

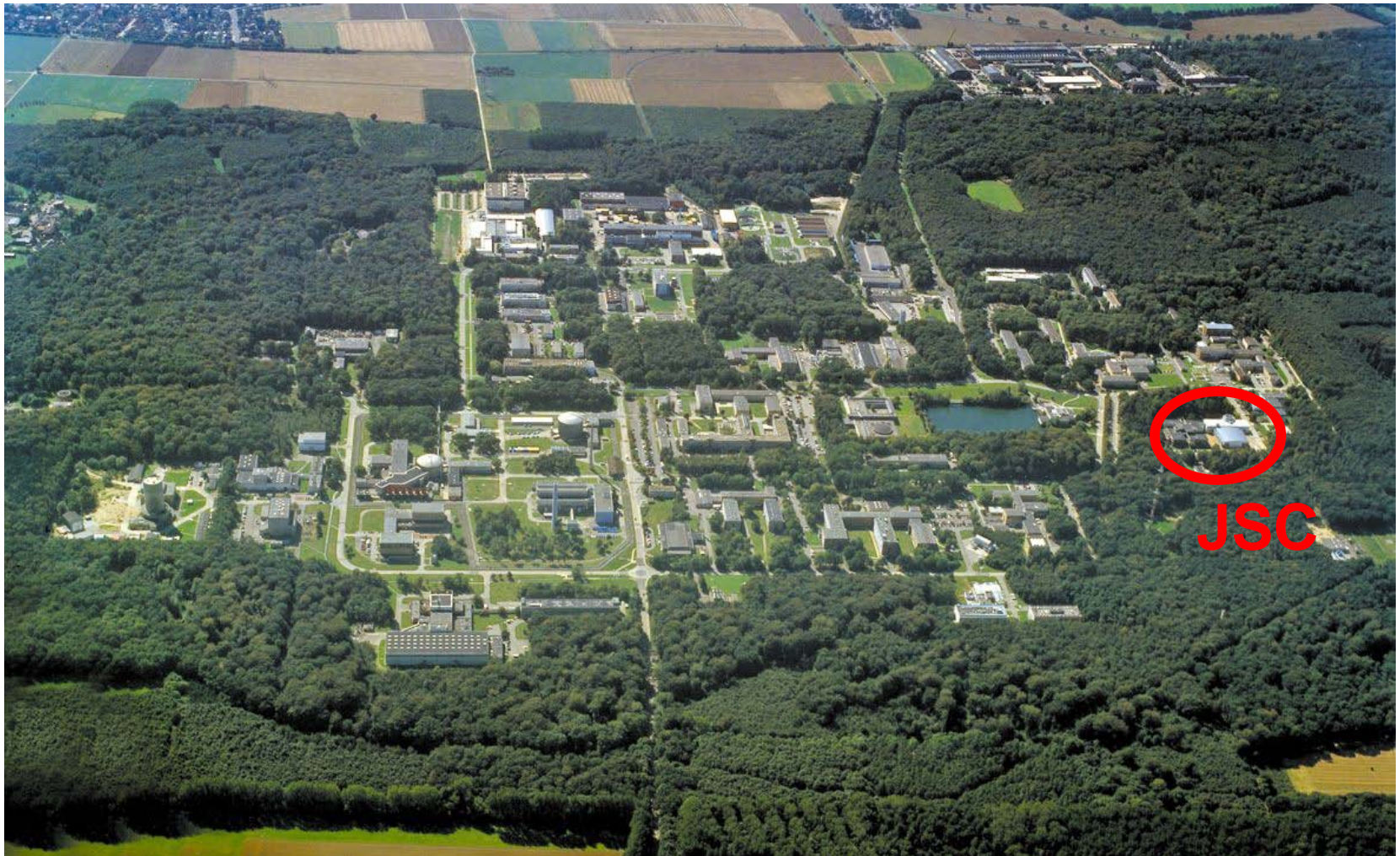
Opening

UNICORE SUMMIT, 18.-19.5.2010

18.5.2010

Achim Streit
<a.streit@fz-juelich.de>
Jülich Supercomputing Center (JSC)
Forschungszentrum Jülich GmbH

Welcome at Forschungszentrum Jülich



Facts about Forschungszentrum Jülich

- Founded in 1956 as nuclear research facility
 - GmbH: 90% Federal Republic of Germany
10% Federal State of North Rhine-Westphalia
- Research Areas
 - Health (Alzheimer, Parkinson, 9.4 Tesla MR-PET)
 - Energy & Environment (fuel cell, fusion, atmosphere&climate)
 - Information (bio & nano systems, solid state research)
 - Key Competency (supercomputer, physics)
- Annual Budget: 415 M€ including 119 M€ 3rd-party
- Staff: 4470 including
 - 1298 scientists, 1441 technicians, 357 trainees
- 984 visiting scientists per year from 61 countries

Welcome at Jülich Supercomputing Centre (JSC)

