Grand Équipement National de Calcul Intensif

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CEO
HPC is a “Key Technology”

- Supercomputers are the tool for solving most challenging problems through simulations
- Access to world class computer capacity is essential for international competitiveness in science and engineering
- Providing competitive HPC services is a continuous endeavor
- This has been acknowledged by leading industrial nations such as USA and Japan since the 1990’s

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France: national organization has been set up
Europe: PRACE Project
A national coordination

GENCI (Grand Equipement National de Calcul Intensif)
French Legal entity: « société civile »
Coordinated and optimised purchases
Common allocation of HPC hours

Centre National Jacques-Louis Lions
Capacity of high performance computing available to the whole scientific community in early 2009

From 20 to 480 TFlops
A 24x increase!
Others Missions

- **To promote simulation and high performance computing** in fundamental and industrial research
  
  - **Member of** Ter@tec
  - **Strong interest in** IESP

- **To promote the organization of an European HPC area** and to participate to its achievements
  
  - **GENCI is the french representative in** PRACE

- **To open its equipments** to all interested scientific communities, academic or industrial, national, european or international
HPC through simulation: important leverage for both research and industry competitiveness

- From a national perspective: it is not sufficient to follow the trends but it is crucial to anticipate them:
  - To be able to face future societal or industrial challenges
  - To prepare users for future parallel architectures and applications
  - To increase future scientists or engineers involvement in these techniques

Integration in a global European HPC ecosystem
Collaboration with international teams
PRACE = An agreement between 15 partners in charge of HPC in their own countries

Objectives

- To create from 2010 a permanent pan-European HPC infrastructure
  - 3 to 5 Tier0 HPC centers ≥ 1PFlop/s (in 2010)
- Structure, legal entity, governance, coordination/management
- Center with recognized competencies able to provide the academic community with high quality and complete service
- To provide a smooth insertion into the European HPC Ecosystem of national and regional centers.

1st action  FP7 « preparatory phase »
20 M€ - 08/01/01 to 09/31/12