



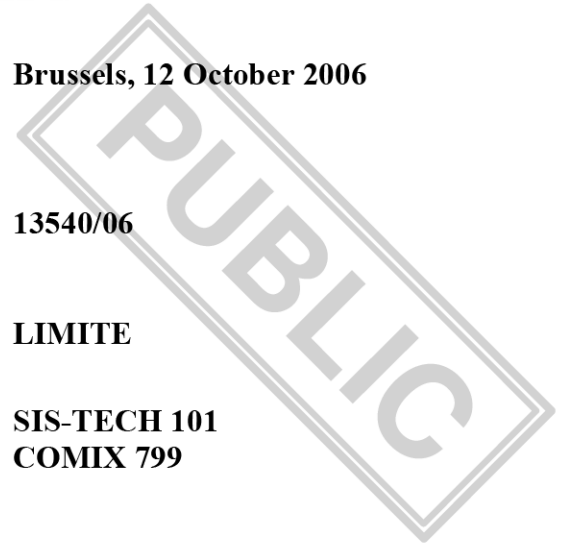
**COUNCIL OF
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**SIS-TECH 101
COMIX 799**



NOTE

from : Portuguese delegation
to : SIS-TECH Working Group/Mixed Committee (EU-Iceland/Norway/Switzerland)
Subject : Feasibility study - SIS one 4all-Schengen Information System

Delegations will find attached the feasibility study on the Portuguese SISone4all proposal for a temporary SIS solution.



MINISTÉRIO DA ADMINISTRAÇÃO INTERNA
SERVIÇO DE ESTRANGEIROS E FRONTEIRAS



Projecto SISone4ALL

FEASIBILITY STUDY

SISone4ALL - SCHENGEN INFORMATION SYSTEM

PORTUGUESE PROPOSAL

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0. Executive Summary

This document proposes a solution for this problem and analyses its viability. The solution proposed in this document is based on the clone of the Portuguese NSIS I to all the Countries to be integrated in the SIS (NSIS16-30) and is code-named SISone4ALL. Its goal is to allow NSIS16-30 to adhere to Schengen Area by October 2007.

SISone4ALL major benefits are:

- Simplicity
- Low risk (the same strategy was applied successfully before)
- Low cost
- Ability to fulfil expectations of NSIS16-30 as regards adherence to Schengen Area
- Right context to introduce NSIS16-30 to Schengen Information System (SIS) procedures and operation

Major risks are the lower stimulus for the rapid development of SIS II and a potential sense of stepping-back by the introduction of the version I system to NSIS16-30 after they have started to develop version II.

This document intends to present a high quality, robust and dependable solution that fully addresses the existing problem in a well structured manner.

1. Introduction

The SISone4ALL project consists of deploying the Portuguese NSIS I, after being adjusted, adapted and tested against C.SIS, in all the NSIS16-30. This document presents a feasibility study of the project, namely the correspondent technical approach and work plan.

The team supporting the project presented here has extensive experience in software development, system integration, deployment and support. Core expertise and previous experience are a strong indication of its ability to carry out the project on-time and on-quality.

1.1 Definitions and Acronyms

Please find below some of the short terms and acronyms used throughout the document.

Acronyms	Description
KO	Kick-Off
KOM	Kick-Off Meeting
MLx	Project Milestone X
NSIS1-15	Member States already in the Schengen Area
NSIS16-30	Member States that will adhere to the Schengen Area
TBD	To be defined
WP	Work Package
WPD	Work Package Description

Table 1 – Acronym Table

2. Proposed Solution: SISone4ALL

The following sections present the solution proposed by the Portuguese delegation.

SISone4ALL overcomes, effectively and without involving much effort, compatibility problems (version I in NSIS1-15 vs version II in NSIS16-30) that make the enlargement of Schengen Area to NSIS16-30 difficult.

The idea is to deploy Portuguese NSIS in all NSIS16-30 (after solving the *validity flag* problem and guaranteeing a mechanism to make localization really simple). NSIS16-30' responsibility, besides promoting the system deployment, is to translate text messages to their own language. NSIS already operational (NSIS1-15) responsibility is to solve the validity flag problem in their NSIS and in C.SIS. The *validity flag* problem has been already done previously and seems not to contain a major risk.

With SISone4ALL all countries would operate with the same system version from October 2007 onwards. Afterwards, when convenient, they would be upgraded as a whole to the system version II.