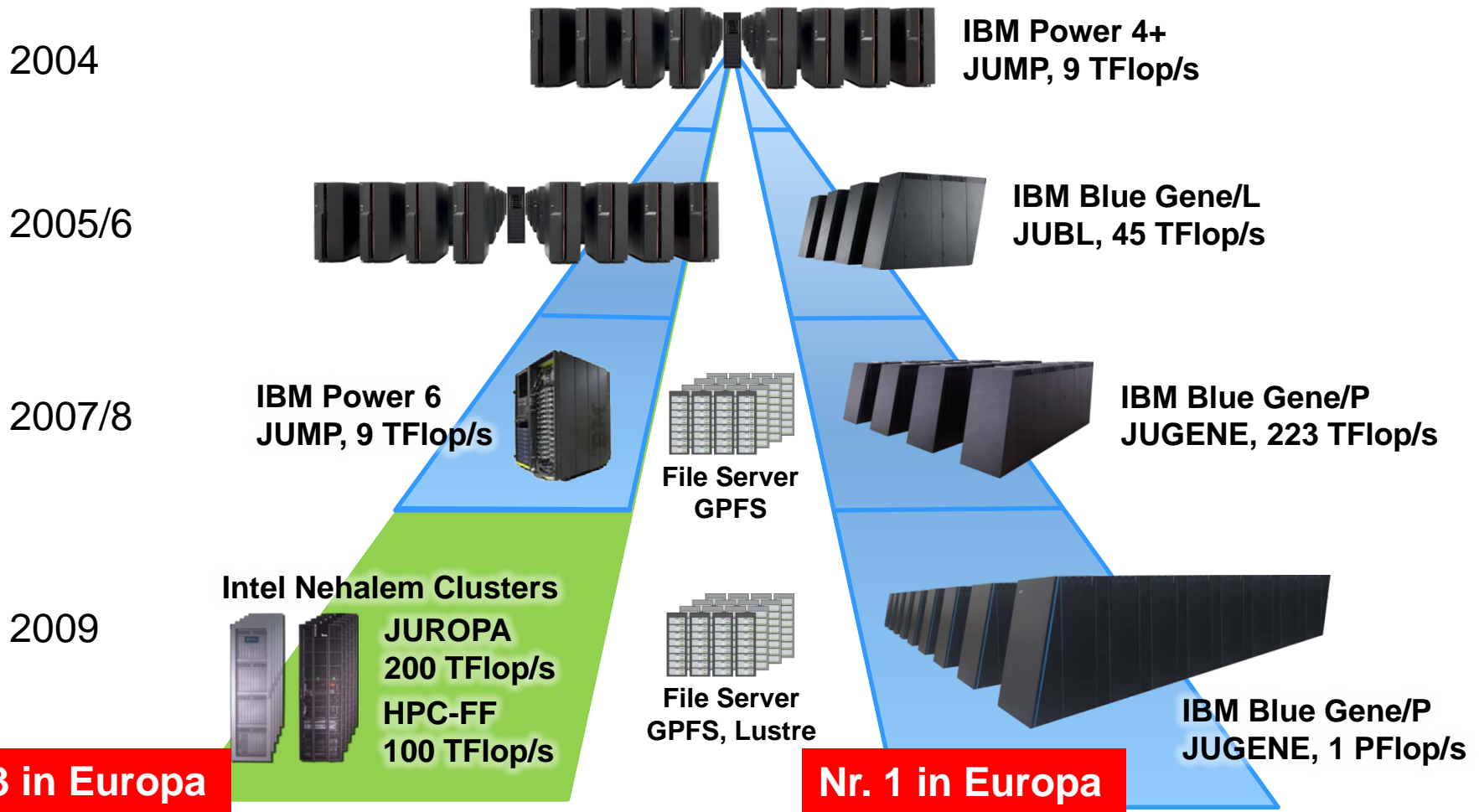


Facts about Jülich Supercomputing Centre

- Director: Prof. Dr. Dr. Thomas Lippert
- Staff: 131 including
 - 82 scientists, 6 Ph.D. students, 37 technicians, 6 admin
- Areas of research, development, and service
 - National High Performance Computing Center as member of the Gauss Centre for Supercomputing in Germany
 - Research and development on future HPC technologies including network
 - Support of multiple scientific disciplines through focused “SimLabs”
 - Mathematics and Education (numerical and stochastic methods, education of mathematical-technical software developer)
 - Grid Computing (UNICORE R&D, distributed systems R&D, operation)
 - Operation of central network-infrastructure for Forschungszentrum Jülich



Jülichs Dual Supercomputer Concept



JUGENE: #4 worldwide, #1 in Europa

- IBM Blue Gene/P
 - 32-bit PowerPC 450 core 850 MHz, 4-way SMP
 - 72 racks, 294.912 cores
 - 1 Petaflop/s peak
 - 144 Tbyte memory
 - 6 Pbyte disks
 - 25 PByte tape capacity
- **Highest scalability**



JuRoPA + HPC-FF: # 3 in EU, #13 worldwide



Cluster computer

Bull NovaScale R422-E2
1080 nodes, 8640 cores
101 TF peak, Intel Nehalem
24 GB memory
Infiniband QDR (Mellanox)
ParaStation Cluster-OS
HPC for Fusion

Cluster computer

SUN-blades
2208 nodes, 17664 cores
207 TF peak, Intel Nehalem
48 GB memory
Infiniband QDR (SUN M9)
ParaStation Cluster-OS
General Purpose HPC



QPACE



QPACE

Developed by

SFB TR 55

IBM Deutschland R&D

Wuppertal University

Regensburg University

FZJ

DESY

Ferrara University

100 TF dp

770 MF/W

in Green TOP500 Liste

November 2009

Schedule

- Small schedule changes
 - Webpage contains current schedule
 - <http://www.unicore.eu/summit/2010/schedule.php>
- Presentations with your own laptop
- Please send your slides as PDF or PPT to unicore-summit@fz-juelich.de so that they can be put on the webpage

Misc

- WiFi/WLAN access
 - EduRoam
 - Or send your MAC-address to m.romberg@fz-juelich.de
- Bus timetable
 - The one on the official webpage of FZJ is old 😊
 - Please look in the logistics document I've sent around
- Transfer tonight to the city
 - As the bus leaves at 17:42 (or 18:40), it might be too tight with the scheduled end at 17:30
 - Hence we organised a shuttle service with a van (7-8 passengers)
- Joint Dinner at 19:30
 - Restaurant Maestral, Große Rurstraße 49, 52428 Jülich