Project Closure Report

Document information	
Project title	Airport Operations Plan
Project N°	06.05.01
Project Manager	SEAC [redacted]
Deliverable	Project Closure Report
Edition	00.00.02
Template version	02.00.01

Task contributors
SEAC, AENA, EUROCONTROL, INDRA.

Abstract

This is the Project Closure Report of P6.5.1.

The steps as set by the SJU in the Execution Guidelines for Project Closure are followed.

P6.5.1 shall be used as a test case for the closure procedure of the SJU. Closure of P6.5.1 will be used to test the procedure and guidance document in order to establish a common framework for closing projects.

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Document History

Edition	Date	Status	Author	Justification
00.00.01	10/05/2012			First Draft
00.00.02	19/6/2012			Draft including remarks AENA, INDRA, ECTL, AMS, ADP, ZRH, MUC

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1 Introduction

1.1 Objective of the document

The objective of this Project Closure Report is to ensure that the project is closed efficiently and effectively and that;

- The agreed scope has been completed, removed or reallocated and status documented.
- The final project objectives have been achieved.
- No work or actions are left unfinished or outstanding.
- All parties agree and are informed of project closure.
- The final projected costs are in line with the contract.

P6.5.1 shall be used as a test case for the closure procedure of the SJU. Closure of P6.5.1 will be used to test the procedure and guidance document in order to establish a common framework for closing projects.

1.2 Approach & Workflow

Key features of the approach are:

- The SJU Programme Manager at the final project Gate, scheduled May 15, 2012 will initiate the Closure procedure if they are satisfied that the project has completed their scope of work or there is no further need for the project to continue. At this point the project will have the status “Proposed for Closure”
- Project Managers should complete and submit the Final Project Report.
- Project Members should each submit a Final Cost Breakdown form.
- The Project Manager will review and close off all project registers and actions, the Programme Manager will verify closure.
- The SJU will review and approve the Final project report and publish the project results in summary form on the SJU Internet site.
- The SJU will review and verify that the projected final costs are within the agreed budget and are not less than the last “Interim Financial Statement”.

On approval of this Final Report and confirmation that the final costs are within budget, a formal Closure Decision will be issued by the SJU and the Project Status will be set to “Closed”.

Project Closure will be done in four steps:

1. Step1: Initiate Closure (see section 2)
2. Step 2: Consolidate Closure (see section 3)
3. Step 3: Review and Verify project results (see section 4)
4. Step 4: Issue formal Closure Decision (see section 5)

1.3 Reference list

- P6.5.1 Project Initiation Report Part 1
- P6.5.1 Project Initiation Report Part 2
- The European ATM Master Plan – Draft Edition 2 – 2012 Edition

2 Step 1: Initiate Closure

The Closure Procedure is closely coupled to the Gate Procedure. At the final Gate scheduled May 15, 2012 the SJU programme manager will consider if the project should enter the closure phase. Reason to enter the closure phase is that the project has completed all of the allocated scope and had all deliverables (with the exception of the Final Project Report) assessed with a recorded assessment result.

When the decision to enter the Closure Phase is taken the SJU Programme Manager instructs the Project Manager to complete and submit the "Final Project Report" using the standard template. The Programme Manager also instructs the participating Members produce and submit their "Final Cost Breakdown Forms".
The SJU Programme Manager instructs the PQC to set the Project Status to "Proposed for Closure" and update the extranet.

3 Step 2: Consolidate Closure

The purpose of this step is to systematically close off all project activities, schedules and registers ensuring that all scope is completed and no open risks or issues remain.
The Project Closure checklist defines all the minimum items to be closed and checked and covers both internal (SJU) and external (Project and member) activities. The Project Manager will close out all project related aspects and confirm to the SJU when these have been done.

In accordance with the MFA, the Project Manager must submit the Final Project Report within 60 days of submitting the final deliverable, therefore, for all projects; the Interim Report submitted prior to the last gate shall constitute the "final contractual deliverable". The Project Manager shall then prepare and submit the Final Project Report (using the Final report template). Each participating member shall prepare and submit a Final Cost Breakdown Form detailing the estimated final costs for the project. All of which must be submitted to the SJU within 60 days of the Interim Report submission.

It is accepted that the cost presented in the Final Cost Breakdown Forms are not the final costs for the project, as the final costs will be submitted through the interim and subsequently Final Financial statements, however the Final Cost Break Down Forms should contain "Accurate Estimates" from each member for their costs incurred on the project.

