

# Some Closing Remarks



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# We enjoyed



- overview talks from
  - Czech Republic
  - Poland
  - Cyprus
  - Hungary
  - Germany
  - NIC
- disciplinary and methodic talks on Computational
  - Geophysics
  - Bio-medical sciences
  - Protein folding
  - Chemistry
  - Atmospheric Science
  - Materials Science
  - Engineering
  - Electrodynamics
  - Elementary Particle Physics
  - Biopolymers and Soft matter
  - Grid Facilities

# We have heard that



- Research in Computational Sciences and Engineering in the new member states is highly developed
- Flourishing educational programs have been set up at many places
- Clusters in the scale between 8 to 300 processors are the predominant platforms of computing in the new member states
- From the time before 1990, researchers know how to utilize limited resources most efficiently, taking advantage from their experience
- There is a certain view that the future of supercomputing is Grid; activities to integrate national Grids into Europe-wide production Grids
- Access to a European supercomputer infrastructure is very interesting for NMSs
- Situation seems favorable for cooperation with foreign centre

# Observations



- We face exciting developments in Computational Science
- Methodology is very far developed in all fields
- Computing technology is undergoing a rapid transition towards Petaflop/s:
  - Much faster than Moore's Law
  - Highly parallel, highly scalable systems
  - Multi-core processors
  - Grids are becoming productive
- Important Grand Challenges come into reach e.g.
  - Folding large proteins
  - Solving QCD
  - Simulating GMR reading heads
  - Application of multi-scale techniques
  - etc., etc.

# NIC's SCSE Initiative



- The NIC mission is to provide supercomputers of the highest performance class to excellent researchers at in Germany and Europe to solve these computational grand challenges
- NIC has recognized that the collaboration of “Old Europe” with scientists in the new member states must be enhanced to achieve a truly scientific union in a European Union. To trigger collaboration, exchange of important knowledge and best practice, NIC
  - offers free access (under the terms of peer review) to the most powerful systems in Europe
  - reserves 600.000 processor hours/a and Multi-Terabyte-storage on JUMP
  - provides secure access through most advanced Grid technologies
  - organizes training courses on supercomputing and parallel programming
  - fosters participation in NIC's community oriented simulation labs
  - offers access to its highly developed scientific support structures

# Our Wishes



- Strengthen your contacts with participants of the workshop
- Act as heralds and multipliers in your home countries
- Submit proposals for computer time on the NIC facilities
- Form scientific partnerships with the NIC support teams
- Submit joint EU IST proposals
- Contribute to the NIC simulation labs
- Let us jointly develop European science taking advantage from our common scientific tradition and exploiting state-of-the-art computing technology
- Support the NIC activities to become a European supercomputer centre

# And finally:



Let us thank the friendly people behind the scenes,

Dr. Norbert Attig (NIC)

Frau Erika Wittig (ÖA)

for their perfect organization of this workshop,  
as well as all others not mentioned who have helped to make  
this event a success.

Have a safe journey back home!

Goodbye!