2.1 Advantages

SISone4ALL has the following advantages:

- Simplicity
- Low risk (the same strategy was applied successfully before)
- Low cost
- Ability to fulfil expectations of NSIS16-30 as regards adherence to Schengen Area
- Right context to introduce NSIS16-30 to Schengen Information System (SIS) procedures and operation

2.2 Major Assumptions

To ensure the project's successful execution the following is assumed:

- **MA1:** Project kick-off on October 16th 2006, at the latest.
- **MA2:** Project formal approval at JAI in December 2006, at the latest.
- **MA3:** Strict commitment all Member States to carry out the tasks under their responsibility.
- **MA4:** Strong project management structure identified and put in place.

2.3 Portuguese Responsibilities

Portugal assumes the following responsibilities:

- **PR1:** Project Management.
- **PR2:** Adjustment of the Portuguese SIS I to accommodate the following requirements (thus allowing it to be used by the NSIS16-30):
 - a) Resolution of the *validity flag* problem – extension to support NSIS16-30;
 - b) GUI reformulation to allow easy localization;
 - c) System adaptation to allow reuse of existing hardware platforms or to allow the use of new hardware platforms that can be re-used to support SIS II at a later stage – so guaranteeing that they can be acquired using SIS II development funds (multi-platform development).
- **PR3:** Validation of the Portuguese clone towards C.SIS



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- **PR4:** Execution of general tests with all MS plus CSIS (low complexity and low risk task given that all NSIS16-30 will use the same NSIS I system).
- **PR5:** Training of the NSIS16-30 personnel of the clone Portuguese NSIS

2.4 NSIS1-15 Responsibilities

NSIS1-15 assume the following responsibilities:

- **NSIS1-15R1:** NSIS adaptation to support NSIS16-30 - resolution of the validity flag problem;
- **NSIS1-15R2:** Execution of general tests with all MS plus CSIS (low complexity and low risk task given that all NSIS16-30 will use the same NSIS I system).

2.5 NSIS16-30 Responsibilities

NSIS16-30 assume the following responsibilities:

- **NSIS16-30R1:** Hardware infrastructure in place and with adequate quality.
- **NSIS16-30R2:** Software infrastructure (namely a database engine) in place and with adequate quality.
- **NSIS16-30R3:** Message text translation (from English to the local language – does not require engineering work, just translation work).
- **NSIS16-30R4:** Local deployment of the donated NSIS I.
- **NSIS16-30R5:** Execution of general tests with all MS plus CSIS (low complexity and low risk task given that all NSIS16-30 will use the same NSIS I system).

Both the hardware and the software to be used in SISone4ALL can be reused in the SIS II deployment thus allowing their acquisition through the SIS II funds in place.

2.6 C.SIS Responsibilities

- **CR1:** Execution of tests to validate the Portuguese NSIS I
- **CR2:** Execution of general tests with all Countries (low complexity and low risk task given that all new countries will use the same NSIS I system).

3. Network Infra-structure

The SIS I system is currently supported by the SISNET network. The contract for the usage of this network with BelgaCom will end in late 2008.

TESTA II is the European Union (EU) own private IP-based network and is one alternative to SISNET to support SISone4ALL.

Different scenarios must be considered:

- a) Deploy SISone4ALL on the SISNET network;
- b) Deploy SISone4ALL on TESTA II network.
- C) Deploy SISone4ALL on S-TESTA network

One of the drawbacks of using SISNET is the time limit of this contract and the needs to verify the possibility of negotiate an extension of the contract.

The usage of TESTA II would require solving the problem of non existence of encryption in the network

S-TESTA contract, according to the new schedule of SISII, will be signed on October 2006 and at the end of January 2007 it will be ready.

It is considered that S-TESTA should be the network to be used for SISone4ALL. It will be a step forward into the direction of SISII.



4. Work Plan

The following sections present the work to be developed in the scope of the project.

4.1 Master Schedule

The preliminary project work plan covers the entire project life cycle. Project duration is 12 months as presented in Figure 1 (a larger figure can be found in Annex B).