3.1 Final Report

The Submission of this Final Report will be done as any other deliverable, following the handover workflow on the SESAR Extranet.

This Report is split into the following sections:

Publishable summary (Section 3.1.1)	The objective of the Publishable summary is to be informative and shall cover the results and conclusions relating to the concerned Members' participation in the project. This summary should be less than two pages, except for very long project (more than 2 years) for which up to four pages can be accepted. This summary must be self contained and therefore not contain reference to subsequent sections in the document.

	All statements in the Executive summary should be supported by facts. This text shall be published on the SESAR Website as a stand-alone document to describe the project and to explain what the project's results are.
Project Contributions (Section3.1.2)	The Project Manager should detail the progress and contribution the project has made to the ATM Master Plan. They should specifically identify the OI's and EN's supported and their projects contributions to them. The Project Manager should also detail the projects contribution to the Roadmap for Deployment Activities. Finally the Project manager should describe the projects contributions to standardization and Norms. According to the MFA, new Standards and Norms Proposals define, amongst other, uniform technical and/or operational Specifications for engineering or technical criteria, configurations, materials, equipment, methods, procedures and practices, and aim ultimately at ensuring interoperability of air traffic management systems in Europe and at enhancing Air Traffic Management capabilities in Europe (such as safety, capacity, security, environment), which may become compulsory upon approval and adoption of the duly empowered authority. Note: This section should identify both the actual or potential contribution of the project Members to the development of new Standards and Norms Proposals. If members did not made progress towards the ATM Master Plan, the Roadmap for Deployment Activities or make any Contribution to "Standardisation and Norms" the Project Manager should indicate for each area of non contribution, "This section is not applicable for the project" and explain why. For example a Management project may not have made any direct contribution to OI's or EN's
Project Lessons Learned (Section3.1.3)	The purpose of this section is to identify and record the positive aspects (people, process, tools) of the project which should be propagated to other projects in this or other programmes and conversely to identify the negative aspect that should be avoided by the other projects in this or other programmes. Therefore to provide a balanced picture and take forward good practices as well as potential improvements this section should contain the top 5 positive aspects from the project which could and should be re-applied to other projects and the top 5 areas for improvement with suggested improvement actions. It is expected that this is the Project view and not just that of the Project Manager or Author of the report. Therefore each project is expected to hold a lessons learned review where these items are discussed and agreed upon, and where positive corrective actions for the future can be identified.
Project Achievements (Section 3.1.4)	This section provides an overview of the deliverables and explanations of the discrepancies between the planned and actual work carried out in the Project.

3.1.1 Publishable summary

Project 6.5.1 “Airport Operations Plan (AOP) Definition” formally started in January 2010 with SEAC, EUROCONTROL, AENA and INDRA as contributors. Project 6.5.1 sits within the sub-work package 6.5 that develops the total Collaborative Airport Planning concept within the SESAR Concept of Operations.

Objective of SWP 6.5 is the development and validation of processes, systems and tools to deliver a fully integrated performance based Airport Operations Management from the earliest stage of operations planning through to, and including the management actions taken on the day of operation. Main objective for project 6.5.1 was to set up the basis for the development of the single source of airport information, the Airport Operations Plan (AOP), as also to identify the required commitment to and maintenance of this AOP.

The AOP balances the airport-elements of the airspace user’s business trajectories against the airport resources, taking into account local constraints as also relevant network operational restrictions / limitations. It ranges from agreed airport performance targets and trade-off rules, the availability of the different stakeholders resources to a detailed event-resource-usage description enabling the operations at the airport to take place as a time-ordered system.

Since limitations in airport capacity are a major constraint for the overall capacity of the air transport system, it is of essential importance that airport operations are taken into account in the earliest stages of the overall network planning process. The Network Operations Plan (NOP) will be enriched with airport specific data through the AOP and viceversa. Changes in figures of the AOP content will be constantly updated (rolling plan)

Through a Collaborative Airport Planning and in partnership with all stakeholders, the AOP aims at achieving a common business approach to the aircraft ground and flight management processes. This is done by effectively linking the fragmented flight segments, including the aircraft turn around process, through the Airport Business Trajectory concept.

