

Cloud

Cloud

Big Data

MODELING

HPC

computing

SIMULATION

computing

Big Data

SIMULATION

MODELING

HPC



AT THE HEART OF DIGITAL INNOVATION

www.teratec.eu



Numerical Simulation

Vector of Innovation and Competitiveness



MASTERING TECHNOLOGY

Teratec participates actively in initiatives to improve industrial mastery in the numerical simulation and HPC sector, which is crucial to keeping Europe competitive and innovating. One such initiative is **ETP4HPC**, an European platform to accelerate the development of European technologies at every step of the HPC chain, these technologies being now essential to almost all industry sectors.

INDUSTRIAL RESEARCH

Teratec helps set up and promote French and European research projects by industrial companies, technology suppliers, and major research centers via R&D programs in France (competitiveness clusters including **Systematic Paris-Région**, and the French **National Research Agency**) and Europe (**PCRD**, **ITEA2**).

DISSEMINATION ACROSS INDUSTRIES AND SERVICES

Teratec helps companies, especially small and medium-sized businesses, gain access to the high-performance computing technologies they need to develop new products and services. A major initiative is underway for widely accessible Cloud simulation services.

The **Teratec Forum** is the annual leading HPC event in Europe, a gathering of international experts who meet to discuss the technological and economic issues around high performance computing and numerical simulation.

SUPPORT FOR SME'S

Teratec supports technological SME's and start-ups in their actions to value their expertise and their offers. It also facilitates their access to industry leaders and helps them set up and finance their R&D projects.

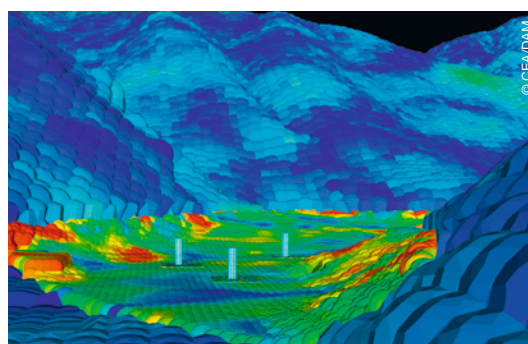
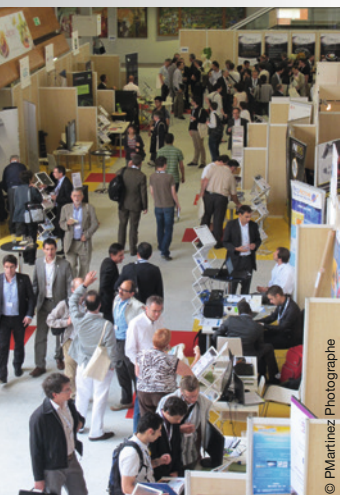
Teratec and the **Essonne Chamber of Commerce and Industry** provide them offices and support services on the Teratec Campus, an area dedicated to simulation and HPC.

TEACHING AND TRAINING

Teratec has joined forces with universities and major engineering schools to design programs in initial and continuing education that cover the entire spectrum of high performance simulation and modeling. These initiatives will be expanded and reinforced to form a European training institute.

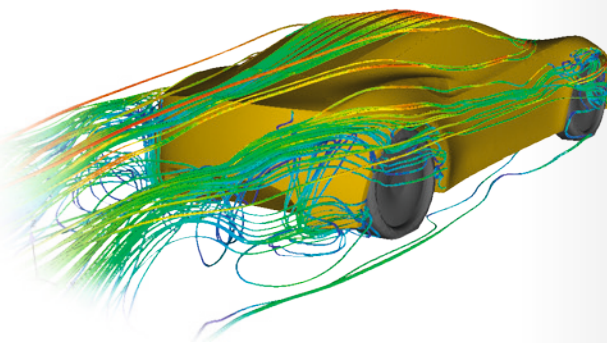
INTERNATIONAL COOPERATIONS

Teratec develops international cooperations in many fields: European research programs, exchange programs with major industrialized countries and some emerging countries that have decided to rapidly develop their HPC capacities, and also international partnerships.





© ESI-Group



The Teratec Campus

European Ecosystem for Simulation and HPC

INCUBATOR AND BUSINESS CENTER

The **Essonne Chamber of Commerce and Industry** accommodates SME's and innovative companies, offering adapted solutions, custom tailored support and high-quality service to best support their growth in a technology-rich environment favorable to the development of their simulation and modeling activities.

INDUSTRIAL RESEARCH LABORATORIES

The Teratec Campus is home to several research laboratories on topics such as future architectures and exaflop systems (**Exascale Computing Research Lab, Extreme Computing**), developing and parallelizing simulation software, and designing complex systems. The **SystemX Technological Research Institute** also establishes the permanent laboratories for its HPC program on the campus.

