

pSHIELD 1st Review

March 22, 2011 - Brussels

7. APPENDIX

7.1 Closing Remarks The following remarks were communicated to the project at the end of the 1st review:

Review organization:

- The review logistics was efficiently organized by the ARTEMIS-JU
- The electronic version of deliverables arrived less than 1 week before the review, the printed version of the deliverables were handed out at the review meeting;
- The planned review agenda was modified by JU officer/reviewer, replacing some of the standard presentations by valuable Q/A-sessions. The consortium capacity to adapt to the new agenda is gratefully acknowledged;
- No printed handouts for the presentation were made available to the review panel

General statements on the technical value of the project:

- pSHIELD is an important and challenging project. The review panel confirms that, should it be successful, the project results would be represent good value for money,
- The pSHIELD proposal contains many novel, good concepts.
- The results of the pSHIELD project could have a significant impact on the ES landscape in Europe.

Work Progress: Negative findings:

- The documented output of the consortium is of very low quality:
 1. major delays in delivery
 2. some key deliverables are missing
 3. Some of the delivered documents are only drafted versions, incomplete, lacking essential sections and content (mostly cut&paste from the Technical Annex and the JU templates).
- The consortium provided 7 deliverables, all due M6. After reading and assessing the deliverables, the review panel concludes that the consortium's performance is very disappointing.
- Deliverables D2.1.1 (on requirements) and D7.1.1 (the project Website) are reluctantly accepted:
 1. in D2.1.1 considerable improvement are expected in further releases;
 2. in D7.1.1, the project Website is well structured and operational, but - up to date - it is an empty box, as only little (insufficient) content is provided.
- All other deliverables are rejected. The management report M1-M6 is embarrassing and shows profiles of negligence in the project management. The document only contains cut&pasted text from the TA; there is not a single element related to progress reporting, such as statements on technical achievements in the period, technical work carried out, meetings, figures on effort and expenditures. This is especially disappointing, because the ARTEMIS JU had informed the coordinator on reporting procedures and practices through meeting and documentation: a standard template (in word version for ease of use) was sent to the coordinator. The JU project reporting template was simply annexed to the deliverable, as it was project output.

- The consortium did not prove to refer to the current state of the art as foundation for its work. The TA mentions e.g. SPEEDS and CESAR which have advanced proven formal models for many of the concepts addressed in pSHIELD. But those advances are not referred/adopted/used (are they known?) by the consortium. Some of the reference literature (e.g. SOA, 2002) is outdated.
- The review revealed that major key technical decision are still open (at M10 on a 12 month duration project), such as:
 1. The composition model, especially the composition topology and possible restraints,
 2. The SPD-metrics aggregation mechanism¹
 3. The component (“SPD modules”) and interface model,
 4. The scope of the services addressed by pSHIELD, i.e. are functional services and SPD-services uncoupled and orthogonal or can they be implemented in the same service call?
 5. The type, form and reach of SPD metrics,
 6. The integration level of crypto-algorithms (HW, middleware of SW?), and the related implication of the pSHIELD reference architecture
 7. X-layer design issues: Usefulness, risks, strategy?
- The project lacks a clear and commonly adopted vision on conceptual and formal models. It is not clear, how the project can achieve its objectives without a strong formal foundation. The agreement between the partners on this issue was questioned during the review: asking the same fundamental technical question to different consortium members leads to different (often conflicting) answers.
- The demonstrator (hazardous material train transport) is a valuable idea. It is, however, not at all clear to which extent the demonstrators will prove pSHIELD concepts, technologies and objectives.
- The review presentations could prove that some of the partners are individually very active and productive, delivering interesting and well-founded ideas. However, a lack of agreement – or even knowledge of each other’s work in the consortium – was observed during the review,
- Project management and internal communication are clearly inefficient: in both technical and managerial matters, a clear lack of synchronization between the partners is visible. Many concepts and preliminary technical decisions are clear to some individual partners but are not accepted (in some cases: not even known) to other partners. This is especially true for some emerging conceptual models which some partners have developed (on their own?) in their field of expertise.
- The communication/discussion/syndication culture within the consortium seems to be a real problem: Decision, buy-in, syndication-processes are not in place, or are not effective at all.

