

The CSDL project (Complex Systems Design Lab) aims at developing a comprehensive collaborative environment for decision making at the earliest stage of a project. It is at this stage that simulation tools are the most strategic to obtain the best design possible by exploring in a systematic manner the crucial parameters to optimize the system and enable innovation, by estimating risks and uncertainties through an analysis in depth of robustness criteria, and providing tools enforcing the coherence across all the levels of models and permitting better decisions thanks to an accurate interactive synthesis of the necessary information.

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MAJOR PHASES OF THE PROJECTS

The CSDL project consists in a management workpackage and five workpackages.

- WP1. Use cases will be used to specify the necessary R&D in order to validate the methodology and the software integrations
- WP2. Innovative methods and algorithms will be developed for surrogate models with prescribed accuracy, evaluation of robustness, multi-objective and robust optimization and interactive visualization.
- WP3. The new methods will be integrated in commercial or free softwares and their integration will be validated on the use cases defined in WP1.

- WP4. Hardware architecture taking into account the computing, communication and visualisation requirements derived from the analysis of the consortium needs will be specified.
- WP5. A forum will be run to facilitate the interactions between the consortium and potential new user. Their inputs will be valuable for the global synthesis and the valorization of the results.

STATUS

CSDL is scheduled to start the last quarter of 2009.

CLUSTER RELATED PROJECTS

PCS

PARTNERS

MAJORS CORPORATIONS

DASSAULT-AVIATION, ALCATEL LUCENT, BULL SAS, DASSAULT-SYSTÈMES, EADS, EDF R&D, MBDA, RENAULT, THALES CORPORATE SERVICES

SMEs

CS-SI, ANSYS FRANCE, ESI GROUP, LMS-IMAGINE, DISTENE, ENGINSOFT, EURODECISION, OXALYA, SAMTECH, HPC-PROJET, LOGILAB

ACADEMICS

DIGITEO/SCILAB, ASSOCIATION LÉONARD DE VINCI, INRIA, ECOLE CENTRALE PARIS, ECOLE NORMALE SUPÉRIEURE DE CACHAN, ONERA, ARMINES, SUPELEC

Coordinator: DASSAULT-AVIATION

Duration: 36 months

Global budget: 17.92 M€

Funding: 7.68 M€ by ANR