EXECUTIVE summary
Ease, accelerate, and reduce the cost of verifying and certifying of critical embedded systems thereby contributing to the safety and security of citizens who rely on embedded systems.

RELEVANCE CALL 2008 objectives
Increase productivity of developers through a 10% reduction in the cost of critical system design by 2013, along with a 15% reduction in the software development cycles in critical Automotive, Medical, Surveillance and Aviation sectors that demand verified or certified embedded systems.

MARKET innovation
CHARTER will advance real-time system development technologies so that the safety and robustness of critical embedded systems can be boosted. Availability of new verification technologies will enable many more applications to achieve higher safety standards.

Improving European competitiveness
European companies that rely on the design and integration of safety critical embedded systems for their products will be more competitive through reduced costs and shorter time to market. The reduction of re-certification costs for product releases will make EU companies more receptor and competitive.

TECHNICAL innovation
Advanced engineering process requirements to cover deductive formal verification and test generation driven by requirements
Hyperlinked traceability evidence containing baseline artefacts, their certification evidence, including verification traces, and their traceability relationships
Automatic Test Case Generation methods capable of addressing extra-functional properties of embedded systems
Lightweight, portable, repository independent graph rewriting tool that can be retargeted to different languages and metamodels
New technology for the certification of model-driven development that translates partial models to more complete models, models to source code and source code to binary code
Rule driven compilation methods able to demonstrate code correctness

PROJECT COORDINATOR
Scott Hansen
INSTITUTION
The Open Group (UK)
EMAIL
s.hansen@opengroup.org
WEBSITE
www.charter-project.org
START
April 2009
DURATION
36 months
TOTAL INVESTMENT
€2.5 M
PARTICIPATING ORGANISATIONS
12
NUMBER OF COUNTRIES
6
IRELAND
THE NETHERLANDS
UNITED KINGDOM
SWEDEN
GERMANY
Technology Manager
Project Manager