	
4	WP1.1 AFP automatically generated	
	sWP1.1.1 - Modification to FDP for AFP messages (software and	
5	installation)	
6	Provide AFP message for missing flight plans	ANSP (civil and MIL)
7	Provide AFP message for change of route	ANSP (civil and MIL)
8	Provide AFP message for diversion	ANSP (civil and MIL)
9	Provide AFP message for change of Aircraft Type	ANSP (civil and MIL)
10	Provide AFP message for change of Aircraft Equipment	ANSP (civil and MIL)
11	Check of the correctness of received AFP	NM
12	sWP1.1.2 – Procedures	
13	Procedures	ANSP (civil and MIL)
14	sWP1.1.3 – Pre-operational acceptance and training	
15	Safety assessment	ANSP (civil and MIL)
16	Pre-operational acceptance	ANSP (civil and MIL)
17	Training	ANSP (civil and MIL)
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
	Integration of ANSPs sector and traffic occupancy parameters data	
25	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	ANSI , AO, MINI
29	Safety assessment	ANSP
30	Pre-operational Acceptance	ANSP
31	Training	NM, ANSP
32	WP1.0 Project execution support	IVIVI, / IIVOI
33	sWP1.0.1 – Project implementation support	
34	sWP1.0.2 – Technical support	
34	Collaborative Flight Planning and Capacity Demand balancing tools	
35	implemented	

Table 4– Collaborative Flight Planning and Demand Capacity Tools Gantt

3.2 Airspace Management Improvements and Data sharing

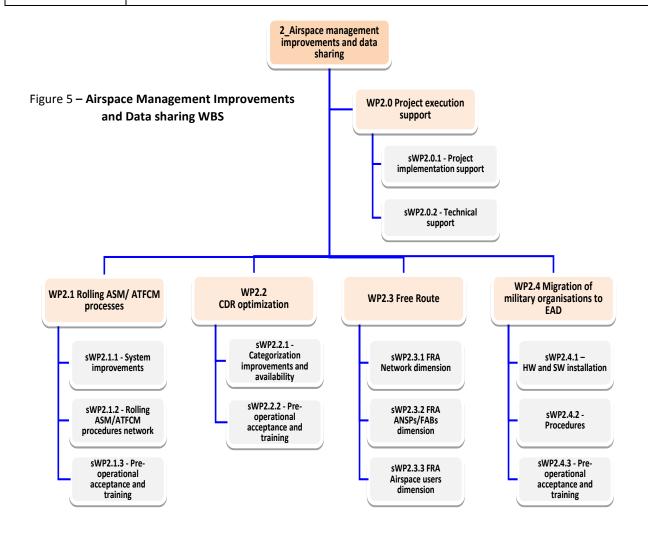
In order to implement the advanced airspace management improvements and data sharing, 4 main threads have been taken into account:

- 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 B2B³ services. In particular W.P 2.1.1 addresses the deployment of tools to support the rolling ASM/ATCFM processes. It includes tools to be deployed locally (ASM civil-military coordination tools) and tools at CNMF level (Airspace Data Repository-ADR) as well as their interoperability requirements. W.P 2.1.2 addresses the deployment of the relevant procedures.
- WP2.2 CDR optimization proposes rationalisation and further harmonisation 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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³ Business to Business

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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	
		Civil & Mil. ANSP,
40	ASM systems installation and deployment	Eurocontrol, AMC
	Develop Airspace Status integration in AIXM B2B to be	Civil & Mil. ANSP,
41	interoperable with ADR in AIXM 5.1	Eurocontrol
	Performing the integration of ASM support systems with the	Civil & Mil. ANSP,
42	Network	Eurocontrol
43	Airspace Data Repository (ADR)	
	Operational ASM data download in AIXM 5.1 with live	
44	updates	Eurocontrol
45	Interoperability with ASM tools in AIXM 5.1	Eurocontrol