TRAINING INSTITUTE

Through partnerships with universities, engineering schools and industrial firms, the Teratec Campus will provide training and education and give students, engineers and researchers access to the skills and expertise available on the site. «*A la carte*» continuing education will also be offered, depending on companies' needs.

TECHNOLOGY COMPANIES

Large companies and small businesses, systems suppliers, software providers and service companies are all present on the Teratec Campus, where they perform technical and commercial activities related to HPC. The industrial expertise present there covers the entire value chain, from components and systems up to software and services.

SERVICES PLATFORMS

The role of these platforms, which combine sectorial expertise and simulation expertise, is to help the companies in a given sector perform their design and simulation work. More specifically, they provide small businesses and industrial firms with the computing resources, software and technical expertise they need to carry out their projects, thus allowing them to develop new products or services more quickly and easily.



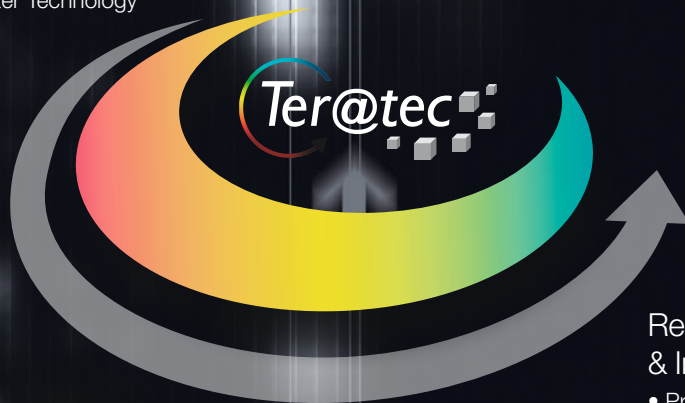
The CEA's Very Large Computing Center

The CEA's Very Large Computing Center is home to the **CCRT** (Center for Computing Research and Technology), where the Airain supercomputer offers 300 teraflops of secured computing power to major industrial firms which share skills, costs, and risks with the CEA through long-term partnerships. It also hosts CURIE, a 2 petaflops supercomputer, which is France's contribution to Europe's PRACE infrastructure.



Industrial Companies

- Competitiveness
- Master Technology



Technology Companies

- Simulation
- Design

Research & Innovation

- Processes
- Products & Services

Contacts

G rard ROUCAIROL,
Chairman
gerard.roucairol@teratec.fr

Herv  MOUREN,
Managing Director
herve.mouren@teratec.fr

Jean-Pascal J GU,
Operations Manager
jean-pascal.jegu@teratec.fr

TERATEC
Campus Teratec
2 rue de la Piquetterie
91680 BRUY RES-LE-CH TEL
FRANCE
Tel. +33 (0)9 70 65 02 10
infos@teratec.fr
www.teratec.eu

Teratec Members

Industrial companies

Airbus
Air Liquide
ArcelorMittal
CEA
Dassault Aviation
EADS
Electricit  de France
Faurecia
L'Oreal
National Instruments
Safran
Total

Technology companies

ActiveEon
Alineos
Alliance Service Plus
Allinea Software
Altair Engineering France
Altran
Alyotech
AMD
Ansys
Bertin Technologies
Bull
Caps entreprise
Carri Systems
CD Adapco
Cenaero
ClusterVision
Communication et Syst mes
DataDirect Networks
Dell
Dist ne
EMC 
EnginSoft
ESI Group
Eurod cision
Fujitsu
Hewlett Packard
Intel
Kalray
Kitware
Mentor Graphics
Microsoft
NetApp
Nice Software
Noesis Solutions
Numtech
NVidia
Open Cascade
OpenSides
Oxalya Groupe OVH
Panasas
Rittal
Samtech
Soilab Enterprises
Serveware
SGI
Silkan
Sogeti High Tech
ST Microelectronics
SysFera
Totalinux
Transtec

Teaching and Research

Andra
CERFACS
CNRS
OSTB
Digiteo
Ecole Centrale de Paris
Ecole Nationale Sup rieure des Mines de Paris
Ecole Polytechnique
Ecole Normale Sup rieure de Cachan
Ecole Sup rieure d'Ing nieurs L onard de Vinci
GENCI
IFP Energies nouvelles
Institut Telecom
INRIA
Nafems
Sup lec
Universit  de Versailles St-Quentin-en-Yvelines

Local Authorities

Chambre de Commerce et d'Industrie de l'Essonne
Conseil G n ral de l'Essonne
Communaut  de Communes de l'Arpajonnais
Medef Ile-de-France
Ville de Bruy res-le-Ch tel
Ville d'Ollainville