

# SSEI Research Task Summary – T20

Task Number: SSEI/T20

Lead Delivery Organisation : Adelard LLP

Project Title : Supporting the Standardisation of Assurance Argument and Evidence Schemas

Research Theme : *Developing Dependable Systems*

Version : 2



## Objective of Work (why are we doing it ?)

The ability to create and maintain an assurance case is a key capability for defence procurement, and underpins many of the SSEI's 'Hard Problems'. Standards such as DS 00-56 are seen as one of the key assurance policy frameworks, based on a demonstration and goal-based approach. Standardising the way in which claims, arguments and evidence are represented and recorded would yield significant benefits, for example interoperability, re-use, use of open systems and legacy systems and consistency. However, the full benefits of standardisation will only be realised through adoption of an industry-wide approach.

The aim of this task is to influence emerging standards for assurance arguments, to ease international procurements and to produce guidance for MOD and the SSEI on the finalised standard and its implications.

## Nature of Work (what is it?)

The Object Modelling Group (OMG) Software Assurance (SwA) Initiative is working to prepare technical interoperability standards for Software Assurance. These standards address the structuring of arguments and the required supporting evidence.

This task aims to continue UK participation in driving the standard forward, maintaining awareness of the OMG's work and other emerging international standards for safety policy. SSEI members will attend and provide input to relevant meetings of the OMGSwA, and will continue to develop and influence the OMG metamodels for software assurance evidence and argumentation, ensuring that these are kept consistent with UK MOD practice and policy. Where necessary, the task will provide third-party review of OMG deliverables. The work will be communicated to defence and industry partners.

## Outcomes (what will it produce/has it produced ?)

This task will have two main outputs:

- Developmental and review input to the OMG assurance argument and assurance evidence meta-models, which will be presented to the SSEI Developing Dependable Systems SIG
- Guidance describing the relationship between the OMG SwA standards and the UK safety and assurance policy framework

It is also hoped that this task will inform the ongoing work of the MOD Safety Standards Review Committee

Timescales 18-month task, September 2009 to February 2011

Partners University of York, Integrate

Related Work SSEI/T6, SSEI/T21, SSEI/T22, SSEI/T23

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