Task		
ID	Task Name	Resource Names
46	Publication of restrictions in AIXM 5.1 format via B2B	Eurocontrol
	Interoperability between DNM database, official EAD data	
47	and DNM operational database (CACD)	Eurocontrol
48	Rolling NOP	
	<u> </u>	Civil & Mil. ANSP,
49	Flight Plan filing capability directly via the NOP portal	Eurocontrol
50		
		Civil & Mil. ANSP,
51	Management of AUP/UUP via B2B services	Eurocontrol
52	sWP2.1.2 – Rolling ASM/ATFCM procedures	
	Procedures – Draft AUP and UUPs including the submission to	Civil & Mil. ANSP,
53	the NM	Eurocontrol
		Civil & Mil. ANSP,
54	Pre-defined Airspace Solutions	Eurocontrol
		Civil & Mil. ANSP,
55	Implement Procedure 1 Coordination Process	Eurocontrol
		Civil & Mil. ANSP,
56	Implement Procedure 2 Release of Mil airspace	Eurocontrol
	Implement Procedure 3 Requests for unplanned Mil Activity	Civil & Mil. ANSP,
57	(digital NOTAM implementation?)	Eurocontrol
	Dalling ACMA/ATECNA Duranduran Davida una est	Civil & Mil. ANSP,
58	Rolling ASM/ATFCM Procedures Development	Eurocontrol
59	Rolling ASM/ATFCM Procedures Deployed (ASM tools, ADR and rolling NOP)	Civil & Mil. ANSP, Eurocontrol
39	Tolling NOF)	Civil & Mil. ANSP,
60	Submit UUP to CNFM	Eurocontrol
61	sWP2.1.3 – Pre-operational acceptance and training	Edi ocomero:
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)	CIVII & IVIII. AINSF
66	sWP2.2.1 – Categorization improvements and availability	Civil 9 Mil MICD
67	CDR rationalization	Civil & Mil. ANSP, Eurocontrol
67	CDR Tationalization	Civil & Mil. ANSP,
68	Procedures Development	Eurocontrol
- 30	CDR consistency achieved at national, bilateral & Sub-regional	Civil & Mil. ANSP,
69	level	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

Task		
ID	Task Name	Resource Names
	ADR and Airspace Management tools (modelling, simulation)	
78	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
	Adapt Airspace design and ensure FRA horizontal and	
83	vertical connectivity	NM, FAB, ANSP
0.4	Network overview – connectivity consistency of FRA cross-	NINA FAD ANICD
84	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 Upgrade local ASM tools for free route operation (NOP	
89	services of AUP/UUP)	FAB, ANSP
03	Upgrade FDP, if strictly required, to differentiate between	I AD, ANSI
90	different traffic type airspaces	FAB, ANSP
	FDP capability, if strictly required, to support cross-border	,
	FRA operations (direct route beyond AoR, DCT clearances,	
91	random entry/exit points)	FAB, ANSP
	Upgrade local flight plan reception and handling, if	
92	required	FAB, ANSP
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	FAB, ANSP,
97	free routes operation ASM Procedures for identifying and promulgating 'Free	Military, NM FAB, ANSP,
98	Route' areas	Military, NM
	ATC procedures to cover free route co-ordination and	
	ATC procedures to cover free route co-ordination and transfer of control, trajectory change in a free route	
99	•	FAB, ANSP
99 100	transfer of control, trajectory change in a free route	FAB, ANSP
100	transfer of control, trajectory change in a free route environment, conflict detection Transversal activities Validate FRA concept (airspace organisation, ATC/ATFCM	
100	transfer of control, trajectory change in a free route environment, conflict detection Transversal activities Validate FRA concept (airspace organisation, ATC/ATFCM and ASM procedures, airspace restrictions)	FAB, ANSP
100 101 102	transfer of control, trajectory change in a free route environment, conflict detection Transversal activities Validate FRA concept (airspace organisation, ATC/ATFCM and ASM procedures, airspace restrictions) Train ATCOs on the application of FRA	FAB, ANSP FAB, ANSP
100	transfer of control, trajectory change in a free route environment, conflict detection Transversal activities Validate FRA concept (airspace organisation, ATC/ATFCM and ASM procedures, airspace restrictions)	FAB, ANSP
100 101 102 103 104	transfer of control, trajectory change in a free route environment, conflict detection Transversal activities Validate FRA concept (airspace organisation, ATC/ATFCM and ASM procedures, airspace restrictions) Train ATCOs on the application of FRA Develop FRA Safety Case sWP2.3.3 FRA Airspace users dimension	FAB, ANSP FAB, ANSP
100 101 102 103	transfer of control, trajectory change in a free route environment, conflict detection Transversal activities Validate FRA concept (airspace organisation, ATC/ATFCM and ASM procedures, airspace restrictions) Train ATCOs on the application of FRA Develop FRA Safety Case	FAB, ANSP FAB, ANSP FAB, ANSP
100 101 102 103 104 105	transfer of control, trajectory change in a free route environment, conflict detection Transversal activities Validate FRA concept (airspace organisation, ATC/ATFCM and ASM procedures, airspace restrictions) Train ATCOs on the application of FRA Develop FRA Safety Case sWP2.3.3 FRA Airspace users dimension System improvements	FAB, ANSP FAB, ANSP FAB, ANSP NM,AU (AOC),
100 101 102 103 104 105	transfer of control, trajectory change in a free route environment, conflict detection Transversal activities Validate FRA concept (airspace organisation, ATC/ATFCM and ASM procedures, airspace restrictions) Train ATCOs on the application of FRA Develop FRA Safety Case sWP2.3.3 FRA Airspace users dimension System improvements Flight Planning system to support free routing	FAB, ANSP FAB, ANSP FAB, ANSP
100 101 102 103 104 105	transfer of control, trajectory change in a free route environment, conflict detection Transversal activities Validate FRA concept (airspace organisation, ATC/ATFCM and ASM procedures, airspace restrictions) Train ATCOs on the application of FRA Develop FRA Safety Case sWP2.3.3 FRA Airspace users dimension System improvements	FAB, ANSP FAB, ANSP FAB, ANSP NM,AU (AOC),

