PRESTO

ImProvements of industrial Real Time Embedded SysTems develOpment process

ARTEMIS

COMPLETED

PROJECT *description*

The PRESTO project improves test-based embedded systems development that is applicable in industrial development processes. The expected results are methods and tools for functional analysis, performance analysis and platform optimisation at early stage of the design development.

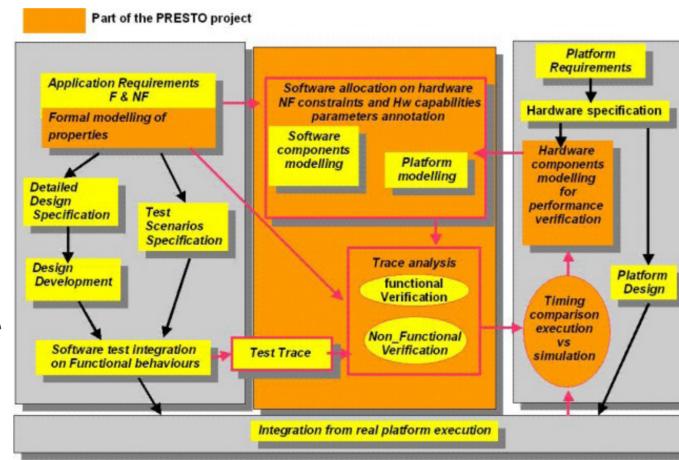## RELEVANCE CALL *2010 objectives*

PRESTO contributes to the ARTEMIS objectives by integrating system design methods and tools to support real-time embedded system development. New modelling and analysis tools enable validation of functional and non-functional properties early and more exhaustively from user requirements to implementation in real platforms. This allows system resources to be optimised and ensures the timely availability of system services.

MARKET *innovation*

Current industrial embedded systems development projects tend to separate software and hardware development causing validation problems and leading to over-dimensioned platforms that increase cost and power consumption. PRESTO's innovation is to establish early stage software and hardware modelling with performance analysis to enrich current industrial development processes. This will reduce design efforts and costs, improving quality at the same time. The PRESTO project will stimulate the growth and emergence of method and tool providers, in particular the SMEs involved in the project.

TECHNICAL *innovation*

The project is based on the integration of platform models and design space exploration techniques. The PRESTO approach is to model the software and hardware properties along with allocation, and use analysis tools to validate the performance and timing requirements of the system early at several system abstraction levels. Comparing analysis results and real platform results will enable the platform modelling to be refined while traces generated from functional software test integration are exploited to restrict the design space to be explored.

DEMONSTRATOR

The PRESTO project is driven by industrial case studies that will demonstrate method and tool developments from requirements formalisation to system modelling and performance analysis. The results of analysis will be compared with data from real development platforms.

PROJECT COORDINATOR Vangelis Kollias	**START** April 2011
INSTITUTION TELETEL S.A.	**DURATION** 36 months
EMAIL V. Kollias@TELETEL.eu	**TOTAL INVESTMENT** €8.6 M
WEBSITE www.presto-embedded.eu	**PARTICIPATING ORGANISATIONS** 13
	NUMBER OF COUNTRIES 5

UNITED KINGDOM

PrismTech
Productivity Tools & Middleware

RAPITA
SYSTEMS LTD

FINLAND

MetaCase

Sarokal Solutions

VTT

GREECE

teletel

MILTECH

FRANCE

THALES
COMMUNICATIONS - FRANCE

SOFTEAM
Think Object

PRAGMADEV
real time development tools

Inria
informatics mathematics

ITALY

THALES
COMMUNICATIONS - FRANCE