To achieve its objectives the project has put forward the following deliverables:

- An input Collection Report (D03): The report gives a short overview and provides quick access to the relevant documents and applied practices in conjunction to the upcoming work to do in the project AOP Definition. The report provides a short description of the reference documents content in chapter 2 and of relevant practices in chapter 3. The conjunction matrix in chapter 4 gives a quick overview of the relevant reference document chapters in connection to the tasks and deliverables to be developed in the project.
- An Identification of Key Performance Areas and Focus Areas (D04): An analysis of previously studied Key Performance Areas (KPAs) and Focus Areas for airport performance planning and monitoring is provided. KPAs and Focus Areas which need to be included in the performance framework of the AOP for planning and monitoring activities are identified. The identified KPAs are: Capacity, Flexibility, Environmental Sustainability, Predictability and Efficiency. Performance drivers for each of these KPAs are defined.
- A Methodology Document and several KPA Analysis Documents (D05 + D06): The methodology document, describes which methodology is used by all task contributors to develop and produce standard analysis and deliverables associated to the identified KPI’s and their relevant performance drivers. The methodology addresses two main steps:1) the selection of Key Performance Areas which impact Airport Performance, the associated Focus Areas and the Generic KPI’s to asses Airport Output Performance; and 2) the identification and analysis of the elements impacting airport performance, in

order to select the Performance Drivers used for by airport operations / performance monitoring, mainly, during the execution phase.

The analysis documents follow this methodology and provide the final identification and evaluation of the relevant key performance indicators (KPI). Also the identification and analysis of the Performance Drivers by means of a qualitative analysis, obtaining an Influence Diagram, is presented.

- An AOP Scope Document (D08): This document provides the scope of the AOP. The AOP is the fundamental building block for collaborative airport planning of the SESAR concept of operations. The AOP content as also high level requirements are addressed. The document describes: SESAR operational concept in relation to the AOP; the AOP in relation to the business trajectory; the NOP and the link to the AOP; AOP preliminary guidelines; the AOP in relation to different stages of development; initial identification of AOP supporting services; and the AOP and the different airport stakeholders.
- A Performance Framework Coherency Check (D07): This coherency check is performed in order to ensure that the airport Key Performance Indicators (KPIs) and associated definitions in project 6.5.1 are consistent with the overall performance framework. It describes the relevant elements of the existing performance framework available at the start of P6.5.1, it describes the relevant elements of the performance framework developed within P6.5.1, and it describes and justifies the differences. In addition, the maturity of the different elements of the performance framework in P6.5.1 is assessed.
- Airport Performance Monitoring (D09): This document describes the monitoring of the AOP during the execution phase (day of operation) with a short view to the medium term phase. The monitoring is based on a bottom up approach provided by process sub-monitors which follows the main airport processes (aircraft, passenger and baggage) and a top down approach based on the performance framework developed in the Methodology Document and several KPA Analysis Documents (D05 +D06).
- AOP Decision Support Mechanisms (D10): This document describes how the AOP is used in the decision making process to manage the airport operations in order to avoid or reduce the impact of deviations on ABTs and/or airport processes. This is done by using the airport performance framework, parameters and agreed targets as also the related services (Airport Monitoring Service, Impact Assessment Service, and Decision Support Service), ensuring appropriate communication and information exchange with the NOP. The Impact Assessment Service and the Decision Support Service as part of the services associated to the AOP management are described in further detail.
- AOP Management (D11): This document develops the core content of the AOP and describes the management of the AOP based on different scenarios that might happen during the AOP lifecycle. It addresses the roles or responsibilities of the relevant stakeholders and describes the procedures. The management of the AOP will focus mainly on the medium term planning phase and the post analysis phase, and the link with P6.5.4 “Airport Operations Centre Definition” where the short term planning and execution phases will be established.
- AOP Functional Requirements and Initial Technical Feasibility Report V1 (D12): This document provides the specification of a set of operational and functional requirements for the content and use of an Airport Operations Plan. It provides an initial assessment of the different technical alternatives and solutions for future AOP prototypes, being aware of the fact that assessment and development in detail is the responsibility of the related technical projects.

Project 6.5.1 is part of the Operational Focus Area (OFA) 05.01.01. This OFA clusters dependent operational (and technical) projects that have common operational themes and validation goals around Airport Operations Management. Objective for the projects in this OFA is to combine their efforts and progress

forward jointly as an OFA rather than as individual projects. In line with the decision to transit to the proposed OFA way of working, Tasks 013, T014, T015, T016 and T017 of PP6.5.1 have not been executed as planned in the original PIR. Instead, project 6.5.1 contributed to the integral OFA OSED document and next to the contribution in various Working Groups, took the lead in the Working Group 1 'Performance Steering Service".

