



Institute for Parallel Processing Bulgarian Academy of Sciences

Departments:

- Parallel Algorithms
- High Performance Computer Architectures
- Scientific Computations
- Distributed Computing Systems and Networks
- Linguistic Modeling
- Mathematical Methods for Sensor Information Processing
- **C4I** Research and Development Computer Center



International projects after 2000:

- Fifth Framework Program (FP5) – 12
- Sixth Framework Program (FP6) 9
- Volkswagen Foundation – 2
- “Alexander von Humboldt Foundation” through the Stability Pact 1
- Bilateral Research Projects – 5

Impact to the Sustainable Development of RTD Capacity:

All performed and on-going projects aim at the further development of IPP as an excellent research and training institution which during last decade kept leading expertise in information technologies for environmental security, human language technologies, and technologies for information processing, communications and networks. The obtained results have a strong impact at national, regional and European scale.

The contribution to the enhanced and sustainable development of the national RTD capacity includes:

- Development and dissemination of advanced high performance methods, algorithms and software tools.
- Building-up and support of the National Research and Educational Network (NREN).
- Development of Bulgarian Grid infrastructure as an integrated part of the European Grid.
- Transfer of high information and communication technologies and active support to the Bulgarian SMEs.

International partners:

- National Environmental Research Institute, Roskilde, Denmark.
- INRIA, Rennes, France.
- University of Reading, UK.
- University of Kaiserslautern, Germany.
- Free University of Brussels, Belgium.
- Technical University of Vienna, Austria.
- Computer and Automation, SZTAKI, Hungary.
- Institute of Computational Mathematics, University of Linz, Austria.
- Dept. of Information Technology, Uppsala University, Sweden.
- Czech Academy of Sciences, Ostrava, Czech Republic.
- ELTE University of Budapest, Hungary.
- Institute of Computational Science, ETH, Zurich, Switzerland.
- Vienna University of Technology, Austria.
- Fraunhofer ITWM, Kaiserslautern, Germany.
- University of Skopje, FYROM.
- Dept. of Computer Science, Technical Univ. of Athens, Greece.
- Centre for Software Reliability, City University - London, UK.
- Athens Laboratory for Business Administration, Greece.
- French National Establishment for Aerospace Research, France.
- Seminar für Sprachwissenschaft, Univ. of Tübingen, Germany.
- Institute for Scientific and Technological Research, Trento, Italy.
- Institute for Language and Speech Processing, Athens, Greece.
- University of Sheffield, UK.
- University of Bucharest, Romania.
- Department of Computer Science, University of York, UK.
- CIS-Ludwig Maximilian University Munich, Germany.
- Computer Science Department, University of Hamburg, Germany.
- Rheinisch-Westfälische Techn. Hochschule, Aachen, Germany.
- University of Westminster, London, UK.
- University of Oulu, Oulu, Finland.
- Laboratoire d'Informatique de Paris 6, France.
- Dept. of Math. and Informatics, Univ. of Balear Islands, Spain.