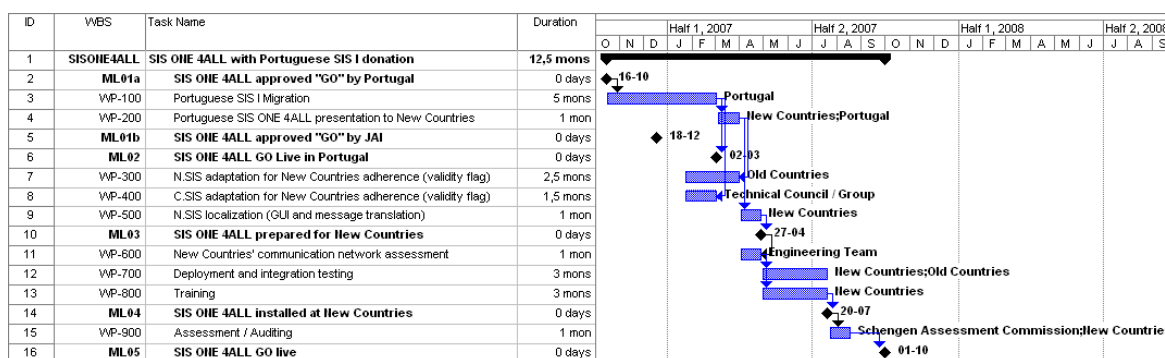


Figure 1 – Preliminary Work Plan

As shown in Figure 1 assuming a start date on October 16th 2006 the project will be concluded by the end of September 2007, thus allowing NSIS16-30 to adhere to Schengen Area on the expected date.

Since the project involves 30 different countries project management complexity and risk is a concern. As a risk mitigation strategy an effort margin of nearly 2 months is incorporated in the work plan. All project tasks should be concluded by the end of July 2007, leaving August and September as a reserve to be used if needed. Therefore this plan is considered a reliable plan.

4.2 Milestones

The following table presents major project milestones. All dates are preliminary.

Ref.	Description	Estimated Date
ML01a	SISone4ALL Kick-Off	16-10-2006
ML01b	SISone4ALL formal GO (by JAI)	18-12-2006
ML02	SISone4ALL GO LIVE in Portugal	02-03-2007
ML03	SISone4ALL prepared for NSIS16-30	27-04-2007
ML04	SISone4ALL installed in NSIS16-30	20-07-2007

Ref.	Description	Estimated Date
ML05	SISone4ALL GO LIVE	01-10-2007

Table 2 – Milestones

4.3 Responsibilities

The following table presents the responsibility for each work package as well as their estimated duration.

WP Ref.	Work Package Description	Responsibility	Estimated Duration
WP-100	Portuguese NSIS I Migration	Portugal	5 months
WP-200	Portuguese SISone4 ALL presentation to NSIS16-30	Portugal / NSIS16-30	1 month
WP-300	NSIS adaptation for NSIS16-30 adherence (validity flag)	NSIS1-15	2,5 months
WP-400	C.SIS adaptation for NSIS16-30 adherence (validity flag)	C.SIS/SISTECH	1,5 months
WP-500	NSIS localization (GUI and message translation)	NSIS16-30	1 month
WP-600	NSIS16-30 communication network assessment	Engineering Team	1 month
WP-700	Deployment and integration testing	All Countries	3 months
WP-800	Training	NSIS16-30	3 months
WP-900	Evaluation	Evaluation Team NSIS16-30	1 month

Table 3 – Responsibilities

4.4 Work Package Descriptions

A more detailed description of each work package can be found in Annex A.

5. Project Team and Management

The following sections present a sum up of the management plan for the project.

5.1 Project Team Organization

The following picture presents the project team organization.

