



SWIM-SUIT

System Wide Information Management - Supported by Innovative
Technology

Project Description

Start date of project:	23 April 2007
Duration:	36 months
Web Site:	www.swim-suit.aero/swimsuit/
Total Cost:	11,855,123 €
EU Contribution:	6,285,912 €
Project coordinator:	Giuliano d'Auria
Project coordinator organisation:	SELEX Sistemi Integrati



PARTNERS

	Company Name	Country	Classification
1	SELEX Sistemi Integrati S.p.A.	ITALY	INDUSTRY
2	THALES ALENIA SPACE FRANCE SAS	FRANCE	INDUSTRY
3	ADVANCED RESOURCES	PORTUGAL	SME
4	AIR FRANCE CONSULTING SAS	FRANCE	AIRLINE
5	ATMB	CHINA	ANSP
6	ALITALIA S.p.A.	ITALY	AIRLINE
7	BOEING RTE	SPAIN	INDUSTRY
8	DIRECTION DES SERVICES DE LA NAVIGATION AERIENNE DU MINISTERE DES TRANSPORTS, DE L'EQUIPMENT, DU TOURISME ET DE LA MER DE LA REPUBLIQUE FRANÇAISE	FRANCE	ANSP
9	FREQUENTIS GmbH	AUSTRIA	INDUSTRY
10	NAV Portugal	PORTUGAL	ANSP
11	ENAV S.p.A	ITALY	ANSP
12	QINETIQ Ltd.	UK	INDUSTRY
13	SELEX COMMUNICATIONS S.p.A.	ITALY	INDUSTRY
14	SEA S.p.A.	ITALY	AIRPORT
15	SECTOR SA	GREECE	SME
16	Consorzio SICTA	ITALY	RESEARCH CENTRE
17	UNIVERSITY OF ZILINA	SLOVAK REPUBLIC	UNIVERSITY
18	EUROCONTROL	FRANCE	RESEARCH CENTRE
19	Object Security	UK	SME
20	INTEGRA	DENMARK	SME

BACKGROUND

The Air Transport community is becoming increasingly dependant upon the timely availability of quality information with regard to its operations and of collaborative processes that facilitate the overall performance of the network.

The ATM community has identified interoperability needs which involve transforming the ATM system from an essentially distributed network of independent units to an efficient network of integrated co-operators able to cope efficiently and effectively with 2/3 times the current volume of traffic.

The early introduction of System-Wide Information Management (SWIM) capability is necessary to facilitate this co-operation.

Although the importance of introducing a SWIM capability facilitating co-operation among stakeholders is now generally recognised, there is still no clear indication on how to implement this capability and, in particular, which technologies would enable its successful operation.

As a consequence, there is a need to identify different options and demonstrate the feasibility of realising SWIM in all its aspects and to assess the consequences on information models, information management processes, system architectures, information access and security mechanisms, as well as organisational, legal and financial implications.



The SWIM-SUIT (System-Wide Information Management Supported by Innovative Technologies) Project will largely contribute to this need for technological assessment by developing a SWIM prototype providing the basis for assessment of the technological solutions adopted. The significant involvement of Users will also ensure that requirements for SWIM implementation will be identified and Legal and Financial implications will be assessed.

PROJECT OBJECTIVES

Although the SWIM concept is expected to represent the basis upon which the future interoperable ATM Systems will be built, there are still big uncertainties over its actual technological implementation. As a consequence, there is a need to identify different options and demonstrate the feasibility of realising SWIM in all its aspects. The SWIM-SUIT Project moves in this direction and intends to target the following objectives:

- 1 Specification of the requirements for SWIM implementation;
- 2 Design and Development of a SWIM test platform (SWIM Prototype) supporting the evaluation of the SWIM concepts;
- 3 Evaluation of the technologies identified as enablers of the SWIM concept by means of a test campaign performed on the developed test-bed;
- 4 Assessment of the Organisational, Legal and Financial Implications including an analysis of the possible impact they may have on the SWIM implementation.

PROJECT ACTIVITIES

The SWIM-SUIT Project aims to demonstrate the feasibility of initial System Wide Information Management functionality for the Air Transport System.

Starting from the work performed within the SESAR definition phase and taking account of the work developed within other initiatives (ICOG, FOIPS, FAA SWIM, Nordic SWIM, etc), the SWIM-SUIT Project initially specifies the General Requirements for SWIM implementation, including safety and security aspects.

A tailoring of the general requirements is then performed to define the context of the SWIM-SUIT prototype. The SWIM-SUIT Prototype is then specified, designed, developed and tested based on several existing User Applications connected to the test-bed, including ACC/APP Centers, Airport CDM, Airlines Operating Center, CFMU, Flight Simulator.