3.1.2 Project contributions

This section describes the project contributions of P6.5.1.

In particular on OI's (section 3.1.2.1), EN's (section 3.1.2.2), Road for Deployment (section 3.1.2.3) and Standardization and Norms (section 3.1.2.4).

3.1.2.1 OI's

The original OI's of P6.5.1 (extracted from the PIR) are given below. In the table the specific P6.5.1 contribution is stated.

OI code	OI Title	IOC	FOC	P6.5.1 contribution
AO-0703	Aircraft Noise Management and Mitigation at and around airports	2008	2016	Inclusion of Environment KPA and KPI's in the Airport Performance Framework and in the AOP content.
DCB-0201	Interactive Network Capacity Planning	2007	2015	Inclusion of Up-to-date and comprehensive capacity data and information from ANSPs and airports into the AOP
DCB-0101	Enhanced Seasonal NOP Elaboration	2007	2009	Provision and continuous update of demand and capacity data within the AOP, accessible by all AOP stakeholders
DCB-0301	Improved Consistency between Airport Slots, Flight Plans and ATFM Slots	2012	2015	Inconsistencies between airport slots, flight plan / SBT and ATFM-slots is retrieved and recorded and recorded in the AOP.
AUO-0801	Environmental Restrictions Accommodated in the Earliest Phase of Flight Planning	2013	2016	Introduction of environmental restrictions at the earliest stage of flight / SBT planning and airport resource planning. Inclusion of Environment KPA and KPI's in the Airport Performance Framework and in the AOP content.
AUO-0203	Shared Business/Mission Trajectory (SBT)	2016	2025	Inclusion of the Airspace users intent (SBT) in the AOP makes it possible to improve the earliest planning phase.
AUO-0204	Agreed Reference Business / Mission Trajectory (RBT) through Collaborative Flight Planning	2016	2025	Continuous update of the business trajectory in the AOP in order to plan (airport) resources at the most accurate and up-to-date information
DCB-0206	Coordinated Network Management Operation Extended within Day of Operation	2007	2013	Continuous information exchange between AOP and NOP. Definition of required information from NOP.
DCB-0207	Management of Critical Events	2012	2016	Consequences of Critical events (sudden capacity reduction) identified in through continuous monitoring

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DCB-0302	Collaborative management of Flight Updates	2010	2014	Changes in demand and capacity is continuously available to all airport stakeholders through the AOP. AOP is single source of airport operational information
AUO-0102	User Driven Prioritisation Process (UDPP)	2018	2021	AOP as single source of airport operational information will provide input to future UDPP process

3.1.2.2 EN's

The original EN's of P6.5.1 (extracted from the PIR) are given below. In the table the specific P6.5.1 contribution is stated.

EN code	EN Title	IOC	P6.5.1 contribution
PRO-ENV-12b	Exploiting new ATM and aircraft capabilities to optimise the aircraft noise footprint at airports	2007	Post operations analysis on stored AOP data will improve possibilities to compare future ATM changes with existing ones and thus determine the efficiency of these changes.
PRO-ENV-13b	Airport Procedures for exploiting new ATM and aircraft capabilities with a view to optimising atmospheric emissions from aircraft operations	2007	Post operations analysis on stored AOP data will improve possibilities to compare future ATM changes with existing ones and thus determine the efficiency of these changes.
PRO-215a	Airline Procedures Linked to Collaborative Flight Planning	2008	AOP is single source of airport operational information
PRO-215b	ATC Procedures Linked to Collaborative Flight Planning	2008	AOP is single source of airport operational information
PRO-215c	Airport Procedures Linked to Collaborative Flight Planning	2008	AOP is single source of airport operational information
PRO-096b	Airline Operational Procedures for creating and updating the Shared Business / Mission Trajectory	2015	AOP is single source of airport operational information
PRO-001	FCM Procedures to incorporate information received from multiple sources into the NOP	2007	AOP is single source of airport operational information
ENV-07	(Local) monitoring of environmental performance	2008	Post operations analysis on stored AOP data will improve the (local) monitoring of environmental performance. Inclusion of Environment KPA and KPI's in the Airport Performance Framework and in the AOP content.

3.1.2.3 Road for Deployment

The AOP supports the Airport Integration and Throughput strategic orientation as described in 2012 European ATM Master Plan. As the number of airports in the medium, high and very-high capacity categories increases, the need for integrated planning between airport and network operations increases.