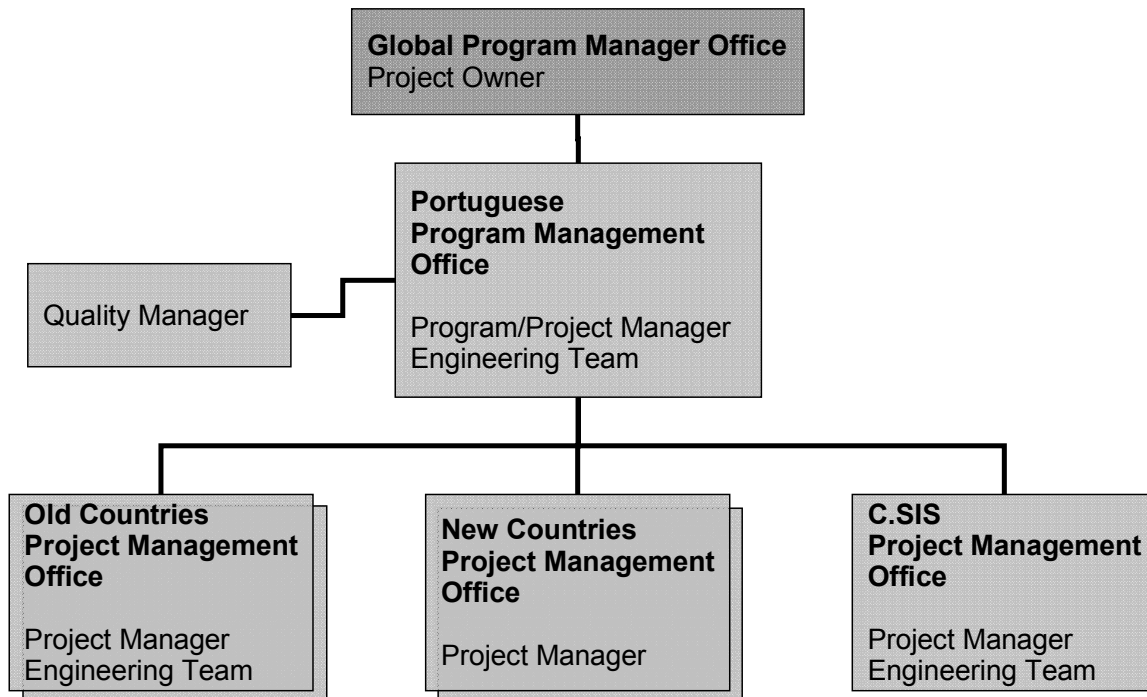


Figure 2 – Project Team Organization

5.2 Roles and Responsibilities

The Program Manager (PGM) is ultimately responsible for the coordination of all work to be performed under the scope of the program (different projects). He/She will take care of the program's high level management and will ensure all program objectives and requirements are fulfilled. He/She will be the primary link to the Owner of the Project (Global Program Management Office) and all involved Project Managers.

The Project Manager (PM) leads the local team (engineering or other) and is the main operational link with the Program Manager being fully responsible for ensuring satisfactory timing of all the work defined in the contract, within the agreed performance and cost criteria. The PM is responsible for the management of all activities of its WPs including all the activities of the partners / subcontractors, the preparation of all reporting to the PGM and the operational management of all the team members.



The Quality Manager (QM) is responsible for ensuring the implementation and management of the Quality Management System to be followed, namely quality policies, procedures, and methods in order to achieve the desired goals. He/She is also responsible for dissemination of this information and performing program audits to check the conformance to the quality objectives defined.

5.3 Project team

Role	Name
Portuguese Project Owner	Ministry of Interior
Portuguese Program/Project Manager	TBD
Portuguese Quality Manager	TBD
NSIS16-30 Project Manager	<ul style="list-style-type: none"> • Cyprus • Czech Republic • Estonia • Hungary • Ireland • Latvia • Lithuania • Malta • Poland • Slovakia • Slovenia • Switzerland • United Kingdom
NSIS1-15 Project Manager	<ul style="list-style-type: none"> • Austria • Belgium • Denmark • Finland • France • Germany • Greece • Iceland • Italy • Luxembourg • Netherlands • Norway • Spain • Sweden
C.SIS Project Manager	France



5.4 Schedule management

In order to provide control and monitoring capabilities for the program, and to plan all its activities, a schedule management system is implemented at two levels. This consists of two types of schedules: Master Schedule and Detailed Schedule.

The Master Schedule (presented here) is used by the Program Manager and presents the program's milestones and all tasks identified as Work Packages. This schedule is used for overall monitoring of the program and to give clear objectives to all the individuals involved in the program.

The Master Schedule is used to produce external reporting to the Project Owner through the progress reports and internal reporting to the different teams involved (via Project Managers).

A Detailed Schedule is used and managed by the PM to plan the work on a day-to-day basis.

5.5 Progress and Performance Evaluation

The aim of this area of program management is to provide, at any given time, a clear picture of the progress of all tasks and activities, and also of the team performance.

5.5.1 Progress Reports & Meetings

PGM shall submit to the Owner of the Project (Global Program Management Office) a progress report stating the status of the work every four weeks (immediately before the Coordination Meeting).

Progress meetings involve the Program Manager and all Project Managers (not necessarily all at the same time) and will take place by teleconference unless otherwise requested by the Program Manager.