Task		
ID	Task Name	Resource Names
	Airline Operational Procedures to take into account airspace	
109	and traffic constraints when selecting a route	AU (civil & MIL)
110	Transversal activities	AU (civil & MIL)
111	AOC training	AU (civil & MIL)
112	WP2.4 Migration of military organisations to EAD	
113	sWP2.4.1 - HW and SW installation	
		Military ANSP,
114	Hardware Installation (depending on chosen solution)	Eurocontrol
		Military ANSP,
115	Connection to PENS	Eurocontrol
		Military ANSP,
116	Software installation (EADPro or MyEAD)	Eurocontrol
117	sWP2.4.2 - Procedures	
	Procedures (e.g. signature of letter of intent, drafting migration	Military ANSP,
118	and transition plan)	Eurocontrol
119	sWP2.4.3 - Pre-operational acceptance and training	
		Military ANSP,
120	Safety assessment	Eurocontrol
		Military ANSP,
121	Pre-operational Acceptance	Eurocontrol
		Military ANSP,
122	Training	Eurocontrol
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

3.3 Airport CDM

In order to facilitate the monitoring of Airport CDM implementation, it has been envisaged that a standard set of activities should be reiterated per each interested airport. The work is focusing on 6 elements of A-CDM as defined in the EUROCONTROL A-CDM guidance (i.e. Information sharing, Turn around process, Variable taxi times, Pre-departure sequencing, Adverse conditions and Collaborative management of flight updates)

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.

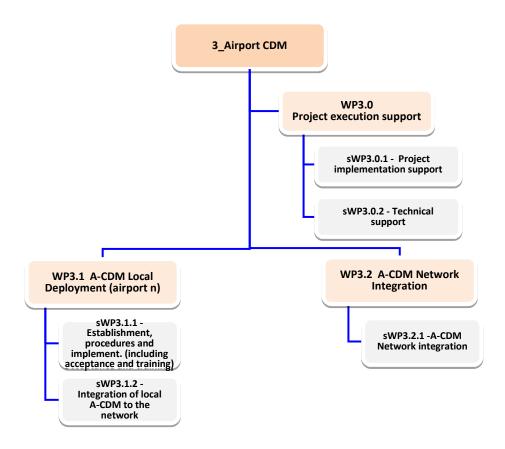


Figure 6 – Airport CDM WBS

Task		
ID	Task Name	Resource Names
127	3_Airport CDM	
128	WP3.1 A-CDM Local Deployment (airport: XYZ)	
	sWP3.1.1 - Establishment, procedures and implementation	
129	(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
	Implement variable taxi-times and pre-departure sequencing	
133	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
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	
	sWP3.0.2 - Technical support (e.g. A-CDM harmonisation, ad-hoc	
146	support, maintenance of (common) training)	
147	Airport A-CDM implemented	