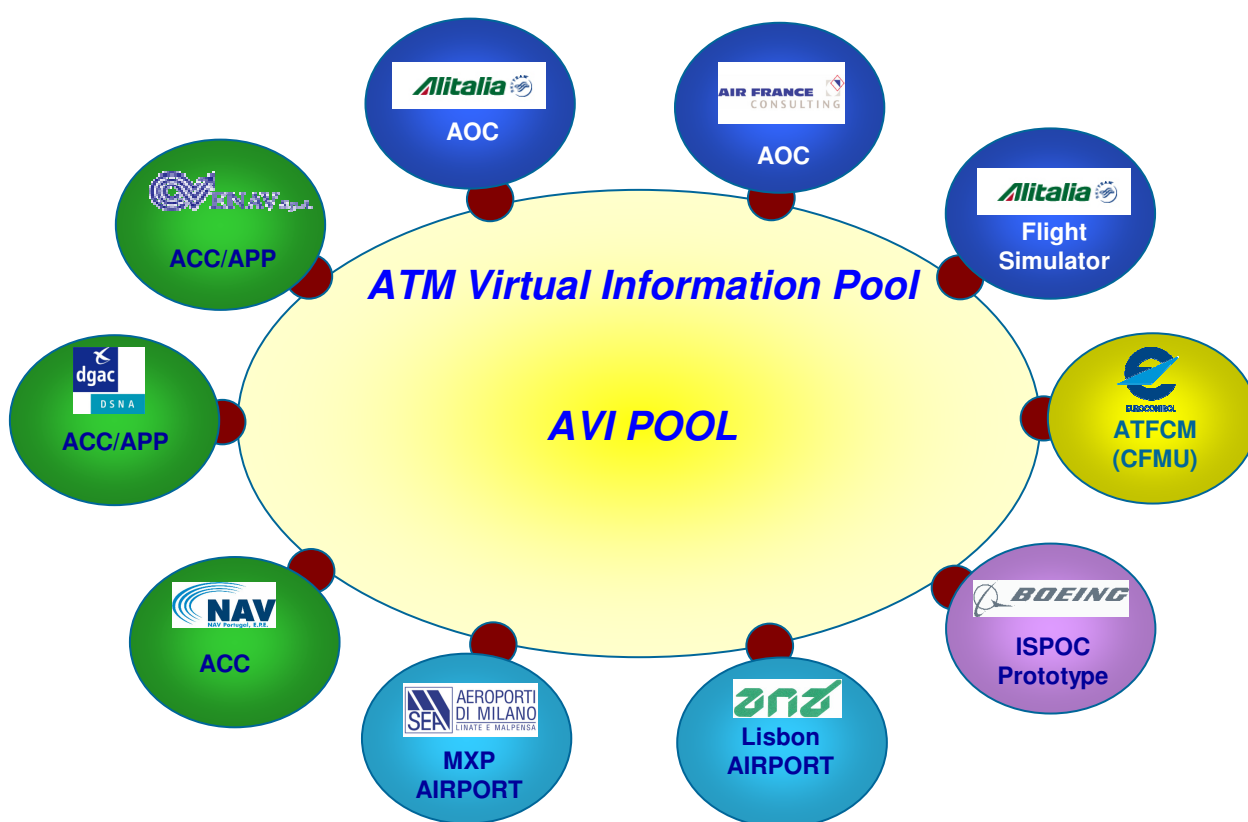
Finally two evaluation sessions are planned in order to evaluate the potential benefits of SWIM functionality and to identify different options and SWIM overall consequences and implications.

The development of a SWIM prototype is considered a key task of the SWIM SUIT Project. It has the objective to provide measurable indicators relevant to the technologies enabling the implementation of the SWIM concept. It is a multi-site structure, covering several ATM domains and integrating different legacy applications

The Work Breakdown Structure has been organised as follows:

- Work Package 0 “Management & Dissemination”, which aims at the management and co-ordination of all the project activities.
- Work Package 1 “Information Management Users’ Requirements”, which aims to identify the set of user requirements for both SWIM and its prototype.
- Work Package 2 “SWIM Design, Development and Testing”, which aims at producing a SWIM Prototype and represents the core design and implementation activity.

- Work Package 3 “Test-Bed Integration and Testing”, which aims at the adaptation of the existing legacy applications to be used in the Test-Bed for the evaluation
- Work Package 4 “Technical Evaluation”, which includes all activities required for the technical evaluation of the selected solution(s) from WP2, using the test-bed developed in WP2 and integrated with the Legacy Applications (WP3).
- Work Package 5 “Financial and Institutional”, which aims to perform the Cost Benefit Analysis of the selected technical solutions based on the SWIM concept. In addition, WP5 will consider the Institutional, Legal and Financial implications of implementing SWIM in the real world.



USER AND INDUSTRIAL GROUPS

The SWIM-SUIT User Group has been set up with the aim of extending the scope of the Project beyond the Consortium and encourage a wider discussion over the activities carried out in the Project. The User Group structure is based on a very simple and open organization led by a chairman that acts as interface between Consortium and the community of User Group members.

The SWIM-SUIT User group contributes to:

- setting out the shared operational expectations and a complete set of requirements of all actors within the context of SWIM
- ensuring that the technological solutions developed within SWIM-SUIT respond to the operational requirements identified by the Users
- participating to the final elaboration of the restricted set of requirements for the SWIM prototype



The user contribution is mainly gathered through specific questionnaires and input tables which are sent out at specified time intervals according to the schedule of the project. Review of documents is also encouraged and occasional visits may also be organized for a closer interaction.

A separate industrial group has been formed with the aim of ensuring wider consensus among industries over the future implementation of SWIM. User and Industrial groups are part of a wider strategy of disseminating Project results to the outside world. As part of these activities, User Forums will be organised as well as dedicated visits to the SWIM-SUIT prototype through specific open days.

CONTACT POINTS

Project Coordinator:

Giuliano d'Auria

Tel: + 39 06 4150 4448

Email: gdauria@selex-si.com

User Group Chairman

Stefano Amici

Tel: +39 06 8166375

Email: samici@enav.it

SWIM-SUIT Documents and more Project information are available from the web site:
www.swim-suit.aero/swimsuit/