

CESAR



Cost-efficient methods and processes for safety relevant embedded systems

EXECUTIVE summary

CESAR aims to reduce costs of safety relevant embedded system development by delivering innovative system design processes as well as implementing fundamentals for interoperability including the RTP (Reference Technology Platform) as integrated tool platform in Aerospace, Automotive, Automation and Rail.

RELEVANCE CALL 2008 objectives

Answering the ARTEMIS Call 2008, CESAR contributes to safe functional mobility in respect of e.g. environment for which embedded systems are key enabling solutions.

MARKET innovation

CESAR will increase the productivity and therefore the competitiveness of European manufacturers through shortening development time and decreasing development costs of safety-relevant embedded systems while ensuring the quality and safety properties. Such innovation will have particular relevance to the automotive, aerospace, automation and railway domains.

TECHNICAL innovation

The inherent trade-off between reducing costs for the development of safety relevant systems, increasing complexity and ensuring quality may only be faced by improving the entire System Engineering. CESAR provides solution by:

- > Introducing innovations in RE (Requirements Engineering) tools and methods
- > Introducing innovations in CBD (Component Based Development) tools and methods and extending CBD with multi views and multi criteria
- > Combining improved RE and Design System Engineering since close collaboration between RE and CBD is necessary to achieve the ambitious CESAR goals

The CESAR IOS (Interoperability Specification) is providing the implementation - and technology independent framework for the RTP realization.

Only by integrating these disciplines and providing adequate tool support can a seamless tool chain (CESAR Reference Technology Platform - RTP) emerge that will give free rein to realise the full potential of the CESAR approach.



PROJECT COORDINATOR Dr. Josef Affenzeller	START March 2009
INSTITUTION AVL List GmbH	DURATION 40 months
EMAIL cesar@avl.com	TOTAL INVESTMENT €58.5 M
WEBSITE www.cesarproject.eu	PARTICIPATING ORGANISATIONS 54
	NUMBER OF COUNTRIES 10

UNITED KINGDOM

- UNIVERSITY OF OXFORD
- Quintec
- MANCHESTER
- The University of Manchester
- auvation
- AIRBUS

NORWAY

- ABB
- NTNU
- SINTEF

SWEDEN

- ABB
- KTH
- VOLVO

GERMANY

- AIRBUS
- DLR
- Fraunhofer
- OFFIS
- Infineon
- AbsInt
- CASSIDIAN
- EADS
- SIEMENS
- BTC Embedded Systems

FRANCE

- ASTRIUM
- Sagem
- INRIA
- CNRS
- ONERA
- THALES
- Messier-Bugatti
- SAFRAN
- SAFRAN Snecma
- DASSAULT SYSTEMES
- ceal list
- ESTEREL
- AIRBUS
- Turbomeca
- DELPHI

AUSTRIA

- AVL
- Infineon
- virtual vehicle

PORTUGAL

- Critical

SPAIN

- acciona
- ESI
- tecnalia

ITALY

- CRF
- CENTRO RICERCHE FIAT
- SELEX
- Sistemi Integrati
- AnsaldoSTS
- DANIELI AUTOMATION
- UNIVERSITÀ DEGLI STUDI DI TRIESTE
- AleniaSIA

GREECE

- I.S.I.
- Industrial Systems Institute
- EAB
- Control Systems Lab