The AOP provides a robust plan for airport operations from more than six-months prior to operation through to, and including, the day of operations. The planning around aircraft movements on the airport is integrated with the planning around aircraft movements in the air, thereby joining up the trajectories of inbound and outbound flights via the Airport Business Trajectory (ABT).

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The linking of the AOP/NOP parameters optimise the network and airport management by timely and simultaneously updating AOP and NOP via SWIM, providing Network and Airport managers with a commonly updated, consistent and accurate plan.
This planning by trajectory is a pre-cursor to further SESAR deployments whereby both the airport and the network will be able to monitor and manage the impact of changes driven by either, airspace user operational decisions, weather, or changes in other limited resources.
The AOP itself is build on the monitoring and management within the tactical timeframe of airport operations introduced in the deployment baseline as Airport – Collaborative Decision Making.
Within the ATM Master Plan the AOP concept is captured by the Essential Step 1 Operational Change 'Network Operations Planning' as the AOP is considered to form part of the overall Network Operations Plan. However, as is shown by the variability of the IOC and FOC dates of the OI's and EN's identified above, the deployment of the AOP will not realise it's maximum benefit for the network until all the supporting elements are implemented across the ANSP, NM and Airspace User stakeholder groups.
Although the deployment of the AOP will be encouraged, it is not seen as an essential operational change within the European ATM Network. As such, deployment will rely on a positive business cases on an airport by airport basis.

3.1.2.4 Standardization and Norms

The AOP is incorporated within the Network Operations Planning concept of the European ATM Master. At this time the Standardisation Body are planning to publish documentation on the following topics:

Airspace status information exchange – 2015

Network Operations based on 4D trajectories – 2018

These standards although not directly applicable to the AOP, may include aspects related to the AOP.

There is currently no regulatory roadmap for the AOP or NOP, however 'Integrated Airport Management' has been identified as an area for investigation in the future.

3.1.3 Project lessons learned

This section identifies the positive aspects (people, process, tools) of the project which can be propagated to other projects in this or other programmes and conversely identifies the negative aspect that should be avoided by the other projects in this or other programmes. To provide a balanced picture and take forward good practices as well as potential improvements this section contains the top 5 positive aspects from the project which could and should be re-applied to other projects and the top 5 areas for improvement with suggested improvement actions.

3.1.3.1 Top 5 positive aspects

1. Clear structure and division of roles and responsibilities. One task lead and contributors from different partners to come up with an agreed upon deliverable.
2. Same contributors and partners from the start, known relationships which fostered the results and cooperation.
3. Keep it simple and surveyable. Not too much contributors, partners or too large scopes for tasks.
4. Flexible. Adaptive to changing working structure (from Project oriented to OFA oriented)
5. P6.5.1 as one of the early starting projects being a test case for other projects (like this closure procedure). The lessons learned from P6.5.1 becomes available for application by other projects.

3.1.3.2 Top 5 areas for improvement

1. Involving the Airspace Users from the beginning would help in efficiency.

2. Contributors in our project were progressively being involved in parallel tasks from other projects. This increased the working pressure for the contributors and required additional effort to keep focus on the content and progress of the P6.5.1 project.

3. Interaction with other projects was limited and in some cases non-existent.

4. No coordinated start of relevant projects. Missing guidance from SWP6.2 (DOD not available) due to delayed start of SWP6.2

5. Confusion about story board steps. Where the PIR P6.5.1 talks about contribution to all three steps, this was corrected during the first PDR to only step 1.

The above mentioned areas for improvement are most, if not all, related to the early start of P6.5.1 within the total SESAR program. Pressure on finishing the PIR and on an early start caused some misinterpretations that could probably have been prevented.

3.1.4 Project achievements

This section provides an overview of the deliverables and explanations of the discrepancies between the planned and actual work carried out in the project.

The table below shows the deliverables as they were stated in the original PIR.