5.6 Coordination Meetings

A monthly coordination meeting shall take place. This coordination meeting will involve upper management and main key personnel defined in the scope of the Global Program Management Office to discuss overall program progress and performance.

5.7 Risk Analysis

A number of risks have already been identified (and are presented in this document). A more detailed list of risks, and corresponding mitigation plans, shall be presented shortly.

5.8 Project Communication Strategy

Good communication channels are really important for the success of such a distributed project. Given that, an intranet is proposed with mechanisms such as a *Forum* and a *Blog*. Through them, it is argued, key management and technical people could easily and effectively communicate, and so, one important project risk is mitigated.

It is also proposed to bring out a weekly Newsletter about the project.

6. Risks

A number of risks of this project have already been identified and are the following:

- **RISK 1:** It is a single non failure project. It has to be ready on October 2007. A very good co-ordination, a powerful Project Management and a Commitment from all parties is the key for minimise this risk
- **RISK 2:** Lower stimulus to rapid development of SIS II (due to lack of urgency to do so);
- **RISK 3:** Sense of stepping-back that the introduction of the version I system to NSIS16-30 may cause (since they have already started to develop version II). Nevertheless with SISone4ALL all NSIS16-30 are in Schengen area since October 2007 and consequently with opened borders.

RISK 2 and RISK3 can be mitigated by strengthening the management activity and/or defining strict deadlines to SIS II project.

- **RISK 4:** Distributed nature of the project, which involves many different parties responsible for the project's key activities. This risk shall be mitigated with an effective management structure and by promoting effective communication channels to serve the different project teams (as mentioned above an Intranet is being proposed for such a purpose);
- **RISK 5:** Non-existence of a network infra-structure to support the deployment of SISone4ALL in the NSIS16-30. This risk can be mitigated with the installation of S-TESTA, what has to be tested.



Annex A – Work Package Descriptions

This Annex presents the Work Packages (WP) to be carried out in the project. Each WP Description includes a brief description, the required inputs, the expected outputs and who is the responsible for the correspondent activities.

WP-100 – Portuguese SIS I Migration

WORK PACKAGE DESCRIPTION			
Project:	SISONE4ALL - Schengen Information System	WP Responsibility:	Portugal
WP Title:	Portuguese SIS I Migration	WP Reference:	WP-100
Planned Start Date:	16-10-2006 (T0)	Planned End Date:	02-03-2007 (T0 + 5 months)
Objectives / Description:			
<ul style="list-style-type: none"> - Prepare the Portuguese SIS I system for clone to the NSIS16-30 - This work will comprise the migration of the existing software infrastructure to prepare it for multi-platform - Solve the validity flag problem to support the adherence of NSIS16-30 - Prepare the system to be easily translated to other languages (localization) - Validate the SISONE4ALL system with C.SIS to ensure its correct functionality 			
Inputs:			
<ul style="list-style-type: none"> - Existing Portuguese SIS I system 			
Outputs / Deliverables:			
<ul style="list-style-type: none"> - SISONE4ALL system (Portuguese SIS I system prepared for clone) 			

WP-200 – Portuguese SISONE4ALL Presentation to NSIS16-30

WORK PACKAGE DESCRIPTION			
Project:	SISONE4ALL - Schengen Information System	WP Responsibility:	Portugal NSIS16-30
WP Title:	Portuguese SISONE4ALL Presentation to NSIS16-30	WP Reference:	WP-200
Planned Start Date:	05-03-2007 (T0 + 5 months)	Planned End Date:	30-03-2007 (T0 + 6 months)
Objectives / Description:			
<ul style="list-style-type: none"> - Presentation of the SISONE4ALL to NSIS16-30 in order to assess the existing system 			
Inputs:			
<ul style="list-style-type: none"> - SISONE4ALL system (Portuguese SIS I system prepared for clone) 			
Outputs / Deliverables:			
<ul style="list-style-type: none"> - Acceptance of SISONE4ALL system by NSIS16-30 			



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WP-300 – NSIS adaptation for NSIS16-30 adherence (validity flag)