Table 6- Airport CDM Gantt

3.4 Air-Ground Datalink

In order to rationalize the Air-Ground Datalink implementation approach, in line with DLS Implementing Rule (EC regulation 29/2009) 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

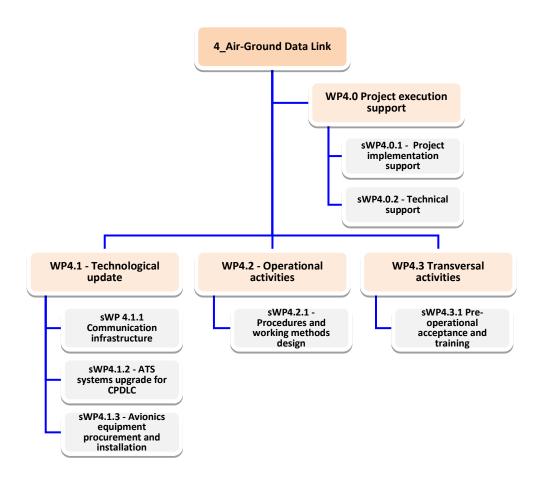


Figure 7– Air-Ground Datalink WBS

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, Military
152	G/G backbone installation (ITY-AGDL-ASP03)	ANSP, Military
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
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
	Operational Deployment of Data Link Services (including cockpit	ANSP, AU,
166	operational procedures)	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

3.5 <u>Automated assistance to controllers for seamless coordination, transfer and dialogue</u>

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 in line with the relevant EC regulations (Reg. 633/2007 and 283/2011)
- WP5.2 Complementary OLDI migration messages aims at putting in place systems updates as well as procedures to implement complementary OLDI messages

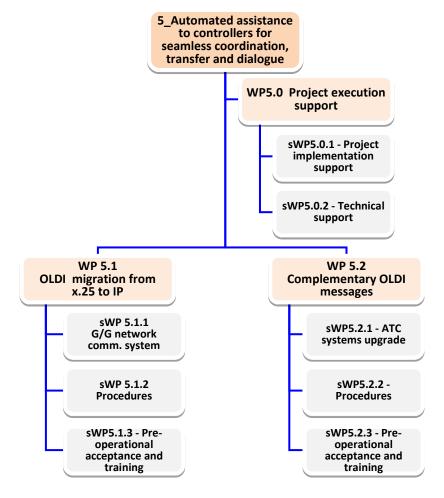


Figure 8 – Automated assistance to controllers for seamless coordination, transfer and dialogue WBS

Task		
ID	Task Name	Resource Names
	5_Automated assistance to controllers for seamless coordination, transfer	
176	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
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	
	Automated assistance to controllers for seamless coordination, Transfer and	
204	Dialogue implemented	

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

3.6 RNP Approach

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

WP6.1 – APV national deployment relates to the operational activities linked to the identification and deployment of Radio-navigation Plan

WP6.2 – APV local deployment relates to the deployment of two APV solutions at local level, both concerning APV/Baro and APV/SBAS