Del. code	Del.Name	Description	Assessment Decision	Explanations
D6.5.1-001 & D6.5.1-018	Project Management reports (D003 / D015) & (D016/D017)	General Project Management deliverable, resuming the internal coordination activities to the project (planned repetition interval: 3 months).	**N/A**	Delivery of the PIR, progress reports and change requests, also updating risk and issues register. Due to OFA organisation changes have been made in deliverables and way of working. This has been taken into account for the general project management and acted upon.
D6.5.1-002 & D6.5.1-019	Project External Coordination reports (D003 / D015) & (D016/D017)	Project Management deliverable summarising the status of coordination activities/actions with other projects with which P 6.5.1 is coordinated. In particular it addresses potential risks and issues, as well as mitigation proposals. The planned repetition interval is set to 3 months but might be adapted whenever appropriate.	**N/A**	Coordination of involvement of Airspace Users. Coordination with relevant projects, mainly SWP6.5 and 6.6, WP12 and WP8. Due to OFA organisation changes have been made in deliverables and way of working. This has been taken into account for the general project management and acted upon.
D6.5.1-003	Input Collection report	A document summarising the collection of relevant inputs to the project, both inside SESAR (for instance D2, D3, WP16 and WPB) and outside SESAR (for instance Episode 3, various European projects developing KPIs, current (best) practices at airports).	**No Reservation**	No deviations

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D6.5.1-004	AOP addressed KPAs and Focus Areas document	A document determining which KPAs and Focus Areas will be addressed in the airport performance framework, taking into account KPAs already addressed within SESAR.	**No Reservation**.	No deviations
D6.5.1-005	Generic Airport KPIs document	A document defining a generic and standardized set of KPIs, related to the KPAs selected under T6.5.1-004, that can be used to measure airport output performance. Not all of the defined KPIs are necessarily applicable for every airport. Output performance and its contribution to SESAR overall performance, under each specific KPA, will be measured, to be used as an initial airport performance reference, from which the future performance targets will be set	**No Reservation**	In a very early stage of working at the task it was clear, that with overlapping and direct relation of KPIs and PDIs, a distinction into separate tasks did not make sense. Furthermore it was not appropriate to categorize airports within this scope of work, only to be able to assign generic KPIs to it. For mainly these two reasons tasks 005 and 006 were merged into 1 deliverable.
D6.5.1-006	Airport performance drivers for the selected KPA / Focus Areas document	A document detailing Airport Specific Performance Drivers PDI (extracted from airport key processes), assessing their "cause-effect" relationship with their related output performance KPI`s (Airport Generic), and determining the means to measure them and the needed timeliness to be used to predict output performance deviations. The validity of every single PDI was evaluated through four main concepts: measurement, influence capability, level of impact and reaction time, as well as other concepts, such as: information availability, reliability and Interoperability	**No Reservation**	Deliverables 05 and 06 were carried out in parallel due to the intrinsically relationship among them. The method used to identify the relevant performance drivers was the influence modelling built around influence diagrams, with Generic KPIs (D05) as a development starting point.
D6.5.1-007	Airport Performance Framework document	A document providing the final agreed and consistent list and definitions of airport KPIs that will be used in accordance with the overall performance framework. This is an initial and vital building block for a networked, integrated performance management of the Turnaround ATM component.	**No Reservation**	No deviations
D6.5.1-008	AOP Scope document	A document establishing the agreed definition of the AOP between stakeholders and its intended use, defining the content in terms of information and identifying the different sources and elements involved. It will also identify at high level the interrelation with the NOP in both directions from AOP to NOP and vice versa.	**No Reservation**	This deliverable serves as framework document for several succeeding tasks within the project and describes all belonging services within the AOP. It was created with additional contribution of airspace users.
D6.5.1-009	Airport Performance Monitoring Service document	A document defining how the airport performance framework, developed under T6.5.1-003 through T6.5.1-007 is monitored and presented in the AOP, including airport performance outputs, their associated performance drivers and clear indication of their influencing relationships	**No Reservation**	No deviations
D6.5.1-010	AOP decision support mechanisms document	A document defining how the AOP is used in the decision making process to allocate the available airport resources and /or limit the traffic demand, using	**No Reservation**	No deviations