WORK PACKAGE DESCRIPTION	
Project:	SISONE4ALL - Schengen Information System WP Responsibility: NSIS1-15
WP Title:	NSIS adaptation for NSIS16-30 adherence (validity flag) WP Reference: WP-300
Planned Start Date:	22-01-2007 (T0 + 3,5 months) Planned End Date: 30-03-2007 (T0 + 6 months)
Objectives / Description:	
<ul style="list-style-type: none"> - Adapt each Old Country NSIS to be able to integrate with SISONE4ALL (solve the validity flag problem to support the adherence of NSIS16-30) 	
Inputs:	
<ul style="list-style-type: none"> - SISONE4ALL system (Portuguese SIS I system prepared for clone) - Existing NSIS for each Old Country 	
Outputs / Deliverables:	
<ul style="list-style-type: none"> - Adapted NSIS for each Old Country 	

WP-400 – C.SIS adaptation for NSIS16-30 adherence (validity flag)

WORK PACKAGE DESCRIPTION	
Project:	SISONE4ALL - Schengen Information System WP Responsibility: Technical Council / Group
WP Title:	C.SIS adaptation for NSIS16-30 adherence (validity flag) WP Reference: WP-400
Planned Start Date:	22-01-2007 (T0 + 3,5 months) Planned End Date: 02-03-2007 (T0 + 5 months)
Objectives / Description:	
<ul style="list-style-type: none"> - Adapt C.SIS to be able to integrate with SISONE4ALL (solve the validity flag problem to support the adherence of NSIS16-30) 	
Inputs:	
<ul style="list-style-type: none"> - SISONE4ALL system (Portuguese SIS I system prepared for clone) - Existing C.SIS 	
Outputs / Deliverables:	
<ul style="list-style-type: none"> - Adapted C.SIS 	



Projecto SISone4ALL

WP-500 – NSIS localization (GUI and message translation)

WORK PACKAGE DESCRIPTION			
Project:	SISONE4ALL - Schengen Information System	WP Responsibility:	NSIS16-30
WP Title:	NSIS localization (GUI and message translation)	WP Reference:	WP-500
Planned Start Date:	02-04-2007 (T0 + 6 months)	Planned End Date:	27-04-2007 (T0 + 7 months)
Objectives / Description:			
<ul style="list-style-type: none"> - Adapt SISONE4ALL to each New Country language - Translate all GUI and messages in each New Country SISONE4ALL to the respective language 			
Inputs:			
<ul style="list-style-type: none"> - SISONE4ALL system (Portuguese SIS I system prepared for clone) 			
Outputs / Deliverables:			
<ul style="list-style-type: none"> - Localized SISONE4ALL for each New Country 			

WP-600 – NSIS16-30' communication network assessment

WORK PACKAGE DESCRIPTION			
Project:	SISONE4ALL - Schengen Information System	WP Responsibility:	Engineering Team
WP Title:	NSIS16-30' communication network assessment	WP Reference:	WP-600
Planned Start Date:	02-04-2007 (T0 + 6 months)	Planned End Date:	27-04-2007 (T0 + 7 months)
Objectives / Description:			
<ul style="list-style-type: none"> - Assess NSIS16-30' communication network to verify it is capable of working with SISONE4ALL - Since SIS I network (named SISNET), supplied by BelgaCom, will terminate in late 2008, an assessment is needed to identify which communication network will be used to support SISONE4ALL solution 			
Inputs:			
<ul style="list-style-type: none"> - SISONE4ALL system (Portuguese SIS I system prepared for clone) - SISNET and other communication network possibilities for SISONE4ALL 			
Outputs / Deliverables:			
<ul style="list-style-type: none"> - Assessment report for NSIS16-30' communication network 			



Projecto SISone4ALL

WP-700 – Deployment and integration testing

WORK PACKAGE DESCRIPTION			
Project:	SISONE4ALL - Schengen Information System	WP Responsibility:	NSIS16-30 NSIS1-15
WP Title:	Deployment and integration testing	WP Reference:	WP-700
Planned Start Date:	30-04-2007 (T0 + 7 months)	Planned End Date:	20-07-2007 (T0 + 10 months)
Objectives / Description:			
<ul style="list-style-type: none"> - Integrate the full SISONE4ALL solution (C.SIS, adapted NSIS1-15 NSIS and localized NSIS16-30 SISONE4ALL) - Validate the full SISONE4ALL solution – the tests will be simplified due to all NSIS16-30 are using a single system with merely localization differences - Deploy the full SISONE4ALL solution 			
Inputs:			
<ul style="list-style-type: none"> - Adapted C.SIS - Adapted NSIS for each Old Country - Localized SISONE4ALL for each New Country - Assessment report for NSIS16-30' communication network 			
Outputs / Deliverables:			
<ul style="list-style-type: none"> - Full SISONE4ALL solution integrated and deployed 			

