Schengen: migration from the Schengen Information System (SIS 1+) to the second generation Schengen Information System (SIS II). Decision

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This progress report describes the work carried out by the Commission in the **first semester of 2009** concerning the development of the second generation Schengen Information System (SIS II) and the migration from SIS 1+ to SIS II. It is presented to the Council and the European Parliament in accordance with Article 18 of Council Regulation (EC) No 1104/2008 and of Council Decision 2008/839/JHA on migration from the Schengen Information System (SIS 1+) to the second generation Schengen Information System (SIS II).

This report also constitutes a **test status report**.

Project status: an analysis and repair period for SIS II was conducted between January and April 2009. This process was triggered by a failure of the main development contractor to pass the Operational Systems Test (OST) in December 2008. During the analysis and repair period a large number of known issues and bugs were repaired and an in-depth technical architecture review was performed. Solutions were either designed or implemented, leaving nonetheless a few issues pending. In parallel and in the framework of the Council an **alternative technical scenario** for developing SIS II based on SIS 1+, known as "SIS 1+ renewal and evolution" (SIS 1+ RE), was explored as a **contingency plan**.

The Council on 26-27 February requested that the Presidency and the Commission, in close cooperation with the SIS II Task Force, and in consultation with the appropriate instances, submit as soon as possible, but at the latest by May, a report containing an in-depth assessment and comparison of both scenarios. The report in question concluded that both the current project and the alternative SIS 1+ RE scenario are, under certain conditions, technically feasible and have the potential to realise the objectives of SIS II set out in the legal framework governing its establishment, operation and use.

Based on this report, the Council concluded on 4-5 June that the **development of SIS II will continue on the basis of the current SIS II project** and that SIS 1+ RE will be retained as the contingency plan for a period necessary to back the project. The Council also agreed to two project milestones. The aim of these milestones is to prove the stability, reliability and performance of the central SIS II and the proper functioning of vital core functionalities, such as data consistency and reliable message transfer, after significant and important development phases of the SIS II project. The first milestone is scheduled to occur after the performance tests of the system, foreseen for the fourth quarter of 2009. The second milestone is to take place, at the earliest, in summer 2010, after the implementation of central system functional testing. The alternative solution will be kept as a contingency plan until the tests defined in the milestones are accomplished.

Testing: before January 2009, the **list of pending bugs was above an acceptable level**. The software version deployed in March achieved the correction of most bugs leaving only a small number of bugs assigned to central SIS II, the majority of the latter being resolved in a later software version installed and tested in May. By the end of the period, to a point where significant progress had been made on all issues,

it was clearly identified how much time and money would be needed to finalize the entire project. This process provided the Commission with an estimate of the time and financial means needed to complete the project.

Management and financial implications: to date, the total budgetary commitments made by the Commission on the SIS II project amount to approximately EUR 72.5 million. Of this amount, around EUR 41 million had actually been spent at the end of June 2009. Approximately EUR 7.1 million was paid, primarily for the network (EUR 3.3 million) and monthly recurring costs. In addition, about EUR 4.8 million had been committed (i.e. 12% of the total appropriations for SIS II activities provided in the 2009 General Budget). This lower-than-forecast figure represents the fact that the ordering of new services and products was postponed pending the resolution of technical problems encountered in the development and new Council orientations for the project.

Main conclusions: the various intensive testing and in-depth analysis processes performed during the analysis and repair period led to the resolution of a large number of known issues and bugs. A few issues are however still pending. Furthermore, the in-depth architecture review performed between March and April 2009 established that the SIS II architecture and overall conception were sound, although improvable.

The Conclusions of the 4-5 June JHA Council provide orientations for the future of the SIS II project and support the continuation of the current technical solution for SIS II. They also set out the technical milestones for testing this solution in stages, whilst prudently keeping a contingency plan in reserve.

The Commission intends to introduce an optimal collaborative project management structure to reflect the stage which the project has reached. This development will allow Member State experts to be even more closely associated with project management for SIS II.

The necessary elements to add new impetus to the SIS II project have therefore been put in place. Still, **SIS II remains a challenging project which is not exempt from significant risks**. In this regard, the first milestone test, scheduled for the fourth quarter of 2009, will be a crucial step to probe the viability of the technical solution under development.

Next steps: the Council Conclusions of 4-5 June invited the Commission to, "table and immediately implement an enhanced IT management structure and approach for the SIS II project". Under these circumstances, the following measures are foreseen:

- testing:the first milestone tests are scheduled for the fourth quarter of 2009. Preparatory work has started accordingly. To fulfil the requirements laid down in the Council Conclusions of 4-5 June 2009, the first milestone tests will involve eight Member States, three of which will act as back-ups. The tests run since April 2008 highlighted some shortcomings in the current test plan. To address this problem, the Commission will design, together with experts from the Member States and other users, a new test plan based on a global approach to testing, which would guarantee full involvement of Member States and users. This directly reflects the desired new management approach for the project as a whole. Such a global approach is expected to both enhance the relevance of the tests and to speed up the test phases;
- global test preparations (GT): the aim of the Global Test (GT) is to demonstrate that the central SIS II, the communication infrastructure and the interactions between central SIS II and the national systems (N.SIS II) work in accordance with the technical and functional requirements set out in the SIS II legal instruments. The tests will also demonstrate that the central SIS II, the communication infrastructure and the interactions between the central SIS II and the national systems (N.SIS II) can work in accordance with non-functional requirements such as robustness, availability and performance. Technical discussions are under way as to how the test results can best be evaluated;

- **migration development**: the development of the converter for migration will continue during the next reporting period. Some test activities should also start during this next period;
- security and data protection: bilateral meetings between European Data Protection Supervisor staff and the Commission services continue to take place on a regular basis to discuss issues related to SIS II.