		the performance framework, the stakeholders agreed airport objectives and ensuring appropriate interface with the NOP.		
D6.5.1-011	AOP Management document	A document identifying the scenarios and use cases under which the AOP will be prepared and updated in a way which covers the roles and responsibilities of the involved parties. This is an initial and vital building block looking at the key activities undertaken on airports and hence aligns with the ATM component "Asset and Resource Management". The main services identified to manage the AOP are AOP instantiation, AOP maintenance, Airport monitoring, Impact assessment, decision support and post-operations analysis service. The role and relationship among them through the different AOP lifecycle phases was also addressed.	**No Reservation** (additional justifications given on comments by SJU)	To develop the management of the AOP, firstly it was a must to identify the information fields part of an AOP, with ABT fields being part of AOP core. Airspace Users pushed for a limited AOP core, while supporting elements were decided to be included depending on local agreements. Coordination with 7.6.1 project to fix shared fields with NOP was identified. AOP management was mainly focused on the planning and post-operations analysis phase, as 6.5.4 was addressing the execution phase.
D6.5.1-012	AOP demonstrator (Mock-Up) requirements specification document	A document summarising requirements, information flow specifications and associated use cases / scenarios for a demonstrator, based on the airport performance framework and AOP content as defined in tasks T6.5.1-003 through T6.5.1-011, taking into account the identified actors and interfaces.	**No Reservation** (additional justifications given on comments by SJU)	Functional requirements for AOP has been defined using the content information of the AOP and the Airport Performance Framework as also the template of IS. The project members did not find it useful to copy paste all the AOP content items into dedicated functional requirements. To prevent hundreds of requirements, generic requirements for AOP content has been defined with reference to the AOP content items presented in tables. Although guidance from IS was available, the template for requirements did not work properly. The requirements as presented in D6.5.1-012 can therefore not be imported into DOORS. This omission was identified only after requirements activities has been performed on other projects and was not indicated as an omission by the submission of the deliverable.
D6.5.1-013	Demonstrator element descriptions	Demonstrator element diagrams and flowcharts, where appropriate in UML format.	**N/A**	Following the OFA 05.01.01, the activities of Tasks 013, 014, 015, 016 and 017 are not executed as planned.

				See section 3.1.4.1 for achievements of P6.5.1 in line with OFA way of working.
D6.5.1-014	AOP demonstrator	AOP Demonstrator capable of visualizing intention of an AOP, its content, information flows (to/from/within the AOP) and its evolution in time. Document describing the use of the demonstrator for evaluation of the AOP and for demonstration towards other stakeholders.	**N/A**	Following the OFA 05.01.01, the activities of Tasks 013, 014, 015, 016 and 017 are not executed as planned. See section 3.1.4.1 for achievements of P6.5.1 in line with OFA way of working.
D6.5.1-015	Evaluation Report	A document summarising the tests, use cases and scenarios, results drawn from the evaluation of the demonstrator against operational use cases, scenarios and information flows. The Evaluation report produced will go towards identifying the information flows required to interact with the NOP in order to support full trajectory management. This is only the first step that will be developed within SWP 6.5	**N/A**	Following the OFA 05.01.01, the activities of Tasks 013, 014, 015, 016 and 017 are not executed as planned. See section 3.1.4.1 for achievements of P6.5.1 in line with OFA way of working.
D6.5.1-016	AOP / Airport Performance Framework consolidation document	A document detailing the consolidated AOP content and Airport Performance Framework by taking into account the lessons learned from the validation performed in P6.5.2. This deliverable will also include a study on how the AOP content and performance framework can be adapted to the various airport categories as defined in 6.2.	**N/A**	Following the OFA 05.01.01, the activities of Tasks 013, 014, 015, 016 and 017 are not executed as planned. See section 3.1.4.1 for achievements of P6.5.1 in line with OFA way of working.
D6.5.1-017	Initial Business case and guidelines for AOP deployment document.	A document detailing an initial business case study and initial guidelines on AOP implementation.	**N/A**	Following the OFA 05.01.01, the activities of Tasks 013, 014, 015, 016 and 017 are not executed as planned. See section 3.1.4.1 for achievements of P6.5.1 in line with OFA way of working.

3.1.4.1 Achievements on OSED

During the project changes have been made in the organisation. Project 6.5.1 became part of the Operational Focus Area (OFA) 05.01.01. This OFA clusters dependent operational (and technical) projects that have common operational themes and validation goals around Airport Operations Management. Objective for the projects in this OFA are to combine their efforts and progress forward jointly as an OFA rather than as individual projects.

For this reason Tasks 013, T014, T015, T016 and T017 of P6.5.1 have not been executed as planned in the original PIR. Instead, P6.5.1 contributed to the OFA 05.01.01.

