CONSORTIUM for the definition, elaboration & deployment of an OPEN PLATFORM for Embedded Systems Engineering
Main Goals

1. Consolidate and share the results of R&D collaborative projects to ensure long term availability

2. Consolidate & exploit requirements definition and experiences obtained by the industrial partners during these R&D projects.

3. Federate members proposals for new projects with the aim to ensure consistency and integration in OpenMDD

- Leverage early results and actors at the national level to give an European and worldwide dimension to the platform
Three types of actors
- Large Industrial organizations
- SMEs
- Research Laboratories & universities

Three « world class » clusters
- System@tic
- Aerospace Valley
- Minalogic

Three strategic « pillars »

A common vision and roadmap
Projects results and feedback
Convergence & consistency of technical approaches

Shared and open Technical Platform
Easy sharing of tools and collaborative works
Visibility of projects results

Set of “matured” tools and components
Key components
Maturation, consolidation
Open the road for professional support & services
Three complementary areas
- Analysis & Design
- Verification & Simulation
- Execution infrastructure

Three working priorities
- Open Standards based
- Consistency: functional / technical
- Maturity: quality & support

Three « technological » clusters
- Critical systems
- Multimedia
- Consumer applications

Vision
Choice
Diffusion / actors
- Aeronautics
- Automobile
- Energy
- Mobile
- ...
Organization principles

Governance

Choices Orientations

Roadmap & vision WGs

Key Components

Maturation / Quality insurance, …

Technical committee
- Consistency / « architecture »
- Integration principles, standards, …

Exploratory Components

Shared Infrastructure
- Web
- Visibility
- Collaboration
…
Key Components
1. UML / SysML Modeling Tool
2. MARTES implementations for Embedded RT Systems
3. Code Generation
4. Infrastructure for Model management

Roadmap & vision WGs
A. Model verification & test generation
B. Code verification, static analysis
C. Hardware platform modeling & simulation
D. ADLs & Middleware

Exploratory components
(Inventory of interesting components currently being built)
Starting point:
- System@tic : Papyrus Tool from CEA
- Aerospace Valley : TOPCASED UML modeler

Convergence programme on a new version of a tool:
- Including the best of the 2 previous ones, upgrade compatible
- Based on automatic code generation from the UML standard definition, using the Eclipse GMF (Graphical Modeling Framework)

Unified lobbying inside ECLIPSE consortium
- Establish the new tool as the UML/SYML reference modeler.

Unified contribution to the development of the GMF technology

Road map:
- **Phase 1 – studies (05/2007 -> 07/2007)**
  - Analyse TOPCASED & PAPYRUS content / GMF needs
- **Phase 2 – Design & Development (09/2007 -> 05/2008)**
  - Participation to GMF 3 specification, design & development
  - Design & development of the new tool (initial release end of 2007)
- **Phase 3 – Evaluations & maturation (07 2008)**
  - Distribution of the new tool based on Eclipse 3.4, including GMF 3
  - Integration of the new tool in TOPCASED 2
<table>
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<th>Committed partners</th>
<th>Industrials</th>
<th>Laboratories / Universities</th>
<th>SMEs</th>
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<tr>
<td>System@tic</td>
<td>Thales (Renault)</td>
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as of April 2007
Staffing & Budget

**Operational staff**
- Workgroup coordinators (x - shared time)
- Key technologies projects leaders (x - shared time)
- Development engineers for maturation (x - full time)
- Technical Committee chairman (1 – full time)
- Quality & test (1 – full time)

**Support staff**
- Web, shared development environment
- Permanent secretary & communication

**Budget**
- Core members commitment & funding
Key Technologies & Roadmap WGs
- Priorities proposal
- Validation: June 2007

Exchanges on IP & deployment models
- IP issues, open-source vs ad-hoc licences, ...

Presentation documents, NDA, ...
- General presentation
- NDA & MOU proposal

Technical Platform
- Validation of specifications
- Setup

2nd Workshop
- Organize a workshop to present research partners solutions
- Organization committee: F. Terrier, N. Halbwachs, O. Trebucq
- Objective: end of June