EXECUTIVE summary
VARIES helps embedded systems (ES) builders to unleash the full potential of variability in safety-critical ES through:
> Variability Modelling
> A Reference Platform
> Centre of Innovation Excellence (CoIE)

RELEVANCE CALL 2011 objectives
Industrial priorities:
> Reference Design and Architectures
> System Design Method and Tools

ASP-1 objectives:
> A model-driven process for the compositional development of safety-critical systems
> A methodology to explore design spaces, multi-criteria constraint satisfaction and decision making, with particular regard to safety properties

MARKET innovation
VARIES aims to boost the competitiveness of the European ES industry through:
> discovering what drives variability decisions
> enabling variability information to be described and exchanged
> improving variability management in safety-critical ES across the entire lifecycle

VARIES targets the following concrete industrial objectives:
> reusability by combining product lines and variability management
> more predictable and shorter time to market
> improved productivity through reuse strategies adapted for ES
> reduction of product engineering effort while delivering the functionality required and guaranteeing reliability and quality levels
> smooth transition to a product line approach
VARIES will enhance variability modelling concepts in the fields of ES analysis and towards product line certification.

TECHNICAL innovation
The ‘variability paradox’:
How can the benefits offered by introducing variability into ES outweigh the increased product complexity caused by variability?

Three key objectives:
> Enable companies to make an informed decision on variability use
> Provide effective variability architectures and approaches
> Develop consistent, integrated and continuous variability management

Results:
> Reference platform for managing variability in safety-critical ES
> methods, tools, models, reference architectures and relevant knowledge
> validating the results across industry domains will ensure broad applicability of the results.
> Enhanced variability modeling concepts for variability analysis on ES
> product line certification
> Centre of Innovation Excellence (CoIE)
> helping the European ES industry address its specific variability challenges
> access to the long tail market of variability services

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