Simulation and High Performance Computing are a strategic stake for the competitiveness. Both for Industry and Research one of the key elements of the HPC chain is application software. It has to be accessible to all the actors of the market, especially for the small and medium-sized firms. Users ask for global software solutions on HPC architecture, mixing both free and commercial software. In the context of this project, Open Source software will be improved in term of quality, interoperability and performance. These developments have to be structured and connected in order to create a coherent software platform, in connexion with other initiatives such as the Complex Systems Design Lab (CSDL) and the platform of services PCS. This is the goal of the Open HPC project: building a coherent, interoperable and accessible HPC software platform.

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PROJECT PLANS & DELIVERABLES

Open HPC has to answer several challenges:

❯ Adapting software to HPC and making them interoperable.

❯ Optimizing the utilization costs of both hardware and software.

❯ Giving a remote access to the HPC environments and to the services.

MAJOR PHASES OF THE PROJECT

Open HPC is organized in three major strategic and parallel phases:

❯ SP1: The Open HPC platform development, including the best HPC standard tools such as Scilab. It includes also the guarantee of the interoperability of its whole components.

❯ SP2: The technological implementation of the valorization tools according to the following concepts: case study management, dedicated implemention for a business chain and setting up of an integrated Open Source / Commercial software offer.

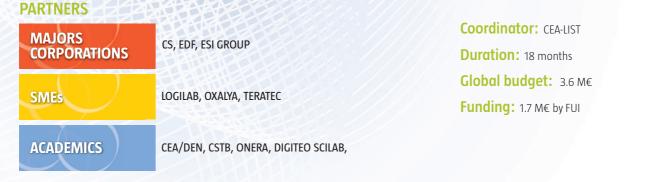❯ SP3: The setting up of a permanent structure to valorize the Open HPC platform. The first target market is the complex system design dedicated to the small and medium-sized firms.

STATUS

The Open HPC project is on its way to be delivered in mid 2010.

CLUSTER RELATED PROJECTS

SCOS, OPUS, IOLS, EHPOC, CSDL

PARTNERS

MAJORS CORPORATIONS	CS, EDF, ESI GROUP
SMEs	LOGILAB, OXALYA, TERATEC
ACADEMICS	CEA/DEN, CSTB, ONERA, DIGITEO SCILAB,

Coordinator: CEA-LIST

Duration: 18 months

Global budget: 3.6 M€

Funding: 1.7 M€ by FUI

///// Systems Design and Development Tools WG

Modelling systems simulation