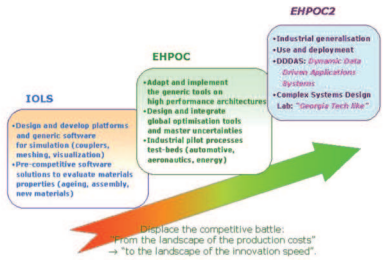
The main goal of EHPOC consits in delivering industrial platforms, multiscale and multi-physics software dedicated to global design in order to produce best in class numerical design tools, especially in the materials field, enabling robust multidisciplinary optimization of complex products and systems. These platforms and software suite are a corner stone for industrial innovation and competitiveness, design and development cycles reduction, productivity improvement.



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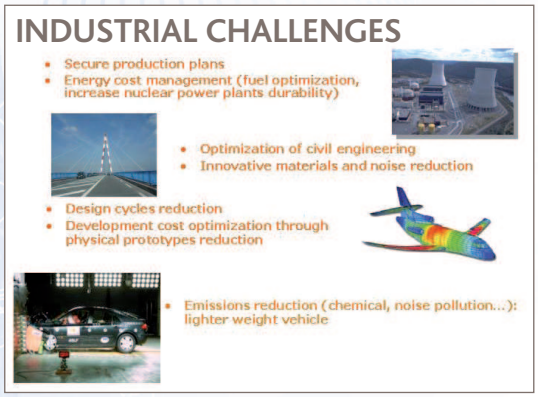
EHPOC
High Performance Environment for Optimization and Design

PROJECT PLANS & DELIVERABLES

- SP1: Development of HPC framework for design: coupling tools for parallel software, large-scale meshes generation, large-scale data high performance visualization tools, HPC demonstrators dedicated to aeronautical applications (linked with the Aerospace Valley MACAO project)
- SP2: Global Design Software Suite: multidisciplinary optimization, CAD-CAE 1D-3D link
- SP3: HPC demonstrators for new massively parallel multi-core architectures
- SP4: Materials design and optimization: aging and durability, multi-materials assembly, new materials for acoustics

MAJOR PHASES OF THE PROJECT

The project is organized as a "sub-projects cluster". Each sub-project is driven by precise goals: the reporting is semestrial and annual (reports and mid-term meeting). First year is mainly dedicated to solutions developments and second year is devoted to demonstrators.



STATUS

The kick-off meeting was held in june 2008 - the progress advance is nominal. A mid-term meeting is scheduled mid-2009

CLUSTER RELATED PROJECTS

IOLS, FAME2, POPS, MACAO (Aerospace Valley), OpenHPC, CSDL

PARTNERS

MAJORS CORPORATIONS	AIRBUS, BERTIN, DASSAULT AVIATION, EADS, ESI GROUP, EURIWARE, MESSIER DOWTY, OPEN CASCADE, RENAULT, SNECMA, THALES
SMEs	LMS IMAGINE, DISTENE, SAMTECH
ACADEMICS	ENSMP, CEA, CSTB, ECOLE CENTRALE DE PARIS, ENS, IFP, INRIA-SCILAB, LJLL PARIS VI, ONERA, PARIS XI

Coordinator: CS
Duration: 24 months
Global budget: 16 M€
Funding: 6.5 by FUI