WP-800 – Training

WORK PACKAGE DESCRIPTION			
Project:	SISONE4ALL - Schengen Information System	WP Responsibility:	NSIS16-30
WP Title:	Training	WP Reference:	WP-800
Planned Start Date:	30-04-2007 (T0 + 7 months)	Planned End Date:	20-07-2007 (T0 + 10 months)
Objectives / Description:			
<ul style="list-style-type: none"> - Train the NSIS16-30 to correctly use the full SISONE4ALL solution - This will be a "training for trainers", in order to transfer the required know-how and expertise for the NSIS16-30' key personnel, who in turn will be responsible to train the SISONE4ALL end users 			
Inputs:			
<ul style="list-style-type: none"> - Localized NSIS for each New Country 			
Outputs / Deliverables:			
<ul style="list-style-type: none"> - NSIS16-30 fully able to operate the full SISONE4ALL solution 			



WP-900 – Assessment / Auditing

WORK PACKAGE DESCRIPTION			
Project:	SISONE4ALL - Schengen Information System	WP Responsibility:	Schengen Assessment Commission NSIS16-30
WP Title:	Assessment / Auditing	WP Reference:	WP-900
Planned Start Date:	23-07-2007 (T0 + 10 months)	Planned End Date:	17-08-2007 (T0 + 11 months)
Objectives / Description:			
<ul style="list-style-type: none"> - Audit the full SISON4ALL solution - As a formal requirement, for a country to enter Schengen an audit must be performed by a competent authority - The assessment / audit results dictate if a New Country is eligible to enter Schengen or not - If a specific New Country is not allowed in Schengen (for any reason), this won't invalidate any other New Country admission to Schengen 			
Inputs:			
<ul style="list-style-type: none"> - Full SISON4ALL solution integrated and deployed 			
Outputs / Deliverables:			
<ul style="list-style-type: none"> - Assessment and Audit Reports - Acceptance of NSIS16-30 in Schengen 			

Annex B – Project Work Plan

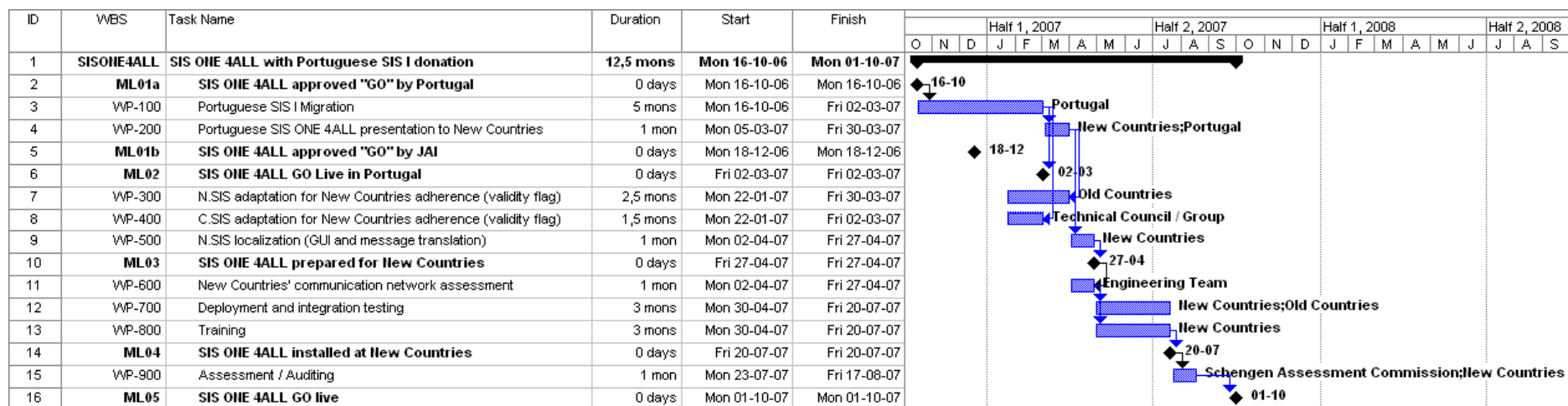


Figure 3 – Project Work Plan