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

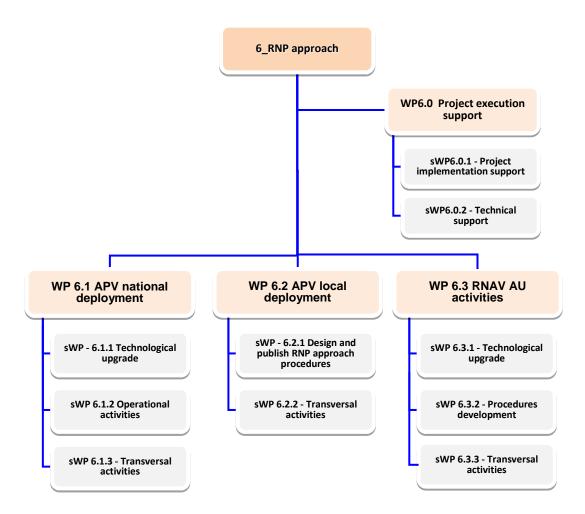


Figure 9 - RNP Approach WBS

Task		
ID	Task Name	Resource Names
205	6_RNP approach	
206	WP 6.1 APV national deployment	
207	sWP - 6.1.1 Technological upgrade	
	Define a minimal conventional navigation equipments	ANSP, Military authority,
208	network (to be notified with sufficient notice)	applicable airports
209	Create or adapt a procedure design tool compliant for RNP and validate it	ANSP, Military authority, applicable airports
210	sWP 6.1.2 Operational activities	
	Identify a national RNP approach deployment plan	ANSP, Military authority,
211	according to priority criteria	applicable airports
	Cross check optimisation with NAVAIDS	ANSP, Military authority,
212	decommissioning plan	applicable airports
213	sWP 6.1.3 - Transversal activities	
	Develop generic national safety case for RNP	ANSP, Military authority,
214	approaches	applicable airports
215	WP 6.2 APV local deployment	
	sWP - 6.2.1 Design and publish RNP approach	
216	procedures	
		ANSP, Military authority,
217	Design APV/BARO and/or APV/SBAS operations	applicable airports
		ANSP, Military authority,
218	Publish procedure	applicable airports
219	sWP 6.2.2 - Transversal activities	
		ANSP, Military authority,
220	Local consultations	applicable airports
224	Cofety accessors to	ANSP, Military authority,
221	Safety assessment	applicable airports
222	Training	ANSP, Military authority, applicable airports
223	WP 6.3 RNAV AU activities	applicable all polits
224	sWP 6.3.1 - Technological upgrade Check availability of technical solutions for used	ANCD Military outbority
225	aircraft types	ANSP, Military authority, applicable airports
	Procure equipment according individual AU business	ANSP, Military authority,
226	CBA (link with sWP 6.3.3)	applicable airports
		ANSP, Military authority,
227	Installation and airworthiness approval of equipment	applicable airports
228	sWP 6.3.2 - Procedures development	
		ANSP, Military authority,
229	Develop procedures for RNAV approaches	applicable airports
_		ANSP, Military authority,
230	Integrate procedures into operational manuals	applicable airports

Task		
ID	Task Name	Resource Names
231	sWP 6.3.3 - Transversal activities	
232	Individual AU business CBA	ANSP, Military authority, applicable airports
233	Safety assesment	ANSP, Military authority, applicable airports
234	Training	ANSP, Military authority, applicable airports
235	Communication/ rising of awareness of crews and operational people	ANSP, Military authority, applicable airports
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

3.7 <u>Continuous Descent / Continuous Climb Operations (CDO/CCO)</u> <u>Application</u>

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.

CDO is enabled by airspace design, procedure design and facilitation by ATC, in which an arriving aircraft descends continuously, to the greatest possible extent, by employing minimum engine thrust, ideally in a low drag configuration, prior to the final approach fix/final approach point (FAF/FAP). An optimum CDO starts from the top-of-descent (TOD) and uses descent profiles that reduce controller-pilot communications and segments of level flight.

