

Speech by Pierre COHEN  
President of Grand Toulouse  
Member of Parliament, Mayor of Toulouse  
PRACE  
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Ladies and Gentlemen,

I am very happy to welcome you here in Grand Toulouse for the European PRACE seminar.

*In particular I would like to thank :*

- *Mr. Konstantinos Glinos, Head of the « Geant e-Infrastructures » Department at the European Commission,*
- *Mr. Achim Bachem, coordinator of the PRACE project*
- *And finally Mrs. Catherine Rivière CEO of GENCI and co-organizer of this seminar. Thank you for choosing Toulouse to host this event this year.*

In fact, I am pleased to welcome you here for three main reasons.

First, because in my former professional life I was closely concerned with the issue on which your meeting is focused today.

In addition to the personal pleasure I feel in welcoming you, I would like to highlight the fact that today intensive computation is at the heart of scientific and industrial endeavor.

Over the years, Computerized modelization and simulation have naturally become an integral part of the scientific process, somewhere between the theoretical and experimental.

And they are now a necessary prerequisite for scientific progress in a wide range of fields from climatology to materials, fluid mechanics, quantum chemistry, biology, controlled fusion and nanotechnologies, among others. These two developments have even led to an evolution in the very nature of scientific knowledge due to the study of complex systems and phenomena. As such, today computational power is one of the foremost factors in the search for knowledge.

Hence, the stakes are high for scientists but also for the economy and the productive sphere. Digital simulation reduces risks very significantly and consequently reduces the development costs of major programs making it possible to optimize investments in cutting edge sectors.

For example, and here I am speaking on the authority of Jean-Marc Thomas, President of Aerospace Vallée and director of Airbus France, whom I would like to welcome ; I believe that between two generations of planes Airbus has divided by a factor of 10 or 15 its use of traditional models.

In short, nearly everything is modeled or simulated today.

Public and private sector use of these computation capacities and new simulation and modelization power has become an essential factor for guaranteeing the excellence of research and the competitiveness of regions and their economies.

Indeed, in France, as a result of setting up GENCI, the available computation power for French scientists has been multiplied by 24 in a little less than a year.

It is also especially crucial for Europe, hence the focus of your working seminar and the PRACE program.

But it is also true for a metropolitan area like ours.

And this is in fact the third reason why I am happy to welcome you here today.

If I look at the scientific and industrial areas using intensive calculation extensively, I would not be wrong in citing the major areas of expertise and action encompassed within the Toulouse metropolitan area.

Of course they include our main fields of research such as materials, chemistry, biology, mathematics, and IT, among others.

These also include our major industrial sectors and in particular, aeronautics and space, and our in-depth expertise with Météo France in climatology and environmental preservation.

And of course the life sciences and health sector, areas in which we are heavily investing in particular via the vast Cancéropole – Toulouse Cancer Campus project. In the coming months and years, this campus will bring together over 4000 public and private researchers and healthcare workers who, together, in an inter-disciplinary, decompartmentalized environment, will fight the scourge that is cancer. The healthcare sector already does and will make greater and greater use of modelization.

Hence, making available new, computational power capacities is a key priority for our region. In fact, we are currently finalizing the program and goals of a shared calculation platform which should be operational by 2012 on the Aérospatiale Campus, at the heart of the major university and scientific complex in the southeastern area of our city.

In this framework, we try, not without difficulty at times, to meet and bring into line the needs and interests of the public scientific community and the goals and requirements of our industrial and economic organizations.

While we are far from having the power levels expected from the super-computers called for under the aegis of the PRACE program, we share with you the goal of pooled investments, optimized resources and essential networking and coverage. I would also like to add that we are committed to training our young researchers and engineers in simulation and calculation. It will be one of the keys to their future professional growth and a major priority in terms of keeping our research competitive.

We also intend, in addition to the national actions carried out by GENCI, to interest not only the major industrial firms but also a significant number of SMEs. Computational power must not be reserved only for the big users. Nonetheless, these machines, however powerful they are, would not be effective without the corresponding programs and systems. With this in mind, I would particularly like to welcome the representatives of the CERFACS, a Toulouse-based organization. The CERFACS is essential to our country, Europe and your communities in terms of its expertise in algorithmic technologies, the building blocks for future progress in intensive computation.

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Ladies and Gentlemen,

I am sure that we all agree that the PRACE program is contributing to optimization of our European intensive computation capacities. This program also enables better coordination of the public effort, a strengthened link with the major industrial users and better organization of all those involved in intensive computation.

As I said earlier, these goals are the same at the European level as at the level of a metropolitan area like ours. Hence, it is absolutely necessary that the territorial coverage and the link between the different levels of computation infrastructure are optimized.

One could compare the situation to the traditional Russian doll where the different levels - European, national, territorial and local - are closely and intelligently linked for the greater benefit of all.

The fact that the PRACE program, in fact, « The Airbus of computation », is being discussed here in Toulouse is a clear indication of your commitment and ours to pursue, each in our respective roles, the goals that we all share to guarantee European competitiveness and the excellence of our research.

Thank you very much.