Work Progress: Positive findings

- Some of the concerns generated by the low quality of the M6-deliverables were addressed during the review presentations and give some hope for a possible positive evolution of the project.
- During the review, presentations by some partners were given, which were not planned to be shown. In these presentations and in the deriving technical discussions with the review panel, individual partners could demonstrate that some very good ideas and concepts are currently being developed by either single individuals (e.g. in the context of PhD studies) or by single partners. However, these ideas and concepts have not undergone any process of internal dissemination and critical review/discussion in the consortium. It would be extremely

¹ The “worst of class” paradigm was suggested during the re view, i.e. the lowest security level in any of the components of the composition defines the security level of the composed system. Although this is a weak paradigm, it can be used as a starting point. However, this paradigm will not work for dependability: It does not consider the power of redundancy, fault tolerance and fail-safe configurations. It also neglects cross-effects between security, privacy and dependability metrics (Example: a dependability issue in one component of the system may become a security issue in other parts of the system)

beneficial to open a technical discussion on those ideas (today rather theoretical and academic) and challenge them against end-user requirements and needs, with a view to successfully adopt a common technology platform for the further work in pSHIELD.

- Some emerging conceptual models (seen in the “unplanned” presentations of the Q/A-session) – although not yet formalized with sufficient details – were given visibility thanks to the additional presentations, triggered by the questions raised by the review panel. These models deserve further technical discussion within the consortium, and definitely need to be much better formalized.

Decision by ARTEMIS/Reviewer:

- Assessing the current state of the project solely on the base of the received deliverables (at M6) would make pSHIELD a candidate for immediate shut-down,
- The project review has revealed a serious delay in the project execution. This is mostly due to lack of management and internal communication. The management structures described in the TA is adequate is but has not been put in place effectively. The consortium is invited to carefully review its internal management.
- The requested extension of 3 months is by far insufficient to recover from the cumulated delay. A more realistic estimate is an extension of no less than 6 months, possibly 9 months. Any time extension shorter than 6 months would dramatically reduce the chances of success.
- Taking into consideration the additional information received during this 1st review meeting, there is some hope that the project can deliver valuable results at M18, although (by far) not corresponding to the full set of objectives set in the TA.
- The decision taken is the following:
 1. The project consortium is asked to provide a new deliverable “Formalized Conceptual Models of the Key pSHIELD Concepts”. This deliverable must contain – in sufficient detail and internal consistency – formal, conceptual models for all key concepts required to implement the pSHIELD key objectives and its technology foundation,
 2. The project consortium is asked to provide a proposal for the aggregation of SPD-metrics during composition which does not exhibit the weaknesses listed in footnote 1 above,
 3. The project consortium is asked to provide a signed endorsement of these conceptual models by all partners, i.e. the explicit agreement of the consortium members to accept and use these models,
 4. A formal project extension is to be requested immediately: 6 months is expected as minimum time extension (i.e. bringing the project end date to 31.11.2011). The project consortium is asked to provide a new work plan accounting for all the changes required, including all milestones, deliverables and corresponding new delivery dates.
 5. TA page 8 clearly defines the focus areas of pSHIELD. The project consortium is asked to provide a document listing - for each of the focus areas - the key innovations which the project commits to deliver by its completion; the project outputs and its the tangible results with a delivery time plan to allow close and timely monitoring of the project evolution.
 6. The project consortium is asked to provide a new version of the Management Report (Progress Report) with the required reporting information. The coordinator is reminded that the template provided by ARTEMIS is to be filled-in with detailed and appropriate information in all its sections.
- These 6 documents are expected within 3 weeks, latest arriving at the project officer's desk April 15, 2011.
- On the basis of the analysis of the content and quality of these 6 documents, the JU reserves the right to decide the further evolution of the project after April 15, 2011.

Next Steps:

- Provide the 6 documents listed above latest April 15, 2011 to the ARTEMIS project officer;
- If the project is granted an extension (hypothesis 6 months):
 - Next review: September 2011,
 - Final Review: Feb/March 2012
- Please provide all ppt-presentations prepared for the 1st review to ARTEMIS and the reviewer