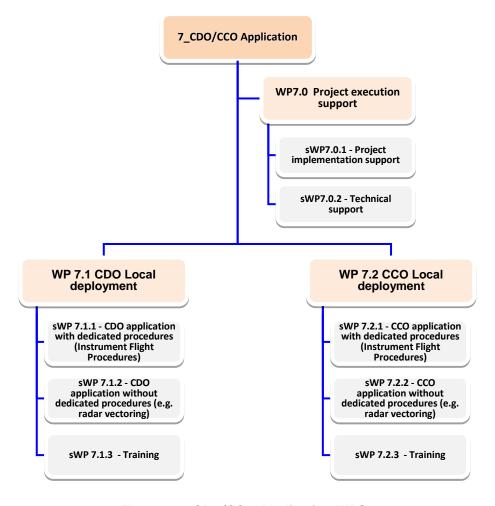


Figure 10 - CDO/CCO Application WBS

Task		
ID	Task Name	Resource Names
240	7_CDO/CCO Application	
241	WP 7.1 CDO Local deployment (Airport XYZ)	
241	sWP 7.1.1 - CDO application with dedicated procedures	
242	(Instrument Flight Procedures)	
	(monument ingine i roccuures)	ANSP, applicable
243	Design CDOps procedures	airports
	Coordinate trials with one or more airlines via Customer	ANSP, AU, applicable
244	Care meetings	airports
	Coordinate trials and procedures with adjacent ATS Units,	ANSP, applicable
245	when necessary	airports
	,	ANSP, AU, applicable
246	Completion of trials and benefits evaluation	airports
	Inform the airlines about the possibility of performing	ANSP, AU, applicable
247	CDOps and publish procedures in AIP	airports
	sWP 7.1.2 - CDO application without dedicated procedures	ANSP, applicable
248	(e.g. radar vectoring)	airports
		ANSP, AU, applicable
249	sWP 7.1.3 - Training	airports
Task		
ID	Task Name	Resource Names
250	WP 7.2 CCO Local deployment (Airport XYZ)	
	sWP 7.2.1 - CCO application with dedicated procedures	
251	(Instrument Flight Procedures)	
		ANSP, applicable
252	D	
	Design CCOps procedures	airports
	Coordinate trials with one or more airlines via Customer	ANSP, AU, applicable
253	Coordinate trials with one or more airlines via Customer Care meetings	ANSP, AU, applicable airports
	Coordinate trials with one or more airlines via Customer Care meetings Coordinate trials and procedures with adjacent ATS Units,	ANSP, AU, applicable airports ANSP, applicable
253 254	Coordinate trials with one or more airlines via Customer Care meetings	ANSP, AU, applicable airports ANSP, applicable airports
254	Coordinate trials with one or more airlines via Customer Care meetings Coordinate trials and procedures with adjacent ATS Units, when necessary	ANSP, AU, applicable airports ANSP, applicable airports ANSP, AU, applicable
	Coordinate trials with one or more airlines via Customer Care meetings Coordinate trials and procedures with adjacent ATS Units, when necessary Completion of trials and benefits evaluation	ANSP, AU, applicable airports ANSP, applicable airports ANSP, AU, applicable airports
254 255	Coordinate trials with one or more airlines via Customer Care meetings Coordinate trials and procedures with adjacent ATS Units, when necessary Completion of trials and benefits evaluation Inform the airlines about the possibility of performing	ANSP, AU, applicable airports ANSP, applicable airports ANSP, AU, applicable airports ANSP, AU, applicable airports
254	Coordinate trials with one or more airlines via Customer Care meetings Coordinate trials and procedures with adjacent ATS Units, when necessary Completion of trials and benefits evaluation Inform the airlines about the possibility of performing CCOps and publish procedures in AIP	ANSP, AU, applicable airports ANSP, applicable airports ANSP, AU, applicable airports ANSP, AU, applicable airports ANSP, AU, applicable airports
254 255 256	Coordinate trials with one or more airlines via Customer Care meetings Coordinate trials and procedures with adjacent ATS Units, when necessary Completion of trials and benefits evaluation Inform the airlines about the possibility of performing CCOps and publish procedures in AIP sWP 7.2.2 - CCO application without dedicated procedures	ANSP, AU, applicable airports ANSP, applicable airports ANSP, AU, applicable airports ANSP, AU, applicable airports ANSP, AU, applicable airports ANSP, AU, applicable
254 255	Coordinate trials with one or more airlines via Customer Care meetings Coordinate trials and procedures with adjacent ATS Units, when necessary Completion of trials and benefits evaluation Inform the airlines about the possibility of performing CCOps and publish procedures in AIP	ANSP, AU, applicable airports ANSP, applicable airports ANSP, AU, applicable airports ANSP, AU, applicable airports ANSP, AU, applicable airports ANSP, applicable airports
254 255 256 257	Coordinate trials with one or more airlines via Customer Care meetings Coordinate trials and procedures with adjacent ATS Units, when necessary Completion of trials and benefits evaluation Inform the airlines about the possibility of performing CCOps and publish procedures in AIP sWP 7.2.2 - CCO application without dedicated procedures (e.g. radar vectoring)	ANSP, AU, applicable airports ANSP, applicable airports ANSP, AU, applicable airports ANSP, AU, applicable airports ANSP, AU, applicable airports ANSP, applicable airports ANSP, applicable airports
254 255 256 257 258	Coordinate trials with one or more airlines via Customer Care meetings Coordinate trials and procedures with adjacent ATS Units, when necessary Completion of trials and benefits evaluation Inform the airlines about the possibility of performing CCOps and publish procedures in AIP sWP 7.2.2 - CCO application without dedicated procedures (e.g. radar vectoring) sWP 7.2.3 - Training	ANSP, AU, applicable airports ANSP, applicable airports ANSP, AU, applicable airports ANSP, AU, applicable airports ANSP, AU, applicable airports ANSP, applicable airports
254 255 256 257 258 259	Coordinate trials with one or more airlines via Customer Care meetings Coordinate trials and procedures with adjacent ATS Units, when necessary Completion of trials and benefits evaluation Inform the airlines about the possibility of performing CCOps and publish procedures in AIP sWP 7.2.2 - CCO application without dedicated procedures (e.g. radar vectoring) sWP 7.2.3 - Training WP7.0 Project execution support	ANSP, AU, applicable airports ANSP, applicable airports ANSP, AU, applicable airports ANSP, AU, applicable airports ANSP, AU, applicable airports ANSP, applicable airports ANSP, applicable airports
254 255 256 257 258 259 260	Coordinate trials with one or more airlines via Customer Care meetings Coordinate trials and procedures with adjacent ATS Units, when necessary Completion of trials and benefits evaluation Inform the airlines about the possibility of performing CCOps and publish procedures in AIP sWP 7.2.2 - CCO application without dedicated procedures (e.g. radar vectoring) sWP 7.2.3 - Training WP7.0 Project execution support sWP7.0.1 - Project implementation support	ANSP, AU, applicable airports ANSP, applicable airports ANSP, AU, applicable airports ANSP, AU, applicable airports ANSP, AU, applicable airports ANSP, applicable airports ANSP, applicable airports
254 255 256 257 258 259	Coordinate trials with one or more airlines via Customer Care meetings Coordinate trials and procedures with adjacent ATS Units, when necessary Completion of trials and benefits evaluation Inform the airlines about the possibility of performing CCOps and publish procedures in AIP sWP 7.2.2 - CCO application without dedicated procedures (e.g. radar vectoring) sWP 7.2.3 - Training WP7.0 Project execution support	ANSP, AU, applicable airports ANSP, applicable airports ANSP, AU, applicable airports ANSP, AU, applicable airports ANSP, AU, applicable airports ANSP, applicable airports ANSP, applicable airports