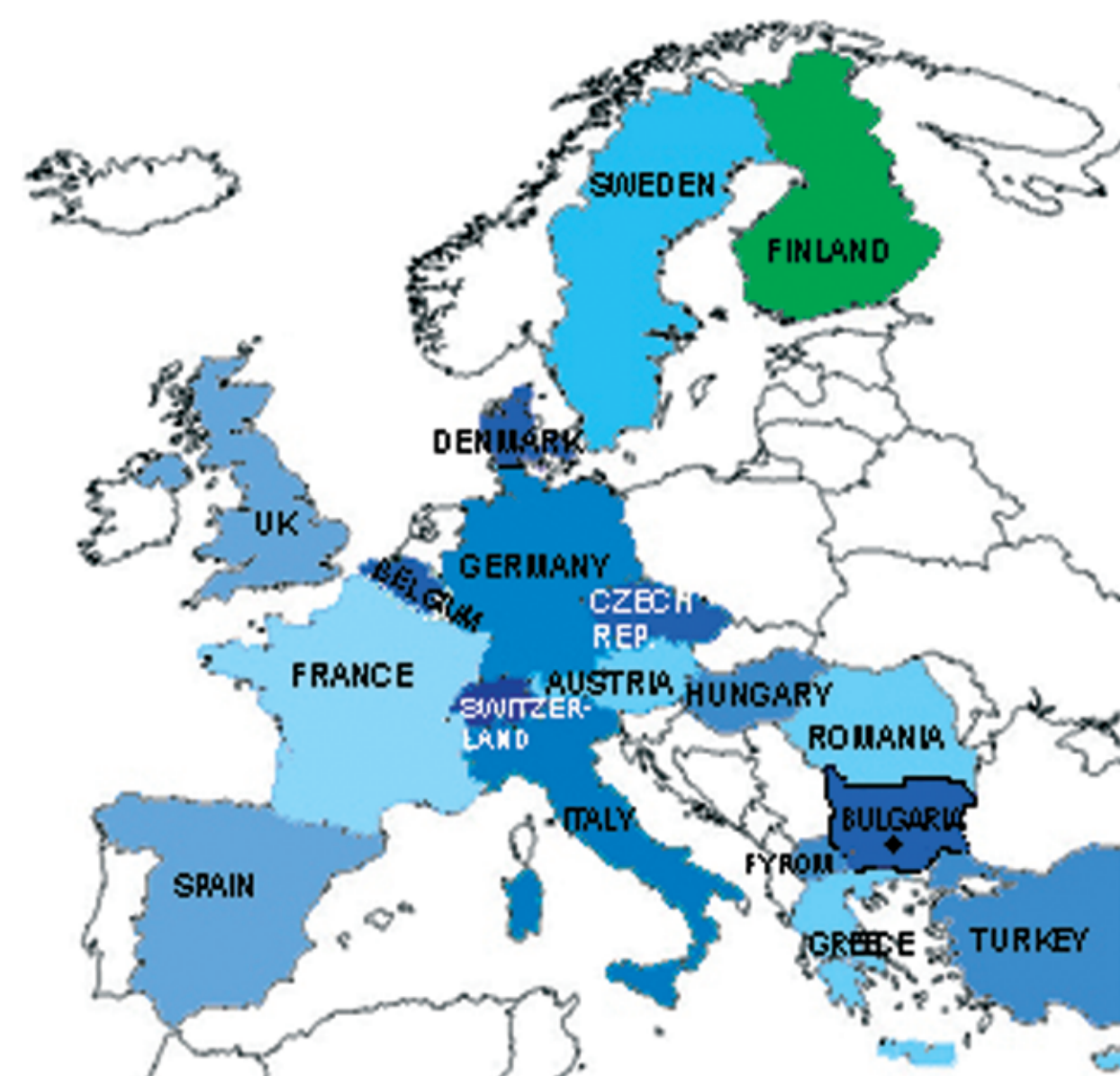


Bulgarian IST Centre of Competence in 21 Century

Objectives

- Strengthening the scientific potential of IPP-BAS (high-quality training of young scientists in modern information technologies and providing a framework for their professional growth)
- Networking with leading European Centres (exchange of results and joint research)
- Increasing links to the economical and social environment (strengthen the connections of IPP and SMEs)
- Dissemination (organization of thematic Information Days and International conferences and workshops)
- Upgrading the computing and networking equipment (enhance the Grid cluster at IPP, improve the access to network facilities in terms of bandwidth and Quality of Service)

Partners



Information days “Advanced computing”, March 21-23, 2006, Velingrad, Hotel Kamena

Plenary invited talks:

- Prof. P. Arbenz, Institute of Computational Science, ETH, Zurich, Switzerland
- Dr. Jean Dezert, ONERA (French National Establishment for Aerospace Research), France
- Prof. Walther von Hahn, Computer Science Department, University of Hamburg, Germany
- Prof. Vassili Loumos, Department of Computer Science, National Technical University of Athens, Greece
- Prof. Otto Spaniol, Rheinisch-Westfälische Technische Hochschule, Aachen, Germany

PhD students sessions

- Networks and Computer Systems
- Parallel Algorithms and Scientific Computations
- Language and Knowledge Modeling and Processing
- Sensor Information Processing

First year achievements:

- **Training of 14 PhD Students**
- **Networking with leading European leaders**
- **Cooperation with leading Bulgarian SMEs .**
- **5th International Conference on Large Scale Scientific Computing**
- **A thematic information day – Open PhD workshop – 5 October 2005**
- **Information days “Advanced computing” – 21-23 March 2006, Velingrad**
- **Computing and Network Infrastructure Upgrade**
- **Other Dissemination activities:**
abstracts of the conference; abstracts of the presentations of the young researchers of the Open PhD workshop; 1 proceedings, 1 magazine entirely dedicated to the BIS21++ project, 1 book – “Sensor Data Processing in Target Tracking” is under print; 17 published papers, 3 papers accepted for publication



Information days “Advanced computing”