In line with the decision to transit to the proposed OFA way of working, project 6.5.1 contributed to the integral OFA OSED document and contributed to the following Working Groups:

- WG1 ("Performance Steering"): P6.5.1 lead this working group. P6.5.1 concentrated, through various draft documentation, on aspects linked with the long term planning and performance steering. In particular, P6.5.1 contributed to sections 1.6, 3.2 (especially "Steer Airport Performance"

service), 5.1 (Long term Planning scenario), and section 6 (requirements; especially 6.1 "AOP Requirements"). In addition the project provided extensive information about the Airport Operations Plan (Appendix A) and detailed Use Cases related to long term phase (annex C1).

- P6.5.1 also contributed to WG2 ("Performance Management") and WG4 ("Performance Monitoring & Post Operations Analysis"). In particular, P6.5.1 contributed to section 3.2.3 ("Monitor Airport Performance" service) and 3.2.4 ("Manage Airport Performance" service), section 5.3 (scenario in execution phase) and section 5.4 (scenario in post analysis phase) by making the link with the "Steer Airport Performance" service.

- P6.5.1 also participated to WG6 ("OSED requirements' team"), under AENA lead, for which the 7 operational primary projects to the OFA contributed in specifying operational requirements for this OSED iteration (v1). This contribution resulted in section 6 of the document.

3.2 Cost Breakdown Form

The Cost Breakdown Forms have been submitted by all P6.5.1 contributors in separate files. These forms can be found on Extranet in the Templates section of the Programme Library.

3.3 Close out of Project Activities

The Close out of Project Activities will be finalized according the checklist received from the SJU.

Only the relevant 'project items' are being followed for this procedure.

Checklist Item	Completed	Comment/Reference/Open Issue/etc.
All work has been completed in accordance with the Project Scope of Work, or removed or reallocated via the Change process.	√	Confirmed in Closure Gate Review of 10/07/20112
All the tasks declared in the project schedule have been reported as completed and closed.	√	Taken into account that tasks 13-17 have not been executed as planned due to OFA. Contribution of P6.5.1 was done in line with OFA organisation.
All deliverables have been delivered and formally assessed and given a final assessment result. (Attach list).	√	See section 3.1.4 of this Closure Report.
'Lessons Learnt' have been produced and stored for future use and corrective action.	√	See section 3.1.3 of this Closure Report.
All Project Risk, Issues & Opportunities are closed or re-allocated.	√	All Risks and Issues in P6.5.1 register are closed on the Extranet.
Final Project Closure report has been received and is stored on the extranet.	√	Uploaded and sent per 31/07/20112
The Project has met all its commitments to other dependant SESAR Projects.	√	

P 6.5.1 Airport Operations Plan

All Decisions taken and corrective actions agreed at the last Project Control Gate have been implemented and closed.	√	
All Final Cost Break down Forms submitted.	√	See section 3.2 of this Closure Report.
All Change Requests been closed.	√	

4 Step 3: Review and Verify Closure

The assessment of this report and the Final Cost Breakdown Form (see also section 0) shall be executed by the SJU.

5 Step 4: Issue Formal Closure Decision

The assessment decision of the SJU will be waited for before the Project Status will be set to “Closed”.

6 References

Reference to Main Documentation, Delete If Not Required

[1]	**Name of project**	Title of document1	Identification number	Edition, date
[2]	**Name of project**	Title of document2	Identification number	Edition, date
[3]	**Name of project**	Title of document3	Identification number	Edition, date

APPENDIX

Roles & Responsibilities

Role	Responsibility
Project Manager:	• Prepares and submits the Final Project Report • Completes and closes all project registers and actions; • Ensures that all scope has been delivered in line with the latest agreed baseline and where a difference occurs prepares and submits a final Change request to align the baselines with the actual scope.
Contribution Manager	• Prepares and submits the Member Final Cost Breakdown form;
SJU Programme Manager:	• Responsible for determining at the final gate if the project should start the "closure process" and instruct them to do so; • Instructs the Members to produce the Final Cost Breakdown form and the Project Manager to produce the Final Report. • Monitors the closure activities of the project and ensures completeness. • Publishes the Project results on the Internet • Reviews and assesses the Final Project Report and determines correctness. • Instructs the Project Status to be set to "Proposed for Closure", then "Closed"
Chiefs:	• Assess and Verify the Final Project Report;
SJU Finance	• Analyses the Member Final Cost Breakdown Forms and determines if the costs are within acceptable levels and budget.
SJU Executive Director:	• Prepares and Issues the decision to close the Project
Industrial Support	• Support the Programme Manager and Chiefs in the assessment of the Final Project report as required.

- **END OF DOCUMENT -**