Table 11 – CDO/CCO Application Gantt

INTERIM DEPLOYMENT PROGRAMME V3.1

4. Next steps

Whilst the IDP constitutes the working reference for the IDSG, it remains a leaving document. The IDSG will ensure the maintenance of the IDP, including its annexes. In particular, its annex 2 which includes the overall Gantt Chart for all activities under IDP's WBS, will endeavour to capture planning information from all stakeholders whereas the current version is limited to ANSPs.

The IDP constitutes the first deliverable of the IDSG. Now that the adoption of the IDP by the IDSG has marked the start of IDSG's steering and monitoring phase, the IDP will be complemented by an IDP EXECUTION PROGRESS REPORT which will provide a synthetic view of IDP's Activity Areas implementation status supported by detailed analysis and recommendations as needed to keep IDP EXECUTION as aligned as possible with the plans from which the IDP derives (ATM Master Plan's level 3 – ESSIP – and Network Strategy Plan).

In this direction, the IDSG has already initiated the assessment of the initial status of the IDP, looking at establishing a baseline for future project level monitoring, in order to ensure that the real monitoring on the IDP implementation towards the stakeholders' identified timeframes takes place from early 2013. An initial darft version of the IDP EXECUTION PROGRESS REPORT has been submitted by the IDSG/ET to the IDSG at its 5th meeting on 7 February 2013 in order to seek guidance and opinion.